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REPORT
OF THE
INDUSTRIAL COMMISSION
ON
TRANSPORTATION

(SECOND VOLUME ON THIS SUBJECT),

INCLUDING

TESTIMONY TAKEN SINCE MAY 1, 1900, REVIEW AND TOPICAL
DIGEST OF EVIDENCE; AND SPECIAL REPORTS ON
RAILWAY LEGISLATION AND TAXATION.

VOLUME IX
OF THE COMMISSION'S REPORTS.

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[Extract from act of Congress of June 18, 1898, defining the duties of the Industrial Commission and showing the scope of its inquiries.]

SEC. 2. That it shall be the duty of this commission to investigate questions pertaining to immigration, to labor, to agriculture, to manufacturing, and to business, and to report to Congress and to suggest such legislation as it may deem best upon these subjects.

SEC. 3. That it shall furnish such information and suggest such laws as may be made a basis for uniform legislation by the various States of the Union, in order to harmonize conflicting interests and to be equitable to the laborer, the employer, the producer, and the consumer.

INDUSTRIAL COMMISSION,
December 5, 1901.

To the Fifty-seventh Congress:

I have the honor to transmit herewith on behalf of the Industrial Commission a report on the subject of Transportation prepared in pursuance of the act of Congress approved June 18, 1898.

This is the second report of the Commission on this subject, the first constituting Volume IV of the Commission's reports. The present volume includes testimony taken since May 1, 1900, together with a review and digest thereof, and special reports on railway legislation and on the taxation of transportation corporations.

The conclusions and recommendations of the Commission on this subject will be submitted in its Final Report.

Respectfully,

ALBERT CLARKE,
Chairman.

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REVIEW OF EVIDENCE.

The following review covers only the evidence of the witnesses whose testimony is printed in the present volume, which has been taken since May, 1900. This testimony should be read in connection with that of earlier witnesses which was published in the preceding report of the Industrial Commission on transportation questions, Volume IV. On many subjects the evidence in the former volume was much fuller than that in the present volume. It has been the aim in the selection of the witnesses whose testimony is herewith published to cover subjects which were less fully investigated previously. A considerable amount of evidence bearing on transportation questions is also given in several other reports of the Industrial Commission. The subject of railway labor is exhaustively discussed in a special report printed in Volume XVII. The taxation of transportation companies is covered quite completely in the special report on the taxation of corporations, printed in Volume XI. Alleged discriminations by the railroads in favor of industrial combinations are discussed more or less extensively in the testimony on trusts and combinations, Volume I and Volume XIII. In the agricultural testimony, Volume X, there are a number of important statements regarding the system of grain elevators and their relations to the railroad companies. Other less extensive statements as to transportation questions will be found, by reference to the digests and indexes, in nearly all of the volumes published by the commission.

CONSOLIDATION OF RAILWAYS AND COMMUNITY OF INTEREST.

Mr. Schiff, of the banking firm of Kuhn, Loeb & Co., Mr. Woodlock, of the Wall Street Journal, and several other witnesses¹ refer to the tendency recently manifested toward the establishment of great consolidated railroad systems and toward community of interest between railroads hitherto competing. These witnesses generally assert that the primary motive in forming these combinations has been to prevent excessive competition, and they attribute the movement more or less directly to the effect of the interstate-commerce law in prohibiting pooling and agreements, and thus forcing the railroads to compete, often to the extent of cutting rates below the line of profit. The method by which community of interest is established is said to be largely by purchase of a certain proportion of the shares of one railroad by another railroad or by its largest owners, while consolidations are frequently brought about by lease or by outright purchase of one road by another.

Mr. Schiff, in particular, thinks that the tendency toward community of interest does not necessarily indicate a further movement toward absolute combination of railroads and the absorption of the smaller companies into the larger ones. He says that it certainly does not indicate a tendency toward a general combination throughout the country; that, for example, the Eastern trunk lines have a territory naturally distinct from that of the transcontinental lines west of the Missouri, and that there apparently is no disposition on their part to secure control of the Western lines. This witness and others allude to the recent purchase by the Union Pacific Railroad of substantial control over the Southern Pacific. Mr. Stubbs, third vice-president of the Southern Pacific, explains that the motive for this movement is to make a continuous line of the Union Pacific and Central Pacific, which latter road is owned by

¹ Woodlock, p. 462; Schiff, pp. 770, 771; Ripley, pp. 289, 291, 294; Greene, p. 473; Stubbs, pp. 757, 764.

the Southern Pacific. The movement toward a consolidation of the railroads in Colorado is also referred to, as well as the struggle of the Union Pacific and the Northern Pacific to secure control of the Burlington during the spring of 1901.

Mr. Stubbs, Mr. Schiff, and several others,¹ mostly representing railroad companies, but including some shippers and independent witnesses as well, are inclined to think that the consolidation of smaller railroads into great unified systems will prove generally beneficial to the public. It will, in their judgment, make possible important economies in operation, will facilitate the prompt handling of freight and passengers, and will tend to improve the physical character of the properties. All these advantages, it is asserted, have already been observed as the result of consolidations recently effected. Many of these witnesses think, also, that the establishment of community of interest and harmonious relations between roads hitherto competing is likewise advantageous to the general public. It does away with the extreme competition which has often led railroads to transact business at a loss—a practice which these witnesses believe can not be to the interest of the public—and especially it removes the temptation to make personal discriminations, which accompanies extreme competition and to some degree also the temptation to discriminate between localities. Several witnesses declare that, in their opinion, it will not be possible for railroads, by combination, to establish excessive rates. There will always be the competition of sections of the country and of different countries with one another for the marketing of products, and the competition of water carriers still exerts a powerful effect. Public opinion is also a strong influence in controlling rates. A representative of a San Francisco board of trade is inclined to think that the establishment of through routes from ocean to ocean will prove advantageous to California by doing away with the motive of the railroads, as at present operated, to build up the cities of the Middle West at the expense of that State.²

Two or three witnesses, however, notably Professors Ripley,³ Adams,⁴ and Parsons, think that the tendency toward railroad consolidation and community of interest, while perhaps in some senses advantageous is likely to result in increased charges because of the absence of competition, and that, therefore, additional control should be given to the Interstate Commerce Commission over railroad rates. Professor Parsons especially lays stress on the public danger of placing such power in the hands of a few individuals, and thinks, accordingly, that Government ownership is desirable.⁵ One representative of the railroads thinks that there will ultimately be, and should be, several great systems in each section, working in some degree of harmony, but still competing. He thinks entire cessation of competition would be bad for the railroads, as well as the people.⁶

POOLING.

The subject of pooling appeared to be of less interest to railroad men and others in 1901 than it was two or three years earlier, when the Industrial Commission first took testimony regarding it. The tendency toward community of interest is said by several witnesses to have made pooling less an object to be sought by the railroads. Two or three representatives of the railroads, however, think that the legalization of pooling, and especially of agreements as to rates, is still desirable,⁷ and two representatives of chambers of commerce, as well as the secretary of the Minnesota Railroad Commission, agree in this point, though they would favor proper regulation of rates if pooling were permitted. Professor Ripley also thinks that pooling and rate agreements might be

¹ Stubbs, pp. 757, 764; Greene, pp. 484-487; Thomas, p. 559; McLeod, p. 571; Rice, p. 742; Markham, p. 494; C. F. Adams, p. 829; Jackson, p. 847; McGovern, pp. 682, 683; Langley, p. 874.

² Wheeler, p. 747.

³ Pages 281, 289, 294.

⁴ Page 386.

⁵ Page 149.

⁶ McGovern, p. 682.

⁷ Thomas, p. 558; Griswold, p. 515.

desirable in order to make rates more steady and more free from discriminations, but that regulation by the Interstate Commerce Commission would certainly be necessary if pooling were permitted.¹

It is stated by one witness, representing the Memphis Freight Bureau, that there is believed to be an arrangement among the railroads at that point for the pooling of cotton business. The representative of the San Francisco Board of Trade thinks also that there is a "gentlemen's agreement" among transcontinental roads for the fixing of rates, which is very effective, although it is so arranged as not to violate the interstate-commerce act.² A representative of the Southern Pacific Company says also that the transcontinental railroads hold conferences as to rates, while Mr. McGovern, of the Southern Classification Committee, says that the rates in the South are made chiefly by agreement among the railroads in the several traffic associations, although no road is bound to abide by the rates established.³

CAPITALIZATION AND REORGANIZATION OF RAILROADS.

Professor Ripley and Professor Parsons assert that American railroads are in many instances largely overcapitalized. While some roads, especially prior to recent consolidations, have kept their capital down to the basis of actual investment or even less in the case of a few lines which had been largely improved out of earnings, in many other cases the capital has been repeatedly swelled without corresponding increase in the plant investment. The recent increase in the capitalization of the Chicago and Alton railroad from \$30,000,000 to nearly \$100,000,000 is instanced as an illustration. It is held by Professor Parsons that the constant motive of privately owned railways is to conceal their true earnings by increasing capitalization, and he considers this one argument in favor of government ownership.⁴

Mr. Woodlock, railroad editor of the Wall Street Journal, and several witnesses representing railroad companies deny that American railways in general are overcapitalized. They compare the capitalization of American railroads, which is said to average about \$61,000 per mile, with that of the British railroads, which averages from \$220,000 to \$240,000 per mile. It is asserted that the British railroads systematically add to capital every possible expenditure for improvement, however slight. These witnesses say also that the increase in capitalization of American roads has in many cases been justified by the improvement of the roads out of earnings. Some of them are also inclined to maintain that earning capacity is the proper basis of capitalization. Those who take this position add that the fall in the prevailing rate of interest has made it possible to issue larger amounts of bonds on a given earning capacity than before, and that the issue of stocks is a comparatively unimportant matter, because they do not create a fixed charge. Mr. Woodlock, however, admits that there have been instances of the abuse of capitalization in recent years; he refers particularly to the Kansas City, Pittsburg and Gulf Railroad, and apparently thinks also that the Chicago and Alton is now overcapitalized. This witness, as well as Mr. Thomas, of the Erie Railroad, are disposed to think that some regulation of capitalization by the Government would be perhaps desirable as a protection to investors. Professor Ripley speaks especially with approval of the Massachusetts law which requires that stocks and bonds of railroads and street railroads shall be issued only on the basis of actual investment and subject to the approval of the State railroad commission. He asserts that this provision has greatly increased the power of the railroad commission as regards rates and other matters, since the railroad companies have frequently to come to it for privileges. The chairman of the Massa-

¹ Ripley, pp. 289, 291, 294; Teisberg, p. 272; Anderson, pp. 639, 642; Wheeler, pp. 748, 749.

² Davant, p. 7; Wheeler, p. 749.

³ Stubbs, p. 764; McGovern, p. 654.

⁴ Ripley, pp. 291, 292, 306; Parsons, pp. 154, 155. See also as to the Chicago and Alton, Woodlock, p. 458; Schiff, pp. 775, 776.

chusetts commission also expresses approval of the results of this regulation of the issue of securities. He says that securities may be issued for certain specified purposes, and that the board, with expert assistance, carefully considers how much capital may be required for construction or other given objects. Reference is also made to the Minnesota law regulating the issue of securities by railroads in the same way as in Massachusetts.¹

Some of these witnesses discuss also somewhat the proper basis for capitalization. Professor Adams, statistician of the Interstate Commerce Commission, is disposed to hold that actual investment should be the basis. He describes the detailed investigations of a special commission in Michigan regarding the actual value and cost of reproduction of railroads, and declares that it is desirable to make such investigations, not merely as a basis for taxation, but as a basis for estimating proper rates. It is impossible, he says, to decide as to the justice of rates unless we know how much return they secure to the railroads on their actual investment, rather than upon a capitalization which may be inflated. This witness thinks that the United States Government should undertake careful valuations of railroad property for these reasons.² Mr. Woodlock and two or three other witnesses, however, are inclined to think that earning capacity is in general a proper basis for capitalization, and that in any case the amount of capital can not greatly affect rates, because competition of other roads and many other influences of an independent character enter into rates.³ They especially insist that cost of reproduction is not a proper basis for capitalization. Mr. Schiff declares that the amount of securities issued is a matter of little importance, that railroads must adapt themselves to the value of one another in competition, and that investors soon learn their real values.⁴

Reorganization and its effect on capitalization.—The effects of recent railway reorganizations are discussed by several witnesses. It is stated that many railways have long been burdened with large bond issues at high rates of interest. The same influences which depress general business conditions affect railroads severely, and often make them unable to pay interest, whereupon they are put into the hands of receivers. The depression following 1893 resulted in the bankruptcy of a very large proportion of the railroads of the country. In case of bankruptcy, according to Mr. Greene, some of the large security holders usually constitute themselves a committee of reorganization. The endeavor is to simplify the finances of the railroad, to cut off such branches or leased roads as may not be profitable, but to hold the system together as far as possible, and in particular to reduce fixed charges. Witnesses generally agree that recent reorganizations have not usually resulted in a reduction of the total capitalization of railroads, but that they have either lowered the absolute amount of bonds by issuing stocks in their stead, or by securing lower rates of interest, have reduced the fixed charges. In some instances, it is admitted, little restriction has been placed upon the issue of stocks in reorganization, but several witnesses hold that the existence of a large amount of stock, which has no imperative claim on earnings, has little effect upon the prosperity of railroads or upon the general public.⁵ Reference is made especially to the reorganizations of the Erie, Reading, and other roads.

One witness, Mr. Rice, thinks that a mistake is often made in appointing the president of a bankrupt railway as receiver. If his bad management has caused bankruptcy, the mere fact that he is familiar with the system does not justify leaving him in charge of it.⁶

¹ Thomas, pp. 551, 559; Schiff, pp. 772-776; Woodlock, pp. 456, 458-462; Ripley, pp. 292, 293; Teisberg, p. 365; Jackson, p. 843.

² Adams, pp. 381 ff.

³ Thomas, p. 551; Woodlock, pp. 456-458; Talcott, p. 635.

⁴ Page 773.

⁵ Greene, pp. 487, 488; Ripley, pp. 291, 297, 298, 304; Rice, p. 740; Talcott, p. 636. See also as to anthracite coal-roads, post, p. xxxiii.

⁶ Rice, p. 741.

FREIGHT TRAFFIC AND RATES.

Discussion of reasonableness of existing rates.—Several witnesses representing railroad companies assert that railroad rates in the United States have in general steadily and rapidly decreased, and that they are much lower than in most European countries. Comparisons are made as to the grain rates from Chicago to New York, which show that the all-rail rate in 1868 was 42.6 cents per bushel, and that in 1899 it had fallen to 10.23 cents a bushel, while the lake-and-rail rates had fallen in fully as great proportion, and stood in 1899 at 6.63 cents. Mr. Markham presents a table showing that the average receipts per ton per mile for hauling freight in the United States are only 97 cents, while in Prussia the average rates are 1.32 cents per ton per mile, and in other European countries they are still higher. As indicated in another connection, figures presented by advocates of Government ownership show also that the average freight rates in the United States are lower than in European countries; but it is argued that the wide differences in conditions make fair comparisons impossible, and that the longer hauls in the United States especially tend to reduce the cost of transportation.¹

Increase of rates in 1900.—Several witnesses allude to the increase in freight rates at the beginning of the year 1900, and some of them assert that the existing rates, especially in the Southern and Western sections of the country, are excessively high. Mr. Langley, a representative of the Merchants' Association of New York,² states that these advances in 1900 were nearly all made by the process of changing commodities from lower classes to higher classes, and in some instances by the abandonment of commodity rates, lower than the lowest class rates, which had formerly existed, or by raising the commodity rates. This witness declares that out of about 3,000 items in the Official classification, 818 were advanced in January, 1900, and that the average increase in rates on these articles between New York and Chicago, as the result of these changes, was 35.5 per cent. The Western classification committee about the same time advanced the classification—that is, practically advanced the rates—of 240 items, the average increase on them from Chicago to Missouri River points being 47.4 per cent. In February, 1900, continues Mr. Langley, the Southern classification was revised, about two-thirds of the articles being advanced in class, with an increase of rates of from 30 to 50 per cent.

Mr. Langley and two or three others hold that these advances in freight rates were unnecessary and unjustifiable; that the earnings of the railroads during 1899 were much larger than they had been for many years previous, and rendered them fair profits; the increased tonnage growing from the general prosperity of the country sufficiently increasing the revenues of the railroad companies without advances in rates. Mr. Langley complains especially of the employment of the method of advancing rates by means of changes in the classification. He says that this practice is confusing; that many shippers do not understand the manner in which rates have been advanced, and that it results in great inequalities. The action of the railroads in transferring goods from one class to another is entirely arbitrary, and instead of making approximately the same increase in rates for all commodities, certain classes have been discriminated against. Manufactured articles in particular were generally advanced by the classification changes in 1900, while raw products and heavier commodities were left unchanged or advanced to a less degree. Another witness, who consumes large quantities of coke in Michigan, asserts that the advance in the rate on coke from Pennsylvania during the year 1900 was no less than 55 cents per ton. He gives also illustrations of advances in the rates on alkali products manufactured by his company, and complains particularly of the excessive rates from Michigan to various Southern cities. It appears, for example, that it costs \$195 to haul a carload

¹ Thomas, p. 560; Markham, p. 430. See also post, p. XXXVII.

² Pages 860-877.

of bicarbonate of soda from Wyandotte, Mich., to Atlanta, 716 miles, as compared with only \$48 to New York, 700 miles. This witness also asserts that the freight rates in Western territory are very high on the products of his company, as well as on other products. He believes that it would be to the interest of the railroads in these less highly developed sections to reduce freight rates generally, with a view to building up manufactures and other industries, and thus ultimately increasing their traffic and profit.¹

Mr. McGovern, of the Southern classification committee, admits that there were numerous increases in rates in the Southern territory by means of classification changes during the year 1900, although he asserts that the rates on various other articles were reduced. He says that prior to 1900 the classification of freight in the Southern territory was not made by one unified organization, and that there were many inconsistencies and many instances where classifications were unduly low. The establishment of one classification committee for the entire Southern territory made possible a general revision and the adjustment of inequalities. The fact that prices throughout the country had risen greatly, and especially that the prices of articles used by the railroads themselves had so increased as to add materially to the cost of operation, seems to this witness to justify fully such increases of rates as were actually made.

Mr. McGovern asserts further that most of the numerous changes which were made and against which there are complaints were only technically advances. Prior to this time there had been two columns of rates, one for goods carried at the risk of the carrier under ordinary common-law rules, and one for goods carried at the owner's risk by a bill of lading exempting the carrier from liability except for certain faults of its own. As a matter of fact, practically 99 per cent of the business in the Southern territory, as elsewhere, had been carried on bills of lading under the limited liability or owner's-risk system. The lower rates for owner's risk, which apparently had not before been applied even where such limited bills of lading were used, were entirely abolished. About 1,700 articles which had been in the carrier's-risk column only were made subject to owner's risk, bearing the same rates as before. At the same time a new rule was passed providing that if the carrier assumed the risk the rate should be 30 per cent higher. By later action the carrier's-risk rates were reduced, being made 20 per cent higher than the published rates. Mr. McGovern holds that this was only technically an advance, because in practice the higher rates had formerly been actually applied in ninety-nine cases out of a hundred. This witness says further that a later change in classification advanced the rates on 400 or 500 commodities and reduced them on about 100. The changes in many cases were on unimportant articles and the rates on many large classes of traffic are the same as before 1900.

Two or three other witnesses from the South, including a representative of the shippers of Memphis, were inclined also to justify the advance in Southern freight rates for the reasons above stated, and also because the Southern railroads have never in the past been profitably operated. It is also stated that the establishment of cotton factories in the South has reduced the amount of railroad transportation by substituting the less bulky cotton goods for cotton itself, and that for this reason rates should be somewhat higher than before.²

A representative of the Southern Pacific Company declares that transcontinental freight rates have not been advanced recently, but have steadily decreased since 1891. He asserts also that there is no ground for complaint on the part of California fruit shippers regarding excessive charges, though they had complained somewhat regarding the charges for refrigeration on the part of the private car companies.³

One witness also states that while numerous advances were made in the official

¹ Bacon, pp. 74, 77, 80.

² McGovern, pp. 656-662; Dunlap, pp. 2-4; Davant, p. 6.

³ Stubbs, pp. 765, 767.

classification in 1900, an order was soon afterwards issued which reduced by 10 or 20 per cent the rates on many of the articles which had been advanced.¹

Influences affecting freight rates and policy of railroads regarding them.—Several witnesses representing the railroad companies assert that neither is it the policy of the railroad companies to advance freight rates to an unreasonable figure, nor would it be practicable for them to do so, because of the competition of other railroads and of water carriers (see below, p. XXI), and especially because of the competition of different sections of the country and of different countries. This position is especially affirmed in connection with discussion as to the possible effect of the establishment of community of interest between previously competing railroads. It is held that it must always be to the interest of the railroad companies to build up the country through which they operate, and that in order to do so they must make rates which will enable the industries of that country to compete with those of other sections and of other countries in the world markets. The railroad manager who undertakes to put rates at an exorbitant figure because he has an apparent monopoly would soon dry up the source of his business. At the same time these witnesses hold that excessive competition and "rate wars" between railroads are undesirable, that it is not to the interest of the public that railroads should fail to earn reasonable profits, and that rate wars lead to discriminations between places and between individuals.²

The competition of Canadian railroads.—Two or three witnesses allude to the competition of the Canadian railroads as an important factor in the fixing of freight rates in the United States. It is pointed out that the Canadian roads have often demanded the right to charge somewhat lower rates in hauling goods from one part of the United States through Canadian territory to another part of the United States than those made by the roads of this country themselves, on the ground of the greater distance and inconvenience of transportation through Canada. It appears that formerly there was a differential of 10 per cent allowed to the Canadian Pacific Company on transcontinental shipments. The roads in the United States, it is alleged, frequently cut rates secretly in order to do away with the advantage of this differential. Finally, after a prolonged rate war, the Canadian Pacific was forced to abandon its claim to a differential, and its business with San Francisco has been greatly reduced. The importance of Canadian transportation to the prosperity of Boston is especially mentioned by one or two witnesses.³

Freight classification.—Several witnesses describe the system of freight classification, Mr. McGovern, chairman of the Southern classification committee, entering into the subject with especial fullness. There are three general classifications in the country—the Eastern or Official classification, the Southern, and the Western. Each is adopted by a classification committee, consisting of representatives of each important railroad company. In earlier days each railroad made its own classification of freight. Later on various traffic associations made classifications, and only more recently were the present wide-reaching systems adopted. The Southern classification committee had its origin only in 1899. By the system of freight classification commodities are grouped into from five to nine classes, and the rates made by each railroad for articles in one class are the same. In determining the class an article shall take, consideration is given as to its value and ability to pay the rate, and, though apparently to a less degree, as to weight, bulk, and cost of transportation. In addition to the regular classes, there are many heavy commodities, such as usually move in carload lots, which are given special rates, known as commodity rates. The railroads hold that these articles can not afford to pay the regular class rates even of the lowest class. Each railroad determines largely its own commodity rates, the differ-

¹ Griswold, p. 618; cf. Markham, p. 435.

² Thomas, pp. 551, 552, 554; Schiff, p. 774; Greene, pp. 484-487.

³ Thomas, p. 552; Ripley, p. 298; Howes, pp. 701-702; Stubbs, p. 768; Markham, p. 442.

ences in the character of goods transported by different railways making it desirable, so it is stated, that these commodity rates should vary on the different lines. Mr. McGovern declares that commodity rates can not be considered personal discriminations since all shippers on a given railroad receive the same rates. Nor are they an injustice as between different classes of shippers. Just as the prices of some classes of commodities must be relatively lower than those of other classes in order to meet competition, so, says this witness, the railroads must put down the rates on certain important commodities in order that they may handle them at all. Even these reduced rates make a profit to the railroad companies.¹

It is admitted by representatives of the railroad companies that the power to put a commodity in a given class is part of the power to make rates, even although the rates upon a given class may be fixed at different figures by the various railroads. Reference has already been made to the complaints of shippers regarding the advance in freight rates in 1900 by means of classification changes.

Two or three witnesses representing shippers favor the establishment of a uniform national classification of freight, subject to some modifications in detail, on the different railways, by means of commodity rates. They assert that the present threefold system of freight classification is very confusing to shippers, especially where goods pass from the territory of one classification to that of another. They hold also that the inequality between rates in different sections, resulting from the placing of commodities in different classes, is in many instances an injustice. It is suggested that an association composed of business men and railroad men, under the general supervision of the Interstate Commerce Commission, should be formed to establish such a uniform classification.²

Representatives of railroad companies in some instances think that greater uniformity of classification would be desirable, but all who testified before the commission hold that the establishment of a single national classification is impracticable. In some sections of the country there may be a very large traffic in a commodity which in other sections is of much less importance to the transportation lines. Under such circumstances, it is asserted, a difference in the classification is imperative. It is argued, especially, that if a uniform classification should be attempted the number of special commodity rates made by the separate railroad companies would necessarily be greatly increased, so that there would really be no simplification as compared with present methods. These witnesses state that there has been a steady movement toward harmony between the railroads in matters of classification and that as the country develops there may be further movement in the same direction; but they believe that any compulsory introduction of uniform classification would be entirely inadvisable. It is also suggested that the matter is of less importance than is often supposed, because each railroad company can make its own rates, whatever the classification may be.³

The suggestion that the Interstate Commerce Commission should itself fix the classification of freight is especially opposed by railroad witnesses on the ground that the commission is incompetent to handle such a difficult and complex undertaking.⁴

Export and import rates.—Several witnesses allude to the practice of the railroad companies in making lower rates on goods destined to foreign countries by ocean routes, and on goods brought from foreign countries to interior points, than are made on the same class of goods for the same haul when they come from or are destined to domestic points. The Supreme Court of the United States has upheld the making of low import rates under certain conditions on the ground of the necessity of meeting

¹ Ripley, pp. 302, 303; McGovern, p. 652 ff; Talcott, pp. 632, 633; Griswold, pp. 617, 618, 623.

² Bacon, pp. 74, 76, 82, 84; Wilson, p. 698; Wheeler, p. 749.

³ Stubbs, pp. 766, 767; Talcott, p. 633; Griswold, pp. 617-619; Greene, pp. 485, 486; Nicholson, pp. 726-727.

⁴ Griswold, p. 618.

the competition of water transportation direct from foreign countries. Witnesses representing the railroad companies defend the practice chiefly on this ground. They also justify low export rates on the ground that thereby the markets for American products are extended. It is asserted that unless special export rates for American grain were made, it could not be sold in Europe in competition with grain from India, Argentina, and other sources. While the railroad companies could not afford to haul all of the traffic at the same rates which are sometimes made for export and import commodities it is asserted that these low rates do not involve an absolute loss. The amount of traffic of a railroad can be increased without increasing the fixed charges, and even a considerable part of the ordinary operating expenses do not vary much with the amount of traffic handled. If the railroad companies can cover by their rates the actual additional cost of operation necessitated by hauling these goods, with a moderate profit, it is to their advantage to take the traffic, and ultimately the result may even be a reduction of the domestic rates. It is also asserted that ordinarily no city or community is injured by the diversion of traffic from it through export and import rates, since the traffic would not be hauled at all unless such low rates were made. Reference should be made to the preceding volume on transportation for a discussion from the standpoint of the shippers of flour as to the effect of export grain rates on their business.¹

Carload rates.—It appears from the testimony of several witnesses that it is a common practice on the part of the railroad companies to make lower rates on goods carried in carload lots than those shipped in smaller quantities, the difference in some instances being greater than the mere difference in the cost of handling would justify. The merchants of New York² complain of the discrimination between carloads and part carload rates, especially in the Southern territory. The representative of the New York Merchants' Association³ asserts that the changes in the Southern classification in 1900 increased the number of carload ratings, and increased the difference between them and part carload rates. He holds that this makes it in many cases almost impossible for Northern merchants and manufacturers to ship directly in moderate quantities to retail dealers in the South, and gives an unfair advantage to the jobbers in the Southern trade centers, who can bring in goods at the low carload rates and distribute them to the smaller towns in less quantities.

In reply to this it is stated by the representative of the Southern classification committee⁴ that the Southern classification makes fewer carload ratings than the official and Western classifications, and that the Southern railroads have not especially attempted to build up the interior points by carload differentials to the disadvantage of Northern cities.

The fact that the interests of the shippers and merchants in different sections of the country as to railroad rates often differ greatly is evidenced by the attitude of the Pacific coast jobbers, which is precisely the opposite of that of the New York merchants, in that the Western merchants insist that they should be allowed sufficient carload differentials to permit them to control to a considerable extent the jobbing trade of the Pacific coast. This matter is alluded to in another connection.⁵

Subsidiary freight and traffic organizations—Private cars.—It appears from the testimony of several witnesses that the system of fast freight lines is becoming a less important feature of the transportation business than it was formerly. In many instances in the earlier days cars were owned by separate corporations, which operated over several railway systems and which aimed especially to facilitate through

¹ Vol. IV, pp. 69-77 of Digest; Ripley, pp. 299, 301; Thomas, p. 557; Greene, pp. 484, 485, 487; Markham, p. 431; Stubbs, p. 761.

² Langley, pp. 861-863.

³ Langley, p. 862.

⁴ McGovern, pp. 662-665.

⁵ See below; Wheeler, p. 744; Stubbs, p. 753.

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shipments. At present it is stated that most of the so-called fast freight lines are merely cooperative arrangements between the railroad companies for the purpose of conveniently handling through freight and of establishing trade names in the soliciting of business.¹

On the other hand, it is stated² that private shippers in very many instances own cars, especially those of a peculiar character, such as refrigerator cars, for handling their own goods, while in other instances there are important corporations whose sole business is the operation of such special classes of cars. The railroad companies pay rental for the use of these private cars. The shippers of California fruit, in particular, are disposed to complain of the high charges made by refrigerator companies and to favor the operation of refrigerator cars by the railroad companies directly. Mr. Stubbs, of the Southern Pacific Company, however, doubts whether this change would prove as advantageous, either to shippers or to the railroad companies.³

Railway clearing houses.—Mr. Nicholson, manager of the Central Railway clearing house, Buffalo, describes in considerable detail the methods of accounting by that organization, which has charge of the division of revenue as regards through freight on practically all lines passing through Buffalo and Niagara Falls. The system secures great economy and accuracy in the adjustment of balances between the different railroad companies, and also facilitates the keeping of revenue and operation accounts by the separate railway systems. For a further description of the methods employed reference should be made to the digest or the original testimony.⁴

DISCRIMINATIONS IN RESPECT TO PERSONS.

Professor Ripley, Professor Parsons, Mr. Wilson, of the Cincinnati Board of Trade, and two or three other witnesses⁵ assert that the practice of granting personal discriminations of various kinds in favor of certain shippers still exists in many cases, although they admit that the evil is less serious than formerly. Professor Parsons considers the practice of granting discriminations as a strong argument in favor of Government ownership, and asserts that it does not exist in countries where the government operates the railroads. This witness alludes especially to the recent investigation by the Massachusetts railroad commission regarding discriminations on the roads in that State, particularly in local traffic not subject to the interstate-commerce law. He asserts that it was shown that secret rebates and reductions in rates ranging from 10 to 73 per cent had been made, and that the practice was almost universal. Allusion is also made to the evidence as to discriminations in favor of the Standard Oil Company by underbilling of cars, by fixing rates from points where that company has refineries lower than those from the refineries of independent competitors at other points, and in other ways.

Professor Ripley declares that rates on through shipments from New England to the West were being cut very heavily during 1900 and 1901, in part because of the tendency toward the accumulation of empty cars at the seaboard. Mr. Wilson asserts that railway discriminations are much more common than the public believes. A representative of the San Francisco Chamber of Commerce says that the transcontinental railroads formerly cut rates secretly, in order that they might thus overcome the differential of 10 per cent which the Canadian Pacific had forced the railroads to allow. He says that the San Francisco merchants agreed not to ship over the Canadian Pacific and that rate cutting then ceased. An officer of the Southern Pacific Company thinks that the railroads east of the Missouri River may have cut rates in some cases on account of this differential.

¹ Nicholson, pp. 724-731; Griswold, pp. 613-614; Guillaudeau, p. 446; Talcott, p. 635.

² Adams, p. 386.

³ Stubbs, p. 769; Wheeler, p. 764.

⁴ Nicholson, pp. 719-726; Digest, pp. xcvi, xcvi.

⁵ Ripley, pp. 287-289; Teisberg, p. 366; Wilson, pp. 695, 697; Parsons, pp. 126-134; Wheeler, p. 748

Several witnesses assert that discrimination by railroads is the greatest of all possible evils to shippers, and that it makes less difference whether the rates are high or low than it does whether they are uniform or otherwise. The enormous power of railroads over the prosperity of individual businesses is emphasized. It is also declared that discriminations are nearly always in favor of large shippers, of the strong against the weak, and that trusts and combinations have been especially fostered by them.

The methods of discrimination are referred to by some of the witnesses above named and also by two or three representatives of railroads. It is stated that secret rebates are still made, sometimes by methods which it is impossible to detect. Sometimes the discrimination is by an underclassification of freight or by underbilling. In certain instances shippers deceive the railroads regarding the classification of goods, and railway officers assert that it is very difficult to prevent this practice, although inspectors are maintained for that purpose. Mr. McGovern, a representative of the railroads, holds that railroads seldom connive in underclassification or underbilling of goods. It is also asserted that railroads sometimes agree to pay cartage in order to secure traffic of particular shippers.¹

Mr. Langley asserts that the recent advances made in the various railroad classifications do not apply, in general, to articles made by great combinations, but affect those produced especially by smaller establishments.²

Several railway officers and others maintain that the granting of discriminations has been very greatly reduced, especially within the past year or two, when the prosperity of the railroads, as well as the agreements and community of interest which have been established between them, have tended to minimize the practice. These officers in several cases admit by contrast with present conditions that discriminations have hitherto often existed, even in the face of the interstate-commerce law. The fact that a number of railroad men urge the advantages of the consolidation of railroads, community of interest, and pooling, especially on the ground that such establishment of harmony will do away with the secret discriminations which result from excessive competition for traffic, is also, of course, an admission of the existence of the practice. A representative of the Pittsburg Chamber of Commerce declares, however, that that body abandoned its transportation board, which had aimed especially to prevent discrimination, because there were no complaints.³

DISCRIMINATION BETWEEN PLACES—LONG AND SHORT HAUL RATES.

Generally.—Professor Ripley, Professor Parsons, Mr. Wilson, of the Cincinnati Board of Trade, and one or two other witnesses, criticise the practice of the railroads in making discriminations between places, and particularly in making unduly low rates for larger towns where competition between carriers is active, while maintaining excessively high rates for intermediate places which are not subject to competition.⁴ It is declared by the witnesses above named, and incidentally by some others, that the railroads very generally make the rates to competitive points much lower than those to intermediate points. The interstate-commerce act prohibits railroads from charging more for a shorter haul over the same track than is charged for a longer haul, unless the circumstances be dissimilar. Water competition has been held by the courts to constitute a difference in conditions justifying a lower rate for the longer haul. It is stated by several witnesses that the railroads in many cases, more particularly in the South, make these lower rates for the longer haul to points where there is no water competition, but only where there is competition between

¹ Ripley, pp. 286-290; Griswold, p. 623; Nicholson, p. 726; McGovern, pp. 672-674.

² Langley, pp. 867-870.

³ Markham, pp. 432, 433; Griswold, pp. 614, 615; Talcott, p. 627; Nicholson, p. 728; Greene, p. 487; Woodlock, pp. 463, 464; Anderson, p. 639; Dunlap, pp. 2, 4; Stubbs, pp. 762, 765.

⁴ Ripley, pp. 296, 297; Wilson, p. 695; Parsons, p. 136.

different railroads. It is asserted further that the railroads thus possess an enormous power over the prosperity of communities, and especially that they attempt constantly to build up the larger towns at the expense of the smaller ones. The undue aggregation of people in the cities is considered by some of these witnesses as an evil in itself. One witness argues that under Government ownership of railroads the motive to make such discriminations between places disappears. Others, in alluding not only to the discriminations in favor of larger towns, but to those between certain cities and sections themselves, declare that the railroads assume an unjustifiable degree of paternalism, and that they ought not to deprive cities and sections of their natural advantages of location and resources by making rates which put other less favorably situated places on an equality.¹

Southern basing-point system.—Mr. Wilson in particular discusses the long and short haul discriminations in the Southern States. The railroads, he asserts, have adopted almost universally what is known as the basing-point system, giving lower rates to certain competitive centers than to smaller noncompetitive points, even those nearer the point of origin of the traffic. In theory these basing points have been established by water competition, but in practice unduly favorable rates are given to many towns where there is no water competition, greatly to the detriment of the smaller places. Mr. McGovern, of the Southern classification committee; Mr. Markham, of the Illinois Central Railroad, and two or three other railway officers² admit the existence of this practice in the South, and admit that basing-point rates have been extended to places where there is no water competition. They assert that railroads reaching towns not subject to water competition have insisted on the right to establish rates which will enable those towns to do business with others having water competition. As railroads have been constructed and towns have grown up, these favorable rates have been extended from one to another with a view to creating jobbing centers from which the surrounding territory may be supplied. Mr. McGovern insists that it would not be just to require the railroads to grant as low rates to smaller places as they are forced to make to these competitive points. Mr. Markham presents the same argument, but lays a special stress on the influence of coastwise and river transportation in the forcing of the establishment of low rates to trade centers. He says that although in some instances no boats are operated on rivers reaching these centers, the mere possibility of establishing such means of transportation forces the railroads to make low rates. This witness especially maintains that the intermediate communities are not harmed by the granting of low rates to competitive points. The railroad could not get the through traffic at all unless it made such rates, so that it can not be said that the traffic is diverted from the small towns. The through business may not contribute to the fixed charges of the railroad, or may contribute proportionally less than the local business, but it does leave a profit after paying the added expense of transportation which it actually causes, and by means of this profit the railroads are even enabled to reduce rates to the intermediate points below what they would otherwise have to be.

Alleged discrimination against Middle West in rates to Southern States.—Mr. Wilson, a representative of the Cincinnati Board of Trade, asserts that the railroads leading from the North to the Southern States have discriminated against Cincinnati, Chicago, and other Middle Western cities in making rates. He says that formerly Cincinnati did a very large business in the distribution of goods through the South, but that when more railroads were built competition became active until an agreement was reached in 1879 between the railroads from the Eastern cities and those from the Western cities as regards the Southern traffic. By this agreement the Eastern roads were to maintain low rates on manufactured articles which would favor the cities of the Eastern seaboard, while the roads leading South from the Ohio River were to be

¹ Wheeler, p. 745; Wilson, p. 695.

² McGovern, pp. 678-680; Markham, pp. 436-439; Dunlap, p. 2; Talcott, p. 629.

given control of the traffic in grain, packing-house products, and similar articles. Since 1879 manufacturing business has moved westward, and these Western cities now demand—but, according to Mr. Wilson, demand in vain—concessions in rates which will enable them to compete fairly with the Eastern cities in the Southern markets. The witness gives numerous instances of the wide difference of rates from the Eastern and Western cities to the South. Thus, while the distance from Cincinnati to Atlanta, is only 54 per cent of the distance from New York to Atlanta, the rates from Cincinnati to Atlanta are 94 per cent of the New York rates, and still greater differences exist to some other points. A suit brought by the Western shippers before the Interstate Commerce Commission, with a view to securing more favorable rates, is still pending before the Supreme Court of the United States. Mr. Wilson says further that there is some conflict between the interests of some of the Western cities, Chicago and Cincinnati especially acting together, while Louisville and St. Louis seem indifferent to this movement. The witness also holds that St. Louis has been favored in rates on agricultural products to the South, as compared with Cincinnati. It is the hope of Cincinnati people that the lease of the Cincinnati Southern Railroad, a road which was built by the city of Cincinnati to facilitate its Southern trade, to the Cincinnati, New Orleans and Texas Pacific Railroad, which is controlled by the Southern Railway, will do away with the motive on the part of the Southern Railway to discriminate in favor of the Eastern points which it reaches.¹

To these complaints regarding discriminations against Cincinnati it is replied by Mr. Guillaudeau, of the Old Dominion Steamship Company, that the volume of trade from these Western cities to the South is rapidly increasing, and that the Eastern railroads feel that the rates made by the Western lines are even more favorable than those from the Eastern cities. It is also held that the competition of coastwise steamship lines largely determines the rates made by the Eastern railroads.²

Alleged discriminations against Pacific coast cities.—In the spring of 1901 a case was being heard before the Interstate Commerce Commission, involving the freight rates from interior cities to the Pacific coast. The jobbers of St. Louis, Chicago, and other Middle West cities were undertaking to secure an order from the commission directing that the rates from those cities to the Pacific coast should be lower than those from New York and the Atlantic seaboard, on the ground that the distance is shorter. They also demanded that the considerable differentials, which had been made by all of the transcontinental railroads except the Northern Pacific and Great Northern, in favor of carload lots as against smaller shipments, should be reduced in order that the Middle West jobbers might more readily ship goods directly to retailers on the Pacific coast. A third demand was that the rates on certain similar classes of articles, which have hitherto been different, should be made the same in order that several classes might be shipped in a single package at a rate lower than that previously charged on the highest rated article in the package, a change which would also facilitate small direct shipments to coast towns. These demands were opposed by the San Francisco merchants, particularly by the Pacific Coast Jobbers' Association, and also by several of the transcontinental railroads.

Mr. Wheeler, representing the Pacific coast jobbers, and Mr. Stubbs, representing the Southern Pacific Company, were heard before the Industrial Commission, but no testimony of the representatives of the other side of the case was taken. Mr. Langley, of the New York Merchants' Association, testifies briefly on the same subject, agreeing in the position taken by the two other witnesses. Mr. Wheeler and Mr. Stubbs maintain that, although the distance from the Middle Western cities to the Pacific coast is considerably less than the distance from the Atlantic seaboard, the low cost of water transportation justifies a low rail rate from seaboard to seaboard to meet water competition. It is held that the rates from the Middle Western cities to the Pacific coast ought to be even higher than those from the seaboard. At present

¹ Wilson, pp. 687-694.

² Pages 447, 448.

they are usually the same. To make the intermediate rates lower than those from the Atlantic seaboard would be to deprive New York and San Francisco alike of their natural advantages of location growing out of the cheapness of water transportation. These witnesses further assert that the practice of making differential rates in favor of carload shipments to jobbing centers is common throughout the country, and that it is eminently desirable that the jobbing centers of each section should in this way be given the advantage of their natural location.

Both of these witnesses maintain that there is stronger competition on the part of the sea carriers at San Francisco now than there has been for some time before. They allude especially to the establishment of the American-Hawaiian Steamship Line, which makes regular voyages by way of the Straits of Magellan, and carries freight at very low rates, and with promptness and regularity.

These witnesses further argue that the ordinary interpretation of the long and short haul clause of the interstate commerce act by the Interstate Commerce Commission and other authorities, as well as by shippers generally, has been such as to justify the making of lower rates for longer distances where water competition exists. The rates from New York to San Francisco by rail are lower than those to interior points in California and adjacent States, the local rate back from San Francisco to interior towns being added to the through rate. It is maintained that the same principle should apply both ways, and that interior cities in the East should pay as high or higher rates to the Pacific coast than those from the Atlantic seaboard.¹

Alleged discrimination against Denver.—Mr. Griffith, a representative of the Denver Chamber of Commerce, alludes to the case of *Kindel v. The Atchison, Topeka and Santa Fe Railroad*, which is also discussed more fully in the first report of this commission on transportation.² This witness states that the decision of the Interstate Commerce Commission in that case was that the railroads might not charge more from Denver to the Pacific coast than from the Missouri River and more eastern points, and it was believed at the time of his testimony (May, 1901) that the changed rates would very soon be put in force by the railroad companies. Mr. Stubbs, of the Southern Pacific Company, says that the railroads had had no desire to make the rates from Denver so high, but that the Interstate Commerce Commission would not recognize railroad competition as a justification for making the rate for the longer distance less than that for the shorter distance, while the railroads were not willing to admit that Denver was affected by sea competition from the Eastern seaboard to the Pacific coast, and was therefore entitled to a lower rate than other mountain points. To reduce the rates from Denver, without the justification of sea competition, would have meant a reduction of rates from other points in the West also.³

The representative of the Denver Chamber of Commerce states also that manufacturers in Colorado complain that the rates on raw materials from the East are unduly high as compared with those on manufactured products, so that they are placed at a disadvantage. The most vigorous complaint, however, comes from the Denver jobbers. This witness presents figures showing that the rates from Denver to common points in Montana, Utah, and other neighboring States are nearly as high as the rates from Missouri River points to those States, while the rate from Missouri River points to Denver is also nearly as high as the rate from Missouri River to these more distant common points. Denver jobbers are therefore at a great disadvantage, since the rate from the East to Denver, plus the rate from Denver to these common points, is very much higher than the direct rate from the cities on the Missouri River and farther east. This witness thinks that a new base line for making of rates should be established for Denver and cities parallel with it, so that they should have a fair opportunity for becoming distributing centers.⁴

¹ Wheeler, pp. 744-747; Stubbs, pp. 758-760, 763.
² Vol. IV, pp. 251-264.

³ Stubbs, p. 760; Griffith, pp. 849, 852.
⁴ Griffith, pp. 849-854.

*Miscellaneous discriminations between places.*¹—Several witnesses also discuss other alleged discriminations between particular places. Reference should be made to the digest, pages cvii–cxx, for a fuller summary of this testimony. The principal alleged discriminations which are discussed are those in favor of Savannah as against Atlanta, in favor of Birmingham as against Atlanta, and in favor of Norfolk on through traffic over the Southern Railway through Asheville as against Charleston on traffic through the same city. Reference is also made to the differentials established by the trunk lines as between the Eastern seaboard cities. This subject is, however, more fully discussed in the previous report of the Industrial Commission on transportation.² The commissioner of the Memphis freight bureau thinks that the Southern railroads make an unjust discrimination against the cotton mills in North and South Carolina and in favor of those in Massachusetts and the North. The freight rate on cotton from Memphis to cotton mills in New England was stated to be based on a rate of 55½ cents to Boston, while the rate to Carolina mill points was stated at 59 cents. The rates from Memphis to Liverpool are sometimes lower than those to Carolina points. This witness does not believe that the railroads should be forced to reduce their rates to the Southern mills unduly, but thinks that there should be some change.³ Mr. Markham, of the Illinois Central Railroad, says that the rates made by the railroad companies on cotton from Southern centers to the seaports for export shipment are practically determined by the ocean rates, the port which secures the lowest ocean rate to Liverpool fixing the rail rate to all the ports.⁴

GOVERNMENT REGULATION OF RAILROADS.

Powers of Interstate Commerce Commission.—Several witnesses, especially representing shippers, but including two or three railroad officers, the railroad editor of the Wall Street Journal, and one or two others, think that the Interstate Commerce Commission has comparatively little power at present to regulate railroad rates. They are inclined to hold that the commission has exercised a somewhat beneficial influence through public opinion and the publicity which it has given to railroad questions. Two or three railroad officers especially declare that the commission has accomplished all that Congress expected it to accomplish, or that it is wise for the country that it should accomplish. Several other witnesses, however, believe that the powers of the commission should be increased in various directions, and assert that it is now not able to correct numerous abuses which exist, especially discriminations in rates as between different localities. Mr. Jackson sees no reason why the Interstate Commerce Commission should not have all the powers which the Massachusetts Railroad Commission possesses as regards State railroads.⁵

The more general thought of shippers and disinterested witnesses is that, while the commission should not be permitted to prescribe all rates in the first instance, because of the complexity of the problem involved, it should have the power to revise rates, either directly when tariffs are submitted by the railroads, or on complaint, and to put its decisions into immediate effect, pending an appeal to the courts. The long delays resulting from the present system of appeals to the courts are held to work great hardship and injustice to shippers, who are compelled to continue for months or years paying the rates against which complaint is made. These witnesses believe that the burden of appeal should rest upon the railroads rather than upon shippers.⁶

¹ McGovern, pp. 680–686; Markham, p. 441; Langley, pp. 874–876.

² Vol. IV, p. 62 of Digest.

³ Davant, pp. 5–8.

⁴ Page 442.

⁵ Jackson, p. 848.

⁶ Ripley, p. 290; Wilson, p. 690; Bacon, p. 76; Teisberg, p. 372; Haddock, p. 535; Langley, pp. 877–882; Wheeler, p. 735; Davant, p. 6.

Several representatives of railroad companies, together with one or two other witnesses, vigorously oppose the idea, proposed in some quarters, of giving the Interstate Commerce Commission power to fix rates generally, asserting that the commission has not the necessary expert knowledge, especially in view of the wide difference in conditions and localities. They hold that the railroads have many most difficult elements to consider, but that it is to their own interest to make reasonable rates and to build up the country which they reach. It is asserted also that to give the commission general power of revision amounts to giving power to fix all rates. These witnesses, moreover, oppose the suggestion that the decisions of the commission should be enforced pending appeal, declaring that there is much less possibility of recovering damages against shippers because of losses from unduly low rates, if the judgment of the courts is ultimately in favor of the railroad, than there is of recovery against the railroad if the decision is in favor of the shippers. They hold that such an important power as that to decide as to the justice of a rate ought not to be left to any authority less final or less conservative than the Supreme Court.¹

Inspection of accounts.—Professor Adams, statistician of the Interstate Commerce Commission,² thinks that that commission ought to be empowered to require uniformity in the financial accounts, as well as in the operating accounts, of railroads, and to inspect their books directly. There will be some objection, on the ground that the secrets of the railroad might be ascertained, but the last convention of State railroad commissioners approved the proposition, and it is necessary for the State and national commissions to have such supervision of railroad accounts if they would properly perform the duties of regulation imposed upon them. Mr. Greene, of the Audit Company of New York, believes that a greater degree of publicity of railroad accounts is desirable, but he thinks it would be better, instead of having direct inspection by Government officers, to require the examination and auditing of accounts by expert private auditors, under bond, only the results of whose investigations should be made known.³ Mr. Rice, who was connected with an investigation of the Reading Railroad Company several years ago, holds that there are many ways in which the accounts of railroads, though correct on their face, may be deceptive to investors and stockholders. Railroads which have other companies subordinate to them are especially able, if they wish, to make the accounts misleading. This witness, therefore, believes in inspection of railroad accounts by the Interstate Commerce Commission.⁴

Two or three other witnesses, however, do not favor an extension of the powers of the Interstate Commerce Commission in regard to the accounts of railroads. Mr. Schiff, a banker, especially declares that railroad corporations seldom deceive the public in regard to their true earnings and the state of their finances.⁵

State railroad commissions.—Mr. Jackson, of the Massachusetts board of railroad commissioners, says that this board has general supervision over both railroads and street railroads within the State. It has absolute control in reference to questions of grade crossings and all safety appliances. It has control over the issue of securities, and the law requires that they shall be issued only for actual value. It has also power to pass on the construction of new railroads. The board does not audit the books of the railroad companies, but requires detailed reports. Its powers regarding passenger and freight rates are nominally only advisory, but in practice the recommendations of the board are nearly always carried out by the railroads, especially through the influence of public opinion, while in a few instances the board has appealed to the legislature, which has usually passed laws sustaining its position.⁶

¹ Woodlock, pp. 464, 465; Thomas, pp. 567, 558; Griswold, p. 620; Stubbs, p. 766; McGovern, pp. 665-668.

² Pages 334, 336.

³ Pages 479-481.

⁴ Pages 739-741.

⁵ Nicholson, pp. 727, 730; Woodlock, p. 464; Schiff, p. 773.

⁶ Pp. 842-843.

Reference is also made to the powers of the Minnesota railroad commission. The secretary of this commission says that the law permits it to fix rates within the State. Formerly it could act only on complaint, but by an act of 1897 it can proceed on its own motion. Under a decision of the United States Supreme Court it is held that the orders of the commission are subject to review by the courts. The commission has recently made an order regarding the rates on hard coal from Duluth to New Ulm, from which appeal has been taken to the United States Supreme Court, and this appeal was still pending at the time of the witness' testimony. This commission also has power regarding the inspection of grain and the regulation of elevators.¹

WATER TRANSPORTATION.

General importance and influence.—Two or three witnesses point out the great importance of coastwise, lake, and river transportation, both in itself and in its influence on railway rates. Mr. Markham, of the Illinois Central Railway, declares that railway rates throughout the country are influenced by the transportation on the oceans and the Gulf, on the Mississippi and other large rivers, and on the Great Lakes, the tendency in all cases being to bring down rates even between points far removed from actual water routes.² The secretary of the Chamber of Commerce of Pittsburg maintains that transportation by water is not to be considered as an injury to railroads, but that the two classes of transportation are complementary to one another, water carriers being especially adapted to the heavy commodities which require less rapidity of transportation. The general development of industry which water transportation makes possible is a benefit to the railways.³ The influence of water transportation in causing the reduction of rates for long hauls by the railroads, as compared with the short hauls, is especially discussed in another place. (See pp. xv-xvii.)

Coastwise transportation.—Mr. Guillaudeu, president of the Old Dominion Steamship Company, and Mr. Hayne, solicitor of the Merchants and Miners' Transportation Company, two of the leading Atlantic coastwise steamship lines, give testimony regarding the conditions of coastwise transportation, and representatives of railroads, particularly in the South, also discuss this subject.⁴ These witnesses agree in stating that the various railroads operating from the Atlantic coast cities, particularly those south of Baltimore, are to a considerable extent financially interested in the coastwise steamship lines. Nearly all of the steamship lines are either owned altogether by the railroads or are to a certain extent controlled by them. Nevertheless it is asserted by most of these witnesses that there is a very material degree of competition still existing between the Atlantic water lines and the rail lines, and that the water lines largely determine the rail rates as regards certain commodities in certain territory. Mr. Langley, of the New York Merchants' Association, and Mr. Wilson, of the Cincinnati Board of Trade, however, hold that the relations of the water and rail lines are so close that there is practically no competition as regards rates.⁵

The steamship companies are in most instances members of the various traffic associations of the Southern States, and thus have an influence in determining the general basis of freight rates. Differentials are regularly allowed in favor of the coastwise lines, on the ground that the transportation is slower and more subject to risk and that goods must be rehandled in many cases before reaching their destination. Through rates are made by the steamship lines in connection with railroads, the division of receipts being usually on the principle that water lines shall receive

¹ Teisberg, pp. 361-363.

² Pp. 428-430.

³ Anderson, pp. 637, 642, 646.

⁴ Guillaudeu, pp. 442-451; Hayne, 413-425; McGovern, pp. 663-665; Talcott, p. 628.

⁵ Wilson, p. 689; Langley, p. 874, 875.

as much for carrying freight 2 miles as the rail lines receive for carrying it 1 mile, on account of the greater cheapness of water carriage. Witnesses especially assert that there are some classes of traffic, especially in very bulky goods, which belong naturally to the steamship lines, while there are other classes of traffic, especially in perishable commodities, from which they are largely excluded. It is also stated that there is a growing tendency on the part of the coastwise steamers to adopt the same classification for freight, based on value largely, as the railroads, although there are certain conditions of water transportation which make departures from the ordinary methods of classification necessary. Mr. Stubbs, of the Southern Pacific Company, says that in transportation between the Atlantic and Pacific coasts by water the basis is largely that of space occupied, the result being that there are wide differences in the rates on different classes of goods as proportioned to their value, and that transcontinental rail lines are forced to make commodity rates on a somewhat similar basis in order to meet water competition.¹

American merchant marine and ship subsidies.—Mr. Howes, a member of the Boston Chamber of Commerce, who has also been largely interested in ocean transportation, makes an argument against the proposed policy of granting subsidies for the construction and operation of American ocean steamships.² He traces the history of the rise and decline of the American merchant marine. The decline, which was brought about in the first place by the civil war, continued on account of the early expensiveness of constructing iron vessels in this country. The witness believes that at present, by virtue of the great reduction in the cost of producing iron in this country, American shipyards can build most classes of vessels nearly, if not quite, as cheaply as foreign shipyards. He charges especially that American iron and steel manufacturers have sold plates and other materials for vessels to English shipbuilders at much lower rates than they make to American shipbuilders. He also holds that American shipyards are relatively better able to compete with those abroad in the construction of high-class vessels, in which a large amount of labor is required³ than in the construction of tramp steamers and other less expensive vessels, where the raw material is the chief cost. Mr. Howes lays great emphasis on the superior economy of American labor, despite the higher rates of wages.

Finally, this witness asserts that the policy of ship subsidies, as practiced in the United States in the early days, was by no means successful, and that no European country except France makes any attempt to subsidize freight steamers. In England the subsidies are altogether in favor of fast passenger and mail steamers. France has undertaken to subsidize vessels, but her merchant marine is declining relatively to that of other countries. Mr. Howes thinks it especially desirable that Americans should be permitted to buy vessels abroad and operate them under the American flag; and he points to the great development of the Norwegian shipping trade, much of which is carried in vessels bought abroad, as showing the possibilities of this practice.

Representatives of the coastwise steamship lines seem to doubt whether the granting of ship subsidies would be of any advantage to them.⁴ A representative of the Mississippi River transportation interests at New Orleans also is disposed to doubt the desirability of ship subsidies. The secretary of the Pittsburg Chamber of Commerce, however, expresses himself as strongly in their favor.⁴

The Nicaraguan Canal.—Two or three witnesses declare incidentally that the construction of the Nicaraguan Canal would be of great advantage to the country.⁵ A representative of the San Francisco Board of Trade argues especially that the canal will be advantageous to California by permitting cheaper transportation of its products to Europe and to Eastern markets. He thinks that this advantage will offset

¹ Stubbs, p. 763.

² Pages 703-709.

³ Hayne, p. 421; Guillaudeu, p. 480.

⁴ Bryant, pp. 399-400; Anderson, pp. 644, 645.

⁵ Bryant, p. 397; Anderson, pp. 638, 644.

the fact that Eastern cities will be brought into more direct relation with the Orient, and will thus tend to deprive San Francisco of some of the trade which it now enjoys. Mr. Stubbs, of the Southern Pacific Company, however, believes that the injury from this latter cause to California's interests will more than offset any advantages that can come to the State from the construction of the canal.¹

Oriental trade.—Mr. Wheeler, of the San Francisco Board of Trade, thinks that there is a great future for the trade of the United States in the Orient. He refers especially to the recent rapid increase in the amount of transportation between San Francisco and Asiatic ports. He says that the trade with the Philippine Islands, aside from that in army stores, is as yet comparatively unimportant, but thinks that as soon as the islands are completely pacified there will probably be a great development in commerce there.²

MISSISSIPPI RIVER TRANSPORTATION.

Amount of traffic—Difficulties encountered.—Mr. Bryant, a representative of the Steamboat Captains and Owners' Exchange of New Orleans, and Mr. Markham, of the Illinois Central Railroad Company, give somewhat extended testimony regarding Mississippi River commerce and its effect on rail transportation.³ These witnesses agree in stating that the amount of transportation by the river has decreased during the past 20 years as compared with rail transportation. Mr. Bryant asserts that there has been some absolute increase since 1890; the census of that year showed 6,401,000 tons of freight carried on the river and its tributaries, while statistics compiled by the witness in 1900 show 7,693,000 tons carried. Mr. Markham presents figures showing that the aggregate tonnage forwarded from St. Louis in 1880 was 1,037,000 tons, while in 1900 it was only 245,000 tons. Both these witnesses point out, however, that the statistics of Mississippi commerce are very unsatisfactory, there being no definite authority for collecting them and no systematic methods of keeping records on the part of the vessels.

The decline of traffic on the Mississippi and its tributaries is attributed chiefly to the great improvements in rail transportation. Mr. Bryant asserts also that the railroads have discriminated in their rates for the purpose of destroying the river traffic, charging extremely low rates between points on the railroad which are reached by the river, while making up the loss thus occasioned by high rates on intermediate traffic. Mr. Markham, on the other hand, while affirming the necessity of meeting river rates in rail transportation, holds that the influence of the river in lowering rates extends, though to a somewhat lower degree than in the case of points actually reached by the river, to practically all territory for a long distance on each side of the river. Mr. Bryant says also that the decline in river traffic is due in part to the greater shortness of the navigable season, which is occasioned by the denudation of the forests and by the confining of the river between strong levees; and that moreover the improvements of the river have not been effective in preventing danger to navigation, while especially the bridges over the river are, in many instances, a great hindrance. Both these witnesses point out that the trade of New Orleans with foreign countries, by way of the river and the ocean, is considerably hampered by the insufficient depth of water at the mouth of the Mississippi. The Eads system of jetties and improvements deepened the channel to 26 feet, but vessels drawing 30 feet or more would come to New Orleans if practicable, and these larger vessels could carry freight more cheaply than those which now enter the river. Mr. Bryant refers especially to the difficulty of navigating the Ohio River, and says that the large coal traffic coming down the river is carried only during very short periods. Two other witnesses speak of the system of dams, which is being established with a view to equalizing the flow of water in this river.⁴

¹ Wheeler, p. 751; Stubbs, p. 768.

³ Bryant, pp. 387-400; Markham, pp. 425-440.

² Wheeler, pp. 751, 752.

⁴ Anderson, pp. 643, 647; Wilson, p. 697.

Effect of river competition on rates.—Mr. Bryant states that the freight rates on the Mississippi River are much lower than the railway rates, in part because of the slowness and risks of river transportation. He asserts also that when the river is low, so that transportation is more difficult, the rail rates are raised. Mr. Markham says that the river competition practically fixes the rates for railroads between all the important river points. Moreover, according to this witness, the influence of Mississippi River traffic affects rail rates from and to points far distant from the river. Chicago, for example, insists upon having rail rates to Southern points which will enable it to compete with St. Louis in the distribution of goods, while other smaller towns insist that the railroads reaching them shall make rates to enable them to compete with Chicago. A similar chain of influences extends through the South and secures to points far distant from the river a reduction of rates. This subject is discussed in another light in connection with the long and short haul discriminations in the Southern States.¹

THE ANTHRACITE-COAL SITUATION.

During 1900 and 1901 there were movements among some of the railroads chiefly concerned in the anthracite-coal traffic toward the establishment of a community of interest. A subcommission of the Industrial Commission took the testimony of a number of officers of the railroads and of coal operators in New York during February, 1901, and two or three other witnesses were afterwards heard before the commission at Washington. See also testimony on this subject in the Mining Volume. (Vol. XII, Digest.)

Relation of railroads to anthracite-coal industry.—The railroads reaching the anthracite-coal fields are the Pennsylvania, the Lehigh Valley, the Reading, the Central Railroad of New Jersey, the Delaware, Lackawanna and Western, the Delaware and Hudson, the Erie, and the New York, Ontario and Western. A very large proportion of the coal produced is transported by these railroads to New York and other tide-water points, apparently not more than 19 or 20 per cent being used in Western and Southern markets.²

Each of the railroads named controls one or more coal-producing companies. In the case of the Reading, the Lehigh Valley, and several of the other railroads, these coal companies are, according to the witnesses representing these interests, virtually identical with the railroads, being organized separately chiefly because of the legal restrictions which prevent railroads from operating coal mines. The accounts of these railroad coal companies are, however, kept entirely distinct from those of the railroads, and they pay the regular freight rates to the railroads. The coal companies controlled by the railroads also buy large quantities of coal from so-called "individual," or smaller, operators.³

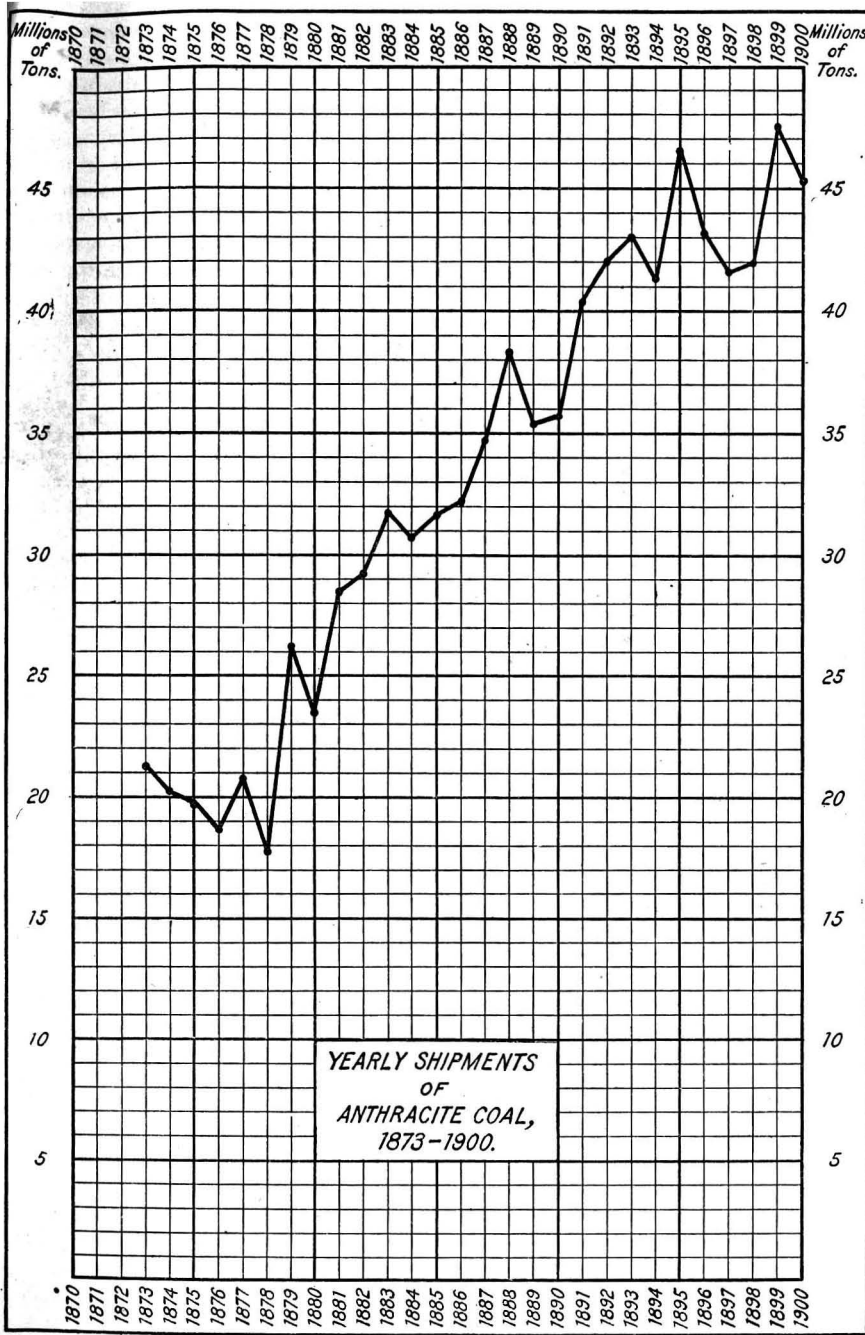
The proportion of the coal produced by the railroad companies has apparently been until recently about two-thirds, the output of individual operators being variously stated by witnesses at from 30 to 34 per cent. Recent purchases, by the railroads, of the mines of independent operators have reduced this percentage materially. The secretary of the Anthracite Coal Operators' Association says that at present the output belonging to independent producers is probably about 29 per cent,⁴ but other witnesses put it at a lower proportion. It appears also that these railroad coal companies hold a very considerable proportion of the undeveloped or reserve coal lands, so that in the future, as present mines are exhausted, their control of the actual output will presumably be greater. It is maintained that the reason why the railroads bought

¹ Page XVI.

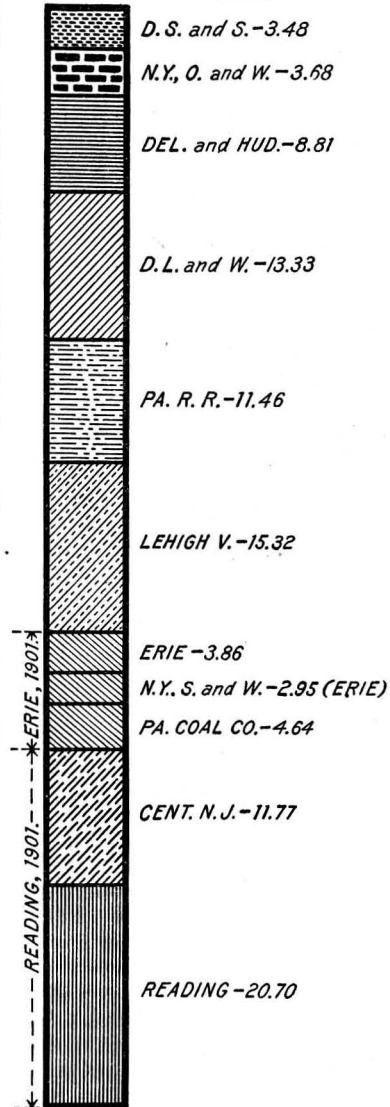
² McLeod, p. 562.

³ Seward, p. 508; Harris, pp. 597, 600; Greene, pp. 471, 474; McLeod, p. 561; Strarns, p. 579.

⁴ Fleming, p. 535.



Percentages shipped by each Railroad for 1900.



up coal lands was the desire to make their transportation business permanent. The operations of individual concerns with small capital were likely to be irregular, while traffic might be diverted from one railroad to another so long as the mines were independently owned.¹ The proportion of coal produced by independent operators and by the railroad companies, respectively, varies considerably in the case of the different railroads. On the Reading, for example, only about 1,000,000 tons out of 8,000,000 or 9,000,000 tons hauled yearly is produced by independent operators. The proportion of the independent operators is largest in the case of the Lehigh Valley Railroad, which in 1900 mined only 2,922,000 tons out of 7,675,000 tons carried.²

Establishment of community of interest.—It appears probable from the statements of witnesses summarized below that the practice has long prevailed among the anthracite-coal railroads of acting more or less in harmony as regards the division of the traffic and the fixing of prices of coal. Apparently it was partly in view of the difficulty of maintaining effective agreements and thorough harmony in the past that the recent movement toward community of interest or ownership has taken place. Witnesses representing financial interests, independent operators, and officers of the railroads concerned all agree that there has been established a certain degree of community of interest, affecting more especially the Reading, Lehigh Valley, Jersey Central, Delaware, Lackawanna and Western, and Erie railroads. These railroads carried in 1900 about 72½ per cent of the entire anthracite shipments. The precise nature of the combination is not made clear, but it seems to have been brought about chiefly by the purchase or interchange of stocks by a few large capitalists, which gives them a powerful influence in the management of all the roads named. J. P. Morgan & Co. have been especially instrumental in this movement. Various men are directors in several of the railroads at the same time. The object is admitted to be to bring about a consideration of the mutual interests of the roads. It is denied that there is any absolute combination or consolidation between these railroads, except to the extent that the Reading Company has recently bought a controlling interest in the Central Railroad of New Jersey, and that the Erie controls the Susquehanna and Western and the Erie and Western, minor roads not reaching to tide water.³

There is a difference of opinion among witnesses as to the extent to which the other leading coal roads besides those last named are being brought under the community of interest. It is suggested by two or three witnesses that steps are being taken to control the Delaware and Hudson, or that it is already more or less in harmony. One witness thinks that the Pennsylvania Railroad also is in general sympathy with the combination, although others assert that there is no community of ownership. The New York, Ontario and Western Railroad is quite generally considered to be independent, and it has about 3½ per cent of the anthracite tonnage.⁴ Coxe Bros. & Co. produce about 3½ per cent of the anthracite output. This company controls a railroad of its own and ships its coal in its own trains over the Lehigh Valley Railroad to tide water. Mr. Stearns, president of the company, holds that it is entirely independent.⁵

It is maintained by several witnesses that the leading anthracite coal roads are not merely tending to come together under a community of interest, but are attempting to absorb a large proportion of the production of coal. It is pointed out that about 3 years ago the independent operators, with a view to securing a lower cost of transportation, proposed the construction of a railroad to tide water. Some of the roads,

¹ Haddock, pp. 521, 522, 531; Stearns, pp. 579, 580, 587, 588; Seward, pp. 508, 509; Greene, p. 468; Harris, p. 600; Childs, p. 503.

² McLeod, p. 563; Harris, p. 600.

³ Woodlock, pp. 451-455; Haddock, p. 526; Stearns, pp. 588, 589; Walter, pp. 545, 546; Harris, pp. 598, 599; McLeod, p. 571; Seward, p. 513.

⁴ Woodlock, pp. 451-455; Harris, pp. 598, 599, 608; Childs, pp. 502, 504.

⁵ Stearns, p. 589.

through the Temple Iron Company, bought up many of the mines which had pledged tonnage to this railroad and forced the abandonment of the enterprise. Afterwards another road was planned by the operators following the Delaware and Hudson Canal to Kingston. The Pennsylvania Coal Company, one of the largest of the independent producers of coal, which itself owned a local railroad, known as the Erie and Wyoming Valley, was a prominent factor in this enterprise. The Erie Railroad has recently bought up the Pennsylvania Coal Company and its affiliated railroad, paying therefor \$32,000,000. This purchase blocked the construction of the proposed line to Kingston. The New York, Ontario and Western has also recently bought up a very considerable amount of coal production. The manager of this railroad says that it was forced to do this in order to assure the permanence of its tonnage. It merely followed the example of other leading railroads. It is, however, stated, even by one or two independent operators, that the operators who sold out were not forced to do so by discrimination or otherwise, but that, being offered a high price, they preferred to sell rather than to run the risks of independent business. It is claimed, however, by these witnesses and others that the motive of the railroad companies was to prevent a diversion of their tonnage as well as to check the disturbing influence of independent operators in the sale of coal.¹

Relation of railroads to independent operators—Percentage contracts and freight rates.—It appears that a very large proportion of the independent anthracite operators have for several years past sold their coal under contracts to the subsidiary coal companies of the railroads, receiving therefor a certain percentage of the tide-water prices. The proportion of the operators who accepted the system differs on different railroads, but on the average, according to statements of witnesses, much more than half dispose of their coal in this way.

Under the contracts in force up to the spring of 1901, in the case of the domestic sizes and larger sizes of anthracite coal, the operator received 60 per cent of the tide-water prices, while the railroad coal company received 40 per cent, out of which to pay the freight to the railroad and to cover the selling expenses. In the case of the smaller sorts of coal, where the price is much lower, the percentage received by the operators was less. Several witnesses, mostly representing railroad companies assert that the operators are generally well satisfied with this system, especially because of the saving in selling expenses and responsibility, and that it was considered a concession to them at the time it was adopted, as compared with the existing freight rates.²

At the time of the investigation of the Industrial Commission, in 1901, a new contract was being proposed by which the operators should receive 65 per cent of the tide-water price of the larger sizes of coal. It is stated that the motive of the railroads in making this concession was to prevent the operators from constructing an independent railroad, and also to secure more effective control of the business, especially by virtue of the fact that the new contracts, at least in most instances, provide that the entire future output of the operators shall be sold to the railroad coal companies.³

In April, 1901, this new contract had not yet been put into force, but the general opinion of all the witnesses was that a large majority of the operators would agree to it. The secretary of the Anthracite Coal Operators' Association, as well as representatives of the railroads, stated that the operators were generally well satisfied with the proposed terms. One or two witnesses thought that the railroad companies

¹ Woodlock, pp. 451-453; Haddock, pp. 521, 522; Stearns, pp. 588, 589; Harris, pp. 603, 604; Thomas, pp. 552, 553; McLeod, pp. 672, 673; Childs, pp. 479, 480.

² Seward, p. 509; Stearns, pp. 577-580; Childs, pp. 496-498; McLeod, pp. 562, 563; Fleming, p. 536; Walter, p. 533; Haddock, p. 522; Woodlock, p. 454.

³ The form of contract submitted by officers of two of the railroad companies contains a provision that the operator shall sell all coal hereafter mined from mines now open, or hereafter to be opened, on the land covered by the contract.

were insisting that practically all the operators should adopt these contracts before putting them into force, but a railway president states that this is not a condition of the contract, although the railroads think that they are entitled to the signatures of a majority of the operators.¹

One witness thinks that not more than 5 or 10 per cent of the operators will, when this arrangement is perfected, be really independent or have any influence in competition in the coal market.²

Freight rates on anthracite coal.—Various witnesses allude to complaints that the rates of freight to tide water are excessive. Some witnesses point out that most of the operators now ship under the percentage contract, so that the question as to the freight rates on ordinary shipments becomes to them of less importance. An advance in prices benefits the shippers as well as the railroads. At the same time the percentage of the tide-water price received by the railroad company may be considered as its freight rate, and that the amount thus received may be discussed as to its reasonableness in the same way as any other freight rates. The few representatives of independent shippers who appeared before the commission made little complaint of excessive rates. The secretary of the Anthracite Coal Operators' Association stated that he was not authorized to make any complaint whatever, though he refused to answer the question as to whether there were any grounds for complaint. Reference was also made by the president of Coxe Bros. & Co. and other witnesses to the suit brought by that company against the Lehigh Valley Railroad in 1899, in which excessive freight rates were charged. It is stated that the decision of the Interstate Commerce Commission was in favor of the complainants, but that appeal was taken to the courts, and that the delay was so great that Coxe Bros. & Co. were forced to forestall matters by constructing a railroad connecting their mines with several tide-water railroads, so that they were able to demand concessions.³

It is generally admitted that the freight rates on anthracite coal are very considerably higher than those on bituminous coal. The precise rate from the coal fields to tide-water varies somewhat upon the different railroads, while the rate per ton per mile naturally differs according to the distance to tide water. Moreover, as regards the operators who ship under the percentage contract, the rate fluctuates continually with the tide-water prices. The freight rates are variously stated by witnesses representing the railroads as from \$1.30 to \$1.75 per ton to tide water. Under the 40 per cent contract the rate paid by the operator, including selling expenses on coal, would be \$1.60 per ton when coal sells at \$4, which was about the price in the winter and spring of 1901. This price, however, is somewhat above the average in recent years. The distance from the anthracite fields to tide water varies from about 145 (D., L. & W.) to 214 miles (N. Y., Ont. & W.). The rate per ton per mile would thus range from 6 to 10 mills.

Several witnesses contrast these rates with those on bituminous coal, which have at various times been as low as 2½ or 3 mills per ton per mile, and which are always very much lower than the rates on anthracite. Representatives of the railroads, however, and several other witnesses, including one independent operator, justify the higher rates on anthracite coal on the ground that most anthracite has to be hauled over the mountains, while bituminous coal in many cases takes its origin at the tops of the grades, and especially on the ground that bituminous coal is all of one kind and can be promptly unloaded from the cars, while the different classes and sizes of anthracite coal have to be kept separate.⁴

¹ Childs, pp. 495-507; Thomas, p. 549; Stearns, pp. 577-580; Walter, p. 545; Fleming, pp. 537, 542; Harris, p. 610.

² Haddock, pp. 631, 532.

³ Seward, p. 509; Stearns, pp. 576-578, 590; McLeod, p. 573; Fleming, p. 542.

⁴ Fleming, pp. 536, 539, 540; Seward, p. 509; Stearns, p. 579; Childs, pp. 496, 497; McLeod, p. 565; Harris, p. 600; Woodlock, pp. 453, 454.

One independent operator complains especially that the operators who sell coal to the railroads under the percentage contract really get better rates than those who ship on their own account and pay the published freight rates. He urges especially that the actual freight rate under the contract system is considerably less than the 40 per cent of the tide-water price, because that percentage includes selling expenses and risks. Operators who ship for themselves and bear selling expenses, ought, this witness maintains, to be placed on an equality by having a freight rate somewhat less than this percentage.¹

Alleged discrimination against independent operators.—Except for the complaint just indicated there is no charge on the part of the independent operators, so far as they appeared before the Industrial Commission, of discrimination in freight rates against them as compared with the coal companies operated by the railroads themselves. Officers of the railroads assert emphatically that the coal companies connected with the railroads pay the full tariff rates on coal. One witness, however, points out that it is claimed that the railroads allow their coal companies to work with little profit, or even at a loss, while making up by charging high freight rates, a practice which amounts practically to taking the money from one pocket and putting it in another. While this matter was not discussed especially by witnesses it is obvious that if the freight rates on anthracite coal are in fact excessive, whether under published tariffs or under the percentage contracts, it amounts to a burden upon the independent operators, which is not felt by the coal companies that are virtually identical with the railroads.²

Allusion was also made by various witnesses to the complaint sometimes made by independent operators that they are not furnished sufficient cars, and that in some cases they are placed at a disadvantage in this regard as compared with the coal companies operated by the railroads. This complaint connects itself closely with the discussion as to the restriction of output of anthracite coal. (See below.) In the case of the operators who sell under the percentage contract, the railroads are given the right to determine how much coal each operator shall ship. The railroads agree to allot the tonnage which can be handled equitably between the different producers, the contract particularly providing that the railroads shall not discriminate in favor of their own mines. Representatives of the railroad companies assert most emphatically that there never has been any discrimination in this allotment, but that the independent operators have, if anything, been allowed to produce more than their normal share of the coal for which there is demand. It is urged that it is impossible for the railroads to buy all the coal which could be produced by the mines working at full capacity, because of the limited demand.

Mr. Harris, late president of the Reading Company, says especially that on that road an expert is employed to visit the various mines and ascertain accurately their productive capacity, and that on this basis the amount of coal which is demanded is apportioned. This witness asserts that any operator is at liberty to increase his productive capacity, and that on showing evidence of ability to produce more coal, relatively to other mines, he will be given a larger allotment. Two or three witnesses, representing the independent operators, likewise state that they have no complaint of discrimination in the supply of cars.³

One independent operator, Mr. Haddock, while making no charge of discrimination against independent operators in the apportionment of output, asserts that he has refused to accept the percentage contract arrangement which gives the railroad companies the right to allot the production, and has insisted upon receiving a sufficient supply of cars. By threats of suits for damages he has been able to secure

¹ Haddock, pp. 523, 532, 534.

² Stearns, pp. 580, 582, 588; Harris, pp. 600, 601.

³ Haddock, p. 524; Stearns, p. 586; Harris, pp. 600, 601; Walter, p. 545; Childs, p. 504; Saward, p. 509; Fleming, pp. 536, 537.

cars, and now practically produces as much coal as he sees fit. He is not willing to have his whole production limited by the arbitrary decree of railroad officers.¹

Restriction of output and allotment of tonnage.—It seems to be quite generally admitted that there is an attempt on the part of the anthracite-coal roads to keep the output of coal within the limits of profitable demand, and that there is at least a certain amount of consultation and agreement between them regarding the proportion of tonnage which each shall handle. In explanation of this practice it is asserted by various witnesses, including some independent operators as well as representatives of the railroads, that the productive capacity of the anthracite mines is very considerably in excess of the consumption of the country. It is said that the anthracite mines could produce at least 60,000,000 tons of coal annually, although one witness at least is disposed to question whether this could be done, in view of the necessity of executing a considerable amount of so-called dead work in order to keep up the production. The actual consumption of anthracite coal has never yet exceeded about 47,000,000 tons in a year. It is urged especially, as indicating the necessity for some limitation of production, that the demand for anthracite coal, most of which is used for domestic purposes, is extremely unequal as between different seasons of the year. During the spring and summer months there is very little consumption of anthracite. During the fall and winter, when the consumption actually takes place for the most part, the demand fully equals, if not exceeds, the capacity of the mines to produce contemporaneously. In order to render themselves able to supply the demand during these active months operators are continually tempted to increase the extent of their workings. If, then, it is asserted, the operators should endeavor to produce to the full limit of this extended capacity throughout the year there would be such an overproduction as greatly to depress prices and practically to ruin the producers.

It is further asserted by nearly all witnesses testifying on this subject that anthracite coal can not be very successfully stored. It would greatly increase the cost to produce at a uniform rate throughout the year and to store the output of the spring and summer months until the fall demand. Not only, it is said, would this involve rehandling and the construction of storage places, but the quality of the coal, especially its brightness, deteriorates when it is stored for a considerable length of time. For these reasons operators do not ordinarily run their mines at full capacity except during the fall and winter months. The average number of days on which the mines have operated during a year has never exceeded 235, and in many years the average number has been much less.²

One or two witnesses, especially Mr. Haddock, an independent operator, understand that the railroad companies have virtually an agreement among themselves as to the proportion of the tonnage of anthracite coal which each shall handle, and that by virtue of this allotment they practically restrict the output and prevent any strong competition. Representatives of the railroad companies deny that there is at present any agreement as to tonnage, although it is admitted by two or three of them that there was such an agreement in 1896, which was afterwards abandoned. Nevertheless these railroad officers admit that there has been very little change in the proportion of coal handled by each road for a considerable number of years, and they also admit that each road tries to conform in a general way to the proportion which it has hitherto carried. They assert that any railroad might, without violation of agreement or of faith, increase its aggregate tonnage and endeavor to encroach on the traffic of its competitors. To do this, however, would be to precipitate a general competitive war, a general oversupply in the market, and a reduction in prices, which would not make it a profitable measure.

¹ Haddock, pp. 524-527.

² Seward, pp. 511, 512; Stearns, p. 587; Childs, pp. 499, 500; Harris, p. 602; Thomas, pp. 555, 556; McLeod, p. 565; Fleming, p. 538.

The present division of output, it is asserted, has been the result of many years of experience and of conflict. Further conflicts are likely to occur in the future as they have in the past, but, apparently, at present, perhaps under the influence of the recent movement toward community of interest, there is less disposition than has been manifested hitherto toward encroachment by any railroad upon the business of the others. One or two witnesses point out also that some of the railroad companies have certain territory naturally tributary to them, or produce to a certain extent a particular class of coal for which there is an especial demand. The frequent use of such phrases as "proper share" and "normal tonnage" as applied to railroads seems to show a recognition by nearly all of their officers that it is not to the interest of any road to compete too vigorously or to endeavor to produce coal to the maximum of its capacity. One witness, Mr. Thomas, of the Erie Railroad, says that there is some consultation among the railroads regarding the output and prices, and other witnesses, as is pointed out below, admit also that there is some consultation as regards prices, which presumably involves likewise a discussion of output. Reference is also made to the fact that the Pennsylvania Railroad has in the past worked less in harmony in this regard than most of the other railroads.¹

The following table shows the percentages of the anthracite tonnage hauled by the respective railroads during the year 1900.²

	Per cent.
Philadelphia and Reading.....	21
Lehigh Valley.....	15. 65
Delaware, Lackawanna and Western.....	12. 57
Central Railroad of New Jersey.....	11. 48
Pennsylvania Railroad.....	11. 32
Erie Railroad.....	11. 51
Delaware and Hudson.....	9. 55
Delaware, Susquehanna and Schuylkill.....	4. 26
Ontario and Western.....	2. 86

Prices and their relation to the alleged combination.—There seems to be a general agreement among witnesses that the anthracite railroads act more or less in harmony as regards the fixing of prices. The evidence, however, is not conclusive as to the extent to which this harmony goes, or as to the effect of the recent movement toward community of interest upon agreements as to prices or upon prices themselves.

No witness affirms that there is any formal and definite agreement among the railroads or the railroad coal companies as regards prices. One or two assert that there have been in the past attempts to establish such agreements, but that they have broken down. Independent operators and others, notably Mr. Seward, of the Coal Trade Journal, believe, however, that there are informal consultations and understandings at the present time, including possibly meetings from time to time of sales agents. It is maintained by these witnesses that the prices made by the different companies are practically the same for given markets and grades of coal, and that changes are made very nearly simultaneously. Mr. Seward suggests that the railroad coal companies may communicate with each other by telephone, and that these informal understandings are better than written agreements, because there is no record or publicity.

Representatives of the railroad companies admit that the prices made by all of the roads are very nearly similar, although they specifically deny that there is any binding agreement on the subject. Two or three of them state that there are occasionally informal consultations between sales agents, such as are necessary in every business. The president of the Reading Company says—and his statement is

¹ Haddock, pp. 525, 527, 532; Seward, pp. 514, 515; Stearns, pp. 578-583, 590; Harris, pp. 601-603; McLeod, pp. 564-567; Thomas, pp. 548, 550, 554; Walter, pp. 543, 545, 547; Childs, p. 500.

² McLeod, p. 571.

corroborated by two or three other witnesses—that that company regularly issues a circular of prices, which has a considerable influence in determining the prices of other companies. At the same time this witness asserts that it is entirely voluntary with the others to make these prices or not, and that they do not always follow them.¹

The president of Coxe Bros. & Co., the largest independent coal operators, stated that the average prices received by that company for the prepared sizes of anthracite coal at tide water from 1891 to 1900 were as follows:

Average prices of prepared sizes of anthracite coal.

1900.	1899.	1898.	1897.	1896.	1895.	1894.	1893.	1892.	1891.
\$3.761	\$3.49	\$3.589	\$3.716	\$3.516	\$3.237	\$3.535	\$3.967	\$3.81	\$3.799

These prices are presumably not far from the average received by other producers during this period. Witnesses do not discuss, however, particularly, the movement of prices during these years in connection with the question as to the effect of combination among the railroads, nor is there any very definite evidence as to the comparison of prices during the past decade with those of earlier years. It is asserted quite generally that the cost of mining has increased, but that the cost of transportation and freight rates have fallen somewhat.

Much discussion was given as to the movements of prices of anthracite coal during the past year, particularly with reference to the effect of the establishment of community of interest between certain of the railroads, and as to the effect of the strike of anthracite miners in September and October, 1900. The following table shows the average prices for prepared sizes of anthracite coal received by Coxe Brothers & Co. for each month during 1900:

1900.

January	\$3.744
February	3.566
March	3.616
April	3.465
May	3.577
June	3.551
July	3.707
August	3.654
September	3.896
October	4.103
November	4.14
December	4.243

It will be seen that prices advanced from \$3.465 in April to \$4.243 in December, or an increase of 78 cents per ton. It is stated by various witnesses that the prices in the fall and winter are always considerably higher than in the spring, on account of the great difference in the demand at the respective seasons. Figures submitted by months by Coxe Brothers & Co. show advances of from 30 cents to 65 cents as between the spring and fall in most years since 1891. The advance in 1900, however, is greater than in any other year for which these figures were submitted.

Several witnesses state that the price of anthracite coal in February, 1901, was from 20 to 30 cents higher than it had been at the corresponding time a year before. The usual spring reduction in prices was made in April, 1901, after which the price of stove and chestnut coal, as announced in the circulars of the railroad companies,

¹ Seward, pp. 512, 513, 517; Haddock, pp. 526, 529; Stearns, p. 582; Harris, pp. 599, 603, 604; McLeod, p. 572; Childs, pp. 499, 505; Thomas, p. 554; Fleming, pp. 538, 539.

seems to have been \$4 per ton, and the price for broken coal, the largest size, \$3.50 per ton. Virtually all the witnesses agree in holding that this advance in prices during 1900 and 1901 is to be attributed to the reduction in the supply of coal, caused by the prolonged strike of the fall of 1900, rather than to the combination among the railroads. The strike left the country very much depleted of coal, and all through the winter the mines were working at their full capacity.¹

Mr. Haddock, independent coal operator, seems to think that the railroad companies in combination would have the power to advance prices, not being limited by the competition of other producers of anthracite coal, but he, like the representatives of the railroads, doubts whether it would be wise policy for the combination to attempt to maintain excessive prices. Various other witnesses, including especially the representatives of the railroads, assert that there is a very close limit to the price of anthracite coal through the competition of other fuels, and that the producers, however strongly they may be combined, would not find it to their interests to advance prices beyond the present rates. It is asserted that anthracite coal is to a considerable extent a luxury. By far the greater part of anthracite coal is used for household purposes, and if the price is very high it can be replaced in many of its uses. Bituminous coal is being more and more used, so these witnesses state, for producing gas, steam, and hot-water heat, and other forms of heating for domestic purposes.

The smaller sizes of anthracite coal, ranging from pea coal down, which are necessarily produced in connection with the breaking of coal for domestic purposes, can be used only for steam purposes, and there they meet very directly the competition of bituminous coal. It is asserted that because of this competition the price received for these smaller sizes of coal is less than the cost of production, so that there must be a corresponding increase in the prices of the larger sizes in order that there may be a profit on the entire output. These smaller sizes are from 25 to 35 per cent of the total product. Formerly they were largely thrown away, but the old culm piles are now being worked over and sold. Several witnesses maintain that the prices of anthracite coal in the spring of 1901, although somewhat higher than the average for earlier years, were no more than reasonable, and that because of the limited nature of the demand for anthracite coal a reduction in the price would not sufficiently increase consumption to make it profitable for the coal producers.²

Several witnesses assert that it will be possible through combination to reduce the cost of producing and transporting coal so as to permit of a lowering of the price to consumers, while at the same time giving the producers and the railroad companies a greater profit than in the past. The officers of some of the railroads express the belief that it is to the interest of the people that the railroads should act in harmony, and the same opinion is held by two or three other witnesses, notably Mr. Greene, of the Audit Company of New York. Mr. McLeod, former president of the Reading Company, is especially emphatic in the assertion that only great corporations with large capital can economically produce anthracite coal. It is pointed out by one or two witnesses that if the railroads act in harmony it will in many cases reduce the cost of transportation by permitting the supply of particular markets from the nearest and most accessible mines. It is also urged that where each railroad company feels that it must produce and transport as much coal as possible it is tempted to operate mines which are not so economical as those controlled by some other railroads.

The greatest saving, it is asserted, could be effected by the elimination of middlemen in the sale of coal to the consumer. The railroad companies could establish large depots in immediate connection with their tracks from which coal could be

¹ Stearns, pp. 489-491; Saward, pp. 510, 511, 516; Fleming, p. 541; Childs, p. 499; Walter, pp. 543, 546; Stearns, pp. 582, 583, 586, 594.

² Haddock, pp. 528, 529, 530, 531; Saward, pp. 510, 512, 513, 517; Greene, pp. 469, 470; Stearns, pp. 578, 583, 585, 586, 587; Harris, pp. 603, 609; McLeod, pp. 562, 567, 569; Thomas, p. 556; Childs, pp. 501, 502; Fleming, pp. 537, 541; Walter, p. 548.

delivered directly to carts hauling it to the consumer. Mr. McLeod believes that a saving from 50 to 75 cents per ton might be effected in this latter way alone, while Mr. Greene thinks that the various economies which might result from a complete consolidation of the railroads would amount to \$1 per ton. These various witnesses think accordingly that a more complete combination than that which at present exists is desirable for the public interest.¹

Capitalization of reserve coal lands.—There is a considerable amount of discussion on the part of witnesses as to the effect upon prices of the large investments made by the Reading and other railroad companies in coal lands in advance of actual production. The Reading Company has the largest supply of coal lands, most of which were bought up during the seventies. At that time it invested, according to the statement of one witness, about \$75,000,000 in these lands. Other companies have also made large investments. It is stated that the motive for this policy on the part of the railroads was to insure permanency in their transportation. One or two witnesses, including especially Mr. Haddock, think that the interest on these investments of the railroads has added to some extent to the price of coal. Reference is made especially to the fact that the recent purchases by the railroad companies have been at very high prices. The Erie issued \$32,000,000 of bonds to buy up the Pennsylvania Coal Company, and the annual interest of \$1,280,000 is equal to 50 or 60 cents per ton on the annual output of these lands. If the Reading lands had cost proportionately as much they would have represented an investment of \$125,000,000. Most witnesses, however, especially those representing railroad companies, do not think that the interest on these investments in coal lands adds materially to prices. They state that the attempt to carry them has led to repeated bankruptcies in the case of the Reading road and that many other railroads have large amounts of stocks which earn no dividends. The stocks of four of the leading roads earning no dividends were stated by one witness as amounting to \$382,000,000. The railroads holding these large investments have been forced to sell coal, it is argued, in competition with other producers not having similar burdens. The various reorganizations of the Reading have reduced its fixed charges, although the president of the company admits that its bonds still represent, in part, investments in coal lands.²

It is admitted by two or three of these witnesses that the capitalization of several of the anthracite roads is excessive, but they hold that the excess is chiefly in the form of stocks receiving no dividends. In various recent reorganizations, such as that of the Erie and the Reading, there has been no reduction of capitalization, but the fixed charges have been reduced, bonds being either issued at lower interest or converted into stocks.³

Duration of coal supply and cost of mining.—Witnesses differ as to the amount of anthracite coal still remaining in the ground. Estimates as to the duration of the supply at present rates of production range from 80 to 200 years. The mines in the Wyoming field, which were the most accessible, are being rapidly worked out, and the great reserve is in the Southern or Schuylkill field, where the Reading Company has very large coal holdings. In this field the coal lies deeper and in thinner seams, and it is much more expensive to mine. The late president of the Reading Company says that one of the chief reasons why it has not developed its lands more rapidly is because the cost of mining was so much greater that coal could not be produced profitably in competition with other fields. In the future the more difficult mines will have to be worked, and the Reading's lands will become more valuable.

In view of these conditions as regards the distribution of the anthracite supply,

¹ Walter, p. 544; McLeod, pp. 568, 569, 575; Greene, pp. 468-478; Thomas, p. 556; Harris, p. 599; Woodlock, p. 452.

² Haddock, pp. 523, 534; Greene, p. 472; Harris, pp. 604-606; McLeod, p. 566; Seward, pp. 517-519; Thomas, p. 555; Childs, pp. 503, 504; Woodlock, pp. 453-455.

³ Woodlock, p. 456; Harris, pp. 597, 598; McLeod, p. 573.

witnesses agree in holding that the cost of mining has advanced in the past and will steadily advance in the future. The improvements in methods of mining and handling coal do not keep pace with the added difficulties arising from the necessity of mining deeper and less satisfactory seams. The price of coal will necessarily advance hereafter, it is maintained, if it is to be mined profitably at all, although the advance will be slow. One prominent witness doubts whether the output of the anthracite mines will ever be much greater in a year than at present.

It is pointed out that the more easily worked veins have already been exhausted, and that mines now are deeper and in many cases are working much thinner veins of coal. For these reasons there is greater expense in lifting coal, in pumping water, in sinking shafts, and in various other directions. The cost of establishing a working colliery plant is said to have risen greatly, the cost in some cases at present being no less than \$1,000,000. As to the average cost of mining at present, no definite statements were made, several witnesses asserting that it is very difficult to ascertain the costs, and particularly that there are very great differences as between different mines. Mr. McLeod, former president of the Reading Company, says that he estimates the cost at the mine at \$1.59 per ton, while by paying interest on the value of coal lands the cost is brought up to \$1.90 per ton. The average freight rate he estimates at \$1.50 per ton to tide water. The average price at tide water for 20 years has been \$3.48.¹

The anthracite coal strike of 1900.—Mr. Stearns, of Coxe Brothers & Co., explains the nature of the demands of the miners in the strike of 1900. About 1875 there was an agreement between the operators and the miners, by which wages were to rise and fall with the price of coal at tide water. The basis was at the price of \$5 per ton. For every advance or decline of 10 cents, wages were to rise or fall 1 per cent. The price of coal fell so greatly that the operators made concessions, treating the freight rate from the coal mines to tide water as equaling \$2.50, the rate prevailing in 1875, instead of the actually much lower figure. The miners, however, demanded, in 1900, that the entire sliding-scale system be abandoned, and that wages be raised 10 per cent above the existing rates, while the price of powder should be reduced to \$1.50. These demands were finally granted by the employers.

Most of the witnesses do not discuss the strike in any detail. Several officers of railroads and operators think that the demands were, on the whole, just, but others hold that they were excessive, and that the producers can not permanently recoup themselves for the advance in wages by additions to price. It is quite generally admitted, however, that the shortage of coal, caused by the suspension of work in the busy season, permitted the advance of price sufficiently for the time being to benefit the railroads and the operators. One or two witnesses complain of the agitators who came from outside the region and induced the miners to join the labor organization known as the United Mine Workers, and to enter the strike. Mr. Stearns asserts that the men of his mines were satisfied, but that they were assaulted and intimidated until the mines had to close. There is some discussion among witnesses as to the desirability of arbitration in the case of such a dispute as this.²

¹ McLeod, pp. 565, 570, 571; Greene, p. 475; Fleming, p. 540; Thomas, p. 555; Stearns, pp. 584, 594, 595; Walter, pp. 544, 547; Seward, pp. 511, 515; Harris, pp. 606, 607.

² Stearns, pp. 593, 594; Thomas, p. 557; Haddock, pp. 527, 528, 533; Walter, p. 546; Seward, pp. 519, 520; Fleming, p. 542; McLeod, pp. 574-576; Harris, p. 611.

TICKET BROKERAGE.

Mr. Lindenberger, chairman of the committee on hostile legislation of the American Ticket Brokers' Association, gave very extended testimony before the Industrial Commission on the subject of ticket brokerage. Practically no testimony from the railroad standpoint is presented in this volume, and reference should be made to the discussion of the subject in the earlier volume.

General nature of business.—Mr. Lindenberger states that it is the business of ticket brokers to buy passenger tickets from railways and from passengers, and to sell them to travelers below the published tariff rates. The business depends upon the fact that there are differences in rates per mile on different kinds of tickets, and for different distances. Through tickets are sold at reduced rates as compared with local tickets, and brokers handle unused coupons for parts of through journeys. The return coupons of excursion and special return tickets are also bought and sold. One of the chief elements in the business has been the handling of mileage books. Brokers would buy mileage books from the railroads and allow passengers to use parts of them. Many of these books are good in the hands of the bearer, even where printed regulations nominally restrict them to the purchaser or his family. At present, especially in the central and western part of the country, mileage books interchangeable upon numerous railroads have been introduced, and these are so arranged that they can be used only by the actual purchaser, who gets a rebate on showing that he has used up the mileage. This arrangement prevents dealing in these books by ticket brokers.

This witness states that brokers correspond with one another, supplying sheets showing what tickets they have available, so that a broker in one city can make a through rate by using a ticket which he has to a given point, and arranging with a broker there to supply a ticket to the destination. By such practices ticket brokers, through their superior knowledge of rates made throughout the country, often succeed in giving passengers information as to low rates which they would not otherwise be able to take advantage of.

Ticket brokers are able, according to this witness, to save money to passengers selling their tickets and to those buying as well. The claim that railroads redeem the unused parts of their tickets at the full value is only partly true. A ticket from New York to Chicago costs \$17, while the rate from New York to Buffalo is \$8, and from Buffalo to Chicago \$12. The railroad will pay the passenger \$9 for the coupon from Buffalo to Chicago, while the broker would give him \$10, and sell it for \$11. The return coupons on excursion tickets sold for one fare for the round trip have no redemption value.

Support of ticket brokerage by railroads.—Mr. Lindenberger asserts further that the greater part of the business of ticket brokers is carried on with the support and connivance of the railroads. This was especially true before about 1896; since then railroads are so in harmony and maintain rates so strictly that they are less tempted to secure the services of brokers. The motive of railroads in this practice is to get competitive business, and that is perfectly legitimate. Through the brokers they can cut rates secretly, or even without cutting rates they can sell more tickets because of the employment of such agents. The witness does not think that brokers could carry on business profitably without some such support from the railroads.

Legitimacy of brokerage business.—Mr. Lindenberger asserts emphatically that the business of ticket brokerage is entirely legitimate. If a railroad makes a reduced rate for any class of tickets, it ought to make no difference to it who uses the ticket or any part of it. The supreme court of New York has held that this was a normal business, and that if a railroad company undertook to carry the holder of a ticket from one place to another for a given rate, it cost no more to carry one person than another.

Mr. Lindenberg denies the weight of the charges that brokers sell forged and fraudulent tickets and tickets with altered dates, and that they resort to other illegitimate practices, such as persuading conductors not to cancel tickets, but to sell them. He asserts that instances of fraud are extremely rare, if they occur at all. The American Ticket Brokers' Association, which includes 335 members, has in its constitution a declaration that no member shall engage in any practice which shall bring discredit upon the profession. Unless by specific contract with the passenger in writing, members must guarantee to passengers that their tickets will be honored. Mr. Lindenberg asserts that no member of the association has ever been arrested for fraud or charged with it, and that even railroad officers will certify to the high character of these brokers. He adds that the charges brought against ticket brokers by railroads are not usually specific, and seldom mention names.

This witness denies also that there is any general public antipathy to the business of ticket brokerage. He asserts that the petitions, and the resolutions of commercial bodies, brought to bear by railroad companies in advocating legislation, are secured by great pressure and are not typical. The railroad companies themselves recognize that antiscaling laws are not popular with the masses. The agitation in favor of antiscaling laws has been most vigorously carried on by the railroad companies in recent years before Congress and the State legislatures, but they have succeeded in inducing only ten States to pass these laws. In New York and Texas the laws have been declared unconstitutional, and in the other States they are dead letters. The witness asserts that newspapers which attack ticket brokers are directly inspired by the railroads, many of their articles being in almost identical form, and that many other leading papers have defended the brokers. Labor organizations also are almost uniformly in favor of permitting brokerage. The witness would be willing that the Government should require a license for ticket brokers, and submit them to any reasonable regulations, but he does not think that the prohibition of the practice is justifiable or constitutional.

GOVERNMENT OWNERSHIP OF RAILROADS AND PUBLIC UTILITIES.

Prof. Frank Parsons, president of the National Public Ownership League, presented before the Industrial Commission an elaborate argument in favor of the Government ownership of public utilities in general, and with especial reference to railroads, telegraphs, and telephones.¹ The general arguments which he brings forward apply, in his opinion, with somewhat varying degrees of emphasis, to all these classes of public utilities, as well as to gas and electric lighting plants, street railways, and other similar enterprises in cities. Officers of railroads give little testimony on this subject, apparently considering Government ownership of railways not a live question at present. The discussion of telegraphs, telephones, and municipal monopolies in particular in which several other witnesses take part is summarized below.

General principles and scope of Government ownership.—Professor Parsons holds that the relative merits of public and private ownership of railways and other utilities must be judged not merely by rates and costs of operation, nor by financial results, but by the general effect on civilization, government, and progress. He says that under private ownership material interests alone are considered, and that the interests of the owners of the utilities are the first aim, often to the great injury of the public. Not merely do excessive rates result from this aim, but there are many other evils, such as discriminations between individuals and places in the charges and quality of service, overcapitalization and stock speculation, ill treatment of labor, disregard of public safety, etc. On the other hand, under Government ownership, according to this witness, the aim in the operation of public utilities should be

¹Pages 123-193.

to serve the interests of the whole people and not to make money, and in countries where that system is most highly developed the results have shown that this aim is actually constantly operative in the management.

Rates and costs of operation under Government and private service.—Professor Parsons asserts that the general principle of rate-making under private ownership of natural monopolies is to fix the charges at the point that will secure the maximum profit, which is not usually the point either of lowest cost of operation or of maximum use of the service. Public ownership seeks a lower rate level with a view to reducing the cost to the lowest possible point by increasing the service, the endeavor being to render the maximum service at the lowest cost of profitable operation. The witness points out numerous instances in which governments have taken over the operation of railroads, telegraphs, and other enterprises, and have immediately reduced the charges greatly as compared with those formerly prevailing. He also compares the average rates for hauling a ton of freight a mile in the United States and leading European countries, as well as the average rates per passenger mile. These figures show the rates on passenger traffic in Europe from one-fourth to one-half less than in the United States, but American rates on freight traffic from 40 to 70 per cent lower per ton-mile than in the European countries named.

It is held, however, that the comparison as to freight rates is greatly affected by the much longer haul of each ton of freight in the United States, more than double the average haul in most of the other countries. Terminal charges, being an important element of cost, are proportionately less per ton per mile in the case of the longer haul. The witness declares also that proper comparisons as to charges are entirely impractical because of the extremely wide difference in conditions of cost as between different countries. Even if it be shown that the service is more efficient and cheaper in the United States, this would be largely due to the superior ability of American workmen and business managers, a superiority which shows itself as much in contrast with private enterprises abroad as with public enterprises. The only fair comparisons are within a single country, and the fact that countries which have gone to public ownership are all uniformly satisfied with it and tend constantly to extend its scope shows that it is the best system. Professor Parsons holds also that there are numerous and important economies attached to unified management by government and to coordination between different forms of public service. He believes that by the savings secured in this manner, and by avoiding the payment of interest on overcapitalized securities, the United States could save \$600,000,000 yearly to the people by public management of railroads.

Public ownership in relation to politics.—Professor Parsons believes further that instead of increasing the danger of political corruption Government ownership of public utilities tends to reduce it. He declares that the powers now exercised by quasi public corporations, such as railroads, are essentially sovereign powers. Their charges, not being subject to competition, in many instances are virtually taxes. Their ability to influence the prosperity of individuals and communities, to qualify the effects of a protective tariff by excessively low import rates, etc., shows the necessity of public regulation. Moreover, at present the corporations operating these public utilities are constantly tending to corrupt legislative bodies and public officers, national, State, and municipal, in order to secure franchises and other advantages. Finally, the tendency of private ownership of railroads and other similar enterprises is to build up great private fortunes, thereby introducing a degree of industrial inequality which is inconsistent with democracy in political methods and in education.

This witness does not fear greatly the political dangers arising from an increase in the number of civil servants through an extension of Government ownership. He would apply strict methods of examination for entrance into service and for promotion. While he would favor the granting of very favorable conditions of employment to Government servants, he does not think that this would constitute the

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unjust establishment of a favored office class. He does not believe that the office-holders would be a large enough proportion of the population to exercise a dangerous political influence at the polls, nor that their own liberty would be abridged through the influence of party leaders and superior officers. He points to New Zealand, the English cities, and other governments which have greatly extended government ownership, as showing the possibility of minimizing or eliminating these evils.

Desirability of gradual movement toward Government ownership.—In spite of his arguments as to the benefits of Government ownership, Professor Parsons does not believe that the United States is ripe as yet for public ownership of railroads. We need to become more thoroughly democratic in government, to secure for the people more genuine control over public affairs before greatly increasing Government ownership. It would, however, be desirable at an early day, if not immediately, to acquire the telegraph and telephone, and municipalities should move steadily toward the public ownership of municipal utilities. The witness believes that there is a very rapid growth of sentiment in favor of public ownership, and asserts that in this as in other countries the actual extent of public functions is steadily increasing. In his judgment the best way for the Government to acquire the telegraph or the railroads would be to begin by buying up or constructing a part of the system, and then gradually to extend the scope of the public ownership. He would favor paying to the owners of the present plants the full value of their plants as indicated by the market prices of securities, even although in many instances the enterprises are greatly overcapitalized.

The question as to the proper basis of charges for the service of public utilities is also discussed by this witness. He asserts that it is not necessarily a universal economic principle that the charges should be sufficient to pay the costs. It may be that the great extension of the use of the service would be of sufficient general advantage in promoting intelligence, civilization, and happiness as to justify the reduction of charges below cost while making up the deficit through taxation. The movement of Government service in the past has been steadily toward doing away with the principle of payment by the individual as regards services which are most essential to the general welfare. The witness thinks, however, that in general at the present time the charges for the ordinary so-called public utilities—railroads, street railways, lighting plants, telegraphs, etc.—should, under Government management, be sufficient to cover the cost of operation, and that these plants might even be required to contribute taxes toward the general public administration, as they have done under private ownership.

TELEGRAPH BUSINESS.

Professor Parsons¹ and Messrs. Randall² and Roberts,³ the latter two representing the International Typographical Union, appeared before the Industrial Commission as advocates of Government ownership of telegraphs, while Mr. Hitchcock urges the adoption of the same system, especially in connection with the use of improved methods of automatic operation, such as the system invented by Mr. P. B. Delany. Mr. Clark,⁴ vice-president of the Western Union Telegraph Company, and Mr. Chandler,⁵ president of the Postal Telegraph Company, gave testimony on the same subject.

Alleged excessive capitalization and charges.—It is admitted that the telegraph business of the country is practically all carried on by the two companies just named, and that they work more or less in harmony with one another. While they have no definite understanding or agreement fixing rates, there is an understanding that secret reductions in rates shall not be made; and at the time the agreement was first established, in 1888, certain specially low rates which had previously prevailed were

¹ Pages 179-190 also 884-887. ² Pages 241-266. ³ Pages 266-274. ⁴ Pages 206-241. ⁵ Pages 193-206.

abandoned. Representatives of the companies assert that in most more important places there is, in a sense, competition between them. A table submitted by Mr. Clark, however, shows that average receipts per message have not been reduced since 1888. Mr. Chandler believes that unified ownership of the entire system would be preferable from the point of view of economy, but that the public opposition to monopoly would not make it good policy.

The advocates of Government ownership assert that the charges of the telegraph companies are extortionate as compared with the rates in European countries and as compared with the actual cost of operation. It is charged especially that the Western Union Telegraph Company is enormously overcapitalized. Its present capitalization, including stocks of minor companies which it has guaranteed, is \$135,000,000. These witnesses point out that from time to time since 1858 very large stock dividends have been declared by the company, and they hold that at the time of the various consolidations with other companies the stocks have been increased entirely out of proportion to the value of the new property taken in. They maintain that the growth of the system has been almost wholly paid for out of earnings, while at the same time ample dividends on inflated capitalization have been earned. It is asserted that at the maximum the lines of the Western Union Company could be duplicated for \$30,000,000. In Ohio, when the attempt was made to increase the assessment of the company's lines, it took the matter into court and claimed that the average cost per mile of poles in that State, with all the wires, including stations and equipment, was only \$103, which would make the 190,000 or 200,000 miles owned by the company worth about \$20,000,000. One witness also quotes figures from the reports of the Western Union Company showing the cost of constructing of the total amounts of line added in certain recent years to have been less than \$100 per mile of poles and \$50 per mile of wire. He also refers to statements of telegraph experts to somewhat similar effect.

Mr. Clark denies emphatically that the Western Union Company is overcapitalized. He says that the capitalization of the company amounts to \$645 per mile of poles and \$130 per mile of wire. He asserts that to say that lines could be reproduced for \$120 or \$130 per mile is preposterous. On many lines there are very many, sometimes as many as 200 wires, which greatly increase the cost, while terminals and underground construction in cities are very expensive and must be included. At the same time the witness declares that it is impossible to state the average cost of constructing a mile of poles with one wire because of the great difference in local conditions. The company has spent from \$50,000,000 to \$60,000,000 in renewals and reconstructions since 1866. Mr. Clark also compares the capitalization of the American lines with those in Great Britain, showing that the capital outlay of the British Government is about twice as great per mile as that of the Western Union Company. On this point, however, Professor Parsons remarks that the British Government when it bought out the lines from private companies paid four times as much as they were worth.

The rates for commercial telegrams in the United States are all based on the message of ten words, the address and signature being sent free. The rates between New York and Philadelphia and a few other near and important centers are 20 cents for a ten-word message, with 1 cent for additional words. From New York to adjacent States, within New England, and within many of the more densely populated States, the rate is 25 cents, with 2 cents for extra words. From this, rates range up to \$1.07, to the Pacific coast. The average receipts of the Western Union Telegraph Company, for messages of all lengths and covering all different distances, during 1900 were 30.8 cents.

The rate per word for messages in Great Britain, from any point to any point, regardless of distance, is stated to be 1 cent, the minimum charge being 12 cents, and the average receipts for messages of all lengths actually sent being 15½ cents.

The rate in France is 1 cent per word, minimum charge 10 cents, and average receipts for all messages 15½ cents. In Germany the ordinary rate per word is 1¼ cents, and the minimum charge 12 cents. The rates in Belgium and Switzerland are very much lower still, while those in Austria are practically the same as in France.

Mr. Clark gives practically the same statements as to actual rates as witnesses who favor government ownership. He claims, however, that by sending the address and signature free the Western Union Telegraph Company handles on the average 21 words for a 10-word message, and that the rate for an equal number of words in European countries, where every word is charged for, would be usually about 21 cents, while in many parts of the United States, including distances as great as can possibly be reached within many of the European countries, the rate is 25 cents. He asserts especially that the average distances to which messages are transmitted in these foreign countries, with their dense population, are much less than in the United States, and that distance is an important factor in estimating cost, especially because of the interest on the lines. On this latter point Professor Parsons asserts that the interest can not greatly affect charges, on the basis even of the high capitalization of the Western Union Company. He also declares that the proper basis of comparison is not the cost of sending a possible 21 words on a 10-word rate—though he quotes earlier statements of telegraph officers to show that the average number of words sent in the United States is considerably less—but the number of words actually sent per message. The average number for all messages in Great Britain is only 15. The actual average receipts for all messages, he says, are at least twice as great in the United States as in most European countries.

Mr. Clark also calls attention to the fact that the British Government's telegraph has been operated at a deficit constantly, the aggregate deficit since 1870 being nearly \$40,000,000. This deficit he attributes to the unduly low rates, and especially to the attempt to reach small and inaccessible places where business does not pay. To this it is replied that there is no certainty as to the correctness of the division of expense between the British post-office and telegraph departments; that the deficit is largely explained by the excessive price paid for the lines bought out by the Government, entailing a heavy interest charge; and finally that the British Government has added each year to the operating expenses the cost of extensions and improvements, which are represented, in the case of the American companies, by new capital. If these expenses for construction be omitted, according to this witness, the total British deficit is very small, and in many years there has been a profit.

Mr. Clark also compares rates from various European capitals and leading cities to leading cities in other countries and shows that they are much higher than rates for certain corresponding distances in the United States. Other witnesses, however, declare that comparisons of international rates, where messages must pass over the lines of different countries, are not fair, but that only internal rates should be compared with internal rates in the United States.

Mr. Clark declares finally that the Western Union Telegraph Company has constantly endeavored to reduce rates as rapidly as possible with due regard to earning a reasonable profit. He points out very great reductions in rates, especially to more distant points, since 1866, attributing this reduction especially to the consolidation of previously separate lines. A table submitted by Mr. Clark shows the average tolls received per message by the Western Union Telegraph Company since 1868. These figures are obtained by dividing the total receipts of the company from ordinary messages by the total number of ordinary messages, so that the average includes messages of all lengths sent for all distances. The average tolls received in 1868 were \$1.047 per message. By 1875 the average had fallen to 54 cents and by 1880 to 38.4 cents. The average receipts in 1885 were 32.1 cents; in 1887, 30.4 cents. The receipts

rose in 1890 to 32.4 cents. Since 1895, when the average receipts were 30.7 cents, there has been practically no change from year to year.

Mr. Clark declares that while further reduction in rates would doubtless increase business, it would not be profitable, because the wires are already being used at their full capacity. It is asserted, on the other hand, that Postmaster-General Wanmaker was led to believe that a uniform 25-cent rate throughout the country would be largely profitable to the telegraph companies and that a 10-cent rate would be possible under Government ownership by operation in connection with the postal system. One witness also asserts that the manager of the former Baltimore and Ohio Telegraph Company said that it operated at a profit while charging only 10 cents for many shorter distances and 15 cents between New York and Chicago.

General argument for Government ownership.—The advocates of Government ownership, Mr. Randall, Mr. Roberts, and Professor Parsons, base their argument chiefly upon the possibility of reducing rates if the Government should take over the service and consider the interests of the public rather than the earning of dividends on an excessive capitalization. They maintain that it is the constitutional right, and even duty, of the Government to control the means of communication by telegraph as well as by the mails. They assert especially that there would be great economy from combining the telegraph with the post-office, since the offices could be in the same buildings and, in many cases, the same employees could carry on both classes of service. It is held that the success of the Government in administering the postal system is sufficient evidence of its ability to manage the telegraph, and that the experience of leading countries the world over, nearly all of which have brought the telegraph under Government operation, is in favor of the introduction of that system here.

Mr. Chandler, of the Postal Telegraph Company, is disposed to think that the Government could probably operate the telegraph successfully, and that this would be especially true if it were able to secure an efficient civil service. Mr. Clark, on the other hand, believes that Government operation would result, as it has in Great Britain, in a deficit, and that the service would be unsatisfactory. He asserts that there is a marked difference between the post-office and the telegraph. The post-office authorities make use of private means of transportation, so that little capital is involved, while the extension of the telegraph involves a large capital investment. This witness holds that there would be little economy from combination of the post-office and the telegraph, since in most small places the postmasters would not be skilled operators. There would be a constant temptation under local pressure to extend lines to places where they would not be profitable, while the increase in the number of employees in the civil service would lead to abuses.

Witnesses who favor Government ownership assert that most of the Postmasters-General since 1844 have favored the postal telegraph.

Alleged discriminations and other abuses.—The advocates of Government ownership further maintain that the Western Union Telegraph Company is mainly responsible for the alleged news monopoly possessed by the Associated Press. It is charged that the telegraph company serves the papers of the Associated Press at very much lower rates than it serves individual papers or small groups of papers on a circuit, and that no newspaper can secure the services of the Associated Press without the consent of the newspapers in the city or town which are already members of the association, so that virtually a monopoly is maintained which reduces the number of newspapers published and thus injures the public and especially the printing craft. Mr. Randall and Mr. Roberts of the Typographical Union especially insist on this point.

Replying to these charges, the vice-president of the Western Union Company asserts that newspaper rates are of different classes in consideration of the time and character of the service and especially of the number of papers in a circuit and the

distances. He asserts that every newspaper or association of newspapers has the same privileges as others under similar conditions. If there be any monopoly in the handling of news, it is the fault of the Associated Press itself and not of the telegraph company.

Witnesses also complain that the telegraph company discriminates in the handling of messages, favoring especially the brokerage business and in some cases the newspaper business. Instances of long delay in the transmission and delivery of private messages are presented. It is replied by the officers of the telegraph companies that there is no precedence given to any class of business except Government business, but that many brokers and others have leased wires over which the telegraph companies have no control.

The advocates of Government ownership further maintain that the system of granting franks to public officers is a serious abuse, tending to influence the action of such officers in regard to the telegraph business. They also assert that there are personal discriminations in giving telegraph franks to private individuals. Mr. Chandler admits that franks are given to many public men in the national, state, and local governments, and that he would be glad to see the system done away with. Mr. Clark asserts that these franks to public officers are granted merely as a matter of personal courtesy and do not represent any *quid pro quo*.

It is also argued by advocates of Government ownership that the Western Union Telegraph Company tends to suppress progress in the telegraph business by refusing to make use of new inventions in many instances, and by practically preventing, through its monopoly, the introduction of such improvements by others. Reference is made especially to the systems of machine telegraphy which have recently been invented, and which transmit messages at extremely high speed. To these charges the vice-president of the Western Union Company replies that the company has steadily improved its service, and that it makes use of all inventions which are really advantageous and profitable.

Labor conditions in the telegraph business.—Mr. Clark holds that the higher cost of labor in the United States materially increases the cost of handling the telegraph business in this country as compared with other countries. On the other hand, the advocates of Government ownership maintain that the Western Union Company pays extremely low wages and treats its employees very badly in every way. They assert especially that many women are employed, and that, because of the oversupply of female labor, the company pays them very much lower rates than are paid to men for the same service. It is said, further, that a very general strike of telegraph operators in 1883 was caused by the low wages, but that it was unsuccessful, and that wages have since remained unchanged. These witnesses further assert that the Western Union Telegraph Company is strongly opposed to labor organizations; that after the strikes of 1870 and 1883 it required its employees to take oath that they were not members of such organizations, and that practically the same attitude is maintained at present.

Mr. Clark declines to discuss the attitude of his company toward labor organizations, but says that the company is always ready to deal with its employees directly, and he supposes that they are satisfied. He says that wages were not reduced during hard times, and have varied little since 1883. He holds that women are paid as much as men where they do the same work, but that they can not usually do as heavy work as the men. Mr. Chandler, of the Postal Company, says that the average salaries of operators of that company are about \$60, and that wages have changed little in fifteen years. He says that a first-class operator in Great Britain receives about \$65 per month, but that he begins at very low rates and that the increase is slow.

THE TELEPHONE SYSTEM.¹

Professor Parsons, in his general argument in favor of government ownership of natural monopolies, refers to the telephone system, holding that all the arguments which apply in favor of Government ownership of telegraphs apply to the telephone as well. This witness believes that the trunk lines of telephones should be operated by national governments, while the local systems could, perhaps, be most conveniently operated by the municipalities. The vice-president and general manager of the American Telegraph and Telephone Company submitted an affidavit to the commission, tracing the history of the development of the telegraph and discussing somewhat the question as to the reasonableness of existing rates. The general manager of the New York Telephone Company, Mr. Bethell, presents an elaborate discussion of telephone rates and the character and amount of service in this country and in foreign countries.

It appears from the testimony that the American Telephone and Telegraph Company has now practically absorbed the Bell Telephone Company, having exchanged two shares of its own stock for each share of the stock of the Bell Company. The American Telephone and Telegraph Company is popularly known as the Long Distance Company, and prior to the amalgamation with the Bell Company its business was apparently confined chiefly to trunk-line service. The capital of the American Telephone and Telegraph Company on July 1, 1901, consisted of \$94,237,500 of stock and \$15,000,000 of collateral trust 4 per cent bonds. The receipts of the company in 1900 were \$9,534,499, of which \$3,846,821 was from the dividends of subordinate companies, \$2,427,037 from the rental of instruments (royalties chiefly), and \$3,027,171 from telephone traffic, the latter item apparently representing practically the receipts from the long-distance business. The company paid in 1900 a dividend of \$4,078,601 and carried \$1,407,456 to reserves and surplus. It is also stated that the entire expenditure of the American Telephone and Telegraph Company and of the various licensees operating under it for the construction of plants has been \$168,474,517.

Professor Parsons asserts that the telephone rates in the United States are very generally excessive, especially where the system is controlled by the American Telegraph and Telephone Company and its subordinate companies. He states that the rates in New York City range from \$90 to \$240 per year for the use of the telephone, while in Berlin the unlimited rate is only \$36 (lately advanced to \$45). Washington, D. C., has rates ranging from \$36 to \$135 (1898), while the average rate in Stockholm, a city of about the same size, is \$20. The average rate in Paris is stated by this witness to be \$78 (500 francs), while Mr. Bethell says that the Paris rate is about to be reduced to 300 francs. Professor Parsons also says that an independent telephone company in Boston and adjacent territory is operating at about half the rate charged by the Bell Company; that a small cooperative company in Grand Rapids, Wis., with 300 subscribers, charges only \$1 per month for residence service and \$2.25 per month for business service, while paying large dividends to the subscribers, who are also the shareholders, and that other independent companies are making low rates.

This witness holds that from \$8 to \$15 per year is a fair charge for telephone service in a small town. It is recognized that in larger cities a higher rate is necessary, although he believes that in many cases it would be wiser for the telephone companies to reduce their charges with a view to the economy of increased service, since up to a certain limit the amount of service can be increased without requiring additional apparatus and operators. He declares further that one reason for the excessive charges of the telephone companies is that they are greatly overcapitalized. The Bell company which operates in Boston and other Massachusetts cities has a capital of more than \$300 for the line of each subscriber, whereas the independent company

¹Parsons, pp. 173-179, 883, 884; Bethell, pp. 777-816; Hall, pp. 817-828.

above referred to has an equally good system at a capital cost of less than \$100 per subscriber's line. With regard to long-distance service this witness states that the rates in Europe are much less than in the United States. While it costs \$1.25 for a five-minutes' conversation between Philadelphia and Washington, for a corresponding distance in England the charge would be 48 cents, and in France 30 cents; and corresponding differences exist for longer distances.

The representatives of the telephone interests present evidence in defense of the reasonableness of American telephone charges. It is stated that the long-distance rates are usually on the basis of three-fifths of 1 cent per mile for a conversation of 3 minutes. In the local exchanges the system of message rates is gradually supplanting that of unlimited rental rates, and these witnesses hold that it is much fairer to subscribers that they should pay a certain minimum amount per year, with an added charge for each message above a certain number, rather than that all subscribers should pay the same rates. Message rates are considered especially desirable in large cities. It is asserted also that the constant changes in telephone methods necessitate numerous reconstructions and other expenditures. In large cities, especially, the growth of the business makes frequent modifications in the plants essential to the successful operation, while at the same time the increase in the number of subscribers increases the running expenses in much more than equal proportion. In New York City, for example, it becomes necessary to have numerous branch exchanges connected with one another by trunk lines, and the process of connecting one subscriber with another becomes highly complicated, requiring an elaborate plant and a large amount of labor.

Witnesses representing the telephone companies also hold that comparisons with European countries are likely to be misleading. They assert that the lower wages and lower costs of material in European countries must be taken into account; and they hold furthermore that in none of the European systems is the service equal in quality with that in the United States. Mr. Bethell declares that by the adoption of the message-rate system in New York the average cost of telephones to subscribers has been reduced, and now amounts to only about \$85 a year, although the unlimited rate for business telephones is still \$240. This average rate of \$85, according to this witness, is the proper rate to be compared with the European charges which are nearly all on the unlimited system. It is replied to this, however, that the average is obtained by counting each separate telephone on the many small private branch exchanges, which have usually only a single line, while European figures ordinarily relate to the separate line service.

Mr. Bethell enters into a detailed discussion of the system in each European country, stating the rates and the nature of the service. He asserts that in no European country has the telephone service been extended as widely as in the United States, and he attributes this fact largely to the government ownership of the European systems. There are 20 American cities with a population of 200,000 or more, and in these, on an average, there are 21 telephones for each 1,000 people. In Europe there are 44 cities of corresponding size averaging only 13 telephones per 1,000 people. The development of the telephone in many of the European countries is confined almost altogether to the capital and a few of the largest cities. To this argument it is replied, however, that the most favorable examples have been chosen for comparison, and figures as to other American cities are given which compare less favorably with those abroad. Great Britain is the only European country in which private operation of the telephone exists, and Mr. Bethell asserts that the Government has so interfered with the operation of the private company in many ways that its success can not be properly compared with that of other systems. The London rate charged by the private company for a business service is \$100 flat, and the residence rate is \$60. It appears that the British Government is on the point of opening a public exchange in London, and has authorized municipalities to establish their own plants. Glasgow is about to install a municipal telephone system.

MUNICIPAL PUBLIC UTILITIES.

Prof. Parsons,¹ in connection with his general argument in favor of Government ownership of railroads and other public utilities, especially advocated the municipal ownership of gas, electric-lighting, and street-railway systems and similar public utilities. Prof. Bemis² also presented arguments in favor of municipal ownership before the commission, while Mr. A. D. Adams,³ a civil engineer of Boston, undertook to show that the municipal electric plants in Massachusetts have worked more satisfactorily than private plants. Mr. Foote,⁴ editor of Public Policy, is inclined to oppose municipal ownership, but to favor the auditing of the accounts of private corporations for the purpose of securing complete publicity and uniformity of accounts.

The argument in favor of public ownership, as stated by the witnesses above named, is based on the assumption that such municipal public utilities as street railways, gas and electric light, and water supply are natural monopolies, and that they furnish such necessary service as to make them essentially public in character. Efforts to maintain competition in furnishing these services, it is held, have failed in almost every city, and they are now supplied by great consolidated corporations. There is even a tendency, these witnesses assert, for single corporations to get control of different classes of utilities in the same city, while in other cases a single corporation controls plants of the same class in many different cities. It is argued that under these circumstances there must either be thoroughly effective regulation of the private corporations operating these utilities, or public ownership.

In support of these assertions these witnesses maintain that the capitalization and charges of private corporations furnishing these services are usually excessive; that there is little or no connection between the capitalization and the actual cost of constructing plants, capitalization being based upon the power to earn dividends at excessive charges. It is pointed out that the statistics show that the capitalization of street railways in Massachusetts, where careful restrictions exist to prevent the watering of stock, is from one-half to two-thirds less than in the other States of the Union. On this subject, however, Mr. Foote says that there are very great differences in the costs of construction in different places, so that comparisons are apt to be somewhat misleading. Professor Bemis declares also that a capitalization of \$3 or \$4 per 1,000 feet of annual product of gas is considered ample to cover the real value of plants, but that the average capitalization of gas companies in large cities in the United States is about \$9 per 1,000 feet.

As regards prices, it is asserted that the statistics of the United States Department of Labor show that the average operating cost of manufacturing gas is only 46 cents per 1,000 feet, while if taxes, depreciation, and interest be added, on the basis of legitimate capitalization, the cost will be brought up to 86 cents, whereas the average price charged by the large gas companies is \$1.14. Witnesses also maintain that the cost of electric lighting by municipal plants is much lower in most instances than the charges made by privately owned plants. Statistical comparisons covering the municipal plants in Chicago, Detroit, and Allegheny and other cities are submitted to prove this statement. An elaborate comparison between municipal and private plants in Massachusetts is made by Mr. Adams. He declares that, if the municipal plants be credited for electric light furnished for public purposes at the average rates paid for public lighting to private companies in Massachusetts towns of corresponding population, it will be found that the municipal plants make earnings, after providing for depreciation and all operating expenses, equal to 12.7 per cent of the actual investment. In all the cities of the State (with a few minor exceptions) having private plants, the earnings amount to only 10.2 per cent of the capitalization, and this witness believes that, because of the regulations of the Massachusetts laws,

¹Pages 123-193, *passim*.

²Pages 86-103.

³Pages 275-285.

⁴Pages 103-123.

the capitalization of these plants represents actual investment. Private plants in cities of smaller population, more nearly corresponding to those having municipal plants, show a still smaller proportion of earnings to capitalization. Mr. Adams believes that these statistics indicate greater efficiency in the operation of municipal plants than of private plants. He also shows that the actual cost of arc and incandescent lights per lamp hour in public plants is very much lower in most instances than the charges of private plants in cities of the same size. These figures are based on a careful calculation of interest and depreciation.

It is also stated there has been a very rapid development in municipal ownership and that it has proved highly satisfactory, charges being reduced greatly and the operation being in many cases thoroughly economical.

Mr. Foote criticises all such comparisons as those above set forth, on the ground that the accounts of corporations and municipalities are kept in such varying fashions as to make the results very uncertain. He asserts that municipal plants frequently fail to take proper account of depreciation and other expenses, and that no allowance is made for the taxes which must be paid by private plants.

It is pointed out by witnesses that municipal ownership of public utilities has advanced much further in Great Britain than in the United States. They assert that the results in that country have been usually very satisfactory; that there is almost entire freedom from corruption and extravagance in the operation of municipal plants; that the conditions of labor have been improved, and that the charges have been reduced. The fact that monopolies can borrow at lower rates of interest than private corporations enables them to introduce improvements even more rapidly than private corporations. The low fares on the street railways of Glasgow are especially referred to as illustrating the advantages of municipal ownership.

Mr. Foote declares that the one object to be gained in the management of public utilities is the greatest benefit to the people. He would favor public operation precisely to the extent that it can be shown that it is more economical to consumers than operation by private corporations. He does not, however, believe that it is possible to obtain the same loyal and energetic effort on the part of public officers and employees as is displayed by the officers and employees of private corporations. He holds in general that the motive of private profit makes a corporation more efficient in its management than a public body, and that, if a proper system of regulation based on thorough publicity of accounts of private corporations should be introduced, the interests of the public could be properly safeguarded, allowing the corporation a reasonable profit on its actual investment. Before public operation is undertaken on a large scale, in the opinion of this witness, a system of uniform and public accounting, both on the part of private corporations and of municipalities, should be introduced, on the basis of which accurate comparisons as to costs of construction and operation will be possible. If then it shall become manifest that private corporations can not be effectively regulated and that public operation will, therefore, be more economical, this witness would favor municipal ownership.

Mr. Foote, for other reasons as well, lays great stress on the desirability of uniform accounting and of supervision and examination of accounts by public authorities, both in the case of private corporations engaged in quasi-public service and in the case of all of the grades of public administration itself. Such a system, he declares, would prevent many frauds and abuses and would permit of accurate comparison between the results accomplished by different institutions. This witness holds, and the others testifying on the subject agree, that the essentially public nature of such enterprises as street railways, electric, gas, and water plants gives to the people the right to demand the most thorough publicity from private corporations controlling them. The experience of Wyoming, which has established a State examiner with power to inspect the accounts of all public bodies and institutions of Massachusetts in regulating gas, electric, and street-railway corporations by means of commissions which

require uniform reports and which have a considerable degree of authority over the issue of securities and over the charges,¹ as well as that of England, are referred to as showing the advantages of this system.

Professor Bemis, in particular, thinks that the steps toward municipal operation should be taken gradually and with caution. The desirability of bettering the political conditions in cities, and the necessity of great improvements in the civil service, are emphasized. Two or three witnesses are inclined to hold, however, that the greater responsibility placed upon municipal governments will in itself tend to improve them. They assert that at present no little corruption in city government results from the interference of private corporations seeking franchises or privileges, while, on the other hand, politicians often exercise a demoralizing influence in the appointment of employees of private corporations performing these services, and otherwise interfere with their successful and economical operation. Were these public utilities operated by the municipality, continues the argument, the citizens would feel the greater importance to their own welfare of good government, and would insist on improvements in political methods, and particularly in the civil service.

Street-railway development.—Hon. Charles Francis Adams, of Boston, who was recently chairman of a commission in Massachusetts of street-railway systems, expresses the belief that the introduction of electricity has so greatly changed the nature of street-railway traffic as to demand entirely different legislation and methods of granting franchises, and different methods of operating railroads from those which have existed in the past. Electric roads will more and more operate between different cities and through rural districts; they will use larger and faster cars and must therefore be usually built on private rights of way and not on the highways as at present; they will tend more and more also to carry freight traffic. Franchises must therefore be granted by State authorities in many instances. The witness thinks that probably indefinite franchises, subject to revocation at any time by proper authorities, will produce less friction than those which expire at definite times. He also states that European street railways are far behind those of the United States, and that whatever progress they make is in the way of copying American methods. He attributes this in part to the undue restriction upon the private companies imposed by municipal authorities.²

RAILWAY LABOR.

The subject of railway labor is discussed almost exclusively, so far as the present volume is concerned, by Mr. Fuller,³ the legislative representative of the brotherhoods of railway employees. For statements of railway officers as to labor conditions reference should be made to Volume IV of the Reports of the Industrial Commission (Transportation).

Conditions of entering employment—Blacklisting.—Mr. Fuller states that some of the rules of the railways as to the terms of entering employment are very unjust. In some cases, despite legislation prohibiting it, the railways discriminate against labor organizations. They frequently require severe physical examinations, and reject applicants for minor defects often caused by injuries received in faithful service. The witness especially complains that the practice of blacklisting still exists, although perhaps slightly reduced in extent by legislation. After the great strikes of 1894 many employees were blacklisted. At present, according to this witness, it is the practice of the railroads, before engaging a man, to write to his former employers as to his record, giving him in the meantime, perhaps, a probationary employment. Railway officers, he asserts, often pursue their former employees vindictively purely

¹ See especially testimony of J. F. Jackson, pp. 842, 843.

² Pages 8-71.

³ Adams, pp. 826-830.

on personal grounds. Mr. Fuller thinks that legislation should be enacted prohibiting railroad companies from furnishing any record of an employee to another company, whether by private letter or otherwise.

Mr. Fuller also believes that railroad officers often treat their employees unjustly in the matter of discipline and discharge, and that legislation should provide that employees be permitted to see and hear evidence against them, and that specific reasons in writing should be given for their discharge.¹

*Relations of employers and employees.*²—Mr. Fuller states that the more skilled railway employees are organized in strong brotherhoods, some of which include nearly all of the employees on many railroads. By means of these brotherhoods much better conditions of labor have been obtained. The less strongly organized employees, like the telegraphers, have lower wages and worse conditions. Railroad companies usually deal with the officers of the brotherhoods regarding wages and other conditions of labor, and often enter into joint written agreements. These organizations have tended to reduce the number of strikes and to make their conduct more peaceful. The witness thinks that the judiciary has often been unjust in the treatment of railway employees in connection with strikes, and that unfair advantage is taken by the railroads of the fact that they transport the mails.

Mr. Fitzpatrick,³ of the Brotherhood of Railroad Trainmen, testified before the commission in April, 1900, regarding alleged discriminations on the part of the Reading Railroad Company against organized labor. He stated that this company had always been opposed to the railroad brotherhoods and had refused to deal with their officers. The employees of the railroad have not generally been organized, though a few have secretly belonged to the Brotherhood of Railroad Trainmen. Shortly before the witness's testimony, he declares, a number of these members were discharged by the railroad, and also a number of men who were about to form a new lodge at Shamokin. The officers of the Reading Railroad refused to discuss with the men the reason for their discharge. They also stated to the Industrial Commission that they had no affidavits to present on this subject.

Employers' liability.—Mr. Fuller asserts that the common-law doctrine regarding employers' liability, as interpreted by the American courts, is particularly unjust to railway employees. In a few States legislation has been enacted which extends the liability of railroads somewhat, particularly providing that certain classes of employees shall not be considered fellow-servants in the determination of liability. The witness believes that these laws do not go far enough. The common-law doctrine, which exempted the employer from liability for injuries caused by the acts of fellow-servants, has, in the opinion of Mr. Fuller, become absolutely unjust under present conditions where the employee knows nothing of the character of the hundreds and often thousands of fellow-employees, many of whom, especially on railways, are engaged in entirely different branches of the service from himself. The witness cites numerous decisions of the courts, particularly in Pennsylvania, holding various classes of employees to be fellow-servants rather than vice-principals of the employer. He believes that there should be no discrimination between passengers and employees as regards the liability of railroads for injuries. The laws and court decisions in different States are exceedingly conflicting and unintelligible, and Mr. Fuller holds, therefore, that Congress should enact legislation greatly extending the liability of interstate railways for injuries.⁴

Railway relief associations.—Mr. Fuller makes an elaborate attack upon the system of relief departments maintained by several railroads, notably the Pennsylvania, Baltimore and Ohio, Reading, and the Plant System. These departments are supported in whole or in large part by the payments of employees, deducted from their salaries by the companies. They pay benefits in case of injury or death from accident. The witness asserts that while membership in these organizations is claimed by rail-

¹ Fuller, pp. 10-17.

² Fuller, pp. 10, 11, 69-71.

³ Pp. 833-840.

⁴ Fuller, pp. 35-41.

way officers to be voluntary, it is, in fact, practically compulsory. The forms of application for employment on two of the railroads, submitted in evidence by the witness, make membership in the relief department a condition of entering employment, while replies from numerous lodges of railway employees on these railroads assert that those who were in service at the time the system was started were put under pressure to become members. Similar replies from organizations on the railroads, which do not absolutely require membership in the relief department as a condition of employment, assert that the applicant is virtually given to understand by the oral remarks of officers that he must join the department. The secretary of the Chamber of Commerce of Pittsburg, however, asserts that membership in the relief department on the Pennsylvania lines is entirely voluntary.¹

Mr. Fuller especially complains that it is unjust for the railroads to require, as they invariably do, that the employee who accepts compensation for injury from the relief department must sign a contract to exempt the railroad company from all other legal liability for damages on account of injuries. He asserts that the one motive of the railroad company in establishing these departments is to save money by freeing themselves from damage suits. The employees, he says, pay at least five-sixths of the cost of insurance, and sometimes all of it, and it is unjust, therefore, that they should be required to release the railroad company from financial liability. In support of his statement regarding the cost of insurance in these departments the witness compares in detail the rates charged by the Plant System for insurance in its relief department with those charged by an old line accident insurance company and those of the Brotherhood of Locomotive Engineers. These comparisons tend to show that the Plant System charges much more for equal benefits than either of the organizations compared.

Mr. Fuller further asserts that the system of relief departments is strongly opposed by railroad employees, and particularly by the organized brotherhoods. The employees feel that the system is not only unjust in the particulars already mentioned, but that it tends to prevent membership in the brotherhoods, since the employees can not afford to carry two policies of insurance, while some of the brotherhoods require that members shall take insurance. Moreover, it is asserted that the employee who has contributed to a relief department, and who will lose the benefit of insurance if he leaves employment, is more dependent upon the railroad company and less able to push demands for better conditions.

In support of his argument on this subject the witness submits many resolutions from railroad organizations and extracts from their journals, together with a tabulation of replies from the local lodges of the Brotherhood of Railroad Trainmen along the Baltimore and Ohio and Pennsylvania railroads, to a schedule of inquiries covering many of the above points.²

CONDITIONS OF LABOR IN WATER TRANSPORTATION.

*Ocean and coastwise transportation.*³—In the preceding volume on transportation (vol. iv, pp. 685 ff) the testimony of the representatives of the ocean sailors' organization, the International Seamen's Union, is given. In the present volume a small amount of testimony is given by another officer of the same organization, Mr. Penje, while representatives of the two leading coastwise steamship companies—Mr. Hayne, of the Merchants and Miners' Transportation Company, and Mr. Guillaudeu, of the Old Dominion Steamship Company—testify particularly with reference to conditions of labor in their employment. These two witnesses assert that the conditions in the coastwise trade are generally more satisfactory than in the transoceanic traffic,

¹ Hayne, pp. 414-425; Guillaudeu, pp. 422-451; Penje, pp. 408, 409.

³ Fuller, pp. 43, 52-68.

² Anderson, p. 637.

and that most of the conditions which the Seamen's Union desires to have required by legislation are already equaled or excelled by the conditions on these vessels. The men are employed under written contract, which is read over to them when they sign it, and coastwise vessels find little difficulty in securing help. The sailors are engaged by the month, but may leave at any port immediately after the ship lands. The shipping articles contain a provision to protect the sailors against unfair results from too strict enforcement of contract on the part of the employer. These witnesses also assert that sailors have ample remedy in the courts for any violation of contract or abuses.

The wages of common sailors in the coastwise trade are stated by these officers to be usually \$25, those of firemen \$40, and of coal passers \$30. The representative of the Seamen's Union also says that wages are about \$25 for seamen as compared with \$20 in England. Under the law of the United States, only American citizens may be employed as officers, but it is stated that the lower grades of employees on vessels are usually foreigners, especially Scandinavian, and that the sea life has less attractions for Americans than formerly.

One witness suggests the desirability of amending the laws of the United States as regards larceny committed on vessels.¹

The representatives of these coastwise lines state that the work of loading and unloading the vessels is done wholly by stevedores and not by men employed on the vessel. In the South most of the stevedores are negroes. Wages in Norfolk and other more Southern ports are about 15 cents per hour, and in Boston and most Northern ports 20 cents per hour, although in New York the Old Dominion Company pays 25 cents per hour.

Labor on vessels on the Great Lakes.—Mr. Penje, the secretary of the Lake Seamen's Union,² asserts that the members of that organization, about 3,000 in number, are chiefly employed on schooners, the organization having little control over the employees on steamers on the Great Lakes. On the schooners the members are mostly all officers and skilled seamen. According to this witness most of the work on these vessels, and even on steamers, is done by deck hands, who are far from being skilled laborers, and who are more and more replacing the old skilled seamen. The conditions of labor on the lakes are so bad that competent men have sought other occupations. The deck hands are largely men who can find no other employment, and who remain on the vessels only as long as they are forced to, often quitting at the first port they touch. This witness asserts, further, that the wages of seamen under this competition of deck hands have declined. Ten years ago they sometimes reached \$4.50 per day toward the end of the navigation season, but in 1900 they began at \$1.50 and ended at \$2.75 per day, the average income for the season being about only \$300. The wages of deck hands have increased from about \$15 to \$20 per month. The hours of labor are stated to be excessive, both for seamen and deck hands. It is said that men often have to work 24 hours at miscellaneous labor and afterwards 6 hours at the wheel.

Mr. Penje complains, further, that the quarters of sailors and deck hands are too crowded, especially on the older vessels, and that in practically all cases they are so dirty and ill kept as to be entirely unfit for human occupation. The food is also said to be very poor. The contracts call ordinarily for a cost of 7 cents per meal, and the supply is insufficient if the vessel is detained beyond schedule time. This witness also asserts that both sailing and steam vessels on the lakes are very generally insufficiently manned, and that smaller vessels are recklessly overloaded, these practices resulting in great danger to employees and to passengers when they are carried.

*Longshore work on the Great Lakes.*³—The conditions of labor on the docks of the

¹ Hayne, pp. 414, 415, 421; see also his supplementary statement, p. 824.

² Penje, pp. 400-402.

³ Barter, pp. 806-817.

Great Lakes seem to be very much more satisfactory than those on vessels. Mr. Barter, the secretary of the International Longshoremen's Association, which has its strength chiefly along the Great Lakes, declares that there has been a very great improvement in the condition of longshoremen there during the past few years, and attributes it almost wholly to the development of that organization. The association has about 20,000 or 25,000 members on the lakes, while there probably are not more than about 1,500 nonunion men engaged in longshore work. This witness thinks that wages have risen 50 per cent since the organization was formed—in 1892. It has won the respect of the dock managers, and is more and more replacing the old system of contract work in loading and unloading vessels by a system under which the local unions undertake to do the work cooperatively. Under the old system the boss stevedore or contractor was often a saloon keeper, who expected the men to spend much of their wages on liquor. Wages were extremely low, and there were many serious abuses. At present the International Longshoremen's Association has an annual agreement with the managers of the ore and coal docks on Lake Erie, providing for uniform rates of wages and conditions of labor for the loading and unloading of vessels directly by the union. This agreement also provides for the arbitration of disputes.

The wages of longshoremen are stated to range from 30 to 60 cents per hour, the work of course being confined chiefly though not wholly to the navigation season. Under the agreements with dock managers the hours of labor are usually limited to 12. The secretary of the Longshoremen's Association maintains that the character of the men has greatly improved under the influence of the organization. Formerly there was a great deal of drunkenness, and physical contests between gangs under different boss stevedores were frequent. The union now has strict rules against the use of intoxicants during work, and the men enforce these rules vigorously; while the recognition of the union and its scale of wages has done away with the broils which formerly occurred.

MISCELLANEOUS EVIDENCE.

A considerable amount of evidence regarding other than transportation matters is submitted by various witnesses in this volume. For a summary of their evidence regarding most of these minor topics, reference should be made to the digest, pages CCLXXXIX-CCLXXXVII. A few of the more important subjects may be briefly discussed here.

Capitalization and promotion of corporations.—Mr. Greene, of the Audit Company of New York; Mr. Rice, a promoter of corporations, and one or two other witnesses discuss this subject somewhat fully.¹ Mr. Greene asserts that earning power is in general a proper basis for capitalization, and that there is a "good will" in connection with every prosperous business which makes it worth more than the mere tangible value of the plant and property. Tangible value may properly be represented by bonds or preferred stock, and the remaining certain or possible earning capacity by common stock. At the same time this witness thinks that it is a mistake for a corporation, because of unusually high earning capacity, to water its stock. It would be more desirable that it should simply increase dividends. Mr. Rice thinks that the amount of capitalization of a corporation, so long as it is in stocks, is unimportant, since the market will discover its real value. Overcapitalization in bonds, however, leads to bankruptcies.

These witnesses also discuss the subject of publicity in regard to the organization and promotion of corporations. They think that some legal regulation would be perhaps desirable, but assert that business men themselves are taking more and more pains to protect themselves in their investments in corporations. These witnesses

¹ Greene, pp. 476, 482-491; Rice, pp. 732-735, 740; Woodlock, pp. 466.

scarcely think it necessary that the reports of corporations at their inauguration should show separately the costs of promotion, which must necessarily vary greatly according to the conditions.

Mr. Rice refers especially to the exploitation of patents, with which he has been intimately connected. He says the capitalization of a company based on an undeveloped patent must necessarily be fixed solely on the basis of the anticipated profits. The preferred stock should be issued to obtain cash for actual development, and the common stock should represent the estimated value of the patent as such. The witness thinks that the granting of patent monopolies is a great benefit to the public. He alludes especially to the experiences of the Consolidated Rubber Tire Company regarding patents.

Publicity of corporations and protection of stockholders.—The witnesses¹ just referred to discuss also the desirability of requiring greater publicity of the affairs of large corporations generally. They are all inclined to agree that some added legal requirements as regards publicity, both at the time of the establishment of corporations and from year to year thereafter, would be desirable, although they do not favor making public too much information, especially regarding corporations engaged in competitive business. Mr. Greene, in particular, thinks that in many cases the best way to protect the public would be by requiring the examination of corporations by expert auditors, who should make only the general results of their examinations public. This witness also discusses in some detail the precise nature of the information which might properly be set forth in public reports.

Mr. Greene and Mr. Woodlock (of the Wall Street Journal) likewise discuss the rights of stockholders in corporations.² They assert that in general the rights of stockholders, even those of minority stockholders, are relatively well protected by existing laws and court decisions. They see no reason why a bona fide stockholder should not at all times be permitted to see lists of all the stockholders; but they assert that stockholders should not have the right to demand access to all of the financial accounts of corporations, because this would give competitors and enemies of corporations the opportunity, by buying and becoming holders of a small amount of stock, to get information regarding their affairs.

Export prices.—Mr. Greene and Mr. Howes (of the Boston Chamber of Commerce) think that the practice of American manufacturers in selling goods abroad at lower prices than at home, in order to get rid of a surplus, is entirely justifiable, and that the same practice is followed by manufacturers in all countries.³

Reciprocity with Canada.—Mr. Howes⁴ presents a somewhat extended argument in favor of a reciprocity treaty with Canada. He declares that Canada is even now the very best customer for the products of the United States, and that the two countries are naturally almost an economic unit. He maintains, however, that because of the existence of tariff barriers against the sending of Canadian goods into the United States, Canada not only retaliates with other protective duties, but is in general disposed to carry on trade with England and other countries as much as possible in preference to the United States, and that a greatly increased trade with this country would result from a reciprocal reduction of duties. Mr. Howes thinks that free entrance of coal from Nova Scotia and British Columbia would be of great benefit to New England and the Pacific coast States, while our Middle States could export large amounts of coal to Canada. The lumber interests are those which are the most strongly opposed to letting down the tariff barriers, but this witness thinks that it would be a great advantage to New England especially if she could get free lumber from Canada.

Grain elevators and inspection.—The subject of grain elevators and the alleged

¹ Greene, pp. 492, 479-492; Woodlock, p. 466; Rice, p. 736. ² Greene, pp. 484, 487, 494; Howes, p. 716.

³ Greene, pp. 477, 478; Woodlock, pp. 466, 467.

⁴ Pages 713-718.

monopoly in some of the Western States was discussed with considerable fullness in the first report of this commission on transportation. (See Vol. IV, pp. 77-88 of Digest.)

In the present volume Mr. Teisberg, of the Minnesota Railroad and Warehouse Commission, enters somewhat into the subject. He does not think that there is anything in the nature of a combination of elevators in Minnesota, or an agreement to fix the prices of grain. He says that by virtue of the law of that State, giving any person the right to take land on a railroad right-of-way by condemnation for the purpose of building an elevator, many independent elevators have been established, and that moreover farmers can often load their grain directly into the cars. This witness also discusses the system of grain inspection under the Minnesota law, as well as the practice of mixing different grades of grain.¹

¹ Pages 367-371, 372.

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TOPICAL DIGEST OF EVIDENCE.

I. RAILWAY FINANCES GENERALLY.

(See also *Inspection of accounts*, p. CLXX.)

A. Capitalization of railroads (see also *Capitalization of corporations*, p. CCLXXII).—1. *Are American railways overcapitalized?*—Professor RIPLEY says that in some roads the capitalization is greatly swollen and in some roads it does not represent more than actual investment. In some roads capitalization covers not only the first cost, but all improvements in the road. In others it does not. The old Chicago and Alton, for instance, was so conservatively financed that the capitalization represented only 60 per cent of the value of the property. The relation between the capitalization of a road and the value of its property should lie at the basis of the determination of what rates are reasonable. A road is not always entitled to earn a living interest in dividends upon its capitalization, because a part of that capitalization may be fictitious. (291, 292, 306.)

Professor Ripley says that while the selling of bonds at a low figure to persons who carry through a deal and the reselling of these bonds at a high figure is not technically stock watering, yet it has the same effect. He cites the case of the Chicago and Alton. Its volume of securities was increased from about \$42,000,000 to something like \$120,000,000, a large part of the increase going in profits to the persons who had the deal in charge. (304.)

Professor PARSONS asserts that the tendency of the great railway corporations is to build up capitalization all the time, adding together the cost of the original plant and the cost of all improvements, reconstructions, etc., until, even with honest book-keeping and without any stock watering, the capitalization comes to be 2 or 3 times the worth of the plant, and the face value of the stock and bonds of these corporations is very much more than the cost of the plant or what it could be duplicated for. In all the corporations there is more or less watered stock.

The system of watering railway stocks originated with Vanderbilt when he consolidated the various railway properties now constituting the New York Central system and increased the capitalization from \$54,000,000, which was a little more than the actual cost of the roads, up to \$103,000,000.

The total capitalization of the railways of the country is a little over \$60,000 a mile, while the cost of reproduction would be under \$30,000 a mile. The cost of reproduction of a plant is a fair test of what it should be capitalized at. There is a total difference of policy under governmental ownership, where there is no water or inflation, but exactly the opposite policy of reducing the capitalization from year to year. One of the reasons given by the Swiss Federal Council for going over to public ownership was that they were surrounded by countries that were aiming to reduce rates to the least possible figures, and that the Swiss roads would pile up the capitalization so high that they would not be able to compete. (154-155.)

Mr. TEISBERG, secretary of the State railroad and warehouse commission of Minnesota, states that a district court in his State found that the cost of reproducing the Great Northern road, some 1,385 miles, in Minnesota would be an average of \$32,000 per mile. About one-third of this amount was the cost of the terminals. The supreme court found this to be exorbitant. (365.)

Mr. SCHIFF, of Kuhn, Loeb & Co., bankers, does not believe there is such a thing as excessive capitalization. The market value of the stocks and bonds of one transportation company adapts itself to that of another company which may have an entirely different capitalization. The market value of competing lines adapts itself to a relative level, whatever the capitalization. In the case of the acquisition of the securities of one road by another there is not necessarily any danger that the purchase may be made at a high figure, which may afterwards be carried in the capitalization of the two roads. That would depend upon the good judgment of the railroad managers. During the past year or two acquisitions of this sort have been made

on much lower figures than now exist. The worth of a stock is its earning power. Every other value given is speculative. If a road overissues stock on presumptive earnings or extensions or by vote of the board of directors the water in the issue is nearly always practically eliminated by the rating which the market puts on the stock itself. Very few companies or boards of directors can increase their capital stock without a vote of the stockholders, and any unjust increase would necessarily be done by the owners of the property themselves. Every intelligent shareholder nowadays acts independently, and if anything is proposed by the larger shareholders that is not approved by the smaller ones they make themselves very readily and very forcibly heard.

As a general proposition it would be impossible to say offhand whether it would be a proper proceeding for two roads, each of which had a fair capitalization, to combine and double the total capitalization of the two roads in the new line. (772-776.)

Mr. THOMAS, president of the Erie Railroad, asserts that the capitalization of American railroads is low as compared with that of English roads. Some of the English roads have a capital of \$350,000 per mile. There is a cry against the Erie Railroad because it has a bonded debt of \$70,000 per mile, but the property could not be reproduced for the amount of that debt with a very large sum in addition. The witness doubts much the correctness of estimates as to the cost of building railroads, while the value of terminals is a very important factor. Besides its bonds, the Erie Railroad, according to Mr. Thomas, has \$43,000,000 of first preferred stock, \$16,000,000 of second preferred stock, and \$100,000,000 of common stock. The Erie has been through several bankruptcies, which have reduced the rates of interest and fixed charges. The witness does not assert that the stock has been reduced by reorganizations, but says that the amount of stock makes no difference if no dividends are paid upon it.

Mr. Thomas does not think either that heavy capitalization of a railroad tends to increase the speculation in its securities. The contrary is probably the case. (551, 559.)

Mr. WOODLOCK, railroad editor of the Wall Street Journal, does not believe that American railroads generally are overcapitalized. The stocks and bonds of American railroads combined average only \$61,000 per mile of road. This is an increase of about \$8,000 above the figure 15 years ago. In some instances, however, recent reorganizations of railroads have increased securities unduly. This was the case, for example, with the Richmond Terminal, the Erie, the Reading, and the Chicago and Alton. Various junior securities have been issued which could not be expected to get any dividends. Thus Mr. J. P. Morgan, in most of his reorganizations, estimated the minimum earning capacity and based the fixed charges, going to bonds and preferred stocks, on that, but as regards securities dependent upon future prospects people could pretty much help themselves. (456.)

Mr. Woodlock says that the capitalization of British railroads is between \$220,000 and \$240,000, per mile, as compared with \$61,000 per mile for American roads. When British roads were being built, from 1840 to 1850, land was worth a great deal more than it is here, and more than it is worth in England now. Moreover, the English roads have capitalized every amount, however small, which has gone into improving the lines. Mr. Woodlock seems to imply that the policy was intentionally to increase capitalization as much as possible. The best English roads pay from 5 to 7½ per cent dividends on this high capitalization. (461.)

2. *Proper basis of capitalization* (see also under *Taxation*, p. CLXXXIX).—Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that the question of the proper basis for capitalizing a railroad is the hardest problem that was ever propounded to him. He does not see how the physical value of the property can properly be disregarded, and yet the public and the financiers appreciate a property only for what it will earn. The value of a property and the value of a franchise are two different things; but Mr. Talcott thinks, apparently, that both should be considered in fixing a value or in fixing a capitalization. (635.)

Mr. Woodlock does not believe that overcapitalization has any effect on earnings or rates. Earning capacity is the final test of capitalization itself. All other influences tend to favor overcapitalization, but earning capacity tends to keep it down. Rates of transportation are governed by conditions into which capitalization does not enter at all.

Mr. Woodlock does not agree with the position of the Interstate Commerce Commission that in estimating a reasonable rate the original cost of the road should be considered. It is fairer to consider as a basis the cost of duplication, including not merely the physical plant, but the terminals, the acquisition of business, and everything which makes an operating railroad. The cost of duplication is a very different thing from the original cost. Railroads have naturally become very valuable because

of the growth of population, which in many cases has been the result of the presence of the railroad, and which has increased especially the value of land for right of way and for terminals. Moreover, large amounts of money have been diverted from earnings for the improvement of the railroads, and often no account has been made of this fact in the capital investment.

Mr. Woodlock believes, in fact, that the existing capitalization of railroads in general represents no more than the actual cost of the roads. The cost of a road includes many matters not strictly of construction. For example, there is the discount on bonds in many cases, which must be considered a part of the cost. It is true that sometimes contracts for construction are given to construction companies, often composed of officers of the road, at very high figures. But after the whole road is laid it is not finished. Money must be spent on it for years.

Mr. Woodlock concludes with the statement that the capitalization of the railroads as compared with modern industrial combinations is, in general, exceedingly conservative. In some instances railroads have been capitalized at an absurdly low rate. (456-458.)

3. *Stock dividends.*—Mr. SCHIFF testified that as a general proposition he does not believe stock dividends are advisable, but there may be exceptions if the stock dividend represents cash value or earnings actually retained in the course of years from the shareholders. He says:

"For instance, if I own to-day a line of road from New York to Albany, and want to build a branch, say, from Albany to Saratoga, and if, instead of issuing new capital, I take my earnings, or the earnings of the shareholders of the company, to build that new road with, I should be justified, after that road is completed, in returning to the shareholders their money which has been used for new capital in the form of new shares." (774.)

4. *Depreciation in value of property.*—Professor RIPLEY says that, in computing the value of the tangible property of railroads in Michigan, consideration is taken of depreciation in value over first cost. In addition to figuring out the cost of duplication, the worth of the road for scrap is also estimated. For instance, the cost of the steel rails used by the railroads is estimated, how much those rails are worth as scrap, and how long is their normal life. If the normal life of the rail would be twenty-five years, the assumption is made that one twenty-fifth of the difference between the cost of the rails and the scrap disappears in each year. Then if the road has been built for three years, three twenty-fifths of this difference in value should rightly be deducted in order to determine how much the road is worth at the present time. (306.)

5. *Betterments of railroads.*—Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that the cost of additional facilities for handling business is charged by some Southern roads to operating expenses, generally with a note that the amount has gone for betterment, and by other roads, if the improvement is of any magnitude, to the construction account. New equipment is generally paid for out of earnings, because the usual way to buy it is on the car-trust plan, making payments monthly or quarterly. (635.)

6. *Capitalization of the Chicago and Alton Railroad.*—Mr. WOODLOCK speaks especially of the Chicago and Alton Railroad as an illustration of modern methods of railroad financing. For eighteen or nineteen years, until very recently, the road did not increase its capitalization nor extend its lines. It paid dividends of 7 or 8 per cent on its common stock regularly. Its net earnings were about \$2,900,000 per year. The road had \$22,000,000 of stock and \$8,000,000 of bonds. The interest on the bonds and rentals required \$1,100,000 yearly, leaving \$1,800,000 for dividends. Mr. Harriman finally bought out the road, paying \$175 per share for common stock and \$200 per share for preferred stock, the entire stock costing him more than \$40,000,000. He knew that a first charge on the net earning capacity of \$1,800,000 could be floated at 3½ per cent interest or less. Accordingly he issued more stock and bonds, so that the present capitalization is \$54,000,000 of bonds, partly 3 per cent and partly 3½ per cent, and \$40,000,000 of stock. Mr. Woodlock contends that the road is perfectly able to pay interest on the bonds and dividends on preferred stock. Mr. Harriman made, of course, a very considerable profit. He bought it on practically a 5 per cent basis. It is believed that the syndicate which bought up the road made a profit of 16 or 18 per cent, but there were other profits not going directly to the syndicate. The railroad has meanwhile increased its length by buying up a short line, increasing the mileage from 847 miles to 900.

Mr. Woodlock contends that the capitalization of the Chicago and Alton is scarcely excessive, as regards its effect on rates, for the reason that, though there is plenty of money available for profitable enterprises, no one proposes to build another road from Chicago to St. Louis. Another road could not make lower rates than those existing. There was a project to build a short line, known as the St. Louis and

Northern, up to Chicago. The other railroads did not want another Chicago line; there was no need for it. They simply bought it up, and the Alton now owns this line. Nevertheless the witness thinks that those who buy Alton common stock at 40 are likely to get left. (458-460.)

Mr. SCHIFF declares that the recent financing of the Chicago and Alton road by his firm was simply a readjustment and not a reorganization. The old organization had become so heavy that it was impossible to expand the possibilities of the road, and the stockholders decided they would readjust the finances of the company. His firm were large stockholders. The charges for dividends and interest in the new corporation do not vary 5 per cent from the charges and dividends of the old corporation. He is not aware that the capitalization was increased from about \$30,000,000 to something over \$100,000,000, including stock and bonds. He remembers very clearly that under the old financing the charges for dividends and interest were something like \$2,600,000 and under the new scheme they were only something like \$2,700,000, notwithstanding the fact that about \$10,000,000 new money had gone into the road. The amounts of stock and bonds were increased, but the dividends, which for 30 years had been 7 per cent, were reduced to 4 per cent. There is no more temptation to increase dividends from 4 to 6 per cent than would have existed before if it had increased the old dividend from 7 to 10 per cent and it would not necessarily excite public comment any more to do so. (775, 776.)

7. *Financing of the Kansas City, Pittsburg and Gulf Railroad.*—Mr. WOODLOCK speaks especially of the financing of this road. It was started by Mr. Stilwell, who aimed to build a line directly from Kansas City to the Gulf of Mexico, establishing a deep-water port on Sabine Lake, with a ship canal from the Gulf to the lake. He raised the money for the road mainly in Amsterdam. The terms of the mortgage permitted the issue of bonds at the rate of \$25,000 per mile, both for main track and for yard and terminal tracks. Whenever the road found itself in need of money it would lay five or six tracks alongside the main track, call it a yard and get \$25,000 per mile of bonds. Ninety or 100 miles of such unnecessary yard track were laid. These bonds were mostly sold at from 65 to 70 cents on the dollar, and an equal amount of common stock was thrown in as a bonus. It was obvious that the property could not bear such heavy capitalization and it finally went into bankruptcy and has been reorganized. (461, 462.)

8. *Effect of high capitalization on price of stocks.*—Mr. WOODLOCK points out that stock bearing a low interest sells at a relatively higher price than one bearing high interest. If a 6 per cent income is divided between a 4 per cent stock and a 2 per cent stock, the two can be sold for much more than a 6 per cent stock, because there are always "prospects." (400.)

B. Regulation of capitalization.—1. *Generally.*—While Mr. WOODLOCK does not believe that overcapitalization is likely to have any special effect upon the public as regards rates, he does believe that it may injuriously affect speculators and investors. At the same time it would be very difficult to protect them. The investor refuses to be protected; "He wants to gamble." Mr. Woodlock seems to hold that it would be a good thing to have Federal legislation, effectively enforced, restricting capitalization of railroads closely to actual investment. The Massachusetts legislation on this subject and the English legislation are both good and should be either enacted in a general way by Congress or woven into the interstate-commerce law. (460-462.)

Notwithstanding his statements that American railways are not usually greatly overcapitalized, Mr. THOMAS thinks that legislation should restrict excessive issues of securities by railroads. This would be advantageous both to the railroads and to the public, certainly much more advantageous than regulation of charges and other interference. Corporations should be controlled chiefly through their financial machinery. The witness would approve the extension of the powers of the Interstate Commerce Commission in this direction. (551, 559, 560.)

2. *Massachusetts law.*—Professor RIPLEY says that the corporation laws of Massachusetts are so strict that no railroad in Massachusetts can issue a dollar's worth of stocks or bonds, can lease another road, can build another spur of side track or do anything of that kind without getting the prior approval of the railroad commission. The result is that the roads feel that unless they accede to the recommendations of the railroad commissioners in matters of rates it will happen that, when they wish to carry through some financial operation, the railroad commission may withhold its consent. The railroad commission is not empowered to determine rates, though some years ago, when the Housatonic Railroad refused or neglected to comply with a recommendation of the commission for the reduction of rates at certain points, the commission reported the facts to the general court, which was then in session, and the general court immediately authorized the railroad commission to fix rates on that road.

Under ordinary conditions the power possessed by the railroad commission which enables it to pass upon all financial operations is sufficient for making the railroads acquiesce in such suggestions as are made. Such power in the hands of the Interstate Commerce Commission over interstate roads would give to it the hold over those roads which the Massachusetts railroad commission now has over Massachusetts roads. The Massachusetts corporation laws also operate to prevent stock watering and to hold down capitalization. The law specifically says that no corporation shall issue stock except to the amount of actual investment in tangible, physical plant, and Massachusetts corporations do not incorporate for anywhere near the aggregate amount of par value of stock and bonds per mile which is customary in other parts of the country. (292, 293.)

Mr. F. JACKSON, a member of the Massachusetts State Board of Railroad Commissioners, says that the policy of the board in respect to capitalization is one of restriction. Its theory is that it is right that the people who furnish the income to the stockholders in the way of rates should pay profits only upon actual expenditure. The statute describes the purposes, in a general way, for which stock and bonds may be issued. Then the board has to decide whether the particular purposes of the company fairly fall within the general purposes as described by the statute. Next it decides the amount of capital which is fairly required for that purpose. If a street railway desires to equip its road the board has a skilled expert to determine what the fair cost of such equipment would be; if a road is to be built, the board has an expert engineer examine into the cost of construction; if real estate is to be bought, the board determines the fair amount to be paid for the property.

There is a statutory distinction and there are distinctions in practice between bonds and stock in fixing the amount of capitalization. The bonds must not be in excess of the capital stock, and, in practice, the board never allows bonds to be issued until the enterprise has reached the stage of completion. Before approving an issue of mortgage bonds the board examines the assets and liabilities of the railway or railroad, determines the value of the property, and sees that it is at least equal to the amount of the outstanding capital and indebtedness. In determining the value of the property the board does not take into account the value of the terminals. (843, 844.)

Mr. JACKSON says also that stock and scrip dividends are prohibited by statute in Massachusetts. (844.)

3. *Minnesota law.*—Mr. TEISBERG, secretary of the State Railroad and Warehouse Commission of Minnesota, says that an act was passed in his State in 1887, requiring that all stock issued by new railroad companies should be fully paid, and that no increase of stock should be made without the consent of the Railroad and Warehouse Commission. Since that time the witness believes that 3 applications for permission to increase capital stock have been made. All have been granted, after full hearing. The regulation of stock issues does not apply to the Great Northern Company, which holds a charter dating from 1856, nor to the Northern Pacific. It applies only to a few roads incorporated under the general incorporation law. (365.)

4. *Sinking funds.*—Mr. RIPLEY says that the only difficulty he sees in the proposal to require roads to set aside a sinking fund to liquidate their bonds is that the status of those sinking funds would be highly complicated if the roads went into the hands of a receiver before the final burden of the securities was paid off. (306.)

C. Bankruptcy and reorganization of railroads.—1. *Effect on capitalization.*—Mr. GREENE, of the Audit Company of New York, says that the same causes which make hard times in manufacturing business make hard times for the railroads, so that bankruptcy and reorganizations are more or less periodical, depending on the fluctuations in business.

It is not always true that railroads with heavy capitalization are most subject to bankruptcy. It depends on the situation of the corporation and the nature of its business. It can not be said that the reorganizations of recent years have usually resulted in cutting down the aggregate volume of the securities of the railroad companies. They have generally reduced the bonded indebtedness, or in any case, on account of the lower rate of interest, reduced the fixed charges upon bonded debt. In not a few instances the stocks have been increased. Often preferred stocks have been created, sometimes in place of a part of the former bonds. It is one of the objects of recent railway consolidations to enable the companies to earn some interest on these preferred stocks, which, while they have no legal claim upon the earnings, have a moral claim. Nevertheless an increase of securities of this kind is a less serious burden upon the corporation than an increase of bonds. The bonds must be within a reasonable limit or bankruptcy will some time occur.

The usual way in which reorganization is effected is by a meeting of persons who either own or control a large portion of the bonds. They often act in connection with a friendly receiver of the railroad. They study the situation to find out what the road

can do, and how its earning capacity can be increased, and ascertain where money can be obtained. They have to decide what bonds can be scaled down and what exchanged for preferred stocks. The witness does not think that these committees, while apparently self-constituted, are able to endanger the interests of minority stockholders. The courts are more and more inclined to protect the minority. They have felt that the first consideration was to preserve the public service of the railroad. For this reason they have tried to keep the various railroad systems together in the case of reorganization, instead of allowing them to become broken up into separate roads, with varying classes of obligations and securities. This is the policy of the courts during the receivership and in connection with reorganization movements. The managers of railroads often take pains to have receivers appointed who are not hostile to their interests. There may be abuses by receivers, but to the honor of the courts there has been little complaint on that score. It is true that in deciding, in connection with reorganization, whether some lines shall be dropped or others retained, the interests of members of the reorganization committee in the separate lines may be a factor, but generally the real interests of the entire system are considered. Some branches are merely suckers instead of feeders, and these are generally cut off. If the minority feel themselves injured by these processes, they have recourse readily to the courts. (487, 488.)

Professor RIPLEY says that most of the reorganizations which have been had, although intended to cut down capitalization, have had exactly the reverse effect. While the road comes out of the reorganization with a lessening of its fixed charges, the aggregate par value of stock and bonds is, however, almost always greater than it was before. The Atchison road, which has been reorganized three times since 1889, has, after each reorganization, had a greater capitalization. The reason for this increase in capitalization seems to be that persons who are represented by all of the eight or ten different securities resting on a given line are not willing to accept in place of their securities others of a lower par value than those which they formerly possessed. The result is that many people are satisfied to get a large amount of stock in par value which does not sell for much on the exchange, rather than get a few shares of something which perhaps will sell higher. They all wish to be remembered in the organization by a certain amount of stock which they hope will go up toward par later.

Reorganization is generally intended to wipe out the complexity which results from a large number of different classes of securities. In the case of the Union Pacific reorganization, perhaps two or a single class of securities applied over the whole line. By the reduction of the number of classes of securities, the problem of determining how much capitalization a road has and what the relation of its capitalization is to its earnings is greatly simplified. In most cases reorganization has resulted in a considerable cutting down of fixed charges. Financiers are enabled to issue new classes of bonds at lower rates of interest, etc. The roads can refund practically for 3½ per cent or even 3¼ per cent where formerly they had to pay on those fixed charges 6 or even 7 per cent. (291, 294, 298.)

Mr. Ripley says also that a great many of the roads in this country are reducing their bond issues and substituting stock, for the reason that dividends on stock need not of necessity be paid in times of depression, while bond charges must be met regularly or else there is bankruptcy or receivership. The difficulty in such substitution is that it is only an exceedingly strong road that can issue stock. (304.)

Mr. GREENE, of the Audit Company of New York, says that there has been a great reduction in the rates of interest on the bonded debts. The general basis has been reduced from about 7 per cent in 1890 to 4 per cent in 1901. The bonds of the New York Central now bear 7 per cent, but could be refunded at 3½ per cent. (486.)

2. *Effect of recent reorganizations on physical character of roads.*—Mr. RICE, banker, believes that the financial condition of American railroads is very much better now than it was in 1893. Through the various reorganizations which followed the bankruptcies of that and the following years an enormous amount of cash has been put into the railroads. Thus the Southern Railroad is made up of a number of small lines, which were very poorly constructed. Large assessments were levied on the stockholders, and the combined road has improved greatly in physical conditions. The same is true of roads in other sections. While 15 years ago the English railroads were superior to ours in their physical conditions, the opposite is true at present. (740.)

3. *Receiverships.*—Mr. RICE says that he secured the introduction of a bill into Congress several years ago on the subject of receiverships. It has been the practice whenever the president of a railroad had bad luck to put it into bankruptcy and appoint him receiver, on the ground that he was most familiar with the road. The witness thinks that if the familiarity of the president brought on the ruin of the road it would be better to have some one else act as receiver. (741.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, thinks that the principal cause of the receiverships, which were so numerous several years ago, was that the managers in their anxiety to build up big systems bought properties and paid more for them than they were worth. In the case of the Richmond Terminal, for instance, an exceedingly valuable stock was diluted by adding weak properties to it until its back was broken. This company was not actually insolvent when it was put into the hands of a receiver. It was not in default even on a note. Rate-cutting had nothing to do with the failure of this company, nor with that of the Norfolk and Western, though there have been many cases of failure due to reckless competition. (636.)

D. Speculation in railway and other securities.—Mr. WOODLOCK, railroad editor of the Wall Street Journal, expresses the opinion that the majority of transactions on the New York Stock Exchange are purchases of stocks on margin. By this system, if a man has \$1,000 to invest, he can buy 100 shares, par value \$10,000. He gets whatever profit there is from an advance, and is liable for the loss if the shares go down.

Mr. Woodlock does not believe that speculation in stocks has any permanent effect on their value at all. The real earning capacity determines the prices of stocks in the long run. Temporary fluctuations, even of considerable amount, may take place without any real change in permanent value. This may be due to sympathy with other stocks or to the necessity which compels some large holder to sell out rapidly. Thus, even in the case of the Great Northern, which is on a splendid financial basis, there have been fluctuations of as much as 20 points in a day.

Mr. Woodlock asserts further that the stock exchanges have very strict requirements as regards stocks which are formally listed. The companies have to furnish much information at the outset, and make periodical reports. There are some companies, such as the American Sugar Refining Company, which are not willing to furnish the information required for listing. The stock exchange allows some of these, known as unlisted securities, to be dealt with on the floor of the exchange, but with the understanding that greater risk is involved. Unlisted securities are mostly "industrial." The witness believes that, if possible, legislation requiring the furnishing of adequate information regarding corporations should be enacted. (465, 466.)

Stock gambling.—Professor PARSONS states that one of the evils of overcapitalization in private monopolies is that it creates a mania for speculation and stock gambling in New York and other cities, which is very detrimental to the industries of the country and also detrimental in its effect on young men especially. If these industries were controlled by the public the opportunities for stock gambling would be done away with. (155, 156.)

Mr. GREEN, of the Audit Company of New York, asserts that the trade on the New York Stock Exchange is all legitimate. No member is allowed to resort to bucket-shop practices—simply betting on the market, without actual buying and selling. (483.)

Wall street and banking houses.—Mr. SCHIFF testifies that "Wall street" in the sense in which it is generally used means the stock exchange, which is something entirely different from the banking business. Large banking houses have only to do with Wall street in so far as it represents a market for securities. Speculation is an entirely different thing. The enormous rise in values which has lately taken place (1901) has to a great extent been the result of market speculation. "People went insane and went into what is popularly termed Wall street and bought on margins, and naturally something had to occur, as it always does, to bring down these unreasonably inflated prices, and it did occur."

American wealth and prosperity will keep prices to their natural level. Legitimate capital and property can never be used to build up a level of prices which is not justified. The American banker did not come to the aid of the speculator, but merely saved the legitimate owners of securities from being compelled to sacrifice them at any price. (776.)

Northern Pacific Railroad corner.—Mr. RICE says that he understands that an injunction was issued to compel the holders of the stock of the Northern Pacific to settle with the short sellers on a basis of \$150 per share, on the ground that where there is a physical impossibility of performing the contract it can not be enforced. (742.)

E. American securities held in Europe.—Mr. SCHIFF testifies that nobody can estimate correctly the proportion of American securities held in Europe, but he believes the amount is exceedingly small and the greatest protection to the welfare and prosperity of this country, the great strength of the country, lies in the fact that Europe holds so few of our railroad securities. (776.)

F. Recent increased earnings of railroads. (See also, in relation to rates, p. LXXIV).—Mr. GREENE, of the Audit Company, of New York, says that there is a very great increase in the earnings of railroads in the last few years as compared with their earnings during the period of depression, and even before 1893. This increase is due, first, to the general prosperity of the country and the greater amount of trade shipped, and, second, to the improved methods of the railroads. They have been forced to learn how to do business better—for example, to increase train loads in a way that was thought impossible 10 years ago. The lower rates of interest on bonds will also leave more for the stockholders than formerly. (486.)

Mr. NICHOLSON, manager of the Central Railway Clearing House, testifies that there has been a general increase month by month in the railway business of the country for the last year, 1900–1901. The maintenance of rates and the general prosperity of the country have brought this about. (727.)

Mr. RIPLEY says that some of the roads at the present time are paying a low rate of dividends because they are turning a large amount of surplus earnings back into the property in straightening curves, putting up new stations, and developing terminals. (304.)

Economy of operation.—Mr. NICHOLSON testifies that the railroads are attempting to increase the service of each car. One way in which this is done is by demurrage charges being applied to stations holding cars. The clearing-house system contributes to this end, the cars being moved quicker. (728.)

Southern railroads—physical condition.—Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that railroads in the Southern States have greatly improved in recent years in every respect, as to track, weight of rails, capacity of engines and cars, and equipment generally. They are improving every year. (635.)

II. CONSOLIDATION. COMMUNITY OF INTEREST. POOLING.

A. The movement toward consolidation and community of interest.—1. *Generally.*—Mr. WOODLOCK declares that community of ownership and railway consolidations were the direct outcome of the restrictions upon less formal agreements and combinations between railroads. The movement goes back to the interstate-commerce law, prohibiting pooling. One by one the decisions of the courts have made impossible the other forms of organization which took the place of pooling, the trans-Missouri decision taking away the last method possible. Mr. C. P. Huntington seems to have been the first to develop the community-of-ownership principle. It has always been the case that seven or eight groups of bankers were in a position to control 75 per cent of the railroad mileage of the country. They have simply come together in an informal manner. Thus the Vanderbilts and the Pennsylvania Railroad Company agreed as regards their respective systems to “keep everything quiet,” and cease excessive competition, rate cutting, discriminations, etc. This is at least what is supposed to have taken place. In any case the trunk-line situation has become quiet, and the same is true of the soft-coal situation. In other cases it has seemed to the railroads necessary to secure actual control one of the other, as in the case of the purchase of the Southern Pacific by the Union Pacific. (462.)

Mr. SCHIFF, a member of the banking firm of Kuhn, Loeb & Co., of New York City, testifies that his firm has had leading interests in the reorganization of the Union Pacific Railroad and to some extent the Baltimore and Ohio Railroad. He says the community-of-interest idea arose in the desire of the railroads to protect themselves against the demoralization and depression in the values of their properties, which was brought about by antipooling legislation. The cutting of rates brought about by competition demoralized the railroad interests and was not beneficial to shippers. This competition resulted in a gradual coming together of the railroad interests and induced them to buy into one another's properties—that is, the competing lines bought stock, directly or through large stockholders, in the other competing roads. This process has been going on on a large scale, and while not yet completed it will naturally bring about some protection to the properties and will be of great benefit to the laboring man and will give security to the shipper, as well as be beneficial to the owner of railroad property. The final result will be a “community of interest between railroads, shippers, and labor.” (39.)

Nothing like general consolidation of railroad properties is intended by this proceeding. There will not necessarily be an absorption by one company of another. The establishment of a community of interest does not necessarily involve any struggle for the transfer of control from one party to another. Ordinarily these processes have been accomplished by direct acquisitions of stocks, by the railroads or large owners, but not necessarily of controlling interests in the stock. The object sought

is not higher rates, but uniform, equal, steady rates, and when the general public understands the situation there will be no fear as to the result and no misapprehension as to the wisdom of it. The community-of-interest idea can not be applied to all the railroad property in the country. All that can be expected for the present is to bring certain great competing systems into harmonious action. The trunk lines and the transcontinental lines are likely to be embraced. (770-771.)

2. *Pooling and consolidation.*—Mr. GREENE, of the Audit Company, of New York, says that people interested in railroads are rather glad that the law authorizing pooling did not pass, because, being prohibited from pooling, the railroads have been forced into consolidation with its attendant advantages. The pool keeps the methods of business of the separate roads essentially unchanged. It merely sustains prices. Consolidation permits economies in operation. (473.)

Mr. WOODLOCK declares that even if a law were passed allowing the railroads to form pools they probably would not do so. The community-of-ownership method has been found the safest solution of the problem of railroad competition. None of the former associations were of any great value. There were disputes and rate cutting half the time. Now the same people happen to be directors of many of the railroads, and if one road makes special rates or discriminations it can be reached at once by men who control other roads. (463.)

3. *Control of Interstate Commerce Commission as affected by consolidation of railroads.*—Mr. GREENE, of the Audit Company, of New York, thinks that the movement toward the consolidation of railroads may make necessary additional control by the Interstate Commerce Commission. It may be that the present tendency will finally lead to just the condition which the Interstate Commerce Commission has been seeking. (473.)

Professor ADAMS, statistician of the Interstate Commerce Commission, says that probably the present tendency toward contractual consolidation is in part due to the inability of the roads to pool. If that is true Government control over these great consolidations is just as important as increased control would have been if Congress had legalized pools. (386.)

4. *Combination of trunk lines and transcontinental lines.*—Mr. SCHIFF says that he does not know of any financial interests trying to control any two of the great transcontinental lines west of the Missouri River. He says the great railway systems of the country are divided into two divisions—the lines to and those beyond the Mississippi or Missouri River. East of that division line are the great trunk lines and west of it are the transcontinental lines. He does not believe that the trunk lines have any desire whatever to extend their lines and thus control the transcontinental lines, or to construct additional lines west. There is always a limit to the freight business which one system can handle, and traffic questions in the different sections of the country are different. The heads of the trunk-line systems on one hand and the transcontinental systems on the other are very wisely desirous of keeping apart. Any of the transcontinental lines would prefer to have every trunk line come to it on equal terms and use its facilities of transportation. (772.)

The witness has seen a statement in the paper that the remaining \$60,000,000 of bonds of the Union Pacific Road out of the \$100,000,000 authorized were to be assumed to secure the purchase of stock in the Northern Pacific by the Union Pacific interests, but preferred not to make any statement with respect thereto, saying that it was a leading question. (776.)

5. *Railway consolidations and agreements in Colorado.*—Mr. GRIFFITH, representing the Denver Chamber of Commerce, says that he understands from newspaper reports that the Colorado Southern Railroad has acquired a half interest in the Colorado Midland, and also in the Rio Grande Western, which runs from the Colorado line to Salt Lake City. It is also claimed that the Missouri Pacific has acquired control of the Denver and Rio Grande, and a half interest in the Rio Grande Western, and that it is trying to get control of the Colorado Southern. There is also a report that the Union Pacific is trying to control the Colorado Southern. The witness does not know what the effect of such consolidation would be upon rates, although they would certainly reduce competition. (855.)

Mr. GRIFFITH thinks that the fact that the 5 railroads reaching Denver from the east have all maintained the same rates firmly would indicate that they must have some agreement for the maintenance of rates. (856.)

6. *Combination of Union Pacific, Southern Pacific, and Central Pacific.*—Mr. WOODLOCK says that the Union Pacific Railroad Company has recently substantially bought control of the Southern Pacific. It will be possible, however, for the two systems again to separate, and it may not be unlikely. The Union Pacific was originally designed as a continuous line with the Central Pacific from Ogden, and the ownership of the

Central Pacific by the Southern Pacific forced the Union Pacific into the combination. The Southern Pacific may now sell to the Union Pacific the stocks and bonds of the Central Pacific, in which case the occasion for the control of the Southern Pacific by the Union Pacific will largely have disappeared. (462.)

Mr. STUBBS, third vice-president of the Southern Pacific Company, says that this company is a Kentucky corporation, which has authority to own and operate railroads and do sundry other things which railroad companies ordinarily can not do. It controls by ownership of a majority of all of the stocks a number of separate railroads which make up what are known as the Atlantic system and the Pacific system of the Southern Pacific lines. Originally the Atlantic system included all lines east of El Paso, the Pacific system all west, including the lines as far as Portland, and the Central Pacific line from San Francisco to Ogden. The laws of Texas forbade the leasing of Texas roads, which necessitated the separate operation of the Texas lines, so that nominally the Atlantic system now lies east of the Texas State line. (757.)

Mr. STUBBS asserts that from the first construction of the Southern Pacific and Central Pacific railroads they worked in entire harmony, being under common control, though not under strictly common ownership. Since about 1885 the Southern Pacific Company has held a lease of the Central Pacific. Quite recently there has been further combination, amounting to a merger of interests, concerning which this witness is not familiar.

Mr. Stubbs denies that there has been any tendency to divert traffic from the Central Pacific to the Southern Pacific lines, because of the fact that the Southern Pacific owns other lines to the east, and thereby would get a longer haul than over the Central Pacific west of Ogden. He says that the Central Pacific connects at Ogden with the Union Pacific, and through this and the Rio Grande Western with the Burlington, Missouri Pacific, the Chicago and Northwestern, and numerous other railroads. All of these more eastern railroads have well-equipped soliciting agencies in San Francisco and Los Angeles, and solicit business going over the Central Pacific lines. The Southern Pacific has also a soliciting agency, which tries to get freight for the southern route, and this practice on its part is the only foundation for a complaint that there has been a discrimination against the Central Pacific which tended to decrease the value of the Government's securities based on that rate. The witness supposes that the Southern Pacific has the legal power to direct the route which freight shall take, but it has not exercised that power except in the case of oranges, where it was done in order to break up a system of rebates by Eastern connecting lines. (757, 764.)

7. *Pennsylvania and Baltimore and Ohio railroads.*—Mr. SCHIFF testifies that he is very certain that the Pennsylvania Railroad does not own a controlling interest in the Baltimore and Ohio. He is quite certain that only the smallest percentage of the directors of the Baltimore and Ohio are in any way connected with the Pennsylvania Railroad system. Any company owning less than 50 per cent of the stock of another company can not be said to have a controlling interest in the latter company. He does not know how the cooperation of the Pennsylvania system with the Baltimore and Ohio has been reached. (771, 772.)

8. *Northern Pacific stock flurry.*—Mr. SCHIFF testified in May, 1901, that he was not aware that there has been any contest in respect of the Northern Pacific and Union Pacific stocks. There may have been some Wall street speculation. He explained the phenomenal rise in Northern Pacific stock on the ground that somebody had sold something he did not have, and could not get it when he wanted it. He never listens to rumors, and knows nothing about Wall street gambling. (772.)

9. *Large and small railroads in the Southern States.*—Mr. DUNLAP, who is the receiver of the Gainesville, Jefferson and Southern Railway, a line 65 miles long, and the general manager of the Tallulah Falls Railway, 20 miles long, declares his belief that short railroads such as these can no longer operate profitably, and that they will more and more tend to become absorbed in large systems. One of the two roads named is insolvent and the other makes no money. The large systems are at present (1900) all prosperous. The Georgia railroad commission fixes the same maximum limit of rates for the short lines in sparsely settled territory as for the trunk systems, and the short lines can not afford to carry on business at these low rates. Nevertheless a special arrangement is made by the commission in favor of the Tallulah Falls road because it is so short and poor. On the Gainesville road, however, the rates are the same as the local rates on the Southern Railway. (1, 2.)

B. Effects of consolidation and community of interest on rates and the public.—1. *Generally.*—Mr. GREENE believes that consolidation of railroads will result in great economies, and therefore ultimately in lower rates to the public. Even community of interest without absolute combination effects some economies, though to what extent it will have that result in the future is a matter of

guesswork. As yet there is little absolute common ownership among railroads, such as we find in the case of industrial combinations. By common ownership of railroads it will be possible to eliminate the expensive ticket offices of competing lines in the cities and to reduce the number of employees and officers in various ways. In fact, one of the serious results will perhaps be the displacement of railroad officers.

Mr. Greene feels confident that the reduction in expenses through consolidation will ultimately lead to reduction of rates. There is a constant demand for low export rates and special rates on the part of large industries. Such low rates are necessary in order that the business can be carried at all. When low rates are made for these special reasons, other persons observing the fact will demand lower rates and ultimately will succeed in getting them. Anything that will enable a railroad to do business more cheaply will ultimately benefit the public. All the conditions in this country tend to enforce lower railroad rates. Accordingly, although the reason for railroad combinations is selfish, the hope of profits being the main lever in this as in all business movements, it is a step in progress for the entire community. Mr. Greene believes that the movement toward consolidation will go still further. (484, 485, 487.)

Mr. THOMAS, of the Erie Railroad, believes that by consolidation great economies can be secured, and that charges are sure to be lessened wherever economies are introduced. The Erie Railroad was formerly made of three separate corporations. By combination the expense of maintaining two sets of officers and organizations has been eliminated, and the public has benefited by the saving. (559.)

Mr. MCGOVERN, of the Southern classification committee, says that there is a strong tendency toward the consolidation of railroads and he can not foresee what the final outcome will be. He does not favor consolidation beyond a limited extent, but thinks there should be several large systems, with healthy competition. He believes there will be eventually 5 or 6 separate systems in the South, which may all work in harmony to the extent that the separate owners of the properties may agree among themselves and in a general way maintain rates. The Georgia Central and the Southern Railway are competing systems, and will be so until they are actually taken under one management and have the same traffic officials. Consolidation without competition would be a bad thing for the roads, as well as for everybody else. It would not be a good thing for the railroads of the United States to be under one management. Competition brings about a fair relative adjustment, which the carriers believe is to the interest of the patrons and of the roads themselves. Rebates and such like discriminations, however, would be very much diminished by consolidation and might be wiped out entirely. (682, 683.)

HON. CHARLES FRANCIS ADAMS, of Boston, says that railroad consolidation is a thing which should be left to work out its own results in its own way, with as little hampering as possible. It is found that the large corporation, while its political power is undoubtedly great, has proportionately increased responsibility, and it is far easier to handle it. It gives better and more satisfactory service than a number of small corporations. (829.)

Mr. McLEOD, in connection with his views regarding the desirability of community of interests among the anthracite coal roads, declares his belief that the community of interest principle in general is an advantageous one. Whatever will make railroad rates reasonable and stable will increase the prosperity of the country. Such combinations can not tax the people, not only because of competition, but because of public opinion. "You can't get any combination of capital that is big enough in this country to rob the people." (571.)

Mr. SCHIFF declares that the law of competition will be preserved. Capital is becoming so strong and so easily obtained that the moment compensation for any service is demanded at a higher rate than that at which it can be produced competition will set in. He doubts if any additional transcontinental lines will be built, but believes that if a consolidation of those lines of road should be effected it would result, perhaps, in bringing about the construction of another line. (777.)

Mr. WOODLOCK believes that railway consolidations and community of interest will certainly tend to prevent disturbance of rates. Rates are already more stable than they have been for 30 years. The witness thinks, further, that the new combinations will not raise rates. It will be to their interest to economize in management and to keep rates stable rather than high. (463.)

Mr. LANGLEY, of the Merchants' Association of New York, thinks that the community of interest plan may eventually be of some benefit to New York in eliminating the differential which exists in favor of the Southern seaboard cities. The merchants of New York have never objected to a direct increase in rates. They are particularly interested in having each merchant or each shipper secure the same rate, so that no one shall have any advantage over the other. The difference in the rate of freight

practically has the effect of giving one man such an advantage in business as to drive out a competitor who does not secure the same rate. The community of interest will perhaps abolish these practices of differentials and discriminations, because there will be no longer any reason to put out these inducements or to indulge in secret practices. The community of interest is likely to deprive the people of the advantage of the cheaper shipments by water. Every merchandise line on the lakes is owned by the railroads; the same with the Erie Canal. (874.)

Professor PARSONS states that in this country there have been about 5,000 railway corporations, but that by consolidation the number has been reduced to 2,037. Only about 863 are independent operating companies, the others being subsidiary companies leased or controlled. These figures show a tremendous movement toward concentration and coordination even under private ownership. Coordination naturally would result in the very greatest economy if the whole railroad system of the country could be run under one harmonious plan and in full coordination with the telegraph, telephone, and postal service. It would get rid of unnecessary stations, accounting offices, etc. However, to bring about consolidation under private ownership would result in establishing so colossal a power in the hands of a few men that it would be more dangerous than the present system, and the only way to get the benefits of consolidation is through public ownership. (149.)

Mr. RICE, banker, believes that legislation to prevent the consolidation of railroads, or the lease of control of one railroad by another, would be a great mistake. Consolidations such as that which has resulted in the Southern Railway have improved the service and benefited the public. It will not be possible for all the railroads of the country to go under a single control. There are too many people who have other interests. The difficulty of consolidation has recently been shown in the attempt of the Northern Pacific to secure the Burlington. The witness does not know, however, but that there may be some limit to the wise combination of railroads. (742.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, does not think that the influence of competition on the traffic lines centering at New York would be eliminated even if their competition with each other were destroyed by consolidation and community of interest. The roads could not even then raise rates arbitrarily unless they wanted to go out of business or to shut out certain classes of business. Though there were no other lines running to New York, there would be other lines running to other markets. Any arbitrary raising of rates would turn a very large amount of profitable business over to those other markets and other lines. Mr. Griswold does not think that the plea for consolidation has been that rates have been reduced below the proper paying point so much as that the established rates have not been maintained, and that consolidation would increase economy of management. (624, 625.)

2. *Effect of consolidation on capitalization.*—Mr. RICE alludes to the fact that certain recent railroad consolidations, such as the absorption of the Chicago, Burlington and Quincy and that of the Central Railroad of New Jersey, resulted in the exchange of stocks of the roads absorbed for bonds of the absorbing road. He believes that it is always a mistake to convert stock into bonds, thereby creating a fixed charge, in the inability to pay which the corporation must go into bankruptcy. (740.)

Professor RIPLEY says that in many cases where one road has leased another the controlling road pays dividends both on its own capitalization and on the stock and bonds of the leased road, though the arrangement entered into depends entirely on the terms of the lease. (297.)

3. *Effect of consolidation of Southern railways.*—Mr. WILSON, of the Cincinnati Board of Trade, believes that if the Eastern and Western roads leading into the South should be consolidated the rates would perhaps be adjusted more satisfactorily. There would be no excuse to offer on the ground of competition. Cincinnati suffers now because the Southern Railway is controlled by interests which are dependent upon the prosperity of the Eastern territory for their income. A consolidation of the Pennsylvania system with the Louisville and Nashville would not injure Cincinnati. (694.)

4. *Effect of a community of interest or of a consolidation of the Atlantic Coast Line Railways.*—Mr. MARKHAM states that if the Atlantic seaboard lines should become practically operated under one policy and community of interest, or by a consolidation, it would have a very salutary effect upon the course of business. The trouble with the cutting of rates to-day is not in diminishing the revenues of the railways so much as it is in exterminating business men of all kinds excepting the large enterprises that get better rates than the small individuals. With a community of interest or a consolidation, the first thing that would be done would be to give to every

one equal rates. The benefit to the railroads would come from the fact that they would not be obliged to make the reductions because of the action of unscrupulous lines which can not get business in any other way. If there were a community of interest it would be impossible for any railroad to withstand the reasonable or legitimate demands of any town or community served by it; the interests of the railroads and the communities are mutual. (432.)

5. *Effect of consolidation of transcontinental railroads.*—Mr. WHEELER, of the San Francisco Board of Trade, expresses the belief that the establishment of ocean-to-ocean railroads would be a good thing for the Pacific coast. For this reason he is inclined to approve the combination of the Union Pacific and the Southern Pacific under the Vanderbilt interests, which at the same time control the Chicago and Northwestern and Eastern trunk lines, giving them a through route. He does not know that the combination of the Great Northern and Northern Pacific with the Chicago, Burlington and Quincy will particularly help the coast. It merely extends somewhat the terminal points in the East of these railroads. If, however, as will probably be the next step, these railroads acquire the Erie or some other trunk line, securing an ocean-to-ocean system, advantage to the coast will probably result. This advantage of transcontinental lines would come from the fact that the railroads would no longer have the motive of building up the Middle West cities at the expense of the cities on the Eastern seaboard and of San Francisco and other Pacific coast cities. At present the railroads seek, by making lower rates from Chicago and other inland cities than prevail even from New York, in the face of sea competition, to build up those cities and secure traffic at the points of origin of the railroads. With lines extended to the Atlantic seaboard there would be no object in this policy but the railroads would get the hauls as readily directly from the Atlantic coast. They could then say that each city must stand on its own natural position, and would not try to rob the Atlantic and Pacific coast cities of the advantage which water transportation gives them. (747.)

Mr. STUBBS, of the Southern Pacific Company, does not think that the recent community of interests between the Union Pacific and Southern Pacific railroads ought to have any effect on their rates or operation. He does not even think that if a combination were made between these two roads and the Northern Pacific these three lines would be in a position to control rates aside from sea competition. There would still be the competition of the Santa Fé, Great Northern and other roads, and no rate could be enforced which was not agreeable to all of the lines. Mr. Stubbs, however, believes that the establishment of a community of interests between railroads in the Western States or in any other given section is the only effectual way in which unjust discriminations and constant fluctuations in rates can be prevented, and that such a control over rates would be of great benefit to the public. He does not think that a combination of this sort could or would increase freight rates. The companies operating the railroads are endeavoring to promote every industry and every class of commerce in order that their tonnage may be as great as possible, and they can not resist the influences tending to keep down or to reduce rates. (765.)

6. *Effect of New England consolidations.*—Mr. HOWES testifies that the New York Central Railway has acquired, by lease, the Boston and Albany Railroad, and the Boston and Maine Railway has leased the Fitchburg road, both of which are large grain-carrying roads, and he thinks that the effect will be beneficial to Boston as an export center. The splendid terminal facilities of the Boston and Albany Company at Boston have been acquired by the New York Central, and they will be greatly enlarged by the lessee company. (702.)

Mr. JACKSON, a member of the Massachusetts State board of railroad commissioners, states that the leasing of the Boston and Albany to the New York Central and of the Fitchburg to the Boston and Maine has generally been considered to be to the public advantage. The result of the lease of the Boston and Albany to the New York Central has been an advantage to the extent that under the statute preliminary steps have been taken to issue stocks and put in more capital for terminals. The terms of the lease prescribed by the legislature required the road to do that. The operation of the road and its maintenance is just as fully under the supervision of the State board as before, and the State's right to purchase the road is still retained.

In the case of the absorption of the Massachusetts Central Railroad by the Boston and Maine, the board was asked to fix the purchase price which the Boston and Maine ought to pay. In doing this, it considered the value and history of the property. There had been a practical agreement between the owners of the preferred stock and the Boston and Maine, and the board did not disturb that agreement. It fixed the price of the common stock at 21 after having looked into the structural value of the railroad, its actual cost, and the cost of duplication. (847.)

C. Minnesota law as to railroad consolidation.—Mr. TEISBERG, secretary of the State railroad and warehouse commission of Minnesota, says that Minnesota has had a law since 1887 forbidding the consolidation of parallel or competing railroads. At the time of the reorganization of the Northern Pacific, about 1896, a scheme was on foot for the securing of a majority of its stock by the Great Northern. Suit was brought to test the validity of the law forbidding such a consolidation, and the United States Supreme Court sustained the law. In the summer of 1900 the Northern Pacific absorbed the St. Paul and Duluth Railroad Company, owning a short line between St. Paul and Duluth. The railroad commission instituted proceedings to prevent that consolidation, but the Northern Pacific entered into an agreement providing that for all time the St. Paul and Duluth should be considered a separate entity in any case that might arise between the State and the company, and the case was dismissed without prejudice. It might at any time be reopened. (364, 365.)

D. Pooling and agreements.—1. *Discussion of policy.*—Professor RIPLEY says that pooling would probably have the effect of making rates higher, but that the rates would be steady. The existence in a very large portion of the Southern States of what is practically a pool makes the freight rates into and out of those Southern States considerably higher than in those parts of New England where competition still prevails. The amalgamation of the Boston and Maine road and the Fitchburg road has resulted in making rates appreciably higher for a number of places which formerly had the benefit of low competitive rates. The experience of Peterboro, N. H., is a case in point. Peterboro was a competitive point at the junction of the Boston and Maine and the Fitchburg roads. So much lower were the Peterboro rates before the amalgamation of the roads that all the goods for the stores in Jaffrey, a town 6 miles from Peterboro and served by one road, were hauled a number of miles by horse in order to take advantage of the competitive rates of Peterboro. Since that territory has ceased to be competitive, freight is no longer hauled by horse, because the Peterboro rate and the Jaffrey rate are just the same. Mr. Ripley lays emphasis on the fact, however, that though the rates under pooling would be somewhat higher, they would certainly be steadier. Pooling would make a fixed rate which the manufacturer and the public could rely upon and which they could feel was paid by everybody.

Pooling is likely to result in the offering of poorer facilities in the territory to which it applies. The people are often obliged to be content with slower trains, with fewer trains, and with many other inconveniences. That is the situation in the territory now reached by the Boston and Maine and the Fitchburg. In the territory, however, which is reached by the Boston and Maine and the Eastern road, the train service to almost all competing points has been largely increased and the comfort of the public is vastly greater since the amalgamation of the roads than was the case many years ago.

Any proposition to legalize pooling should have inextricably bound up with it some increase of regulative power to the Interstate Commerce Commission, as the giving to railroads, in conjunction with the right to pool, absolute control over the rates would place the public still more in the power of the roads than they are to-day. Pooling is being practically accomplished to-day by the financial consolidation of roads, and this makes it still more imperative that the Interstate Commerce Commission should be given power to prescribe reasonable rates. (289, 291, 294.)

Mr. THOMAS, of the Erie Railroad, declares that the Supreme Court of the United States has held that the railroads have no power to make agreements. The witness holds that they ought to be allowed to make agreements just like other commercial bodies. He believes that the prohibition of pooling has increased the number of railroad consolidations. There is no effort being made now to secure legislation permitting pooling, but power to make legal agreements ought to be conferred upon them. Such agreements could be very properly made subject to the approval of some governmental commission, and should not be permitted to be oppressive to the public. (558.)

Mr. TEISBERG, secretary of the State railroad and warehouse commission of Minnesota, says that the Minnesota law forbids pooling in the same terms as the interstate-commerce act. The State commission, about 1889, unanimously declared itself opposed to any change of the pooling clause. Mr. Teisberg believes, however, that if the question were now presented to them the commission would be in favor of legalizing pooling. If consolidations by a community of interests come on there will soon be no necessity for pooling. (372.)

Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, thinks that pooling agreements should be legalized under the requirement of publicity and under the control of the Interstate Commerce Commission. He is afraid that the forbidding of pooling will force the railroads into bankruptcy. He also thinks it a cause of the tendency toward consolidation. (639, 642.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, thinks that the best plan to stop rate cutting and unfair competition among railroads would be a physical division of the business. He doubts, however, whether that is possible, and would consider the alternative to be pooling and dividing the earnings. Control of the Baltimore and Ohio Railroad by the interests that control the Pennsylvania would have the same effect so far as their rates are concerned. (615.)

Mr. WHEELER, of the San Francisco Board of Trade, says that the legalization of pooling, under the supervision of the Interstate Commerce Commission, would be desirable in order to do away with secret rebates and discriminations. It is greatly to the interest of shippers that they should know that they stand on the same basis as their competitors. The witness believes that such pooling agreements should be made enforceable before the Interstate Commerce Commission and the courts, but that whatever agreements were made should be entirely subject to the supervision of the Interstate Commerce Commission as regards the rates and other conditions. (748, 749.)

Mr. Wheeler thinks that railway consolidations do not do away with the necessity for legalized pooling. They affect the matter only to the extent that any agreement is more apt to be maintained if there are fewer parties to it. (748.)

Mr. BACON, of the Michigan Alkali Company, declares himself opposed to pooling. (82.)

2. *Southern Railway and Steamship Association.*—Mr. TALCOTT says that the Southern Railway and Steamship Association, of which he was at one time commissioner, was composed of the Southern rail lines and the steamship lines between the northern and the southern Atlantic ports. It did not take in the Gulf ports. Its purpose was to prevent fluctuation in rates and rate cutting. When it was first organized its plan was to give full authority over rates to the commissioner. Later it was found that some better guaranty was needed, and a pool was resorted to. The commissioner made allotments of business to each line, and if his allotments were not satisfactory there was an appeal to a regular board of arbitration appointed by the association. Business was divided on a tonnage basis. Lines which carried an excess received a very small compensation. It was made small to give no inducement to get an excess. When the interstate-commerce act was passed forbidding pooling, the form of the association was necessarily modified. The method of operation then adopted was to have copies of all manifests on competitive business sent to the commissioner. In his office a record of the business done by each line was kept, and his reports showed to the executive committee just how business was divided. The working of the association under the pool system had been very successful and satisfactory. Soon after pooling was prohibited rates began to be disturbed, and disturbed conditions continued at least as long as Mr. Talcott had direct knowledge of the matter—a period of some two years. (626, 627.)

3. *Pooling on cotton business from Memphis.*—Mr. DAVANT, commissioner of the Memphis Freight Bureau, understands that there is an arrangement among the railroads at that point for a physical division of the cotton traffic. If a railroad receives consignments greater than its share under the pool it turns over the excess of goods to some other road. The witness believes that shippers are not able to insist that their goods shall go over a given road. He believes that this system of pooling works to the detriment of shippers, although the fact is worthy of consideration that by this plan rates are made stable and equal to all shippers. (7.)

4. *Existing transcontinental rate agreements.*—Mr. WHEELER says that there is what is known as the Transcontinental Freight Bureau, including all roads which operate from Chicago and Missouri River points to the Pacific coast. This bureau has an office in San Francisco, to which shippers apply for remedies in the transcontinental rates. The rates are maintained under this arrangement by a "gentlemen's agreement" only. In order to get around the decision in the trans-Missouri case which was directed against the agreements regarding rates, the rules and tariffs stipulate that each company has the power to change its own rates and regulations without consulting others. Thus the roads can prove that there is no combination, but they are bound in honor and the effect is practically the same. If, however, a road should show itself without honor there would be no way to enforce the agreement. (749.)

Mr. STUBBS, of the Southern Pacific Company, says that the transcontinental roads make practically the same commodity rates in competition with water carriers. They are made by conference. (764.)

5. *Southern rate-making organizations.*—Mr. MCGOVERN testifies that in the territory of the Southern Classification there are rate-making associations, composed of railroads which are members of the Southern Classification Committee generally. The Southeastern and Mississippi Valley Association takes the territory bounded by a

line drawn from Cincinnati down the Ohio and Mississippi to New Orleans, and a line drawn from Cincinnati down through Middlesboro, Chattanooga, Birmingham, and Montgomery to Pensacola, Fla. The Southeastern Freight Association takes in the territory east of that, going as far as Gainesville, Athens, and Augusta, Ga., and Charleston, S. C. The territory east of that is known as the territory of the Associated Railways of Virginia and the Carolinas. These three associations make the rates on all the competitive traffic in their respective territory. Their organization is somewhat similar to the Southern Classification Committee, any transportation line which desires to do so being permitted to join. Together with the Classification Committee these associations constitute the rate-making power.

No articles of association can deprive any line of its right to make its own rates. That was decided in the trans-Missouri decision. These associations are not pools. (654.)

III. FREIGHT TRAFFIC AND RATES GENERALLY.

A. Existing freight rates—Recent movements.—1. Reasonableness of American freight rates. (See also under Government ownership, p. cxcviii, and, as to differences between through and local rates, p. cvff).—Mr. THOMAS, president of the Erie Railroad, declares that freight rates are very much lower now than twenty years ago. At that time the Erie road got from 1 cent to 1½ cents per ton per mile. At present the average rate is 5.59. Local rates have also been reduced, though not in quite the same proportion as through rates. There is more competition in the case of local rates. (560.)

Mr. MARKHAM, of the Illinois Central Railroad, says that railway rates have been constantly on the decline for many years.

The following table shows the reduction in grain rates from Chicago to New York since 1868:

	Lake and canal.	Lake and rail.	All rail.
	Cts. per bu.	Cts. per bu.	Cts. per bu.
1868.....	22.79	29	42.6
1878.....	9.15	11.4	17.7
1888.....	5.98	11	14.5
1899.....	5.65	6.63	11.13 10.23

Mr. Markham also submits a table showing the reduction in rates from St. Louis to New Orleans and other Southern cities since 1882, ranging from one-fourth to one-half. He also compares rates in the United States in 1892 with those in European countries as follows: (430.)

	For passengers per mile.	For freight per ton per mile.
	Cents.	Cents.
United States.....	2.14	0.97
Prussia.....	2.99	1.32
Austria.....	3.05	1.56
France.....	3.36	1.59
Belgium.....	2.25	1.39

2. Increase in freight rates and classification changes, 1900.—Mr. BACON, of the Michigan Alkali Company, objects strongly to the increase in freight rates made by the railroads in January, 1900. He declares that this increase was an outrage on both manufacturers and consumers, and that consumers ultimately have to bear the burden. As an illustration of the increase in freight rates, he states that the rate on coke to Wyandotte, Mich., has been increased 55 cents per ton above the rate in 1899. This amounts to an added expense to the Michigan Alkali Company of \$55 per day, or \$20,075 per year. It is also understood that the rates on coal will be increased. The rates on the various alkali products of the company have also been raised. When the company protested to the traffic association in New York City, January 22, 1900, the chairman of the Central Freight Association and the chairman of the Official Traffic Association made entirely different answers as to the reason of the increase, and neither touched a point in the protest. The year 1892 was considered a very pros-

perous one among the railroads. Business depression followed, but the railroads did not reduce their rates to protect the manufacturers. The rates of 1892 should be high enough now, but they have been raised at the beginning of 1900. The railroads in 1898 earned enormous dividends, while in the year ending June 30, 1899, the gross earnings exceeded those of the previous year by \$59,927,186. The railroads defend their action on the ground that they want a share in the prosperity of the country, but the witness believes that their increased business as a result of their prosperity would have been sufficient to earn them ample profit. Prosperity is not stimulated by the raising of freight rates but by increasing the volume of business. The further argument of the railroads that the cost of materials has advanced, is offset by the well-known fact that by hauling heavier loads and in other ways the cost of operation has been decreased.

The witness anticipates that there will be ultimately a great railroad trust. He refers especially to the alleged combination of the eastern trunk railroads, and its effect upon rates and profits. He quotes an article from the *New York Commercial Advertiser* of March 12, 1900, to the effect that the increased profits on the hauling of coal alone by Eastern lines, as the result of advanced rates already announced and others to be made on April 1, 1900, will be no less than \$16,000,000, and that the increased rates on other products will make a total of added profits of fully \$31,000,000. The average advance on coal was estimated to be 15 cents per ton, on other bulky freight 10 cents per ton and on manufactures and merchandise 25 cents per ton. This increased profit of \$31,000,000 will be equal to more than 3 per cent on the capital of the 9 leading Eastern trunk lines. (74-77, 84.)

Mr. LANGLEY, of the Merchants' Association of New York, says that on January 1, 1900, the Official Classification Committee made wholesale advances in their classification without notice to shippers. Eight hundred and eighteen items out of 3,000 in the merchandise list were advanced in class. Taking the scale of rates from New York to Chicago as a basis, these advances represented an average increase in the freight rate of 35.5 per cent. The Western Classification Committee on January 25, 1900, advanced the rates on 240 of the items in their list. Using the Chicago-Missouri river rates as a basis, the advance was 47.4 per cent. The Southern Classification Committee on February 1, 1900, advanced 1,977 articles out of a possible 2,600. It has 9 different classes of rates. Thirty-two articles were advanced from second to first class; 38 from third to second class; 69 from fourth to third class; 36 from fifth to fourth class; 10 from sixth to fourth class, and 46 from sixth to fifth class. There are instances in which advances were made from fourth to first class, and from third to first class. The classes which were among the lowest are beginning to disappear from the classification list. There were 109 of the lower classes and commodity rates in the classification which governed prior to February 1, 1900, but in the new classification only 58 were left. In addition to these advances there were 75 instances of discrimination made by widening the difference between the carload rate and less than carload rate. The advance in rates resulting therefrom ranged from 30 per cent to 50 per cent. The railroads did not seem to take into consideration the fact that merchants had made contracts ahead based on existing rates, and the result of the advance in classification which was only an indirect method of advancing rates entailed a great loss upon the merchants.

The attention of the Interstate Commerce Commission was called to the matter in December, 1900, but there did not seem to be any certainty as to whether that commission had jurisdiction over classification matters, and the question was referred to the Attorney-General, who concluded that there was no ground for interference by him. The shippers then appealed directly to the classification committees for a change of the classification back to the old basis, and in some instances their appeals were granted. The Official Classification Committee modified some of the advances, but did not go back to the original basis. The witness is of the opinion that under the law the Interstate Commerce Commission is powerless to remedy the evil complained of. He thinks the matter was referred to the Attorney-General as being a violation of the antitrust law, but that officer did not seem to take that view of the case.

The reasons advanced by the railroad companies and the classification committees for advancing the rates were that the prices of commodities of all kinds were going up throughout the country and the railroad rates should also go up. The witness says that he examined into the earnings of railways to a considerable extent and found that for the year immediately preceding the advance in the freight classification the earnings of the Southern roads were 20 per cent higher than they had ever been in the history of the country, and he thinks that a 20 per cent increase in net earnings ought to have satisfied the roads. The witness does not think that there would have been any more complaint made if the rates had been advanced directly instead of indirectly by an advance in classification. (860-861, 862, 869, 877.)

Changes in freight classification.—Mr. LANGLEY testifies that there is great discrimination in the "manipulation," as he terms it, of the freight classification. He thinks this discrimination is to the detriment of the South, and believes that the less interference and the fewer obstacles that are thrown in the way of development the better it will be for the country. There would have been very little complaint if the railroads had advanced the scale of rates themselves. There was a time, he says, when the merchants were inclined to complain of freight rates, but in later years they have reached a conclusion that the rates of freight are not so material as their universal application. The changes in classification have induced great confusion and inequality. People sometimes think that the railroads, while desiring to increase their revenues, do not care to assume the responsibility of advancing the rates directly, and resort to the roundabout method of having them advanced by the action of the classification committees in changing the classification. The method of making the changes by the classification committee has this further advantage, that few merchants, comparatively speaking, are familiar with transportation methods or with the effect that the classification has upon the freight rate. Out of the changes in classification of 2,600 items in the Southern territory at least one-third would remain advanced, because the merchants would abandon all hope of ever securing a return to the original basis. (865.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that there was a considerable change in the Official classification a little time ago, but afterwards a large proportion of the articles whose classification was changed were embodied in a supplement allowing a 15 or 20 per cent reduction from the advanced classification. Mr. Griswold is not aware that the changes in the classification were such as to be relatively injurious to small shippers and favorable to large concerns. (618, 619.)

Mr. MARKHAM, of the Illinois Central, states that in the recent changes in the Official classification the advance in freight rates was chiefly because of an advance in price of a great many of the commodities which had been carried at special commodity rates before because they could not bear higher rates, but at the same time reductions were made on other goods. The Illinois Central uses the Southern classification, also the Western classification, the two being different. (435.)

3. *Freight rates in the South—Recent increase.*—Mr. BACON complains also of the fact that freight rates to Southern seaboard cities on alkali products are higher than ocean freight rates from England, so that the domestic product is practically excluded from a region within a considerable distance from these seaports. The rate from Wyandotte to Atlanta is 36 cents per hundred on soda ash, 64 cents on caustic soda, and 65 cents on bicarbonate of soda, while English products can be delivered there by way of Savannah at a much lower rate. The rate from Wyandotte to New Orleans on all these articles is 33 cents, while the ocean freight rate from Liverpool to New Orleans is 10.7 cents. At one time there was a rate of 89 cents per ton on soda ash from Liverpool to Newport News. (74, 80.)

Mr. BACON complains especially of the excessive freight rates on the products of that company in the Southern territory, and of the fact that there is a difference in classification of these products under the Southern classification from that under the Official classification in the North. He presents the following table showing the relative charges per carload and train load on bicarbonate of soda (baking soda) and caustic soda from Wyandotte, Mich., to leading Eastern and Southern points, together with the distances:

To—	Miles.	Product.	Railroad charges, carload.	Railroad charges, train of 30 cars.	Rate per 100 pounds.
					<i>Cents.</i>
Boston	760	Ash, bicarbonate and caustic	\$57.00	\$1,710	19
New York	700	.....do	48.00	1,440	16
Philadelphia	656	.....do	42.00	1,260	14
Baltimore	698	.....do	39.00	1,170	13
Richmond	774	.....do	49.50	1,485	16½
Chattanooga	578	Bicarbonate	147.00	4,410	49.
Atlanta	716	.....do	195.00	5,850	65
New Orleans	1,000	Ash, bicarbonate and caustic	99.00	2,970	33
Memphis	700	.....do	69.00	2,070	23

Commenting on these figures, the witness declares that there is something wrong with the system of classification by which the charge for hauling a carload to Atlanta, 716 miles, is \$195, as compared with \$48 to New York, 700 miles; and by which a

train load of 30 cars is hauled to Philadelphia, 656 miles, for \$1,260, while to Chattanooga, 578 miles, the charge would be \$4,410.

The freight rates generally through the South, Mr. Bacon declares, are excessive, and this results in material injury to the prosperity of that section. Under reasonable freight rates the South would be the home of the biggest manufacturing plants in the world. There is no manufacture of glass or of soap in the South of any importance, and no market for alkali products. The result is that nothing is done to establish a demand for those products and to favor manufacturing by the establishment of reasonable freight rates. Under low rates factories for the manufacture of these and other articles would start up, and in the long run the railroads would profit by the increase in their business. (73, 75, 79, 80.)

Mr. McGovern says that prior to the organization of the Southern Classification Association the classification feature of rate making was handled by the several traffic associations in that territory. There was a single classification for the southern territory, but it was made piecemeal instead of by one general association as at present. The new committee made a thorough and systematic revision of the entire classification. Under the old plan additions and changes were made from time to time without proper regard for the effect upon other analogous articles, with the result that the classification abounded in conflicting ratings and inconsistencies. The new committee began with the iron and steel list and the changes which it adopted were published in Southern Classification No. 26, which went into effect February 1, 1900. This revision of the iron and steel list contained advances in a good many ratings. One reason why the iron and steel rates were raised was because the railroads in their equipment and otherwise had to use iron and steel, and a higher price made a higher rate. The roads can not afford to reduce all their rates to the basis of the commodity rates; it would make them bankrupt. A revised classification which embraced everything excepting iron and steel, and which made substantial modifications, was promulgated in Classification No. 27, which went into effect June 1, 1900. Classification matters have been given the fullest consideration and the advances made in the classification have not been the result of any attempt on the part of the principal lines to put up the rates to the shipping public. These revisions came at a time of extraordinary trade conditions, which justified substantial advances in many of the ratings. There had been marked increases in the prices of many important commodities, especially those entering most largely into the cost of operation of transportation lines. Some of the lines in the southern territory actually showed a reduced net revenue during certain periods as against an increased gross revenue during the same periods, which is attributable to the increased cost of materials used in operation. The revision of the classification, however, was not for the purpose of increasing rates, but was chiefly to simplify and harmonize matters. Many of the existing ratings had been unreasonably low in themselves, and by comparison with the ratings on the same articles in the other two classifications of the United States. (655, 656.)

Carriers' risk and owner's risk rates.—Mr. McGovern says that the first important change that was made by the committee in classification 26 was the abandonment of what was known as the double-column rating, and substituting therefor the single-column plan. In the old classification up to No. 25 two ratings were shown opposite many of the articles, one in the "carriers'-risk" column, for cases where the carrier assumed the common-law liability, and the other in the "released" column, for cases where goods were carried at the owner's risk or limited liability, the first column rating being higher than the second. There was nothing approaching uniformity in the differences between the two columns. It was found that in some instances the carriers'-risk rate was only 14 per cent higher, and in some instances 280 per cent higher than the owner's-risk rate. Some 1,700 articles had been shown by the previous classification in the carriers'-risk column only—that is, only a single rate was published. As a matter of fact, according to Mr. McGovern, the goods of this character which were actually shipped were in 99 cases out of 100 shipped on the ordinary bill of lading of the railroads, which is a limited-liability bill, so that the shipper did not actually avail himself of the carriers'-risk privilege. By the new classification the rates remained the same, but it was provided that they should be on the limited-liability basis, and that if the shipper insisted on the common-law liability, he should pay a 30 per cent higher rate. This system of uniform bills of lading and single-column classification is in line with the practice of the trunk-line roads and others in the Official territory. Technically it may be said that there was an advance of rates because the shipper would have to pay 30 per cent more if he got the unlimited liability of the carrier which he might have insisted on before, but in practice he did not insist on it before in most cases; and for 99 per cent of the goods the rates and the bills of lading were precisely the same after the change as before.

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Mr. McGovern says that this change was misunderstood by many people and was made the basis of a general complaint that the rates on 1,700 articles has been advanced.

The first change in Classification No. 27, as compared with Classification No. 26, was as to Rule 1, which was a little more favorable to the shipper, in that there was a reduction from 30 to 20 per cent additional in the carrier's-risk rate as compared with the owner's-risk rate. For 13 years the lines in the Official classification territory have used a uniform bill of lading, which has been published as a part of the Official classification. This matter of uniformity in the bill of lading was early taken up by the Southern Classification Committee, which after much consideration evolved a bill of lading which was finally adopted and approved by the various individual lines, and went into effect June 1, 1900. (A copy of this bill of lading was furnished the commission.) Practically the only difference between the carrier's risk and the limited liability is that under the carrier's risk, if the goods are lost or destroyed, the owner can recover the loss occurring except from one of the four exemptions established by the common law, viz, an act of God, fraud on the part of the shipper, inherent defect in the article, or inherent vices in an animal. The bill of lading in addition to these limitations releases the carrier from further risk by reason of fire, chafing, leakage, and all those damages incident to ordinary transportation which are not the fault of the carrier and are due to its negligence.

The only consideration that was given the Official and Western classifications in the revisions of the Southern classification was simply to compare them, article for article, as the work of revision proceeded. As to the liability question, however, the revision resulted in making the Southern classification the same as the Official classification.

There have been no cases in court to test the validity of the two forms of contract. Not more than 1 per cent of the freight carried consists of hazardous risks. (656-661.)

Changes and advances by last classification revision.—Mr. McGovern says further that the advances in the descriptions and ratings as shown in Southern Classification No. 27 do not exceed 400 or 500 as compared with Classification No. 26, and there were about 100 reductions. Many of the advances were made on unimportant articles of shipment. Consistency and universality were aimed at in the revisions. All druggists' articles in boxes were made first class; small grocery articles in boxes were as a rule made second class, as were also ordinary hardware, iron, and steel articles in boxes. One reason for this was to prevent the underbilling of drugs, groceries, and hardware, which practice has grown up, and is on the increase in the Southern territory. The principal articles used on the farm and many other very important products were not advanced in ratings. It is a general experience that when reductions are made it is believed that it increases the business of the roads. The occasion of the advance in the classification of cotton goods was brought about by the fact that in the early days the classification was arranged so as to be in the nature of a protection to the early cotton manufacturers in the South, and even to-day it is so arranged. When the classification is advanced the rates are always advanced.

Mr. McGovern concludes by saying that the making of a freight tariff or a freight classification is not an exact science. The change of commercial conditions in the increase of local industries, new discoveries in science, competition between carriers and markets, will necessarily effect changes in freight classification and freight rates from time to time. Ever since Classification No. 27 went into effect some modifications have been made, and other modifications will be made from time to time as circumstances may dictate. It is not to the interest of the carriers to make their rates exorbitant or so high as to unduly limit or restrict the free movement of traffic over their various lines. (661-662, 668-672.)

Mr. DUNLAP, an officer of two small Georgia railroads, testified in 1900 that there had recently been a general increase in freight rates on the through Southern lines. He was inclined to justify this increase, despite the fact that the railroads have all the business they can carry and are even short of cars, because of the general prosperity of the country and of the fact that the Southern railroads have only recently been able to make any profits at all. Most of them have just got out of bankruptcy, and until recently their stocks have been of no value. While the Georgia Railroad Commission limits the freight rates, the rates actually existing hitherto were much lower within the limits.

Another reason why an increase of freight rates seems to the witness justifiable is that the railroads have hitherto helped the establishment of cotton factories in the South by making low rates on machinery and materials and in other ways. The result is that now, the factories being established, railroads have no cotton to haul to the seaports, and the amount of freight which they get in the shape of cotton goods is much less than what they formerly hauled. As an illustration of the unduly low rates which had prevailed on cotton goods, Mr. Dunlap instances a shipment of

1,200 bales of cotton cloth from Monroe, on the Gainesville, Jefferson and Southern Railroad, to Shanghai, China. The rate was only \$1 per hundred, 93 cents of which was for rail freight to San Francisco. The rate from Monroe to Atlanta was only 6 cents, and that for the 10 miles over which the goods were hauled on the witness's road only 3 cents. While this local rate of 3 cents was apparently higher for the distance than the other railroads received for their longer hauls, it was yet unduly low, in view of terminal charges, etc. On shipments to New York the witness's road gets 6 cents per hundred for the same distance, while it formerly received 12 cents per hundred for hauling raw cotton the same distance. (2-4.)

Mr. DAVANT, commissioner of the Memphis Freight Bureau and Shippers' Organization, thinks that the increase in freight rates over the Southern roads in 1900 was at least partly justifiable. The Southern railroads have seldom earned any dividends on their stocks, and the witness supposes it to be reasonable to allow them to do so. (6.)

4. *Local rates on cotton—Memphis.*—Mr. DAVANT says there has been a considerable reduction in the local rates on cotton from neighboring points to Memphis during the past five years. The Tennessee Railroad Commission has had nothing to do with the fixing of rates, but the Memphis Freight Bureau is constantly making efforts to secure more satisfactory local and through rates. Some of the local rates it considers fair, but others are still too high. (7.)

5. *Reduction of freight charges—Minnesota.*—Mr. TEISBERG, secretary of the State Railroad and Warehouse Commission of Minnesota, gives several instances of the reduction of freight charges on grain within that State. From Alexandria to Minneapolis, 133 miles, the rate was 21 cents per hundred pounds in 1880, 19 cents in 1885, and 12 cents in 1887. Since that date it has not changed. From St. Vincent, 380 miles, the rate was 35 cents in 1880, and 21 cents in 1887, and is now 16 cents. Mr. Teisberg thinks that these reductions have been partly caused by the operation of the railroad law, the rulings of the commission, and the moral effect of those rulings, but that the more economical methods of transportation, such as the increase of the size of cars and engines, are the chief cause. He considers that competition has had very little to do with it. (364.)

6. *Western freight rates.*—Mr. BACON, of the Michigan Alkali Company, says that Western freight rates on the products of this company are so high that practically none are shipped into that territory. There is a rate of 58 cents per hundred pounds to San Francisco, this low rate being due to the competition of the foreign product with ocean transportation. The witness has no complaint to make regarding discrimination between long and short hauls ordinarily, excepting the low rates where there is water competition. But he believes that it would be to the advantage of the railroads and the West generally to reduce freight rates in that section so as to allow the establishment of industries. (80, 85.)

Mr. STUBBS, of the Southern Pacific Company, asserts that the rates for transportation from the Pacific coast have very considerably decreased since 1891, and he knows of no single instance in which they have increased. (765.)

7. *Freight rates on alkali products.*—Mr. BACON, freight manager of the Michigan Alkali Company, complains of the excessive freight rates charged upon its products as compared with other articles. The various articles are all shipped in compact form, in large bags or barrels; they are all heavy and they are clean and convenient to handle. There is not so much leakage from the packages as there would be from flour barrels. A barrel of flour weighs 212 pounds, and a 15-ton car would contain 143 barrels. A barrel of dense soda ash weighs 570 pounds; of light ash, 300 pounds; of bicarbonate of soda, 420 pounds; of cement, 400 pounds; that is, a 15-ton car would contain from 52 to 100 barrels of these respective products. Notwithstanding the favorable character of the alkali products for shipment, the railroads charge a rate very much in excess of that on flour and similar barrel products. The following table shows the relative rates from Wyandotte, Mich., to various Eastern and Southern points (1900):

To—	Barrel dense ash.	Barrel light ash.	Barrel bi-carbonate.	Drum caustic.	Barrel flour.
	Cents.	Cents.	Cents.	Cents.	Cents.
Boston.....	109.3	57	79.8	142.5	37.1
New York.....	91.2	48	67.2	120	32.8
Philadelphia.....	79.8	42	58.8	105	23.6
Baltimore.....	74.1	39	54.6	97.5	27.5
Richmond.....	94	49.5	69.3	123.7	26.5
Chattanooga.....	159.6	84	205.8	405	.....
Atlanta.....	205.2	108	260	405	.....
New Orleans.....	188.1	98	188.6	247.5	.....
Memphis.....	102.6	54	75.6	186	.....

Mr. Bacon recognizes that the fact that flour is a staple article, shipped in large quantities, justifies a lower rate than on alkali products, but he considers the difference shown in this table excessive. The railroads charge \$1.09 for taking a barrel of heavy ash from Wyandotte to Boston in car lots, while a barrel of flour is hauled the same distance for 37 cents. (72, 73, 81.)

8. *Transportation of California fruit.*—Mr. STUBBS, of the Southern Pacific Company, does not think that there is any complaint or any basis for complaint on the part of freight shippers in California against excessive charges by the railroad companies for transportation. The fact that the shipments of citrus fruits to the East have grown from nothing to 20,000 carloads a year shows that there can be no basis for complaint. Shippers do complain of the practice of the railroads in determining the routes and in not operating refrigerator cars themselves. They also contend against the demand of the railroads that they should load 13 tons to the car instead of 10 tons, on the ground that this does not leave sufficient room for the circulation of air. The railroads are satisfied that this is not true, because for the most part 40-foot cars are used for 13-ton shipments as against 36-foot cars for the 12-ton shipments. The railroads found that the size and weight of boxes had been increased so that practically 13 tons were being carried for the rate on 12 tons. (767.)

9. *Coal rates—Philadelphia and Baltimore.*—Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that the rate from the Cumberland and West Virginia coal fields to Baltimore by the Baltimore and Ohio is \$1.45, without distinction as to distance. There is a territory beyond that section from which the rates are higher. They are also higher from the gas-coal field. The rates to Philadelphia are the same as to Baltimore. This is doubtless because the rate from the Pennsylvania fields to Philadelphia is the same as the Baltimore and Ohio rate to Baltimore, and if the Baltimore and Ohio charged a higher rate to Philadelphia the Pennsylvania road would haul all the coal there. (619, 620.)

10. *Freight rates on paper.*—Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, thinks that the Southern lines make such low rates to Western points on paper in carloads that the New York, Pennsylvania, and Maryland lines have to make low rates to put their shippers on an equal footing with those in New England. (619.)

11. *Freight rates to Denver.*—Mr. GRIFFITH, representing the Denver Chamber of Commerce, says that there has been no change in the freight rates on first-class commodities from the East to Denver during the past two years, so far as he is aware. (855.)

B. Policy regarding rates—Competition and other influences.—(See also *Water transportation*, p. CLXXIV.)—1. *General effect of competitive forces.*—(See also under *Consolidation*, p. LXVIII.)—Mr. THOMAS, president of the Erie Railroad, declares that the greatest danger to the public is not from high railroad rates but from unrestricted competition resulting in discriminating rates, or in rates which are too low to give a profit to the railroad. At present rates are more stable and uniform than they have been before, and there is a feeling of confidence on the part of the railroads as well as a disposition to maintain fair rates. This country has shown itself able to transport freight more cheaply than any other. The new opportunities and wealth of the country have been stimulated in every possible manner. While competition may have some effect in developing transportation lines and lowering rates, and while some competition is undesirable, the paralleling of railroads results in economic waste. It may be a question whether, if there were no direct competition between railroads, freight rates would be reduced, but, in the opinion of the witness, the competition of different sections of the country and of different countries of the world would keep rates down. America is competing with the world. The price at which grain shall be shipped from Chicago to New York is fixed by the markets of England, and the Continent, where there is competition of the grain from Argentina, India, Russia, and many other countries. The railroad manager who undertakes to keep up rates because he has an apparent monopoly would soon ruin his business, drying up the entire sources of supply, and putting his territory at such a disadvantage, as compared with the rest of the country, that manufacturers and producers could not exist. It does not even pay to put up rates for the purpose of speculation in Wall street; there are easier methods by which to make profits there. In the experience of the witness he has never known an appeal by a majority of manufacturers or of communities, regarding their inability to meet competition of other sections, to be brought to railroad managers without meeting a prompt response.

Mr. Thomas also alludes to the competition of Canadian railroads as a factor in checking the charges of American railroads, even as far south as the Gulf. (551, 552, 554.)

Mr. SCHIFF, banker, declares that transportation rates in general will adapt themselves by a natural law to the prevailing rate of interest. If other investments aver-

age a return of 4 per cent, railroad capital actually spent can not be made to return more than 4 per cent, no matter what is done. (774.)

2. *Competition between railroads—Rate wars.*—Professor RIPLEY says that where there is not competition there is not that incentive, which becomes a matter of self-preservation, to add the very latest and very best improvements, which must prevail where competitive conditions exist. Roads which are subject to competition know perfectly well that if they do not give quick trains and good service traffic will go by the other lines.

At competitive points on roads there is frequently a secret rate in force which is much lower than the published rate. (294, 295, 296.)

Mr. TEISBERG, secretary of the State Railroad and Warehouse Commission of Minnesota, thinks that so far as community of interest in ownership may prevent rate wars it is a good thing. His observation is that rate wars help only large shippers who do not need the help of the railroads. The small shipper is generally not prepared to take advantage of the reduced rates. (365.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that rate wars have been less frequent in the southern territory than in the northern. (627.)

3. *Distance as an element in freight rates.*—Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that there is a consensus of opinion among railroads that charges per ton per mile should be higher for short hauls than for long. He has had occasion to endeavor to establish a definite rule, as an engineer and a mathematician, by which charges may be proportioned to distance. He has found that the scale which seems to fit best the actual conditions of tariffs makes rates increase as the square root of the distance; that is, the charge is double for four times the haul. Mr. Talcott has made use of this rule, not only for the fixing of rates, but for the division of charges, and the rule has been approved for both purposes, both by practical railroad men, by courts, and by State authorities. (630, 631.)

4. *Competition of Canadian railways.*—Mr. THOMAS, president of the Erie Railroad, says that the Canadian railroads are important factors in making rates on all American roads even as far south as New Orleans. The exporter of grain or other commodities does not care whether his shipments go by way of Montreal, New York, Newport News, or Galveston. If the rate made by Montreal is lowered, it must be met by the roads to all these other points or they must forego the business. The shipment of goods by water is also a great factor in keeping down rates. (552.)

Professor RIPLEY says that the suspension of the privilege to ship goods in bond over Canadian roads would be of great damage to New England shippers. (299.)

Professor Ripley says that Canadian roads are allowed by the American roads a differential, in order, so far as he can see, not to bring to an issue the question whether those roads are subject to the interstate-commerce law, i. e., rather than fight the matter out, the American roads have allowed and do allow the Canadian roads to charge less for the same haul than the roads allow themselves in United States territory. (298.)

5. *Advantages of Boston by reason of Canadian railway connections.*—Mr. HOWES testifies that Boston's railroad connection with the West by the Canadian Pacific road and its branches has been quite an advantage. The financial and commercial interests of the American trunk lines terminated at the Hudson River, and their influences were detrimental to Boston shipping. The Canadian roads were interested in having shipments sent to Boston, and by reason of this competition the American trunk lines gave Boston a consideration which they otherwise would not have had.

In the summer time grain that arrives at Montreal can be shipped thence to Liverpool by steamer just as cheaply as from Boston. The freezing of the St. Lawrence in the winter causes a great deal of the Canadian shipments to be sent through Boston. The tendency for the last year or two has been somewhat against this Canadian trade. A spirit of antagonism has grown up in Canada to a certain extent, due partly to the belief that trade relations between the two countries are not what they ought to be, and out of this belief has grown a political feeling which has necessarily had considerable influence on the Canadian Pacific road. The effect has been to lead Canadian shippers to use the Canadian Pacific to St. Johns, New Brunswick. The Grand Trunk Railway has also developed its terminal facilities at Portland, Me., and this has injured Boston trade to a certain extent. In going to Portland, the Grand Trunk carries its freight entirely over its own line. (701-702.)

6. *Canadian Pacific differentials.*—Mr. STUBBS, of the Southern Pacific Company, says that the American transcontinental roads have fought the demand of the Canadian Pacific that it be allowed differential rates on account of the longer time of transportation and other disabilities of the road, and that this differential, which was

a very disturbing element in the past, no longer exists. The matter was finally submitted to arbitration, and the American roads won. The witness asserts that the transcontinental lines west of the Missouri River did not cut rates secretly to meet this Canadian differential, but the Canadian Pacific road complained continually that the rates east of the Missouri River, and particularly east of Chicago, were cut so that while the Canadian road nominally had a differential it really was not given any advantage. The witness supposes it is true that there were sporadic instances of rate cutting, though he is not in a position to know regarding eastern lines. (763.)

Professor RIPLEY says that the through export rate from this country to China is to-day as low on American roads as on the Canadian Pacific, though this is contrary to agreement. The Canadian Pacific is allowed, by agreement of the American roads, to charge a lower rate than is charged by the other transcontinental roads, but in practice to-day, by reason of the rate war which has been on for some months, shipments are going to Seattle and San Francisco, within the territory of the United States, at less than the rate that was to be allowed the Canadian Pacific. The rates from one point to another are determined primarily by competition with water carriage, and the rate to the Pacific coast from any point east of the Mississippi is uniform. North of the Ohio and east of the Mississippi shipments to any place east of the Pacific can be made for the same rate. Eastern manufacturing towns, therefore, have an equal advantage with manufacturing towns farther west.

Mr. MARKHAM, of the Illinois Central, says that the Canadian Pacific road is not subject to the same regulations for making rates as are the transcontinental lines of the United States, because the Interstate Commerce Commission has no control over the Canadian Pacific road, except where its lines run into the United States, and there is nothing to prevent that road from giving a portion of the revenue which accrue on the Canadian lines to shippers. The Canadian Pacific does not have any line into Chicago, and traffic from the Illinois Central to the Canadian Pacific would be taken over the Wabash or the Michigan Central. (442.)

7. *Basing-point system* (see also as to *Southern States*, p. CVII).—Professor RIPLEY presents a diagram which is published by the chief inspector of the joint rate and inspection bureau of the Trunk Line Association at Chicago. The diagram presented is published by the railroads for the use of their agents, and shows the distribution of the percentage rates on the Chicago and New York basis. The distance from Chicago to New York is always represented by 100. In parts of the territory represented by this diagram, shipments from any point pay 96 per cent of the Chicago-New York rate, whatever that may be. Within other parts of the territory it is 95 per cent of the Chicago-New York rate, or 65, 80, or 110 per cent, etc. (301.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that rates between Chicago and New York are the basis of all rates in trunk-line territory. All other rates are fixed percentages of them. For instance, the rate to Cincinnati is 87 per cent and that to St. Louis 116 per cent. The class rates have not been changed in many years. (625.)

C. Classification of freight.—1. *Description and general effects of system.*—Professor RIPLEY says that there are at present some 5 classifications of freight, the principal one of which, known as the Official Classification, covers all territory east of the Mississippi—that of the Eastern Trunk Line Association; another covers the far Western States and is known as the Western Classification; another covers the territory south of the Ohio and is known as the Southern Classification; and then several of the States, Illinois and Iowa, prescribe by law what the classification of the freight on their roads shall be.

By classification is meant the separation of goods into groups according to the rates which are to be paid. A reduction of the general schedule of rates may be entirely offset by changes made in classification of goods; that is, goods which formerly went second class may be moved up into the first class, etc. The absence of uniform classification throughout the country gives rise to great difficulty in the assessment of charges and in the comparison of the movement of rates. Goods which may be reported second class at the point of shipment may be first class at the point of delivery. Uniformity of classification would have great advantages, but the difficulty of securing it would be considerable. A commodity which in one part of the country is an ordinary product of the soil, and which must therefore be given a low classification, becomes a luxury at a point distant from the place of production, and would consequently be given a high classification. Oranges are worth comparatively little by the box in California, but transported to the northeastern corner of the United States, they are of much greater value. This increase in value makes it possible to move them up in the scale of classification and to charge considerably more for transporting them. The question of uniform classification involves an agreement between

all the railroads and the introduction of a sort of system of reciprocity through the recognition of the fact that what a road would lose on certain kinds of traffic through uniform classification it would gain on others. Some progress has been made toward uniformity in classification. A great number of arbitrary classifications which formerly existed have been removed, and highly complex conditions, which grew out of them and put the shipper at the mercy of the railroad by making it impossible to figure out in advance what rates would be, have been replaced by the comparatively simple situation to-day of five or six principal classifications. (302, 303.)

Mr. P. J. McGOVERN, chairman of the Southern Classification Committee, defines the three classification districts or territories in respect of freight movement, viz:

1. The territory lying north of the Ohio and Potomac rivers and east of the Mississippi River and Chicago, which is covered by the Official Classification.

2. The territory lying west of Chicago and the Mississippi River, which is covered by the Western Classification.

3. The territory lying south of the Ohio and Potomac rivers and east of the Mississippi River, and is covered by the Southern Classification.

In all three territories, various exceptions to the classification are in force, in the shape of commodity tariffs or what are termed classification exception sheets.

The classification is usually divided into three parts: (1) The general rules which govern in the application of the rates; (2) the descriptions of the articles, setting forth the names of the article, manner in which it is to be packed, etc., and (3) the ratings themselves, showing what class each particular article is to take. (652.)

Mr. McGOVERN says further: "The making of freight classifications is the making of rates. * * * Two factors enter into the final determination of a rate: First, the rate itself, and, secondly, the classification of freight to which that rate applies."

The cost of transacting the business has very little to do in forming the classification. An article is considered with reference to its weight, its specific gravity, and that sort of thing, and its value, no doubt with respect to its relation to the trade of the country where it is produced. Several letters accompany Mr. McGOVERN's testimony, showing the method by which the classification committee takes up and considers the change of classification. This method shows that a change of classification is always considered by the committee, and cases are taken up in the order in which they are presented for consideration. Referring to an application by the Armour Company, of Kansas City, for a change in the classification of butterine, he said that the proposition advanced by the company to have this listed in a lower class should not be entertained, merely because it would be less expensive to the company to furnish their own ice in the transportation of it in small lots. (668-672.)

Mr. LANGLEY says that prior to the enactment of the interstate-commerce law each individual railway line made its own freight classification. He thinks there were 138 classifications. After that law went into effect it was found that in applying these classifications to the scale of rates then in force the long and short haul clause was violated. The roads then held a convention and attempted to adopt a uniform classification. That was found to be inexpedient, and the United States was then arbitrarily divided into three classification divisions. The territory from New York to Chicago and north of the Ohio River is known as the Official or Trunk Line territory; east of the Mississippi and south of the Ohio is the Southern territory; west of Chicago is the Western territory. Three classification committees, one for each territory, arranged a classification of freight for their respective territories, and there was little complaint from 1887 up to January 1, 1900. (860.)

Mr. Langley testifies that the railroads have two systems of making rates. One of them is styled the "Commodity rates," which covers traffic that moves in bulk—such as grain, flour, and various other products. In the effort to systematize traffic in miscellaneous merchandise the railways (under the Official Classification) have arranged 6 classes of freight rates. Under these 6 classes they arrange the separate items, some 3,000 in number. (861.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that there is no absolute rule for the division of territory for the purposes of classification, but the Southern territory generally takes the Southern Classification; the territory embracing New England and the Middle States takes the Official Classification; and there is another classification in the trans-Mississippi territory. There are considerable differences between the Southern and the Official classifications. Mr. Griswold thinks the Southern is on the whole the higher and the more complicated. In making a rate from Official territory into Southern the Official Classification governs as to certain Southern territory and the Southern Classification as to other. (617, 618, 623.)

Mr. Griswold says that many of the roads—as, for instance, his own—are not represented upon any classification committee. He, however, always receives notice

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when a revision is proposed, and he supposes that other traffic managers do. Shippers also are free to make suggestions, and do make them, either directly or through railroad officers. (618.)

2. *Southern Classification.*—Mr. MCGOVERN states that the Southern Classification Committee was organized April 15, 1899, its object being the establishment of uniform freight classification and to aid in executing the laws affecting commerce. Its membership is composed of 42 transportation companies operating in the territory south of the Ohio and Potomac rivers and east of the Mississippi River, together with the steamship companies engaged in coastwise transportation to and from the ports of that section. Some of the steamship companies are more or less affiliated with some of the railway companies in the association, and unless their officers are the same as of the railway companies they are given a vote in the association.

The articles of the association provide for a subcommittee of 15 members, two-thirds of whom are necessary for a quorum, whose duty it is to consider the classification of freight, whether submitted by the chairman or by shippers, or in the shape of complaints from shippers, and to recommend to the full committee. If the recommendation is concurred in by the general committee, the chairman publishes it and it becomes the official issue of all the members of the association. They have a general notice on file with the Interstate Commerce Commission to that effect. If any line does not care to accept, it will give notice to the committee and file that notice with the Interstate Commerce Commission. The committee does not even undertake to enforce the application of the classification after it is once published. A five-sixth vote is necessary to establish or to change a classification. The representatives composing the general committee are the traffic managers, traffic officials, general freight agents, etc., of the various transportation companies of the association.

The Southern Classification Committee, continues the witness, has no financial functions. Its expenses are divided on the mileage basis. The need of such a committee had been recognized for many years prior to its organization. Similar committees had been in existence in the territory and in the Western Classification territory for many years, and their value had been demonstrated. (652, 653, 654, 655.)

For discussion of recent changes made by the Southern Classification Committee, and of their effect on rates, see p. LXXIV.

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that the Southern Classification was, in its origin, a compromise measure between all the roads in that territory, and replaced their individual classifications. When it was adopted some were exceedingly anxious to base it on the Official Classification, which contained only 4 classes. It was found that these would not fit the Southern conditions. It would put some things in the fourth class that would not stand fourth-class rates. Lower classes had to be established. An increasing number of commodity rates have also been introduced. Moreover, there were State classifications within the limits of the particular States, and the witness thinks many of these are still in existence. (632, 633.)

Mr. GUILLAUME, president of the Old Dominion Steamship Company, states that that company does not get the same amount for transporting through freight from New York to Norfolk and Richmond, destined for the West, as on goods destined for the South. The distinction is brought about largely by the different classifications. The Southern Classification runs lower than the Trunk Line Classification. The Southern rate scale is higher because of the vast difference in the tonnage moved as between the East and the West and the East and the South, and because of the greater number of competitors of all kinds in the Western business. (446.)

3. *State classification in the Southern States.*—Mr. LANGLEY says that a peculiar condition in respect to Southern territory is that the Southern Classification governs on interstate traffic all through that territory, but the various States, through the State railroad commissions, do not recognize that classification in intrastate traffic. The result of this is that a merchant, for instance, in Mississippi can buy his supplies on the basis of what is known as the Southern Classification and distribute in his State on a much lower basis of classification, whereas an outside merchant shipping to the point in that State is governed solely by the Southern Classification, which is about 30 per cent higher than the Mississippi Classification. (863-864.)

4. *Commodity rates.*—Mr. GRISWOLD says that a commodity rate is generally a special rate made on such articles as lumber, coal, and pig iron, which could not be moved in large quantities at class rates. It is true, however, that commodity rates are sometimes named on other kinds of goods as a means of making cuts. There are a great many commodity rates in existence, but far less than some years ago. (617.)

Mr. MCGOVERN testifies that commodity rates are not in the nature of discriminations, but are supposed to be to the advantage both of the shipper and of the carrier.

In making such rates the classification is not reduced all over the classification territory. Usually each railroad makes its own commodity rates. They are established where the particular commodity is actually shipped most. Any person engaged in shipping a particular article or line of goods subject to such a rate would be given the reduced rate. There is no discrimination. The practice seems fair and sensible and is a pure business proposition. Commodity rates stimulate the particular business and are very beneficial to a community starting a new manufacturing business, for instance, as they are somewhat in the nature of protection to those interests. Commodity rates would apply to all alike who are engaged in the same particular line of trade in the territory. One idea in the making of commodity rates was to build up the iron business of the South. Lower rates were made on northbound pig iron than on manufactured iron articles coming into the Southern territory. The practice is precisely like that of a man with a stock of goods selling some of them at 5 per cent profit, some at 10 per cent, and others at, say, from 40 to 50 per cent profit. Commodity rates are remunerative to the railroads as additional business for increasing the traffic. The making of a competitive freight rate is subject to precisely the same conditions as the price of the thing unshipped. The maker and the carrier join in the partnership and both are helped and nobody is hurt except some one outside of the classification territory who is engaged in the same kind of business. Such rates are usually applied to new articles of manufacture. The cotton rates from the South are in some cases higher than the rates on the factory products. These are arranged so as to stimulate the cotton manufactures of the South. There may be an element of injustice in this to the cotton grower, but it is a simple business proposition. (674-676.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that when the Southern Classification was established it was necessary to give commodity rates to certain Western products which could not bear the class rates. From time to time commodity rates were claimed for many other things, until the number, which had been a half dozen at first, was too large to be covered by the alphabet. New ones have continued to be introduced since Mr. Talcott was actively connected with the matter 10 years ago. (632, 633.)

Western commodity rates.—Mr. STUBBS, of the Southern Pacific Company, believes that the Western Classification of freight is as satisfactory as a compromise between the views of many different railroads and shipping interests makes possible. If each road could make its own classification there would be many changes. There never can be any classification which will preclude the necessity of special commodity rates. As the scope of a general classification increases the number of such special rates must also increase. The Western Classification may not provide a satisfactory rate for some commodity which is of great importance to some particular road, though of minor importance to the other roads, and it must accordingly make a commodity rate.

Mr. Stubbs asserts further that practically all of the transcontinental freight is carried on commodity tariffs under the controlling influence of sea competition. Sea carriers actually classify freight much more than the railroads. They take freight on the basis of both weight and measurement, and especially where the rate is based on measurement its proportion to the value of the commodity varies greatly. Moreover, the requirement of insurance on sea cargoes acts virtually as a means of classifying rates. The rates therefore are different for almost every article, and the rail carriers must make commodity rates to correspond. These commodity rates are made by the transcontinental carriers in conference and are practically the same on all of the railroads as regards transcontinental business. (763.)

5. *Changes of classification.*—Mr. MCGOVERN says that when changes of classification are made, 10 days' public notice in case of an advance and 3 days' notice in case of reduction is always given. Classifications must change very many times to meet commercial conditions, and while they may interfere with contracts theretofore made between merchants, it is found impossible, even with the greatest effort, to accommodate all the changes to all the trade conditions. Sometimes a notice of 20 days is given of any contemplated change. (668.)

6. *Discrimination by means of classification.*—Mr. LANGLEY testifies that by the advance in the classifications made by the several classification committees in 1900 the merchandise traffic, which moves in smaller volume than what are known as commodities, such as flour, coal, grain, and articles of a similar nature that move in carloads, is forced to pay a higher scale of rates, and thus is taxed more heavily than the commodity traffic. He thinks this is not equitable, because if the railroads desired to increase their revenue, or if there was any necessity for the increase of revenue, the increased tariff should be levied on all traffic alike. (870.)

The protest of the Merchants' Association is not primarily that freight rates have

been advanced, but that they have been unequally advanced in a way that adds burdens to the small man and the small shipper. Under this indirect method of raising freight rates the small man always gets the worst of it. He believes that the classification for the country at large or for the different sections of the country ought to be drawn up by a representative body, including representation of the shippers and of the railroads, and with publicity in the conferences. (867.)

Mr. McGOVERN refers especially to the item of coffee, which was advanced in classification by the Southern Classification Committee, and says that, protests having been made, the roasted coffee was reduced, while the green remained in the advanced classification. The result of this was to benefit the roasted-coffee interests. The witness says that in checking over the official classification he noticed that a good many of the items that were under the control of the industrial combinations or trusts were not advanced at all. These changes in the classification whereby the trust articles were not advanced were discriminations in favor of the trust interests. (865-866.)

7. *Classification inspectors* (see also *Underclassification*, p. CIII).—Mr. LANGLEY says that the inspectors employed by the classification committees have arbitrary power and have the right to open a shipment and look through it and classify it in accordance with their classification rules. He thinks that many times they are bribed by the large shippers, but says, of course, there is no way to prove this, and believes also that sometimes the shippers in New York are instructed to misclassify freight and thereby get a lower rate. He does not know definitely of any case of venality on the part of any inspector, but says "it is one of these things that everybody knows." The inspectors are employed by the railroad associations in each respective classification territory. It is generally understood among merchants that their packages of goods are subject to be opened by the inspectors, although there is no contract in the bill of lading authorizing the railroad companies to do so.

There is a practice, but it is not general, among merchants to ship in a lower classification than the goods should honestly go into. The railroads keep records of cases in misclassification, and the inspectors know just where to put their hands on parties who are given to that sort of thing. Section 10 of the interstate-commerce act, however, provides a penalty for misclassification, but says nothing about inspection. There is great difficulty in correctly grouping various kinds of merchandise or articles in a way that will correspond with the classification as promulgated, especially in the case of hardware. It requires a man quite expert and the packer must have a high degree of intelligence to analyze the classification and comply with it in a good many instances. The inspectors are supposed to be expert in classes of goods and familiar with the classification and the grouping of various articles into one shipment. Their actions are at times complained of, however. (867-868.)

8. *Packing of goods—Minimum weight, etc.*—Mr. LANGLEY says that it is a matter of convenience among merchants to put a considerable variety of goods into a single packing case sometimes, and they do so in order to comply with the rule that the classification committees have established that no single package or small lot of freight of one class will be taken at less than 100 pounds at first-class rate, and in no case will the charge for a single consignment be less than 25 cents. He thinks it would be a protection to the merchants and some aid to the inspectors if an invoice accompanied the bill of lading. In some of the Southern centers there are jobbers who job in a number of different commodities at the same time, but they do not have any special advantage over Northern jobbers in that respect, because the railroads have a rule as follows, viz:

"Shipments of property combined into packages by forwarding agents claiming to act as shippers will only be taken when the names of individuals and final consignees, as well as the character and contents of each package are declared to the receiving agents, and such property will be waybilled as separate consignments and freight charged accordingly."

The local jobber, however, may have a slight advantage over the New York jobber in combining into packages several small shipments, not violating the rule that no package shall contain more than 100 pounds, because the New York shipper dealing in only one line of commodities could not afford to ship directly to the small country store. (869.)

Mr. McGOVERN says further that there is a complaint about the regulations as to the style of package, and as to the make-up of freight in different classifications. The Southern classification has a clause to this effect, viz:

"Property presented to carriers packed in so-called boxes or cases made from strawboard, leather board, wood-pulp fiber, wire-split wood, and other analogous materials included in wooden frames, will be charged 10 per cent higher than the classification provided for such property in boxes or cases."

The reason given by the roads for this rule is that the railroad loses the freight on the extra weight of a wooden box, and to equalize matters they make a discrimination of 10 per cent on all freight shipped in the lighter boxes. In hardware there are instances in which they charge a higher rate for goods packed in boxes than in barrels. Their explanation of this is that the shippers will put hardware in boxes, and if it is a high-class hardware they will call it low-class hardware and thereby get a lower rate of freight. (876-877.)

9. *The cotton piece-goods schedule.*—Mr. LANGLEY testifies that dry goods are in the first class in all three of the classification territories. What are known as cotton piece goods, which are supposed to be goods made exclusively of cotton, are in a lower class. The Merchants' Association of New York endeavored to have the classification of cotton piece goods simplified, and presented an argument in favor of it. The official classification committee simplified it by advancing it from the third to an intermediate class, 15 per cent less than the second class. The Southern schedule of cotton piece goods includes about 35 different articles made wholly of cotton. As a matter of fact, most of these terms are technical trade names. Into these 35 terms between 2,000 and 3,000 different styles of goods made of cotton are endeavored to be condensed. There is some new name attached to some product of cotton every year to make it attractive, and it is difficult to tell how to classify such article. When a shipment is made, although it may be cotton piece goods really, the inspectors who are maintained by the Southern classification committee will use their own judgment as to whether the goods in that shipment should be included under these 35 terms. If it should seem to the inspector that these goods do not come under any of those 35 terms, the shipment, instead of going forward to the fifth class, would be advanced to the first class. The witness says that if there is a shipment of chevriots and there is room in the box in which they are packed for a quantity of dry goods made partly of wool, which is first class, the inspector will raise the entire shipment up to first class, even though 75 per cent of it was cotton piece goods. The advance in the freight rate by this process would be contingent upon the distance transported, being less for a short distance than for a longer. The witness does not think that after a classification has been made by experts in the business it should be disturbed. (866, 867.)

10. *Uniformity in classification advocated.*—Mr. BACON, of the Michigan Alkali Company, complains of the lack of uniformity under the Official Classification in the Northern States and the Western and Southern classifications. The various products of his company—caustic soda, soda ash, and bicarbonate of soda—all take the same classification in the Northern States, but as soon as the Ohio or Mississippi River is crossed these products each come under a different class, and there is great confusion. There is no justice, Mr. Bacon declares, in charging a rate of 54 cents on caustic soda from Wyandotte, Mich., to Atlanta, when the rate on soda ash is only 36 cents. In the Northern States these products all fall in the sixth class, while in the Southern States they go in either the fourth or fifth usually. The result of this lack of uniformity is an inability on the part of the producers to calculate as to what the freight rate will be and to make their contracts accordingly. Goods are started out under one classification and may pass through one or two others. The manufacturer who has a rush order may not be able to learn for a week what the rates will be. He does not know how to make contracts, being unable to calculate the freight rates; and the more so because the rates under each classification are subject to change without reasonable notice. (73, 74, 81, 82.)

Mr. Bacon, in view of his experience as to the disadvantages of lack of uniformity in freight rates, declares that there should be a uniform classification throughout the country. This should be prepared by a single traffic association, and should be subject to the control of the Interstate Commerce Commission. As a more definite method of adopting such a classification, the witness suggests that there should be an organization consisting of six railroad men and six business men. The railroad men should be selected by the railroad companies, and should represent the different sections of the country. The business men should be appointed by the Interstate Commerce Commission, and should represent the six leading classifications of freight. The witness thinks that lawyers would not be required on the board. He recognizes that the making of classifications is a very intricate matter. The argument made by the railroad companies in favor of the maintenance of several traffic associations and several classifications is that railroad officials in one section are not familiar with the conditions in other sections. But a body organized as suggested would be representative of all sections.

This body should fix rates to take effect January 1, and to remain in effect without change for at least one year. The witness believes that it would be practicable to retain rates thus unchanged. The work of this traffic association should be subject

to the supervision of the Interstate Commerce Commission, although that body by itself would doubtless find it a physical impossibility to make classifications and establish rates for the entire country.

Mr. Bacon is inclined to think also that freight rates upon a uniform classification should be uniform for the different sections of the country. The same commission or association which determines classification should fix rates and keep them unchanged throughout the year. It might possibly be necessary to make some differences in rates on particular commodities in different sections of the country, but the witness believes that if rail rates were made alike in all sections, every section would build up rapidly, manufactures would be established where now excluded by high freight rates, and the railroads would soon find business profitable everywhere.

Mr. Bacon thinks there might be some advantage in having the classifications and rates proposed in the first instance by the leading railroad companies, and equalized and adjusted by such an association as he suggests.

The witness declares further that he has seen no evidence of an increasing tendency on the part of the railroads themselves to establish uniform rates. They need to be made to do it; moreover, the parties in interest will adjust rates for their own advantage, while the Government would be impartial if it took up the matter. (74, 76, 82-84.)

Mr. WILSON, of the Cincinnati Board of Trade, declares that the freight classifications made by our railroads should be made uniform as far as possible. This can not be done absolutely at once, but a uniform base classification ought to be put into effect, with such flexibility as commercial circumstances require. The power which establishes classification should have the right to make modifications upon proper representations. Cincinnati lies on the boundary of the three great classifications, very much to the inconvenience of the shippers, who must take into consideration all the time into what classification the goods are to be shipped. No possible benefit could be obtained in intrusting the Interstate Commerce Commission with any greater power over classification matters. (698.)

Mr. MCGOVERN, of the Southern Classification Committee, thinks that a uniform classification is not altogether impossible, but that it would be impracticable and that its value has been overestimated. The attempt to bring about an agreement as between the existing three classification systems would result in a modification of the number of classes. Cotton-factory products, for example, are first class in Western territory, third class in Official territory, and fifth class in Southern territory. Existing freight rates should not be violently disturbed. Neither classification territory would be willing to change entirely to the classification in any other territory, and a new class would probably have to be established as a compromise. It is proper that cotton-factory products should be placed in different classes in different sections of the country. In Western territory cotton products are consumed only, not manufactured. There is no question of encouraging the development of factories. In the Official territory cotton goods are produced, but the business is firmly established. In Southern territory cotton mills are just starting, and the goods were put in a low class to set the business on its feet. When the conditions as to the density of traffic become similar in each great territory the system of classification will gradually level itself up and tend to harmony.

Mr. McGovern does not think that the establishment of a uniform classification would materially simplify the transportation of goods from one section of the country to another. It is true that in crossing the boundaries of the classification territories the basis of rates is changed and combination rates have to be made. In many instances there are definite through rates based on one of the classifications only, even where goods pass from the territory of one classification to that of another. (677, 678.)

Mr. WHEELER, representing the San Francisco Board of Trade, says that no freight classification or tariff was ever constructed which was wholly consistent. Shippers have constantly to call the attention of the railroads to inconsistencies and to try to secure their correction.

This witness believes that a national classification of freight should be established, with, however, permission to the railroads in particular localities to make suggestions and to establish commodity rates. It is justifiable that there should be special rates in view of the varying conditions in different sections. The tariffs in the South must take into account the transportation of cotton, and of coal, iron, and steel from the Alabama district. The eastern Official Classification must take into view the special classes of traffic which are most important in those sections. As it is under the three existing classifications, each railroad makes many special commodity rates according to conditions, and this could be done just as well under the national classification. As particular evidence of the importance of commodity tariffs, the witness speaks of

the rates on transcontinental traffic which are practically all, he asserts, commodity rates differing from those of the Western classification. "The exceptions are the whole thing." The railroads are forced to make these commodity rates in order to meet sea competition. (749.)

11. *Impracticability of uniform classification.*—Mr. STUBBS, of the Southern Pacific Company, thinks that the present system of three classifications—the Official, the Southern, and the Western—goes as far toward uniformity as is practicable. Commodity rates must be made in many cases even under the present classifications, and the railroads have had to make considerable concessions in order to agree as far as they have. If a national classification were attempted the number of concessions would be multiplied, and often the result would be an injury to the public quite as much as to the carriers. An increase in the scope of classification would also force an increase in the number of commodity rates which would practically make the uniformity of no significance. By multiplying the differences in conditions through an attempt to secure a single classification, the need for commodity rates would evidently be increased. The witness thinks, moreover, that a uniform classification would be of no importance, because classification does not make rates. The rates could be made to differ, according to conditions, whatever the classification. The whole idea of uniform classification is a snare with which to fool the public. (766, 767.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, does not consider that the conditions admit of a uniform classification for the whole country. The interests of the roads in a region where a particular commodity is produced will often lead them to give it a much lower rate than roads in other regions could afford to give it. For instance, the Florida railroads would put oranges in a lower classification than they would be given in Virginia, where they are not raised. Again, in the South, where they are endeavoring to encourage manufacturing, commodity rates are made for manufactures which would put them in a very low class, though the Official Classification puts them in the first class. (633.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that there would be very great advantage in a uniform classification of freight. There have been many attempts to bring it about, but so far the difficulty has seemed insurmountable. The Official Classification was the result of an attempt to secure uniformity. Conditions are better now with 3 classifications than they were some years ago with 10 or 15. There is no marked tendency toward uniformity between the classifications that now exist. The difficulty seems to be that different sections require different classifications on account of the volume of traffic in different commodities. A railroad which has a large business in a certain article can afford to handle it cheaper than a road in another section which handles only a little of it. (617, 619.)

Mr. GREENE, of the Audit Company of New York, thinks that the tendency toward consolidation of railroads will favor increasing uniformity of classification, but that the difficulty of absolute uniformity is great on account of the difference in conditions in different sections. Classification is only another method of fixing rates. Cotton goods, under stress of circumstances, may properly be carried at one rate from New York and another rate from Atlanta. (485, 486.)

Mr. LANGLEY says that uniform classification is a good thing, but he does not believe it practicable. The official classification is made to correspond with the scale of rates based on the rate from New York to Chicago as follows, viz: First class, 75 cents; second class, 65 cents; third class, 50 cents; fourth class, 35 cents; fifth class, 30 cents, and sixth class, 25 cents.

From New York to Atlanta, which is practically the same distance as from New York to Chicago, the first-class rate is \$1.14; second class, 98 cents; third class, 86 cents; fourth class, 73 cents; fifth class, 60 cents, and sixth class, 49 cents.

There are 3 classes of rates in the Southern territory higher than the highest class for similar service in the official territory. The Southern territory has always had an exceedingly high scale of freight rates. The railway facilities in the South are far inferior to those in the North. Recently there has been a great improvement generally throughout the South in railways, but that section is not up to the standard yet. One cause, perhaps, of the higher freight rates in the South is that the return traffic from the South moving North is quite light, except in the case of cotton, but still a great part of the cotton crop is shipped abroad and never comes North. (864.)

12. *Freight classifications and through billing.*—Mr. NICHOLSON, of the Central Railway Clearing House, testifies that the difference in freight classifications in force in different parts of the country involve a great deal of labor in billing the goods. The great bulk of the clearing-house traffic is on the Official Classification. The question of obviating the difficulties of the different classifications has been argued by the traffic officials between the East and the West for many years, but nothing has been

accomplished. In some sections of the country where a large class of particular freight is moved it would be to their advantage to have a lower classification than that prevailing elsewhere.

Mr. Nicholson says that there are many commodity classes, but that this does not embarrass the clearing house in the making of decisions. (726, 727.)

13. *Classification of freight by Interstate Commerce Commission.*—Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, thinks that to give the Interstate Commerce Commission supervision over freight classification would be to give supervision over the work of experts to inexperienced persons. While it would be possible for the railroads to arrange a classification so as to favor certain interests, he does not think it likely to be done in practice, because those who prepare the classification represent so many different interests. (618.)

D. Export and import rates.—1. *Generally.*—Professor RIPLEY says that the Interstate Commerce Commission has held that it is not in accord with public policy that the freight rate from Chicago to Liverpool should be less for the entire haul than the rate from Chicago to the local consumer at Boston or some intermediate point. The Supreme Court of the United States, however, has supported the practice of the railroads in making low export and import rates, and in the case of the Texas and Pacific railroad decided that the railroad was justified in making a lower rate from New Orleans to San Francisco on goods which had come to New Orleans from Liverpool by water than it made upon goods shipped from New Orleans as the starting point. The grounds of the decision were that the rate from New Orleans to San Francisco by land must meet the competitive rate by water, and that the rate from Liverpool to San Francisco via New Orleans must meet the straight water rate from Liverpool to San Francisco. The minimum figure in either case was to be determined by the conditions of competition. In one particular case the discrimination against New Orleans was from 50 to 200 per cent. In another case the domestic rate from New Orleans to San Francisco was \$2.88 per hundred weight, while the total rate on imported goods from Liverpool to San Francisco via New Orleans was \$1.07 per hundred, the Texas and Pacific road getting only its proportional amount of that \$1.07. Tin plate was also carried from Swansea to Liverpool, thence to New York and to Chicago, via Pittsburg, at a total charge less than the published rate from Pittsburg to Chicago. The existence of low export rates to the Pacific on cotton goods from New England manufacturers to the Orient is essential to the manufacturers in order to keep them on a par with manufacturers who can send the entire way by water. Low export rates concern the consumer in this country and low import rates concern the producer. In some cases the low import rates might nullify protective duties.

Export and import rates have a bearing upon the matter of personal discrimination. A shipper from some western point may send goods on an export through bill, and consequently at a lower rate, but include in that shipment goods destined for local delivery in New York. Goods meant for New York would be removed at that point. The shipper would be getting the advantage of the low export rates on goods intended for local traffic and would avoid the rule adopted by the Eastern Trunk Line Association freight committee, which provides that when any local goods are shipped in the car with export freight, less than carload rates must be charged. (299, 301.)

Mr. LANGLEY, of the Merchants' Association of New York, testifies that on flour, from Minneapolis to Liverpool, the inland rate is 2 cents per hundred pounds less from Minneapolis to New York than it would be on a shipment of flour to be delivered at New York and consumed there. With the exception of two of the Western mills, all the mills at Minneapolis, Duluth, and West Superior are consolidated. His own opinion, however, is that a trust as applied to the manufacture of flour is impracticable. The witness says that the effect of making excessively low rates on wheat shipped abroad works in favor of the foreign miller as against the home miller.

There are also import rates from foreign ports to interior American points lower than from our own trade and manufacturing centers to those points. This is unjust, although it is proper to favor long hauls relatively. It would seem proper that the rate from Liverpool to Chicago shall be almost as cheap as the rate from Liverpool to New York. The inland rate has a greater influence over the through rate than the sea rate. It is possible that jobbing merchants in Chicago can, on a low through import rate, reship their commodities and compete in territory which otherwise would be tributary to New York. Marshall Field & Co., of New York, can sell, in territory within 50 miles of New York, the same kind of goods bought in the same market in which the New York jobber buys. The only way that this can be accounted for is that that firm must receive some advantage in the matter of the through rate. (870-871.)

Mr. THOMAS, of the Erie Railroad, thinks that the practice of making rates on exported products lower than those on products used at home is justifiable on account of the necessity of meeting the competition of the world in foreign markets. The practice does not constitute a discrimination against domestic producers. Indeed, it increases the volume of business of the railroads, so that they are enabled to make lower rates for domestic shipments. In the case of the low rates on export wheat, the millers get lower rates on flour than they would if the export rates were not low. It certainly is to the interest of this country and of the railroads to have the grain ground here if possible. Another reason for making the rates on grain lower than those on flour is that grain is much more cheaply handled. It loads and unloads itself. The witness thinks, however, that even if the loading and unloading were done by the shipper, grain products would and should bear a higher rate than grain. (557.)

Mr. GREENE, of the Audit Company of New York, says that the practice of the railroads in making lower rates on goods for export than for goods used in this country is part of the same policy which frequently leads manufacturers to sell goods abroad at lower prices than in this country. Both practices are justifiable. The enormous energy of the American people sometimes leads them beyond the line of prudence in the production of wealth. Only an exportation of the surplus production can avert hard times. Otherwise, men must be discharged and business cut down. Few people realize the importance of export trade in its relation to the prosperity of the country. In order to facilitate such exports low freight rates and low prices on goods going abroad are entirely justifiable, and tend to benefit the entire business of the country. The cheap export rates on the railroads are a powerful instrumentality in keeping the balance of trade in favor of the United States. (484, 485, 487.)

2. *Exports and freight rates.*—Mr. MARKHAM, of the Illinois Central, says that the exports per annum from the United States amount to over 2,000,000,000 pounds of provisions, 500,000,000 bushels of breadstuffs, and 7,000,000 bales of cotton; that notwithstanding the greater part of these products is raised much nearer the Gulf ports than the Atlantic ports, only a small percentage of them find an outlet via the Gulf ports. With a reduction of the river rate, the rates on the Southern railroads would be correspondingly reduced, and that reduction would necessarily reduce the rates on the Atlantic seaboard lines. (431.)

3. *Pittsburg export rates.*—Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, says that the freight rate on steel rails from Pittsburg to New York at the time of his testimony was \$2.80 a gross ton, and that rails could at that time be shipped from Pittsburg to Liverpool at about \$4.25 a gross ton. (643.)

4. *Import freight rates.*—Mr. GREENE, of the Audit Company of New York, thinks that goods are sometimes shipped from foreign countries to interior points in the United States at even less than the prevailing rate from New York City to those interior points. The railroads consider such a policy justifiable on account of competition and in order that they may get the traffic at all. Thus railroads will receive goods from Liverpool and carry them from Chicago to New York for low rates in order that they may get the business. The ethical question as to the justice of such special rates is a difficult one, but the witness thinks on the whole that they tend ultimately to bring down domestic rates as well. (485.)

5. *Import rates on transcontinental business.*—(See also *Canadian Pacific differentials*, p. LXXXI.)—Mr. STUBBS, of the Southern Pacific Company, says that there is no regular system of making import rates from San Francisco and Pacific coast points to the East on goods coming from the Orient. "It is a go as you please." The steamships take freight at whatever rates they can from Asiatic ports to American cities, and the railroads accept their agreed proportion of the total rate whatever it may be. There are no published tariffs and no agreements between railroads which are enforceable. The witness further asserts that San Francisco has no reason to complain that it is robbed of business by means of these low, through import rates. It is true that rates from oriental ports to Chicago and New York through San Francisco have sometimes been lower than rates to San Francisco itself. But the import business of the country, except for the Pacific coast States themselves, was originally centered in the hands of houses at the Atlantic seaboard, and it is hard to change the practice. When the immediate-transportation act was passed, which allows imported goods to go to interior points under bond and to pay duties there, many interior cities began to do their own import business, but San Francisco of course gained no advantage from this change.

As a matter of fact, continues Mr. Stubbs, the controlling factor in the import rates on Asiatic commodities is water transportation by the Suez Canal, the Isthmus of Panama, and Cape Horn. The business went originally entirely by these routes, and the railroads were forced, if they were to take any traffic at all, to meet their rates.

Naturally the import rates which were made were lower than the rates on domestic duties, while the steamers from the Orient to San Francisco also made lower rates for goods going to the Eastern cities than for those going to San Francisco.

The witness doubts whether there is much profit to the railroad companies in the import traffic which they carry at these low rates. He adds, however, that all railroads are forced to take some business which is subject to strong competition at rates which are not compensatory and which give little regard to the total cost of transportation. Under these circumstances the carrier does not consider the numerous fixed charges, which do not vary whatever the volume of business. Moreover, about 75 per cent of ordinary operating expenses will be found to vary but little as the volume of business fluctuates. Accordingly the goods carried at very low rates may more than cover the additional cost which carrying them necessitates. The witness therefore does not think that railroads have actually carried Asiatic business at a loss. He says, further, that he does not suppose that the Eastern business of the Southern Pacific coming from Asiatic ports would exceed 12,000 tons, which is a very small proportion of the total business. (761.)

Mr. MARKHAM, of the Illinois Central, states that the transcontinental rates on silks, teas, etc., is controlled considerably by rates of the Suez Canal and the Indian Ocean. (442.)

E. Differential rates from the West to the Eastern cities.—Mr. HOWES, of the Boston Chamber of Commerce, says that the export rates from Chicago and other Western points to Liverpool via Boston are the same as those via New York, but that the local eastbound rates on sixth-class traffic are 2 cents higher to Boston than to New York, the effect of which has been to deter the building up of a local grain business at Boston. While New York, Philadelphia, and Baltimore often have large quantities of spot wheat which can be shipped to any foreign port, as the exigencies of the trade may require, Boston does not have it. The contracts for grain passing through Boston to Liverpool are made at Chicago or beyond, and the shipments are made as through shipments, thus benefiting Boston very little. It has also prevented the building up of a tramp-steamship business and has confined the exports from Boston largely to England. Apart from this differential, the witness is not prepared to say that Boston suffers any from the freight rates from the West. Theoretically, there is no reason why the local rates from Chicago to Boston should be any higher than the through export rates. On a carload of 40,000 pounds the differential would be \$8. The witness believes the rates are not always observed. The statement is made that a dealer who has a large shipment coming from Chicago can get a rate made temporarily for that particular shipment. The railroad agent at Chicago will write a letter notifying the Interstate Commerce Commission that the railroad has changed its rate, and then, 5 minutes afterwards, write another letter stating that it has been changed back to the old rate. Baltimore has a differential in its favor on shipments from the West, but its extensive exports are believed by Boston people to grow out of an additional cut in rates to that city. (701.)

Mr. LANGLEY says that New York has suffered much from the competition of other trade centers, many of which have railway lines that are interested in building up those centers. New York has been discriminated against for 20 years in the scale of rates in force between the East and the West. Boston is in the same position. Beginning at Boston and running down to Newport News, there is in existence a differential scale of rates from Chicago of about 2 cents per hundred pounds. Baltimore gets flour from Minneapolis for about 5 cents a barrel less than New York. In the opposite direction it costs New York more per hundred pounds for the shipment of merchandise than it costs Philadelphia and other cities south. This whole subject was agreed upon between the railroads about 20 years ago. The question was submitted to arbitration at the instigation of the New York Central and the Pennsylvania roads, and a commission, consisting of Allen G. Thurman, ex-Senator Washburn, and Judge Cooley, was appointed to investigate the matter. The merchants of New York were at first opposed to the rates, but they afterwards concluded that the condition of things was forced upon the New York Central in order to protect its earnings, and they ceased to make any strenuous complaint about it. It was practically a blackmailing scheme forced upon the New York Central by the trunk lines farther south.

In the export business, however, Boston takes the same rate as New York, in order to be put upon the same basis. The only reason that can be assigned for the special advantage which Baltimore and Newport News have enjoyed under this arrangement is that it "represents the price of peace as among the lines to the seaboard." The only remedy the witness suggests would be for the New York Central to break away from the agreement and insist that rates to and from the seaboard points to Chicago should be the same for all. He does not think there is any competition between the

trunk lines that would benefit New York. The roads that are parties to this agreement in reference to the differentials are all members of the Eastern Trunk Line Association, which also embraces the Norfolk and Western and the Chesapeake and Ohio roads. The decision of the arbitration committee may have been just at the time, but it was never intended to operate perpetually, and since the establishment in the Southern ports of regular lines between the United States and Europe, the New York trade has been greatly lessened on direct shipments. It is claimed that the terminal charges in New York have a great deal to do with the differential, but the witness does not know much about that. Likewise the transfer charges in New York and Buffalo have some effect in diverting business to the Canadian lines. The general rule is as expressed in the maxim, that "commerce follows the line of least resistance." (872-874.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, states that the system of differentials between cities grew out of the competition between railroads, and was first arranged by compromise and agreement on the basis of lower rates to the shorter lines; as, for instance, a lower rate from Chicago to Baltimore, for export traffic, than from Chicago to New York, because the distance is less. Of course a longer route from Chicago to Baltimore must necessarily make the same rate as the shorter. The facilities of a port in handling export traffic are also considered in arranging differentials. The port which has the worst facilities claims the lower rate. (612, 615, 616.)

Mr. Griswold says that the present difference on export grain from Chicago between New York on the one hand and Baltimore on the other is $1\frac{1}{2}$ cents a hundred. All differentials between seaboard points are absolute differences per hundred, and not percentage differences. (614, 615.)

On westbound traffic Baltimore has a differential as compared with New York which on merchandise ranges from 8 cents (first class) to 3 cents (sixth class.) Mr. Griswold does not know that this gives Baltimore a distinct advantage in the importation of foreign products. New York has an advantage in the number of regular steamship lines, and also in the number of tramp steamers. The ocean rates might be so much lower than those to Baltimore as to offset the differential on the railroads; sometimes they are; generally, however, they are about the same. (620.)

Mr. Griswold thinks that the giving of a greater differential to Newport News than to Baltimore has had some effect upon Baltimore traffic; but it is hard to say, because traffic is influenced by so many conditions. When the grain trade drops at a port everybody thinks that something has happened to draw business away; but the next year, under the same condition of rates, etc., the business may come back. Mr. Griswold thinks, however, that if the rates between New York and Chicago were brought down to a level with those between Baltimore and Chicago Baltimore business would be considerably injured. (615, 623.)

F. Carload rates (see also as to Pacific coast, p. cxvi).—1. *Generally*.—Mr. LANGLEY, of the Merchants' Association of New York, says that in making the classification the roads have adopted what are known as the carload and less than carload rates. For instance, the roads will make a rate for a carload from New York to Chicago so low that the Chicago merchants will be able to distribute those goods from Chicago to a point many miles east toward New York, the carload rate and the local rate from Chicago east being less than the carload rate from New York to the intermediate point. The difference between the carload rate and the less than carload rate would not be a discrimination if there was any fixed rule for the difference, but the classification committees observed no fixed rule. (861, 863.)

2. *Southern Classification*.—Mr. LANGLEY says that the Southern group of railways are interested in building up Southern territory to the exclusion of merchants elsewhere, and make a wide difference between the carload and less than carload rates, so that it is practically impossible for any outside merchant to make any sales whatever in Southern territory. The effect is to exclude the foreign jobber. This witness complains especially of the numerous increase in the difference between carload and part carload rates in the South. He declares that the railroads exercise a power frequently equivalent to taxation. Their actions are purely arbitrary and are governed by their own consciences. Arguments may be presented before the classification committees, but there is no power which can be invoked to compel any change in the classification. (862.)

Mr. MCGOVEN testifies that the Southern Classification Committee has no fixed rule with reference to whether an article ought to take a carload rating or whether it ought to be any per cent less than the carload rating. No effort has been made to increase the number of carload ratings or to widen the distance between the carload and less than carload rating. The practice has been to limit the number of carload ratings to those articles which are ordinarily moved in carload lots. The

Southern Classification has comparatively a smaller number of carload ratings than the Official and Western Classifications. The Southern Classification Committee has not attempted to prevent New York or Chicago or any long-haul market from doing business in the South by increasing the number of carload ratings so as to build up the interior Southern jobber, or for any other purpose whatsoever. The Atlanta jobber wants as low a carload rating as he can get. He desires that the carload rate from New York to Atlanta, plus the less than carload rate from Atlanta to any small town in the Atlanta territory, should approximate the through less-than-carload rate from New York to that town, while the far-off jobber as a rule wants no carload ratings at all. This is the issue in the case of the New York Merchants' Association v. The Southern Hardware Jobbers' Association. All rates for short distances are higher per mile than for the longer distances. It is possible in some instances (but there is no deliberate intention on the part of the Southern Classification Committee to that end), for goods to be shipped from New York to Atlanta and reshipped back 150 to 200 miles toward New York at a cheaper rate than they could be sent direct from New York to that destination. This fact shows a wide difference between the carload and the less than carload rate. The witness does not recall any instances of this kind of rate, but says that agricultural implements in carload lots are rated as sixth class, subject to a minimum of 20,000 pounds, while in small lots some of them are first class and some second class; so that a car could be shipped to Atlanta sixth class and then distributed on the first or second-class rate out and the distribution could go a good distance before the through first or second-class rate on the part carload to the final destination from New York would be equaled. Questions of this kind are not considered by the Classification Committee. Each case is taken up on its own merits, but it is not the policy on the part of the committee to keep the through shipper from doing business in the South or to build up the interior jobber, or vice versa. If such policy were pursued by the committee it would stamp out the coastwise trade of the Old Dominion Steamship Company and the other coastwise steamers, all of whom have representatives in the Southern Classification Committee. The Southern Classification Committee is making no effort to get into line with the policy of the Official and Western classifications on this point. If they are getting closer together, it is merely a coincidence. The witness believes that the question of minimum carload rates might be brought closer together in all three classifications, and thinks 12,000 is a proper minimum carload for all parts of the country. (662, 663, 665.)

Mr. MARKHAM states that the rates on the Illinois Central are not determined by the Southern classification committee, and it has rates for carload lots less than for part carloads. He thinks the lines within 100 miles of the Mississippi River have carload and less than carload rates. Possibly the discrimination is greater now between carload and less than carload rates than it was 20 years ago, and the effect is to increase the carload business. (441.)

2. *Carload rates to Denver.*—Mr. GRIFFITH, representing the Denver Chamber of Commerce, says that he knows of no carload rates which are granted on shoes or other high-class commodities in shipments to Denver. There are carload rates from Chicago and other points to Montana which operate to the disadvantage of Denver. The witness presumes that there may be carload rates to Denver on some classes of articles. (855.)

G. Paralleling of railroads and its effect on rates.—Mr. THOMAS, of the Erie Railroad, does not think that direct competition between parallel railroads is an advantage to the public. It increases the expense of transacting a given amount of business. Thus the Nickel Plate and West Shore railroads were built parallel to the Lake Shore and the New York Central, which were abundantly able to transport all the traffic at the least possible cost. It would have been much more to the interests of the country to have the money invested in improvements on existing lines. The same is true of the Lehigh Valley and the Central Railroad of New Jersey. Either of these roads could do all of the business of the other in some of the territory. Operation could be conducted more cheaply if all the business were carried by one line. The witness has never known of an instance where the cost of transportation has been reduced without benefit ultimately going to the public. Legislation directed to preventing the building of parallel lines would be more desirable than that restricting freight rates. Overcompetition is more dangerous than combination. At the same time Mr. Thomas thinks that there is an advantage in a certain degree of competition, especially between the trunk lines which can carry the same through traffic, but which do not parallel one another locally. There will always be competition between New York and Chicago. If one road fails to supply equally satisfactory passenger facilities, another road will take away its business. (551, 559.)

Construction of new railroads to Pacific coast.—Mr. STUBBS, of the Southern Pacific Company, asserts that the extension of the Chicago, Burlington and Quincy Railroad

to the Pacific coast is not demanded by the volume of traffic. It would merely create a new capital for the community to support. He believes that in the long run the public has to pay the charges of the construction of unnecessary railroads, and that there is already as much competition among transcontinental roads as they can possibly stand, none of them except the Northern Pacific now paying dividends. The proposition to extend the Union Pacific from Ogden to southern California may be viewed in the same way, and the witness does not know whether it will be even of benefit to the Union Pacific. (764, 765.)

Mr. WHEELER, of the San Francisco Board of Trade, says that he does not know authoritatively whether it is the intention of the Burlington Railroad to extend its system to the Pacific coast. In a general way it may be well for a section of the country to have as many railroads as possible, but the witness is inclined to think that the building of new roads does not tend to lower freight rates, but merely makes one more to divide the receipts, so that there is even a disposition to increase the rates somewhat. (747.)

Western Maryland Railroad.—Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that his road has a line 87 miles long between Baltimore and Hagerstown; the Baltimore and Ohio has one of 104 miles, and the Pennsylvania one of 158 miles. The rates on all three lines are the same, and the times of delivery are also about the same. Preference in shipment depends upon the location of the shipper and the receiver, terminal facilities, etc. The whole business of the section could be handled by one road. Each road reaches other points, however, which the others do not reach, so that it is not a useless paralleling. (616, 622.)

H. Subsidiary traffic organizations—Private cars, etc.—1. *Fast-freight lines.*—Mr. NICHOLSON, of the Central Railway Clearing House, testifies that the fast-freight line system was started in the days when one road was afraid to let its cars go on the track of another, and freight was transferred and the settlements made on the revenue thereof at junction points. To obviate the delay of this method of procedure, various fast-freight lines were organized, such as the Blue Line, the Red Line, the White Line, and others, for the purpose of allowing the cars to go through from New York to the Western cities. A special waybill was gotten up to meet the accounting requirements, the division of revenue among the railroads being shown on each shipment, at the bottom of the bill, and when the first junction point was met the agent of the other road paid in cash to the agent of the initial road the revenue due him, and billed the car out, and so on to its destination. The fast-freight lines were usually only branch departments of these combined railroads. The Merchants' Dispatch Line is a corporation, its stock being owned chiefly by the New York Central interests. There are 15 or more fast-freight lines running over the New York Central. Their accounts, with one or two exceptions, are not audited by the Central Railway Clearing House. The rates charged the fast-freight lines are the same as the rates charged to others. When they own cars they are paid the same mileage as other persons. The system of division of earnings between the different railroads connected with the line is on the basis of relative mileage, except in the case of short lines, where constructive mileage is allowed, or there is the addition of an arbitrary charge for physical disabilities of switching and delivering.

The fast-freight lines, continues Mr. Nicholson, are gradually passing out of use. Those remaining are being consolidated. They are more numerous on the New York Central than on the Pennsylvania system. The Union Freight Line, operating over the Pennsylvania Railroad, is not a corporation. It has its own soliciting agents, however, to solicit freight in the name of the line, as do all the other fast-freight lines. The fast-freight lines are looked upon by the traffic officials as a sort of trademark. Shippers often send freight over a particular line because they have had good service by it before. In the country west of Chicago the fast-freight line is unknown. The costs of operating a fast-freight line are from 2½ to 6 per cent of the freight receipts. These expenses are paid by the roads on a cooperative basis, each line paying its pro rata amount according to earnings. From a traffic standpoint, the railways desire the fast-freight lines maintained; from an accounting standpoint, they wish them abolished. There is not the same justification for them as formerly. They are regarded as merely a branch of their companies. (724, 725, 728, 731.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that fast-freight lines used formerly to be organizations entirely distinct from the railroads, owned largely by officers of the lines over which they operated, and to some extent by outsiders. Mr. Griswold does not know of such a case now. The fast-freight lines that now exist are nothing more than names, by which the conduct of through traffic over 3 or 4 or more railroads is placed for convenience under the control of one manager. Their purpose is to secure through schedules and give better service, thus enabling the lines to compete more efficiently for traffic.

The power to make rates is sometimes given to the manager of the line, but as a rule the manager can not make a rate on any business without the consent of the road on which it originates. It is possible for a manager to make a cut rate with the concurrence of some one line, that line protecting the cut, without the other roads being parties to it. (613, 614.)

Mr. GUILLAUDEU states that the business of the Old Dominion Line in connection with the Southern Railway from New York to Atlanta is done under the Piedmont Air Line, an organization with a trade-mark and with agents in New York, Boston, and elsewhere to look out after business. The organization has traveling men and is kept up by contributions from the various transportation companies for which it does business. (446.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that there never have been in the South any independent fast-freight lines like those that exist in the North. The lines have simply been made up by combinations among the railroad companies, each putting in its quota of cars and establishing a line organization. (635.)

2. *Refrigerator cars.*—Mr. STUBBS, of the Southern Pacific Company, alludes to complaints of California fruit shippers against charges of the refrigerator companies. The charges are apparently rather high, but the refrigerator companies have claimed before the Interstate Commerce Commission that they afforded no more than a reasonable profit. Mr. Stubbs thinks, however, that some reduction will soon be made. He says that shippers desire that railroad companies should themselves own these cars, but that this is doubtful, since the movement of fruit is confined to a comparatively short season, and a company which owns these cars can put them into service in other sections of the country and other lines of transportation, as a railroad company owning them could not do. The experience of the witness leads him to believe that it is more economical for the transcontinental railroads to lease these cars from companies than to operate them directly. He declines to state the rate paid by the railroads for the use of the cars, but says that it is less than the prevailing rates on the Eastern roads, which are three-fourths of a cent or 1 cent per mile.

Mr. Stubbs states that the freight rates on green fruit are the same to all Eastern markets, while the refrigerator companies necessarily grade their charges according to distances, especially because it requires more ice for longer distances. The railroad freight rate on fruit from California is \$1.25 per 100 pounds, while the witness supposes that the refrigerator charges vary from \$50 to \$135 per car (of 10 to 13 tons.) (769.)

Mr. WHEELER, of the San Francisco Board of Trade, says that formerly the E. T. Earl Company operated refrigerator cars in the California fruit business, but that it recently sold out to Armour & Co., who now operate practically all of the refrigerator cars, although the witness thinks that the Santa Fé owns a few cars also. Complaint has been made that the charges for the use of these cars are excessive, but the witness does not know much about the subject. He thinks, from conversation with railroad men, that the time is not far distant when the railroads will own and control their own refrigerator cars, but the proposition seems to cause a good deal of friction with the private lines. (754.)

3. *Private cars and car trusts.*—Mr. ADAMS, statistician of the Interstate Commerce Commission, says that there are immense numbers of private cars, and that the rental paid for them by the railroads runs into the millions. If any rolling stock is lying idle and not used, it is not usually the property of the private car companies. On the other hand, the equipment trust obligation, under which a company took over a car and used it as its property and at the end of the year paid 6 per cent on its value and 2 per cent for annuity, is gradually disappearing. The plan is like buying goods on the instalment plan. The better roads are either owning their own cars or renting from outside parties on a mileage basis. (386.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that car trusts are very general, he thinks, in the Southern States at the present time. (635.)

4. *Express companies.*—Mr. TALCOTT says that when he had to do with express-company contracts, the contracts provided that railroads should give the express companies the available space for transportation, without interfering with the transportation of mails, or passengers and their baggage. The railroad determined how much space should be made available for express and how little. But the rates were made by the express company, and the earnings were divided between the railroad and the express company on a percentage basis. The express company received a larger proportion on the through competitive business than on the local business. (635.)

Mr. ADAMS, statistician of the Interstate Commerce Commission, thinks that express companies ought to be subjected to the same scheme of reporting as the railways, and also that the private companies that furnish cars to railroads and receive a rental for them ought to be brought under the supervision of the Interstate Commerce Commission, at least so far as reports are concerned. (386.)

I. Central Railway Clearing House.—1. *Buffalo Railway Clearing House.*—Mr. WILLIAM NICHOLSON, manager of the Central Railway Clearing House of Buffalo, New York, testifies that the clearing-house principle was made applicable to the through-freight traffic accounting of the New York Central and Hudson River Railroad Company, its leased and operated lines, at the instance of Mr. John Carstensen, the comptroller of those lines. A more general clearing house was established at Buffalo on April 1, 1899, for the purpose of handling certain details of through-freight accounts for the allied roads terminating at the Niagara frontier. The membership consisted of the New York and Hudson River Railroad Company, the West Shore Railroad, the Lake Shore and Michigan Southern Railway Company, the New York, Chicago and St. Louis Railway Company, and the Pittsburg and Lake Erie Railroad Company. The duties of this clearing house were: The clearance of freight-revenue balances accruing between the clearing-house roads, on all interline, joint and fast-freight line traffic passing through Buffalo or crossing the Niagara River at Black Rock and Suspension Bridge; the complete and proper revision of all billing; the compiling and furnishing to the accounting departments of the roads all statistics, statements of earnings, etc.; the checking and recording of all joint or fast-freight line claims, and the keeping of complete records of clearing-house and fast-freight line business. All freight agents of companies members of the clearing house were to be considered as agents of the clearing house, and to respect orders of the manager. Clearing-house traffic, other than fast-freight line, to be waybilled exclusively without divisions of earnings on a special clearing-house waybill. The clearing house to use, whenever practicable, the standard blanks of the Association of American Railway Accounting Officers. (719-720.)

2. *Scope of Central Railway Clearing House.*—Mr. NICHOLSON testifies that the Michigan Central Railroad withdrew from the Buffalo Clearing House on December 1, 1899. The reason for withdrawal was that it had a weekly system of accounts. Another reason was that it was afraid that its competitors would know the amount of business it was doing. It also found fault with the methods of the clearing house and of the executive committee. No further change in membership occurred until May 1, 1900, when the Cleveland, Cincinnati, Chicago and St. Louis Railway and the Lake Erie and Western Railroad were admitted to membership. In view of the fact that the two last-named companies and the Pittsburg and Lake Erie Railroad Company did not have termini in Buffalo, the executive committee changed the name of the association to the Central Railway Clearing House. The association has an executive committee composed of one representative of each road.

The duties of the clearing house have been largely increased from time to time, and at present it accounts for revenue on the following traffic, viz: Interchanged between the New York Central and Hudson River Railroad, West Shore Railroad, Rome, Watertown and Ogdensburg Railroad, Pennsylvania Division of the New York Central and Hudson River Railroad, Mohawk and Malone Railway, Wallkill Valley Railroad, Beech Creek Railroad, Lake Shore and Michigan Southern Railway, New York, Chicago and St. Louis Railroad, Cleveland, Cincinnati, Chicago and St. Louis Railway, Lake Erie and Western Railroad, and Pittsburg and Lake Erie Railroad, passing the Niagara frontier. Between the Lake Shore and Michigan Southern Railway on the one hand and, on the other, the Cleveland, Cincinnati, Chicago and St. Louis, the Pittsburg and Lake Erie, and the Lake Erie and Western Railroad. Between the New York, Chicago and St. Louis Railroad and Cleveland, Cincinnati, Chicago and St. Louis Railway and the Lake Erie and Western Railroad on the other hand. Between the Buffalo and Allegheny Railroad, Buffalo and Mississippi Railroad, New York Central and Hudson River Railroad, West Shore Railroad, Rome, Watertown and Ogdensburg Railroad, Pennsylvania Division of the New York Central and Hudson River Railroad, Mohawk and Malone Railway, Wallkill Valley Railroad, Beech Creek Railroad, Lake Shore and Michigan Southern Railway, and all Pacific coast roads where transcontinental tariffs apply.

In respect of transcontinental traffic between the Atlantic and Pacific coast points, the clearing house also acts for the Boston and Albany Railroad and the Boston and Maine Railroad Company in the matter of accounts. The revenue on traffic between transcontinental tariff points to the Pacific coast and those within clearing-house territory east of the Niagara River via the Michigan Central Railroad is also taken care of in the clearing house, but the local traffic of the Michigan Central Railroad Company is accounted for to that company direct. (720, 721.)

Mr. Nicholson testifies that the Trunk Line Association of New York has jurisdiction over the east-bound traffic, while the Central Traffic Association of Chicago has similar functions with respect to west-bound traffic. The railway clearing house has nothing to do with these associations, except to get tariffs and instructions to check revenues of the roads. (725, 726.)

3. *Organization of clearing house.*—Mr. NICHOLSON says that there are 220 employees of the association, 198 of whom are clerks. The number of clerks employed on the

actual clearing-house work is 153. The average clerical salary is \$44.94. An itemized statement of the business of the association accompanies Mr. Nicholson's testimony.

The general supervision of the affairs of the clearing house is handled by the manager and his chief clerk. The work is divided into 11 departments, each in charge of a head clerk, as follows, viz: (1) Accounting department, (2) apportionment department, (3) statistical department, (4) abstract department, (5) revision department, (6) claim department, (7) daily earnings department, (8) mailing department, (9) bindery, (10) stationery, (11) telegraph. (721-723)

A partial idea of the extent of the business, from the date of its organization to the present, can be gained from the following statistics to May 1, 1901:

Revenue of, cleared between membership roads	\$33, 997, 541. 91
Total number of tons forwarded and received from stations on all roads, divided into 60 commodity classes	9, 626, 994
Total number of waybills abstracted for trunk-line commissioners on traffic moving east bound from the Niagara frontier, showing number, date, station from and to, weight in pounds, extended and footed	1, 532, 986
(721-723.)	

4. *Method and advantages of railway accounting by the clearing house.*—Mr. NICHOLSON testifies that prior to the organization of the clearing house practically all business interchanged between the roads was settled for by the agents at junction points. The old system provided that each individual waybill should be divided and settled between the roads. Take, for example, a shipment from Boston to East St. Louis. The old junction-settlement plan would require the stopping of the waybill at Albany, East Buffalo, and Cleveland for junction settlement between the roads handling the shipment. With the clearing-house plan, the waybill would be reported as forwarded by the agent at Boston and as received by the agent at East St. Louis, direct to the clearing house, where the same would be accounted for to roads in interest on the basis of the known tariffs and division sheets. At the end of each month the proper officer would be notified by it of the condition of accounts affecting the other roads for all waybills handled in that month. (721.)

Mr. Nicholson declares that the clearing house has done more than any other agency to provide for the delivery of shipments to consignees on proper net charges. It does away with the multiplied settlements of the railroads, expedites the movements, minimizes the collection of overcharges, simplifies the accounting, and concentrates the preparation of statistics and other information for railroads in interest.

Its methods represent the most pronounced concentration of through freight accounting. The clearing house is a move in the direction of economy, and if made universal would be a very great benefit.

The Central Railway Clearing House has long since passed through the crucial period of its existence and has been made a success from the date of its inception.

The system of the clearing house is used as one railroad, whether there be 4 or 5 of them in the same territory. So far as the expense of the clerical force is concerned, the clearing house is an economy to the several companies. The incorporation of the passenger accounting into the clearing house has been talked of, but the witness does not see that anything would be gained by it, because the passenger business is all prepaid, while 94 per cent of the freight is collected at the point of destination. The clearing house merely has charge of accounts, and not of cars, except as they may affect distinct freight-line accounts. (721-724, 729-731.)

The earnings are furnished to the various departments every day and some statistics every day of certain classes of freight; anything, in fact, that the traffic manager may require. The earning ability of every single part of the road is thus made known. He does not know that the question has ever come up as to whether the books of the clearing house are open to the inspection of the Interstate Commerce Commission. The clearing house publishes no reports of any kind. Its figures are incorporated in the auditors' books of the various companies, and are published by them.

Mr. Nicholson says, further, that the clearing house has no financial function, all moneys collected by the agents being remitted to the treasurers of the respective roads direct. It is merely a branch of the auditing department. The establishment of the clearing house has had the effect of simplifying the work of auditing at the several headquarters of the road.

The witness states that the clearing-house system might enable each road in interest to arrive at the total amount of business done by its competitors, but that information is never allowed to be given to the competitive roads. The accounts of each road are kept to themselves. He does not think that there would be any difference in principle even if the railway systems in the clearing house were not controlled by the same interests. (730.)

Mr. Nicholson says, further, that Commissioner Knapp, chairman of the Interstate Commerce Commission; the late George R. Blanchard, trunk line commissioner, and other noted railway men have gone on record as favoring the railway clearing house. He quotes from a prominent railway traffic official:

"It is our experience that no arrangement of accounting between connecting roads is so satisfactory and produces such good results as that of through billing with audit settlement. The work of the clearing house in that connection has been marvelous." It is "one of the great modern improvements for the settlement of interchange traffic." (724.)

5. *European clearing houses.*—Mr. NICHOLSON testified that he is not aware of any clearing houses in Europe, excepting one in England and one in Ireland. The clearing house of England is very large, and requires a clerical force of thousands. He does not believe a universal clearing house for the American railways could be established, because of the immensity of the business. (728.)

J. Miscellaneous.—1. *Baltimore freight committee.*—Mr. GRISWOLD, general passenger agent of the Western Maryland Railroad, states that the Baltimore Freight Committee is composed of representatives of transportation lines which either terminate at Baltimore, or pass through there, or have representation there. He thinks each important railroad and steamboat line is represented. It has existed since January 1, 1898. The purpose is to discuss any questions that may be brought up and to secure uniformity of practice. It meets at the call of the chairman. It can not make a decision except by a unanimous vote. If any representative has no power to act on a given question without referring it to his traffic department, he must state the fact. Sometimes matters are held over until a vote is received by letter from a member so situated, or until a subsequent meeting. The committee has only a limited authority over rates, and none over differentials. Several of the representatives must obtain authority from their traffic officials before consenting to any action on rates. There are local freight committees at various other cities, one in Boston and, the witness thinks, one in New York. (611, 612.)

2. *Changes in freight rates.*—Mr. BACON, of the Michigan Alkali Company, complains of the fact that freight rates are changed at the pleasure of the railroads at any time, thus putting the manufacturers at sea in making their contracts. As an illustration, the freight rates on alkali products from Wyandotte, Mich., to Richmond, Va., were, during 1899, raised from 13 cents per hundred to 24 cents, then reduced to 16½ cents, and on January 1, 1900, reduced to 13 cents, while on January 23 the rate was again increased to 16½ cents. The witness believes that rates should be fixed by a central authority and retained for a year unchanged. (76.)

3. *Routing of shipments of freight.*—Mr. STUBBS says that the Southern Pacific and Santa Fé railroads have recently exercised the power of directing the route over which shipments of oranges shall go after leaving their roads. This was necessary to break up the practice of the shippers in demanding rebates from the various railroads connecting with transcontinental lines as a consideration for sending shipments over them. (764.)

4. *Uniform waybills.*—Mr. NICHOLSON testified that a movement has been started for uniform waybills and uniform freight and expense bills all over the United States. The Association of Accounting Officers has adopted a waybill, which is used by 160 railroads. (728-729.)

5. *Floating cotton.*—Mr. MARKHAM states that "floating cotton" is cotton shipped from a town where there is no compress and stopped in transit at a town where there is a compress, where it can be compressed, classified, and afterwards reloaded for its destination. By this practice cotton purchasers are enabled to ship full carloads, which is an advantage to the producer of from \$1 to \$3 per bale, and does away with the middleman at great cotton centers, such as Memphis and New Orleans. Formerly the cotton factor at New Orleans or Memphis advanced money to the producer for supplies and other material entering into the production of the crop. Interest, commissions, brokerage, insurance, and handling the cotton generally resulted in the producer's getting very little, if any, profit. The practice of floating cotton has done away with this. Very little cotton is bought on the Illinois Central for Southern mills, but where it is it is bought in the same way as for the New England mills. The effect of this system will gradually take cotton away from the larger centers, as the planters can get as good prices now at the small stations. (440.)

6. *Freight rates and cotton factories.*—Mr. DUNLAP, an officer of two small railroads in Georgia, says that special rates on cotton-factory machinery and materials have been made by the railroads in the South with a view to establishing them. On the witness's road two cotton factories have been built, and the manufacturers received a two-thirds rate on their materials. The rate on machinery from New York has been about 55 cents per 100 pounds. The witness thinks it was desirable to thus favor these factories, but he says that the railroads make less profit in hauling the manu-

factured cotton from the factories than they formerly did in hauling raw cotton to the seaports. (3, 4.)

7. *Northern and Southern tonnage on the Illinois Central compared.*—Mr. MARKHAM states that the tonnage on the Northern and Southern portions of the Illinois Central is very nearly equal, but even with that it necessitates a large number of empty cars because of the different freight movements at different seasons of the year. The Southern roads operate, as a rule, under a disadvantage as compared with the Northern roads, because they do not have an equal tonnage per mile, and therefore do not have the same earnings per mile of road. (440-441.)

Mr. Markham states that on the lines of the Illinois Central from Cairo north the ton miles to the miles of line are four times what they are south. (437.)

IV. DISCRIMINATIONS BETWEEN PERSONS.

A. Discussion as to existence and extent of practice.—1. *Existence and evils of practice affirmed.*—Professor RIPLEY says that personal discriminations in rates are common; that certain shippers are obtaining rates which are, perhaps, 35 to 40 per cent less than the published rates, while those who are shipping without the large volume which always lends inducement to cut rates are paying nearer the established rate. Whenever there is open rate cutting, it follows almost invariably that that leads to personal discrimination. The competition which rate cutting presupposes leads to a deeper cut for the large shipper or for the person who is shipping from a competitive point, whereas the rate remains more nearly at the established figure where the shipment is made from a local station or is made by a person who is shipping small amounts. Personal discrimination is sometimes made through the subterfuges of "hold overs," rebates, underclassification, and underbilling.

The maintenance of rates at an established figure is a very important matter for business men. It does not make so much difference to the manufacturer what freight rate he has to pay as it does to have freights uniform for him and for his competitors. He would rather pay a high rate and have it uniform than get a low rate when a competitor possibly gets a still lower one. (287, 289.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that theoretically there would be a temptation to cut west-bound rates in the fall, when much grain is moved East and many empty cars are going West. He does not think that this is important in practice. Rate cutting is more due to the anxiety of the solicitors to secure business; they do not consider much the fact that cars are going West empty. (622.)

Professor PARSONS states that from his investigations he believes the tendency of private monopolies is to make comparatively high rates and an unjust, partial, complex tariff instead of a simple, symmetrical, harmonious, well-adjusted system to develop the country, as would a system of rates under public management. Private monopoly would develop the country only so far as that development would be profitable to the monopoly itself. The rates at present are so adjusted as to benefit the large shipper as against the small one, whereas if any favor should be shown it should be shown to the small shipper. The true policy is to equalize opportunities, making rates alike to all under the same circumstances and conditions. (134, 135.)

Mr. TRISBERG, secretary of the State Railroad and Warehouse Commission of Minnesota, says that in the opinion of his commission the absolute amount of freight charges, within reasonable bounds, is of less importance than uniformity of charges to all patrons of the road. So far as business within the State is concerned, he believes that there is not much discrimination, because there seems to be no temptation to it. On business between Chicago and the Twin Cities there is a great deal of competition, and it is likely that rebates and various other schemes are often resorted to. (366.)

Mr. WILSON testified that large shippers generally have an advantage over smaller ones. Railway discriminations have destroyed fortunes and have driven people out of business. The public has no idea of the extent to which they still prevail. They now generally take the form of combinations of heavy shippers who have cars and equipment of their own, and the rental that they are able to command for the use of those cars is very great. This has the effect of driving out of business the firms who do not own cars. Railway discriminations are beyond legislation. Possibly consolidation may remove them. The apathy of the public is the great obstacle to the enforcement of the present laws, which are ample for the purpose. (695-697.)

Professor PARSONS states that the existence of personal discrimination is a powerful argument for Government ownership of railroads. He refers to the report of the Senate committee of 1885, which treated specifically of many of the evils of the railway systems at that time. He quotes from that report extensively and also from the testimony of witnesses who appeared before that committee, as well as from the reports of the Interstate Commerce Commission and from other sources, to show that dis-

criminations in railway rates in this country have existed for many years and are in existence to-day. The effect of these discriminations is to build up the strong at the expense of the weak. Another effect is to build up the cities at the expense of the rural communities. In many instances individual business has been built up at certain points which have been favored, while many other people less favored have been driven out. These reports have stated that the published freight rates were paid by scarcely any shippers, and that no one shipper knew of the rate another was receiving. Professor Parsons declares further that while the interstate-commerce law of 1887 has been passed for the amelioration of the evils growing out of these discriminations it has been found ineffective; that criminal prosecutions have been found ineffective to secure the enforcement of the law. (126-128.)

Mr. GRIFFITH, representing the Denver Chamber of Commerce, says that the practice of granting rebates and personal discriminations was formerly very prevalent in the West, but that he has known of none recently. He presumes that there has been an agreement among railroads to maintain rates. (855.)

Mr. MARKHAM, assistant traffic manager of the Illinois Central, thinks that consolidation of railroads will be advantageous in doing away with discriminations. Thirty years ago it was a very common thing to bill freight openly at one rate to one individual and at another rate to another individual at the same point. The shippers did not make any objections, because the party who received the lower rate shipped a much larger volume. Since that time there has been a radical change of thought, and a correspondingly radical change of action. The traffic managers want to be fair, but are not always able to resist propositions which appear to be fair from a business standpoint. (432, 433.)

2. *General denial of existence of practice.*—Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that rate cutting seems to be decidedly less prevalent than several years ago. The latest instances that he has known of were near the close of the year 1900, and in these cases it was not possible to fix it in connection with all-rail lines. The reason of the diminution of cutting, he thinks, is the cooperation of the larger lines in maintaining rates and in carrying out the requirements of the interstate-commerce act. (614.)

Mr. Griswold thinks that the influence of rate cutting on traffic is less than is sometimes supposed. He thinks that variations of traffic are more likely to be due to other conditions. For instance, a steamship line at one port may make a specially attractive rate in order to fill a steamer. The railroad agents are notified of it, and they go around among the shippers and get a cargo. There is not necessarily any cutting of the railroad rates. (615.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that so far as he knows freight rates are well maintained at the present time. There is business enough for all, and there is very little temptation to disturb rates. (627.)

Mr. MARKHAM, of the Illinois Central Railroad, says there is but little of what are known as special-commodity rates (designed to favor particular shippers), rebates, etc., in existence at this time. The practice was in vogue before the interstate-commerce law went into effect of giving special rates from large jobbing centers, but it has practically ceased. (437-439.)

Mr. GUILLAUDEV, of the Old Dominion Steamship Company, says that if the Interstate Commerce Commission had power to insure the maintenance of published tariff rates it would not benefit the steamship lines. Rates in the Southern territory are particularly well maintained. Secret rates and so on are almost unknown. (448.)

Mr. NICHOLSON testifies that the railways have made an organized attempt to get rid of secret rate cutting, and seem able to cope with the difficulty. The community of interest of railroads is the greatest factor in respect to maintaining rates. (728.)

Mr. GREENE, of the Audit Company of New York, thinks that combinations among railroads will reduce the evil of personal discriminations so that the question will no longer be a burning one. He believes also that the penalty for discriminations should be placed upon the railroad corporation rather than its officers individually. (487.)

Mr. WOODLOCK, railroad editor of the Wall Street Journal, declares that the payment of rebates and the making of discriminations is nearly a dead practice. Rates are uniform to shippers to a degree greater than ever before. (464.)

Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, says that some 3 years ago the chamber, believing that the railroads were discriminating against the city, organized a transportation board and employed one of the most competent men they could get to take charge of it. That bureau was maintained 2 years, and was discontinued as a department of the chamber of commerce simply because nobody could be found who had any complaints to make against the transportation interests. Mr. Anderson knew in past years of the existence of discriminations, and he had supposed that they still existed; but they seem to have disappeared. (639, 640.)

Mr. DUNLAP, manager of two small railroads in Georgia, does not think that there

are any discriminations of consequence as between different shippers in the Southern States. He says in particular that his lines do not cut rates. (2, 4.)

Mr. BACON, of the Michigan Alkali Company, does not believe that there are any discriminations between persons in the shipment of alkali products. His own company gets the open rate. The railroads solicit business, but never offer to reduce the rate, and the witness believes that his three or four competitors get no advantage in rates. (85.)

3. *New England.*—WILLIAM Z. RIPLEY, professor of economics in the Massachusetts Institute of Technology, says that rates are being cut in New England anywhere from 30 to 40 per cent on west-bound traffic. He refers to a case where a large shipper is sending first-class freight from Boston to Seattle for 95 cents per hundred pounds, while the published rate is \$1.25. The reason for the extended cutting now going on is that the large amount of exports and the large amount of traffic going east have turned a great many empty cars upon the seaboard and there is great competition among the roads for filling those cars to the west. Ordinarily Canadian roads are allowed by the American roads a differential and given an advantage in freight rates to Chicago ranging anywhere from 10 cents up upon a hundred pounds. American trunk lines have now begun to cut under the differential, and traffic which for a great many years has been going over the Canadian lines is now being diverted over some of the main trunk lines. This rate cutting is not due to the desire of the eastern trunk lines to cut rates. It is forced upon them by the situation. The far western connections of these lines apparently are desirous of securing business which shall be diverted to their lines by the eastern trunk lines, and they notify their eastern connections that any business diverted to them will be taken at a considerable cut. The eastern trunk lines, therefore, must either take business and transfer it to their western connections at a reduction or allow it to go over some other competing trunk line. Some roads would be glad to do away with the rate cutting and would welcome any amendment to the interstate-commerce law which would enable them to maintain rates. (286-290.)

Professor PARSONS refers to the discriminations prevailing on the Boston and Albany road previous to its lease by the New York Central, and also subsequent to that time, and from a report of the Massachusetts railroad commission, which was admittedly made by some officer of the Boston and Albany Railway Company (the railroad commission not having any knowledge of the facts or any power to ascertain them), it appeared that the reductions made in recent years from the published freight rates were in many instances as high as 73 per cent, and in nearly all instances as much as 10 per cent; that shippers did not dare to complain, even when invited to do so by the Massachusetts railway commission, because of the fear that they would receive worse treatment at the hands of the company. The report of the railroad commission on this subject is quoted in full.

Professor Parsons declares that in his opinion the discriminations made by the Boston and Maine Railroad, as well as by the New York, New Haven and Hartford road, were sufficient to create a monopoly in favor of individual shippers; that a monopoly is any advantage which tends to shut out competition. He gives many instances of particular discriminations in freight rates, and argues that in every one of those instances the party in whose favor the discrimination was made had been given a sufficient benefit to enable him to build up a business, while the less favored competitor was compelled to go out of business. (126-132.)

Professor Parsons refers to discriminations by the Fitchburg Railroad, the Boston and Albany, and the New York, New Haven and Hartford, as shown by recent investigations. The discriminations practiced by these several roads related to local traffic only. Those by the New York, New Haven and Hartford were shown by Mr. Cowles to be even worse than those of the Boston and Albany. The discriminations were not always a matter of personal favoritism, but were very often forced upon the roads by the large shippers, who threatened to take the trade to another road. Sometimes, however, the purpose of discrimination is to let the favored persons realize a large profit, while at other times the managers of the roads themselves share in the profit, as was originally the case in the building up of the Standard Oil monopoly.

Professor Parsons states that in the investigation of the Boston and Albany case it had been found that discriminations had been resorted to by the road to build up manufactories on the line of the road by giving special rates. The Massachusetts railroad commission in 1894 disclosed the fact that the average freight rate on New England roads was about double the average freight rate in the Middle States or in the Middle West and nearly double the average freight rate for the whole United States, and the commission argued, therefore, that the result of these personal discriminations had been unfavorable to New England generally, and especially to Boston. The leasing of the Boston and Albany by the New York Central has even

a greater tendency in that direction, because the New York Central is interested in the building up of New York City. (132, 133.)

4. *Pacific coast.*—Mr. WHEELER, of the San Francisco Board of Trade, says that there is no occasion for making rebates during a rate war, but that when the war ceases there is a tendency to grant such rebates and secret discriminations. The witness does not believe there is a single shipper on the Pacific coast who has not, at one time or another, received these discriminating rates. At the same time the thinking shippers have made every effort to prevent them. The only reason why a good merchant seeks a rebate is in order to put himself on a level with his competitor whom he knows gets one.

The Pacific coast railroads defended their practice of making secret rebates formerly on the ground that the Canadian Pacific insisted upon being allowed to make rates 10 per cent lower than those on the direct routes, in view of the disadvantages of the roundabout line and of the necessity of transferring goods from rail to water in order to reach San Francisco. The American railroads held that the Canadian Pacific was not entitled to the business and that they would not allow it to get the business, so that the rates were cut secretly in order to overcome this 10 per cent differential. The hardware merchants of San Francisco got together and agreed, solely for the purpose of doing away with secret rebates, that they would sacrifice the advantage of this 10 per cent differential and not ship over the Canadian Pacific line at all. The result is that that road is now out of business in San Francisco territory, which no more belongs to it than Victoria and Vancouver belong to the Southern Pacific. (748.)

Mr. STUBBS, of the Southern Pacific Company, says that the secret discriminations which it is claimed were formerly made in order to meet the Canadian Pacific differential no longer have any motive since that differential has been abolished. He supposes that there may have been some rate cutting by the lines east of the Missouri River, though he was not in a position to know. He states definitely that there is now no rate cutting by the Southern Pacific Company. (762.)

5. *Standard Oil Company.*—Professor PARSONS declares that advantages in rates are given the Standard Oil Company by railways in comparison with the rates given to other oil-refining companies. He states that from Cleveland, Ohio, to Boston the rate on oil was 24 cents; but from Cleveland—the headquarters of what was known as the Western refining interests, which was opposed to the Standard Oil monopoly—to any other point in New England the rate was the Boston rate plus the local rate from Boston to the point of shipment. The Standard Oil Company had enormous oil tanks near Boston and shipped its oil there by boat, and thus was able to drive the Western refining interests practically out of the New England field by reason of the railway discriminations.

He further states that the oil tanks of the Standard Oil Company, which ordinarily weigh from 35,000 to 50,000 pounds, were billed through by the New England roads at 24,000 pounds and were paid for on that basis. The railways attributed these discrepancies to error; but it was very significant that all the errors were in favor of the trust and none against it. This witness says, further, that the Standard Oil Company had a large refinery near Chicago, and that the rate on oil from Chicago to New Orleans was made 25 per cent lower than from Cleveland to New Orleans, thus driving the Cleveland refiners out of the New Orleans field. (126, 129.)

B. Methods of discrimination.—1. *Generally.*—Professor RIPLEY says that rate cutting is sometimes done by means of the subterfuge of a "hold over." Rates are cut and the explanation made that the road has a long-time contract with the shipper to whom the cut rates are given. Rate cutting is sometimes accomplished through the giving of rebates. A Western road, for instance, may deposit an amount of money in a Boston bank to the credit of a certain New England freight agent. The agent is authorized to draw upon that for cash, which he pays out in rebates, the shipper of course paying by check for the full amount of the established rate, that being a matter of record. Again, rate cutting may be done through the underclassification of freight, i. e., freight is classified at a rate lower than that at which it should be classified. The process of underbilling is another means by which rates are cut. The shipment is made at a rate for a long through haul. The freight is then taken off at an intermediate point to which the local rate would be considerably higher than its proportion of a through rate.

The existence of rate cutting is very widespread. The only way to stop it is to do away with competition. (286-290.)

2. *Misclassification of goods—Underbilling* (see, also, *Classification Inspectors*, p. LXXXVI).—Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that the agents and receiving clerks of his road are directed to watch closely and see that articles shipped conform to the invoice furnished by the

shippers. In practice, however, the road is largely dependent on the good faith of the shippers. It is not possible to know without examination what the hidden contents of the cases are. The Baltimore and Ohio and the Pennsylvania have an inspection bureau at Baltimore, but it has not been extended to the other lines there. Mr. Griswold does not think that a Government inspection would be superior to one established by the railroads. (623.)

Professor RIPLEY says that in many respects the roads are at the mercy of the shippers. A shipper may underclassify his goods and get second or third class rates on goods which ought to come under a higher classification. The shipping agent can never be sure from his personal knowledge that goods are properly classified. (288.)

Mr. MCGOVERN, of the Southern classification committee, testifies that by underbilling is meant the under reporting of weight or false description of goods for the purpose of getting a reduced rate, and he says it is one of the most troublesome things with which the transportation companies have to deal. It is not only because companies lose revenue by underbilling, but it prevents the honest shipper from doing business or drives him into the same unfair practices himself. Several examples were given of the unjust practice of underbilling. In one of the Southern States a large jobbing house was found to be underbilling to the extent of from \$11 to \$50 a day. The worst feature of this particular case was that in the same city another house in the same line of business did not underbill, and lost a considerable amount of trade because of its honesty. Whisky and vinegar are sometimes billed as molasses, because the rates on molasses are lower than they are on whisky and vinegar. There seems to be systematic underbilling going on all the time. Sometimes a large piece of machinery is taken apart and its component parts shipped as rough castings merely to get a lower freight classification.

Only a very small per cent of the total amount of underbilling is connived at by the railroads. In many cases it is started by the soliciting agent of the road, perhaps, who is greedy for the business and tells the shipper how he can avoid the classifications by the process of underbilling; but this is in a very small percentage of the cases. The practice seems to be increasing rather than diminishing.

The classification committee has no machinery by which it can protect the roads from the evils of underbilling, but the traffic associations have taken measures to prevent it whenever they can, and have agents whose business it is to ferret out cases of this sort. Any single road would find it difficult to enforce the classification. It should be from a general or joint agency of all the roads in the classification territory. The witness does not think the Interstate Commerce Commission could be of any efficient service in preventing underbilling. The railroads are perfectly competent to take care of themselves on this question if they want to do so, and if they do not the commission would find great difficulty in doing it. (672-674.)

3. *Private cars.*—Mr. MCGOVERN testifies that one of the principal ways in which discrimination is now practiced is by private companies owning their own cars and carrying goods at lower rates than the railroad companies do. This is often done by the railroads allowing the private company a greater rate per mile for wheelage than is paid others, sometimes as much as 1 cent per mile per car being paid to the owner of the car. (674.)

4. *Cartage.*—Mr. NICHOLSON, of the Central Railway Clearing House, testifies that what is known as cartage in railway parlance is brought about by a line, in order to secure business, agreeing to cart goods without any charge—in other words, to include cartage in the rate. The Central Railway Clearing House would not know anything about the existence of this practice. He thinks there is not as much of this sort of business as formerly, because the bills now ordinarily specify a certain amount for cartage. (726.)

5. *Shrinkage of through rates.*—Mr. NICHOLSON testifies that it would be possible where two lines are interchanging traffic for the Eastern trunk line to accept the regular published tariff rate and at the same time enter into an agreement that the Western line would shrink its percentage of rate. That would not go into the clearing house. The waybills would be made to read correctly, and any shrinkage would be taken care of in some other way. He does not know of any of that at the present time. (726.)

C. Discriminations as affected by legislation.—Professor PARSONS does not believe it possible to remove discriminations by legislation of a regulative character, because the railway managers could give preference by through car service, car mileage allowances, elevator commissions, and subsidies of various kinds, or by a private arrangement in the shape of direct bribery where no record of the transaction is kept. Discriminations can not possibly be wiped out so long as the roads are in private hands, and the only way to do away with them is to remove the cause—antagonism of interest between the managers of the road and the public by governmental ownership. In Germany, New Zealand, and Australia personal discrimina-

tions were entirely abolished after the roads were taken over by the government, and in not one of the 30 countries of the world owning and operating their own railroads have any complaints ever been made with reference to personal discrimination. (133, 134.)

Mr. MCGOVERN believes there is adequate legislation on this subject at present, and possibly it would be better if the penalty were made less severe. The penalty now is fine and imprisonment. If the imprisonment feature were eliminated it might be better, as it is difficult to get a railroad agent or a shipper to testify against another when the penalty for the infraction of the law is imprisonment. The fine should be made cumulative if it could be shown that the violation of the law is deliberate and intentional and has been followed for any length of time. (674.)

V. DISCRIMINATION BETWEEN PLACES.

A. General principles—Discussion (see also *Differential rates*, p. xcii).—

1. *Practice as to long and short hauls.*—Professor RIPLEY presents a diagram for the purpose of illustrating the practical working of the long and short haul clause in the interstate commerce act, which permits rates for a longer haul to be lower than those for a shorter haul over the same road where conditions are dissimilar. Often over a long stretch of noncompetitive territory situated between two competitive points rates will not vary at all. This is sometimes true of a stretch of 200 or 300 miles. When a competitive point is reached rates take a sudden drop. Beyond the competitive point, in a noncompetitive field, the rates rise suddenly, and all that the traffic will bear in the way of rates is put on until the next competitive point is reached. Frequently at these competitive points a secret rate, less than the published rate, is given. The result is that these competitive points have a great advantage over places where there is no competition. (296, 297.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, is aware of the existence of higher charges for the shorter than for the longer haul in some parts of the South, on account of water competition. He does not know of any such practices in any territory north of Virginia. His own road does not charge more for an intermediate than for a terminal point in any case, either on interstate or intrastate business. He would not consider it good policy. It is a disadvantage to the people on the line of the road and an inconvenience to the railroad company to have different methods of making rates for interstate business and for intrastate business in the same territory. Moreover, it would injure the road in injuring the communities served by it. Whatever harms any community or any set of shippers tends to injure the road; and this is a universal principle. (616.)

Mr. Griswold, however, suspects that higher charges for shorter hauls than for longer do exist in some cases in the North, New York and Chicago, but he does not think it is intentional. In meeting certain conditions other cases are sometimes overlooked which ought to have been met at the same time. (626.)

2. *Rights of localities.*—Mr. WHEELER, especially in connection with his discussion of the Pacific coast rate situation, points out that the railroads have enormous power to promote one section of the country at the expense of another. While it is claimed that the interests of the railroads and of the shippers are the same, it is nevertheless true that the interests of shippers in different sections are often opposed to one another and the railroads may side with one or the other. This witness thinks each section or city should be allowed the benefit of its own advantage of situation. (745.)

Mr. WILSON, of the Cincinnati chamber of commerce, declares that there has been too much paternalism practiced by the railroads. The railroads have no right to assume paternal functions over any city, locality, or individual. This policy has benefited the Eastern cities at the expense of the West. Nevertheless the Northwest and immediate North are gaining in that business all the time in spite of the discriminations in favor of the Northeast. (695.)

3. *Power of railroads.*—Professor RIPLEY says that the railroad has the life and death of manufacturers in its hands. He remembers hearing of an attempt which was made to establish a paper pulp factory at Denver. The men back of the scheme were notified by one of the roads that if they established a pulp mill at Denver which would prevent large shipments of freight which had formerly come from Wisconsin, the road would kill the business at any cost. Whether this mill was subsequently established or not Mr. Ripley does not know. He believes that the power of the roads is equally great over the miner of coal and ore and the producers of other commodities. (287, 288.)

Mr. MCGOVERN, of the Southern Classification Committee, declares that railway rates have less to do with the building up of communities than people generally imagine. Of course, if the railroads should set out with the deliberate intention to kill one town with freight rates and to build up another by a sort of hothouse process, they might be able to do it as against local wealth and energy; but as a general

proposition the growth of towns does not depend very largely upon rates, but more upon the enterprise and push of the citizens of the town. Many instances were given and comparisons made where cities having better railway facilities and lower rates had not grown so rapidly as cities less favorably situated. (686.)

4. *Discussion as to justification of discrimination between small and large towns.*—Professor RIPLEY says that the question involved in discrimination as to localities is whether a given tonnage shall come from 20 sources or whether it shall come from 1,000 sources; whether there shall be a few large industries or a great number of small ones. The effect of local discrimination is to concentrate business and population in a few centers. Business enterprises are abandoned in a place discriminated against, not because it has become more expensive to manufacture at that particular place than formerly, but because it is much cheaper to carry on business in some other place on account of the better railroad facilities offered. It is at places in favor of which railroad discriminations are made that the plants of the great industrial combinations are located. The doing away with local discriminations would lead to a much more widespread distribution of industries in the small towns of the country with less of the aggregation of industries in particular centers which get the benefit of competitive rates. (295-299.)

Mr. MARKHAM, of the Illinois Central, states that the statistics given (above, p. LXXIV) in respect to the reduction of railway rates refer almost wholly to through rates, but that there has been also a reduction in local rates, though not correspondingly so great. The rates on cotton have been revised two or three times in the last 20 years, and there were reductions in merchandise in the Southern States as well as in the Northern States traversed by the Illinois Central. The excessive reduction on through rates does not entail a burden on the railroads, because if the roads did not take this competitive business at the low rates they would lose so much revenue, which would have to be made up on the traffic from noncompetitive points. If we divide the whole expense of the railroad up into three parts, the roads could not control; the question to be determined is whether it will pay "movement expense." The other two-thirds expense goes on whether that business is taken or not, and any amount in excess of this "movement expense" that can be obtained is just so much more that can be applied toward meeting the fixed two-thirds expense, and thereby enables the road to make the burden that much lighter for the local or noncompetitive traffic. The movement of this competitive freight will not always incur even the entire expense embraced in the several items comprising the "movement expense;" one-third of it is interest on stock and bonds; another one-third the fixed expense of the maintenance of stations and station grounds, salaries of the general officers and operatives, which it is necessary to retain whether the competitive business is taken or not, these two items being denominated "fixed expense." "Movement expense," making up the other third, consists of the wages of engineers, firemen, conductors, brakemen, repairs, fuel, oil, waste, water, and wear and tear of rails and track. As competitive traffic is offered at certain specified rates made by influences which the railway can not control, the "movement expense" of such traffic might be decreased considerably, so that the entire additional expense of the movement of the competitive freight would in many cases be inappreciable. This low expense may be covered by very low rates without injury to any community or locality, and yet the rates which the railroad must charge upon other traffic would necessarily be higher in order that the entire cost might be covered and the property safely and successfully operated.

This apparent local discrimination helps the local point as well as the competitive point, that the railroad by taking the goods at the competitive point at low rates makes a little profit, which is just that much added to its receipts, and is just that much advantage to the local points. The railroad can add to its receipts more than to its expenses by taking such competitive traffic.

A community of interest in some way might prove beneficial in preventing the gradual decrease in rates at competitive points, but the things that have operated largely to reduce those rates have been the rivalry of towns situated on different roads and the necessities of commercial communities. Railroads that serve particular communities or trade centers can not resist the demand for putting those people on a plane where they will be enabled to do business and build up the railroads as well as the towns. The witness does not think there is any community of interest strong enough to prevent the recognition of trade centers. (436-438.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that to charge more for a shorter than for a longer haul is a discrimination, though he will not say that it is necessarily an unjust discrimination. When he was in charge of the making of rates he did away with it on the ground that the additional revenue which might be got by such discriminations was not enough to justify his company in subjecting itself to constant attacks for discrimination, and to the constant necessity of defending such rates as just and reasonable. He regards as reasonable the clause

of the interstate-commerce act which prohibits (ordinarily) a higher charge for a shorter haul, provided it does not exclude competition by forcing a reduction of rates to intermediate points that the railroad can not submit to. He would not approve an absolutely ironclad rule. He would not think it always just to forbid the meeting of competition, even if it does make a discrimination against intermediate points. But an elastic prohibition, with allowances for special cases, he considers justifiable. (630-632.)

Mr. ANDERSON, secretary of the chamber of commerce of Pittsburg, does not think that unjust discriminations between places can long be maintained. If one city or district is especially favored, the railroads that serve other districts will soon be compelled to grant them the same concessions. (638.)

It is true that complaints existed up to about the time of Mr. Anderson's testimony of discriminations against Pittsburg and in favor of Buffalo, in that both Pittsburg and Buffalo, as terminal points, had the same rate from the West, though the distance to Buffalo is greater. This gave Buffalo an advantage over Pittsburg in the large distributing territory of which it was the center, and also in shipments to New York, since, according to Mr. Anderson, goods can be sent to New York cheaper from Buffalo than from Pittsburg. (639, 640, 647.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, can conceive of its being the interest of a road to build up a town, but not at the expense of other towns on its line. His road might put in a siding to encourage a new factory, or might make a special rate on the building material for it. It would not give such an establishment any rates on its product which similar establishments on the line at other points did not get; that would be direct discrimination, and Mr. Griswold does not know of any such practice.

5. *Long and short haul clause in State laws.*—Mr. TALCOTT, assistant to the president of the Seaboard Air Line, thinks that the principle of the long and short haul clause has been generally enforced by the State commissions within the Southern States; not, however, in Virginia. (631.)

Mr. TEISBERG, secretary of the State railroad and warehouse commission of Minnesota, says that the railroad law of his State contains a long and short haul clause similar to that of the interstate-commerce law. The State railroad and warehouse commission has an authority to suspend this clause, similar to that of the Interstate Commerce Commission. Two applications for suspension have been made, and both have been refused. (365.)

B. Long and short haul discriminations in the South—Basing-point system.—1. *Existence and criticism of practice.*—Mr. WILSON, of the Cincinnati Board of Trade, declares that the prosperity of the Southern States has been largely depressed by ignoring the "long and short haul" principle. The great trunk systems of the country rarely have any trouble over this clause. The southern territory is where this difficulty obtains, and it all centers around the idea that there must be low rates to meet water competition at certain points, and that to these must be added local rates back to the interior. The interior is thus checked by high rates. Advantage is given to certain towns, whether they have commercial merit or not, that merely happen to be situated on a river, creek, or canal. This policy has been very injurious to the South. When the Louisville and Nashville Railway opened business after the war, water competition was effective from Cincinnati and Louisville to Nashville, but now it is a very rare thing that a boat loads with freight from Cincinnati to Nashville, and yet the rates made from Cincinnati to Nashville are based on old river competition. (696-697.)

Mr. Wilson testified that the "basing-point system" is the successor of the "long and short haul" system of making rates. Beginning with the theory that rates must be reduced where there is competition between water and rail, the railways extend that principle to railway crossings. The effects are evil to the roads and to the people, often preventing the establishment of industries at more eligible points upon a railroad than at the crossings. The Pennsylvania Railroad has done away with this system, with the result that industries are scattered from one end of its line to the other. Southern roads, especially the Louisville and Nashville, have operated on the discriminating principle very largely. The Cincinnati Southern never operated on it, and has never had any conflict with the "long and short haul" clause. (697.)

Mr. DAVANT, commissioner of the Memphis Freight Bureau, an organization of merchants and manufacturers, says that the bureau has accomplished a good deal in securing more just freight rates for Memphis and its vicinity. The bureau should not believe, however, that discriminations between long and short hauls should be altogether abolished. It favors the doing away, in whole or in part, of discriminations against North and South Carolina mill points in shipments from the West as compared with New England and coast points, but in shipments from New York and

the East to St. Louis and Memphis it finds Memphis at a disadvantage because the railroads claim that they can not reduce the through rates to Memphis without reducing and disorganizing all of their local rates. The conditions of transportation at different points are so different that it is hard to establish any just rule in regard to long and short hauls. The witness admits that discriminations against intermediate towns and in favor of competitive points tend to prevent the establishment of factories and industries at intermediate points. He says it is uncertain whether the gain in business to the railroads by fostering the establishment of industries at intermediate points would equal the loss of business at the competitive points by maintaining higher rates there. (5, 8.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that the long and short haul clause of the interstate-commerce act has never been fully observed in the Southern States. For instance, rates from Chicago to Atlanta are higher than the rates from Chicago to Savannah or Charleston, though the freight goes through Atlanta to reach those points. These conditions are caused by actual competition. Mr. Talcott believes, however, that all the roads have tried to carry out the law. They have claimed that they can not carry it out in every respect. (630, 632.)

Mr. DUNLAP, an officer of the Gainesville, Jefferson and Southern Railroad and of the Tallulah Falls Railway, both short lines, says that the business of those lines is mostly local, and that discriminations between long and short hauls are of little importance upon them. There are three or four common points where these roads have competition, and the rate to them is a little lower than to the intermediate points. (2.)

2. *General defense.*—Mr. MCGOVERN, of the Southern Classification Committee, testifies that the principal difference between the rate system in the South and in the other two sections of the country is that in the South there are lower rates to what are called basing or competitive points than to the small local stations. These rates were first established in competition with water transportation, and the basing-point system grew out of this principle. Afterwards new rail lines were built and there was competition between all-rail carriers and between markets that forced the rates down to large towns where there was no water competition at all. The roads have not believed that they ought to be called on to put down rates equally to every intermediate point where competition does not exist. The only difference in conditions as between Georgia and Ohio is that in Ohio there had been a flat fourth-section basis before the interstate-commerce law was passed. In the South competition exists not only with the sensible traffic officials, but with others who are not so sensible, but who are still doing what they believe to be for the best interests of their roads. Competition is anything that compels the carrier to reduce a rate, and one competing road would be as much affected by it as another. There is not so much of a tendency to establish basing points arbitrarily in the South as there formerly was. They were established and are maintained by reason of competition and competitive rates. (678-680.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that when he was directly connected with rate making in the Southern States the basing-point system, in the sense in which the phrase is now used, had not been developed. The system on Western business then was that the roads north of the Ohio River made the same rate from any given point, as Chicago, to all points on the river, and the roads south of the river made the same rate from all points on the river to each interior point. The combination of these two rates to and from the river made the through rate. As far as practicable the most important distributing points were given the same rate, to enable them to develop equally. The rates to other points were generally made by adding to the rates to these distributing points the local tariff of the road over which the freight went. This was a recognition of the general principle which is used in the present basing-point system. (629, 630.)

Mr. MARKHAM states that what is known as the "basing point system" of the Southern States is simply that when a town has grown to any importance, so as to have a wholesale business, then it gets rates which are related to rates that are made to other jobbing centers. The system would start from a point like Atlanta or New Orleans and gradually extend to other towns that were of sufficient commercial importance to justify the receipt of as good rates as the larger cities. The rates are not always the same to the different points, but their relations to each other are such as to enable each place to trade in the outlying territory that might be claimed as tributary to it. The determination of what should be a basing point is somewhat arbitrary and involves an infraction of, or an exemption from, the long and short haul clause of the Interstate Commerce law. The rates from New York and Chicago to the same territory are related. A rate from one place could not be changed without a demand being made for a reduction in the other rate. The rates were very early fixed from Baltimore, Cincinnati, Louisville, and St. Louis to the southern ter-

ritory near the Mississippi, and changes have been made from time to time in the rates so as to equalize them from the various points. (439.)

Mr. Markham states further that the competition of the rivers made the rail rates in the first instance. The differentials established at that time obtain to a large extent now. Many commercial conditions prevailing may necessitate changes of rate. In a meeting of the traffic managers of the various competing railway lines various influences arise, and it often requires a long time to establish certain fixed differentials between the various shipping places and a common trade center, each manager being particularly anxious to secure the trade for his own line and threatening to make other special rates if not given equal treatment. The defense set up by the Southern railways before the Interstate Commerce Commission and the United States courts, that the low rates granted to the important Southern cities was because of the water competition, is a true one. It may have been true in the first instance, even though no boats were plying on the rivers reaching those cities, because if the railroads were to put up the rates a river traffic would soon be created. The railroads would protect themselves from the river competition as they would from a rival railroad. Even when water competition is killed by such low rates the railroads seldom advance rates afterwards. They could not easily be advanced, because the merchants and manufacturers have adjusted their prices and their business operations to them, and the change would cause a general disturbance of the fixed conditions. Moreover, a traffic officer, from long association and working traffic under those rates, can not readily disassociate his mind of the idea that the business is properly conducted, and that any other rates would be improper. (434-435.)

Mr. Markham denies the charge that the railroads lose money by hauling freight at very low rates on through traffic from competitive points and made up those losses by increasing their local rates. He said the railroads at the interior points have reasonable rates which will enable those towns and communities to do business; that the railroads find the situation at the river points such that they can get traffic only by making a certain very low rate; that while that rate may necessarily be very low, only a fractional part of what it is at interior points, it does not necessarily follow that the road is losing money on that traffic, because the rate will enable the road to add to its receipts more than to its expenses. (436-438.)

Mr. Markham states that if his railroad hauled all freight at an average rate they would get just as much money as they do now; that the railroads would be very glad to get the average rate for a car of merchandise. The rates to Southern points remote from the rivers are higher than the rates to points on the rivers, because the roads could not be successfully operated, particularly the Southern roads, if all rates were reduced to the basis of the river rates. (435.)

3. *Effect of competition of Mississippi River* (see also p. CLXXXVII).—Mr. WILSON testifies that water transportation down the Ohio and Mississippi rivers to New Orleans and other river points is recognized very much to the disturbance of trade relations at all river points—the rates are lower than to the interior points. The rates to Atlanta, for instance, are much higher than the rates to New Orleans and Mobile. Selma, where the Cincinnati rates are 104 per cent of the New York rate as against 55 per cent of the distance, is excluded, because there is no water competition by way of Mobile from New York. (689.)

Mr. MARKHAM refers particularly to the rates on the Mississippi River from Memphis down, and compares them with the railroad rates in the same territory, saying that the rates from competitive points to New Orleans are much lower than from noncompetitive points, both by rail and by water. A railroad rate from a point near the river would be the river rate plus the rate from the river to the interior point. If it were not so near the river the railroads would be justified in charging a higher rate. The last report of the Interstate Commerce Commission showed that 17 per cent of the railway mileage of the United States was south of the Ohio and Potomac rivers, but that the earnings of those roads were only 12.5 per cent and their dividends only 6 per cent of those of all the railroads of the United States. Replying to a question as to whether at competitive points on the river the railroad and not the steamboat fixed the rate, he said that he had no doubt that eventually it must be so. While the steamboat rate on cotton from Memphis to New Orleans is 17 cents a hundred, farther down, where there was no competition, the rate might be as much as 20 cents. (436-437.)

4. *Steamboats on the small rivers of the South*.—Mr. MARKHAM states that he does not know of any lines of steamboats regularly plying on the smaller rivers on the Atlantic and Gulf coasts. The Tennessee and Cumberland have boats running, and the Arkansas and Red rivers also, and the witness thinks there are lines running from Mobile up the Alabama River as far as Montgomery. He has also seen a statement that boats are running up the Tennessee River as far as Chattanooga, but he thinks

this is an innovation. The statement made in the public press that by shipping by water from Chattanooga to Paducah there was a saving of 30 to 40 per cent on through shipments to New York and Philadelphia is hardly correct. The saving would not be that much, because there are boats up to Nashville, and the rate to Chattanooga would be the Nashville boat rate, plus the rate from Nashville to Chattanooga, which would not be as great as if there was only rail competition to Chattanooga all the way. Probably only in some special commodities, such as grain, flour, and other articles, would any saving be effected. (435, 439, 440.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that some years ago, when he had direct knowledge of conditions, there were regular lines of steamboats on some of the smaller Southern rivers, whose competition the railroads had to recognize. The boats on the Savannah River were at one time subsidized by the railroads in the Southern Railway and Steamship Association to secure the maintenance of rates. (628, 629.)

5. *Montgomery and Mobile rates.*—Mr. MCGOVERN says that the rate from the North to Mobile was made the same as the rate to New Orleans, which was first fixed by the competition of the river. This witness scarcely thinks it justifiable to make these rates the same. Now, when goods come down from the North the direct rate to Montgomery would be, in some instances, less than the Mobile rate plus the local rate from Mobile to Montgomery. Goods under such circumstances are shipped through to Mobile and back. The reason the goods are not stopped at Montgomery in the first instance is that it was found that the agents were gradually hunting for freight combinations, and consequently the policy was adopted to put the Montgomery goods into the Mobile shipment and let the Montgomery man make his arrangements to have them reshipped. (681.)

C. Alleged discriminations between rates from East and West to Southern States.—1. *Cincinnati: Its interest in Southern trade.*—Mr. EDWARD P. WILSON, secretary of various Ohio commercial organizations, testifies that in early days Cincinnati was one of the principal points of supply and distribution to the South, the goods being carried on steamers and distributed by river and bayou throughout the South. She thus gained a prestige in Southern business, and for three-quarters of a century has been developing that business, though not to the extent she formerly did. The construction of railway lines into the South and the improved service in rail transportation have given better facilities to rival cities than Cincinnati now possesses. The Louisville and Nashville Railroad was the first important line built from the Ohio River into the South, and as it made its connections through Louisville, that city was brought into prominence as a rival distributing center to Cincinnati. (687.)

2. *Alleged exclusion of Western manufacturers from Southern trade.*—Mr. WILSON testifies that about 1879 competition of the railroads for Southern business was very brisk, both from the Eastern seaboard cities and from Western centers, like Chicago, Cincinnati, St. Louis, and Louisville. The result was that the roads made an agreement to divide the business and maintain rates, and to give to the Eastern cities practical control of the trade in manufactured articles, which had their origin at that time on the Eastern seaboard, and to give to the roads leading south from the Ohio River the trade in what were then known as the peculiar products of the West—packing-house products, grain and its products—both direct and indirect. The result of this was to make rates of freight from the Ohio River points what the roads pleased on the heavy products and to maintain high rates on the miscellaneous manufactured products, so that competition could not be had with the Eastern cities on those products. Since 1879 conditions have changed, manufactures have moved westward and the West demands entrance to the South on equal terms with the East for manufactured products. This has been denied by the railroads, but certain spasmodic instances of relief have been afforded. Another advantage which the Eastern cities secured as against the Western cities resulted from the rates made by the coastwise steamers from the North to the Southern seaports. Owing to the favor shown the Eastern cities in respect of manufactured articles for Southern trade, the Western manufacturers in some instances have found it necessary to establish and maintain warehouses in New York and Boston, from which their manufactured products may be distributed to the South. (687-688.)

Mr. Wilson gave specific instances of railway discriminations against Western cities for Southern trade as compared with the Eastern cities. Cincinnati is 475 miles from Atlanta and New York is 876 miles from Atlanta by rail. While the distance from Cincinnati is 54 per cent of the distance from New York, the first, second, and third class rates from Cincinnati to Atlanta are 94 per cent of the New York rates. In one of the lower classes the Cincinnati rate is 69 per cent of the New York rate, but that is on one of the articles which was given to the West in the division of 1879. The distance from Cincinnati to Meridian, Miss., is 55 per cent of the distance from

New York to Meridian, and the Cincinnati rate is 107 per cent of the New York rate. A statement was presented to the Interstate Commerce Commission in 1892 wherein these and other discriminations were set forth. The commission, in May, 1894, found that the rates from the Western cities to the South were too high, as compared with the Eastern rates, and ordered them reduced about 40 per cent. The question, however, was carried to the Supreme Court of the United States, but the merits of it were not considered, the case being ruled out on the ground that the Interstate Commerce Commission did not have authority to establish railway rates.

Mr. Wilson declares that cheap water transportation from the Eastern cities to the Southern seaports is not as great a factor in the establishment of the Eastern rail rates as is ordinarily represented by the Eastern roads. It is used merely as an excuse for making the Eastern rates lower than the Western rates. The competition between the Eastern coastwise steamship lines and the railroads is much less than it is represented to be. (688-689.)

Mr. LANGLEY, of the Merchants' Association of New York, says that New York is not holding its own as a distributing center throughout the Middle West as against Chicago and St. Louis. There is competition as between New York and the Western cities for the Southern trade, but if there is any advantage in this particular New York has it as against St. Louis and Chicago. This is due to another agreement between railway lines, dating back perhaps 30 years, that merchandise should enter the South from the East. The idea was to exclude the Western lines from any participation in business that moved into the South. The agreement exists to-day. The witness does not think that the rates of the coastwise steamers had anything to do in regard to this agreement, and says that he does not think that any cheap water rates exist. There is, in fact, no competition between the coastwise lines and the railroads. The Southern classification applies to the steamship lines as well as to the railroads.

It is possible to deliver goods from New York in the Southern States east of the Mississippi cheaper than from Chicago or St. Louis, even though the Illinois Central has a direct line from Chicago to New Orleans and Mobile. The lines east of the Mississippi in the South refuse to cooperate or prorate with the lines west of the Mississippi. If the Illinois Central attempted to take independent action in respect of freight rates into the South it would precipitate a rate war. (874-875.)

Mr. Wilson says further that any road leading into the South has the power to reduce rates, but it does not consider it expedient to do so upon its own responsibility, because it fears the consequences of independent action. The controlling influence against the reduction of Western rates is that the lines from the Western centers dare not grant what they might consider to be their own interests, because of the opposition of the Eastern lines. The effect of this situation is to prevent substantial justice by any of the roads leading into the South. There are no more glaring instances of injustice by any system of railroads than the system of unjust tariff from the Ohio River to the interior South, and no case has ever been presented where the complaint has been more clearly defined and supported, and, at the same time, so conspicuously ignored. This condition is attributable to the fact that a few dominating interests govern the transportation of the South, and are close together in their determination to protect each other in order to protect themselves. A few prominent capitalists own the larger portion of the stock in all of the transportation organizations that do business in the South, and they have agreed practically among themselves that they will not hurt each other. The consolidation of these interests would perhaps be beneficial. Even if the specific difficulties are not removed, the conflict of interests will be minimized in the near future by combination. (691-692.)

Mr. GUILLAUMEU, of the Old Dominion Steamship Company, states that the Eastern men are looking with great alarm on the increased volume of trade from the Western cities, such as Cincinnati, St. Louis, and Chicago, and have come to the conclusion that those cities must enjoy better rates than the Eastern cities do. He says that it has been fully 20 years since there was any general movement of grain and other products from the West to New York for the South. In the meantime Baltimore and points in Virginia were having as low rates as New York from the West, if not lower. There is some business from Baltimore and Philadelphia from the West for coast points south of Hatteras, but the great volume of the business goes direct by through car movement across the Ohio River and is distributed all through the Southern States. The manufactured products from the Western cities destined for the South consist largely of iron articles, agricultural implements, furniture, etc. Perhaps the growth of manufactures in the Western country might have something to do with the increase of its volume of Southern trade, but it is to be attributed primarily to the decrease of rates. The witness is not in close enough touch with the rate situation to say whether the rates from the Western cities to the South are less than the published tariff. (447, 448.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that when the Chesapeake and Ohio road was opened in 1874 it adopted for its rates to Richmond from the West the trunk line rates to Baltimore which it found in force. Western business had previously gone to Baltimore and thence to the South. The new competition necessitated a readjustment. Very recently, Mr. Talcott understands, the plan has been adopted of making Richmond, Norfolk, Portsmouth, Lynchburg, and perhaps Petersburg, gate cities from the West. The Western lines agree to make the rates the same to all these points, notwithstanding the different lengths of haul. The Southern lines make the rates to interior points by adding either agreed rates or locals. (634.)

3. *Territorial apportionment of traffic between Eastern and Western lines.*—Mr. WILSON testifies that a circular entitled "Division of Territory South of the Ohio River" contains the following clause relating to the territorial apportionment of traffic between the Eastern and Western lines, viz:

"(1) Western lines shall not make joint rates on traffic passing between points east of Buffalo-Pittsburg zone and points east of a line drawn from Chattanooga, Tenn., through Birmingham, Selma, and Montgomery, Ala., to Pensacola, Fla.

"(2) Eastern lines shall not make joint rates on traffic between points west of Buffalo-Pittsburg zone and points on or west of a line drawn from Chattanooga, Tenn., through Athens, Augusta, and Macon, Ga., to Liveoak, Fla.: *Provided, however,* That the Norfolk and Western Railway may participate in traffic via Kenova, at the rates established by the association between points in the territory on and east of its line from Columbus, Ohio, to Kenova, W. Va., and on and south of the line of the Pittsburg, Cincinnati, Chicago, and St. Louis Railway, Columbus, Ohio, to Steubenville, Ohio, and points on and east of the Chattanooga-Montgomery-Pensacola line as defined in paragraph (1)."

The witness does not know whether this division of territory is supported by any traffic agreement, but said it corresponds with the practice at the present time. It is a practice in restraint of trade. (690.)

4. *Conflict of Western interests.*—Mr. WILSON testifies that in the presentation of the Western case to the Interstate Commerce Commission, Chicago and Cincinnati acted together, but Louisville and St. Louis seemed to be so closely in the power of the local roads that they took no part in the transaction. The fact is constantly asserted by shippers that Louisville has the advantage of Cincinnati, by reason of the adjustment of the tariff on the Louisville and Nashville Railroad, but it has never been proven. It is known that Nashville is in receipt of a great many favors not accorded to any other inland city. Certain trades are so affected by it, that they have established their warehouses in Nashville, rather than fight the situation. The reason given for these favors to Nashville is that it should receive discriminations on account of having both rail and water connections, but the water transportation to Nashville is at present quite insignificant. Navigation is attended with so many difficulties and the river is so low nearly all the time, that it does not affect transportation at all. (692.)

5. *Rates from St. Louis and Cincinnati to the Southern States compared.*—Mr. WILSON testifies that there has been very serious complaint by the shippers of grain from Cincinnati against the policy adopted by the railroads whereby transportation by way of Memphis from the Western grain fields is made through St. Louis, and not through Cincinnati. For a time the rate applied from St. Louis to Southern territory on business coming from Kansas in competition with the Kansas City, Memphis and Birmingham road was only 1 cent higher than the rate from Cincinnati, and the roads from St. Louis to Cincinnati asked 7 cents for bringing the grain from St. Louis to Cincinnati. The roads South would have been compelled to cut their rates about 5 cents a hundred pounds in order to equalize conditions. This they refused to do, and a barrier was erected against the passage of any grain from points west or north of Cincinnati through Cincinnati. The only remedy for this is the consent of the roads to make the total rates between any two points the same, and to distribute among themselves, as they may deem equitable. Each community competing in a common market is entitled to just rates at the hands of the carriers and to the benefit of all its natural advantages. (694-695.)

6. *Cincinnati Southern Railroad.*—Mr. Wilson says that owing to the trade of Cincinnati being diverted by lines of railway from other Northern points to the South, Cincinnati found it necessary to construct a line of road from that city to Chattanooga, which was considered the most important strategic point south of Cincinnati, for distribution. This road was built by the city as a public enterprise. It cost something over \$18,600,000. Bonds were issued for this amount and the proceeds of the bonds put into the road. The city has been carrying those bonds, the road has been paying part of the interest and the city the rest, so that the road has cost the

city now about \$36,000,000 in cash. Its income is a rental of \$1,090,000 a year. The bonds are about to expire, and if they can be refunded at current rates of interest it will result in the city having an annual surplus. This road is leased by an organization known as the Cincinnati, New Orleans and Texas Pacific Railroad Company, a corporation organized under the laws of Ohio, which has been operating the road for about 20 years. The proposition now is to extend that lease 65 years, and it is being favorably considered by the majority of the people in interest. The impression prevails in Cincinnati and elsewhere that the outcome of this extension will be to give the control of the road to the Southern Railway, and this the people desire. Nearly 80 per cent of the stock of the Cincinnati, New Orleans and Texas Pacific Railway is held by the Southwestern Investment Security Company. The Southern Railway owns a majority of the stock of the Southwestern Investment Security Company, and through that instrumentality it has a dominant influence in the Cincinnati, New Orleans and Texas Pacific Railway Company. There is a clause in the proposed lease of the Cincinnati Southern road to the Cincinnati, New Orleans and Texas Pacific Company that "The right to sublet this property to any other than the Southern Railway is denied." The city of Cincinnati will never sell the road, at least not within the terms of the lease. The main thing to be accomplished is to lease the property upon a long rental and give the city an income. The terms of the lease will be based on the earnings of the road, and seem to be favorable to the future of the road as well as to the city. There is a clause in the present lease which provides that the lessee company shall not discriminate against the citizens of Cincinnati, Kentucky, or Tennessee, but this clause is indefinite, and as there is no penalty provided to secure its enforcement, it has not amounted to anything. In renewing or extending the lease the Cincinnati shippers are interested in having a declaration of policy that will protect the geographical situation and rights of the road. The Cincinnati Southern road having been leased to foreign control, its policy has hitherto practically ignored the territorial advantages that Cincinnati claims she should have through its construction. (687, 692, 694.)

D. Miscellaneous discriminations and rate adjustments in the South.—1. *Atlanta and Savannah rates.*—Mr. MCGOVERN testified that there are 4 or 5 concerns in Atlanta that have warehouses located at Savannah in order to get the benefit of the lower rates to Savannah made by the ocean routes, and they then reship the goods inland from Savannah. If it should come to pass that Atlanta would commence to do all its business at Savannah, the roads would have to decide what they would do about it, because there are some roads that haul Atlanta business that have nothing to do with the traffic at Savannah; and if the Savannah business should grow to a sufficient volume it would force a reduction to Atlanta and other interior points. Referring to the tin-plate industry, he says that Mr. Charles Conklin got his commodity rate on tin plate East and West by using as an argument that if the roads did not give him a commodity rate to Atlanta, he would move his works to Savannah and get the plate there by water. Mr. McGovern says he does not think the roads should have given him that rate, for the reason that it is not used for manufacturing purposes. He ships a great deal besides manufactures. (681, 682.)

2. *Birmingham and Atlanta rates.*—Mr. MCGOVERN testified that Birmingham and Atlanta have the same rates from the East because they have always been in the same group. From the west the rates were formerly the same to the 2 points, but when the Kansas City, Memphis and Birmingham Road was built from Memphis to Birmingham the rates to Birmingham were made much lower than to Atlanta. The Louisville and Nashville Railroad attempted to keep up the same rates from Ohio River points to the 2 cities of Birmingham and Atlanta, but was not able to do so, and about 1886 the Birmingham differential was fixed, which still exists. It would not benefit Atlanta to build an additional railroad from the West, and would not lower her rates to the same plane as those of Birmingham. Atlanta has not suffered from freight rates and has all the railroads she needs. It is the business of the railroad to fix the rates to fit the conditions as they exist. (680.)

3. *The Charleston-Asheville-Norfolk case.*—Mr. MCGOVERN says that what is known as the Charleston-Asheville-Norfolk case arose out of the desire of Charleston to have the same rates from Chicago through Asheville, as Norfolk has. The Southern Railway has a line through Asheville to Norfolk, and the rate was made the same on that line to Norfolk as on the direct line, although it was much more roundabout. Charleston is very much nearer Asheville than Norfolk is, but the Southern road would not grant the rate desired; consequently Charleston, about 2 years ago, brought the question before the Interstate Commerce Commission, but a decision has not yet been reached.

Mr. McGovern says the reason why Charleston did not get the same rates as Norfolk over the Asheville line was that the Asheville line had nothing whatever to do with fixing the rates from Chicago to Norfolk. The rate from Chicago to Norfolk was fixed by the trunk lines from Chicago to the seaboard, the shortest line being the governing element. It is the same as the Baltimore rate, which is a little below the Philadelphia and New York rates. The Charleston rate is likewise fixed by the trunk lines, and is practically the Norfolk rate plus the water rate from Norfolk to Charleston. Norfolk is considerably nearer Chicago than Charleston is. The Asheville line does not handle any Western business of any consequence bound for Norfolk. There may be a little money to the Southern road on Norfolk business from Chicago, but certainly not enough to make it a factor in rate making. (683-686.)

4. *Rates through Richmond.*—Mr. MCGOVERN says that the rates from the West to Richmond, properly speaking, are subject to the official classification and are made the same as from Baltimore, but on through business going to the Carolinas the rates through Richmond are made on a proportional basis on the Southern Classification. The rate from Cincinnati to Richmond is 62 cents, but the proportional rate on business going through Richmond to the Carolinas is only 32 cents from Cincinnati to Richmond. The complaint is really as to rates rather than classification. (677.)

5. *Rates on cotton to Southern and to New England and European mills.*—Mr. DAVANT, commissioner of the Memphis Freight Bureau, testified in 1900 that the freight rates from Memphis to Eastern cotton mills were based on a rate of 55½ cents per hundred to Boston and 57½ cents to New York, while the rate on cotton to Carolina mill points was 59 cents. Thus cotton going from Memphis to Charlotte, N. C., or to Greenville, S. C., would pay 59 cents, while cotton for export or for shipment to New England, going through those points to Norfolk, 300 or 400 miles farther, would pay 42 cents. The rates to Liverpool from Memphis are sometimes lower than to Carolina points, although the rate to Liverpool at the time of Mr. Davant's testimony was about 72 cents.

The witness contends that the freight rates from Memphis should be the same to the Carolina mills as to Norfolk and to other ports. He does not believe that freight rates should be in proportion to the length of the haul. The objection of the railroads to reducing freight rates to the Carolina mills is that it would ultimately result in a reduction of local rates to those mills from near-by points. Cotton rates to Eastern points, under severe competition between the different railroads, have frequently been reduced below a paying basis. Under these conditions the witness does not think it just that the railroads should be forced to carry similar low rates into their local territory, from which they have to get the principal part of their earnings. The railroads are able to charge higher rates to the local mills in the Carolinas, because there is practically no competition there. The rates to New York and Boston are determined by the water competition by way of New Orleans or of Cincinnati. Notwithstanding these arguments in favor of discrimination, the witness insists that there should be an adjustment more to the advantage of Southern mills. (5-8.)

Mr. Davant says that the rail freights on cotton from Memphis to New York and Boston are determined by the cost of water transportation. As a matter of fact, there has of late been no transportation of cotton to those points by way of the Mississippi River and the Gulf, but there would be if the rail rates from Memphis were advanced. Some cotton is transported up the Mississippi to Cincinnati and thence by rail. The water rate by this route is 5 cents lower than the railroad rate, the difference being supposedly due to the high costs of insuring cotton during water transportation. The witness thinks that a certain amount of discrimination in favor of Eastern points as compared with Carolina mill towns is necessary because of water competition to the more distant points. (6-8.)

Mr. MARKHAM states that the rates from New Orleans or Memphis to Liverpool by way of Boston would be the same as through every other port all the way around to New Orleans. The rates from Memphis to all ocean and Gulf ports are fixed figures. Each port reports each day to the Memphis Cotton Committee what ocean rates they can obtain to Liverpool. Those ocean rates are added to those fixed rail rates, and the port which has the lowest rate to Liverpool fixes the through rate by all ports. The railroads have to shrink their rail proportion down to a figure that will enable them to make the same through rate, whereby all lines may get a share of the traffic. (442.)

6. *Galveston rates.*—Mr. MARKHAM states that the rates from Kansas City to Galveston and New Orleans are the rates from Kansas City to St. Louis, plus the barge line, and from Illinois territory to New Orleans by all rail. (441.)

E. Alleged discrimination against Denver.—1. *Complaint of Denver regarding through rates.*—Mr. GRIFFITH, representing the Denver Chamber of Commerce, says that there are 5 railroads coming directly to Denver from the East—the Union Pacific, Burlington, Missouri Pacific, Rock Island, and Santa Fe, of which

3 make part of transcontinental lines. Denver has also a rail-and-water route by way of the Gulf of Mexico and through Fort Worth.

The rates from Denver to San Francisco are now practically the same as those from Chicago and New York to San Francisco. They were formerly higher, the more eastern cities being given lower rates on the ground of sea competition by way of the Atlantic. A case was brought under the influence of the Denver Chamber of Commerce, known as *Kindel v. The Atchison, Topeka and Santa Fe Railroad*. Mr. Kindel, who brought suit, was a manufacturer of bed springs, who was especially anxious to obtain a satisfactory Western outlet. The Interstate Commerce Commission held that the rates from Denver to the Pacific coast should not exceed those from Chicago or more eastern cities. The witness believed at the time of his testimony in May, 1901, that the railroads were about to put the modified rates into effect.

Mr. STRUBBS, of the Southern Pacific Company, says that the case brought several years ago by the chamber of commerce of Denver regarding freight rates was very similar to that which was being pushed regarding Pacific coast rates at the time of his testimony in the summer of 1901. The Denver case came directly within the long and short haul clause of the interstate-commerce law. The Denver jobbers claimed that they should have lower rates to and from points in California than prevail between the Missouri River points and California. The contention of the railroads was that the rates from the Missouri River to California were influenced by sea competition from New York, but that the influence of this sea competition did not extend farther west. They held accordingly that it would not be fair to give Denver a rate as much lower than that from Missouri River points as the proportionate distance would indicate. The railroads held that to give Denver the same rate as that from the Missouri River would be a fair compromise, and the Denver shippers accepted this offer.

The witness says further that the high rates which had previously prevailed from Denver had not been approved by the railroads themselves, but that they had maintained them because they did not wish to recognize that there was any effect of sea competition at Denver, or because the Interstate Commerce Commission would not recognize railroad competition as a factor in determining differences between the long and short haul rates. The railroads felt that if the rates from Denver were reduced then the rates from all other points would have to be similarly reduced, so that the rates were held up to protect the revenue of the railroads. In this case, however, the Interstate Commerce Commission held that Denver must be given the benefit of sea competitive rates. (760.)

Mr. GRIFFITH says further that Denver manufacturers also complain that the rates on raw materials from the East are high as compared with the rates on manufactured products, so that the development of manufactures in Colorado is greatly retarded. Some manufacturers have been able to get the railroads to make commodity rates on raw materials, which have relieved them, but this is not true in other cases. In the case of iron and steel, which are largely produced in Colorado by the Colorado Fuel and Iron Company, the manufacturers who use these products as raw materials claim that the high freight rates from the East act as a protective tariff to the local industry, so that the manufacturers get no advantage in low prices as the result of the production of iron and steel in the State. A large manufacturer of machinery told the witness recently that he bought a considerable amount of pig iron from Pittsburg in spite of the fact that the freight rate was so high. The witness is inclined to think that the Colorado Fuel and Iron Company ought to be able to produce iron and steel about as cheaply as it is produced in Pittsburg, although the cost of labor and general expenses are higher in Colorado. The supply of ore and coal is practically unlimited and quite convenient, although the Fuel and Iron Company gets most of its iron ore from the edge of Wyoming. The witness presumes that sooner or later there will be many more ironworks established. Colorado is a large State, with many resources and few people to develop them, so the available capital has largely gone into precious metal mining and other enterprises rather than into coal, iron, and steel production. (848-857.)

2. *Alleged discrimination against Denver jobbers in distribution of goods.*—Mr. GRIFFITH presents a paper prepared by the chairman of the traffic bureau of the Denver Chamber of Commerce regarding the freight rates at Denver, and the witness himself explains the subject further and presents additional arguments in favor of modifications of the existing basis. It is asserted by these gentlemen that Denver has never had any substantial assistance in her development from the transportation companies, but, on the other hand, has been constantly handicapped by restrictions.

The particular complaint presented by Mr. Griffith is in behalf of the jobbers of Denver, who hold that they have never enjoyed a basis of rates for the distribution of goods, particularly to common points in Montana and Idaho and other States adjoining Colorado, which enabled them to compete with Eastern cities and Missouri

River points or with the Pacific terminal points as regards the distribution of products from California. Denver has always been treated as a way station in the making of rates. From the East the Missouri River is substantially the basis line. Missouri River and other Eastern points receive through rates directly to common points in the Mountain States, while Denver must add to a high rate from the Eastern points other high local rates. The rates from Denver to Utah, Montana, and Idaho are based upon the Missouri River rates and are usually 70 or 80 per cent of those rates, which makes it practically impossible for any considerable amount of business to originate at Denver. By way of further illustration the witness states that the rate from the Atlantic coast by rail to Denver is \$2.72 per 100 pounds on first-class goods. The rate from Chicago to Denver on first-class goods is \$2.05, and the rate from Mississippi and Missouri River points is practically the same. From Denver to common points in Montana and Idaho the freight rate is \$2 on first-class commodities. The rates from the Missouri River to those common points direct is \$2.50 per 100 pounds, which is very much less than the combined rate from the river to Denver and from Denver to Idaho and Montana. Mississippi River points have a carload rate on first-class goods to Idaho and Montana of \$2.90 per 100 pounds, and Chicago has a carload rate of \$3.10. The rate from Chicago to Denver, added to the rate of these common points from Denver, is \$4.05, there being no carload rates allowed to Denver on most goods. The Chicago jobber thus has an advantage of 95 cents on the cost of shipment.

Mr. Griffith states that there is less occasion for complaint as regards the rates from Denver to New Mexico. An arbitrary blanket rate has been made by the railroads on the condition that the merchants should give them a certain amount of tonnage. These rates enable the Denver merchants to compete in New Mexico territory. The rates from Denver to Colorado points are also satisfactory, and, in fact, the jobbing business of Denver is largely confined to the State of Colorado alone. The rates in some instances are high, but the Eastern jobber has no advantage, since there are no through rates from the Eastern States lower proportionately than those by way of Denver.

This witness states also that practically all Eastern cities have the same advantage over Denver in the matter of jobbing business. The witness understands that goods coming from the East to Chicago takes a basis of 67 cents per 100 pounds first-class to Chicago; the Eastern rate to St. Louis is 87 cents, and to Missouri River points \$1.47. All the different Missouri River points get the same rate from the Atlantic seaboard and make the same rate to Western points.

The Denver merchants maintain, according to Mr. Griffith, that they are entitled to be placed on an equal competitive basis with regard to distributing goods to common points in the Mountain States. The present base line on which the Western distributive rates are founded is the Missouri River. A new base line should be established, running north and south through Cheyenne, Denver, Colorado Springs, and Pueblo. This would enable all the cities named and others along the same line to compete on equal terms with Eastern points. The establishment of this new base would also prevent rate wars and discriminations, since if cuts in rates were made to these points they would have to apply to farther Western points as well. The Denver merchants do not desire that the rates shall be lower proportionately to and from Denver than in case of the more eastern points, but they do desire to have proportionate rates. The witness recognizes that if the adoption of such a new basis would not furnish sufficient tonnage to the railroads to justify the change in the rate they could not be expected to adopt it, but he asserts that the only way in which the country can be developed is by ceasing to discriminate against it. It is to the interest of the railroads that the country which they enter should be developed in its manufacturing and distributing business. (848, 857)

F. Freight rates to the Pacific coast and sea competition.—1. *The case before the Interstate Commerce Commission.*—Mr. WHEELER, representing the Pacific Coast Jobbers' Association, describes the case being prosecuted in 1901 before the Interstate Commerce Commission with reference to the Pacific coast freight rates. This case was brought by the jobbers of the Middle West, through the St. Louis Traffic Bureau, to compel the railroads to put them in a more favorable position as regards traffic to the coast.

The witness states that the transcontinental railroads found themselves at the outset met with the competition of sea carriers from New York and the Atlantic coast to San Francisco and other Pacific coast ports. They were obliged to make rates to meet that competition, with allowance for the less favorable conditions of sea traffic. The railroads of the Middle West thereupon insisted that they should apply like sea-competitive rates between Chicago and other Middle West cities and the coast. They insisted on what was known as "postage-stamp rates," making the charges

from all Eastern points equal, as the Government does in carrying letters. They made tariffs accordingly, which practically confined sea competition to competition as it then existed. The merchants of San Francisco, in 1893, in order to break the monopoly then maintained, by virtue of practical combination between the railroads and the steamship companies, established a new steamship line to run in connection with the Panama Railroad and its steamship line on the Atlantic. They also subsidized a rival line of clipper ships around Cape Horn. The result was violent competition and a great cutting of rates. Rail rates were generally flattened out, and little or no difference remained between carload and less than carload rates, while value of goods and other proper elements which should be regarded in connection with sea competition were disregarded. This rate war continued during 1893 and 1894, after which the new steamship line was abandoned and the Panama Railroad Company renewed its relations with the Pacific Mail Steamship Company (which is affiliated with the Southern Pacific Company). Rates were advanced, but carload differentials formerly existing were not at first restored. The Middle West jobbers had been able, owing to the abandonment of these special carload rates, to secure an abnormally large share of the business of distributing goods into the Pacific coast territory.

For this reason the Pacific Coast Hardware and Metal Association, an organization of jobbers, made a protest and held a meeting with the railroads in May, 1898, at Milwaukee, as the result of which railroads in a measure restored the conditions existing before the rate war, which were more satisfactory to Pacific coast jobbers. The Middle West jobbers thereupon in turn protested and claimed as a right what had been granted by the railroads as a war expedient. Their efforts were successful in the case of the Great Northern and Northern Pacific railways, which, on May 1, 1899, reduced the carload differentials, and, despite the complaints of the Pacific coast jobbers, declined to recede from that position. The railroads running directly to California, however, paid no attention to their northern competitors, and continued the operation of the Milwaukee tariff.

Thereupon the Middle West jobbers began the suit before the Interstate Commerce Commission against the transcontinental railroads. They demanded: (1) That rates should be graded according to distance, so that a lower rate should exist from St. Louis than from Chicago and a lower rate from Chicago than from New York; (2) that carload differentials should be materially reduced; (3) that "blanket" descriptions should be adopted, by which a variety of articles widely diverse in value, density, and liability to damage might be packed in a single case and transported at a single rate. (744, 745.)

Mr. LANGLEY, of the Merchants' Association of New York, says that it is possible for a New York merchant to do business in California territory in competition with San Francisco. On business destined for California and the Pacific coast there is a classification in effect which is peculiar to that traffic. It is made in a different way from the other classifications. It is made by grouping and naming rates to cover groups rather than items. There has been a contention by the commercial bodies of the central West, particularly Chicago and St. Louis, that the scale of rates and also the classification in effect from Chicago and St. Louis is detrimental to their interests. Those cities claim that the transcontinental lines are using the difference between the carload and the less than carload rates to exclude them from the Pacific coast territory. The Pacific coast jobbers maintain that Chicago and St. Louis have no right to do business in that territory, and there is now a case before the Interstate Commerce Commission that involves the whole question. The rate from New York to San Francisco and from Chicago to San Francisco is the same. Chicago and St. Louis both claim that because they are nearer San Francisco the rate to San Francisco should be relatively less than it is from New York. The rate from New York to San Francisco, however, on transcontinental business should be properly styled a "compelled" rate; that is, a rate not based on the cost of service or the distance hauled, but forced upon the roads by the ocean rate from New York around Cape Horn to San Francisco. Chicago and St. Louis seek to have that compelled rate used as a basis, and then oblige the railroads to grade the rates from the Eastern seaboard to the Pacific coast. Denver makes practically the same claim. If the principle involved in the compelled rate is not recognized and protected and this graded system of rates is introduced, the rate from New York to San Francisco of \$1, if graded westward, would soon reach a point beyond Denver where there would not be any rate at all. The Chicago merchant, while apparently able to compete with the New York merchant for the California trade, has against him the rate that he had to pay to get his stock from the East to Chicago. On import goods, however, he can compete with the New York jobber for the California trade. (875-876.)

Mr. STUBBS, third vice-president of the Southern Pacific Company, also discusses the case brought by the shippers of the Middle West before the Interstate Commerce Commission regarding freight rates to the Pacific coast. He says that the interstate-commerce law recognizes by implication that a substantial difference of circumstances and conditions will justify a higher rate for the shorter haul that is contained within a longer haul than for a longer haul itself. Usually the Interstate Commerce Commission has defined such special conditions, justifying lower rates for longer hauls, to be competition by foreign carriers or sea carriers not under the control of the commission.

San Francisco has had the advantage of sea competition as from New York and from all points in the East within reasonable distance of New York. The sea carriers control the rates so that the railroads on such traffic can not get a fully compensatory rate, that is, a rate which contributes its full share toward all the expenses of transportation including fixed charges. The practice of the railways has been to meet this sea competition just so far as it extended and no farther. Thus the rail rate from New York to an interior town in California would be higher than the rate to San Francisco, even though the distance should be less, by the amount of the local rate from San Francisco back to this interior point. Thus the intermediate points in the West for a very considerable distance back from the coast have thus had higher rates than the rates from New York to San Francisco, and the Interstate Commerce Commission and merchants in the East generally have justified this practice. The same principle should apply as regards shipments from Eastern cities to the Pacific coast. Pittsburg, St. Louis, and other cities should have rates to San Francisco equal to the rate from New York plus the local rate from those cities to New York, whence sea carriers could be employed.

On account of the magnitude of the interests at these Eastern interior cities, they have been unwilling to accept this principle, and are bringing suit before the Interstate Commerce Commission to compel the railroads to make rates from Chicago, St. Louis, and other interior cities to San Francisco lower than the rates from New York to San Francisco, on the ground that the distance is shorter. All of the transcontinental railroads are involved, but the chief burden of the defense rests upon the Southern Pacific Company, because it is the most important and because it operates a through line from New York to San Francisco and has no line from Chicago, so that its interests are somewhat different from those of railroads originating at Chicago. The Southern Pacific Company holds that it would be ruinous to all of these roads if the principle contended for by the shippers in this suit should be accepted, because the rates from all intermediate points will be forced down to the level of the non-compensatory rates which are compelled by sea competition.

Mr. Stubbs declares that the influence of sea competition from the Atlantic coast to California affects the traffic as far west from the Atlantic as Kansas City, while goods have been shipped from San Francisco by way of New York, while goods have also been shipped from San Francisco to Dodge City, Kansas, by way of the Canadian Pacific. (760.)

2. *Carload differentials.*—Another question of difference in the suit referred to is regarding carload rates as compared with rates for less than carload quantities. Mr. STUBBS says that the Pacific railroads have made an adjustment precisely similar to that which exists in practically all railroad tariffs throughout the country, by which the rates on carloads are lower than those on smaller quantities. The difference is arbitrary, but will range from 50 cents to perhaps \$1.50 per 100 pounds, according to the basis rate. This arrangement enables the merchants of San Francisco, Portland, Seattle, and other jobbing centers on the Pacific coast to import goods by carloads and distribute them back to smaller towns in less quantities. The merchants of St. Louis, Chicago, and other large jobbing centers in the Middle West are trying to reach out into the Pacific coast territory, and are now seeking by this suit to compel the modification of the differentials in favor of carload lots, so that they can distribute their goods directly to the consumers on the Pacific coast at the expense of Pacific coast jobbers.

Mr. Stubbs says that the Northern Pacific and Great Northern railroads originally had the same carload differentials as the railroads terminating in California, and that on a petition of the jobbers in Chicago, St. Louis, and other cities they reduced the differential so as to give those jobbers an advantage in distributing goods to retailers on the Pacific coast. The object of the railroads in doing so was to favor the jobbers at their eastern terminals because of the relative unimportance of the jobbing business at their western terminals, especially as compared with the jobbing business of San Francisco. The attitude of these two northern roads as regards the case before the Interstate Commerce Commission is one of indifference. The witness does not know whether they would accept the existing carload differentials of the more south-

ern roads if the Interstate Commerce Commission should declare them justifiable, and it is questionable whether the Interstate Commerce Commission would have power to compel them to make these same differentials. (760, 761.)

3. *Blanket descriptions.*—A third feature of the case is the demand that various classes of articles which now take different rates may be given the same rates. This is particularly demanded as regards hardware. Indeed the real movers in the present suit are the Simmons Hardware Company, of St. Louis, and the Hibbard, Spencer & Bartlett Company, of Chicago, two of the largest hardware companies in the world. They wish, by way of illustration, that hammers, hatchets, shovels, and planes, which may now be assumed to have different rates of freight, may be put under the single rate. At present, if these different articles were packed in a single package, it would be charged for at the rate for the highest rated article. Under the change demanded the package would all go at one rate, lower than the former highest rate, the object of the change being to enable shippers to send assorted packages to retail dealers directly at low rates. (758, 759.)

4. *Argument of Pacific coast jobbers.*—In defense of the position of the Pacific jobbers in opposing the demand of the Middle West jobbers above outlined, Mr. WHEELER declares that it is not just to destroy the natural geographical advantages which any city possesses—advantages which were the very cause of its foundation. The people who pioneered San Francisco did not go there especially because of the beauty of its location or of its fine climate. They went because of the commercial possibilities owing to the fact that San Francisco had cheap water communication with the Eastern seaboard and is the natural gateway of the Pacific coast.

The San Francisco jobbers further believe that sea-competitive rates on the part of the railroads should be confined to points where sea competition actually exists. The witness believes that the long and short haul clause of the interstate-commerce law is clear in not permitting railroads to make a lower rate for a longer haul from Chicago and inland points to San Francisco. The law permits the waiver of the long and short haul clause where circumstances are dissimilar. The dissimilarity in this case probably consists in the fact that New York and other seaboard cities have water transportation to San Francisco which inland cities do not have. It costs comparatively little to build ships, and the sea is God's natural highway. New York has this sea connection with San Francisco. There is no such water competition directly from Chicago. Chicago and St. Louis, however, ignore the very basis of the low rates from New York to San Francisco, and maintain that they should have a lower rate than New York. The railroads claim that the rate should actually be higher than from New York, that the Middle West shipper should first pay the rail rate to New York, and then take advantage of the sea transportation. The railroads, however, are willing to compromise by making the rates the same from all these points.

Mr. Wheeler says further that the disadvantages attending water transportation are such that the rates by rail should be materially higher even in order to make equal competition, and he asserts that the shippers of the Middle West are trying to compel the railroads to ignore these disadvantages and make the rates by rail unduly low. In shipping by sea it requires at least four months longer to take goods by sailing vessels from New York to San Francisco than in shipping by rail. The capital invested in the goods during this voyage is idle, and the interest must be considered. Moreover, the uncertainty as to the time when the goods will arrive by sailing vessels is a great disadvantage to the purchaser of the goods. Again, to the sea rate the marine insurance must be added, as well as the liability to damage. All these disadvantages it is now sought to ignore. (745, 746.)

5. *Pacific coast rates and the Denver case.*—Mr. WHEELER holds that the Interstate Commerce Commission in its decision in the Denver case pointed out rightly the inconsistency of the principle of making sea competitive rates as regards Chicago, St. Louis, and other inland cities. Indeed, St. Louis, Minneapolis, Omaha, and other cities on the Missouri River are put by the railroads on an equality on the basis of the sea competitive rates from New York. The Interstate Commerce Commission in the Denver case held that the railroads might not justly draw the line at the Missouri River, but must give Denver and even Salt Lake City the advantage of lower rates. The rate has been higher from these places to San Francisco than from Chicago, St. Louis, or New York. The aim of the railroads in arranging the rates in this way has been to create the business as near as possible to their eastern termini, increasing the length of the haul. It is also the aim of the railroads starting from Chicago and Missouri River points to secure lower rates from those points than prevail from New York in order that manufacturing and other interests may be built up at their eastern termini and that their business may be increased at the expense of the business of seaboard cities which have natural and better geographical positions as regards Pacific coast traffic. For this reason the witness thinks that the Pacific

coast would benefit by the establishment of consolidated lines of railways operating all the way from the Atlantic coast. These through roads would have no motive to build up the middle cities, such as exists at present, but could haul the traffic all the way from the Atlantic seaboard. (746,747.)

6. *Existing sea transportation routes to San Francisco.*—Mr. WHEELER says that there is not at present apparently any tendency for the sea-carrying trade of San Francisco to come under the domination of the railroads. There formerly was such a tendency, which caused great alarm to the Pacific coast shippers. Very recently a new line of vessels has been established known as the American-Hawaiian line. This is to operate very large steam vessels, of from 8,000 to 12,000 tons register. There will be a sailing each month from New York to San Francisco by way of the Straits of Magellan. From San Francisco the vessels go to Honolulu to take sugar cargoes, whence they return to New York. The great advantage of these vessels over the sailing vessels which have been so largely used is the certainty as to the time of arrival. They expect to make the voyage from New York to San Francisco in 60 days, and they are fully as regular as the rail lines in the delivery of freight. The merchant merely has to figure 40 days longer and he can make his orders accordingly. In the case of sailing vessels there was no certainty whether they would arrive in 4 months, in 6 or 8 months, or even longer. The merchant might find his goods arriving after the season for them had passed.

The rates established by this new line of steamers are scarcely higher than the sail rates previously prevailing. They run from 40 cents to 65 cents per hundred pounds. The all-rail rates on similar classes of goods range from 60 cents to \$3. The rail carriers make especially low rates on goods which are carried in the lower holds of vessels, such as iron and steel products of different sorts. (750.)

Mr. STRUBBS says that the competition of sea carriers at San Francisco ports is greater than ever before. The Panama Railroad run three or four steamers each way monthly from New York to San Francisco. To be sure the Southern Pacific Company is interested in the Pacific Mail Steamship Line, constituting the western end of this Panama system, but this line does not now have power to fix rates. The American-Hawaiian Steamship Company is operating vessels of from 6,000 to 8,000 tons burden from New York to San Francisco by way of the Straits of Magellan. These steamships have a large capacity and relatively small coal consumption, and can take cargoes from New York to San Francisco very cheaply. They are taking all classes of freight. There is nothing but perishable freight that can not go around the Horn, and even perishable freight can be handled with proper appliances. (673.)

VI. TICKET BROKERAGE—PASSENGER BUSINESS.

A. Character of people engaged in brokerage business.—1. *Generally.*—Mr. LINDENBERGER says that there are two regularly organized associations of ticket brokers—the American Ticket Brokers' Association, with a membership of 335, and the Guarantee Ticket Brokers' Association, with a membership of 83. Mr. Lindenberger assumes that each member has 3 clerks, on an average, so that there are 1,800 or 2,000 persons making a living at the business in the United States. In the larger cities the business is conducted by those who devote their entire time to it; in smaller places it is done largely by persons in other lines of business, very frequently by those who conduct book and news stands in hotels. Many members of the American Ticket Brokers' Association have been engaged exclusively in this business for from 10 to 30 years. They have the respect and confidence of their communities and of the railway managers. Mr. Lindenberger does not know to whom he could more safely refer for a certificate of character than to the railway passenger men of his city, though many of them are bitter antagonists in a business way. (320.)

Not a broker now in the American Ticket Brokers' Association has ever been arrested for fraud or charged with it. Members have been expelled for doing an illegitimate business. (355, 357.)

Mr. Lindenberger states further that education in a ticket brokers' office is a common stepping-stone to employment in the passenger departments of railways. He knows several prominent railroad men in high positions who received their first education in the ticket business behind a broker's counter. A man there becomes familiar with every form of ticket that is issued, with the different lines of road in the United States, with connections, etc. (325, 350.)

2. *American Ticket Brokers' Association.*—Mr. LINDENBERGER submits a copy of the constitution and by-laws of the American Ticket Brokers' Association. Any person of good moral character who possesses the necessary ability and capital is eligible to membership upon payment of an initiation fee if, in the judgment of the executive

committee, the location will admit of his admission. A member may hold not more than two memberships in any one city and not more than five in the association. A membership under which the holder has conducted business for not less than 6 months may be sold or assigned to any person eligible to membership, with the approval of the executive committee. In every city where there are three or more members, the members must organize a local division having for its objects uniformity of selling rates and the destruction of hostile competition. New applicants in a city where one or more memberships are operated must pay an initiation fee of forty times the amount of the prescribed fee, as follows: Class A, \$1,000; class B, \$600; class C, \$400; class D, \$200. No member may conduct his business in any place where liquor is sold, nor in any place objected to by the executive committee.

All association rebate orders, when properly drawn by members in good standing, must be honored without question. Whenever a ticket or coupon purchased of a member by a passenger is not accepted for passage, through no neglect of the passenger, and the passenger is obliged to pay fare, the full amount of fare so paid must be returned to the passenger. Whenever a ticket is sold without recourse, wholly or in part, this must be stated in writing to the passenger at the time of such sale. All disputes, whether between members or between patrons and members, must be referred directly to the executive committee as a board of arbitration, from whose decision appeal lies to the annual convention. If a member fails to make good any written or verbal guaranty to a passenger, the guaranty must be made good by the association, when so decided by the executive committee, and the amount must be charged to the member. Any transaction between a member and any person or corporation whereby the system of ticket brokerage may be liable to injury or degradation is declared to be a misdemeanor; so also is the buying of employees', complimentary, or stock passes. The punishment for a misdemeanor is reprimand, fine not exceeding \$100, suspension (one or all), or expulsion, at the discretion of the executive committee. If the offense is such as to cause pecuniary damage to either a patron, corporation, or member, the executive committee may also require such restitution from the offender as they may deem proper. No member is permitted to have any transaction relating to ticket brokerage with a broker who is not a member of the association, nor with a suspended member. A member who joins another association of ticket brokers is to be suspended or expelled, at the discretion of the executive committee.

The association maintains a committee on hostile legislation, consisting of one member elected annually by the convention. The committeeman receives a salary of \$2,500 a year. In the event of hostile legislation in any State, the members in such State, acting under the direction of the committee on hostile legislation, are to pay 50 per cent of the expense incurred, and the association is to pay 50 per cent.

Mr. Lindenberger also submits, as indicating the care with which the association tries to exclude improper persons, the form of application for membership and the reference blanks, which are to be filled by 3 members of the association, by a banker, and by 2 merchants, to all of whom the applicant for membership is required to refer. (321-324.)

B. Methods of business.—1. *General nature of business.*—Mr. LINDENBERGER, of the American Ticket Brokers' Association, says that the business of ticket brokers is to buy passenger tickets from the agents of railroads and from passengers and to sell them to travelers below the published tariff rates. (318.) The brokerage business depends on the existence of inequality and discrimination in the passenger business. If the roads treated the public with exact and equal justice, there would be no room for ticket brokers. A universal rate of 2 cents a mile would destroy the broker's business. (355.)

2. *Scalping tickets.*—Mr. LINDENBERGER says that it is a common practice for a ticket broker to buy a ticket to some through point "which is perhaps a competitive point, and upon which very likely some one of the various roads in this line are anxious for business and will pay a commission," sell the ticket to a passenger to an intermediate point, and give the passenger a rebate order on a broker at that place. Passenger agents sometimes come to brokers and ask them to send business over their road, offering, for instance, to extend the time limits on any ticket that may expire. Sometimes they pay a commission and sometimes they do not. (352.)

3. *Furnishing-rate sheets.*—Mr. LINDENBERGER says that a common method of ticket brokers favorably situated for securing tickets is to issue furnishing-rate sheets to their correspondents. Suppose a passenger asks a Washington broker for a rate to Denver. The regular fare is \$48. The broker may have a ticket to Buffalo or Cleveland or Pittsburg or Chicago. He examines his rate sheets for a furnishing rate from a broker in the city which he has a ticket to. The customer takes the part-way ticket and an order upon the correspondent in the intermediate city for a

ticket to finish his journey. He will probably save \$3 or \$5. If the Washington broker has no ticket, and if the furnishing rate is low enough, he may be able to buy a regular ticket at local rates to the intermediate point and still allow the customer a saving over the through rate. (320.)

4. *Mileage books.*—Mr. LINDENBERGER says that ticket brokers deal largely in mileage books. They are usually bought by the broker direct from the railroad companies and sold to patrons who need a smaller quantity of mileage than that contained in a full book. If the customer is known to the broker, he may be permitted to return the book by mail. Otherwise he pays the full value and receives a rebate from a correspondent of the ticket broker in the city he is bound for. In the New England States and New York and on many roads in other parts of the country books are good in the hands of the bearer, though there are regulations which nominally restrict the use of them to the purchaser or to persons connected with him in a family or business way. In a letter written by the general passenger agent of the Lehigh Valley Railroad, this company's books are spoken of as good in the hands of the holder, though the ordinary restrictions are printed upon them. Ten years ago Mr. Lindenberger's own business was very largely in mileage books. They were bought almost exclusively from the railroads direct. Indeed, it is dangerous to buy them otherwise. He has known a dishonest man to sell his mileage book to a broker, report to the company that it was lost, and have it taken up on the train and returned to him. (318, 354.)

Mr. Lindenberger says that in several parts of the country only interchangeable mileage books are now sold. In the territory of the Central Passenger Association a thousand-mile book, good on 37 roads, is used. The passenger pays \$30 for the book, and when he has used all of the 1,000 miles he is entitled to a refund of \$10 on returning the cover. West of Chicago there is a book called the Sebastian book. When the passenger buys a ticket of a railroad company he takes a receipt, and those receipts are filed in the book. When he gets up to, say, 2,000 miles, he can turn them in and get a rebate. In Michigan there is another called the Northern Mileage Book.

Since the reduction of rates can be got on these books only when the cover is turned in by the original purchaser, they can not be bought and sold by brokers. It sometimes happens that a traveling man has not \$30 to invest in a book, and he gets a broker to buy a book and carry it for him, charging him a percentage. Mr. Lindenberger knows of brokers who carry as many as 200 books for these special customers. (319, 353.)

Mr. Lindenberger says that when each road sold its individual mileage books traveling men were usually allowed 3 cents a mile for their fare by their employers, and they were able to buy mileage from brokers at about 2½ cents. The three-fourths of a cent was one of the perquisites of the business. Now, in the territory where the interchangeable mileage books are issued, the houses furnish the mileage books. (352.)

5. *Railroad spotters and mileage books.*—Mr. LINDENBERGER says that a broker sometimes puts out a mileage book, guaranteeing it to the purchaser, as brokers always do, and the purchaser turns out to be a railroad spotter, who gives up the ticket to the road and comes back with a receipt to show that it has been taken up by the conductor. The broker has to refund the money. Mr. Lindenberger quotes a newspaper article, apparently written on the basis of information obtained from the railroads, in which the following passage occurs: "A feature of this testing the market, which perhaps is not generally known to the public and which hits the brokers the hardest, is the lifting of the mileage tickets. All such tickets bought up on the market are confiscated by the two passenger associations, and in a year's time it means an immense financial loss to the brokers, who are just so much out of pocket. When very severe tests of the market are being made, the associations oftentimes get outsiders, in the guise of traveling men, to help, and in this manner much mileage is secured from the scalpers which otherwise they would not let go, because of their fear of the 'spotters.'" (334.)

Mr. Lindenberger declares that a prominent passenger agent in Michigan, desiring to increase travel on his road, put large quantities of mileage books in the hands of brokers and guaranteed them. For some time there was no trouble; "but suddenly the passenger agent changed his mind and issued orders to his conductors, and a great many of these books, which we had a right to assume had been bought under that understanding, were taken up. For books costing \$20 I got in some cases no more than a ride of 100 miles—\$2—and the loss to me was \$18. There was no recourse unless we went into court and published the circumstances, and that does not pay." (340.)

6. *Rate-war tickets.*—MR. LINDENBERGER says that brokers are often useful to the public in giving the benefit of rate-war reductions to persons who would not otherwise get it. Thus, in 1898, there was a rate war for eight months in Canada. Tickets were sold at about half the usual rate, but outside of Canadian territory regular tariff rates were charged. Thus, in Windsor, one could buy a ticket to Toronto for \$3.30, but across the river in Detroit one had to pay \$6.60. The brokers of Detroit sent to their Western correspondents, giving the prices at which they would supply, on prepaid orders, tickets to Toronto and Eastern points. The prices were usually \$1 above the war rate. It was only through brokers that these rates could be obtained in the United States. The agents of the railroads in Detroit were absolutely forbidden to give customers any information about rates across the river. Mr. Lindenberg mentions other similar instances. (319, 320.)

7. *Excursion tickets.*—MR. LINDENBERGER says that ticket brokers not only buy the return parts of excursion tickets from travelers, but through their correspondents in other cities they are often able to handle both the going and the return coupons. The railroads often give brokers advance information of these excursions, and the brokers are able to arrange by correspondence to handle the tickets. (319.)

C. Relations to railroads.—1. *Support of brokers by connivance of railroads.*—MR. LINDENBERGER says that the growth of ticket brokerage to the immense proportions it assumed from about 1876 to 1896 was due almost entirely to the direct encouragement and support of the railways. Nearly every railroad of importance employed brokers; and when a road could not make satisfactory arrangements with established offices, new offices were opened. When Mr. Lindenberg became a ticket broker 19 years ago, he started with the regular issues of three lines of road, and in the following years dealt on the most friendly terms with all the great lines that looked to Detroit for business. The purpose of the railroads in using brokers was to get competitive business which they could not reach otherwise. New lines which desired a quick introduction to the public would place tickets with brokers. The weaker lines, failing to secure a living share of the passenger traffic, would often find that their only means of escaping the receiver was to call in their help. The brokers, with correspondents all over the country, can quickly influence a large passenger traffic over any line if the tickets are put low enough. (326.)

Mr. Lindenberg states that it was proved some years ago before the Senate Committee on Interstate Commerce that such roads as the New York Central and the Pennsylvania had dealt through brokers, and that 95 per cent of the business of the ticket brokers of the United States was done with the railroads direct. This does not mean that each individual broker bought almost all his tickets from the railroads. One broker at a starting point in the East, New York or Boston, starts a ticket west, and it may travel from New York to San Francisco. It was originally purchased from the railroad direct by the broker, and it is used from point to point. The dealings of the brokers with the roads are less of late years, "especially in the last year, when the traffic associations are the whole thing." Mr. Lindenberg does not think that the business of ticket brokerage could be carried on, at least to anything like its former extent, without the dealings directly with the roads. "Where a broker would have perhaps anywhere from thirty, fifty, to one hundred thousand dollars invested in stock, he would necessarily have to do the comparatively small business that is done through tickets that passengers don't use and through excursion tickets." This would greatly injure, Mr. Lindenberg thinks, the general public. The brokers would either be driven out of business or be driven to less public locations.

Mr. Lindenberg says that it would be possible to exhibit written contracts which have been made between ticket brokers and railroad officials for the selling of cut-rate tickets in bulk, but it would be in violation of a business agreement and he would not think it right. Of late years such agreements are simply a matter of honor between the ticket broker and the railroad men. "For instance, a ticket broker may write to a general passenger agent that he wants something, that he can do him some good, and instead of getting a reply by mail a district passenger agent or a traveling passenger agent comes in and talks the matter over and says, 'We will do so and so,' and that contract stands. The agent will say, 'Buy tickets reading over our road, report to us the forms and numbers at the end of the month, and a check will follow.' That is the general custom of doing business, and, to the credit of the roads, there are very few instances on record where the contract has been violated to the slightest extent."

This witness also says that when a railroad pays a commission to brokers on tickets sold over its line the rate is usually about 10 per cent. The broker usually receives the same as an agent. (350-352.)

Mr. Lindenberger declares that the acceptance of commissions from railroads for selling tickets over their lines is not an unlawful act; but if the railroads have made agreements among themselves which are violated by the payment of such commissions, those agreements are themselves unlawful, as combinations in restraint of trade. (355.)

Mr. Lindenberger says further that railroad companies when they are in an agreement not to cut rates will often pay a commission to brokers, stipulating that the rate must not be cut. The brokers work for those particular lines and get business for them. The brokers have many customers who are friends of years' standing, and will buy of them rather than of the regular agents at the same rate. A regulation that all tickets must be sold at tariff rates will not destroy the brokers' offices. But the passenger associations now say how many outside offices a railroad may have, and if an antiscaling law were passed, and men could not sell tickets without a certificate from a railroad company, the passenger associations would then control the business. (357.)

2. *Effect on railroad tickets.*—Mr. LINDENBERGER says that in the latter part of 1898 the railroads cut off second-class rates generally throughout the Southwest, without making any corresponding reduction in the first-class rate. The effect was that while the lowest rate between New Orleans and Louisville, prior to January 1, 1899, was \$13.50, the lowest rate after that date was \$19; the lowest rate from Chicago to Austin, Tex., before January 1, 1899, was \$23.75; after that date \$32.15. He thinks the average difference was 40 per cent. Just before Mr. Lindenberger appeared before the commission the railroads again put second-class tickets on sale, reducing the minimum rates from New Orleans to Chicago from \$23 to \$16.50, from New Orleans to St. Louis from \$18 to \$12.50, and from New Orleans to Kansas City from \$24.35 to \$15.50. Reduced party tickets to various Northern points were also offered. This reduction of rates is attributed to the competition of ticket brokers in selling low-rate tickets by roundabout routes. (336.)

3. *Ticket brokerage and railroad competition.*—Mr. LINDENBERGER says that there is room for brokers as long as there is competition between railroads. "The broker thrives best when trade is bad and when rates are high. When people are making money the savings effected through brokers do not amount to so much to them; they are not so anxious to buy. When the railroads are doing lots of business they do not care for us. But when the railroad companies get in a close place and need business, they get out and look for it, and the ticket broker is in a position to give it to them." (350.)

D. Legitimacy of brokerage business.—1. *Attitude of brokers toward fraud.*—Mr. LINDENBERGER, of the American Ticket Brokers' Association, submits a copy of a circular issued by that association offering a reward of \$500 for the arrest and conviction of any member of the association who is guilty of forging a railway ticket, or who has changed the destination of a ticket, with intent to defraud. For the arrest and conviction of any ticket broker not a member of the association, for either of these acts, the association offers a reward of \$200. In a circular accompanying the announcement of this offer, the secretary of the association says that the offer is made to prove that the slanderous stories put in circulation by certain railway officials to the effect that it is the general practice of ticket brokers to forge and alter railway tickets are infamous falsehoods. The circular is also intended, however, as a warning to any ticket broker who may be tempted to dishonest practices that the association will spare neither energy nor money to put him out of the calling he has disgraced. (325.)

This witness declares that the value of fraudulent tickets that the railroads carry passengers on for which they receive no compensation, is very small indeed. Most fraudulent tickets are fraudulent simply by extension of a time limit. The railroads have actually been paid for carrying the passenger. Of course that is no excuse for the use of such a ticket. So far as brokers are concerned, ticket frauds are usually discovered through them. It has been the custom with railroad companies, and is really the most effective way of detecting frauds, burglaries, etc., as soon as they learn of a fraudulent issue of tickets, or of tickets being stolen, to notify a broker through the American Ticket Brokers' Association, and that information is sent by wire or by the first mail all over the United States. Every ticket broker is on the lookout for those tickets. The fraud can not continue long. It would be impossible in any case, however, for fraudulent tickets to be accepted on a road for any length of time without the consent of the auditing department. A ticket presented on a train is turned in by the conductor as soon as he finishes his trip, and by the next day it is checked up. There is less chance of fraudulent tickets being accepted by a railroad than of almost any kind of a fraud being perpetrated on a railroad, or a bank, or any other corporation. (359.)

2. *Guarantee of tickets.*—Mr. LINDENBERGER, of the American Ticket Brokers' Association, says that, by the custom of the business and the rules of the association, unless a broker has the passenger's written agreement to the contrary he is responsible for the ticket that he sells. The acts of all the ticket brokers in the American Ticket Brokers' Association are guaranteed to the public. Though the rules of the association provide for a written undertaking by a passenger to assume all risk of the goodness of a ticket, Mr. Lindenberg has never sold a ticket on such terms. He has never sold a ticket which he was not willing to assume the responsibility for. If he sells a passenger a ticket for \$8, the regular fare being \$10, and the ticket is refused, he is compelled by the rules of the association to make the passenger good. He pays not the \$8 that he received, but the \$10 which the passenger had to pay. (349, 350.)

3. *Buying of passes.*—Mr. LINDENBERGER says that the buying of passes is disreputable and dishonorable; he never bought one, nor sold one, nor permitted one to be sold in his office. "While railroad companies may issue passes improperly, for political purposes or otherwise, it does not justify brokers in handling them. We confine our operations to tickets that the railroad company receives its price for." He used to inform the railroad when a pass was offered to him for sale, but now he prefers not to see the pass. Very sad results sometimes come from the revelation of such breaches of confidence to the officers who have issued the passes. (358.)

4. *Passenger tickets—Printed conditions as contracts.*—Mr. LINDENBERGER does not think that the conditions printed by railroads upon their passenger tickets constitute contracts. If such a ticket is a contract, why does it not require the revenue stamp which the law compels to be placed on every business contract? On almost every ticket there is a statement that the railroad will be responsible for only a certain amount of baggage; but this announcement does not hold in law. (355.)

The witness considers that the railroads do a wrong in requiring any person to sign a name on a ticket or a mileage book. As to the question of forgery in signing the name of another under such circumstances, Mr. Lindenberg remembers reading of one case in California where the Southern Pacific Company tried to punish a man for signing another man's name, and the court decided that the original purchaser in selling the ticket necessarily gave the purchaser authority to use his name in that connection. (354.)

E. Testimony of Mr. Blanchard on ticket brokerage.—Mr. LINDENBERGER refers in detail to the testimony of Mr. George R. Blanchard before the Industrial Commission in condemnation of ticket brokerage.¹ He takes up Mr. Blanchard's propositions point by point.

In respect to Mr. Blanchard's statement, that ticket brokerage is prohibited by the laws of 10 States, Mr. Lindenberg says that the legislatures of 36 States have refused to pass such laws; that in 2 of the 10 States the highest courts have declared the laws unconstitutional, and the law is inoperative in the 8 States where it exists. As to the prohibition of ticket brokerage in Canada, Mr. Lindenberg says that when the law went into effect there were only 3 brokers in the Dominion, so that there was no power to organize resistance; but at that time, and for many years after, the Canadian roads openly paid commissions to brokers in the United States, and it is probable they are doing so to-day. The traffic in tickets by individual passengers and by hotel clerks is common in Canada, and Mr. Lindenberg never heard of a prosecution under the law.

As to the condemnation of ticket brokerage by the Interstate Commerce Commission, that was published in December, 1896, and though the commission has since made three annual reports and has treated exhaustively all the other principal subjects relating to transportation, it has ignored ticket brokerage. It is probable that a closer acquaintance "has taught them the error of their earlier judgment." As to Mr. Blanchard's statement that the best moral sense of the commercial world is against the business of ticket brokerage, Mr. Lindenberg undertakes to show how the supposed manifestations of this moral sense have been obtained. He quotes in full a circular said to have been issued on December 10, 1897, from the "Antiscaling bill headquarters, Shoreham Hotel, Washington, D. C." It calls attention to the necessity of bringing all possible influence to bear on the new members of the House Committee on Interstate Commerce. For this purpose railroad officers are asked to open correspondence "with the president of each and every society, organization, etc., requesting reduced rates for conventions and meetings, with a view that you secure the aid of such organizations in passing favorable resolutions," and individual letters to Senators and Representatives. The circular also suggests that "it may be necessary to again organize throughout the country for an aggressive campaign in securing petitions in every town along the lines of railways." It is assumed that the

¹See Reports, vol. iv, pp. 666-670.

local agents of the railroads will be instructed to get these petitions, and it is suggested that they be instructed to secure at the head of each petition the name of the most prominent man in the town. The circular also suggests that unless the bill is passed in both Houses at the present session, it will probably be almost impossible to secure favorable action for some years.

Mr. Blanchard says that the cessation of scalping means the stoppage of many illegal practices which create unauthorized discriminations in passenger affairs. Mr. Lindenberg's reply is that the cessation of ticket brokerage means the destruction of competition, but that the broker in some degree prevents discrimination. In the offices of railways discriminations are constantly going on. Social and political debts are paid by passes and special-rate tickets, and shippers and men of influence are constantly favored. Holders of tickets on which the limits have expired can get the time extended if they have influence enough. The ordinary passenger has to submit to the regular rules, except for the relief secured through ticket brokers. Mr. Blanchard says that resold tickets cut the local fares and produce rates not authorized by the railroads and prohibited by law. Mr. Lindenberg replies that the reduction of rates is an advantage to the public, and that after the railroad has received its price for transportation it is not injured if the transportation is used by one person rather than another.

As to charges of stealing, counterfeiting, and fraudulently altering tickets, and of false representations as to routes, connections, etc., made by brokers, Mr. Lindenberg replies that the ticket broker is often better qualified and is more disinterested in giving accurate information than the authorized agents of rival lines. The agent of a railroad gives information only about his own road; the broker is equally ready to give information about all. As to stealing and forging, every State has laws against these crimes, and the American Ticket Brokers' Association has a standing offer of a reward for the arrest and conviction of persons guilty of them in connection with railroad tickets.

Mr. Blanchard declares that scalpers have induced conductors not to cancel tickets taken up in order that they might be resold. Mr. Lindenberg declares that in an experience of 19 years he has personally known of but 3 or 4 cases of this kind, and he has reported them to the railroads interested. Mr. Blanchard also accuses the brokers of having corrupted clerks and ticket distributors in some railway general offices by inducing them to purloin tickets. Mr. Lindenberg says that such things have no doubt occurred, but no evidence that they are common has been laid before legislative bodies during the last 10 years.

The evidence of wrongdoing on the part of ticket brokers which the railroads have used to create public feeling against them is of no tangible value whatever. The witness refers particularly to a pamphlet entitled "Museum of Ticket Scalping Iniquity," in which pictures are given of tickets which are said to have been altered and plugged. There is only one case in which an accusation is brought against a particular person; such phrases as these are used: "A scalper did so and so;" "this was done by a ticket broker."

Mr. Blanchard says that scalpers cause railroad wars. Mr. Lindenberg replies that the rate wars of Canada, where ticket brokerage is prohibited, refute the statement. Mr. Blanchard declares that the cessation of scalping would not lessen public facilities, "because each company could retain the services of an experienced scalper by conferring upon him a proper appointment as agent." Mr. Lindenberg suggests that this is an acknowledgment that experienced scalpers are a benefit to the traveling public; but he adds: "If the broker was regulated by the rules of the combine he would be quickly robbed of the very attributes that now make him a public convenience."

Mr. Blanchard complains that the rules and decisions of the Interstate Commerce Commission do not reach scalpers' practices. They hold only the railways accountable. While a company can only change its fares by 3 days' notice as to reductions and 10 days' notice as to advances, the scalpers can change them either way daily or hourly. Mr. Lindenberg sees no objection to a requirement that a broker file rates. "It is safe to say that should this be required the law would be equally as well obeyed as is the law relating to interstate commerce by the average railroad."

Mr. Blanchard asserts that if scalping were abolished the average fares paid by passengers would not exceed those which prevail under its continuance. The railroad will redeem the unused coupons of through tickets. If the passenger takes the coupon to a scalper he will get less than the railroad would give. If the passenger who ultimately buys it gains, the passenger who sells loses. Mr. Lindenberg replies that Mr. Blanchard is "misinformed." He illustrates the working of the redemption of tickets with detailed figures. The first-class rate from New York to Chicago, by way of Buffalo, is \$17; the cheapest rate from New York to Buffalo is \$8;

the difference, \$9, is what the road would give in the redemption of the coupon from Buffalo to Chicago. The lowest first-class fare from Buffalo to Chicago is \$12. The broker would give the passenger \$10 for his coupon and sell it to another for \$11; each of the passengers would save a dollar and the broker would have \$1 for his profit. Mr. Lindenberger gives several other similar instances. He adds that a great many excursion tickets are sold for the fare one way or less; the return coupons have no redemption value. The railroad company has offered to give the transportation for the money received, and there is no reason why it should not be called on to give it, and it makes no difference whether the transportation is called for by A or by B.

Mr. Blanchard argues that passenger ticket brokerage is an evil, because, in his judgment, anyone would admit that a similar brokerage business in freight transportation would be an unjustifiable evil. Mr. Lindenberger replies that on the contrary the interests of the people who pay freight rates would be greatly promoted if there were brokers in that line. "The average shipper would gladly welcome some method of evading the often arbitrary and excessive rates extorted from freight shippers." (330-341.)

F. Antiticket-brokerage laws.—1. *State laws.*—*Agitation by railroads.*—Mr. LINDENBERGER declares that with the concentration of railway interests and the forming of pools and traffic associations a system of persecution against ticket brokers has been inaugurated by the railroads. The legislatures of all the States of the Union have been repeatedly solicited to pass antiscalping laws. Such laws have been got through in only 10 States, and in 2 of them—New York and Texas—they have been declared unconstitutional. The railroads have not succeeded in getting such unjust laws passed in the other 37 legislatures nor in Congress. Efforts have been made in Congress to this end for a dozen years. Four years ago, for the first time, a bill was got through the House, but it failed of consideration in the Senate. The same thing happened 2 years ago. It is a fact worthy of note, Mr. Lindenberger thinks, that the times selected for passing these bills in Congress were directly after Congressional elections. "The bill is very unpopular with the people, and the Congressman who would vote for it stood the chance of losing the support of a large number of his constituents." In support of this opinion, Mr. Lindenberger quotes a circular said to have been issued to the railroad officers by the committee employed to urge upon Congress the passage of the antiscalping bill during the session of 1897-98. (326, 331.)

2. *Antiscalping laws unconstitutional.*—Mr. LINDENBERGER submits the text of the decision of the New York court of appeals, November 22, 1898, holding that the antiscalping law is unconstitutional. The court points out that while the title of the act refers to frauds in the sale of passenger tickets, there is nothing in the body of the statute to indicate that it is prompted by a desire to check fraud. The court declares that the buying and selling of passenger tickets is a perfectly normal and unobjectionable business. "I confess I am unable to see how such a sale defrauds a transportation company. If a transportation company sells a ticket from New York to San Francisco, it undertakes to carry the holder from one place to the other. It costs the company no more to carry one person than it does the other. How, then, can it be defrauded or in any way prejudiced by the transfer of such a ticket by the purchaser to another person?" The statute in question restricts the liberty of citizens of the State to engage in the business of ticket brokerage. It is a violation of the State constitution and void unless it constitutes a valid exercise of the police power. But this can not be maintained. No attempt is made to exclude persons of bad character from the business, nor are the public authorities given the right to determine by examination or otherwise the character of the persons to be engaged in it. The transportation companies alone are invested with the power to admit to it whomsoever they will. Stringent rules may doubtless be enacted to punish those who are guilty of dishonest practices in the conduct of such a business; but to cut up, root and branch, a business that may be honestly conducted to the convenience of the public and the profit of the persons engaged in it, is beyond the legislative power.

Mr. Lindenberger says that Texas is the only other State whose highest court has declared the antiscalping law unconstitutional. Such decisions have been rendered in the lower courts of Illinois. A decision to the contrary effect was rendered by the supreme court of Illinois, but under circumstances which deprive the decision of the credence which ordinarily attaches to the decision of the supreme court of a State. A subsequent decision of the circuit court of Cook County, cited in full by Mr. Lindenberger, says: "Our supreme court, in what is alleged to be a fictitious case presented to it, based upon an indictment charging an infraction of the statute under consideration, was led to proclaim its constitutionality." A motion was afterwards made in the supreme court, says the circuit court of Cook County, to expunge the

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opinion from the record, on the alleged ground that the court was imposed upon and falsely induced to render a decision sustaining the constitutionality of the act. The court by a vote of 4 to 3 refused the motion, on the ground that the parties who made it were strangers to the record; but "made the novel and significant announcement that the judgment of affirmance in the Burdick cases, and the opinions of the court in deciding them, are conclusive only as between the parties to those cases. This announcement was made knowingly, and there can be no mistaking its meaning in view of the record made in the case." (341-349.)

3. *Attitude of newspapers toward antiscaling bill.*—Mr. LINDENBERGER says that the promoters of antiscaling legislation have claimed some 381 newspapers as opposed to ticket scalping. Mr. Lindenberg declares that if only 381 out of the vast number of newspapers of the United States advocate the antiscaling law, it does not speak well for the proposition; but, he adds, the articles in these papers, as shown by the clipping bureaux, were nearly all from the same pen. It has often happened that the same article would appear simultaneously as an editorial expression in 40 or 50 papers. Mr. Lindenberg gives a series of quotations from various papers on the ticket brokers' side of the controversy. The Denver Republican is quoted as saying of the railroads: "They have done all they could to defeat and nullify and overthrow the interstate-commerce law and are still evading and defeating its provisions in every way possible. They are unwilling to allow any protection to be granted to the public and still demand that they themselves be protected from the ticket brokers by an amendment to the law which they themselves condemn." Another paper says: "Have railroad companies become so helpless that they need to call in the strong arm of the Congress of the United States in order to save themselves from the burden of carrying a poor man for the same price they have contracted to carry a rich man. Such legislation, though generally couched in language intended to deceive the public as to its true intent, is but an effort to aid rich and powerful corporations to reap a reward at the expense of the common people." Mr. Lindenberg adds a long list of papers from which, he says, similar expressions may be taken. (326-328.)

4. *Attitude of labor organizations toward antiscaling bill.*—Mr. LINDENBERGER declares that almost every labor organization in the United States, except the railroad organizations, have protested against the antiscaling bill. He quotes resolutions passed by the American Federation of Labor, by the Knights of Labor, and by the National Building Trades Council. The American Federation of Labor has protested against antiscaling legislation at each of its last four conventions. Mr. Lindenberg quotes the president of one of the great railway organizations, which had passed a resolution asking Congress to pass the antiscaling bill, as saying to him: "When I buy a railroad ticket, that ticket is mine, and I have got a right to do what I please with it." Mr. Lindenberg is confident that this is the actual sentiment of every individual member, even of the railroad brotherhoods, who has given the subject any thought, whatever the resolutions of the organizations may declare. (328-330.)

5. *Government license of ticket brokerage.*—Mr. LINDENBERGER, of the American Association of Ticket Brokers, declares that reputable ticket brokers, and especially members of his association, would be glad to have ticket sellers licensed by the Government. They do not want a license issued by the railroads and subject to their rules. They would be glad to have their business supervised by the Government and to have the supervision extended over all sellers of tickets, railroads as well as brokers. If a man violated the law his license could be withdrawn, and his career as a ticket man would end. (338.)

G. Miscellaneous evidence as to passenger traffic.—1. *Passenger rates.*—Mr. SCHIFF, of Kuhn, Loeb & Co., bankers, declares that passenger rates have been changed very materially in recent years, and have gone down per mile just about one-half. The State of New York in the charter granted to the New York Central road fixed a maximum rate of 2 cents per mile. Naturally the tendency of the railroad is to maintain the rate at 2 cents as long as it can, but it transports passengers to-day at considerably less than 2 cents a mile. (774, 775.)

2. *Through tickets, checking of baggage.*—Mr. LINDENBERGER points out that while a limited through ticket may be good for a stop at certain junction points, baggage will only be checked to the destination of the ticket. For instance, a ticket from New York to Chicago may permit the holder to stop off in Detroit; but he can not get his baggage there unless by paying an excess baggage rate, the same as if his baggage had been carried to Chicago and brought back. Again, from Eastern points tickets are sold to Los Angeles by way of San Francisco, or to San Francisco by way of Los Angeles, at the same price as to either point direct. A passenger with baggage checked to San Francisco may wish to discontinue his journey and get his baggage

at Los Angeles. "The company confiscates the ticket, although they may not have carried the baggage or the passenger one mile, and are paid their proportion of the through rate by the company issuing the ticket." (337.)

3. *Second-class tickets.*—Mr. LINDENBERGER declares that second-class and first-class passengers have exactly the same accommodations and rights. The only difference is that a second-class ticket will not be accepted on a sleeping car. A railroad company can not force a second-class passenger to ride in a smoker. A smoker is not second class. (p. 357.)

4. *Immigrant tickets.*—Mr. LINDENBERGER says that newly arrived immigrants are able to get cheaper rates than American citizens can get for exactly the same service. The business at the Atlantic ports is so controlled by a pool that no person other than one who has arrived from some foreign port can buy an immigrant ticket. His name must appear on the manifest of some steamship company. In many instances an immigrant rides side by side with an American citizen who pays \$2 or \$3, or in some cases as much as \$5 more, simply because the railways, in a pool organization, control all the immigrant business. (356.)

5. *Pullman Palace Car Company.*—Mr. WILSON, of the Cincinnati Board of Trade, holds that the Pullman Palace Car Company has offered the most valuable facilities that have been furnished to the railroads and probably the most equitable. Its management has enabled the railroad companies to afford to the public better service than could have been maintained by any other system. The merging of all the other palace car lines into the Pullman Palace Car Company has been simply the survival of the fittest. The most powerful railroads have failed to furnish an equivalent service. (696.)

6. *Discrimination against New York—Passenger traffic.*—Mr. LANGLEY, representing the Merchants' Association of New York, testifies that that association has been in existence for 4 years. It has 1,300 members, and is composed of merchants, manufacturers, bankers, and men in other business interests. The direct members pay an annual fee of \$25, and the associate members, who are distributed throughout the United States, pay nothing. The aim of the association is to foster the trade and welfare of New York. The main reason why the association was established was because of the advantages given to certain Western cities by the railways over New York. As an instance, may be taken the running of excursion trains. A certain territory lying near St. Louis is considered as tributary to that city as a market. The railways introduced excursion rates with the object of encouraging merchants to go to that market. The same plan was followed in respect of other Western cities. The result was that those Western cities became possessed of a trade which had formerly been done by the merchants of New York. New York, if not discriminated against, will be able to hold her own in any of the markets of the United States, even as against the Western cities, in territory which would naturally be considered territory tributary to them. The first steps taken by the association were to have the railroads grant to New York the same privileges as they had granted to the Western cities in the matter of rates. The New York merchants do not ask for discriminating rates. All they want is to be put on a relative basis of equality. Philadelphia and Boston are likewise competitors of New York, but the practice of having excursion rates to those cities was not adopted as it was with the Western cities. The merchants of Boston, Baltimore, and Philadelphia have taken action somewhat similar to that of the Merchants' Association of New York. (859-860.)

VII. THE ANTHRACITE COAL SITUATION.

A. Relation of railroads to coal industry. Alleged community of interest.—1. *Description of anthracite coal roads.*—Mr. SAWARD, of the Coal Trade Journal, says that the railroad companies which bring anthracite coal to tide water are: The Pennsylvania, running to Perth Amboy; the Lehigh Valley, to South Amboy; the Reading, to Port Reading; the Jersey Central, to Port Johnston and Elizabethport; the Delaware and Lackawanna, to Hoboken; and the Delaware and Hudson and the Erie, running to Weehawken. New roads engaged in the business are the Ontario and Western and the Delaware, Susquehanna and Schuylkill. The product of the Lehigh anthracite district naturally goes to Perth Amboy and Port Johnston; that of the Schuylkill region to Port Reading, and that of the northern or Wyoming district to Weehawken, Hoboken, and during the summer to Newburg. The Reading handles the larger portion of the harder coals, and the Lackawanna, Delaware and Hudson, and Erie handle most of the free-burning coals. (508.)

Mr. WALTER says that about half of the total freight traffic of the Lehigh Valley Railroad is in coal. The hauling of general merchandise is steadily increasing,

especially because of the growth of cities and towns along the line of the railroad. (546.)

2. *Relation of Reading Company to subordinate companies.*—Mr. HARRIS, until recently president of the Reading Company, says that the Reading Company owns the stock of the Philadelphia and Reading Coal and Iron Company, which owns a large body of anthracite lands and operates mines; also the stock of the Philadelphia and Reading Railway Company, which owns, leases, and controls railroads. The latter company is the successor of the Philadelphia and Reading Railroad Company, but none of the securities of the Philadelphia and Reading Railroad Company are now outstanding. The Reading Company in its present form has been in existence since 1896. Its chief obligation is a general mortgage secured by the properties of the other companies, which takes up the old mortgages issued by these companies. The Philadelphia and Reading Coal and Iron Company and the Philadelphia and Reading Railway Company have large issues of securities, but these are held by the new company. (597.)

Mr. GREENE, of the Audit Company of New York, says that the Reading Company is a Pennsylvania corporation with special powers, enabling it to hold the stock of other corporations. The laws of Pennsylvania prohibit railroad companies from owning mines. The Philadelphia and Reading Railroad Company and the Philadelphia and Reading Coal Company were therefore separately organized, while the Reading Company, under a charter giving it special powers, owns the stock of both. Under this authority, also, the Reading Company has bought the stock of the Central Railroad of New Jersey. (471.)

3. *Relation of railroads to coal companies.*—Mr. McLEOD, former president of the Reading Railroad says that each of the anthracite coal railroads owns all or a large part of the stock of coal mining companies which are thus practically departments of the railroads. These coal companies mine coal and also buy coal from independent operators. They pay freight to the railroad companies in the same way as other shippers, the accounts being kept separately from those of the railroad. (561.)

Mr. HARRIS, until recently president of the Reading Company, says that the Reading Coal and Iron Company does not sell its coal to the railroad company, as many of the individual operators do, but that it sells the coal itself and pays the railroad company for transportation at precisely the same rates as are charged to individual operators who ship on their own account. (600.)

Mr. STEARNS, president of Coxe Bros. & Co., says that he does not know whether railroad companies in Pennsylvania have the right to operate coal mines directly. As a matter of fact, most of them own the stocks of mining companies, which are thus practically entirely controlled by the railroads. The Pennsylvania Railroad Company acquired most of its coal properties from the Northern Central Railroad and other railroads which it absorbed. The witness believes that in each case where railroads control coal companies the coal company is operated separately from the railroad company. This was certainly the case of the Pennsylvania Railroad. The Pennsylvania owns all of the stock of the Susquehanna Coal Company and controls the Lykens Valley Company and the Mineral Railroad and Mining Company. (579.)

Profit on transportation and on mining.—Mr. GREENE, of the Audit Company of New York, says that in the case of the railroad companies which maintain separate coal companies proper principles of accounting demand that the business should be kept entirely separate. As a matter of fact, it is not possible in the anthracite regions to calculate the profits of the railroads and the coal companies accurately. The railroad companies, in order to get tonnage, sometimes operate mines at a disadvantage. Moreover, it is exceedingly difficult to keep the accounts of a mine and to know the actual operating expense. This is especially true because there is a certain amount of work, known as dead work, in every mine, which has no direct relation to the amount of coal produced. It is a matter of opinion whether the cost of this dead work should be charged to improvements of the mine or to operating expenses or divided between those accounts. (474.)

4. *Control of coal lands by railways.* (See also Independent operators, p. cxxvi.)—Mr. SAWARD asserts that the anthracite coal lands are now to a very large extent owned by the railroads or their subsidiary companies. They virtually control the situation. The reason for going into the coal business was the necessity of a permanent transportation business. At first many individuals produced anthracite coal in very small mines and with small capital. These mines soon gave out and the railroads were in danger of bankruptcy. Therefore in order to secure permanent traffic they secured properties, directly or indirectly, and made developments on a larger scale. (509.)

Mr. McLEOD says that in 1900 out of 47,000,000 tons shipped the individual operators mined 16,000,000 tons, or about one-third, and the railroad mines shipped the rest. On the Lehigh Valley there is a much larger proportion of individual

operators. The company mined in 1900 2,922,000 tons out of 7,675,000 tons carried. The Reading mined 7,065,000 tons out of 9,674,000 tons. The Central Railroad of New Jersey mined 4,133,000 tons, while individual operators along that line mined 1,670,000 tons. The New York, Ontario and Western mined 1,086,000 tons and the individual operators 906,000 tons. (563.)

Mr. CHILDS, of the Ontario and Western Railroad, thinks there would be some opportunities in the lower anthracite region, in the neighborhood of Pottsville, for independent operators to buy up coal lands and start into business. Quite an amount of land has recently been sold in this district. In the Wyoming district the railroads control a pretty large proportion of the field, though there are occasional sales. (503.)

Mr. RICE thinks that anthracite coal lands are very difficult to buy, that they are largely held by the railroad companies, and that sales are chiefly made to those companies. It is relatively expensive to mine on a small scale and few people care to start into the business. (743.)

Control of future coal supply by combination.—Mr. STEARNS, president of Coxe Bros. & Co., says that the Reading Railroad is generally considered to have the largest supply of coal. The Lehigh Valley and the Delaware and Lackawanna railroads have also large reserve supplies. The coal land which is owned by the Jersey Central is all quite thoroughly developed. A combination of the Reading, Erie, Lehigh Valley, and other roads having the largest reserves will give these companies a very strong strategical position in the future as the supply becomes more limited. (587.)

5. *Community of interest among anthracite coal roads.*—Mr. WOODLOCK, railroad editor of the Wall Street Journal, says that while there are no definite figures regarding the common ownership of the anthracite coal roads, it is a thoroughly well-understood fact that Mr. J. P. Morgan represents a group of interests that are dominant in the Reading, Lehigh Valley, Jersey Central, Delaware, Lackawanna and Western, and Erie railroads, and that it is believed that these interests are taking steps to control the Delaware and Hudson. The five roads first named, including the Susquehanna and Western, which is owned by the Erie, carried in 1900 about 72½ per cent of the anthracite shipments. It is believed that the Pennsylvania Railroad and the Delaware and Hudson are in general sympathy with the combination, and if these be included 92½ per cent of the tonnage is accounted for. Of the remainder, Coxe Brothers, owning the Delaware, Susquehanna and Schuylkill Railroad, get about 3½ per cent. The Ontario and Western Railroad is a free lance, but practically makes the same rates and prices as other roads.

Mr. Woodlock believes that there is already a sufficient community of ownership to assure absolute control of the anthracite coal situation. He does not think that it is the intention of the capitalists to bring all the anthracite coal roads under one single ownership and management, nor to buy up all of the anthracite coal production. Such monopoly would be injudicious, especially by provoking legislation. It is the intention rather to agree upon prices. This is nothing new, since agreements have practically been made since 1885. Under the present arrangement, however, the agreements will be more effective.

Mr. Woodlock says, further, that the representatives of Mr. Morgan are to be found in the directorates of the Reading, the Lehigh Valley, and the Erie railroads. Mr. Morgan himself has very large capital, and besides he represents various prominent financial interests which support him in such operations as these among the anthracite coal roads. Mr. Morgan is also interested in the New York, New Haven and Hartford, although that has other affiliations. (451-455.)

Mr. HADDOCK, independent coal operator, says that he believes the common reports regarding the establishment of a community of interest among the anthracite coal roads to be well founded. He understands that leading stockholders in the different companies have exchanged stock in such a way as to harmonize the interests. Probably the railroads thus brought into harmony control 60 or 70 per cent of the anthracite coal tonnage. The statement as to the recent establishment of this community of interest is not denied by the parties and the bankers who have made the arrangements. (526.)

Mr. STEARNS, president of the Coxe Bros. & Co., says that he understands that railroads controlling practically 80 per cent of the anthracite traffic are now working in harmony under a community of interest. All the railroads are working together except the Pennsylvania, the Ontario and Western, and the Delaware and Hudson. The witness knows these matters chiefly through the newspapers. The Delaware, Susquehanna and Schuylkill Railroad, which belongs to Coxe Bros. & Co., is in no sense a "Morgan road." There is a newspaper report that the Ontario and Western has recently been brought into the community of interest, but the witness does not know as to its correctness. (588, 589.)

Mr. WALTER says that he has no definite information as to the tendency toward community of interest, at least as regards other railroads than the Lehigh Valley. There are gentlemen who are directors of other railroads and also of the Lehigh Valley. The purpose is not to establish an agreement or consolidation, but the presumption is that if a man is interested in several properties he will consider the interests of each in the light of the interests of the others.

This witness thinks that there is no tendency toward absolute consolidation and control of the anthracite business. The business is so complicated and each company has such different problems that it would be difficult for one body of men to manage all the properties. Moreover, the fact that only a part of the traffic of the respective railroads is in anthracite coal, and that they have differing interests as regards their other traffic, makes combination more difficult. About half of the total traffic of the Lehigh Valley is in general merchandise, the remainder being in coal. (545, 546.)

Mr. HARRIS, until recently president of the Reading Railroad, says that the Reading Company, the Central Railroad of New Jersey, the Erie Railroad, and the Lehigh Valley are working in substantial harmony. These roads represent about 57 or 59 per cent of the entire transportation of anthracite coal. There is a slight degree of harmony between these and the other leading railroads. Still the relations of the Pennsylvania Railroad to those which are combined is essentially that of an ordinary business competitor. The New York, Ontario and Western is one of the more recently constructed roads, and has never worked particularly in harmony. The Delaware and Hudson is also quite independent, and the witness knows of no movement toward bringing it into community of interest. The Pennsylvania ships about 12 per cent of the anthracite coal, the Delaware and Hudson about the same, the New York, Ontario and Western about 4 per cent, and Coxe Bros. & Co., who are entirely independent, ship about 4 per cent. The witness does not speak of the Delaware, Lackawanna and Western. He says there is undoubtedly a desire on the part of the railroads already working in harmony to bring the others into the community of interest. (593, 599, 608.)

Mr. McLEOD says that he knows of no tendency toward actual consolidation of the different railroads. The tendency toward a community of interests is evident and understood by everyone. The witness feels confident that such community of interest is desirable both in the case of the anthracite roads and of other railroads. He declares he has no financial interest involved, but that he believes the economies of combination will result in benefit to the public. He does not believe it is the intention of those concerned in the movement to rob the public, nor could they do so if they would. (571.)

Mr. SAWARD, editor of the Coal Trade Journal, denies that there is any thoroughgoing combination among the anthracite coal roads. It is true that the Vanderbilts, Rockefellers, and other great capitalists are interested as shareholders in several of the different coal-producing and coal-carrying companies. It is also a fact that the Lehigh Valley, the Erie, the Reading, and the Central Railroad of New Jersey are more closely united than the other roads. The Reading has recently bought a sufficient number of shares of the stock of the Central Railroad of New Jersey to control it. (513.)

Mr. CHILDS, of the New York, Ontario and Western Railway, asserts that the community of interest between anthracite roads does not seem to have affected the competition in the business, which is still very lively. The Ontario and Western has not entered into any form of combination or community of ownership, nor has it been approached with a view to bringing it in. The witness does not know whether Mr. Morgan, Mr. Rockefeller, or others, who are interested in the other anthracite roads, own stock in his own road. Mr. Depew is a member of the board of directors, but the witness does not think that he has a large block of stock. The Ontario and Western has many business connections with the New York Central, and it is natural that there should be some representative of the New York Central on its directorate. (502, 504.)

Mr. RICE does not think that it would be wise to attempt a consolidation of the railroads carrying the anthracite traffic. He doubts whether the consumer would be seriously affected, being protected by the competition of bituminous coal, but the operation of such varying interests under one head would be impracticable, and the witness sees no advantage in it. (738.)

Effect of combination on small producers.—Mr. STEARNS, president of Coxe Bros. & Co., does not think that the establishment of a community of interest between the railroads will enable them to drive out the independent operators. If the attempt were made to do so by reducing the price of coal, the large interests, which handle the greater volume of coal, would suffer more than the smaller interests. At the same

time the elimination of the independent operators would strengthen the community of interest and would save a considerable amount of trouble to the railroads in maintaining a firm price. (585, 589.)

The New York Central Railroad in the anthracite field.—Mr. McLEOD says he does not believe that the New York Central Railroad as a corporation has any interest in the anthracite region or any intention of building a railroad there. He understands that some of the stockholders are interested in some of the anthracite coal roads. (571.)

Legal difficulties hindering monopoly of anthracite coal.—While Mr. GREENE believes that absolute consolidation of the various anthracite mines and railroads would be desirable, he points out that legislation in the various States, and especially in Pennsylvania, makes such consolidation difficult. The constitution of Pennsylvania especially contains provisions directed against monopoly. To be sure, by a circuitous method the Reading Company, which is chartered in Pennsylvania, has been able to control railroads and mines at the same time, although direct operation of mines by railroad companies is prohibited in Pennsylvania. (469, 471.)

Attempted combination of 1893.—Mr. CHILDS, of the Ontario and Western Railroad, says that Mr. McLeod, of the Reading Railroad, tried to lease the Jersey Central and Lehigh Valley in 1893, in order to effect a combination of the anthracite roads. Then he branched out and tried to control the New York and New England and the Boston and Maine roads, but this was too much of an undertaking, so that whole scheme failed. (503.)

6. *Recent purchases of anthracite coal lands by railroads.*—Mr. WOODLOCK, railroad editor of the Wall Street Journal, declares that it is pretty clear that the owners of the leading railway companies reaching the anthracite coal region are trying to buy up a large part of the few remaining coal lands in the hands of independent operators. The Ontario and Western bought quite a block of land from the Lackawanna Iron and Steel Company and about 600,000 tons of yearly production besides. The Erie Railroad has bought the Pennsylvania Coal Company, which produces about 6 per cent of the total anthracite tonnage. Mr. Woodlock does not think that these purchases were due to a desire to eliminate the independent operators, or to acquire absolute monopoly, but rather to prevent the independent operators from establishing a competing railroad, which would take away from the present railroads a large part of the tonnage of individual operators which they now carry. The Pennsylvania Coal Company had just taken up the proposition to establish a new coal road, the Delaware Valley and Kingston.

The purchase by the Erie Railroad was conducted through Mr. J. Pierpont Morgan, who first bought out the Pennsylvania Coal Company himself, and later sold it to the Erie. The syndicate, headed by Mr. Morgan, is believed to have taken its commission in the form of Erie first preferred stock, \$5,000,000 of which was issued in connection with the deal. Mr. Woodlock thinks that the price paid for the Pennsylvania Coal Company was exceedingly high. (451-453.)

Mr. HADDOCK, independent coal operator, explains the occasion for the recent purchases of coal lands by the railroad companies. He says that about 1898 the independent operators, feeling that it was impossible to get reasonable rates for transportation, projected a new railroad from the Lackawanna region to tide water, believing that the saving in transportation would justify the expense. This road was to be known as the New York, Wyoming and Western. Various mine operators had pledged tonnage to it. The Temple Iron Company, which the witness understands to be controlled by the various railroad companies, bought up most of the mines which had pledged this tonnage, and the enterprise was abandoned.

Some of the remaining independent operators afterwards planned the construction of a railroad to tide water (the Delaware and Kingston), following the bed of the Delaware and Hudson Canal. The Pennsylvania Coal Company, in particular, was cooperating in this enterprise. Very recently the Erie Railroad has bought up the Pennsylvania Coal Company at a high price, and the construction of the railroad has had to be abandoned.

It was more profitable to the operators to sell out in each of these cases at the big prices offered, freeing themselves from the risks of mining and of business. (521, 522.)

Mr. STEARNS, president of Coxé Bros. & Co., says that about three years ago the independent operators made an attempt to build a railroad through Scranton to tide water, with a view to securing a lower rate of freight. Later an attempt was made to build a line along the old Delaware and Hudson Canal to Kingston. Both of these roads were blocked by the buying up of mines upon which they would have to rely for tonnage. The Erie bought out the Pennsylvania Coal Company, and it is the general assumption that this was designed to prevent the building of the line to Kingston, which would especially have served that company. The New York, Ontario and Western also bought out several collieries which would have been

shippers over the proposed road. The prices paid by the railroads for these mines were high, but it is probable that they are making a profit by operating them and transporting the coal produced. The price paid for the Pennsylvania Coal Company was about \$32,000,000. (588, 589.)

Mr. HARRIS, former president of the Reading Company, says that there was apprehension on the part of the railroads over the proposed extension to tide water of the Erie and Wyoming Valley Railroad, which could, perhaps, have secured 7 per cent of the tonnage. (603.)

Purchase of coal interests by Erie system.—Mr. THOMAS, president of the Erie Railroad, says that substantially all the capital stock of the New York, Susquehanna and Western Railroad is owned by the Erie, which has exchanged its own stocks for it. The Erie has also recently bought the Pennsylvania Coal Company, which owned the Erie and Wyoming Valley Railroad, extending from Hawley to Scranton, and from Hawley to Lackawaxen. The price paid was \$32,000,000 in 4 per cent bonds, and \$5,000,000 in preferred stock. The Pennsylvania Coal Company had a capitalization of only \$5,000,000, but it was established more than 38 years ago.

The motive of the Erie in acquiring the Pennsylvania Coal Company was to guarantee the stability of its transportation. For 38 years it has had close relations with the Pennsylvania Coal Company, but the Erie itself did not reach into the heart of the anthracite region.

Another motive of the Erie in making this purchase was because it has felt in the past that it did not always get a fair share of the freight rate on the coal which it hauled. Reaching only the edge of the coal field it had to pay large sums to the Erie & Wyoming Valley and other roads which first hauled the coal. Finally, the Erie desired to secure a permanent coal supply for its own use. The road consumes 350,000 tons of anthracite yearly. (552, 553.)

Mr. McLEOD thinks that the purchase of the Pennsylvania Coal Company by the Erie Railroad was a wise step for the railroad. It secures to it a tonnage which might otherwise have gone elsewhere. The Pennsylvania Coal Company had a very large amount of unmined coal which the Erie will now transport. The price paid was high, but probably the property was worth it, because anthracite coal gets more valuable as the supply is reduced.

The debt incurred by the Erie in this purchase will be paid off by a sinking fund, to which 10 cents for each ton of coal mined is added. The witness considers this a very wise arrangement. Owners of coal lands are beginning to see that they must do something to liquidate the debts which they have incurred as the coal is exhausted. The profits of the Erie on its coal may be apparently for the time being less than those of less conservative companies that set aside no sinking fund. (572, 573.)

Purchase of lands by Ontario and Western.—Mr. CHILDS, general manager of the New York, Ontario and Western Railroad, says that when it began business in the anthracite region in 1890 it had no direct control of mines. It desired to get control of large mining interests in order to insure profitable transportation. A branch from the main line had been built to Scranton, 54 miles, at a heavy expense, \$2,500,000 to \$3,000,000, and millions more had been invested in branch lines and equipment. Contracts with individual operators, running only a few years, could not be relied upon to assure business to the railroad and earning of interest on its bonds. In some earlier instances loans were made by the railroad for the improvement and development of coal properties, on condition that the coal be shipped over the railroad until exhausted. Within the last 2 years the railroad has absorbed, indirectly, about 80 per cent of the producing capacity reached by it. It bought a majority of the stock of the Elkhill Coal and Iron Company and of the Scranton Coal Company, and advanced money to these companies to buy up smaller mines owned by individual operators, and to promote the development and improvement of the mines. The railroad company, under its charter, could not probably legally mine coal directly. It has made contracts with the two companies named to secure the transportation of all the coal which they shall hereafter produce. In this purchase of the control of coal lands the Ontario and Western is merely following in the steps of the other anthracite roads, the object being to insure a permanent transportation business. (479, 480.)

Purchase of coal lands by Reading Company.—Mr. HARRIS, late president of the Reading Company, says that that company has not made any effort recently to buy up independent coal operators. Practically all of the Reading's lands were bought by Mr. Gowan many years ago. The witness does not think there have been any large purchases of coal lands by the Reading during the past 8 years, nor does he recall any purchase made by Mr. McLeod. (604.)

7. *Purchase of Central Railroad of New Jersey.*—Mr. HARRIS, until recently president of the Reading Company, states that the Reading Company has recently bought a majority of the stock of the Central Railroad of New Jersey, paying for it at the rate of \$160 per share. This price is somewhat higher than the recent range of prices of

stocks of the Jersey Central, but a good many years ago it sold as high as \$150. The number of shares bought was 145,000, costing \$23,200,000, and bonds of the Reading Company were issued to cover this amount. In a certain sense the aggregate capitalization of the two companies is increased by this transaction, but the Central was earning a dividend of from 5 to 7 per cent on its stocks, and at that rate its earnings will pay the interest charges on the debt incurred by the Reading without making it a burden on the general earnings of the Reading. The purchase practically simply changes the personnel of the ownership of the stocks of the Central.

Mr. Harris disclaims any knowledge as to the motive of the bankers in bringing about this control of the Jersey Central by the Reading. He says that J. P. Morgan & Co. represent the owners of the controlling interest in the Reading. The commission charged for the transaction in the purchase of the Central Railroad of New Jersey was not, Mr. Harris believes, more than the ordinary and reasonable commission. The witness believes that the bankers turned over the shares of the Central Railroad of New Jersey at the same price which they paid for them. Of course the commission had to be provided for in the issue of securities.

In explanation of the advantages of this combination Mr. Harris points out that the two railroads naturally constitute one system. All business of the Reading coming from the South or Southwest to New York has to be carried over the Jersey Central about 30 miles. A good deal of bituminous coal is hauled by the Reading from West Virginia to Allentown, and from there goes 90 miles over the Jersey Central to New York. Business going from Philadelphia over the Reading to Bethlehem, Pa., is carried from there over the Central to Scranton.

The witness does not know of any plan for the absorption of the Lehigh Valley road by the Reading. He does not know, however, what bankers and large stockholders may be doing in the purchase of stocks. The combination of the Central and the Reading is not likely to have any influence upon the Baltimore and Ohio or the Pennsylvania railroads. The Baltimore and Ohio furnishes a great deal of business to the Reading, but is not especially its competitor, nor, on the other hand, is there any combination or community of interest between them. (599, 607-609, 610.)

Mr. McLEOD says that in 1892 the Reading Railroad leased the Central Railroad of New Jersey. The State of New Jersey brought suit to cancel the lease, but the witness thinks no decision was rendered, the suit being discontinued after the Reading went into the hands of a receiver. He thinks that the provision of the laws of New Jersey which restricted the lease of the Lehigh Valley and the Central Railroad of New Jersey to a Pennsylvania corporation would not prevent an actual purchase. He understands that the Reading has recently acquired a controlling interest in the Central Railroad of New Jersey, but he thinks the laws of New Jersey prevent an absolute combination and consolidation of the two roads. (572.)

Mr. RICE says that the recent purchase of a controlling interest in the Jersey Central by the Reading Company is the third time that the Reading has acquired control of that company. In the first instance, the Reading borrowed money on the Jersey Central stock which it held, and was not able to retain the stock when the loans were called. In the second case the lease of the Jersey Central was dissolved by the New Jersey courts. It was expected in 1893, when the Reading secured control of the Jersey Central and Lehigh Valley, that the other coal roads would act in harmony. The main reason why the combination failed was that it did not understand the necessity of reducing prices and making its profits through economies. Instead it attempted to increase prices, and could not sell coal. (737, 738.)

With reference to the high price paid for the stock of the Central of New Jersey, Mr. GREENE says that while the price was above the average for a long term of years, holders of large amounts of stock are frequently unwilling to sell at market prices. Moreover, the combination between the Central of New Jersey and the Reading may greatly increase the value of both properties. The Central owns most valuable terminal facilities, partly now unused, on the Hudson River. If these are sold out to another company which can make use of them, a proper payment for them should be made. It is fair to assume that a profit will be made out of the investment, even though stocks be bought at high prices. There is no such thing as an actual value of one of the anthracite roads, if one means the cost of reproduction. It is, however, questionable, in the opinion of Mr. Greene, whether a new road could be built into the anthracite coal fields for less than the capitalization of existing roads. (475.)

B. Relation of railroads to independent operators.—1. *Anthracite Coal Operators' Association.*—Mr. FLEMING, secretary of the Anthracite Coal Operators' Association, says that this association consists of various smaller so-called independent operators who sometimes own mines in their own right and sometimes lease them.

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The members of the association produced up to 1901 about 34 per cent of the entire output. Quite a number of them have sold out recently to the railroad companies, and the present percentage will probably be about 29 or 29½.

The object of the organization was to strengthen the small operators in their relations with the large corporations. It has been the constant effort of the association to obtain more reasonable rates of transportation. (535).

2. *Number of independent operators and their proportion of tonnage.*—Mr. HADDOCK, independent coal operator, says that it is very difficult to determine just what an independent operator is. Strictly speaking, an independent operator is one who mines his own coal, and sends it to the market and sells it himself, or through a commission agent. The great majority of the smaller operators and mining companies, ordinarily called independent, sell their coal to the various railroads or railroad coal companies under contracts, which leave them by no means independent. It has been claimed that the independent operators of both these classes represent about 30 per cent of the total tonnage, but they are growing fewer each year, and the figures are uncertain. The feeling of the owners and managers of the great railroads is that the freight rate is open to attack so long as there are really independent operators. The new contracts on the 65 per cent basis which are being made bind the operators to the railroad for the entire life of their property. In Mr. Haddock's opinion, so many will sign these contracts that no more than 5 or at the outside 10 per cent of the production will remain to the independent operators who conduct their own shipments, as Mr. Haddock does himself. (521, 522, 531, 532.)

Mr. FLEMING, of the Anthracite Coal Operators' Association, says that the independent operator is defined ordinarily as the man who owns mines, irrespective of the way in which he sells his coal. If reference be made to independent shippers and sellers there will probably hereafter be comparatively few; most operators will find it more advantageous to contract with the railroad companies to sell the coal to them. Mr. Fleming is not authorized to make any complaint on behalf of the independent operators. (542.)

Mr. STEARNS, president of Coxe Bros. & Co., says that the number of independent operators in the anthracite region is being gradually reduced by the acquisition of their properties by the railroad companies and other large operators. There has been a substantial decrease in the output of the independent operators in the last few years. The witness does not think that these operators have been forced to sell out, but believes that they did so because they could get a very good price. He thinks that there is no discrimination against them by the railroads in any way. He understands that there are some lands in the Schuylkill region which are now on the market, although it is true that the really desirable coal lands are about all now owned by those which are really operating mines. If lands could be obtained, an independent operator could start into business on as favorable terms as those already in the business.

The Lehigh Valley Railroad has a larger proportion of independent operators than any other of the railroads. (579, 580, 588.)

Mr. SAWARD states that the independent coal operators probably at present produce but a small fraction of the total output of anthracite coal—not more than 20 per cent. Of this proportion by far the greater part is sold directly to the railway companies at the mines under the percentage contract arrangement. Some individual operators still sell their own coal through commission houses. John C. Haddock is one of the largest of these operators. (508, 509.)

Mr. GREENE, of the Audit Company of New York, says that four or five years ago, when he was connected with the anthracite coal business, the independent producers controlled between 28 and 30 per cent of the tonnage. In the case of one or two of the railroad companies the independent tonnage was a very large proportion of the total tonnage. (468.)

Mr. HADDOCK says that there are more independent coal operators in the northern anthracite field than in the Schuylkill field, where the Philadelphia and Reading absorbs most of the territory. In the Lehigh field there have been many changes in ownership recently. (522.)

Mr. HARRIS, until recently president of the Reading Company, says that out of eight or nine million tons shipped by the Reading Company, perhaps one million tons are produced by independent operators. In most cases there is no financial relation between these operators and the railroad. In a few peculiar instances they are brought together. Thus in one case the individual operator mines partly on lands belonging to the Reading, and the Reading mines partly on his lands on account of the geological conditions. (600.)

3. *Attitude of independent operators.*—Mr. THOMAS, president of the Erie Railroad, asserts that the independent operators, including those who ship for themselves, along the Erie road are apparently entirely satisfied with conditions. The most amicable relations have existed. It is, to be sure, the fashion if a man fails in business, in this as in other industries, to charge the failure to the railroad company rather than to lack of ability or application. Mr. Thomas says, further, that the profits of the independent operators are greater than those of the railroads proportionately. The witness has known individual operators who a few years ago were carrying dinner pails, and who now live at the Waldorf-Astoria and run automobiles. (549, 556.)

4. *Coxe Brothers & Co.*—Mr. STEARNS, president of Coxe Bros. & Co., says that the mines of that company are located in the Lehigh anthracite region. The company employs about 3,500 men, and in 1900 shipped 1,032,577 tons of coal of its own production; its total production, a small part being used for local purposes, amounting to 1,246,592 tons. The company purchased from Mr. C. Pardee 529,021 tons, which it shipped, making the total shipments 1,561,598 tons. Of this amount 1,071,357 tons were sent to Perth Amboy and 149,209 tons to points on the railroad lines east. The company shipped to Buffalo for lake shipment 199,870 tons. The Coxe company produces and hauls about 3½ per cent of the entire output. (576, 581.)

5. *Plymouth Coal Company.*—Mr. HADDOCK, of the Plymouth Coal Company, says that when running at full capacity his company employs from 1,000 to 1,100 men. It usually works more days than the mines controlled by the railroad companies, simply because Mr. Haddock, shipping his own coal, has insisted on the right to secure cars, and to be free from dictation as to output. (533.)

C. Percentage contracts and freight rates.—1. *Percentage contracts with independent operators.*—Mr. SAWARD, editor of the Coal Trade Journal, says that the great bulk of the coal hauled by the anthracite roads is produced by those roads themselves or their subsidiary companies. By far the largest proportion of coal produced by independent operators is brought to tide water under a contract by which the railroad company receives 40 per cent of the tide-water price and the individual operator 60 per cent. Operators are therefore interested in keeping the price of coal high. (509.)

Mr. STEARNS, president of Coxe Bros. & Co., says that for several years the great majority of the independent operators have sold their coal to coal companies affiliated with the railroads. The operators receive 60 per cent of the tide-water prices and the railroad company receives 40 per cent, guaranteeing the sale and paying all selling expenses as well as transportation. The railroad assumes the actual title to the coal at the breaker and the operator has no responsibility. The settlement is made with the independent operators monthly on the basis of the prices received during the preceding month. (577-580.)

Mr. CHILDS, general manager of the New York, Ontario and Western Railway, says that when that road reached the coal fields in 1890, it made contracts with individual operators agreeing to carry their coal to tide water, and to receive for transportation 40 per cent of the tide-water price in case of prepared sizes. The actual form of the contract was a purchase of the coal at the mine by the railroad. At first, part of the terminal charges at tide water were paid by the individual operators, but after several years the railroad assumed all these expenses, paying the operator 60 per cent of the average tide-water price, free from all commissions, terminal charges, etc. Thus, if the tide-water price should be \$3, the price to the operator at the mine would be \$1.80 net.

Mr. Childs states further that the practice of the other railroads, with regard to the purchase of coal on the percentage plan, is practically the same as that of the Ontario and Western. On some of the roads part of the individual operators ship to tide water independently, paying the freight charges and selling the coal directly. On the Ontario and Western, however, all or practically all operators sell to the railroad at the mine. On shipments west, as well as on those to tide water, the Ontario and Western usually buys the coal from the operators on a percentage system.

At the time of Mr. Childs's testimony, February, 1901, a revised contract with the operators was under consideration by the Ontario and Western and other railroads. This provided for the payment to the operators of 65 per cent instead of 60 per cent of the tide-water price on prepared sizes of coal. (496-498.)

Mr. McLEOD says that it was through his influence that the present system of percentage contracts with individual operators was introduced as a general system. Prior to that time there were some contracts by which the railroads hauled coal to the seaboard and sold it, allowing the operators a percentage of the price. There were such contracts on the Lehigh Valley by which the operators received 55 per

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cent. Mr. McLeod canceled these contracts and made others on the 60 per cent basis. The coal by this arrangement is sold by the producer to a coal company affiliated with the railroad. The coal company sells it and receives its 40 per cent of the price, while 60 per cent goes to the individual operator. Out of the 40 per cent the coal company must pay freight to the railroad company with which it is affiliated.

Mr. McLeod thinks there is practically no difference in the new contracts on the 65 per cent basis except as to the rate allowed. He understands, however, that the new contracts are to cover all the coal in the ground of the operator signing the contract. The contracts made by Mr. McLeod ran 7 or 8 years. They were considered very generally satisfactory. (562, 563.)

Mr. FLEMING says that many years ago the contracts between the railroad companies and the coal operators allowed the operators only 40 or 45 per cent of the tide-water price of coal, although some contracts made the percentage vary in accordance with the amount paid to labor. After that for a time the rate was 55 per cent of the tide-water price. From 1892 to 1898 the contracts allowed the operators 60 per cent of the tide-water price, while the present contracts which are being made are based on 65 per cent. (536.)

Mr. WALTER says that the auxiliary companies of the Lehigh Valley Railroad buy part of the coal produced by independent operators on the percentage basis. The rate paid to operators at the time of his testimony, February, 1901, was 60 per cent of the tide-water price. A contract on the basis of 65 per cent was then under discussion with the probability that it would be adopted. (543.)

Mr. HADDOCK, independent coal operator, says that since the time of the attempted combination by Mr. McLeod, in 1892, the railroads have offered to independent operators to buy and transport their coal, paying 60 per cent of the price received at tide water on the prepared sizes. This was considered a concession at the time, since individual operators were protesting vigorously against the rates that were being charged for transportation. The present movement for an increase of the percentage to 65 has grown out of the desire of the railroad companies to suppress the construction of a railroad by the independents. (522.)

Mr. WOODLOCK says that the railroads have had contracts with the independent coal operators by which the rate of transportation was based on the price received for coal at tide water. The railroads would take the coal to market and give the producer 60 per cent of the price received at tide water. About 2 years ago the project of an independent railroad from the anthracite coal region began to be pushed and the other railroads have felt themselves forced to make a concession. The proposed new contracts give the operators 65 per cent of the tide-water price, the railroads accepting 35 per cent as the payment for freight. (454.)

Mr. HARRIS, until recently president of the Reading Company, asserts that he does not know whether more than half of the coal produced by the independent operators along the Reading Railroad is sold to the Reading Coal and Iron Company or not. In most of the other regions more than half of the operators do sell to the railroad companies. (600.)

2. *New 65 per cent contracts.*—Mr. THOMAS, president of the Erie Railroad, says that most of the anthracite coal produced by independent operators reached by that railroad is bought by the railroad through a subordinate company, on the percentage contract system. At present (February, 1901), the operators receive 60 per cent of the tide-water price. The Erie, together with other railroads, was at that time arranging for a contract allowing the operators 65 per cent, and the witness had no doubt that the arrangement would be completed. It was not a condition of the contract that all the operators should accept it, but the witness thinks that the railroad is entitled to the acceptance of most of the operators. He believes the operators are generally well satisfied.

Mr. Thomas further affirms that these new contracts cover the entire life of the property of the various operators; that is, the Erie agrees to purchase all the coal in the ground, and the operator to sell it all. (549.)

A copy of the form of the proposed 65 per cent contract was submitted by Mr. Childs. It contains a promise on the part of the producer or seller to deliver to the railroad company all the coal which it produces. The railroad company agrees to take as much coal as the market will permit, dividing fairly the demand between the various collieries, in proportion to their capacity, with no preference for mines operated by itself. The division of tide-water price is different in the case of other classes of coal than in the case of the larger prepared sizes. The main clauses of this contract are as follows (496, 498, 505-507):

DIGEST:—THE ANTHRACITE COAL SITUATION. CXXXIX

"This agreement, made and executed in the city of Philadelphia, Pa., this ____ day of ____, nineteen hundred ____, between ____ (hereinafter called the seller), party of the first part, and ____ (hereinafter called the buyer), party of the second part, witnesseth:

"First. The seller hereby sells, and agrees to deliver on cars at breaker to the buyer, all the anthracite coal hereafter mined from any of its mines now opened and operated, or which it may hereafter open and operate on the premises intended to be covered by this contract, and any which shall be reclaimed from culm banks on said premises, viz:

"Shipments to be made from time to time as called for by the buyer. The buyer to give on the 25th of each month, notice of the quantity as nearly as practicable buyer will require for next month, and arrange to take the coal in as nearly equal daily or weekly quantities as in its judgment the requirements of the market will permit. The buyer to use its best efforts to find a market for the seller's coal so as to enable the seller's collieries to be worked as many days as practicable, with due regard to the general market conditions, and to give orders for shipment which will enable the seller to work its collieries as many days in each year as other collieries work similarly situated.

"The buyer agrees that it will not discriminate in favor of its own mines, or any persons, firms, or companies with which it has contracts to buy coal, but that the quantity to be ordered monthly shall be a just proportion of the entire quantity of coal agreed to be purchased by the buyer, measured by the colliery capacity of the respective sellers. It being understood that so far as practicable the quantity ordered shall not be less than a just proportion of all the anthracite coal which the requirements of the market may from time to time demand. The colliery capacity shall be determined as of the 1st of January in each year by the parties hereto, and, on their failure to agree, the president for the time being of Girard Trust Company shall select a suitable expert for this purpose. Should any marked change take place affecting the productive capacity of the colliery, either the buyer or the seller may call for a new determination of the colliery capacity as of the beginning of any quarter of the calendar year.

"Second. The buyer agrees to pay and the seller agrees to accept the following prices for said coal, when prepared in accordance with the standard hereinafter set forth, and delivered f. o. b. railroad cars at the breaker:

"For all sizes above pea coal, sixty-five (65) per cent of the general average free on board prices of said sizes received at tide points at or near New York, between Perth Amboy and Edgewater, computed as hereinafter provided.

"For pea coal fifty (50) per cent of the general average f. o. b. price for pea coal at said tide points at or near New York when the said price is two dollars and fifty cents (\$2.50) per ton or less, and for each advance of ten (10) cents per ton in the said f. o. b. price above two dollars and fifty cents (\$2.50) the proportion paid the seller shall be increased one (1) per cent until the percentage paid for pea coal reaches sixty-five (65) per cent.

"For buckwheat coal No. 1, forty (40) per cent of the general average f. o. b. price at said tide points at or near New York when the said price is two dollars (\$2.00) per ton or less, and for each advance of ten (10) cents per ton in the said f. o. b. price the proportionate price paid the seller shall be increased two (2) per cent until the said f. o. b. price reaches two dollars and fifty cents (\$2.50), after which the proportionate price paid the seller shall advance one (1) per cent for each ten (10) cents advance in the f. o. b. price above two dollars and fifty cents (\$2.50), as in the case of pea coal above mentioned. Provided that nothing herein contained shall oblige the buyer to pay for buckwheat No. 1 coal a rate higher than for pea coal.

"For all sizes smaller than buckwheat No. 1 the seller shall receive twenty-five (25) cents per ton f. o. b. railroad cars at breaker, and for each ten (10) cents increase in the general average f. o. b. price above one dollar and thirty cents (\$1.30) a ton at tide, the price shall be increased five cents per ton; but it is understood that the buyer shall have the option to decline to take these smaller sizes in excess of the proportion taken from the buyer's own collieries and operations.

* * * * *

"Fifteenth. If by reason of changes in trade or colliery conditions the seller is unable to operate its mines without financial loss on the basis of this contract, and the buyer declines to modify this agreement, the seller may submit the questions involved to the said board of arbitration, and, if the board decides that the seller can not operate its mines without loss on the basis of this contract, and if the buyer and seller can not agree on a modification of this contract, then this contract shall cease and determine.

"Sixteenth. It is also understood and agreed (anything herein contained to the contrary notwithstanding) that if at any time or times the average f. o. b. price at tide for sizes of coal larger than pea coal shall be less than three dollars and fifty cents (\$3.50) per ton, then the seller may at its option temporarily suspend mining and cease all deliveries hereunder until the said average price shall reach three dollars and fifty cents (\$3.50) per ton; provided, however, that two weeks' notice of intention to stop deliveries shall in such case be given by the seller to the buyer; and, if any question arises as to price being less than \$3.50, it shall be submitted to the permanent arbitration board."

Mr. STEARNS, president of Coxe Bros. & Co., testifying in April, 1901, said that he understood that the new 65 per cent contracts had not yet gone into force. He believes that the contracts were drawn up by a conference between a committee of independent operators and a committee representing the railroad companies. Their session lasted for several weeks. The witness understands that the proposition was offered by all the railroads alike. He has been told that the operators of the Pennsylvania line have signed the agreements, but that none of those on the other lines had signed them up to a few days before his testimony. It was his impression, however, that the contracts would be adopted.

Mr. Stearns says that the new 65 per cent contracts are intended to cover the entire output of the mines of the independent operators in the future, excepting in the case of those made by the Pennsylvania Railroad. The earlier 60 per cent contracts mostly ran for a period of years and have for the most part expired. It is his opinion that the new contract is being proposed by the railroads with a view to securing control of the business and preventing competition. Mr. Stearns understands that the 65 per cent rate of the new contract applies only to the prepared sizes. In the case of pea coal, the operators, he believes, are to receive 60 per cent, and in the case of the smaller sizes, 40 per cent of the prices. (577-580.)

Mr. HADDOCK, independent coal operator, says that the new contract proposed by the railroad companies, allowing the operators 65 per cent of the tide-water price of coal, is conditioned upon the agreement to sell all of the coal to the railroad company for the entire life of the property. The railroad companies also desire a large majority of the operators to sign the contracts before the new arrangement is put into effect. This will practically tie up very nearly all of the independent operators. (531, 532.)

Mr. WALTER says that the new contracts on the 65 per cent basis which are being made provide that the entire product for the life of the collieries shall be sold to railroads, but that there are many limitations and stipulations in connection with this provision. (545.)

Mr. FLEMING declares that while the operators would like to get a larger proportion of the tide-water prices they are very generally satisfied with the new 65 per cent contract. Out of the 35 per cent which it receives the railroad company must not only pay freight, but also the selling expenses.

The witness, as the representative of the Anthracite Coal Operators' Association, is not authorized to make any complaint whatever. He says that he would rather not answer the question whether he knows of any cause for complaint. (537, 542.)

Mr. Fleming thinks that the new 65 per cent contracts are in some cases made for the entire future product of the mines, but that in other cases they are for shorter periods.

The witness stated further that under these contracts the railroad agrees to buy from the operator "as much as it requires." It certainly could not agree to take an amount which it could not dispose of. In many cases, however, companies are allowed to sell on their own account any excess above the amount which the railroad company agrees to take from them. (536, 537.)

Mr. Fleming stated in February, 1901, that most of the members of that association were signing the new contracts providing for the 65 per cent basis on tide-water prices. The witness says no doubt that the new arrangement will go into force. The operators find it much more advantageous to enter into these contracts and avoid the necessity of having offices of their own, or branches at a number of different places for disposing of the coal, which involves large expense. (537.)

Mr. HARRIS, late president of the Reading Company, stated in April, 1901, that the new 65 per cent contracts had not, so far as he knew, yet gone into effect, but that he believed the individual operators were generally satisfied with them. In the Reading territory the operators have not objected on the ground that the contracts require them to sell their entire future output for the life of the mines to the railroad. (610.)

3. *Freight rates on anthracite coal. Comparison with bituminous coal.*—Mr. FLEMING, secretary of the Anthracite Coal Operators' Association, says that the majority of the

members of that association sell their coal to the railroad companies under percentage contracts, so that there is no question with them as to freight rates. On the relatively small proportion which operators ship or sell on their own account they make complaints frequently.

Mr. Fleming declares himself unable to compare the charges per ton per mile for hauling anthracite coal with those for hauling bituminous coal. Some years ago bituminous coal was being hauled from West Virginia to tide water for three mills per ton per mile, but that was exceptional. It was really a losing rate. At the same time the average rate on anthracite was about nine mills. There are frequent complaints as to the disparity in the rates on the two classes of coal, but there is good reason why soft coal should be carried cheaper. The entire product is of the same grade and can be dumped from the train into a vessel. Anthracite is in different sizes and of different qualities, which must be kept apart. This coal must therefore be put in storage piles or held in cars or on barges subject to demurrage charges. (536, 539, 540.)

Mr. SAWARD, of the Coal Trade Journal, says that it is no longer worth while to pay much attention to schedule rates of transportation on anthracite coal, since practically all coal is hauled on a percentage contract by which the railroad receives 40 per cent of the tide-water price for transportation. When coal is at \$4 the railroad receives \$1.60. If the average distance to tide water from the anthracite fields is 160 miles, it makes 1 cent per ton per mile. The rate per ton per mile thus varies in accordance with the tide-water price. The rate is higher than on soft coal, but the two are entirely different in their nature and in the cost of transportation. (509.)

Mr. STEARNS, president of Coxe Bros. Co., says that the distances from the anthracite mines to tide water vary considerably. The difference between the distance of the Lehigh region and the Wyoming region is comparatively slight. From the Schuylkill region the coal is usually shipped to Philadelphia.

There have been complaints at times by the independent operators that the rates charged for transporting coal were excessive, especially as compared with bituminous coal. The witness understands, however, that bituminous freight rates have recently been increased. In his judgment it is proper that the rates on anthracite should be higher than those on bituminous coal. The cost of transportation in itself is perhaps not greater, but there are several different sizes of anthracite coal which must be kept separate, necessitating frequently storage in cars or in bins or vessels. Moreover, the cars in which bituminous coal is hauled are usually returned with some load—iron ore, iron, or some other product. In the case of anthracite coal the cars usually return empty. (579.)

Mr. HADDOCK, independent coal operator, says that bituminous coal is hauled to tide water at much lower rates per ton per mile than anthracite coal, but he thinks it would be necessary to ask the railroad men the reason for the difference. (530.)

Mr. CHILDS, of the New York, Ontario and Western Railway, says that that road does not receive nearly as much as 10 mills per ton per mile on anthracite coal, nor does he think any road ever received as much as that. The average receipts per ton by the Ontario and Western for the year ending June 30, 1899, were \$1.128 for the distance of 214 miles, from Scranton to Weehawken. (During the summer months vessels are loaded at Cornwall-on-the-Hudson, 54 miles nearer.) The charge thus runs from 6 to 7 mills per ton per mile. The relative rate is higher for the shorter routes, of which the shortest is the Delaware, Lackawanna and Western, 145 miles. (496, 497.)

Mr. Childs says that the railroad tariffs in effect on his road from the anthracite coal fields are: To Buffalo, \$2 per ton; Chicago, \$3.50; St. Louis, \$4; tide water, \$1.75. But practically all the coal carried by this road is on the percentage basis. (496.)

Mr. McLEOD says that the average freight rate to tide water from the anthracite coal fields is about \$1.50 per ton. He knows of one colliery where the average rate for some time has been only \$1.36 per ton, amounting to 7 mills per ton per mile. (565.)

Mr. HARRIS, until recently president of the Reading Company, says that he does not think it is the purpose of the railroads in the anthracite coal field to put up the freight rates by combination among themselves. As a matter of fact, freight rates have not been secretly cut much in recent years. They have been gradually reduced during the past 6 or 8 years. A few years ago the general rate from the mines to tide water was about \$1.70 a ton. It is now about \$1.30, but varies greatly. (600.)

4. *Relative freight rates under percentage contract and under tariffs.*—Mr. HADDOCK says that he has always refused to enter into contracts for the sale of his coal to the railroad companies on the 60 per cent basis. He has preferred to remain independent. He does not want to have to rely on other persons to find markets for him.

Another reason why Mr. Haddock has preferred to conduct his own shipments is because of the limitation on output imposed by the railroad companies under the percentage contract.

Nevertheless, Mr. Haddock asserts that it would have been more economical for him to enter the percentage contract than to insist on selling his own coal and paying the freight rates. The railroad companies have not made a freight rate to independent shippers as low as the 40 per cent of tide-water price which they accept in the case of the contracts. He has always insisted that the individual operator who sells his coal to the railroad company at the mine ought to be put on the same level with the operator who prefers to send his coal to tide water, and that, because of the selling expenses, which the latter class of operators must incur, they ought to have a freight rate equal to less than 40 per cent of the tide-water price. In the case of the new contracts, giving the railroads 35 per cent, the witness thinks that the absolutely independent operator ought to have his coal transported at a rate equal to 30 per cent of the tide-water price, and he expects to be able to fight it out on that basis. (523, 532, 534.)

Mr. THOMAS, of the Erie Railroad, says that at the present time (February, 1901) the freight rates on anthracite coal to tide water vary from \$1.15 to \$1.40 per ton, the latter rate being on the prepared sizes and the smaller rate on the pea coal and other small sizes. These rates the witness states are about the same as the proportion of the tide-water price going to the railroad company under the percentage contract system at the 40 per cent rate.

The witness does not think that the independent operators who ship for themselves are entitled to as favorable a rate as that proposed by the new contract allowing the railroad company only 35 per cent of the tide-water price. These new contracts give the railroads a stability of business, while the independent operators may ship to-day and not at all to-morrow. (549, 550.)

5. *Profits of anthracite coal roads in relation to rates.*—Mr. WOODLOCK, railroad editor of the Wall Street Journal, declares that the anthracite coal roads have never been very profitable, and draws therefrom the conclusion that they have not kept freight rates nor the price of coal unduly high. Some of these roads have been repeatedly in bankruptcy. Even at present, in very prosperous times, most of them are making no more than reasonable dividends. While the Jersey Central and the Reading are doing much better than formerly, their increased earnings are chiefly due to general merchandise traffic and not to coal traffic. The Delaware and Hudson and the Lackawanna have always made good profits, but their capital was low at the start. There is a distinct prejudice among investors and speculators against the securities of most of the anthracite roads. It is felt that the anthracite coal is expensive to mine and expensive to handle. It must be broken up and screened and sorted. The cars having different kinds of coal can not be mixed.

As regards the freight rates, it is more profitable, Mr. Woodlock believes, to handle bituminous coal at 2 or 2½ mills per ton per mile than anthracite coal at 9 mills per ton. Most of the anthracite coal has to be hauled over the mountains, up steep grades. As a general thing, bituminous coal originates at the top of the grades, and can be hauled very easily. This is especially true on the Chesapeake and Ohio and Norfolk and Western roads. (453, 454.)

6. *Methods of fixing anthracite freight rates.*—Mr. McLEOD, former president of the Reading Railroad, says that freight rates on anthracite coal are made in the same way as on other merchandise. The freight agents get together and discuss rates. There have been no important changes in recent years. (561.)

7. *Case of Coxe Brothers v. Lehigh Valley Railroad, 1889.*—Mr. HADDOCK, independent coal operator, refers to the case brought by Coxe Bros. & Co. against the Lehigh Valley Railroad Company as an illustration of the great difficulty of securing just rates on anthracite coal. This large and powerful company made a complaint before the Interstate Commerce Commission in 1889 that the rates to tide water were excessive. It was a year or a year and a half before the decision of the commission was rendered, which was in favor of Coxe Brothers. Then the railroad company took an appeal, and the rate prescribed did not go into effect. Meantime Coxe Bros. & Co. were without their required relief, and were forced to build about 40 miles of railroad, connecting their properties with various other railroads, in order to compel the railroads to give them reasonable rates of transportation. (525, 535.)

Mr. STEARNS, president of Coxe Bros. & Co., says that Coxe Brothers built the Delaware, Susquehanna and Schuylkill Railroad, as he understands, for the purpose of connecting all of their mines with one another and with different main anthracite railroads in order that the output of the company might be sent over whichever road was desired and that the most favorable terms might thus be secured. The road connects with the Lehigh Valley, the Philadelphia and Reading, the Pennsylvania, and the Central Railroad of New Jersey. It extends from Gum Run Junction, on the Pennsylvania Railroad, to Hazleton, Drifton, Beaver Meadow, and Oneida.

At present Coxe Bros. & Co. ship all of their own coal to tide water over the Lehigh Valley Railroad in their own cars and trains. The company has a traffic agreement with the Lehigh Valley which has as yet several years to run. The witness is in doubt whether it is as profitable for him to ship coal in this way as it would be to sell it to the railroads on the 65 per cent basis. He says that he not only has to bear selling expenses, but that the plant is constantly depreciating and that there are many other expenses. The witness does not think that Coxe Bros. & Co. ever sold coal to the railroads on the percentage contract system. He believes that the Coxe Brothers formerly had some special traffic arrangement with the Reading Railroad Company. He knows of no other firms or corporations which have relations to the railroads similar to those which now exist in the case of Coxe Brothers.

The distance from the junction of the Delaware, Susquehanna and Schuylkill Railroad with the Lehigh Valley to Perth Amboy is 125 miles.

The westward shipments of Coxe Bros. & Co. are made over the Pennsylvania Railroad both to points along the railroad and to Buffalo, from which latter point coal is shipped by water. (576-578, 590.)

Mr. McLEOD does not think that the independent operators during the time when he was president of the Reading were generally dissatisfied with freight rates and conditions. He does not think that the case brought by Coxe Brothers against the Lehigh Valley Railroad indicated a general attitude of complaint on the part of the operators. One individual might have a grievance which others did not have. (573.)

8. *Transportation of anthracite to New England.*—Mr. McLEOD says that the New England States take 11 per cent of the anthracite product. It is carried to them largely by water. The rates differ from time to time according to the supply of vessels. The Reading takes most of its coal for New England to Philadelphia whence it is shipped by the Delaware River. Other companies take their coal to New York and vicinity for shipment. All-rail rates are determined by the same influences as other all-rail rates. (561, 562.)

Mr. THOMAS, president of the Erie Railroad, says that much of the anthracite coal consumed in New England goes by water. The Erie ships some of its coal for New England by way of Fishkill and Newburg. In the case of coal hauled by rail in this way the charge from the anthracite fields to the destination is composed of two rates, that to the Hudson River, and that made by the New England railroads. The New York, New Haven and Hartford Railroad gets a much larger proportion per ton per mile than the road west of the Hudson gets. There is no through rate with an equal proportion per mile to each road. The reason for this arrangement is that the New Haven road practically has a monopoly of certain territory, although in other places it is subject to competition from other railroads and from water transportation. There are also many points on the Boston and Maine and other New England roads where transportation of coal is virtually a monopoly in the hands of a single railroad. Mr. Thomas does not think, however, that there is usually a disposition to exact excessive rates on account of such monopoly. (553.)

Mr. CHILDS, of the New York, Ontario and Western Railway, says that nearly all shipments of anthracite coal to New England, both by his railroad and by other anthracite roads, are made by water from the terminals. Most anthracite coal is used at large cities near the coast. Coal, for example, is shipped to Boston by water, and from there short distances by rail. A small amount of coal goes over the Poughkeepsie bridge, and some is transferred by floats from New Jersey to points on the New Haven road, from which it goes by cars. For these reasons Mr. Childs does not fear any combination of railroads attempting to control the anthracite trade in New England. (500, 501.)

Mr. STEARNS, president of Coxe Bros. & Co., says that Coxe Bros. & Co., ship a considerable amount of coal to New England, but that this is mostly sold free on board Perth Amboy, although sometimes it is sold delivered at points reached by water. Where the coal has to be hauled by rail the purchaser must take care of the freight rate. (585.)

9. *Lake shipments of anthracite coal.*—Mr. STEARNS, president of Coxe Bros. & Co., says that company shipped about 200,000 tons of coal over the lakes by way of Buffalo in 1900. Boats are chartered from different owners. The freight rates on the lakes vary greatly. They have been as low as 20 cents per ton from Buffalo to Chicago, and as high as \$1.25. Coxe Bros. & Co. have their own agents in Duluth, Chicago, and Milwaukee for handling their coal. (594.)

D. Alleged discrimination against independent operators.—

1. *Freight rates.*—Mr. STEARNS, president of Coxe Bros. & Co., says that the railroads charge the coal companies which are connected with them regular tariff rates for hauling coal. He does not know whether it would be legal for them to charge a lower rate or not, but believes if they should do so independent shippers would find

some way to stop it. In any case the payment of freight by the railroad coal companies to the railroads is simply taking money out of one pocket and putting it into another and it does not matter to either what the rate is.

The witness has heard statements made that the railroad companies operated their coal companies at a loss, but made up by the profit on transportation. From his own experience the witness thinks that the coal companies ought to make a small profit on mining. In his judgment, however, an independent operator who could get control of a proper body of coal would get the same facilities for transporting to the markets as those who are already in the business. He has never heard of the alleged fact that the Erie Railroad Company charges the Delaware and Hudson 60 cents a ton for hauling coal to tide water, while charging independent operators \$1.60. He does not think that the recent combination of the anthracite roads is designed to discriminate against independent operators. (500, 582, 588.)

2. *Discrimination in western freight rates.*—Mr. STEARNS, president of the Coxe Bros. Company, says that the freight rates from the anthracite region to the west are published by the railroads each spring, and that Coxe Bros. & Co. pay the regular published rates. The witness believes that all operators pay the regular published rates and that there is no discrimination. He does not believe, however, that independent operators ship their coal west to any extent. Most of those shipping east ship on the percentage contract system. (583.)

3. *Restriction of output and of supply of cars of independent operators.*—(See also *Percentage contracts*, p. cxxxviii; *Allotment of tonnage*, p. cxlvii.)—Mr. HADDOCK, independent coal operator, asserts that under the contracts made by individual operators, by which they sell coal to the railroads on the basis of a percentage of the tide-water prices, the railroad companies determine how much each operator may ship. The contracts themselves stipulate that the railroad companies shall determine the amount. This is done more or less arbitrarily by the officers of the railroad. (524, 527.)

The witness has preferred to ship his coal independently, because he could then insist upon producing as much as he pleased, and upon demanding an adequate supply of cars. In 1884 and 1885 the railroads did not supply cars sufficient to enable Mr. Haddock to operate 27 days in 3 months. After difficulties lasting for a year or more he served notice on the railroad company that if it failed to supply enough cars it would be necessary to hold the railroad for the damages. The matter was fought out, and there has been no serious difficulty since. The absolutely independent operator is thus likely to be in a position of greater advantage than the operators who make contracts with the railroad companies, although the witness does not know just what treatment the railroads give to other operators who are in the same position as himself. There are complaints from other operators of a shortage of cars, but the witness does not know how just they are. The witness would expect to have to restrict his output if he went into contracts with the railroad companies. He has occasionally sold coal to the companies, and they were quite willing to take it on the percentage basis.

Mr. Haddock is disposed to admit that there must be some restriction of production because of the fact that the demand for anthracite coal is so much less in the summer than in the winter, and that coal can not satisfactorily be stored. But the restriction is not always a just one. Some of the independent operators prefer to have a voice in determining their own production, and in ascertaining the market requirements. They have succeeded in getting a voice in the matter, "but it has been at quite a cost." Mr. Haddock does not explain just what is meant by this phrase, saying that he does not wish to be pressed to speak on the subject, or to incriminate anyone, although he would not have the word incriminate unduly emphasized. It has been a way beset with difficulties. (524, 526-527.)

Mr. STEARNS, president of Coxe Bros. & Co., says that while he was connected with the Pennsylvania Railroad he heard plenty of complaints from independent operators to the effect that there was an insufficient supply of cars, but that as a matter of fact the Pennsylvania Railroad supplied cars more freely to the independent operators than to its own subordinate coal companies. The witness believes that the Lehigh Valley and other railroads try to distribute cars fairly. There are times when no road has cars enough to supply the demand. The complaint brought by Coxe Bros. & Co. in 1889 was not on the ground of discrimination in furnishing cars, but on the ground of excessive freight rates. (586.)

Mr. HARRIS, late president of the Reading Company, emphatically asserts that there is no discrimination in freight rates or in the supply of cars as between individual operators and the coal company affiliated with the Reading Company. The coal company is charged precisely the same freight rates as the individual operators, and this has always been the rule. The distribution of cars is made on the basis of a careful estimate of the productive capacity of each colliery. The railroad has an officer who visits the collieries and finds out how much they can produce. The aggregate number of cars is distributed in proportion to the relative productive

capacity. Any private operator along the Reading line would admit that the apportionment has been equitable. If an operator increases the capacity of his colliery by any improvements, the railroad's official examines the improvements and changes the allotment accordingly. Every operator is perfectly free to increase his capacity. (600, 601.)

Mr. WALTER says that on the Lehigh Valley Railroad about 60 per cent of the coal is shipped by independent operators, this being the highest percentage on any of the railroads. Independent operators get cars even more freely than the companies connected with the railroads. It is not the policy of the Lehigh Valley to try to get absolute control of the region. There is no restriction upon the amount of coal an operator may ship except in so far as he voluntarily agrees to it. Of course every operator thinks he ought to have a larger share of the business. Since the whole region can produce much more than the market will take, the general interests are conserved by a reasonable division. (545.)

Mr. CHILDS, of the Ontario and Western Railroad, asserts that there is no discrimination in furnishing cars or allotting tonnage to independent operators. On the Ontario and Western the independent operators do not work their mines any fewer days during the year than the companies connected with the railroads. (504.)

Mr. SAWARD, of the Coal Trade Journal, thinks that the independent operators have little reason to complain of discrimination in furnishing cars. There is always a season in fall when there is a shortage of cars for all producers alike, but this lasts only a short time. (509.)

Mr. FLEMING, of the Anthracite Coal Operator's Association, thinks that the railroads are perfectly fair in furnishing cars to independent operators. The tendency seems to be to give the independent operators preference over the companies controlled by the railroads, since the number of days worked by an independent operator is usually greater than the number of days worked by the railroad mines. As in any large industry there are times when cars are scarce. The Anthracite Coal Operators' Association under those circumstances brings influence to bear, but the witness is not sure that it has any effect. The situation is much better than it was two years ago, when Mr. Brooks complained before the Industrial Commission of shortage of cars. The railroads have added decidedly to their equipment. (536, 537.)

E. Production of coal—Restriction and allotment of output.—

1. *Production and consumption of coal.*—Mr. SAWARD, of the Coal Trade Journal, asserts that there is constant tendency to overproduction of anthracite coal and that the capacity for production is greater than the demand. During December, 1900, and January, 1901, the monthly production was from 5,000,000 to 5,250,000 tons. At that time the demand was good, so that there was possibly prospect for the taking of 60,000,000 tons in a year, but ordinarily the market will not take that amount. The witness thinks that there is practically no regulation of the amount of production at present, but that it would be desirable if there were, in keeping the trade more steady. Elsewhere, however, speaking of community of interest between the coal roads, he implies that there is a growing degree of control over the amount of production. (511, 512.)

Mr. STEARNS, president of Coxe Bros. & Co., says that the demand for anthracite coal varies greatly according to season. The amount of coal which the market will take is quite definitely limited.

There is a constant temptation to operators to increase their productive capacity. It costs so much to store anthracite coal that producers prefer to be able to supply the demand in the winter months by contemporaneous production. In order to be able to meet this demand each mine wishes to extend its workings so that the productive capacity becomes much in excess of what would be needed if the mines ran uniformly through the year. The fact that certain collieries are becoming exhausted prevents the increase in productive capacity from becoming as great as would otherwise be the case. (587.)

Mr. THOMAS, of the Erie Railroad, says that the anthracite mines of the country are capable of producing 60,000,000 tons a year, but that the country will consume only about 45,000,000 tons. The fact that production during the winter of 1900-1901 was being carried on at the rate of 60,000,000 tons per year was explained altogether by the great shortage occasioned by the closing of the mines in September and October on account of the strike. The anthracite mines have never been able to work more than 235 days in the year. If more coal were produced it would have to be thrown into the river. (555, 556.)

Mr. CHILDS, of the New York, Ontario and Western Railway, says that coal operators necessarily restrict their output at certain times because of the lack of demand. On his railroad it has happened that out of 4,900 cars used more than 3,000 were

loaded with coal for which there seemed little demand. Under these circumstances the supply of cars to the mines must be restricted. The output is usually in excess of the market from about February to May, while the demand is often in excess of the output in the fall. It is a mooted question whether it pays to store anthracite coal. The cost from waste and handling would amount to about 40 or 50 cents per ton. The quality of coal also deteriorates during storage. Nevertheless, the Ontario and Western has just been building a storage plant which will hold from 120,000 to 130,000 tons. (499, 500.)

Mr. HARRIS, former president of the Reading Company, says that in 1895 the output of anthracite coal was 46,500,000 tons. Though this may have been exceeded since, the excess has been slight. The demand is quite limited, and any increase in output would very considerably affect prices. (602.)

2. *Distribution of anthracite consumption.*—Mr. McLEOD says that Pennsylvania, New York, and New Jersey consume about 70 per cent of the product of anthracite coal; the New England States take 11 per cent, the West about 12 per cent, the South 4 per cent, and Canada about 3 per cent. The consumption in the West is increasing with considerable rapidity, chiefly because of the development of the country. The exportation to Canada increases comparatively slowly. (561, 562.)

Mr. SAWARD asserts that not more than 10 per cent of the anthracite coal produced is shipped to the West. The shipments to Buffalo are about 2,000,000 tons per year. The prices in the West vary between summer and winter about 50 cents a ton, as at Eastern markets. Colorado produces some anthracite coal, about 90,000 tons in 1900, but the area is small. Occasionally a cargo of anthracite coal goes by vessel to the Pacific coast, but Omaha is about the most distant Western market reached by rail. (516, 519.)

3. *Discussion of policy of restriction of production.*—Mr. McLEOD declares that the idea that the price of coal is enhanced by a restriction of the output is a great bugaboo. There is no restriction when the coal can be sold at a profitable price at all. The demand is a very inelastic one. If the market will take 50,000,000 tons of coal at a fair price, scarcely 3,000,000 tons more could be given away. To be sure more might be sold if the price were \$1.50 or \$2 cheaper per ton, but that would bankrupt all producers and would not ultimately benefit consumers. (565.)

Mr. FLEMING, of the Anthracite Coal Operators' Association, implies that the mines are producing at practically their full capacity. The output in 1900 was about 47,000,000 tons. More could not be produced without a different class of miners. The miners will not work more time. Although the present rate of production (January and February, 1901) is about 5,000,000 tons per month, that can not be kept up. In order to produce that much a great deal of dead work is necessary. This is largely done during the summer time, when the market requires little coal. Some collieries might produce more than they do by pressing hard, but it would not be advisable; hasty mining is dangerous.

Mr. Fleming denies that there is any agreement among the railroads or operators to restrict production. There are times when the market simply will not take the coal produced and when it can not be stored. This is especially true in the summer. (538.)

4. *Fluctuations in demand and storage.*—Mr. McLEOD, former president of the Reading Railroad, says that there are certain months in the year when the actual consumers of anthracite coal scarcely buy it at all. The average consumer waits until the cold months. Some dealers have storage places and the producers have to make special rates to them in order to get them to take the coal and store it. If it were not for this practice, and for the practice of storage by the producers and the railroads themselves, the mines could not be operated during the summer at all, and men and investment would stand idle. There is a disposition on the part of the railroad companies to establish storage facilities. Mr. McLEOD, as president of the Reading, built two storage bins near the mines which could hold 300,000 tons. The Reading also had a large depot at Port Richmond, and others along the New England coast. The Lehigh Valley has large storing places at Perth Amboy. In the absence of such methods of storage it would be impossible for the collieries to mine or for the railroads to transport enough coal in the winter to keep up with the demand. (565.)

Mr. THOMAS says that an attempt is being made to store coal in order that the inequality of the demand during the year may be equalized somewhat. It is very difficult, however, to store coal economically. It involves rehandling, waste, and breakage, and there is a certain amount of deterioration in the appearance of the coal, which gets dull after standing, so that customers will not pay so much for it. Another difficulty in the problem of storing coal arises from the fact that the existence of large stocks constitutes a menace to the market and the maintenance of reasonable prices. (555, 556.)

5. *Allotment of tonnage to railroads and its relation to restriction of output.*—Mr. HADDOCK, independent coal operator, admits that there must be some restriction of the production of anthracite coal, particularly because the summer demand is so light and storage is difficult or impossible. He does not think, however, that the restrictions are always just. He understands that there is practically an agreement between the great railroad companies as to the proportion of the total tonnage which each shall carry. The figures of the allotments are published from time to time, and the annual tonnage of each railroad remains usually fairly constant. At the same time there are wrangles from time to time between the railroads as to their percentages. Many years ago the Reading Company handled almost one-third of the entire product. The aggressiveness of its competitors gradually forced its percentage down to the present figure, 20.7. At one time the entire trade was upset for several months by a dispute as to whether the Reading should receive an extra 1 per cent allotment. After the companies have decided upon their proportions they allot to the individual operators, who sell to them under contract, the percentages which each shall be allowed to produce. (525, 527.)

Mr. McLEOD submits the following table as showing the present allotment or distribution of the anthracite coal tonnage between the leading railroad companies. (571.)

	Per cent.
Philadelphia and Reading	21
Lehigh Valley	15.65
Delaware, Lackawanna and Western	12.57
Central Railroad of New Jersey	11.48
Pennsylvania Railroad	11.32
Erie Railroad	11.51
Delaware and Hudson	9.55
Delaware, Susquehanna and Schuylkill	4.26
Ontario and Western	2.86

Mr. SAWARD, of the Coal Trade Journal, does not make a very clear statement as to the method of allotting the tonnage, but implies very directly that there is an informal agreement between the leading railroads as to the proportion which each shall carry of the total output. He says that the proportion carried by each road has not changed much for a considerable number of years. He refers to the Reading road as being "entitled to 21 per cent." Afterwards he states that this is merely the actual proportion carried; "that is the way it figures out." At the same time the road could produce more; it has the necessary colliery capacity. But "why should they attempt to double the tonnage? They can't sell more than so much coal." The witness does not explain why one road might not increase its own proportion although the total should not be increased, but asserts that it is not done because coal can not be sold at a profit. He also says that the Pennsylvania Railroad has never participated in a proportionate arrangement; "it has been a free lance * * * against the rest of them." Nevertheless, its proportion of the tonnage has remained fairly constant, in the neighborhood of 10 per cent. These statements, in connection with the statements of Mr. Saward regarding agreements as to prices, seem to show clearly his belief in the existence of an informal understanding between the roads as to the output. (514, 515.)

Mr. HARRIS, former president of the Reading Company, denies that there is any definite agreement regarding the respective proportions of the total output of anthracite coal which shall be handled by each railroad company.

The reasons why the various railroads do not change the proportion of their output materially are because they can not make rapid changes, on account of the difficulty and expense of developing new collieries; because each has certain territory which it can supply more economically and naturally, and each produces, to a certain extent, a particular class of coal for which there is an especial demand; and because, finally, if any railroad should increase its output greatly it would disturb the market very seriously. The present division of output has been reached after many years of conflict. The proportions have not been greatly changed during the past 15 years. Whether the railroads have been working in reasonable harmony or absolutely out of harmony, it has made little difference in the proportion of the coal which each handles. The witness does not think that the variation of any company in recent years has been more than 2 per cent. As the result of this experience it is recognized by the Reading and other roads that each shall not exceed its percentage materially, so as to encroach upon the business of the others.

It is sometimes charged that the Reading Company is more anxious to increase its share of the tonnage than the other railroads. This charge, Mr. Harris declares,

is not well founded. While this company has more undeveloped land than other companies, it could not develop it more rapidly, because most of its land is very expensive to work. The fact that the Reading is chiefly a Philadelphia corporation, while the other companies are controlled in New York, perhaps leads them to complain against it. The output of the Reading now is about the same proportionately as it has been for 20 years. In the very early days the Reading carried half of the product, but at that time it had almost the only access to the markets of the East. Other roads have been built, and the product handled by the Reading has not increased as rapidly as that handled by the others. The New York, Ontario and Western opened no new fields, but simply bought collieries which had been shipping over other railroads, so that it did not introduce a disturbing element into the division of tonnage. (601-603.)

Mr. RICE thinks that there was for years a system of allotment of tonnage between the railroads. He does not know whether it is in effect now. Some such control of output is necessary or the coal lands would be rapidly developed at ruinous prices. There is not enough demand for all the coal that could be produced. (743.)

Mr. THOMAS, president of the Erie Railroad, says that that company transports 27,000,000 tons of freight yearly, of which about 6,000,000 is anthracite coal, an equal amount bituminous coal, largely from Pittsburg and vicinity, and 15,000,000 tons miscellaneous merchandise.

During the calendar year 1900 the Erie shipped 5,200,000 tons of anthracite coal, of which it mined about 700,000 tons and bought about 900,000 tons for sale at tide water. A large part of the tonnage comes from other railroads; 1,100,000 tons from the Delaware and Hudson, and 1,900,000 tons from the Pennsylvania Coal Company, which operates the Erie and Western Railroad, and which has since been bought by the Erie. (548.)

Mr. CHILDS, of the New York, Ontario and Western Railway, denies there is any limitation on the output or the shipments of the anthracite roads. There is no agreement as to the percentage of the total output which the companies shall handle, nor any agreement of any sort. In 1896 an attempt was made to allot the tonnage by percentages, but it was never consented to. As a matter of fact, the Ontario and Western has been steadily increasing its tonnage. It shipped about 3 per cent of the total in 1896 and about 3.7 per cent in 1900. It could increase 2 or 3 per cent more, or without limit, if it had the capacity. (500.)

Mr. Childs says that the New York, Ontario and Western Railway terminates at Scranton and reaches part of the Wyoming anthracite coal field. In 1900 it did 3.75 per cent of the transportation of anthracite coal. It has gradually increased its proportion from about 3 per cent in 1896. (496, 500.)

Mr. McLEOD denies that there is any formal agreement as to the percentages which the respective railroads shall haul. Most of the percentages have been established simply by custom in the past, each railroad trying each year to do about the same business as before. The percentages have changed little for 15 years or more. It is true that the Reading at one time, about 1870, carried a third of the entire production, while its present percentage is 21 per cent. The reduction was due, however, merely to the failure of Mr. Gowan, president of the Reading, to increase his facilities and to mine and market his proper proportion of the consumption. For 15 years he produced only about the same quantity of coal yearly as at the outset. As the total production had greatly increased, the percentage of the Reading naturally fell off. When Mr. McLeod became president, he undertook to increase the Reading's percentage by business methods.

Other statements of Mr. McLeod imply that the reason why the railroads maintain practically the same percentage each year is merely the fear of ruinous competition if they undertook to encroach upon one another. The design of the Reading in 1893 in seeking to control certain New England roads was that it might have the right to haul over its own lines the coal demanded by the New England territory covered, since it is a well-recognized rule among the different coal roads that each has the right to transport coal going to lines owned or controlled by itself. (564-567.)

Mr. STEARNS, president of Coxe Bros. & Co., says that several years ago there was an allotment of the percentage of the anthracite output which each railroad should ship, made by some sort of an agreement, but he does not think that any attention is paid to the allotment now. Everybody ships all he desires to ship. Mr. Stearns's own instructions, as president of Coxe Bros. & Co., are to sell all that can be sold without sacrifice, without cutting prices. The witness does not know of any conference between the sales agents and the officers of the railroads to determine the amount that shall be produced. During the years he has been connected with Coxe Bros. & Co. he has not been called to any such conference. It is true that the proportion of coal shipped by each of the companies has not varied much during several

years past. Coxe Bros. & Co. are shipping about 3½ per cent of the output, and their proportion has remained nearly constant. Each railroad fears to try to sell much more coal, because some other would then try to get even, and the result would be a general demoralization of the trade. The last demoralization of this sort was 3 years ago. The witness does not think it would be possible for his company or any of the other companies to double the output by shading the prices without causing a general war of price-cutting.

Mr. Stearns does not know that the Reading Railroad has been considered a more uncertain factor than the other railroads in the establishment of an allotment. (578-583, 590.)

Mr. THOMAS denies that there is any agreement among the railroads for the allotment of tonnage. There was such an agreement during 1896 between several of the anthracite roads, fixing a specific percentage which each should carry. The agreement continued for one year, when it expired by limitation, and has never been renewed. There is not even a moral obligation upon the respective railroad companies not to transport more than a certain amount of coal, but long experience has thoroughly established "the tonnage that honestly belongs to each road and is marketed by it." The markets are fairly well divided by territory. The Erie knows that if it tried to dispose of more coal it would be to destroy its own profits. If it went into the territory of some other road and reduced the price of coal, it could add to its transportation for a time, but there would be retaliation and reduction of rates and prices.

The witness admits that there is some consultation regarding output and prices, but declares that there are no agreements, express or implied. "We are at liberty to and we do mine and market as much anthracite coal as we can profitably find an outlet for." Railroad managers are like other people; none of them think that their share of the business is large enough. The witness does not think that the Erie gets enough of the transportation, but it can not make money by increasing its production. The increase of the production might lead to lower prices and temporarily benefit the public, but in the long run it would not. (550, 554.)

Mr. WALTER, president of the Lehigh Valley Railroad, says that his company transports something over 15½ per cent of the anthracite coal product. The percentage has been about the same for the past 3 or 4 years. There is no definite allotment to this or any other railroad. The road endeavors to conform to its proportion of the tonnage for which there is a market. The witness thinks that at the time of his testimony, February, 1901, all of the roads were producing freely because the market could take all that was produced.

Mr. Walter says, further, that the Pennsylvania Railroad has not always been thoroughly in harmony with the other roads, but that he would prefer not to discuss the Pennsylvania's policy. It is hardly proper to speak of it as a free lance, because controversies have been so frequent and so violent between all of the roads that the term can be applied as well to one as the other.

The witness asserts that the Lehigh Valley would be perfectly free to extend its tonnage from 15 to 20 per cent if it were "prepared to take the consequences." The consequences would be disastrous, leading to general competition and general disturbances. Nevertheless, such action on the part of railroads has been frequent in the past. It is true that the proportion of coal handled by the Reading road was formerly greater than it is now. (543, 545, 547.)

Mr. HADDOCK says that years ago the Pennsylvania Railroad Company carried all the coal that was offered, refusing to enter into agreements for the limitation of output or the fixing of prices. The collieries along the road worked practically full time. The railroad was a very disturbing factor in the attempted agreements. The witness thinks that the policy of the Pennsylvania has changed at the present time, and that it works in substantial harmony with the other railroads. (532.)

F. Prices and the effect of combination.—1. *Alleged agreements between railroads as to prices.*—Mr. SAWARD says that in 1874 there was a meeting of coal producers and an agreement as to prices, but that this broke up in 1876. There was another attempt at an agreement in 1886 or 1887. In 1891 and 1892 Mr. McLEOD, by his combination succeeded in advancing the price of coal \$1.75 per ton within five months. But this also broke down. There is at present no formal agreement between producers regarding prices, no "cast iron agreement." At the same time the prices made by different producers are practically uniform for the same grade of coal. One producer may make a discount of a few cents to get trade. There is no such thing as the fixing of the price, but each producer knows that his coal is worth the same as that of the others. If a man inquires the price of coal at one office and goes from there to another he is likely to find it the same. It can not be said that there is an anthracite coal trust, because in order to have a trust or to have an agreement regarding prices, there must be parties entering into the agreement, with signatures and

documents. At the same time it is a fact that changes in prices are usually made simultaneously. When the customary advance from summer to winter prices is made circulars are issued by each railroad company or large dealer, and these usually make the same prices and are issued at the same time. A coal dealer is likely to get, about the 1st of the month, when these changes are made, half a dozen circulars quoting the advanced prices, which are all practically alike. The witness does not know how to explain this uniformity. "Possibly it is hypnotism. * * * I do not know but there is a telephone" by which consultations are held regarding the prices which shall be charged. There is certainly a mutuality of interests. This system of informal communication "seems to be a wonderful invention; it beats writing on a piece of paper and putting a signature to it" because there is no record kept of it. At the same time this can not be called a combination because if any producers refuse to agree to the prices they can not be compelled to do so. "The Pennsylvania Railroad has always been on the outside, as the saying is," but it generally follows the market pretty closely. The producers "are not cutting each other's throats." It is a good thing they are not. (512, 513, 517.)

Mr. HADDOCK, independent coal operator, says that there are "agreements among gentlemen" which prevent any of the great anthracite coal roads from cutting prices materially. Mr. Haddock has never been taken into the confidence of those making these agreements, but the simultaneous movement of prices in the past has shown clearly that there was an understanding among them. Still the attempt which has been made in past years to change from the lower summer prices to the higher winter price at precisely the same time, in the case of all dealers, has not always been successful. (526, 529.)

Mr. STEARNS, president of Coxe Bros. & Co., believes that the sales agents of the railroads have occasional meetings to discuss prices, probably twice a year. However, Coxe Bros. & Co. are not represented at these meetings. He does not think that prices are fixed at these meetings but that they discuss prices in a general way.

Mr. Stearns says that he believes that the Philadelphia and Reading Railroad prepares a circular of prices for anthracite coal, which is followed more or less by the other producers and railroads. He does not know whether this circular is issued by the Reading without consultation with other companies or not. It does send the circular to the other companies. The price of all is nearly the same, although each producer gets more if he can. Coxe Bros. & Co., usually get a somewhat higher price than that fixed by the Reading, because of the high grade of coal produced. (582.)

Mr. HARRIS, until recently President of the Reading Company, says that the sales agents of the anthracite coal roads have never acted as a unit. It is to their interest to act together, but they do not do so. Competition has often been carried beyond a point which is to the interest of either producer or consumer. At the same time there are conferences among the selling agents of the coal companies. The Reading Company always issues a circular stating the prices at which it will sell coal. Quite frequently other companies follow these prices, but the Reading does nothing to make them do so. Last year, in several cases the prices were not followed by others. It rests entirely with the companies. The Reading Company itself varies its prices somewhat from those published in the circulars. Moreover, there are differences in prices according to the grade and quality of the coal. (599, 603, 604.)

Mr. McLEOD says that he does not know whether other companies follow the lead of the Reading in fixing their prices for coal, but that he believes that when he was president of the Reading it had considerable influence in that direction. (572.)

Mr. CHILDS, of the New York, Ontario and Western Railway, asserts that there has never been any agreement between railroad companies or their sales agents to fix the price of coal, not even informally. No two companies sell coal at exactly the same price. There is a substantial similarity in prices. One company publishes a rate and the others are likely to publish similar prices. When the coal is actually sold the price on the printed schedule is not often realized. This is true, according to Mr. Childs's statement, not merely at tide water but at Buffalo, Oswego, and other points where coal is shipped West. The price among the different owners and dealers at these points is usually about the same, but one company may have an extra supply of a certain size and will shade the price a little. It would pay the producer to go from one to the other and get quotations. The variation would probably range from 5 to 25 cents per ton.

Mr. Childs says further that some years ago the sales agents handling the anthracite coal used to hold monthly meetings and that he attended some of them. The time was chiefly taken up by accusations of cutting rates. Meetings have not been held at all for about two years. The witness does not believe that there is any agreement among the larger roads regarding prices, to which his road is not a party.

Such an agreement would not be effective unless all the roads were in it. Even though the roads agreeing might control 85 or 90 per cent of the output, those controlling the smaller output could make the price, especially in a dull period, when the demand was less than the supply. (499, 505.)

Mr. THOMAS, president of the Erie Railroad, says that there are no agreements regarding the output of coal or the prices, but that there are consultations between the different railroad companies. No business can be carried on without consultation. Usually some one of the larger companies, particularly the Reading, leads off in prices and the rest follow. The prices of coal vary somewhat also according to differences in quality and the tastes of buyers. (554.)

Mr. FLEMING, of the Anthracite Coal Operators' Association, denies the existence of any system of agreements regarding prices. He denies that the price of coal is fixed. It varies according to the reputation of the coal and its quality. There is a divergence as great as 70 cents per ton at present between extreme classes of coal. There are no two coals of the same kind. Each company issues a circular of prices regarding its own coal.

The witness admits that there was an attempt at an agreement during Mr. McLeod's time (1892), but says it lasted only 3 months. He does not make clear how great variations there may be between coals of practically the same quality. He says that the people who have a given class of coal would all try to get just as much for it as the market would allow. Mr. Fleming asserts further that he does not know of any meetings of sales agents during the past 5 years. (538, 539.)

2. *Prices of independent operators.*—Mr. HADDOCK, independent coal operator, declares that he makes the price of his own coal, but that the rates fixed by the railroad companies are a very important factor in determining the price which he will fix. This must necessarily be so because of the large proportion of the output which the railroads handle. Sometimes Mr. Haddock's company makes a price higher or lower; in particular it is likely to shade prices somewhat and to be more responsive to changes in the market. In order to move a few thousand tons of coal he might make a concession in price, which the railroad companies would not care to meet, especially because they have so much wider markets. Mr. Haddock has never been a party to any agreement as to prices, but is governed not a little by the prices fixed by the railroads which do agree. (525, 529.)

3. *Recent movement of prices—Effect of strike and of combination.*—Mr. STEARNS, president of Coxe Bros. & Co., submits detailed statements of the prices received by that company for different sizes of anthracite coal each month since 1891. The following table shows the prices of the larger or prepared sizes of coal by months:

Average f. o. b. tide prices received during years shown for coal mined by Coxe Bros. & Co., the Cross Creek Coal Company, and Coxe Bros. & Co., Incorporated.

PREPARED SIZES OF ANTHRACITE COAL.

Month.	Perth Amboy.						All tide points.			
	1900.	1899.	1898.	1897.	1896.	1895.	1894.	1893.	1892.	1891.
January	\$3.44	\$3.369	\$3.56	\$3.658	\$3.164	\$3.382	\$3.941	\$4.327	\$3.591	\$3.804
February	3.566	3.349	3.564	3.624	3.197	3.261	3.819	4.227	3.462	3.722
March	3.616	3.317	3.619	3.649	3.152	3.203	3.805	3.97	3.504	3.661
April	3.465	3.416	3.651	3.638	3.211	3.183	3.542	3.676	3.561	3.671
May	3.577	3.442	3.735	3.655	3.473	3.207	3.579	3.774	3.674	3.728
June	3.551	3.466	3.737	3.743	3.567	3.196	3.611	3.87	3.803	3.817
July	3.707	3.517	3.554	3.807	3.689	3.196	3.61	3.962	3.945	3.843
August	3.654	3.477	3.489	3.881	3.892	3.183	3.448	4.054	4.078	3.829
September	3.896	3.504	3.555	3.937	3.974	3.162	3.375	4.073	4.259	3.874
October	4.103	3.60	3.579	3.859	3.921	3.216	3.378	4.165	4.263	3.937
November	4.14	3.609	3.523	3.772	3.866	3.34	3.387	4.068	4.215	3.95
December	4.243	3.72	3.42	3.589	3.787	3.333	3.329	4.047	4.223	3.854
Average	3.761	3.49	3.589	3.716	3.516	3.237	3.535	3.967	3.81	3.799

The price of pea coal is usually from \$1.30 to \$1.50 lower than the price of the prepared sizes. The price of buckwheat coal is from \$1.75 to \$2.25 lower than that of the prepared sizes, while rice and barley coal bring prices still lower. The following table, compiled from statistics submitted by Mr. Stearns, shows the average price by years for the different sizes of coal and the average for all the sizes. The last figure is of course a weighted one, obtained by dividing the total receipts by the total tonnage. (489-491.)

Prices of anthracite coal, 1891-1900.

	1900.	1899.	1898.	1897.	1896.	1895.	1894.	1893.	1892.	1891.
Prepared sizes	\$3.761	\$3.49	\$3.689	\$3.716	\$3.516	\$3.237	\$3.585	\$3.967	\$3.81	\$3.799
Pea coal	2.324	2.217	2.198	2.079	2.019	2.289	2.513	2.469	2.274	2.43
Buckwheat coal	1.905	1.739	1.753	1.684	1.599	1.824	1.988	1.769	1.672	1.706
Rice coal	1.49	1.402	1.466	1.445	1.352	1.397	1.481	1.265	1.374	1.416
Barley coal				1.55	1.403	1.535	1.424	1.277	1.34	1.475
Pea and dust (screenings made at tide shipping points).....	1.509	1.504	1.504	1.487	1.455	1.567	1.538	1.525	1.489	1.602
All sizes anthracite coal	2.815	2.528	2.636	2.725	2.495	2.625	2.847	2.991	3.085	3.026

Mr. SAWARD stated, in February, 1901, that the wholesale price of anthracite coal at tide water was about \$4.25. In New York and Brooklyn the price was higher, in view of the terminal charges and transfer charges of about 20 cents per ton. The lowest price which the witness has known for coal at tide water was \$2 or \$2.25. This was in 1876 when, on account of overproduction, there was an auction sale of 500,000 tons of coal. That price was altogether extraordinary. Soon after coal was selling for \$6 per ton, the average at that period being about \$4 or \$5 per ton. The expense of mining was even higher now than it was at that time.

The price of anthracite in February, 1901, was, in Mr. Saward's judgment, about 20 or 25 cents higher than one year previous. The increase in wages after the strike of 1900 amounted to from 13 to 16 cents per ton. Eighty-five per cent of the cost of producing anthracite coal goes to the wages.

Mr. Saward explains that the largest part of the increase in price after the strike of September, 1900, was due to the regular seasonal fluctuation, which usually amounts to from 50 to 75 cents. The demand for coal during the summer months is so much less that the price is regularly cut, and advanced again in the fall. (510, 511, 516.)

Mr. FLEMING says that the price of anthracite coal in February, 1901, was about 30 or 35 cents per ton higher than a year before. He thinks the increase was largely due to the strike of 1900, which made coal very scarce. The price has been comparatively regular from 1897 to 1900. The witness doubts if there has been an advance in the average price of more than 15 cents per ton. The prices are much lower than they were during the latter part of the seventies and the eighties. (541.)

Mr. CHILDS, of the New York, Ontario and Western Railway, says that the average price of coal from 1894 to 1900 at tide water was \$3.48 per ton for the prepared sizes, everything above pea coal. The average price for 1900 was \$3.756; for 1899, \$3.393. The price in December, 1900, was \$3.75. The advance in price during the winter of 1900 and 1901 was attributed by Mr. Childs to the strike of 1900, which kept the mines practically in idleness for 2 months, and which produced a scarcity of coal in the face of a strong demand. The price of coal is controlled almost entirely by the supply and demand. The witness questions whether the cost of mining has much to do with it. The advance in wages after the strike was supposed to equal 10 per cent, but presumably this advance is not in itself a determining factor in prices. (499.)

Mr. WALTER asserted that the price of anthracite coal at the time of his testimony, February, 1901, was reasonable. He thought that the price to consumers was about 25 cents higher than one year before. He attributes the higher price to the strike of 1900. (543, 546.)

Mr. HARRIS, former president of the Reading Company, affirms that the price of anthracite coal, after the reduction of 50 cents per ton in April, 1901, was about the same as in April, 1900—about \$4 per ton for the prepared sizes in New York. The April price has a number of times during the past years been as high as it was in 1901. The railroads working in harmony have no desire, Mr. Harris thinks, to increase prices further. (603.)

Mr. STEARNS, president of Coxe Bros. & Co., stated that in April, 1901, the prices announced in the circulars of the railroad companies were as follows: Broken coal, \$4; egg, \$4.25; stove, \$4.50; chestnut, \$4.50. From these prices, however, a reduction of 50 cents per ton was ordered during the month of April; 40 cents during May; 30 cents during June; 20 cents during July, and 10 cents during August. It is regularly the custom to reduce the prices about 50 cents a ton in April or about that time on account of the decrease in the demand during the summer months. The witness states his belief that the general range of prices in April, 1901, after this reduction, was practically the same as the year before. Elsewhere, however, he

states that the prices of coal were raised after the strike of 1900 somewhat more than the increase in wages secured by the workingmen required. The strike left the market quite depleted of coal. The average price for some time after the strike was about 50 cents higher than before. At present, however (in April), the market is full of coal and the prices which prevailed immediately after the strike can no longer be maintained. See also table above. (582, 583, 586, 587, 594.)

Price of coal to consumers.—Mr. WALTER says that there is a considerable difference between the price of coal to wholesale dealers and the price to consumers. The margin between the two prices depends largely on the character of the facilities of the dealer. Many years ago the methods of handling coal were very primitive, but the tendency now is to concentrate the business of distribution into fewer hands, using labor-saving devices, and presumably the cost is reduced. (543.)

4. *Future effect of community of interest on prices and the public.*—Mr. HADDOCK, independent coal operator, thinks that it will not be wise policy for the anthracite combination to put prices higher than they are at present. He believes that the men in charge of the combination are probably wise enough not to jeopardize the future of their business by insisting upon extravagant prices, but he can give no guaranty as to their behavior. The question whether the public will receive any benefit from the economies of combination will depend on how the power of the combination is used. There ought to be an attempt so to use this power that the demand shall be increased rather than decreased. The railroads ought to endeavor not to incur the hostility of the people. Hostile public opinion was one of the chief causes of the failure of the combination which Mr. McLeod undertook.

It is probably true that a reduction in the price of coal, 50 cents or \$1 per ton, would increase the consumption considerably, but it is debatable whether it would be wise to make such reduction under present conditions, either from the standpoint of the producer or of the consumer. It is not wise for the consumer to insist upon mines and railroads being run at a loss.

A very important factor in determining the future price of anthracite coal will be the general condition of the country as regards prosperity. When everyone is prosperous little objection is made to paying a somewhat higher price for anthracite coal. (530, 531.)

Mr. SAWARD does not think that the community of interest between the different railroads, which he admits to exist, will result in advancing prices beyond the rates prevailing in 1901. It would be the greatest folly for the railroads to attempt to get higher prices. The present price is a fair and profitable one. There is no danger of decreased consumption at the present rates. In a sense the railroads may be said to be charging the last penny that the public will stand since a further advance would reduce demand. They might have the power to advance prices further but they would not exercise it.

Mr. Saward thinks it is greatly to the interest of the general public and of the State of Pennsylvania that there should be some agreement as to prices. In the absence of such an agreement there has been in the past violent competition which has made prices ruinously low and which has forced the railroads into bankruptcy. The Reading Railroad has been repeatedly in the hands of a receiver. If prices were not kept up the entire anthracite industry and the railroads connected with it would be ruined. (513, 517.)

Mr. GREENE, of the Audit Company of New York, formerly connected with the anthracite coal business, thinks that whatever degree of monopoly might be established within the anthracite coal field, it would be physically impossible to put up the price of coal for any length of time. Anthracite coal is to a certain extent a luxury which can be dispensed with. There is severe competition from bituminous coal. Especially in Chicago and other Western cities a high grade of bituminous coal is very largely burned in grates and furnaces, only a small proportion of the total coal used being anthracite. Then there is the competition of oil and gas for heating and cooking purposes. Some time in the future it may readily be that in our great cities heat will be furnished by large electric plants burning bituminous coal. Already in New York one building is heated in this way.

Mr. Greene does not think that a combination between the anthracite producers and the bituminous producers, with a view to keeping up the price of both classes of coal, is feasible. The bituminous coal fields are not limited like the anthracite. Bituminous coal underlies a large part of the whole country. When, a few years ago, a great strike occurred which was supposed to affect practically the whole field, coal kept coming to the market from other places.

Mr. Greene is willing, accordingly, to trust to the ordinary forces of competition and business to regulate the prices of anthracite coal. This must be the reliance in every trade, just as one corner grocery is counted upon to keep down the prices of

another corner grocery. The main reliance is on the enlightened selfishness of producers. The limit of the price of anthracite coal has probably already been reached. (469, 470.)

Mr. STEARNS, president of Coxe Bros. & Co., does not believe that it will be possible for the anthracite coal roads, by virtue of their recent combinations, to put the price of coal up to an exorbitant figure. He supposes that about 80 per cent of the railroads are working under a community of interest. That proportion is not sufficient to give monopolistic control in the fixing of prices. The 20 per cent could break the market at any time. The witness does not think either that it has been or will be the policy of the railroads to follow the small producers into particular markets and cut the prices there in order to drive them out of business. The competition of bituminous coal and other substances is especially powerful in keeping down prices. The witness thinks that the prices during the winter of 1901 have been about as high as the market will stand. (586, 587.)

Mr. HARRIS, until recently president of the Reading Company, says that if there were absolutely free competition among the anthracite roads, and if each produced all it could, the price of coal would be undoubtedly reduced, but he does not believe that the people are benefited by ruinous competition. It is not the purpose probably of those who are buying controlling interests in the different railroads, with a view to bringing them into harmony, to give the advantage wholly to the public. They are making the combination in order to prevent ruinous competition and the sacrifice of securities. No combination of this sort can be made powerful enough to govern the situation absolutely. None of the plans of this sort in the past has ever worked successfully.

The railroad companies recognize very generally, however, that it is not to their financial advantage to put the price of coal higher than it is now. It would immediately increase the competition of bituminous coal if this were attempted. (603, 609.)

Mr. McLEOD does not think that it will be possible for a combination among anthracite producers and transporters to put up the price of anthracite coal to an unreasonable figure. On the contrary, prices could be reduced by the economies of combination. If the attempt were made to advance the prices the people simply would not take the coal. Anthracite coal is virtually a luxury and people are not compelled to use it. The competition of bituminous coal and of other methods of heating is effective upon prices. The witness thinks, however, that the present prices (April, 1900), are not as high as they should be in order to afford a reasonable profit to the railroads and that it would be possible to put them somewhat higher. Aside from competition, a further safeguard to the people against excessive charges is always the power of public opinion. (569.)

Mr. HADDOCK, independent coal operator, thinks that the suggestion that 5 or 10 per cent of the anthracite coal product, outside of a combination, would be able to fix the price for the entire product would be absurd. (532.)

5. *Effect of competition of bituminous coal and other fuels.*—Mr. McLEOD, former president of the Reading Railroad, asserts that in 1896, the last year for which he has accurate figures, only 71.72 per cent of the anthracite coal produced was of the domestic sizes, while 28.28 per cent was pea coal or smaller coal. In 1872 only 5.92 per cent of the coal sold was of this smaller size; in 1878, 10 per cent, and in 1888, 19 per cent. Formerly the smaller sizes were thrown away altogether, but ways have been found to market them and the old dumps are being worked over.

All this smaller coal, continues Mr. McLeod, comes into competition with bituminous coal, and since bituminous coal can be produced at about half the cost of anthracite 28 per cent of the anthracite product has to be sold at a loss of \$1 per ton on the average. That is to say, it is sold for \$1 less than the average cost of producing a ton of coal of all sizes. It costs as much per ton to produce a small size as the larger sizes. In fact the larger sizes can not be made without making the smaller sizes. All the coal coming from the mine is crushed in order to get the different domestic sizes. It is then run over screens, and after this through troughs where little boys pick out the slate. As the coal passes over the screens the finest goes through first. Then the coal passes successively over screens with larger meshes and the larger sizes are obtained. In order to get the large sizes, which bring the higher prices, the smaller sizes are necessarily manufactured. It pays better to sell them at a low price than to throw them away. Nevertheless, Mr. McLeod declares, the loss of \$1 per ton on the smaller sizes must be made up by prices for the larger sizes. The aggregate price for all sizes must be sufficient to pay the aggregate cost of all sizes. There is no use for these smaller sizes except in competition with bituminous coal. (562, 567, 569.)

Mr. STEARNS, president of Coxe Brothers & Co., says that the sizes of coal from chestnut up are called prepared sizes. The largest size is known as lump or broken

coal. The sizes from pea coal down are called small sizes. The largest increase in demand for anthracite coal in the last few years is for small sizes. Only a few years ago pea, barley, and rice coal were thrown away. These small sizes are only a by-product incidental to the "manufacture" of the larger sizes. Twenty years ago, or less, there was a much greater demand for lump coal. Ten to 20 per cent of that could be sold. Now the demand is for stove coal and other intermediate sizes. More thorough breaking up is therefore necessary, and the percentage of pea coal and other small sizes is thus necessarily increased. (578, 583.)

Mr. Stearns believes that it is impossible to put the prices of anthracite coal very high because of the competition of other fuels. The larger sizes are somewhat of a luxury, and the smaller sizes compete directly with bituminous coal for steam purposes. The household consumption of coal is being met with competition from gas stoves, while in the apartment houses bituminous coal is burned in the steam heating and other heating apparatus. While the producers of anthracite do not calculate upon a definite differential between the prices of the larger sizes of anthracite coal and the prices of bituminous, they can not advance the price of anthracite to an exorbitant extent without running the risk of having it supplanted by soft coal. The consumption of soft coal is increasing more rapidly than that of hard coal, and it promises to be constantly a more serious rival. The small sizes of anthracite coal come into direct competition with bituminous coal. (583, 585.)

Mr. THOMAS, president of the Erie Railroad, asserts that under no circumstances can excessive prices be charged for anthracite coal. Anthracite is not a necessity but a luxury, used because of its greater cleanliness and convenience. The competition of bituminous coal is constantly growing. The increased demand has been chiefly in the smaller sizes used for steam purposes, which meet the competition of bituminous. There is little increase in the consumption of the larger or prepared sizes. This demand grows only as the number of dwelling houses increases, and the increase of houses is more than offset by the competition of coke, gas, oil, and other methods of heating, and by the development of larger apartment houses which do not use anthracite. The consumption of bituminous coal is increasing at a much greater ratio than that of anthracite. (555.)

Mr. HADDOCK, independent coal operator, thinks there is a distinct limitation upon the price of coal through the competition of bituminous coal, gas, etc. The present prices, since February, 1901, are probably about the top. About 25 to 30 per cent of the production of anthracite coal at present is represented by the small sizes, pea coal, buckwheat coal, etc., which come strictly into competition with bituminous coal for steam purposes. It is true that some of this smaller coal is now being reclaimed from the old culm heaps, change in market conditions having made it profitable to do so. Mr. Haddock's own company feels that it pays better usually to send the material in the culm heaps down into the mines to be used as sustaining pillars.

Further competition is encountered by anthracite coal by the use of gas, especially in the summer time. Moreover, even at present prices, plants are being established, such as that of the New England Gas Company, which, using bituminous coal, furnish light, heat, and power, and make coke. Though prices might be forced up to an extravagant figure for a short time, a reduction would be bound to follow. (528, 529.)

Mr. CHILDS, of the New York, Ontario and Western Railway, says that bituminous coal competes severely with the sizes of anthracite coal which are used for steam purposes, including lump coal, broken coal, and the finer sizes below pea coal. Over 40 per cent of the anthracite coal is steam coal. The proportion is greater than formerly, because a larger share of the fine coal, which was formerly thrown on the culm piles, is now utilized. Moreover, the old refuse in the culm piles is now being worked over. The demand for domestic sizes of anthracite, with which bituminous coal competes to a less extent, has not increased so much as the demand for steam sizes. When the price of anthracite is put up, bituminous coal tends to displace the steam sizes of anthracite. Moreover, in Chicago and other Western cities the demand for anthracite coal for domestic purposes is relatively much less than in Eastern cities, more soft coal being used.

The competition of bituminous coal is held by Mr. Childs, accordingly, to place a limit upon the price of anthracite coal. Just what the maximum would be he does not know. It is true that there has been no falling off in business in view of the recent increase of 30 cents per ton in the price of anthracite, but it would not be advisable to make a further increase of 50 cents. (501, 502.)

Mr. HARRIS, former president of the Reading Company, asserts that the price of anthracite coal is quite strictly limited by the competition of bituminous coal and of gas. Electricity is a product of the second order produced by coal, so that it can not be called a direct competitor. (602.)

Mr. FLEMING of the Anthracite Coal Operators' Association, asserts that bituminous coal is most emphatically a competitor of hard coal. The consumption of anthracite is, in fact, falling off proportionately. Gas and steam are replacing it in office buildings and in houses. (537, 541.)

Mr. WALTER says that bituminous coal comes into competition with the smaller sizes of anthracite under many conditions. Fully 35 per cent of the anthracite product is subject to this competition and the proportion is constantly increasing. (548.)

Mr. SAWARD, of the Coal Trade Journal, does not think that bituminous coal and anthracite coal enter into competition with one another at all. Each has its distinct use and value. Soft coal is not burnt in houses, at least in the East. It is true that some of the minor grades of anthracite coal have lately been pushed for use as steam coal. Much of this coal was formerly wasted. These grades sell usually at a lower price. The witness does not see, however, that the competition between these coals and soft coal is an important element in fixing the price of other grades of hard coal. It is true that a large amount of soft coal is used in cities which try to prevent the smoke nuisance, methods having been devised for doing away with the smoke in the case of bituminous coal. The proportion of the anthracite coal used for steam purposes is hardly more than 25 per cent. Formerly perhaps 40 per cent was used for these purposes, but gradually domestic coal is being made out of coal that formerly went into the largest steam sizes. Mr. Saward admits, however, that when the price of anthracite coal went up in 1900, as the result of the strike, there was an increased demand for bituminous coal, resulting in some instances in a higher price. (510, 512.)

Community of interest—Bituminous coal.—Mr. HADDOCK, independent coal operator, thinks that there is a growing application of the idea of community of interest as regards bituminous coal. There have been agreements between the great railroad companies regarding prices, and their violent competition is at present ended. All such agreements, however, depend for their success upon the prosperous condition of the country. When the demand for coal falls off the agreements are likely to be broken. (531.)

Mr. FLEMING, of the Anthracite Coal Operators' Association, says that he knows of no association of soft-coal dealers or producers in New York. Most soft coal comes to the seaboard as the property of individual operators. Some of the large soft-coal companies buy the product of the smaller companies and ship it, as in the case of the anthracite field. (539.)

6. *Economies and advantages of community of interest.*—Mr. WALTER, of the Lehigh Valley Railroad, says that he sees no tendency to bring the mining and handling of coal into fewer hands. At the same time he believes that the practice of acting in harmony is a great advantage. Under the competitive conditions which have existed in years gone by it has been difficult to discuss the intricate questions of business in a reasonable manner without prejudice on the part of the different concerns. The witness thinks that any arrangement which will promote harmony will ultimately benefit the consumer as well as the producer.

The economy of combination will not, however, in Mr. Walter's judgment, come especially in connection with the transportation of freight by shipment from the nearest regions to the respective markets. The anthracite coal from one region differs greatly from that from another. The different markets demand particular classes of coal for particular purposes. In a very cold country the people prefer the very hard coal, while in a warmer section they use a softer grade which burns more rapidly and consumes itself entirely. (544.)

Mr. McLEOD declares that it is very desirable from the standpoint of the public, as well as of the producers and transporters of coal, that the business should be carried on by great corporations working in harmony with one another. He believes the more the subject of combination among the anthracite roads is studied the more the plans will be approved by the people. A close control of the business by these corporations will produce better results than ruinous competition which would so injure the producers and transporters that they would ultimately have to charge people more for coal. The fact that anthracite coal can be sold only about six months of the year makes it especially necessary that great corporations should produce the coal, having capital sufficient to store it and to carry large quantities for several months. In the case of bituminous coal, where the demand is uniform and where the methods of production are simple, there is less occasion for combination. Anthracite coal is practically a manufactured commodity, and large investments in breakers and other facilities are necessary. In the opinion of the witness people are getting coal cheaper now than ever before as a result of the conduct of the business by large operators and of the increasing harmony between the railroads.

Mr. McLeod, who was especially active during his presidency of the Reading in bringing about community of interests between the different anthracite roads, declares it was his idea to benefit both consumers and corporations by bringing all the interests into harmony. He designed to give the people half of the profits from economy, and to pay dividends with the remainder upon stocks which had previously paid none. In his judgment there was no danger nor possibility that such a combination should raise prices and injure consumers.

One of the chief economies which Mr. McLeod planned and which he thinks should still be carried out was by the elimination of middlemen. The witness declares that it costs him \$1.50 a ton more to get coal into his cellar than the retail dealer in New York pays for it. There are twice as many dealers in every town as are necessary. The fact that there are so many makes it necessary for them to have a large percentage of profit in order to live at all. Mr. McLeod thinks that the distribution of coal should take place directly to the consumer from the railroad. He would establish large depots in each city, having coal pockets from which coal could be shot directly into the carts of those who would take it to the consumer. At present it is hauled to yards of coal dealers and then reloaded again at unnecessary expense. One pocket station in connection with each of the railroads reaching Washington from the north would be ample to supply the entire city. Mr. McLeod thinks that by this method of distributing coal it would not cost more than from 30 to 50 cents to get it from the railroad to the consumer instead of \$1.50 per ton. The only way in which such an economy can be brought about is by combination among the railroads.

Mr. McLeod says further, that there is usually a considerable degree of competition between retail coal dealers, although in some cases they have associations which combine to keep up prices. He thinks many retailers deliver short weight. (568, 569, 575.)

Mr. GREENE, of the Audit Company of New York, formerly concerned in the anthracite-coal business, declares that there is a tremendous economic waste in the production and transportation of anthracite coal, which makes desirable community of interest, and especially consolidation of the different interests. Although anthracite coal is confined to a small area of about 400 square miles, and is in a sense a natural monopoly, the ownership of the field is so greatly divided among individuals and different railroads that business is most uneconomically conducted. In the first place, each railroad feels that it must have tonnage. The railroads have gone into the mining of coal principally to secure transportation for themselves. The result is that coal is often hauled longer distances and over steeper grades than would be necessary if some other railroad handled it. Another result is that many mines which are very expensive to work are operated in order to give the railroads tonnage. There is a great difference in the expensiveness of operating mines. Many of the mines of the Reading Railroad, for example, are especially expensive to operate, and this is true of the whole southern anthracite field. The character of the coal and the manner of its distribution is slightly different in other regions.

Another economic waste under the present system results from the fact that the railroads and the other producers do not market their coal properly—do not know how much coal is going to one place or another. The fact that each railroad has a large number of selling agents and other subordinates constitutes an economic waste.

In view of these wastes from competition Mr. Greene thinks that it would be advantageous, not only to the railroads but to the general community, to have an absolute consolidation of ownership of the railroads and the coal mines. To some extent community of interest, without absolute consolidation, would effect economies, but much less satisfactorily. For example, it would be impossible under mere community of interest to transport the coal which now passes over the Lehigh Valley road or the Reading to the Central Railroad of New Jersey, yet it might be much more economical for all the coal from certain districts to be handled by one road.

The witness thinks that by virtue of the economies of consolidation it would be possible to save fully \$1 per ton in the case of mining and transporting anthracite coal. He believes further that part of this saving would come to the consumer, and that it is to the interest of the general public to compel consolidation rather than the contrary. Probably 50 cents of the \$1 saved would go to the consumer, and a similar amount or less would go in the form of higher dividends to the railroads. At the same time the condition of the coal miners would be improved. The witness admits that there might be some question whether, by virtue of monopoly, the advantage of economies might not all go to the owners without a reduction of price, but he thinks that the various other forms of heating which compete with anthracite coal will always keep down its price, and that the pressure of public opinion would also be effective.

We can rest perfectly sure that the public in the long run will get the benefit of economies through consolidation. (468-473.)

Mr. THOMAS, of the Erie Railroad, says that in the early days the anthracite-coal industry was highly profitable, and operators took little care to introduce economic methods. The same was true of transportation, and the methods are still exceedingly extravagant. For instance, there are mines on the western side of the Lackawanna Valley up on the hill, from which coal is hauled down into the valley and up the eastern side toward tide water; while mines on the eastern side of the valley carry coal down into the valley and up the hill on the other side going west. The Erie by its acquisition of the Erie and Wyoming Railroad expects to eliminate some of this waste in transportation. (556.)

Mr. HARRIS, until recently president of the Reading Company, supposes that a considerable economy might be effected by a community of interest or combination between the anthracite-coal roads. The cost of marketing especially could be reduced by eliminating many middlemen and commission merchants and putting the selling of coal strictly into the hands of the agents of the railroad companies. (599.)

Mr. WOODLOCK does not think that there can be any special economy effected by the common ownership of the anthracite coal roads or coal mines. There can be no physical union of the properties in most cases. Undoubtedly, however, a great economy would result from the establishment of a single selling agency. (452.)

Mr. HADDOCK, independent coal operator, says that there are some arguments in favor of combination in the anthracite business, especially because of the possible economy. Thus, there are four or five different operations in Luzerne County, and it would be better for everybody if they were combined into one. (534.)

G. Capitalization of coal roads and of reserve coal lands.—

1. *Capitalization and reorganizations of the anthracite roads generally.*—Mr. WOODLOCK, railroad editor of the Wall Street Journal, declares that it is generally recognized that the Reading and Erie railroads are heavily overcapitalized. The bankruptcies of the Reading have been largely due to its great capitalization based on unworked coal lands. The fact that after 4 years of steady prosperity the common stock of the reorganized Reading Company sells only at 30 (February, 1901), shows necessarily over-capitalization. In the reorganizations of the Reading and the Erie securities were increased rather than diminished. Thus, the Erie formerly had a capitalization of \$70,000,000 common stock. Now it has about \$50,000,000 preferred stock and \$112,000,000 of common stock. The common until very recently was scarcely worth anything. When Mr. J. J. Hill began buying stock recently it went up from 15 to 30, but it is still worth less than the old Erie stock was worth 8 years ago. (456.)

2. *Capitalization of the Reading Company.*—Mr. HARRIS, until recently president of the Reading Company, says that the present capitalization of the Reading Company includes \$28,000,000 of first preferred stock, \$42,000,000 of second preferred stock, \$70,000,000 of common stock, and \$63,000,000 of general mortgage bonds, besides other earlier bonds not yet matured. The bonds are gradually being increased, a provision of the mortgage authorizing the addition of \$20,000 at a rate not to exceed \$1,500,000 a year. When the maximum amount is issued there will be \$135,000,000, partly covering prior bonds now not matured. The present capitalization of the Reading Company and its leased lines is approximately \$250,000,000 of stocks and bonds. The witness believes that this sum is greater than the amount of the securities of the company before the reorganization of 1896, but the interest is lower, so that the fixed charges are less, and the increase in the stocks is less important because a company does not go into bankruptcy when it fails to pay dividends, but it does go into bankruptcy when it fails to pay interest. The witness is not especially familiar with the financing of the Reading Company, which was conducted by the bankers and owners of the railroad. There is no connection between the volume of securities and freight rates. The rates are made by freight agents, and the chief influence determining them is the rate made by competitors. (597, 598.)

3. *Receivership of the Reading Railroad.*—Mr. McLEOD says that the Reading Railroad has been in the hands of receivers four times. Some of these bankruptcies were caused by the fact that the company has increased its debts too largely in the purchase of coal lands. It has been forced by ruinous competition to sell coal below cost, and could not earn interest.

Mr. McLeod explains the receivership of 1893 under his administration as follows:

The Reading had leased the Lehigh Valley and Jersey Central, and found that those companies had \$13,000,000 invested in coal on hand and in carrying the accounts of individual operators. The Reading did not have that much capital, and Mr. McLeod had to borrow \$8,000,000 as a floating debt. At this time the panic of 1893 began. The witness had arranged to sell securities to get a working capital of

\$17,500,000 out of which to take up the floating debt of \$8,000,000, but on account of the panic the securities could not be issued and the Reading was forced into bankruptcy. (573.)

Mr. Rice, president of the Consolidated Rubber Company, states that some years prior to 1893 he was invited to join a syndicate to purchase the control of the Philadelphia and Reading Railroad. The syndicate was formed at the instance of Mr. F. B. Gowen, but at his death the burden was left upon Mr. Rice. A great deal more than a majority of the stock was bought, and although the company was at that time controlled by a voting trust, the control drifted into the hands of a syndicate, and Mr. McLeod was made president. The witness found that it would be advisable to reduce the road's indebtedness as it then existed by converting the income bonds into stock, and he prepared a plan for reorganizing the company under the name of the Reading Company. He went to Europe in 1891 to see the holders of bonds there, and during his absence Mr. McLeod began to pay interest on the income bonds, whereupon the holders of them were no longer willing to exchange them for stock. It was afterwards shown that this interest had not been actually earned, although the books had apparently shown that it had been earned.

Mr. Rice says further that at this time an attempt was made to secure the control of the New Jersey Central and the Lehigh Valley railroads. Both were leased. This increased the coal holdings of the Philadelphia and Reading enormously and required additional money. Mr. Rice went to Europe and secured the pledge of \$13,000,000 on the issue of bonds, but, much to his astonishment, after the bankers had paid in \$5,500,000 in cash, on February 1, 1893, the railroad was put into the hands of a receiver on February 20. The witness then went into litigation to have the management of the railroad investigated by the United States circuit court. He believes that one of the chief troubles leading to the bankruptcy was the attempt made by Mr. McLeod to control the Boston and Maine, the New Jersey and New England, and other interests which he was not able to control.

Mr. Rice asserts further that the Reading Company had been counting as assets various credits which were really of no value, and that the public was thus deceived prior to the bankruptcy. (737-739.)

4. *Attempt of Reading Railroad to enter New England territory.*—Mr. McLeod explains the motive which led the Reading Railroad in 1892 to attempt to get control of the Boston and Maine and New York and New England railroads. It has been a well-recognized rule among the anthracite-coal roads for years that each has the right to haul the coal destined for roads controlled by itself. By acquiring the Boston and Maine and New York and New England the Reading could add to its tonnage about 3,500,000 tons, and could do it without precipitating a fight between the railroads.

Mr. McLeod says further that the Reading did not buy a controlling influence in the stock of the Boston and Maine. Enough stock was bought to give Mr. McLeod a standing with the other stockholders, and then largely through personal influence he persuaded them to make him president. (567, 574.)

5. *Capitalization of the Ontario and Western Railway.*—Mr. CHILDS, of the Ontario and Western, says that this railroad was reorganized in 1880. It had originally been built chiefly on the proceeds of bonds issued by towns. It was called a road without debts or traffic. It had over \$80,000,000 of bonds and was sold out for about \$4,000,000. The present capitalization, including stock and bonds, is about \$58,000,000. At the time of reorganization the holders of bonds were allowed to take common stock if they would pay an assessment of 20 per cent; most of them did so, and the capitalization was thus increased about \$50,000,000. The controlling interest in the stock is not held by a few men. The preferred stock is mostly represented by a voting trust. (502, 503.)

6. *Capitalization of coal lands and its effect on prices.*—Mr. HADDOCK, independent coal operator, says that the Philadelphia and Reading Railroad, which bought 100,000 acres of coal lands during the early seventies, was forced into this action largely by its competitors. The New York Central, the Delaware, Lackawanna and Western, the Lehigh Valley, and the Pennsylvania roads were all coming into the Schuylkill field and acquiring coal properties. Another factor, which led independent operators to sell out at that time, was the violence of the Molly Maguires, who made it very unpleasant for a man to remain in the mining business. Since these early purchases the Reading has acquired other coal property, directly or indirectly.

Mr. Haddock thinks that the capitalization of the Reading road, in order to carry its 100,000 acres of unworked coal lands, has not only resulted in the bankruptcy of the road but has also affected the price to the consumer. The amount invested by the Reading Company in coal property was about \$50,000,000, and the interest at first was 7 per cent. This was an annual charge of \$3,500,000, while the company did

not at the outset produce more than six or seven million tons yearly. The witness thinks that the amount of the Reading's debts for coal lands has not been cut down materially by reorganization, although the rate of interest probably has been cut down. There is constantly an effort to get out of the consumer interest on undeveloped land held for the supply of 50 years to come. The effort has not always been successful in the past. (523, 534.)

Mr. GREENE, of the Audit Company of New York, says that in some cases where the railroads have capitalized anthracite coal held in advance of actual operation, the people are doubtless paying prices and railroad charges which return some dividend on such investments. In general, however, the charges based on these investments in coal lands have been squeezed out by reorganizations. Mr. Gowan, of the Reading Railroad, tried thirty years ago to buy up the coal properties contiguous to that line, and to earn freight rates which would support the capital invested. He failed in this undertaking, since the rates and prices could not be kept up. The Reading has been twice reorganized. It is true that in the case of these reorganizations the total volume of stock and bonds has not been reduced, but the absolute fixed charges have been reduced. That is, bonds requiring payment of interest have been replaced by preferred and common stocks, and rates of interest on bonds are also lower. It is probable, Mr. Greene continues, that the present movement toward the consolidation of anthracite roads is partly designed to permit the earning of interest on the preferred stocks which have been substituted for these old bonds. The same is true of many railroad reorganizations and recent consolidations. (472.)

Mr. HARRIS, late president of the Reading Company, says that the various bankruptcies of the Reading Company have undoubtedly been due largely to the fact that it had bought up a large amount of coal land in advance of development. Most of these purchases were made at a very early time by Mr. Gowan. The witness is inclined to think that he did push that policy of buying up lands too far in the same way that the Reading and other railroads have made the mistake of building railroads too far in advance of the demands of traffic. The bankruptcy of the Reading Company has also been due to excessive competition between the railroads. If, however, it had not been burdened with debts, it would, of course, have been in a better condition to sustain that competition.

Mr. Harris thinks further that although the interest charges of the Reading have been reduced by reorganizations, and although there are now no specific interest charges based on the coal lands separately, it is undoubtedly true that the interest on these lands is still a charge upon the road. That is, if the Reading had spent less money in coal lands, it would now have less interest charges. Practically, however, this charge is taken from the stockholders who fail to receive dividends.

Mr. Harris explains further that one reason why the Reading has developed its lands slowly is because many of them are very expensive to work, and the coal could not be taken out in competition with that of other mines which were worked more cheaply. In the future, since the more accessible coal is rapidly being exhausted, the Reading lands will become more valuable and can be operated. (604-606.)

Mr. McLEOD does not think that the interest on the capital invested in reserved coal lands by the various railroad companies has added to the price to the consumer. He thinks that the economies coming from the large investments of the railroad companies have lowered prices. Nobody has made much money in mining coal except a few individuals who were especially favorably located. The Reading Railroad actually invested cash to the amount of \$75,000,000 in coal lands between 1870 and 1876. It has, however, been forced to sell coal as cheaply since this debt was incurred as before, and has had to compete with other railroads and producers. The large capitalization of the Reading in stocks can not influence prices, because no dividends have been paid for a long time. The Reading has \$112,000,000 of stocks earning no dividends. The Lehigh Valley has \$40,441,000, the Erie \$172,000,000, and the New York, Ontario and Western \$58,113,000 of stocks earning no dividends. The total of such stocks for the four roads named is \$382,554,000. (566.)

Mr. SAWARD does not attribute the bankruptcy of the Reading Railroad so much to the attempt to pay interest upon the bonds issued to purchase coal lands held undeveloped as to the excessive competition between the various producers of coal forcing down prices unduly. It can not be said that the people have been forced to pay higher prices for coal because of the large capitalization of the Reading road. A large part of its capital is in the form of stocks and these have not paid dividends, so that the earnings on them can not be counted in price. It is true that bonds were issued for some of the coal lands. The Reading has coal enough to last for 100 years. In a certain sense the consumer is paying the carrying charge on the investment in these future supplies of coal, but the witness does not think that the amount of this interest charge adds more than 5 cents per ton to the price of coal. Although the capi-

tialization of the Reading is \$250,000,000, that is the basis for a great deal of other business besides the anthracite business. The road carries about 10,000,000 tons of anthracite coal, 5,000,000 tons bituminous coal, and 30,000,000 tons of general freight. Moreover the coal deposits in various other regions are being rapidly consumed, and the public will be glad later that the Reading has such a large supply. (517-519.)

Mr. THOMAS, of the Erie Railroad, says that originally the cost of carrying the interest on the money invested in undeveloped coal lands by the Reading Railroad may have been added to the prices or freight rates, but that the Reading has repeatedly gone through bankruptcy, and that it can secure no higher rates than the other railroads which have not the same burden. (555.)

Mr. CHILDS, of the Ontario and Western Railroad, says that the two coal companies which that railroad controls have in the neighborhood of 50,000,000 tons of coal in the ground, the production at present being about 2,000,000 tons per year. The witness thinks that it is proper to earn dividends on the investment in coal lands. It costs a great deal to start operations, put in breakers, shafts, tracks, etc., and thereafter the field must, of course, be worked for a good many years. Railroads entering the anthracite field have also large investments in their transportation facilities, and it is the part of prudence for them to acquire coal land enough to make sure of business as long as the life of the bonds of the railroads. (503, 504.)

Mr. RICE, who was formerly connected with the Reading Company, says that in a sense it is justifiable to capitalize the value of coal in the ground, but it is very difficult to know what its actual value is. The net value is very different from the gross value as shown by the present selling prices. There is no knowing whether the coal can be profitably mined. The value of the coal in the ground depends a great deal upon the general public opinion of investors as to what it will probably be worth. (739.)

7. Overcapitalization resulting from recent purchases and consolidations.—Mr. WOODLOCK declares that the price paid by the Erie Railroad for the production of the Pennsylvania Coal Company in 1900 was the highest ever paid for a block of coal lands. Bonds were issued to the amount of \$32,000,000, bearing 4 per cent interest. This represents an annual burden of \$1,280,000, equal to from 50 to 60 cents on each ton of the annual output of coal from these lands. It has been considered that the Reading Railroad paid a high price for its coal lands, which stand on its books as having cost \$70,000,000. But if the proportion of the total anthracite production belonging to the Reading should be capitalized at the same rate per ton of annual product as the amount paid for the Pennsylvania Coal Company, the capitalization of the Reading lands would be \$125,000,000.

In the case of the purchase of the control of the Jersey Central Railroad by the Reading Railroad, the Reading paid \$160 per share for 50 per cent of the Jersey Central's stock, and has issued 4 per cent bonds therefor. This is the highest price for the Jersey Central's stocks since 1881. The Reading undertakes a fixed charge of \$920,000 per year, which must be forthcoming in good or bad times.

Mr. WOODLOCK does not believe, however, that the heavy capitalization of the anthracite coal roads will have much effect upon prices of coal to the general public. If the railroads could get a big price for coal they would, of course, try to do so, but the witness believes that they realize that it is not judicious to attempt to do so, on account of the falling off in demand. What is needed is a steady market. (453-455.)

Mr. GREENE, of the Audit Company of New York, admits that some of the recent combinations and purchases by the anthracite coal roads have considerably increased capitalization. He does not think, however, that the fact that consolidation has been effected at high prices and at a time when all securities are high, will necessarily mean an increased burden upon the public. Consolidation will often create traffic, increase profits, and ultimately give the public the benefit in better service and lower prices. The witness questions whether a new railroad could be built into the anthracite coal field for less money than the capital of the existing roads. (475-476.)

Mr. HADDOCK, independent coal operator, says that the price paid in the purchase of the Pennsylvania Coal Company was so high that the annual interest charged on it will amount to about 50 cents per ton of output. (534.)

H. Duration of supply and cost of mining.—1. *Supply of anthracite coal.*—Mr. HARRIS, late president of the Reading Company, says that he does not think the supply of unmined coal held by that company will be sufficient to last 200 years. In fact, he believes that, taking the anthracite field as a whole, the production has about reached its maximum; he doubts whether it ever reaches 60,000,000 tons a year. Many mines are being worked out, and it takes time and large investment to open new mines.

The district in which the coal will be exhausted soonest is the eastern end of the Wyoming field, sometimes called the Lackawanna field. The western end of that field will last much longer, because the coal lies deeper and is more expensive to mine. The group of small basins known as the Lehigh region has passed its maximum production. Some of the Reading collieries in that region are exhausted and some are approaching exhaustion.

The great supply in the future is in the Schuylkill region, which contains more than one-half of the anthracite supply. In this region the coal is exceedingly hard at the eastern end and grows softer toward the western, until the Lykens Valley coal, belonging to the Pennsylvania Railroad, is reached. The Reading's coal lands are chiefly in this region, and it is because of the depth and expensiveness of mining that they have not been developed more rapidly. In some mines in other regions the coal has been nearer the surface, the bottom of the supply being not more than 100 or 200 feet deep. Around Pottsville, in the Schuylkill region, the bottom of the basin is supposed to lie 5,000 feet deep. Moreover, in the Schuylkill region the coal is much more full of slate. When the witness was in charge of the mines of the Lehigh Coal and Navigation Company he found that it was necessary to raise about three tons of mineral and about ten tons of water from an average depth of 600 feet for every ton of coal sent to market. (605-606.)

Mr. GREENE, of the Audit Company of New York, says there is an absolute limit of the amount of anthracite coal. It has been variously estimated that at the present rate of production the supply will be exhausted in from 50 to 150 years. Later on, moreover, coal which is more difficult to extract will have to be mined at a higher cost than at present. (475.)

Mr. FLEMING says that the estimate made by Mr. Griffith several years ago as to the future supply of anthracite coal is generally considered the best, and he believes that the general estimation was 100 years for all the regions. In the case of the Reading Company the supply at the present rate of production would last much longer. (540.)

Mr. THOMAS, president of the Erie Railroad, says that he thinks that 40 or 50 years will see the substantial extinction of many of the anthracite fields. The Reading is understood to have a supply for 100 years, but the mining in all the regions is constantly increasing in difficulty and expensiveness. (555.)

Mr. McLEOD, former president of the Reading Railroad, believes that the supply of anthracite coal is greater than is ordinarily supposed. He says that it has always been the experience that more coal is secured from a mine or district than was originally estimated. The witness thinks there is probably coal enough for the Reading Railroad for 200 years at least. He estimates the total amount of coal in the ground at 15,000,000,000 tons. There are several companies besides the Reading which have a very large reserve, but its reserve is much the largest, although the witness is not disposed to think that the time will ever come when the Reading will hold all the remaining coal land.

Many of the collieries already opened will, in Mr. McLeod's judgment, soon be exhausted, but their owners often have reserved lands which can be worked by new collieries. The witness estimates that in 10 years 10 per cent of the collieries in the Wyoming region will be exhausted, and in 40 years 75 per cent. It costs 20 cents per ton more to mine coal in the Schuylkill than in the Wyoming region, but there is a greater supply in the former region from which a large part of the future consumption of the country must be taken. (565, 566, 571.)

2. *Cost of mining coal.*—Mr. HARRIS, in connection with his explanation regarding the supply of anthracite coal and the character of the different fields, declares that the cost of mining is steadily increasing with the exhaustion of the more accessible lands, and that it will continue to increase. It probably costs from 75 cents to \$1 more to mine a ton of coal now than it did 20 years ago. The finest veins have mostly been worked out. Now veins are often mined which are not more than 2½ feet thick. The mines are deeper in most instances. While formerly it cost perhaps \$100,000 to open a mine, sinking a shaft 200 or 300 feet, some collieries now can not be worked before \$1,000,000 has been invested in preparation and shafts have been sunk 1,500 feet. There have been many instances in the past where mines have been opened by means of tunnels, which served to drain the water, but at present much of the coal which is being mined is below the sea-level and enormous pumping apparatus is accordingly necessary. The increased depth also adds to the expense of supporting the roofs of the mines on account of the enormous superincumbent weight.

The influences which have increased the cost of mining in the past will necessarily increase its cost further in the future, since the witness knows of no sufficiently powerful influences working the other way. The price of coal will ultimately have to be advanced if it is to cover the cost at all. (606, 607.)

Mr. McLeod declares that the average cost of producing anthracite coal, including charges for improvements, depreciation, taxes, and insurance, is \$1.59 per ton. If interest on the value of coal lands be added it brings the cost to \$1.90 per ton. This does not include anything for the coal except the interest on the value of lands held. The witness has also calculated that the average freight rate is about \$1.50 per ton to tide water. The average price at tide water for 20 years has been \$3.48 per ton, the highest price having been \$3.96 per ton (as the average for the year).

An important element to be considered in the cost, says Mr. McLeod, is the chance involved in the sinking of shafts. A new colliery plant must be established about every 30 years, since the coal which can be reached by one shaft is usually exhausted in that time. When the shaft is sunk it may be found that a vein which was perfect a few hundred feet away has broken and disappeared. The difference in the cost of mining in different shafts is very great and can not be estimated in advance.

There is a gradual increase in the cost of mining coal as the supplies become exhausted and the mines go deeper. In some instances there are as many as 16 veins and the lowest may be down 3,000 feet. It not only costs more to handle coal but in the deeper mines more water is encountered. The Reading mines have pumped in recent years 2½ tons of water for every ton of coal. (565, 570, 571.)

Mr. STEARNS, president of Coxe Bros. & Co., says that it is very difficult to estimate the cost of mining coal. The local conditions in every mine and every seam of a mine vary. A seam may be in good condition to-day and to-morrow there may be an explosion or a fall from the roof or a flood which will result in very considerable damage. A mine can not be operated on a narrow margin of profit because of this uncertainty.

While there have been improvements in the methods of mining, and while there have been especially improvements in transportation of anthracite coal, which have reduced the cost, the actual cost of mining has not decreased, but has increased steadily, and will continue to do so. As mines become deeper it costs more to ventilate and pump them as well as to lift the coal. Interest on land held for future development ought to be included in the cost, but the witness seems to doubt whether the producers have usually been able to earn much interest on such investments. (584, 594, 595.)

Mr. WALTER says that 20 years or more ago the cost of mining anthracite coal was much less than at present. Most of the mining was done above water level; drifts or tunnels were used and the coal was above the level of these so that the mine drained itself. At present most mines are below water level and work by vertical shafts. Formerly the cost of opening a mine and establishing breakers, etc., was comparatively small, but now it is very much greater. The Lehigh Valley company is just completing one colliery operation which will cost over \$500,000. Twenty years ago many operations costing \$25,000 or \$30,000 would produce as much coal. There has been a vast improvement in the machinery and methods of handling coal, but the other items of expense have increased in greater proportion than the saving from these improvements. (544.)

Mr. SAWARD says that the expense of mining anthracite coal has increased during the past 20 or 30 years. Machines have been introduced but more difficult veins have to be worked. The price of powder has declined materially. It was formerly about \$2.75 per keg, and is now \$1.50. Powder, however, is not a very large item. About 1,500,000 kegs of powder and 4,000,000 pounds of dynamite are used in getting out 60,000,000 tons of annual product of coal. (511.)

Mr. Saward thinks it is impossible to get anything like accurate statements as to the cost of producing a ton of anthracite coal. One may take the reports of the companies showing the costs of operation and divide the cost by the number of tons produced. But this is usually misleading, because of the different methods of charging up expenses to different accounts. It is a frequent practice to charge to the account of permanent improvement expenses which should have gone into the running account of costs. Wages are about 85 per cent of the cost of production. (515.)

Mr. FLEMING, of the Anthracite Coal Operators' Association, declares himself unable to give any estimate as to the cost of producing coal. The cost varies greatly at each mine in accordance with the distance from tide water, the amount of track an operator uses, the thickness and character of the vein operated, the depth, etc. (540.)

Mr. WALTER says that the geological formation and characteristics of the different mining districts vary greatly and that the expense of mining differs accordingly. In general the Schuylkill and Mahanoy districts and the whole southern and middle western field is more expensive to operate than the northern field. The northern field is being worked more rapidly and will probably be exhausted sooner. (547.)

3. *Exhaustion of coal lands.*—Mr. STEARNS, president of Coxe Bros. & Co., says that it was the practice of the Susquehanna Coal Company, which has affiliated with the

Pennsylvania Railroad, to set aside a certain amount of money yearly to cover the exhaustion of the coal property. It is the wisest policy to make such a provision; the company which does not do so will find itself out of capital when the mine becomes exhausted. (584.)

4. *Royalties on coal lands.*—Mr. SAWARD, of the Coal Trade Journal, says that the most fortunate men in the anthracite business is the owner of the lands, who does nothing, and who usually gets about 25 cents per ton royalty. (519.)

5. *Anthracite coal in Colorado.*—Mr. GRIFFITH, representing the Denver Chamber of Commerce, says that a considerable amount of anthracite coal is being produced in Colorado, and that it is generally believed that there is a large supply in the mountains. There is comparatively little difference in quality as compared with Pennsylvania coal. (857.)

I. Conditions of labor and relations of employers and employees.—1. *Strike of 1900* (see also views of these witnesses as to arbitration, p. CCLXIV).—Mr. STEARNS, president of Coxe Bros. & Co., says that some of the claims of the miners in the strike of 1900 were just. The conditions can be understood only by reference to the earlier relations of the employers and employees. In 1875 the operators agreed upon the sliding-scale system for the payment of miners. The price for each class of labor was fixed at a certain rate on the basis of a tide-water price of \$5 per ton for anthracite coal. For every advance or decline of 10 cents in the price of coal wages were to rise or fall 1 per cent. The price of coal fell so greatly at tide water, especially because of the reduction in freight charges between the mines and tide water, that it would have been unjust to the miners to let wages fall in that proportion. Accordingly the tide-water price was calculated on the basis of a freight rate of \$2.50 per ton in fixing wages, i. e., the actual freight was deducted from the tide-water price, and \$2.50 was then added. There had been an advance of wages during the summer of 1900 under the sliding scale of about 5 per cent. The miners demanded that the entire system be abolished, and also demanded an increase of wages and a reduction in the price of powder. Ten per cent advance was granted and powder was reduced from \$1.75 to \$1.50. The witness thinks that the reduction in powder would have taken place without a strike, and that probably there would have been an advance of wages without the strike. The witness seems doubtful as to whether the price of coal can be kept high enough to compensate the operators for the increase of wages. (593, 594.)

Mr. THOMAS, president of the Erie Railroad, declares that prior to the strike of 1900 in the anthracite field there had been no strike for 20 years. Labor was fairly well paid. The relations between the miners and their employers were largely personal. Employers had done much for the men by contributions, establishment of hospitals, etc. The chief difficulty was the lack of steady work. Professional agitators came into the country and took advantage of this last circumstance. They brought the great majority of the miners into the United Mine Workers and caused the strike. (557.)

Mr. HADDOCK, independent coal operator, thinks that the demands of the miners in the anthracite strike of 1900 were just. The railroad companies refused to arbitrate, but one of their reasons was the feeling that the men were irresponsible in carrying out the decisions of arbitrators or agreements. (533.)

Mr. WALTER, of the Lehigh Valley Railroad, says that the demands of the miners in the strike of 1900 were acceded to. He hardly knows whether to consider them just or not. The strike has not injured the railroad companies up to the present time, but has, if anything, been temporarily beneficial by permitting an exhaustion of the surplus stocks. The public is paying more for coal as a result of the strike. (546.)

Mr. SAWARD thinks that the contention of the United Mine Workers in the strike of 1900 was, in general, just. Moreover, the strike resulted to the advantage of the railroad companies themselves, by restricting production, which they had been unable to agree upon among themselves. The United Mine Workers claim now to have 80 per cent of the actual anthracite miners among their members. (519, 520.)

Mr. FLEMING, of the Anthracite Coal Operators' Association, thinks that while part of the demands of the miners in the strike of 1900 were perhaps just, the general demand was unfair. (542.)

2. *Violence in strike of 1900.*—Mr. STEARNS, president of Coxe Bros. & Co., says that the men at his collieries did not want to strike. Only at one colliery did any quit work at the beginning of the strike, only 54 out of 3,500 employed by Coxe Bros. going out. But the union men threatened and intimidated the miners who remained at work, called them "scabs," and used every possible means to make them quit. The number of men working was gradually reduced until October 11, when the

mines of Coxe Bros. & Co. were working at about half their capacity. At that time there was a riot at the mines and one of the watchmen was killed, while several other men were wounded. The company accordingly posted a notice that it would quit on account of the danger to the employees. (592.)

3. *Effect of strike.* (See also above, *Prices.*)—Mr. HADDOCK, independent coal operator, believes that the strike of the anthracite miners has had a beneficial result upon the operators and the railroads. The railroads had previously undertaken, not always successfully, to restrict production, in order to maintain high prices and rates of transportation. The strike restricted production and raised prices. Nevertheless, it was unfortunate that it should be necessary to resort to a strike to get these results. It is true that during and after the strike many retail dealers, who had made contracts to furnish coal at lower prices, lost considerable sums by the advance. (527, 528.)

Mr. McLeod says that the strike of 1900 undoubtedly advanced the price of coal beyond what it would otherwise have been. There was a strike in 1887 which forced the price of coal from an average of \$3.67 in that year to an average of \$3.86 in 1888. The witness hardly thinks that the price of coal has gone up enough to recompense the producers for the higher wages paid to the miners. Perhaps the strike may be said to have resulted advantageously to the railroads and operators as well as to the miners, but the witness knows that the employers did not want the strike to occur. (574.)

4. *Labor organizations in the anthracite field.*—Mr. McLeod is inclined to think that workmen make a mistake when they delegate their power to some other person or body, such as the labor organizations. He thinks that the men in their aggregate capacity can meet their employers directly. On the other hand, he implies that in the case of a great body of men like the anthracite coal workers some form of organization is necessary for dealing with employers at all. The policy of the witness when he was at the head of the Reading Railroad was not to raise the question whether a man belonged to a labor organization or not. He dealt with the men so long as they were respectful. Mr. McLeod thinks that the demand made by the anthracite miners in the spring of 1901, that they should receive formal recognition for the organization of the United Mine Workers, was unnecessary, since the fact that the operators actually dealt with the union in 1900 and advanced wages amounted to a recognition.

Mr. McLeod seems disposed to think that the concessions made to the miners in 1900 were justifiable, but he says that it often happens that when one concession is made workmen are encouraged to go on and make other demands which are not justifiable.

This witness thinks, further, that the miners will get higher wages as the result of the movement toward community of interest which is now going on. (575, 576.)

5. *Wages of coal miners.*—Mr. McLeod says that he estimates the average wages of coal miners throughout the year at \$40 per month. About 12 per cent of the whole number are boys, who receive about half this rate. The greater cost of producing anthracite is shown by the fact that it requires 145,000 men to produce 47,000,000 tons of anthracite, while 91,000 men in Pennsylvania produced 73,000,000 tons. (567.)

Mr. McLeod says that some coal miners work by the day and others take contracts by the ton or car. The average wages for foremen above ground are \$2.71 per day; for mechanics above ground, \$1.92; for laborers above ground, \$1.29, and for boys under 16, 62 cents. Below ground foremen get \$3.05 on average; miners, \$2.40; laborers, \$1.63, and boys under 16, 89 cents. The average number of days worked is about 200 per year. (574.)

Mr. HARRIS, late president of the Reading Company, says that the Reading Coal and Iron Company has always been more than friendly to labor, and it has been disposed to recognize the right of the miners to organize. There has been less friction than in the case of any of the other coal companies. Mr. Harris believes, personally, that labor has the same right to organize as capital, and that it also has the power to do so. He thinks that organized labor should have a voice in fixing the wages and other conditions of labor. (611.)

Mr. STEARNS, president of Coxe Bros. & Co., says that during August, before the strike of 1900, the average earnings of men and boys in the mines of that company were between \$43 and \$44 after making all deductions. About half of the men included under this average were miners, the other half were common laborers, drivers, door boys, etc. This average, however, would not be typical for the entire year because the mines were working full during August, and they did not at all times. The witness submitted a statement showing the number of days worked each

month by the employees of Coxe Bros. & Co. at their various mines. The calculation is given by hours. Estimating 10 hours to a day, it appears that the total number of days worked ranged from 156 at one of the mines to 265 at another. The average for all the mines was 223 days of 10 hours each. Of course, if the day be counted as 8 or 9 hours the figures are correspondingly increased. The number of hours worked was also reduced by the strike in October. (593.)

Mr. SAWARD believes that the miners in the anthracite field are satisfied at present. They are getting good prices and full work. They can not work 6 days in the week on account of the severity of the work. Two hundred and fifty days per year is as long, on the average, as they ought to work. That number of days has not been reached in the past, but probably will be in the future. (519.)

Mr. GREENE, of the Audit Company, of New York, declares himself in favor of proper remuneration for anthracite miners. He thinks that they should be permitted to organize unions, and that by conciliation between the unions and the operators, with arbitration in case of necessity, the conditions of labor should be fixed. (474.)

6. *Nationality of coal miners.*—Mr. STEARNS, president of Coxe Bros. & Co., says that out of 3,250 employees of Coxe Bros. & Co. only 999 are American, while many of these are of foreign extraction. About 20 years ago all of the miners were Welsh, Irish, and German, with a few Americans and English. There were no Hungarians and Poles. Now most of the younger generation of the Welsh and Irish have left the mines. Their parents desire to give them better opportunities and better education. Austrians, Hungarians, Poles, and Italians have come in and taken their place.

Mr. Stearns says, further, that the proportion of foreign miners in the mines of Coxe Bros. & Co. is less rather than greater than the proportion in other mines. Coxe Bros. & Co. have retained many of their older miners because they have given them better treatment than is customary in the anthracite business.

The witness declares that it is not true that foreign labor was imported by Coxe Bros. & Co. or that any of the anthracite companies have directly imported foreign labor. The foreigners who have come from time to time have sent back word to their friends of the great improvement in their conditions here, and their friends and relatives have come to join them in droves. Before the foreigners became scattered generally in the coal fields this practice gave the appearance of importation.

The Poles and Hungarians seem to show little disposition to become American citizens or to remain permanently in this country. At election time both parties try to get them naturalized. During the strike of 1900 large numbers of these foreigners went back to their homes, saying that they would return later on. They make enough at mining to enable them to become independent in their own countries. (595, 596.)

7. *Employment of children in anthracite mines.*—Mr. SAWARD says that the law of Pennsylvania prohibits the employment of children less than 14 years of age in under-ground work. A few over that age are employed as door boys. (516.)

VIII. REGULATION OF RAILROADS—INTERSTATE COMMERCE COMMISSION.

A. Railway legislation generally.—Mr. THOMAS, president of the Erie Railroad, thinks that great caution ought to be exercised in legislation regarding transportation systems. The surplus wealth of the country is very largely invested in transportation, and it can not be unfavorably affected without injuring the whole country. The many owners of securities and the army of railroad employees must be considered. The forces which have made this country able to transport freight cheaper than any other country ought to be left chiefly to work out their own problems without legislation or interference. (560.)

Mr. SCHIFF, banker, does not think our Government is adapted to become the owner of railroad and telegraph lines. He believes the silent laws of nature are better correctives than any written laws can ever become, but it is the right of the Government to regulate those concerns that exist as its servants. He has not given the matter of Government control of railroads sufficient thought to give any definite opinion as to its merits. (777.)

B. Powers of Interstate Commerce Commission—Proposed amendments of law.—1. *General.*—Mr. WILSON, of Cincinnati, declares that there is no remedy for discriminations between places by appeal to the Interstate Commerce Commission. All the commission can do is to develop the facts and announce its opinion, but it has no legal standing. The Western people are so thoroughly discouraged

that they do not care to pursue the legal remedy. The railways pay little attention to the decisions of the Interstate Commerce Commission, less in fact than they do to the decisions of the several State commissions. A smaller volume of business is affected by the purely local State boards, and there is a closer intimacy between the managers of railroads and the State boards than between the railroads and the Interstate Commerce Commission. Moreover, in some of the States the railroad commissions have the definite power to change rates. The self-interest of the railways themselves will in time, perhaps, have some influence on the railways in opening a way into the South from the Western manufacturing centers. (690, 691.)

Mr. BACON, freight manager of the Michigan Alkali Company, believes that the Interstate Commerce Commission should be given added powers such as those provided in the Cullom bill. It should have power to control classifications and rates made by railroads, and by the joint traffic association for the entire country which is proposed by the witness. The fact that the Government gives to the railroads the right to condemn private property, tear down a man's home, and that it grants them public franchises and employs them to carry the public mails, gives to the Government the right to demand supervision over the railroads. (76.)

Mr. JACKSON, a member of the Massachusetts State board of railroad commissioners, says that he does not see any reason why the powers of supervision possessed by the Massachusetts board of railroad commissioners should not be extended to the Interstate Commerce Commission. (See below, p. CLXXIII.) (848.)

Mr. DAVANT, commissioner of the Memphis freight bureau, believes that Congress should clothe the Interstate Commerce Commission with power to fix rates in correction of discriminations between points, the rates fixed to remain in force until overruled by a court. The representatives of the bureau advocate the adoption of the Cullom bill with a few changes. They do not desire, however, to enforce strictly the provision that no more shall be charged for a short haul than for a long one. The bureau also advocates the provision that the Interstate Commerce Commission may examine the books of railroads by means of common inspectors. (6.)

Mr. GREENE thinks that the tendency toward railroad consolidation may make additional control by the Interstate Commerce Commission necessary, though the precise nature of such control he does not discuss. Railroads are willing to submit to reasonable scrutiny by the commission, but do not wish to be dictated to continually. (473.)

Mr. GRIFFITH, representing the Denver Chamber of Commerce, has no definite conviction as to the increase of the powers of the Interstate Commerce Commission. He says that Denver merchants think the commission ought to have more power, and would favor allowing it to approve rates promulgated in the first instance by railroads, but not power to fix the rates themselves at the outset. Conditions vary so materially that members of the commission who are not railroad men would be unable to determine properly what the rates should be. A rate that would be very extravagant in the East would not be extravagant in Colorado. The witness also thinks that it would probably be best for the decisions of the Interstate Commerce Commission not to go into force immediately in case appeal were taken from them by the railroads. (857.)

Mr. WOODLOCK, railroad editor of the Wall Street Journal, does not consider the Interstate Commerce Commission a very powerful body. He believes, however, that it has done a great deal of good in protecting the public against exorbitant rates. It has promoted free discussion and knowledge of the facts. This system of uniform reporting has been advantageous.

It is a fact that the Interstate Commerce Commission is without power to enforce its decisions if an appeal is taken to the courts. Mr. Woodlock believes that such a matter as the reduction of rates could hardly be delegated to any authority short of the Supreme Court. Indeed the witness will be sorry to see the power to fix rates in the first instance given to any public authority. It may be proper to regulate long and short haul rates, and to endeavor to prevent discrimination, but the determination of rates generally is a matter which must be left to the railroad, since no other authority is competent. The only thing that finally must and should determine rates is free trade in railroads, free construction, and competition, which will establish rates reasonable by their very nature.

Mr. Woodlock does not think that the Interstate Commerce Commission should have authority to put its decisions into immediate effect when an appeal is taken to the court.

The hearing of an appeal may last for months, and if the decision is finally in favor of the railroad, it has much less remedy as against the shippers than the shippers would have against the railroad. It is true that it sometimes takes years to get

decisions through the Supreme Court, but the Supreme Court can not be hurried. (464, 465.)

Professor RIPLEY says that a modification of the law so that the increase of stock by interstate railways would be prohibited without a governmental permit would give the Interstate Commerce Commission a certain control over the roads, inasmuch as the commission would have something which the roads wanted and which the commission alone could give. It might go far, therefore, to supply the present inability of the commission to prescribe what rates are reasonable and what are not. (303.)

2. *Extension of the powers of the Interstate Commerce Commission.*—Mr. LANGLEY, of the Merchants' Association of New York, says that the merchants would welcome some extension of the powers of the Interstate Commerce Commission. There should be power lodged somewhere that could take up questions of rates and determine what is reasonable. It is entirely optional now with the railroads, no matter how meritorious a demand may be, whether they will pay any attention to it. The witness quotes from a statement of his made at the commerce convention in St. Louis some years ago, showing the position taken by that body, as follows, viz:

"(1) That the Interstate Commerce Commission should consist of at least 8 members, among whom shall be lawyers, railroad experts, and representatives of the shipping public; (2) that the commissioners should be appointed to hold office during good behavior, as in the case of the United States Supreme Court; (3) that common carriers should be given the right to enter into agreements, approved by the commission, in respect to interstate commerce only for the purpose of carrying into effect the provisions of the act."

The witness approves of the general provisions of the Cullom bill. Consolidation or the community of interest of railroads will not necessarily relieve the public from the need of protection, though it may lessen the necessity. The community of interest would eliminate competition (which the witness regards as a dangerous thing in transportation matters) by grouping the roads together and practically making one road of all. At present the Interstate Commerce Commission does not seem able to enforce its orders. There is no encouragement for the shipper to file a complaint.

The commission has on its docket numerous cases that have not been reached, some of which have been pending for years. He does not know that the delay is any fault of the law. Many cases arise, no doubt, where questions are very intricate and important, so that a decision may be difficult to reach. The witness submits a statement read by him at the Interstate Commerce Law Convention, held at St. Louis for the purpose of taking action to secure the passage of the Cullom bill at the last session of Congress. Among other things suggested in this paper is that the Interstate Commerce Commission should be removed from all suspicion of political influence, so that in the eyes of the public it may stand upon a plane similar to that occupied by the Supreme Court of the United States, and to bring this about the writer suggests that a life tenure would be proper.

As the railroads become more and more consolidated, the fixing of rates by these large corporations, to be approved by the Interstate Commerce Commission, will be simplified. The Interstate Commerce Commission, in order to pass intelligently upon the subject of rates, must have an intimate knowledge of the rate question. It is impossible for the commission to make rates. If, however, the commission should have a life tenure and should be properly constituted the objections might be obviated. The power to change rates, which many people think the commission ought to have, is practically the power to make rates, and the witness would not want to have the power to make the rates taken entirely away from the railroads. Referring to a remark made by a railroad president that he would rather have a place on the Interstate Commerce Commission, if he was venal and inclined to make money, than to have a free license to loot the United States Treasury, the witness says that the same remark might be made of the Supreme Court. Somebody must be trusted, and there is no reason why a man can not be just as honest on the Interstate Commerce Commission as he can on the Supreme Bench. The witness would make the Interstate Commerce Commission practically a judicial body. He would not question a decision or ruling of the Supreme Court on ordinary matters, but on the question of rates, where the facts are intricate, he would not give it such great weight.

The desire of the witness is to give the commission power to disapprove a rate and prevent it from going into operation. This would practically be equivalent to the power to fix rates. Replying to the question as to whether putting a decision of the Interstate Commerce Commission into immediate effect, notwithstanding it may be appealed from, would induce great confusion, the witness thought it would not necessarily do so, and he does not think it would interfere with the steadiness of rates. (877-882.)

3. *Rate-making power.*—Mr. WILSON, of the Cincinnati Board of Trade, says that he recognizes a distinction between the power to prescribe rates in the first instance and the power to approve those rates when promulgated by the railroads. The proper order of procedure should be that every railroad should promulgate its rates and should have the right to enforce them until they are proven wrong, the burden being upon the party proceeding against them. It is a fair presumption that railway managers intend to make an equitable tariff, but they may err, and should not have the authority to pass final sentence upon their own errors. In the winter of 1900 the railroad companies advanced rates throughout the Southern country from 25 to 50 per cent on about 30 per cent of the commodities that were shipped, thus levying an additional tax upon the people of several millions of dollars. In some instances this worked absolute oppression, prohibition, and destruction of business. The decision as to whether those rates should stand or not rested only with the railroads who made them. There was no other tribunal before which the matter could be brought. If the Interstate Commerce Commission, or some other representative of the Government, had had the right to suspend those rates until they were shown to be justified it would have been very much better. (690, 698.)

Mr. RIPLEY says that the placing in the hands of the Interstate Commerce Commission of the right to approve the rates of the different lines of railroads, without giving roads the right to pool, would not bring the redress that pooling would give, although it would be an advantage. It would not remedy the evil of underclassification unless it included the right of inspection. The right to pass upon rates should be given to the Interstate Commerce Commission, and would contribute toward the betterment of conditions. Whether the practice of rate cutting and personal discrimination, which can not be stopped by the railroads, could be stopped by an administrative body at Washington is a question. (290.)

Mr. TEISBERG, secretary of the State Railroad and Warehouse Commission of Minnesota, thinks that the Interstate Commerce Commission ought to have the power which his own commission has in its State of regulating or reducing rates in certain instances upon complaint. It ought to be able, after proper hearings, to adjust discriminations between localities and, perhaps, between commodities. It ought not to be empowered to make all rates. (372.)

Mr. THOMAS, of the Erie Railroad, is disposed to doubt whether the Interstate Commerce Commission has been of any benefit to the railroads or to the country at large. At the same time the recommendations of the commission have, in most respects, been followed by the railroads. It would not do to say that the commission has accomplished nothing. It affords an opportunity for those who think they have grievances to get an investigation, and if there is a real grievance public opinion usually enforces the decision of the Interstate Commerce Commission.

Mr. Thomas does not think, however, that the commission ought to have the power to make rates or, what he considers practically the same thing, to revise rates. It is not a safe thing to put into the hands of any five men the power of making rates in a country where industries are so diversified and numerous as here, at least unless the members of the body are appointed for life. It is not safe to allow politics to interfere in the matter. There would be no better opportunity for making money corruptly than would come to a member of the Interstate Commerce Commission if he had power to make rates throughout the country. The witness does not believe that Congress ever intended that the commission should have this power. (557, 558.)

Mr. MCGOVERN, chairman of the Southern Classification Committee, thinks carriers ought to be allowed to make their own rates, which of course should be reasonable in themselves. If the shipper does not feel that he has been fairly treated, he ought to appeal to the courts, and the carriers ought to aid or assist through the medium of the State commissioners or the Interstate Commerce Commission by sharing the expenses of the suit. He does not believe the Government ought to fix the rates. "The seller fixes his price. * * * If it is a yard of dry goods, there is no recourse. In the case of a common carrier there is a recourse, because of the peculiar business or functions of the common carrier."

It is well settled that the rate must be just and reasonable, and that the courts have authority to determine whether it is just and reasonable, but the shipper ought not to be put to the sole expense of having it determined whether he is being fairly treated. Every private or corporate citizen ought to aid in maintaining a tribunal which would relieve the shipper of the burden and cost of having that case determined for him. "I can not distinguish between the power to make rates and the power to make property unprofitable;" hence the State ought not to have power to fix rates for the transportation of people or articles. Capital invested in railroad business ought to have the same latitude as capital invested in any other kind of business, except that the carrier ought to be made to fix its rates at fair and reasonable figures, to be determined by the courts if disputed. There is a distinction

between saying that the State can fix the rates and saying that the courts can determine whether the rate is fair and reasonable. (665-668.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, thinks that to submit the rates of the railroads to the Interstate Commerce Commission for approval would be to submit the work of experts to those who are not experts in that particular line of business. It would be a most gigantic undertaking to supervise and examine the rates made by all the railroads of the country. (620.)

Mr. STUBBS, of the Southern Pacific Company, thinks that the Interstate Commerce Commission has all the power it needs to enforce the law if it would only exercise it. He holds that it would be dangerous for the commission to oppose the general rate-making power and that its attitude in opposing the legalization of pooling in order to compel the railroads to consent to an increase of this power is to be condemned. (766.)

Mr. MCGOVERN testifies that it would not be possible, in his opinion, for the Interstate Commerce Commission with its present functions to be also a court of final resort on the question of railway rates, nor would it be best for the decisions of the commission to stand on the question of rates until reversed. It is not right to assume that the railroads will do wrong pending the final decision of a case in the courts. (685.)

Mr. WILSON says that the board of trade at Cincinnati recommends the passage of the Cullom bill or some like measure. The most important matter is to amend the law so that the party complaining of a decision of the commission must appeal to the courts. The finding of the commission should be regarded as prima facie correct, and its decisions should stand upon the same basis as the decisions of the courts—that is, they should be binding until reviewed by the courts upon an appeal taken by the party against whom it is rendered.

It is now the duty of the Interstate Commerce Commission to apply to the district attorney and request him to bring a suit to enforce its order. This is a "lop-sided way of getting at justice." Formerly, when complaints were made to the Interstate Commerce Commission against the railways no defense was even made to the charges, but since the courts have decided that the railroads must very clearly show the necessity of taking further testimony than that taken before the commission they now make their defense before the commission in the first instance. The evidence taken before the Interstate Commerce Commission is regarded in the courts as prima facie evidence of the facts therein stated. (690, 698.)

Mr. HADDOCK, independent anthracite coal operator, says that it has been a matter of profound regret to the independent operators that the interstate-commerce law did not give effective control over rates to the Interstate Commerce Commission. The law merely made the decision of the commission evidence when the matter was taken into the courts and gone all over again. The witness would favor an amendment making the decisions of the Interstate Commerce Commission operative pending appeal. He also favors the Cullom bill generally. (534.)

Mr. WHEELER declares that San Francisco jobbers and shippers generally think that the Interstate Commerce Commission ought to have added powers, and in particular that it should be able to enforce its rulings pending appeal. The burden of appeal should be placed upon railroads, while at present the Interstate Commerce Commission is compelled to go into the courts to enforce its decisions. (745.)

Mr. STUBBS, of the Southern Pacific Company, thinks that the Interstate Commerce Commission ought to make every endeavor to reach a speedy decision as to cases brought before it. He thinks, however, that in most instances the commission has been prompt enough in making decisions. In some cases it has delayed a considerable length of time, but the questions coming before it are very far-reaching, and a single decision may affect the entire country, so that grave consideration is necessary. (766.)

C. Inspection and regulation of railroad accounts.—Mr. GREENE, of the Audit Company of New York, thinks it proper to require a greater degree of publicity of the affairs of railroads than would be feasible in the case of manufacturing and other corporations which have competitors who might profit by the information thus published. There is no danger that a railroad which shows its accounts will thereby promote the construction of a competing road or otherwise benefit competitors. The witness is disposed to favor more thorough governmental control of the accounts of railroad companies. He thinks, however, that the officers of the Interstate Commerce Commission ought not to be given authority to examine the accounts of railroads in person. There would constantly be a suspicion of political influence. It would be better for the Government to require that the accounts of railroads should be audited and examined from time to time by expert disinterested auditors,

such as, for example, the Audit Company of New York. The names of these auditors should be filed at Washington, and they should perhaps be required to give bond for the correctness of their reports. The responsibility of such auditors and the fear of losing business in case of fraud or error would be the chief safeguard as to the correctness of their work. The nature of the information to be required would be prescribed by the Interstate Commerce Commission. The witness believes that the uniformity of accounts already required by the Interstate Commerce Commission is advantageous.

One reason why, in the opinion of Mr. Greene, such private inspection would be superior to that of Government officials is on account of the difficulty and delicacy of the work. For instance, it is extremely hard to determine in many cases whether a corporation is solvent or not. The examination which the witness suggests would be much more difficult and thorough than that which national-bank examiners give to banks. It is a relatively easy matter to determine whether a bank is solvent. (479-481.)

Mr. Rice, a banker and railroad officer, does not think that the existing laws furnish any adequate safeguard to investors in railroad corporations. At the time when the witness investigated the affairs of the Reading Railroad, after the bankruptcy of 1893, he drafted a bill, which was introduced into Congress, for extending the powers of the Interstate Commerce Commission to prevent frauds on stockholders. The chief object was to provide for the examination of railroad accounts in the same way as those of national banks are examined. The one method of inspection is as easy as the other. All railroad reports go into great detail, and it is perfectly proper that railroads should be examined by the United States officers to see that the reports give correct figures, and especially to see that they are not misleading as to the true conditions. Such an investigation would show whether the various credits and earnings had a substantial basis. The Interstate Commerce Commission is the proper authority to be given control of the accounts. (741.)

Mr. Rice, speaking in part from the experience of the Reading Company, declares that there is danger to the solvency of the railroads from the practice of making loans and advances to leased lines. The Pennsylvania Railroad, itself only 400 miles long, may lease many other roads and obtain an enormous system. It may find that some of the roads thus acquired need money for development, and the money will be advanced to the leased line and will stand on the books of the railroad as an asset or surplus. It may be that the leased line will be unable to return the money on demand, and the lessor will incur the danger of bankruptcy if pressed for payments. The Philadelphia and Reading Railroad prior to its bankruptcy not only had made cash advances to leased roads but the affiliated coal company was largely indebted to it. The coal company was supposed to pay the regular rate of freight. It did not have the required cash to pay because it could not sell coal at sufficient profit. The railroad treated the money due from the coal company as earnings, as an available asset, but when it was found that the coal company did not have the money to pay the default was exposed publicly. It is possible for corporations having other corporations subsidiary to them to make misleading returns regarding assets and returns. (739, 740.)

Professor ADAMS, statistician of the Interstate Commerce Commission, thinks that the Federal Government ought to assume a more complete control of the accounts of railroads. The railways themselves have been brought to see, through the agency of the Interstate Commerce Commission, the desirability of uniformity in accounts of operating expenses. They, as well as the State commissioners, have helped to work out a uniform system of such accounts; but it has been very difficult to go further in the direction of uniformity than the operating accounts. It seems to many that it might be advisable to establish a bureau of statistics and accounts, with somewhat the same relation to the railroads that the office of the Comptroller of the Currency has to the national banks. It seems to Mr. Adams that if the Interstate Commerce Commission and the State commissions are to perform the duties imposed upon them they must have access at first hand to the books of the companies. Each of these commissioners is in a sense the director representing the public interest in those corporations. He ought to have a voice in the administration of them. The St. Louis convention of State railroad commissioners approved such a policy, though by a rather close vote. The law gives the Interstate Commerce Commission a right to demand uniform reporting and to ask for special information; but that is quite a different thing from a regularly established system of inspectors, who should see that the books of the railways were kept according to the principles laid down.

The railroads would object to such a law, perhaps, because they would think it an invasion of their rights. They might also feel to some extent that it would lead to the escape of secrets of administration. The railroad men say, also, that the same

rule of accounting does not apply to all conditions, and Mr. Adams supposes "the most common objection would be that they can not trust the public officials when they get hold of them." On the other side, the great advantage of uniformity of accounts is that after a person has gone to the trouble of studying in detail the accounting of one system the accounts of all the roads in the United States are at his disposal and he can understand them. When one saw a total one would know the meaning of it without going through the whole mass of figures; while now, there being no guaranty of uniformity, a man can never tell, even though he is acquainted with a system of accounting, what a given total means. (384, 385.)

Mr. Nicholson testifies that the Interstate Commerce Commission has mapped out the line for the general exhibits of the operation of the railway companies, but below that come the various traffic accounts which lead up to those figures, and there is no uniformity in the methods. The Central Railway Clearing-House has to take care of 12 different systems of accounting and make its record fit the ideas of the individual companies. The Interstate Commerce Commission has done effective work toward securing greater uniformity of accounts than previously existed. The various roads make reports to the commission, which are full and complete and from the schedule prepared by the commission. The system of accounting prescribed by the Interstate Commerce Commission is fully in accord with the forms adopted by the Society of Railway Accountants. There is perfect harmony existing between them. (727, 730.)

Mr. Woodlock does not think that it would be practicable for the Interstate Commerce Commission to inspect and audit the books of railroad companies. This is no longer necessary for the purpose of discovering rate discriminations, since these practically do not exist. (484.)

Mr. Schiff, banker, says that the question of public examination of accounts of public utility corporations is such a large one that he does not wish to express any definite opinion concerning it. Any dishonest action on the part of railway corporations should be made punishable by law. There is ample legislation for this, and all that is necessary is a proper enforcement of the laws. He knows that no dividend has ever been declared by any of the corporations with which he is connected that has not been earned, and he can not point out a board of directors which has declared dividends that have not been earned. There would be some difficulty in making a director personally responsible for any misstatement in respect of the condition of the property he represents, and it could not be done except in the case of gross frauds. It would be very wrong to declare a dividend that has not been actually earned, if a reserve does not exist, and it would be decidedly wrong for a railroad to declare a dividend and almost immediately thereafter go into the hands of a receiver. (773.)

D. State railroad commissions and regulations.—1. *Railroad and warehouse commission of Minnesota.*—Mr. Teisberg, secretary of the State railroad and warehouse commission of Minnesota, says that the law of 1885, which created the commission, made it an advisory body without power directly to fix rates. It could only recommend to the railroads any changes it thought proper. In 1887, however, a new act was passed, based on the bill to regulate interstate commerce, which was then pending. Much of it is in the same words as the interstate-commerce act adopted in 1887. There are some exceptions. One is that the State act permits the railroads to issue free passes to whomsoever they please within the State. The act empowered the commission to fix or change rates made by the railroads. Under this power they reduced certain switching rates from \$1.50 and \$2 per car to \$1 per car. They also reduced the rate on milk from 3 cents for 10 gallons to 2½ cents for 10 gallons for distances up to 75 miles. The railroads did not obey, and mandamus proceedings were instituted. The State supreme court decided that the intention of the legislature was to make the decision of the commission final and conclusive as to what are equal and reasonable charges, and that this law was constitutional. The United States Supreme Court, on appeal, holding itself bound by the decision of the State court so far as the interpretation of the intent of the legislature was concerned, held that the law as interpreted by the State courts was unconstitutional, because it deprived the company of its right to a judicial investigation by due process of law, and substituted therefor, as an absolute finality, the action of the railroad commission, which, in view of the powers conceded to it by the State court, could not be regarded as clothed with judicial functions or possessing the machinery of a court of justice. The next legislature, which met in 1891, amended the law to meet the objections of the United States Supreme Court. The amended act provided for the making of complaints in regard to the rates by any person or corporation or municipality. The commission had power to investigate, giving the company due notice, and proceeding as far as possible in the manner pursued in such cases in a court. The first

and perhaps the most important case that came before the commission under this amended law was the question of grain rates from the Red River Valley to Minneapolis and Duluth. In 1894 the commission made its order reducing these rates about 12½ per cent. The railroad company appealed to the district court, where the case was tried *de novo*. The State undertook to show what would be the cost of reproducing the railroad, and what the earnings of the road for several years had been upon grain traffic, with a view to proving that the rates fixed by the commission would give the road a fair income upon the cost of reproducing the road at that time. The decision of the district court was adverse to the commission. The supreme court of the State reversed the district court, and held that the question whether the rates fixed by the commission were unreasonable and confiscatory was to be determined not with reference to the amount of the fixed charges of the road nor to any other basis of cost than the cost of reproducing the road at the present time. The case was sent back to the district court, but was never heard again there, perhaps because the Great Northern Railway Company had completed a short line from the Red River Valley to Duluth, decreasing the distance, and had thereupon established rates which, in some instances, for the longer distances, were lower than the rates ordered by the commission. The adoption of these rates by the Great Northern of course compelled the Northern Pacific to adopt the same rates on its line through the same territory.

In 1897 the law was again amended so as to permit the railroad commission to proceed to the investigation of rates upon its own motion. Up to that time a complaint had been necessary. Under the new law the commission investigated the reasonableness of the rate on hard coal from Duluth to New Ulm over two lines of railway, and proceeded to fix a joint rate, and when the two roads refused to divide that rate proceeded also to determine the division. In this case the question was as to the power of the commission to make joint rates. This power was sustained by the State courts, and the case is now pending before the United States Supreme Court. A power closely connected with this is that of compelling two roads which cross each other at grade to put in a Y connection for the transfer of traffic from one road to another. This power has been sustained by the United States Supreme Court. (361, 363.)

2. *Massachusetts Board of Railroad Commissioners.*—Mr. JAMES F. JACKSON, a member of the Massachusetts State Board of Railroad Commissioners, says that that commission was founded in 1869. It is made up of 3 members, one of the members being familiar with questions which affect trade and commercial interests, another member being familiar by experience with railroad construction and railroad operation, and the third being a lawyer. (841, 842.)

Mr. Jackson says that this Massachusetts board of railroad commissioners has general supervision over all the railroads and street railways within the State and matters are continually referred to it by the legislature. It has both mandatory and advisory powers. It has absolute control in respect to questions concerning grade crossings of railroads and highways, of railroads and railroads, and of railroads and street railways. It has the power of approval in respect to the safety appliances of railroads, and the road is obliged to accept the judgment of the commission as final. It has the power to fix the price of stock in cases of purchase. If an issue of stock is authorized and the purpose is proper, and the amount is a proper amount, the commission fixes the value at which the stock shall be offered to the original stockholders. The new stock may be paid in at a different rate from that of the original issue. The board also has authority to pass on the propriety of the building of new railroads. As yet it has not that power in respect to the building of street railways, though there is a bill before the legislature which provides for that. The books of all railroad companies are open to the inspection of the board at any time. The board examines the annual reports of the railroads, which reports are made upon a prescribed system, and from time to time the roads are requested to furnish the board with the facts and figures that are set out in their books. It has never been the practice of the board regularly to audit the books.

The board has advisory powers in respect to questions of rates, both passenger and freight rates. It does not fix rates, but merely supervises them. It does not seem desirable that the board should have the power to fix rates. It does, however, exercise a very material influence over rates. The railroads are not bound by law to follow the recommendations of the board in respect to rates, but, as a matter of fact, during the history of the board it has been only in exceptional instances that either the public on one side or the railroad or street railway corporation on the other has disregarded the recommendations of the board. During the last year and a half, during which time Mr. Jackson has been a member of the board, the railroads have conformed in every case to the board's recommendations. Occasionally, when the recommendations of the board have been in support of the railroads, there has been

some criticism on the part of the public, but not very much. In a few instances there has been an appeal to the legislature, and some legislation. It has been generally true that when the appeal has been made to the legislature the legislature has sustained the board. The recommendations of the board are observed probably because of the feeling that the subject-matter has been carefully investigated, and an attempt has been made by 3 persons representing both sides to reach a just conclusion, and because of the feeling that unless the recommendation is such as to warrant an appeal to the legislature it is practically final. The control of the board in financial questions has probably strengthened it in making recommendations in respect to other matters. The board's control is practically limited to incorporated companies. So far as appears, however, there has not been any disposition to evade the control of the board by the formation of unincorporated companies.

The feeling in favor of the board has grown stronger and stronger on the part of the people, and many formerly opposed to the board admit that the security of railway stocks has been affected by it for the benefit of the railways and the benefit of the people.

Last year the board had presented before it over 300 matters, involving hearings almost every day. (842, 848.)

3. *California railroad commission.*—Mr. STUBBS, of the Southern Pacific Company, says that the California railroad commission, under the constitution of that State, is supposed to have power absolutely to fix railroad rates, although the Southern Pacific Company would not be willing to recognize that such a power could be conferred by a State constitution. The commission has from time to time caused considerable reduction in local rates. It undertook to require a general reduction in the rates on grain to the seaboard and the matter was finally compromised in 1899 or 1900 by an agreement on the part of the railroads to reduce rates about 8 per cent. The witness thinks that the commission has been useful. It approves all tariffs. It has not been confiscatory in its actions and for that reason some of the people condemn it. (767.)

4. *Grade crossings.*—Mr. TEISBERG, secretary of the State railroad and warehouse commission of Minnesota, says that his State has not given much attention to the protection of life and limb at railroad crossings. There is a law requiring that where two railroads cross each other trains must come to a full stop unless interlocking signals are provided and approved by the railroad commission. Such signals are now becoming very common in the State. (363.)

Mr. JACKSON, a member of the Massachusetts State board of railroad commissioners, says that in Massachusetts the abolition of grade crossings has been undertaken. Under a statute passed in 1890 the railroad pays 65 per cent of the expense of abolishing grade crossings and the State and the city or town together pay the other 35 per cent. The board has made a special investigation into the question whether the street railways should not bear a part of the expense where they cross railways, and has decided that they should. The legislature is now at work on a bill in response to that decision. (843.)

E. Departments of commerce and transportation.—Mr. BACON, of the Michigan Alkali Company, believes that there should be two new government departments of transportation and commerce, respectively. He thinks that these interests are so great that a single department would not be sufficient to supervise both of them. (77, 80.)

F. Regulation of railroad construction (see also under *Paralleling*, p. xciv).—Mr. WOODLOCK, railroad editor of the Wall Street Journal, asserts that the English law and the Massachusetts law, regarding the establishment of railroads and their capitalization, tend to protect the railroad companies more than the public. They practically prevent the construction of competing roads when there is a sufficient number of roads already to accommodate business. The witness believes that this is a wise policy, but does not think that shippers ordinarily believe so. The Interstate Commerce Commission has always looked solely to the interest of the shipper; it has restricted and restrained the railroads and not protected them at all. (460, 462.)

IX. WATER TRANSPORTATION.

A. General relation to rail transportation (see also as to effect on long and short haul rail rates, pp. cv-cxvi).—1. *Interaction of water and rail transportation*, pp. cv-cxvi).—Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburgh, says that water routes should not be regarded as rivals of rail routes in an injurious sense. On the contrary, the construction of water routes, by enabling the cheaper commodities to be carried in great quantities at low cost, would create an additional need for railroads to carry the more expensive commodities and to carry

passengers. This has been the experience of the continent of Europe, where the improvement of waterways has been carried far beyond anything that we have dreamed of. The more waterways the more railroads, and the greater their profits. The cheap transportation of ore on the Great Lakes has added immensely to the business of the railroads which transport the products of the ore. But for water transportation the Lake Superior iron ore would have remained in the earth, and the great industries that are founded on it could not have been established. But for those industries the railroads could not have approached their present prosperity. The industrial supremacy which this country is acquiring depends largely upon its cheap coal, and that again depends upon cheap transportation. Improvement of the waterways, which shall permit coal to be delivered at trifling cost to industrial establishments, will vastly increase the business of the railroads as well as the general prosperity. (639, 642, 645, 646.)

2. *Influence of water on rail rates.*—Mr. MARKHAM, after speaking of the influence of the Mississippi (see p. CLXXXVII), adds that the rates on traffic east of the Toronto-Buffalo-Pittsburg line destined to the Southern States are affected by the coastwise ocean carriers.—The Great Lakes, the St. Lawrence River, and the Erie Canal dominate the rail-carriers' rates on traffic between the Eastern and Western States in a similar manner. The rail rates are first adjusted between Chicago and New York in competition with the lakes and canal, and Philadelphia, Baltimore, Newport News, and Norfolk then claim less rates by reason of less distance from the West than New York. Inland towns in States bordering on the lakes take proportionate rates with those from Chicago, according to distance from New York, which virtually means that every point in the lake States enjoys the full benefit of the lake and canal competition on seaboard business.

On transcontinental traffic the Atlantic and Pacific oceans govern the rates. Rates by rail from New York to San Francisco are measured by those made by ocean steamers via the Isthmus to San Francisco, and by competition the western railroads have been compelled to make the same rates to the Pacific from all the inland territory as are made from New York. The rates which the American railroads make from the Pacific coast to the Atlantic seaboard on goods to or from China, India, and Japan are even governed by the ocean rates made via the Indian Ocean and Suez Canal.

"The power of the railroads to enforce any given rates is circumscribed by the water carriers, and the maximum they can charge is prescribed by the rivers, lake and ocean carriers." The competition between railroads themselves, demands of rival towns, and other influences may reduce the rates below the figures made necessary by water competition, but the maximum rates are governed entirely by charges made by the river, lake and ocean carriers. (428-430.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that there are rail-and-lake lines between Baltimore and Chicago and other northwestern points during the lake season. They are more circuitous than the all-rail lines and are allowed by the general agreements of the roads to make somewhat lower rates. (614.)

3. *Magnitude of lake and river traffic.*—Mr. ANDERSON says that the Great Lakes transport over 25,000,000 tons of freight annually, the greater part of which, the Lake Superior ores, are carried at a cost of half a mill a ton a mile. Over 30,000,000 tons a year are shipped on the streams of the Mississippi Valley. Of this amount some 17,000,000 tons originate on the Ohio River. (638, 646.)

B. Atlantic coastwise transportation (see also as to effect on long and short haul rates, pp. CVII ff).—1. *Old Dominion Steamship Company.*—Mr. GUILLAUME, president of the Old Dominion Steamship Company, testifies that that company was organized under the laws of Delaware in 1875, and operates freight and passenger steamers from New York to various points in the South. It has subsidiary lines to many points in the Chesapeake Bay country and to the North Carolina coast. It has both freight and passenger connections with all the great railroad lines out of the Virginia ports, chiefly the Norfolk and Western, the Seaboard Air Line, the Atlantic Coast Line, the Southern, the Chesapeake and Ohio, and the Norfolk and Southern Railway. The great bulk of its business on the main line from New York to Norfolk, Portsmouth, Newport News, and Richmond is freight, but it has an extensive passenger business. The company operates 6 ocean steamers, 12 subsidiary steamers, and between 35 and 40 harbor craft. (442, 443.)

The capital stock of the Old Dominion Steamship Company is \$1,250,000 and it has \$1,000,000 of outstanding 5 per cent bonds. (450.)

2. *Merchants and Miners' Transportation Company.*—Mr. DANIEL H. HAYNE, general solicitor of the Merchants and Miners' Transportation Company, says that that company was incorporated by the general assembly of Maryland on April 24, 1852; that the

first trip made was from Boston to Baltimore, December 28, 1854. In 1867 steamers were run from Boston to Norfolk, thence to Baltimore and return. In January, 1859, a line from Providence to Baltimore was started, but only ran a short time and was revived in 1873. The Baltimore-Savannah line was purchased in 1876, and the Philadelphia-Savannah line was incorporated in October, 1900. The line maintains 15 steamers, with a net tonnage of 23,868 tons and a gross tonnage of 33,553 tons, and touches Boston, Providence, Norfolk, Baltimore, Philadelphia, Newport News, and Savannah. (413.)

3. *Control of steamship lines by railroads.*—Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that the Old Dominion Steamship Line connects with the Seaboard Air Line, the Atlantic Coast Line, and the Southern Railway Company, and that all three of these companies are interested in the steamship company. The Southern and the Seaboard Air Line have each a line of steamers running from Baltimore to Norfolk. The Ocean Steamship Company, running to Savannah, has always been controlled by the Georgia Central. The Clyde lines, however, are entirely independent. (628.)

Mr. GUILLAUME states that the Ocean Steamship Company of Savannah and the Cromwell and Morgan lines to New Orleans, as well as the Chesapeake Bay lines and most of the Eastern lines from New York, were owned and controlled by railway companies. His understanding is that the Merchants and Miners' Company, the Mallory Company, and the Clyde Line have no railroad ownership, but have a large affiliation with railroads in the sense that a large proportion of their business is in connection with railroads, and they have close working and traffic alliances with the roads. The Old Dominion Line operates as a water line primarily, but has railroad alliances which are necessary to the growth of its business. The chairman of the board of directors of the Norfolk and Western road, the president of the Seaboard Air Line, and the president of the Southern Railway are on its board of directors. The majority of stock of the company is held by these railway interests. This railroad interest has existed for 20 years. (442, 433, 444.)

Mr. WILSON, of the Cincinnati Board of Trade, says that the Ocean Steamship Company is owned by the Central Railroad of Georgia, and that the other coastwise lines, with a few exceptions, are owned largely by the other Southern railways. This community of interests result in very little competition in fact between the Eastern transportation lines. The members of the Southern Railway and Steamship Association generally claim that the tramp steamers compete very largely with the other transportation companies, but the witness thinks the competition of tramp steamers for regular trade is not severe. It is more for specialties. (689.)

Mr. MCGOVERN, of the Southern Classification Committee, says that the rail lines operating from Norfolk and other ports own a large portion of the stock of some of the coastwise steamship lines. The Ocean Steamship Company to Savannah is controlled by practically the same interests as the Central Georgia Railroad. The Chesapeake Steamship Line from Baltimore is the same as the Southern Railway. The Baltimore Steam Packet Company is controlled by the same interests as the Seaboard Air Line. The Clyde Philadelphia Line, the Old Dominion Line, and the Merchants and Miners' from Boston are trunk lines, and the rail lines leading from Norfolk, from good traffic reasons, would want to have an interest in, and the witness believes they do largely control, those lines through stock ownership. (663, 664.)

4. *Rate making and competition with railroads.*—Mr. GUILLAUME states that his company is not a member of the Associated Railways of Virginia and the Carolinas, but is a member of the Southeastern Freight Association, which is a wider organization. This association is a common bureau, through which the rates of all lines participating in competitive business are arranged. The association does not fix rates arbitrarily, but each company had a right to arrange its own rates, concessions, of course, very often being necessary.

The principle has been adopted of granting a differential to the rail-and-water lines as compared with the all-rail lines. In no case is the differential made wide enough to attract any commodity; it simply gives a fair result to the shipper. The differential between New York and Richmond enjoyed by the Old Dominion Line against the railroad carriers is 5 cents on first-class freight and 1 or 2 cents on sixth-class. There is no such differential between New York and Norfolk.

The origin of the difference between the rates, both by vessel and by rail, from Northern points to Norfolk and to Richmond is the old steamer scale of rates. Steamers in order to reach Richmond touch at Norfolk and then go up the James River 120 miles. Recently the Old Dominion Company has adopted the policy of making the rate the same from New York to both these cities, because of the distributing competition between them. It could be fairly claimed that because Norfolk is nearer the sea than Richmond there should be a difference of rates on the merits of the case.

The system of prorating between different carriers on through shipments is ordinarily based on the distance carried by each link in the line. Where the distance is by water it is on an estimate of two for one; that is, the expense of water carriage for an equal distance is counted about one-half that of the all-rail carriage. The other Atlantic coast lines use that same basis. In some instances, where the water lines are short, the basis becomes unfavorable to those lines, and hence an allowance is made for extraordinary terminal expenses. In prorating from New York to Norfolk or Richmond there is very little difference in respect to local or through freight, the proportion of distance carried generally fixing the percentage. The old principle of rate making for through business was to add together the local rates between the points on the line of through traffic. Now other elements have entered into the question of rate making, and those considerations are not given much prominence. Rates are not made by the cost of doing the business, but by other considerations. (443-447.)

Mr. Guillaudeau states further that there is a genuine competition between the coastwise steamships and the north-and-south railroads reaching the coast points. On business through these ports to the interior the competition is rather between the water lines and their rail connections and the all-rail lines to the ultimate point in the interior. When rates are made, there is an allowance in the nature of a differential to the rail-and-water lines; the theory is that this route has certain disabilities, the most important of which is the breakage of bulk at the point of transfer; secondly, the marine risk and danger of damage; and, third, the infrequency of sailing and the longer intervals between movement. (444.)

Mr. Guillaudeau states also that coastwise lines are out of certain kinds of business, notwithstanding lower rates; that in the great development of the Southern cotton mills the transportation of much of the cotton-mill machinery is now going by the all-rail lines, because of its delicate character, and because there is no break in the transit to inland points. (444.)

Mr. HAYNE says that his experience is not sufficient to give any very just estimate of the extent of competition of the railroads with the coastwise steamers. There is a certain amount of business which goes naturally to the boats, because of the lower rates. The principal competition that the coastwise steamers suffer is with the sailing vessels. The only fair comparison that could be made would be of the fixed rates of the rail lines with the basing rates of the steamship lines, but as a comparatively small portion of the business is handled by the steamship lines on these basing rates the comparison would be misleading. The steamship lines are obliged to handle a great portion of their business on commodity rates made to meet the exigencies of the case.

There are other coast lines under the control of railroads, but the witness understands there is no discrimination in their favor by the railroads. Sometimes vessels require a certain amount of ballast, and if the vessels were light they would carry freight at a very low rate. There is a water differential in favor of the water line; the water lines are required to carry marine insurance, which the railroads do not. The Merchants and Miners' Company does not carry any coal. It carries some fruit and vegetables and lumber. (418-420.)

Mr. Hayne states that he is not familiar with the revenue features of the coastwise trade, but he believes that it is prosperous; his company has paid dividends regularly. New vessels of his company have been built, both from funds derived from an increase of the stock and from earnings. The volume of trade is increasing. (423.)

Mr. GRISWOLD, general freight and passenger agent of the Western Maryland Railroad, says that rates to Southern points by coast steamers and by rail from the Southern ports to interior points are lower than all-rail rates from Baltimore. These differentials were allowed because it was claimed that shippers by water had to insure their freight, and that the time was slower. Now the water lines bear the insurance, and they make about as good time as the rail lines. Mr. Griswold does not think, therefore, that these differentials ought to be allowed any longer to exist. (621.)

Mr. MCGOVERN, of the Southern Classification Committee, testifies that the steamship rates from New York to the Southern ports are less than the all-rail rates to the same ports. There is a fixed differential in favor of the steamship lines. Steamship companies do not consult anybody about their rates, and they are not subject to the jurisdiction of the Traffic Association. The all-rail lines put in rates as low as they can go, but they can not meet the steamship rate. The differential is fixed by agreement from time to time by the coastwise lines and their competitors of the Traffic Association. The present differential begins at 12 cents on first class. At one time it was only 6 or 8 cents.

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Despite the fact that many of the steamship lines are affiliated in ownership with the railroads, there is the same competition between them and railroads as between the different rail lines. The policy of the large trunk lines of the East reaching into Southern territory is to be neutral. There is a friendly interchange of business at the competitive points. There ought not to be much difference between all-rail from New York to Richmond and all-rail to Norfolk. (663-665.)

Mr. TALCOTT, assistant to the president of the Seaboard Air Line, says that when he had direct knowledge of conditions prior to ten years ago there was competition between the steamship lines and the railroads in the Southern territory, even for business from the West. The joint rates made by the central trunk lines and the coastwise steamships were controlling factors in rail rates for Western business to the South Atlantic ports, and to some extent to inland points. The through rate from Chicago to Savannah and Charleston, for instance, was fixed by rates made by the trunk lines and the coastwise steamships. Augusta was affected because there was a regular line of boats up the Savannah River to it. (627, 628.)

5. *Differentials by water route—Denver.*—Mr. GRIFFITH, representing the Denver Chamber of Commerce, says that the freight rate on goods coming from Eastern points by way of the Gulf of Mexico and the railroad through to Fort Worth is \$2.33 to Denver on first-class commodities, as compared with \$2.72 by all-rail routes. A considerable volume of business comes by this water route. The witness does not know whether the combination of the Union Pacific and Southern Pacific will be likely to result in the doing away with this differential. The combined railroads might find it cheaper to haul the goods by water, and therefore maintain the differential. (850, 855.)

6. *Coastwise classification of freight.*—Mr. HAYNE states that the classification of freight on the coastwise steamers is the same as on railroads, except that there are certain conditions that must be made by the boats which the rail lines do not experience. Large freights are carried direct from the ports at rates that the railroads would probably find unremunerative. Merchants have adopted a plan of centralizing their points of distribution, and very often they ship to local ports and distribute from there. (418-419.)

Mr. GUILLAUMEU says that the steamship companies engaged in the coastwise trade are getting in line in matters of classification and methods of charging by weight, the same as the railroads. (446.)

7. *Costs of operation—advantages and disadvantages.*—Mr. GUILLAUMEU states that the costs of operation of water transportation have not decreased in recent years in the same proportion as have the costs of operating railroads. The service on the Old Dominion Line is better than it was twenty years ago, and has improved almost as much as railroad service. The methods are more expensive, and there is greater expense in operating the line than before, but with the extension of business which has followed intelligent methods a lower cost has been obtained. He doubts if a steamer has the latitude to make economies that a railroad has. There are certain costs, like the greater consumption of coal for higher speed, and the greater use of electric lighting, etc., which means an added cost that can not be escaped. (448.)

Mr. Guillaumeu states that one of the differences between water transportation and through rail transportation is that every pound of freight carried by steamboat must be loaded on and off the vessel. It requires in many instances a superior class of labor to handle the freight. Railroad freight does not have to be handled so thoroughly, and in many cases is not loaded by the railroads at all. On the other hand stands the enormous cost of the railroad plant before it can begin operation, as against the smaller plant cost of the steamship organization. A short water route would not have any particular advantage as to cost over a railroad, the terminal charges being so much greater, and there being only a short distance in which to recoup by the lower cost of moving the ship. Water lines have no real basis of comparison between one another; they can not publish figures as the railroads do, because, if they did so, it would invite undue competition. (446-447.)

Mr. Guillaumeu says that the labor, cost of handling freight, which is summed up in the trade as longshore labor, amounts to 24.7 per cent of the total operating cost. If the clerks and agents are included, the proportion is 33.6 per cent of the entire operating expense. He does not know whether his labor is in unions or not. There are no rules or restrictions in respect of it so long as the men do their duty. (450.)

Mr. HAYNE states that the advantages of coastwise steamers over sailing vessels are better service, higher-paid employees, and less liability of accident. (420.)

8. *Steamships' passenger traffic.*—Mr. HAYNE states that with all transportation companies the freight business is the most important, but that the passenger business is also remunerative, else the companies would not carry passengers.

Mr. Hayne says that the passengers on the Merchants and Miners' Line have the same accommodations that are to be found in the best hotels; that sometimes, of course, their ships were delayed by reason of quarantine, but the delay was for the general good, and the quarantine officers would make the delay as light as possible. (418, 421.)

9. *Insurance.*—Mr. GUILLAUME states that coastwise trade has an advantage in rates of marine insurance over ships in the foreign trade. Underwriters feel that the coastwise risk is less. Insurance is placed in America in both American and foreign companies, about half and half. The American companies do not like to take big risks, so the steamboat companies fill up with American insurance and then go abroad for the balance. The rates are practically the same, because the steamboat companies refuse to pay differently. Formerly the foreign policy was a little more favorable than the American policy. The vessels are under American inspection and are built according to American rules, and the insurance companies base on that fact. (449-450.)

C. American merchant marine and ship subsidies.—1. *Early prominence.*—Mr. OSBORNE HOWES, secretary of the Board of Fire Underwriters and member of the Boston Chamber of Commerce, testifies that his ancestors for several generations were American seamen. The American merchant marine has been subject to great fluctuations from time to time. In 1790 the merchant tonnage of the United States registered for the foreign trade was 364,000 tons. In 1810 it had grown to 981,000 tons. This growth was chiefly due to the great advantages the American people enjoyed in consequence of the Napoleonic wars, the United States being practically the only neutral nation in the world. After 1810 the American merchant marine suffered a very serious decline; in 1830 the tonnage had fallen to 537,000 tons. In 1847 the tonnage had increased to 1,047,000 tons. From that time to 1861 it went up with great rapidity, and at the breaking out of the civil war it amounted to 2,496,000, or nearly as much as that of England at that time. The great increase beginning in 1847 was partly due to development of trade with California and the great influx of migration which took place at that time. The profits of the voyages were very great. Some ships from Boston to San Francisco obtained freight money enough on that one voyage to pay the entire cost of building. When the vessels would unload at San Francisco, they would proceed to the Pacific islands and do a great deal of trading there, possibly returning to the United States by way of Europe. The officers and sailors were better adapted to the business than those on any of the foreign ships, and could deliver cargoes in better shape, so that for five or six years prior to the breaking out of the civil war an American ship in Asiatic and Australian ports could obtain better charters to carry goods to Europe than the European merchants would give to the vessels of their own country. (702-703.)

2. *Decline of the American merchant marine.*—Mr. HOWES says that the decline in the American merchant marine resulted largely from the civil war. Confederate privateers preyed upon the commerce, and insurance rates went up to a very high point. This would have righted itself when the war was over if the price had been such that iron craft could have been built, or if the laws had not prevented the purchase of foreign-built ships by American merchants. Iron construction of merchant vessels had been commenced before the war. Several iron vessels had been constructed in Boston Harbor, and were employed part of the time in the Government service as transports. They were very well built. The tendency at that time among the American shipowners was to favor wooden vessels rather than iron ones. The witness's father ran a line of wooden steamers between Boston and Liverpool, which was called the American Steamship Company. The enterprise failed, owing to the lack of business and the great cost of the vessels. The Pacific Mail Steamship Company some time after the war received a large subsidy for carrying the mails between San Francisco and Hongkong. It employed four vessels and spent some \$5,000,000 in building them. They were poorly adapted to the business and were not successful. The money spent in building them was practically thrown away, so far as the development of American commerce was concerned.

In 1826 92½ per cent of the foreign commerce of the United States was carried in vessels sailing under the American flag, but at that time the total tonnage for foreign voyages was only 696,000 tons. In 1861 the tonnage had increased to nearly 2,500,000 tons, and about 65 per cent of it was carried in American vessels. One reason for the decline in this percentage was that American seamen had found a better business than carrying American commerce only. They had become the common carriers of the world. An American vessel in those days leaving New York or Boston was frequently out for four or five years. They were doing business all over the world, and seldom came home except for the purpose of refitting. Wages on the vessels

were relatively much more than they were on foreign ships or than are paid at the present time on American ships.

The difficulty that is experienced at the present time is that the "tools of our trade" can not be obtained at a low price. The American shipbuilder, owing to the high price of the materials entering into the construction of vessels, has not been in a position to compete on equal terms with foreigners, and the annual depreciation in vessel property is very great, representing approximately 10 per cent a year. If the American shipbuilders had been willing to permit the purchase of foreign-built ships by American ship merchants, they would have had just as much to build themselves for the coastwise business and probably a great deal more in the way of repairing than they have had of vessels engaged in the foreign trade. If the law in this regard were repealed a resuscitation of the merchant marine would take place. It is not a question of capital, for there can be plenty of money obtained to purchase foreign-built vessels. (702, 705.)

3. *Ship subsidies.*—Mr. Howes, of the Boston Chamber of Commerce, declares himself opposed to the subsidy bill. The result of subsidies to American steamship lines has not been satisfactory. The Collins Line has been cited to the effect that if the subsidies had been continued the line could have been built up, but unfortunately the line was doomed before the subsidy ended, partly no doubt through no fault of the managers, but largely through circumstances beyond their control. This line as well as the English lines at the time were composed largely of passenger steamers. The passenger lines depend for patronage upon the success and safety with which they carry their passengers. The loss of two steamers by the Collins Line was fatal to its business. Mr. Howes does not think there is any need for subsidy. The construction of American steel vessels might be undertaken if American shipbuilders could purchase American steel plates and other steel fixings for ships as cheaply as they are sold by the American steel men to the shipbuilders in Scotland and England. He is not aware that in the transportation of freight any foreign Government—with the exception of France and Italy, where it has proven a failure—is aiding its merchant marine by subsidies. Germany never gave a general subsidy, but practically only to the North German Lloyd Line. In France there is a general subsidy, but it has not stimulated its merchant marine. The subsidy paid by France was not a failure because she bought her ships on the Clyde, for she paid a higher rate to those which were built at home. The French are the best people in the world for the construction of vessels. It is not a fact that France held her own when she had a subsidy. Her merchant marine may have increased for a short time, but relatively she is now worse off than she was before. There has been a growth of the merchant marine of all the maritime nations except that of France.

In England, so far as Mr. Howes is aware, there is not a single vessel obtaining a mail subsidy that is not a passenger and a mail carrying steamer. The Peninsular and Oriental Line carries freight as well as passengers, but its main resource is passenger business. The North German Lloyd has entered the passenger business to some extent, running its steamers to the Far East and dividing its money with the Hamburg-American. These lines carry freight, but are more particularly maintained on a mail schedule. The subsidy is paid by Great Britain to the Peninsular and Oriental Line on the ground that they are to make a higher rate of speed than it would be profitable for freight steamers to make. No other lines operating in the same direction care to meet the conditions of speed placed upon this line. The purely freight steamers plying between England and the East are not paid subsidies. Roughly speaking, the tonnage of the Peninsular and Oriental Line is about 500,000 tons; Mr. Howes does not know definitely how many are on the mail schedule. The subsidy paid to that line is not so much for the support of British commerce as it is "for the support of the political supremacy of the British Empire." If the United States were to run a line of steamers from Manila by way of Honolulu and pay a big subvention, the witness would consider it not so much for the purpose of developing American commerce as an endeavor to combine the outlying parts of the United States.

The subsidy bill that was pending in the last Congress, concludes Mr. Howes, was not a wise measure. If the protection granted to the American shipbuilder by that bill were accompanied by a repeal of the law that prohibits the purchase of foreign-built vessels, the bill would not be so objectionable.

Norway has developed her merchant marine very rapidly without any subsidy. The Norwegian steamers carry a very large share of American business. They are employed in business all over the world, and have been very successful, making very large profits. A very large number of the Norwegian steamers are built in English and Scotch shipyards. (705-711.)

Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, is strongly in favor of subsidies for building up our merchant marine. That is the policy which all European nations have followed. The Latin-American countries are "clamoring"

to buy our goods, but can not, because we have no ships to deliver the goods with. As to the length of time for which subsidies would probably be necessary, we might take observations from the older countries. He does not suppose that the subsidies would be permanent. He would put the handling of the subsidies in the hands of a Department of Commerce and Industry, which should, apparently, have some control over the rates of the subsidized lines. (644, 645.)

Mr. BRYANT says that there was a division of sentiment in New Orleans in respect of the ship subsidy bill. A great many people do not believe that the shipping interest there would be benefited by such a measure, but that only a few ships or a few companies would receive any benefit from it. He quotes Mr. Hill, president of the Great Northern Railway, to the same effect. There is a general opposition in New Orleans to Government subsidies in any form. The result of the subsidy to the sugar-growing interests in Louisiana has not met with general satisfaction. The people of New Orleans would like to see American trade carried in American vessels, and if they felt that subsidies would effect this result, they would certainly favor it. He admits, however, that there are a number of persons in New Orleans favorable to the measure, and that some of the commercial exchanges had indorsed it. Mr. Bryant thinks, however, that it would not make freights any cheaper. The shipping interests of New Orleans favor liberal Government appropriations for the improvement of the Mississippi. (399-400.)

Mr. GULLAUDREU, of the Old Dominion Line, says that he does not know the conditions surrounding the other coastwise lines, but so far as he individually is concerned he has not made up his mind whether a subsidy would be beneficial. There is no crystallized sentiment on the subject. Coastwise trade could not participate in the benefits of a subsidy directly, and he does not see how it could affect those interests, except that it might add to their burdens of taxation. Additional trade might be secured incidentally. (450.)

Mr. HAYNE, representing the Merchants and Miners' Line, states that the subsidy act, in his opinion, would not be beneficial to the coasting trade. The domestic lines suffer no encroachment from foreign bottoms, since it is illegal for foreign vessels to transport any local business on the coast. (421.)

4. *Free ships.*—Mr. Howes especially urges that Americans should be permitted to buy vessels abroad for operation under the American flag. He says that the argument for free ships is not an argument for free imports. The free-ship idea has been to confine a foreign-built vessel sailing under the American flag to the foreign trade, while an introduction of free goods in this country means they are to be used in competition in this country. If the policy of not allowing any foreign vessels to come into this country was adopted it would lead to one of the worst commercial wars ever seen, in which the United States would be the sufferer, because we would be asking foreign nations to buy of us and at the same time would be casting obstacles in their way. If the restrictions now existing were taken off, most of the Canadian vessels would be built in Cleveland and Detroit, and not on the Canadian side. If the vessels on the lakes were restricted to voyages between the United States and the foreign countries the lake trade would not amount to anything. Foreign ships purchased in Europe by Americans should be given full American register, but should not be permitted to enter into the coastwise trade. (712.)

5. *Cost of shipbuilding in America.*—Mr. Howes asserts that the difference in cost between the foreign-built vessel and the American vessel depends largely upon the character of the trade in which she is to be used. The roughly-built freight steamer costs relatively more to build in this country than the highly finished passengersteamer. The reason that Mr. Cramp has been successful in obtaining contracts for the construction of Russian and Japanese battle ships and cruisers is because of the immense amount of skilled American labor that has entered into the construction of these vessels. The relative cost of the raw material has amounted to much less than would be the case with the common freight carrier, where the cost of the raw material is practically everything. Mr. Howes says that the Messrs. Thompson, shipbuilders on the Clyde, have told him that all the woodwork for their steamers was either made in Cincinnati or by laborers who had been imported from Cincinnati to Glasgow, the American workmen being superior in this kind of work to those of England and Scotland. One reason why American shipbuilders are not able to produce the average freight vessel as cheaply as the foreigners is that they have not been able to get the benefit of the low price on steel which the foreign builders get even from the American manufacturers. It is hard to say whether that condition exists now or not, but it did last year or the year before. It is quite likely at this time that for a roughly constructed freight steamer the labor cost would be greater here than abroad, even if the steel plates could be obtained at the same price that they could be on the Tyne. There is a great advantage in this country in the matter of labor, despite high wages, because of its great

efficiency. The manager of a large shipyard on the Clyde has told the witness that he was able to get only about four days' work a week from his men, on account of drunkenness. This was true through almost all the northern part of England and the southern part of Scotland, the loss to labor and capital being such as to give a tremendous advantage for all American industrial undertakings. (705-708.)

6. *Cost of transporting exports and imports.*—Mr. HOWES testifies that in considering the cost of the import and export trade to this country it is not fair to take both of these matters into consideration, because the cost of transporting the exports is largely paid by the foreigners. It is more equitable from the American standpoint to consider only the cost of handling the imports. He thinks from \$30,000,000 to \$40,000,000 a year would legitimately cover this cost, possibly \$40,000,000. American ships carry about 8 per cent of the traffic. The American tonnage is carrying a great deal more of the import trade, and always has, than of the export trade. Last year the American vessels carried between 13 and 14 per cent of the import trade, and only about 6 per cent of the export trade. The cost of freighting some articles from Europe to this country is probably less than one-tenth of 1 per cent of their cost, and the witness does not believe that the average freight rate is \$15 per ton. (709, 710, 711, 712.)

7. *Mr. Morgan's purchase of steamships.*—Mr. HOWES points out that Mr. J. P. Morgan was able to buy the Leyland Line of steamships without being hampered by laws. That line represents seven stock waterings, and yet Mr. Morgan paid a premium on that. The vessels are under the English flag, which is no particular disadvantage; the question of having them under the American flag is perhaps one of sentiment. He does not believe that any subsidy bill will pass unless Mr. Morgan's lines get some of the benefits. The Leyland Line is reported to have paid 15 to 20 per cent a year, even on its overcapitalization. He regards this purchase of Mr. Morgan's as simply a development of his general system of transportation. (705, 708, 709.)

D. Nicaraguan Canal.—Mr. WHEELER, representing the San Francisco Board of Trade, says that the general feeling of the people in California is in favor of the construction of the Nicaraguan Canal. It is true that the opening of the canal will bring Chicago, St. Louis, and New York into closer competition with San Francisco. The canal will become a gateway to the Orient, while San Francisco is about the only gateway at present. While San Francisco might, for its immediate interest, consider the opening of the canal a disadvantage, the general benefits to the State must be great and would react upon the welfare of the city. The canal will open a highway for the transportation of California's products to the Atlantic seaboard and to Europe. The fruits and other perishable products which must now go by rail can be put into refrigerator vessels and sent by the canal, or the railroads will have to make rates to compete with the canal. The consumption of California products will be increased, new markets will be opened up, and more money will be brought to California producers, and San Francisco, as well as the entire State, will thus be benefited. (751.)

Mr. STUBBS, of the Southern Pacific Company, does not agree with the popular supposition that the construction of the Nicaraguan Canal will vastly increase the trade of San Francisco and the Pacific coast with the Orient. The canal will do San Francisco much damage, tending to bring New York, Minneapolis, and the aggressive Eastern cities nearer by water than they are now to the Hawaiian Islands and the Orient. The railroads are going to carry most of the local business to San Francisco in any case. There are already too many railroads there, and by competition among themselves and with the canal they may be forced to make rates which will put them repeatedly into bankruptcy, but after each bankruptcy they will be better able to beat the canal. The advantage to California in securing more direct transportation to Europe, particularly of its grain, is small compared with the disadvantages, especially as that export trade is constantly diminishing in volume. (768.)

Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, thinks that the Government ought to build and operate an isthmian canal, but he adds that it would be somewhat absurd to spend \$200,000,000 to build a canal and have no ships of our own to go through it. (638, 644.)

Mr. BRYANT states that the commercial men in New Orleans believe that that city would be helped immediately and more largely than any other city in the United States by the opening of the Nicaraguan Canal. (397.)

E. Oriental trade.—Mr. WHEELER believes that there is a great future for the United States in oriental trade, and that this will prove of great advantage to California. Until a few years ago only 2 or 3 steamers a month left San Francisco for the Orient, while now there are about 12 monthly. The Chinese are learning to use American flour as a substitute for rice. They are an imitative people, and the habit will increase rapidly. Instead of California shipping wheat to Liverpool, there to be

ground and distributed, it will in the future turn the wheat into flour and ship it to the Orient, and the selling of flour is a more profitable business. Mr. James J. Hill has been building very large vessels in anticipation of this flour trade, and a good deal of it has already been developed.

As yet, in Mr. Wheeler's opinion, business with the Philippine Islands has not been developed greatly except in the shipping of goods for the use of the army. Merchants do not like to sell goods in a country where there is a war. When the war is entirely over the witness thinks that many San Francisco merchants and manufacturers will exploit the Philippine trade. The people are already being educated up to the use of our products by the presence of the army in the islands.

Mr. Wheeler holds, however, that it will be desirable and necessary for our manufacturers and shippers to pay close attention to the tastes of foreign consumers in making and packing goods. With this in view a Pacific Commercial Museum, on the lines of the Philadelphia Commercial Museum, has recently been established. The witness believes that the secret of the decline of the British trade, particularly as compared with the German, is chiefly the fact that the British have insisted upon the buyers taking what they gave them, while the German have asked the buyers what they wanted. (751, 752.)

F. Boston export trade.—Mr. Howes, a member of the Boston Chamber of Commerce, testifies that Boston, next to New York, is the largest commercial port of this country. For the year 1900 its exports were \$123,858,000, and its imports \$68,630,000. Its trade has been growing with the exception of last year, when it fell off, owing chiefly to the war in South Africa. On this account the freight rates practically doubled, thus interfering temporarily with the development of the trade. He thinks the trade for the year 1901 will be considerably over \$200,000,000 in value. (700.)

Transportation facilities at Boston.—Mr. Howes says that one reason why the Boston trade has developed to the extent it has is because of the splendid facilities established there by the railroad and other transportation companies. The railroad companies have built their own wharves, landing sheds, and elevators, and are prepared without intermediate charges to put grain intended for Europe on the vessels. In addition to this, the system of carrying freight in regular steamers, in contradistinction to tramp steamers, was early developed. Boston's trade to Liverpool is greater even than that of New York City. The steamers are of the largest size for freight-carrying purposes, but their limit has been reached now, owing to the depth of the harbor channel. The largest freight-carrying lines are the Leyland, the Dominion, the Cunard, and the Warren. The first three of these carry passengers to some extent, but the last one is a freight line exclusively. (700-701.)

G. Ocean traffic at New Orleans.—(See also *Mississippi River traffic*, p. clxxxvi.)—Mr. BRYANT states that there are fourteen different lines of steamships that come to New Orleans regularly. Two of them, namely, the Leyland-West India Line and the Elder-Dempster Line, are the two largest lines owned in America. Shipments are also made to Cuba over the Southern Pacific Line. There are no American steamers landing at New Orleans engaged in foreign business. The American lines are engaged in coastwise trade. About 1,400 steamships come to New Orleans in a year. A good many tramp steamers touch at New Orleans, but there is no regularity in respect of their trips.

Mr. Bryant states, further, that the foreign vessels trading with New Orleans are not so fast as the vessels trading at New York. Most of them are freight vessels, which require from 14 to 18 days to cross the ocean, their speed being from 10 to 14 knots. Few vessels there do passenger traffic. The Cromwell Line, between New Orleans and New York, is practically the only line having any passenger traffic out of New Orleans, the Southern Pacific Company's line to New York being a freight line. Foreign vessels touching at New Orleans bring their crews with them, as there is a law in Louisiana which prohibits the employment of crews in her ports. The crews have nothing to do with the loading and unloading of the vessel, that work being done by home labor. (399-400.)

This witness says also that English tonnage at New Orleans is increasing more rapidly than that of any other country. If there were a sufficiency of water at the jetties, much larger vessels would trade there than now. There is only 26 feet of water at the jetties, and many vessels trading at New Orleans could load at 28, 29, and 30 feet, while some vessels are building that could load at 35 feet. Some of the larger vessels have to go out with less than a full cargo. (394.)

Export trade from New Orleans.—Mr. BRYANT states that the facilities for the transfer of grain from barges to ocean-going ships is nearly perfect at New Orleans. The Illinois Central Railroad has a wharf with a very large modern elevator, and is building another at a cost of \$1,000,000. The Texas and Pacific road has a

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elevator and is building another. The bulk grain business is increasing more rapidly than at any other port in the United States. It is indeed now the second port in import and export values. There is no complaint about the condition of grain coming from barges; there is no damage to grain handled in that climate. Breadstuffs go from New Orleans almost everywhere in the world, especially to Central America, West Indies, and Europe. (393.)

Import trade of New Orleans.—Mr. BRYANT states that the import trade at New Orleans is increasing quite steadily, and consists of sugar largely and some lumber. The return cargo on barges going upriver is largely sugar. There are two large sugar refineries in New Orleans. (389.)

X.—TRANSPORTATION ON THE MISSISSIPPI AND TRIBUTARY RIVERS.

A. Statistics and character of Mississippi River commerce.—

1. *General condition of river traffic.*—Mr. JOHN W. BRYANT, secretary of the Steamboat Captains and Owners' Exchange, New Orleans, states that there is a general impression that the commerce on the Mississippi River has very greatly decreased in recent years, because of the increase in the railroad traffic of places affected by river transportation, but such is not the case. The annual report of the United States Supervising Inspector shows that in 1899 and 1900 there were more steam vessels on the Mississippi and its tributaries than ever before. There is a loss of through traffic, but a great deal of traffic which formerly was through traffic would now be denominated local traffic. Formerly a vessel starting from St. Louis would make New Orleans the point of distribution for all the traffic to the other river ports, whereas now a vessel starting from St. Louis would trade locally with the points between there and New Orleans, and by the time it arrived at New Orleans would only have about one-third of the freight with which it originally started.

The main reason why the traffic on the Mississippi has apparently decreased is because of the illegitimate methods pursued by the railroad companies in respect of transportation to and from the principal river ports. Another reason is that the conditions of navigation greatly interfere with traffic. While the Government is spending a great deal of money in improving the river and its tributaries, the results are not what they ought to be. The Government usually commences its operations too late, waiting until the river gets low, and oftentimes before much work can be done the snag boats have to quit because of low water. Sometimes the snags removed were deposited along the banks of the stream, and the next rise picks them up and carries them back into the channel. (387, 388, 392-394.)

2. *Statistics as to amount of traffic.*—Mr. BRYANT states, further, that it is impossible to furnish full statistics of the commerce of the Mississippi River, because there is no exact record kept. The steamboats have "trip books," in which is entered the up and down freight of each trip, but no other record is kept. Some 12 or 15 years ago the witness prepared a statement of the commerce of the river coming into New Orleans for the 2 years just before the beginning of the construction of the Eads jetties and for the 2 years after their completion, and he found that one-third of the traffic of the river had been diverted through the development of the railroads. In the census of 1890 complete returns of the commerce on the waterways could not be secured. A few years ago railroad interests concerned in the building of a bridge prepared for their own use statistics of the river commerce, which the witness thinks were colored more or less in favor of the railroads, and they put the diversion of business at 34 per cent. In the year 1900 Mr. Bryant prepared a table showing the commerce of the river. This table shows that the Mississippi River from St. Louis to the Gulf, with its larger tributaries, has 6,298 miles of water, 5,695 miles of which are actually navigable. In the census report of 1890 for this system the commerce was shown to amount to 6,401,203 tons. Mr. Bryant's statistics show 7,693,998 tons. One hundred and eighty-nine steamboats passed over the river in that year, making 6,212 trips. Their net tonnage was 62,314, the value of the vessels being \$4,331,000. The tonnage carried amounted to 1,590,004 tons. The barges numbered 1,635, and they made 2,470 trips. Their value was \$2,003,000. The net tonnage of all the vessels was 1,471,128 tons, and their value \$6,334,000. This exhibit does not include the vessels engaged in harbor work, ferries, railroad transfer boats, or Government steamers. The total amount in tons carried on the Mississippi River between Cairo and New Orleans was 4,708,355 tons, with a valuation of \$94,605,762. The coastwise and foreign tonnage from New Orleans to the Gulf via the river amounted to 2,985,643 tons, of a total value of \$144,704,136, making the grand total 7,693,998 tons and a total value of \$239,309,898. The principal commodities carried on the river were 612,242 bales of cotton, 166,049 tons of cotton seed, 153,664 tons of sugar, and

444,539,180 feet of lumber and logs. Sixty-six thousand six hundred and fifteen tons of steel rails, or nearly 3,500 carloads, were carried on barges from Pittsburg to New Orleans. (387-389.)

Mr. M. C. MARKHAM, assistant traffic manager of the Illinois Central Railroad and the Yazoo and Mississippi Valley Railroad, testifies that prior to 1870 the Mississippi River and its tributaries transported the greater part of the freight and passengers of that valley. Since that date a large railroad mileage has been constructed. From 1870 to 1900 the railroad mileage in the Mississippi Valley increased from 27,182 miles to over 110,000 miles. The census reported that in 1889 there were 7,445 vessels plying on the river, with a capacity of 3,393,378 tons, and that 10,858,894 passengers and over 31,000,000 tons of freight were transported. As a consequence of the improved facilities afforded by the railroads the river traffic at the important trade centers situated on the Mississippi River has appreciably declined.

Mr. Markham says, further, that the statistics of the river trade are very meager. He submits tables showing the relative volume of traffic by rail and river at St. Louis and New Orleans, as follows:

Tonnage received and shipped by river at St. Louis for the years named.

	1880.	1890.	1900.
Received	<i>Tons.</i> 893,860	<i>Tons.</i> 530,790	<i>Tons.</i> 512,000
Forwarded	1,087,826	601,862	245,580

Tons of freight by rail received and forwarded at St. Louis for the years named.

	1880.	1890.	1900.
Received	<i>Tons.</i> 6,096,524	<i>Tons.</i> 9,969,291	<i>Tons.</i> 15,375,441
Forwarded	2,758,680	5,270,850	9,180,309

The cotton receipts by river at New Orleans in 1880 were 64 per cent of the entire cotton receipts of that place; in 1890, 20 per cent, and in 1899, only 15 per cent, showing a large decline in the river cotton trade. The rail receipts, on the other hand, were in 1899 over 300 per cent of what they were in 1880.

Cotton receipts at New Orleans.

	1880.	1890.	1899.
By river	<i>Bales.</i> 1,087,522	<i>Bales.</i> 425,828	<i>Bales.</i> 343,450
By rail	627,577	1,722,478	1,935,177

Mr. Markham also refers to a statement made by the captain of a steamboat line at New Orleans in September, 1900, to the effect that so much business was diverted from the river to rail that as the boats go out of commission the prospects for profits were so uncertain that there was no inducement to replenish the fleets.

The witness says, however, that there are six steamboat companies with 24 steamers plying between St. Louis and other river ports, besides 64 independent packets and towboats. At Memphis there are two packet companies and a line of steamers running north and south. At Cincinnati there are 29 steamers, with a tonnage of 16,711 tons, engaged in freight and passenger business between that city and other river ports.

The Mississippi and its tributaries are still a potent factor in diminishing railroad rates and revenues. There is a large river transportation of heavy and bulky articles, where time is not essential to the movement of the traffic. (425-428.)

3. *Desirability of better statistics.*—Mr. BRYANT states that the statistics of river traffic are not complete. It would be a good thing for the river interest if the Interstate Commerce Commission would compile such statistics. There is a growing impression

that the river traffic is decreasing, and that the rivers are not worth improving any more. The statistics secured by the Government engineers are not complete, and they are about the only statistics that are secured. It would be much better for the Government to gather the statistics than for a private individual. (398.)

4. *Navigable season.*—Mr. BRYANT states that the navigable season on the Mississippi is more irregular and shorter than it was 25 or 30 years ago. He believes this condition is brought about principally by the denuding of the forests; the water is brought down more quickly than formerly. Another cause is the levee system in the lower part of the river; before that system was adopted there were many large basins filled by the river's overflow, the water from which, gradually draining back into the river, prolonged the rise. The freshets come mainly from the Ohio River, the Missouri and Upper Mississippi freshets not causing any trouble in the lower river. (393.)

5. *Barge lines on the river.*—Mr. MARKHAM testifies that the barge lines on the Mississippi River, on account of their large tonnage capacity and their cheapness, conduct a large amount of the transportation on the river. The St. Louis and Mississippi Valley Transportation Company early in the eighties organized a consolidation of three barge companies previously in existence.

The capacity of these barges was from 50,000 to 66,000 bushels. A towboat would often start from St. Louis with 4 to 6 barges attached with a cargo of from 200,000 to 300,000 bushels of bulk grain besides other kinds of freight. The consolidated line had a capacity of moving 3,000,000 bushels of grain per month.

These old barge lines, continues Mr. Markham, were abandoned because they did not pay. The original barge line on the Mississippi was started in the interest of the Missouri Pacific, which was a Gould property and had no interests east of the Mississippi River. In November, 1900, a new steel barge line, consisting of a towboat and 2 barges, went into operation between St. Louis and New Orleans. These boats are designed to draw not to exceed 9 feet of water, and are expected to be very successful. A recent trip took 54 days from St. Louis to New Orleans and return. The witness does not know that any of the railroad companies have an interest in this new line, but they are looking with a great deal of interest on it. (426, 432, 441.)

6. *Transportation on the Ohio River.*—Mr. WILSON, of the Cincinnati Board of Trade, declares that Ohio River shipping has lost its existence with the exception of the transportation of very heavy commodities, of which it still carries a greater tonnage than any other river in the country. No railway transportation can ever deprive the Ohio River of its immense coal tonnage. It is increasing constantly, but there is no shipping now of sugar or molasses. (697.)

B. River improvements.—1. *Jetties at mouth of Mississippi.*—Mr. BRYANT states that under the Eads system of jetties the Southwest Pass of the Mississippi was deepened from 9 to 26 feet. Another of the passes will be opened, the jetty system also being employed in that. Eads's proposition was that the jetties would be self-maintaining, the scour of the river being sufficient to keep the channel open, and dredges being used merely as an auxiliary. The present plan, however, is to depend almost entirely upon the dredges, and use the jetties as an auxiliary. The wind blows from all directions and sand is carried by the waves. Jetties are intended to prevent filling from these forces as well as to serve their legitimate purpose. Mr. Eads, when he got to 26 feet, thought a sufficient depth had been reached. Now, with the increase in the size of vessels, 26 feet is not sufficient. New York Harbor has received an appropriation to increase the depth from 35 to 40 feet. At Liverpool about \$9,000,000 is being spent to deepen the harbor. At the time the jetties were constructed the longest vessel that came up to New Orleans was about 350 feet. Now vessels are coming up 500 feet long. New jetties will be constructed and maintained by contract under the supervision and control of the Government engineers. (394-395.)

Mr. MARKHAM says that all that would now seem wanting to fully complete the Mississippi River as a vigorous and active competitor of the railways for all time is a sufficient depth of water at the mouth of the river to float ships of 15,000 or 20,000 tons. Large ships could afford to materially reduce freight rates to foreign countries on the valley products, and the rates on the shipments for domestic use would be largely influenced by the reduced export rates. A yearly expenditure sufficient to insure deep water at the mouth of the Mississippi River would be repaid more than tenfold in the benefit to the producing community of the Mississippi Valley. (430, 431.)

2. *Ohio River navigation.*—Mr. BRYANT stated that navigation on the Ohio River is very often entirely suspended for a season, because of the insufficiency of water. Except where locks and dams are used the river sometimes is not more than a foot and some inches in depth. The bridges across the stream are often the source of

great danger, one bridge in particular being so low that during the last rise of the river steamboats could not pass under it. The money losses from these bridges have been enough to pay for any bridge across it, not counting the loss of life. More tonnage is carried on the Ohio River than on all the other rivers in the Mississippi Valley together. Practically all the coal used in New Orleans and along the Mississippi River comes down from Pittsburg on barges. The upper part of the Ohio River had been so filled up by corporations making more building room that the river has become very narrow and the water gathers and runs out very quickly. Sometimes a big rise at Pittsburg will last hardly long enough to get out two runs of coal, while years ago there would be water for several months. (388, 392, 394.)

Mr. ANDERSON, secretary of the chamber of commerce of Pittsburg, states that a most remarkable improvement of the Ohio River is in progress by means of movable dams. The first of these dams, that at Davis Island, has given Pittsburg a harbor from 10 to 12 miles long and as deep as desired all the year round. When the water is high enough to be fit for boating, the dam is removed. When the rivers fall, the dam is put in to store the water. A lock is used to enable boats to pass the dam when it is in use. The lock at Davis Island is the largest in the world. There are some 12 dams now under contract, and when they are finished the period of navigation on the Ohio River will be increased 2 or 3 months. (643, 647.)

C. Freight rates—Competition with railroads.—1. *Influence of river rates on railroad rates* (see also as to effect on long and short haul rail rates, pp. CVII, ff).—Mr. MARKHAM says as to the influence of the river: "The complexities and necessities which confront the railroads in rate making are such as to make this river influence almost continuous with the Rocky Mountains on the one side and the Atlantic Ocean on the other. * * * The recognized principle for rate construction * * * has rendered it imperative that certain fixed relations shall be established in railroad rates to common points of destination from various points of origin."

The river, continues the witness, makes the rates from St. Louis to Memphis or New Orleans and the railroads running between those points, to get a share of the traffic, must necessarily offer rates approximating those made by the river craft. While Chicago is not situated on the river, it would be placed at a disadvantage as regards the Memphis or New Orleans trade if it were not put on a relatively fair rate plane with St. Louis to enable Chicago manufacturers and merchants to compete. Again, the merchants and manufacturers in the outlying towns of importance contiguous to Chicago, who are seeking markets, will demand from the railroads which serve them such favorable rates as will enable them to market their products as against Chicago and St. Louis, and it may be to the best interest of the roads to comply. Cities farther removed that would be affected in the sale of their products by the favorable rates given the others would likewise make demands upon the railroads which serve them, and their demands would be granted, and thus "the demand would spread step by step until almost the entire northern country had partaken in a measure of the low rates made necessary in the first instance by the river influence."

Mr. Markham says also that by Mississippi River competition the railroads are prevented from keeping up rail rates to leading Southern trade centers.

Mobile on the Gulf of Mexico, 140 miles from the Mississippi River, is supplied with railroads which have no interest in New Orleans, and its merchants and manufacturers compete with those of New Orleans at common markets. New Orleans, being on the river, is enabled to have low rates, and therefore the Mobile roads are obliged to give the same rates to that city from St. Louis and points north as are given to New Orleans. Other trade centers in Alabama compete in common territory with Mobile and New Orleans; and therefore their rates from the North can not be greater than the Mobile rate plus the low rates up from Mobile by the Alabama River, because they must be put on the same plane as Mobile and New Orleans. Galveston (360 miles west of New Orleans) has no river advantages, but the railroads serving that city deem it proper to put it on a plane whereby the Northern products can be exported therefrom as well as from New Orleans, and this arrangement would affect outlying and intermediate towns between Galveston and the Missouri River.

In this way specific rate differentials are established between trade centers interested in effecting sales of their products in common territory. Industrial enterprises remote from the river thus secure much more favorable rates than the railroads would be justified in making if the river influence did not exist.

In the same way the rates from the East to the West are affected by the river rates. Grain from Kansas City to New York would pay a rate approximating that from Kansas City to St. Louis plus the low barge rate from St. Louis to New Orleans, and whatever rate is made from Kansas City to the Atlantic seaboard must be made also from the other Missouri River towns. (429, 430.)

OLXXXVIII INDUSTRIAL COMMISSION:—TRANSPORTATION.

Mr. Markham submits the following table as showing the fall of rates by rail in the Mississippi Valley under influence of river traffic:

All-rail rates of freight from St. Louis to Southern cities.

Commodities.	1882.	1900.
Flour, per barrel.....	\$0.65	\$0.34
Pork.....	1.15	.82
Sack grain, per 100 pounds.....	.33	.20
Meats.....	.35	.30
Hay.....	.33	.20

2. *River rates and railway rates compared.*—Mr. BRYANT states that the river rates are very much cheaper ordinarily than the railway rates. The rate on bulk grain from St. Louis to New Orleans by rail is 10 cents per hundred; in barges only 3½ cents. A line of whaleback barges has recently been established between St. Louis and New Orleans. They are of a larger draft and are towed tandem, and can be moved with much less expense than the old-style barges. The manager of this new line asserts that if he could be assured of not less than 8 feet of water all the year round from St. Louis to Cairo he could carry bulk grain from St. Louis to New Orleans for 2 cents per bushel.

The rates on the river are generally uniform, but when the river is low they are a little higher, because of the difficulties of navigation. The witness quotes Mr. McRae, member of Congress from Arkansas, who states that when the river is up, cotton can be sent from Camden to New Orleans for \$1.25 per bale; when the river is down and the boats can not run, the rate by rail is \$3.10 per bale. Mr. McRae says further that the rate on flour is 35 cents per barrel by steamboat and 75 cents by rail, and that the rate on boots and shoes by water from Boston to Camden is 79 cents a hundred and by railroad \$2.02 per hundred. (389-390.)

3. *Railway discrimination and river traffic.*—Mr. BRYANT states that the railroads, in defiance of the long and short haul section of the interstate-commerce law, make unremunerative rates from the principal river ports to New Orleans, often carrying the freight at a loss, and recoup their losses from traffic on intermediate points not touched by the river. The railroads have fixed the rate on cotton from Memphis to New Orleans at 85 cents per bale, while from points away from Memphis, they receive from \$1.50 to \$2 per bale. One point 100 miles from New Orleans is compelled to pay \$2 per bale freight, whereas the steamboat rate from a point on the river opposite that point is only 50 cents. The Memphis-New Orleans rate, after deducting 25 cents for insurance, is unremunerative to the steamboat, and no cotton is shipped from Memphis to New Orleans by boat. The same condition exists in respect of Natchez and Vicksburg rates to New Orleans. These discriminations by the railway companies destroy river traffic at competitive points, at the expense of the communities remote from competition. Legislation should correct this evil. (387, 388, 390.)

4. *Space and weight freight rates on river boats.*—Mr. BRYANT states that formerly the freight rates on the river boats were regulated by space or package. A barrel of flour, beans, potatoes, or something of that sort, was carried at a "dry barrel" rate; molasses, vinegar, whisky, oil, etc., at a "wet barrel" rate, and boxed goods at so much a box. Large cases, etc., were carried at so much a foot. Now the railroads have forced the boats to carry everything by weight. (391.)

5. *Combination in river traffic.*—Mr. BRYANT states that there has been no attempt among the river boats to regulate the rates of river traffic, because it is impossible to do so. At New Orleans there were 30 steamboats in the freight carrying business; 1 line has 3 boats, another 6 or 7, another 4, and the other 17 are individually owned. There is no connection of one line with any of the others. Attempts to combine these interests would be fruitless, because somebody on the outside having a boat would have the same opportunity for business. Nobody owns the river, the conditions being different from that of a company owning a railroad track. (391-392.)

D. Miscellaneous.—1. *Cost of transportation by river.*—Mr. ANDERSON, secretary of the chamber of commerce of Pittsburg, says that coal is carried from Pittsburg to New Orleans by water, 2,000 miles, at an operating cost of \$1 a ton, or less than half a mill a ton a mile. Coal has been carried by contract in late years at 50 or 60 cents a ton, and the empties brought back. (642.)

2. *Insurance and risks.*—Mr. BRYANT states that the insurance on boats is very heavy, running from 8 to 18 per cent, because navigation is so dangerous. Snags can

not be kept out, and the number of bridges across the stream is so great, and they have been built with so little regard for navigation, that they are also a source of danger. Hardly any bridge has been proposed but the river men have been forced to fight to have it so constructed as not to interfere with navigation. (392.)

3. *Lumber transportation.*—Mr. MARSHAM states that the decrease in the transportation of lumber at Chicago and St. Louis is attributed partly to the depletion of the forests, but largely by the doing away of the middleman. Twenty years ago Chicago was a very large market for lumber coming down by ship from northern Michigan and Wisconsin. Now some lumber comes in this way, but the railroads have built into the lumber regions of Wisconsin and Michigan, and the cars are loaded there and go through to their destination direct. The lumber industry in the South has also developed. The lumber coming down the Wisconsin rivers instead of going to St. Louis now stops at the Upper Mississippi River towns and is distributed from there. (431-432.)

4. *Boat building on rivers.*—Mr. BRYANT states that boats can be built on the Ohio River for the river trade better than anywhere else. Most of the boats used on the Mississippi and Missouri rivers are built on the Ohio River. The Navy Department is establishing a large dock at New Orleans, and that would lead to the establishment of a shipyard. Small sailing vessels have been built there from time to time for many years, and occasionally a small steamboat has been built. (397.)

5. *Passenger boats.*—Mr. BRYANT states that at present there are not so many of the large, fine passenger boats on the river as formerly ran from St. Louis or Cincinnati to New Orleans. One reason is that the boats have to remain idle so long during low water; another reason is that in the early days the freight from St. Louis was carried to New Orleans, which was the point of distribution for all the river traffic. Now the St. Louis traffic is distributed along the river as the boat goes down. Vicksburg, Memphis, and Natchez, which formerly did not operate boats, at present have one or more lines of their own, but none of these lines carry many passengers, because they could not compete with the railroads for this line of business. (392-393.)

6. *Cotton bales.*—Mr. BRYANT stated that the steamboats would rather handle the flat cotton bale than the round one, because it is more conveniently stored on the boat. The flat bale contains twice as much weight as the round bale. Out of 78,000 bales exported from New Orleans in one day recently only 4,300 were round bales. (390-391.)

XI. THE TAXATION OF RAILROADS. VALUATION IN RELATION TO FREIGHT RATES, ETC.

A. Uniformity of taxation—Adjustment between States.—Professor ADAMS, statistician of the Interstate Commerce Commission, declares that everyone who knows the difficulties of State taxation of railroads must welcome anything that looks toward uniformity. The railways pay all the way from \$30 a mile up to \$900 a mile, and the methods of determining the taxes are different in different States. If the Federal Government should make a proper investigation of the value of railway property, especially of its physical elements, Mr. Adams thinks that the States would accept it and adjust their taxing scheme to it, and probably come to an understanding among themselves as to the proportion of the valuation of the roads which should be assigned to each. (382.)

Professor Adams considers that even if a fair valuation of a whole railroad system were arrived at, the division of the valuation among the several States on the basis of mileage would not be equitable. The pro rata rule, for instance, would benefit Wisconsin unfairly at the expense of Michigan. (383.)

B. Taxation and valuation of railroads in Michigan.—1. *Present system and proposed changes.*—Professor ADAMS, statistician of the Interstate Commerce Commission, says that Michigan has a system of special corporation taxes, by which railroads and other properties of that class are taxed on their gross earnings, the rate varying with the classification of the corporation. The gross earnings of railroads are determined for purposes of taxation by adding to all local earnings within the State a certain proportion of interstate earnings. This method was required by the constitution of the State, but at the last election an amendment was adopted by an overwhelming majority permitting the use of the ad valorem system of taxation. The people had come to feel that the taxes which the corporations paid under the statute were not equal to the rate of taxation under the general property law. A special tax commission was appointed to make an investigation of the value of the railroads for the purpose of determining this question. Mr. Adams describes the methods of this investigation in detail. While the result of the investigation does

not show values as high as the advocates of ad valorem taxation had claimed, it does show that the railways are paying relatively less than other property. As to a choice between the two methods of taxation, on capital value and on gross earnings, Mr. Adams says a choice can be made only in view of practical conditions. In view of practical conditions he thinks it would be wise for Michigan to undertake the ad valorem scheme of taxation, "because the people of this country are not yet ready to establish, as it seems to me they might well establish, a distinct scheme of corporation taxation." (374, 383, 384.)

Professor Adams says that the question is not yet settled in Michigan whether railway corporations should be taxed uniformly at the average rate throughout the State, or taxed on their property within each district according to the rate in the district. (384.)

Professor RIPLEY refers to the taxation law which has recently been enacted by the State of Michigan. The law endeavors to distinguish between the tangible, physical property of a road and its nonphysical property. An attempt has been made to see how much it would cost to reproduce every kind of public-service corporation now in the State of Michigan. An estimate is made of how much an entire railroad is worth solely as tangible, physical property; then it is ascertained what the earnings of the road have been on an average for the last ten years, and what is a fair capitalization of those earnings. After this is done an endeavor is made to determine the difference between the tangible, physical property, which is taxed under the general property laws of Michigan, and the larger sum which represents what would be a fair capitalization of the road on the basis of its earnings. The difference is considered to be the value of its franchise, which is subject to special taxation. (305.)

2. *Recent efforts as to valuation of railroads.*—Professor ADAMS describes the method by which a special tax commission in Michigan investigated the value of the railroads of the State. The plan adopted involved, first, an appraisal of the physical properties of the road, and, second, an appraisal of what was termed the nonphysical element. In regard to the physical properties, the cost of reproduction was made the basis of valuation. To determine the cost of reproduction a very thorough survey of the roads was made. The services of men who had acted as engineers and had built considerable amounts of road were secured, and specialists were hired for every portion of the work. For estimating the grading, profiles of all the roads were secured, and the greater part of the roads was traveled over by agents of the commission, so that they could tell from personal observation about what the cost of grading and embanking would be. The number of freight cars of certain classes was furnished by the roads and the railroad commissioners, and then a sufficient number of cars in each class was personally investigated to give a basis for setting a correct price on them. The cost of interlockings, the cost of ballast, the cost of warehouses, the cost of docks, all were personally investigated by representatives of the tax commissioners. For the value of the real estate, the commission relied on the services of expert real estate agents of the localities. In important cases they went so far as to trace the deeds of abutting property to find out what such property was selling for. The railroads were at first not interested in this investigation, but when they found that it was carried on in an honest, open, and scientific manner, without any political bias, they at least gave the agents of the commission the privilege of appearing on their property, and one of the important roads loaned the services of its architect, on condition that he do no work on the property of his own road.

Some of the elements of a railroad are not subject to deterioration; but others, such as ties and rolling stock, are. When the cost of reproducing each item of physical property had been determined, an allowance was made for an accepted percentage of depreciation. The sum of the remainders was the accepted value of the physical property of the road.

For the purposes of the investigation the commission adopted the classification of construction expenses which is prescribed by the Interstate Commerce Commission as the basis of its analysis. This has been worked out in much detail and with great care.

Professor Adams believes this theory of the determination of the cost of reproduction to be entirely sound except in its application to land. In strict theory at least it does not seem proper to apply the principle of reproduction except to properties that can be reproduced, and reproduced in unlimited quantities at uniform cost. The value of land is the opportunity that it gives for the location of an industry. It is quite possible that that value can not be properly arrived at on the theory of cost of reproduction.

Having decided to make a valuation of the physical properties, the commission submitted to Professor Adams the problem of framing a rule for valuing what is commonly called the franchises of these corporations.

Professor Adams submitted to the commission his views on this question in a letter which is in part as follows:

This nonphysical or immaterial element is not a simple commercial element, but includes, among other things, the following:

1. It includes the franchise (a) to be a corporation; (b) to use public property and employ public authority for corporate ends.
2. It includes the possession of traffic not exposed to competition, as, for example, local traffic.
3. It includes the possession of traffic held by established connections, although exposed to competition, as, for example, through traffic that is secured because the line in question is a link in a through route.
4. It includes the benefit of economies made possible by increased density of traffic.
5. It includes a value on account of the organization and vitality of the industries served by the corporation, as well as of the organization and vitality of the industry which renders the service. This value, consequently, is, in part, of the nature of an unearned increment to the corporation.

As corroborating the existence of this element of value in all successful corporate enterprises, reference may be made to the following facts:

1. Corporations almost universally are bonded for an amount in excess of the value of physical properties less the proceeds of the stock issued. If traffic or good will or franchises or organizations can be made security for the borrowing of money, is it not evident that they possess an established commercial value?
2. It is not uncommon for courts, in placing railway properties in the hands of receivers, to defend their action by the assertion that the step is necessary in order to prevent the disintegration of the property. Is it not a legitimate conclusion from this fact that the courts recognize organization as an element of value?
3. The universal recognition of the necessity of supplementing the general property tax by some special method of taxation in the case of railways is an acknowledgment of the fact that the general property tax by ordinary methods of assessment does not attach itself to the full value of corporate property. The general property tax worked well when the major portion of property was material and visible; it failed to work well when, through the development of corporate enterprises and credit relations, immaterial values came to be relatively significant.

The question then arises as to the best method of valuing this intangible property. The method of appraisal on the basis of the market value of stocks and bonds has something in its favor, but is not satisfactory. Of all the roads in Michigan there were only four of whose stocks and bonds there were a sufficient number of quotations to give a reasonable basis of valuation. Another objection to this method for State purposes is that when this valuation is obtained it is the valuation of the system. There still remains the further question, what portion of the valuation of the system to assign to the State. Moreover, in the present case the commission by instituting an appraisal of the physical assets of the corporations had committed itself to a rule inconsistent with the valuation of stocks and bonds. Abandoning this method the value of the intangible property must be determined on the basis of information secured from the accounts of the corporations. There are two accounts which might be used for this purpose, namely, the general balance sheet and the income account. The general balance sheet contains a nominal statement of the cost of the road and equipment, but this statement has often no relation to the actual cost or the actual value. Any fair appraisal of railway property must be reduced to a basis of earning power, and this is to be ascertained from the income account of the roads. Another reason for the acceptance of this basis is that the rules of book-keeping, so far as this account is concerned, are fairly uniform for all railways. The rules of the Interstate Commerce Commission, so far as this particular account is concerned, have been approved by the convention of State railroad commissioners and willingly accepted by the association of railroad auditors. Professor Adams believes also that, so far as operating expenses are concerned, the roads follow as strictly as possible the rules laid down. Having accepted the general principle of valuation on the basis of earning power, Professor Adams lays down his rule for determining earning power, as follows:

The rule submitted for the appraisal of the immaterial values of railway properties, or what I prefer to term the capitalization of corporate organization and business opportunity, is simple, as follows:

1. Begin with gross earnings from operation, deduct therefrom the aggregate of operating expenses,¹ and the remainder may be termed the "income from operation." To this should be added "income of corporate investments," giving a sum which may be termed "total income," and which represents the amount at the disposal of the corporation for the support of its capital and for the determination of its annual surplus.
2. Deduct from the above amount—that is to say, "total income," as an annuity properly chargeable to capital—a certain per cent of the appraised value of the physical properties.
3. From this amount should be deducted rents paid for the lease of property operated and permanent improvements² charged directly to income. The remainder would represent the surplus from the gross earnings from the year's operations, and for the purpose of this investigation may be accepted as an annuity which, capitalized at a certain rate of interest, gives the true value of immaterial properties.

To obviate the criticism that both gross and net earnings vary from year to year, it is suggested that in place of a single year's income account the average income account of a period of ten years be accepted as the basis of computation. The reason for accepting a period of ten years is that under

¹ The Michigan system of railway accounts prescribed by the railroad commissioner includes taxes in "operating expenses," and for the purpose of this analysis such inclusion may be accepted.

² Some improvements are charged to "operating expenses," but for the purpose of this analysis such a rule bears no significance.

existing commercial conditions it is likely that the corporation whose property is appraised would, during that period, pass through years of both prosperity and adversity.

It will be observed that the above rule fails to appraise the speculative element in railway property. While this element doubtless affects the price of corporate stocks and corporate bonds, it is not entirely clear that it should influence appraisals for the purpose of taxation. Should, however, the commission desire to compute the present worth of property, as resting upon expectations in the future as well as upon earnings in the past, the pertinency of the above rule would not thereby be impaired. This is true, because the speculative value of properties must, from the nature of the case, be a modification of their value computed upon the basis of their earning capacity.

An additional advantage of this method of valuation, in Professor Adams's opinion, is that it leaves so little to judgment. There is only one question of judgment: the selection of the proper rate per cent for capital. In considering this question it was assumed that an investment which paid a sure 4 per cent, free of taxation, would at the present time command par. Four per cent, free of taxes, on the value of the physical property, was therefore set apart as an annuity due to the invested capital. The tax on the physical property, separately deducted, was fixed at 1 per cent, on the following ground: The average rate of taxation in Michigan is about 14.75. The average appraisal of property is about 65 per cent of its value. The average tax, therefore, is about 1 per cent of the actual value of the property.

The question arises why it would not be as well to capitalize net income to begin with and not undertake the appraisal of physical property. The chief reason lies in the matter of rates per cent. That method would make it impossible to allow an income on the physical property at one rate and to capitalize the remainder of the net earnings at another rate. Such a distinction ought to be made. The income based on the physical property is free from all risk of legislative interference. Our courts have held that no legislature or commission can reduce rates to a point which will not pay. In some cases the interest on the bonds has been made the basis, but the idea is expressed more carefully in the recent Minnesota case as a certain rate per cent on the value of the physical property. There is then a judicial bulwark against the reduction of the rate of interest below 4 or 5 per cent on the cost of reproducing the property. But when a road shows a value in addition to this physical valuation, legislatures are at liberty to depress rates so as to deprive corporations of a part of that value. There is then some risk attending this part of the income. Because of the risk, buyers of it ought to be allowed a higher rate per cent than investors who have no risk. Therefore, while the commission fixed the annuity on the capital invested in the physical plant at 4 per cent, it capitalized the surplus earnings on the basis of a net income of 6 per cent, after deducting 1 per cent for taxes.

A somewhat intricate question arises in the case where no income applicable to interest on capital is left after paying the operating expenses. It seems to Professor Adams that it would be strictly just in such cases to reduce the value below the cost of reproduction. The earning power ought still to be made the basis of valuation. This, however, is not the way other property is treated. If a man puts up a house in a place where no one wants to rent, the local appraiser may lighten his taxes somewhat, but he will not lighten them a great deal.

In three cases the usual rate of capitalization of the surplus income was departed from. In one case a road had only been running about a year and a half and had not come to a point where deterioration added much to its operating expenses. In two or three years its operating expenses would be going up. Its surplus income was therefore capitalized at 10 per cent. In another case a road had run into a lumber region and had been very prosperous. But now the lumber was all gone and the income of the road would be diminished. To estimate the earning power of the road on the basis of its actual earnings during the last ten years would be to estimate it too high. On the other hand, the Fort Street Depot Company, which owns the union depot in Detroit, has a contractual income which is as certain as the rising of the sun. To that company a capitalization based on a low annual rate was applied, because its income is sure. (374-381.)

C. Taxation of railroads in Minnesota.—Mr. TEISBERG, secretary of the State railroad and warehouse commission of Minnesota, says that railroads in his State pay a percentage upon their gross earnings in lieu of all other taxes, both State and local. The whole amount goes into the State treasury. There has been some agitation of the question of dividing some part of it among the counties, but it has not been done. A new road pays 1 per cent on its gross earnings for the first 3 years; for the next 7 years it pays 2 per cent; after 10 years it pays 3 per cent. The question is now agitated in the State of raising the tax to 4 or 4½ per cent. The Chicago Great Western holds an old charter which provides for a gross-earnings tax of only 2 per cent. The State is bound by this as far as that road is concerned. Gross earnings for purposes of taxation are, in the first place, all earnings on local

business within the State, and, second, a proportion of earnings on interstate business based on the mileage of the road. Mr. Teisberg presents a table showing the amount of taxes paid by the railroads in Minnesota for each year from 1890 to 1899. The amount increased from \$743,075 in 1890 to \$1,036,262 in 1892. Then it fell off to \$923,864 in 1893 and to \$850,109 in 1894. From that time it has steadily increased to \$1,444,504 in 1899. (366, 367.)

D. Valuation of railroad property by National Government.—Professor ADAMS gives the following reasons for thinking that Congress should undertake the valuation of railroad property: "First, because it would greatly assist in the development of a uniform system of State taxation of interstate property; second, that it is essential for the intelligent application of the theory of reasonable freight and passenger rates; third, it would enable the roads to supply what now they can not supply from their accounts, and in that way an annual statement of their property under the prescribed classification." (384.)

Professor Adams says that if the Federal Government once made a thorough investigation of the value of all the roads in the United States, a continuous account of their value might readily be kept by the Interstate Commerce Commission if Congress would give the commission power to require the reports. The form of annual reports that the railroads make to the Interstate Commerce Commission now contains a page for this information; but in a reorganization the new company that takes the property does not care anything about the book accounts of the previous corporation, does not know anything about them, and does not take them over and report on them to the commission. Yet the machinery of the Interstate Commerce Commission is probably sufficient to secure a continuous knowledge of the changes of the value of the roads, with one exception—it has no authority over contractors. If a law were passed by Congress, or by the States, compelling people who build roads under contract to file reports showing the cost, there would be no difficulty in keeping the accounts up to date. (382.)

Relation to freight rates.—Professor ADAMS thinks that a valuation of all the roads of the country, similar to that which has recently been made in Michigan, might, with great advantage, be undertaken by the Federal Government as a basis for the fixing of reasonable railroad rates. In a recent State case in Minnesota the principle has been laid down that a scheme of rates which permits a payment of 5 per cent on the cost of reproducing the road is reasonable. In many cases the reasonableness of a rate is finally determined by the ability of a corporation to pay the interest on its bonds. But the bonds do not represent the real cost or the real value of the road. If for the amount of the bonds the true value of the physical property of the road could be substituted, we should have something that courts and commissions could work upon. (381.)

XII. GOVERNMENT OWNERSHIP OF PUBLIC UTILITIES, ESPECIALLY RAILROADS.

A. General argument for government ownership.—1. *Principles of comparison of public and private operation.*—Prof. FRANK PARSONS, president of the National Public Ownership League, declares that the fundamental test of any institution, method, or service must be its effect upon the public good, its relation to morals, manhood, government, industry, civilization, and progress—not the financial results, but the results on manhood. Material wealth is not an end in itself, but only one of the raw materials of civilization. Public utilities exist not for the building up of material wealth but for human development. (123.)

Professor Parsons makes an analytic summary of his arguments on the railroad question, contrasting the difficulties of private railways with the advantages of public railways in twenty-five separate paragraphs under each heading. This summary may be conveniently referred to and is not here repeated. (170-172.)

2. *The aim of public and private service compared.*—Professor PARSONS asserts that the chief difference between public and private monopolies is that private monopolies aim at dividends for stockholders, while public monopoly aims at giving a service for the entire community, irrespective of any profit that may be made from the operation. The aim of the private monopoly is to secure wealth in the hands of the few for the present time only, while the aim of the public monopoly is the public good, not only for the present but for future generations; the acquisition of material wealth being a subordinate consideration. (124.)

Professor Parsons refers to a speech by Bismarck in the Prussian Parliament in 1876, and also to the argument of the Prussian cabinet at about the same time in support of his proposition that the aim of public ownership in that country, as in

others, is the bettering of the masses of the people for all time, and that the financial interests of transportation companies should be but a secondary consideration. Bismarck said in relation to state railways:

"They serve chiefly the public interests of traffic, of commerce, of the circulation and transport of commodities and passengers; besides, as a secondary consideration, they aid the public treasury, and in all events promote only public interests. It is the misfortune of private railways that a privilege granted by the state, and a privilege that could not be made use of without the help of the state—we may say a monopoly granted by the government—should be legally exploited in behalf of private interests and private pockets."

The argument of the Prussian cabinet, which was sent to the Reichstag in 1879, with a bill providing for the absorption of the private railways by the state, was to the same effect. Similar arguments have been advanced in Switzerland, Hungary, New South Wales, and in New Zealand in reference to the taking over by these countries of the railways from private ownership to the state. (124, 125.)

3. *Growth of public ownership.*—Professor PARSONS declares that there has been continual growth of the idea of public ownership of railroads all over the world. Public and private systems have been tried at the same time in Belgium, Prussia, Austria-Hungary, Australia, and New Zealand, and in every one of them the private system had given way to the public system almost entirely. The South African Republics and Orange Free State have started railroads; and in Cape Colony 2,000 out of 2,350 miles and in Natal all the railways are operated by the State. The same is true of the telegraph and telephone to a very large extent. Even in England the Government is the owner of the telegraph, and the French Government has gone from private to public operation of the telephone, as have also the Australian colonies. The waterworks and electric-light plants in our own country are coming under public management very rapidly, over half of the waterworks plants in the United States now being public plants. Out of 50 of the larger cities in the United States 21 originally built and now own their own waterworks system, while 20 of the others have changed from private to public ownership. Fifty years ago the idea of public ownership of waterworks was as vigorously opposed and the same arguments used against it as are now used in reference to street railways and railroads. The witness believes that the next half century will see as great a change of sentiment and practice in the field of transportation. He refers also to the growth of municipal ownership of street railways in England, and states that while in 1882 there was but one municipality operating its street railway system now there are thirty, including Liverpool, Glasgow, and other large cities, and that as fast as the concessions to private companies expired the municipalities are making arrangements to take over the lines and operate them. There is a movement of thought toward public ownership of municipal monopolies which promises great things for the future.

Professor Parsons introduced a circular giving the names of the members of the National League for Promoting Public Ownership of Monopolies, which shows that it is composed of some of the leading men of the country.

The witness refers also to the fact that originally the fire-department service, the school system, the public roads, and even the administration of justice were in private hands, while now they are all public. If the principle of public ownership and operation of public utilities is a right principle, it should be carried wherever the reasons for it apply. (167-170.)

4. *Scope of public ownership and rapidity of movement toward it.*—Professor PARSONS holds that in the taking over of the monopolies by the public, progress should be made as fast as experience and the sentiment of the people and the evils of the monopolies justify. Public ownership is desirable as to public utilities or monopolies of essential services, such as transportation, transmission of intelligence, and lighting and waterworks plants. Beyond that he believes the principle of cooperation of private capital would solve the practical difficulties in most cases. A natural monopoly, such as anthracite coal, should be made public ultimately.

Professor Parsons, however, does not believe democracy in government practical, except in a high state of civilization, and for the same reason he does not believe democracy in industry practical until a slightly higher civilization has been reached than exists to-day. (165-167.)

Professor Parsons does not wish to be understood as saying that the United States is ready for public ownership of railroads, but he believes there is a strong sentiment growing in favor of it. The utilities should not all be taken over at once, even if public ownership were adopted; at present the only public utilities which might well be taken over by the General Government are the telegraph and telephone, while some municipal utilities should now be taken over by the municipalities themselves. (153.)

“The line of least resistance in industrial progress is to work for public ownership and the cooperative organization of municipal monopolies, such as electric light and street railways,” and he does not think it advisable that national railways should be attempted until the growth of public sentiment is much stronger in favor of it than it is now. So far as the telegraph and telephone service is concerned, he believes it is the manifest duty of Congress to at once take the first steps toward making them public. (193.)

5. *Method of securing Government ownership.*—Professor PARSONS states that there are several ways by which the public might take possession of the public utility monopolies without a dollar of taxation. Thus the Government may, in giving a franchise, put into it a clause that at the end of a specified period it shall become public property, free of debt, as was done in France and some other European countries. Another way is for the Government to issue bonds to buy up utilities and pay them off out of the earnings of the system, as was done by the railroads in Belgium, Germany, and Austria-Hungary. Another plan is for a group of citizens to advance the capital and make the plant a public one, but worked under a lease, so that the operation is governed by the private parties and the city or nation together until the capital is paid for out of the earnings, at which time the system becomes completely public.

With reference to the telegraph, the witness believes a good method would be to offer to purchase some of the principal lines if the companies were willing to sell at a reasonable valuation, but that if they were not, then the Government might build some important lines under its constitutional power to build post-roads, and by lowering rates somewhat force the companies to reasonable terms. The same method might be adopted with reference to the railroad system, but it would be more difficult, on account of the great cost of new lines and the established character of the present system. He believes the most practical plan would be to buy one or two great systems and make reasonable rates and simple tariffs and then gradually to absorb the other systems, on the same plan that Prussia and New Zealand pursued. There should first be a thorough investigation of all the facts connected with the receipts and operating expenses of the companies, so that there should be no exorbitant price paid for the properties. The witness recognizes that the securities of corporations are in the nature of a contract between the company and the holder of the security, which should not be violated by the Government, and he is therefore in favor of being very liberal on this score. Even if there were watered stocks, and even if there were, strictly speaking, no innocent purchasers of securities, when a change is made for the public benefit the burden of the change should fall on the whole people, who are to reap the benefit, and not on any particular class. The Government itself was culpable in permitting so much water to creep into the capitalization of the public corporations. He does not think the Government should ever pay more than the market value of the stock of any of the public corporations when it takes them over. (191-193.)

Professor RIPLEY says that if, under Government ownership, the service could be maintained as our post-office service is, as the Government service in Germany is, and all done under the control of the United States, certain of the abuses of the present time might be eliminated. If, however, the Government is to have control of the railroads, it ought to take over all of the roads at once, so that there shall be no competition between Government roads and private roads. In Belgium they tried Government ownership alongside of private ownership, and the result was that the Government had to come down to the level of cut rates and personal discrimination and similar abuses in order to live. The amount of capital necessary to take over all the roads is so great that the possibility of such a thing is removed for some years. In Germany under Government ownership the service is good, but it is not at the level of American efficiency by any means. That is due to the absence of competition. (294.)

Valuation of railroads.—Professor ADAMS, statistician of the Interstate Commerce Commission, thinks that if railroads should ever be taken over by the Government the method of valuation which has recently been followed in Michigan would be substantially correct as a basis of payment to the owners. He adds that when Prussia bought her roads they were valued on the basis of a careful estimate of their earning capacity. The French roads are to become the property of the state at the expiration of their charters on payment for the rolling stock, and without payment for the right of way or the connections, but if the Government wishes to take them over before the expiration of the charters it can do so by paying an annuity for the unexpired term equal to the average net earnings of the 7 preceding years. (386.)

B. Advantages of Government ownership and evils of private ownership. (See also detailed charges by Professor Parsons as to overcapitalization of railroads and discriminations practiced by them, pages LVIX, c.)—1. *Definition*

and discussion of monopoly.—Professor PARSONS defines monopoly as any advantage which tends to shut out competition, whether it be a franchise, railroad rebate, or other privilege. Every railroad in the country is a monopoly in that it has its advantages in regard to local traffic and tends to shut out competition in regard to that traffic. Many other industries are also monopolies, though they may not be wholly free from competition. While public ownership would be one of the greatest monopolies that could be imagined, still it is a public monopoly, in which there is no evil. The fault is not with monopoly, but with private ownership of it. We should not even confine public ownership merely to monopolies. Instance the case of public schools, libraries, fire departments, etc., which are operated by the public and are not monopolies. (165.)

2. *Private monopoly a sovereign power—Political corruption.*—Professor PARSONS asserts that the principle of the private monopoly is antagonistic to democracy in that it means a concentration of power and wealth in the hands of the few, and is also an exercise of a sovereign power by private individuals for private interests. The charges of monopolies engaged in essential service, such as transportation, are in the nature of taxation, which is certainly a sovereign power. They are, moreover, taxation without representation and for a private purpose. The control of commerce in foreign goods is also a sovereign power, and this the transportation companies are able to exercise even to the extent of nullifying the tariff law by making excessively low import rates. Private monopolies are enabled to make or mar the fortunes of individuals of a whole State or section of a State, which is a power that should not be exercised even by the sovereign itself. These monopolies are even able to exert a large control over the Government. It is a familiar fact that the great railroads, particularly of New York, Pennsylvania, and Illinois, are able to control the legislatures of those States in railroad matters, and even the courts themselves. Even in Massachusetts, where a better state of affairs exists, it is practically impossible to do anything effective in legislation affecting the railroads, or street railroads, or the gas and electric light interests. The law establishing the State board of gas and electric light commissioners was drawn by the attorney of the gas monopoly in the interest of the gas company, and when a commission was sent by the legislature all over the country to study the subject of gas and electric light the attorney of these interests accompanied it, and, it is often charged, wrote its report, which was naturally against public ownership of these utilities.

Professor Parsons says further that Governor Pingree, of Michigan, had stated that the street railways owned the Detroit council, and were continually bribing them and had tried to bribe him. The same condition of affairs exists in almost every State. The witness asserts, however, that the people are perhaps as much to blame for this condition of affairs as the railroad companies, and are possibly estopped from raising any serious objection so long as the laws remain as they are, because they have assented to the growth of the system. (159,160.)

3. *Effect of public ownership on diffusion of wealth and on democracy.*—Professor PARSONS believes that the tendency of public ownership is toward democracy in political life and against what he terms the aristocracy of wealth. It would abolish arbitrary industrial power in the hands of the few, which is surely as dangerous as arbitrary political power. There is also an educational reason favoring public ownership in that it would develop the mind and character of those engaged in the operation of public utilities. The underlying cause of the great unrest of the present time is that while we have experienced an enormous progress in the accumulation and diffusion of intelligence and of political power, there is an ever-intensifying congestion of wealth in the industrial field, and these things are incompatible. "Democracy of intelligence can not continue side by side with aristocracy and concentration of power in industry." The great fortunes of the country are clustering about the industrial monopolies, because they are produced by and fostered by these monopolies, which are getting more than a fair remuneration of profit.

Professor Parsons maintains that public ownership of public utilities results in a greater diffusion of wealth, while the policy of the private railway systems is to build up great fortunes for a limited number of individuals, and to build up great cities at the expense of other individuals and other communities. The policy of the countries owning and operating their own public utilities is opposed to this and tends to a greater diffusion of wealth; as expressed by the officials of New Zealand, the intent is "to have no millionaires or paupers." (156-159.)

4. *Civilization—The test of movement.*—Professor PARSONS argues that the test of the degree of civilization of any country is found in the activities of the people of that country and the interchange of ideas and commercial interests. In the countries where there is public ownership of public utilities there is a greater degree of this diffusion of knowledge and a greater degree of activity among the people generally

than elsewhere. In all the countries which have gone from private to public ownership of public utilities there has been a great increase in the business. (156.)

Professor PARSONS believes that the public-ownership system favors the development of character and intelligence among the people by eliminating the conflict between man and man by developing sympathy and giving labor fuller opportunities, and that every test of civilization points to a system of public operation of public utilities as the ideal one. (167.)

5. *Consideration of general welfare under public ownership.*—Professor PARSONS holds that public ownership would eliminate discriminations, rebates, special concessions, and matters of that sort entirely. The antagonism of interest between the owners of the system and the public would also be eliminated, thereby lowering the rates very materially, although low rates are not the only desideratum to be sought. The removal of antagonism and the harmony brought about by public ownership would redound very greatly to the public welfare.

In Germany the railways were coordinated with the telegraph, telephone, and post-office, and every other public service. The railway tariff is made to enforce the national tariff instead of nullifying it, as is often the case in the United States; instance the case of the Texas and Pacific Railway Company some years ago carrying freight from Liverpool or London, through New Orleans, to the Pacific coast at a rate of \$1.07, whereas the New Orleans products of the same grade were compelled to pay a rate of from \$2.88 to \$3.70 to San Francisco.

The witness refers also specifically to the various ways in which in Germany the people, especially shippers and those directly interested, are put in touch with the control of the railways and other public services, so that their interest is thereby increased in the successful operation and development of them, and so that these services are made to meet the public needs. (150-153.)

6. *Consideration of local interests.*—Professor PARSONS asserts that the railroads have been forced by competition to put down the through rates between large cities, while they have left the local rates practically as they were 20 years ago. The result has been to build up the cities at the expense of the country. One of the greatest dangers in the country to-day is the rapid growth and immense massing of industrial power in the cities. In the countries operating their own railways, an exactly opposite policy has been pursued, with the result that there has been less congestion of business in the cities and a greater development of the country districts.

In New Zealand and Germany the railways are operated so as to benefit the laboring man and to improve the educational service, as well as for the development of agriculture. In New Zealand they carry the laborers at cost, or even a little below that, and make rates to enable the city workmen to live in the country instead of in crowded tenement districts. In New Zealand the workingmen are carried at 50 cents a week in and out of the big cities, and in Germany in and out of Berlin at 17 cents a week, a workingman being enabled to live 5 or 10 miles out of Berlin and go to and fro as many times as he chooses for an entire year for \$4.50. In New Zealand cheap excursions are made for school children, the rate being ordinarily 4 miles for a cent, and the school children of the primary grades being carried to and from school free of charge, as is also the case in some of the Australian states. It is admitted that on traffic of this kind the railroads are losing money, but the educational value to the state is far greater than the cost to the treasury. Agricultural products, where railroads are owned and operated by the government, are carried at very low rates, sometimes free, and in case of emergency farm stock is also carried free, with the avowed purpose of developing the agricultural interests of the country. (136, 137.)

7. *Effect of public ownership on labor.*—Labor also would be benefited by public ownership, says Professor PARSONS. The witness would not abolish the brotherhoods connected with the railways, but he would apply civil-service methods to railway employees. He instances New Zealand as a case in point where public ownership is in vogue, and states that the construction of railways is so arranged there as to relieve depression instead of creating it. Railway management there aims also to aid farmers in obtaining the labor they need in harvest time, work on the railroads and other public works being reduced in the summer season, when farm labor is needed, and increased in the winter, when labor needs employment. The management also lets out contracts for construction directly to cooperative groups of workers, with the result that the average wages made by the men are nearly double what they were able to make under the old system of private contract, because the men put more energy into the work, while the result has been a saving to the state at the same time, as well as the development of sympathy and cooperative effort, which is one of the most important tests of civilization. Since the establishment of the present system, nine years ago, there has been no unemployed-labor agitation in New Zealand. (150-152.)

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8. *Safety*.—Professor PARSONS claims that there would be greater safety in the operation of railways under public management than under private management, and instances many cases where private corporations have neglected or refused to provide safety appliances until they were compelled to do so by law. Under public ownership the Government would be interested in having all safety appliances in the first instance, or as soon thereafter as possible. The witness presents the following table of statistics, showing that in the cases where public ownership is in force the number of railway accidents is less in proportion than in the cases where private ownership is in force. (153, 154.)

	Passengers.		Employees.	
	Killed, 1 in—	Injured, 1 in—	Killed, 1 in—	Injured, 1 in—
United States	2,267,000	170,141	447	28
Germany	10,700,000	1,700,000	966	365
Austria-Hungary	8,761,000	652,000	1,560	200
Belgium	10,000,000	614,000	1,860	616
Great Britain	9,000,000	800,000	1,070	43
Switzerland	8,826,000	710,000	1,015	347
France:				
Public roads	12,000,000	4,000,000	1,175	390
Private roads	5,000,000	1,000,000	1,000	320

C. Rates and costs of operation.—1. *Principles of rate making under public and private ownership.*—Professor PARSONS introduces two diagrams to illustrate the movements of rates, efficiency of service, receipts, etc., in connection with publicly and privately owned and operated railways, and contends that it can be demonstrated that the results of actual experience coincide with the curves of the diagrams, showing that private ownership seeks the high-rate level, the level which will increase the service used to the point yielding maximum profit, while public ownership seeks the low-rate level with a view to yielding maximum service for actual cost. Private managers regulate the business simply to make the greatest profits with the least service, whereas the tendency of the public service is to look to the greatest development of traffic so long as it remains within reasonable cost or even if it might operate at a loss. (137-143.)

2. *Illustrations of the general tendency of public ownership to lower rates.*—Professor PARSONS states that the Hungarian Government in 1889, when it took over to itself the operation and management of the railways, reduced the fares 40 to 80 per cent. Austria and Prussia also made great reductions in railway charges. New Zealand and Australia, under government management, adopted the settled policy of reducing railway rates as fast as possible. In New Zealand in 1899 there was a reduction of 20 per cent made on farm products and 40 per cent on butter and cheese, and also a general lowering of passenger fares. Belgium also has a very low tariff of rates under public management. When England made the telegraph public in 1870 rates were lowered 30 to 50 per cent at once, and still further reductions were afterwards made, much greater than any made in this country under private ownership. When France took over the telephone in 1899 rates were reduced from \$116 to \$78 a year in Paris, and from \$78 to \$39 elsewhere, except in Lyons.

He further illustrates this general tendency by comparing charges made for crossing the Brooklyn bridge, which is owned by the cities of New York and Brooklyn, with the St. Louis bridge, which is owned by the Gould interests, and shows that the charges on the Brooklyn bridge are less than one-fourth what they are on the St. Louis bridge. Foot passengers and street-car passengers are charged 5 cents for crossing the St. Louis bridge, but are carried free in New York. The witness also shows that Glasgow has made great reductions in rates under public management of street railways. (145, 146, 173.)

Professor Parsons concludes that under government ownership rates are lower than under private ownership of the railways and the telegraph. (173.)

3. *Railway rates under government and private ownership.*—Professor PARSONS presents the following table as showing the average ton-mile and passenger-mile rates in the United States, Germany, Austria-Hungary, Belgium, Switzerland, France, and Great Britain. This table also shows the average distance of haul per ton and the average haul per passenger.

Average ton-mile and passenger-mile rates.

[Germany, Austria-Hungary, and Belgium have state systems; the rest have private systems.]

	Rate per ton-mile.	Average haul per ton.	Rate per passenger-mile.	Average haul per passenger.
	<i>Cents.</i>	<i>Miles.</i>	<i>Cents.</i>	<i>Miles.</i>
United States	0.75	130	2	26
Germany	1.40	60	1.1	20
Austria-Hungary	1.44	57	1	23
Belgium	1.30	40	- 1.88	12
Switzerland	2.80	35	- 1.55	12
France	1.48	88	1.21	20
Great Britain	2.10	.....	2	10

The passenger rates are shown to be materially lower in foreign countries. While it appears that the rate per ton-mile in the United States is lower than in the countries having public ownership of railways, the average haul per ton is much greater. Terminal charges may be assumed to equal 40 cents per ton, which in Belgium would equal 1 cent per ton per mile on the average haul, while in the United States the longer haul would make these charges equal only about three-tenths of a cent per ton-mile, leaving the respective charges for actual transportation about one-third cent in Belgium and nearly one-half cent in the United States. The witness therefore holds that, taking into consideration also the question of wages, which are higher in the United States than in the European countries, and other influences, the rates in the United States are even higher than in the European countries having public ownership. There are, however, so many differences in conditions to be taken into account in different countries, such as wages, efficiency of labor, influence of grades, capitalization, cost of fuel, density of business and other factors, especially differences in the general level of industrial ability, that no one can reach an accurate comparison between government roads in the European countries and private roads in the United States. The only way to make the comparison between public and private ownership is to consider the roads in the countries where public ownership and management are now in force with what they were when they were under private management. Such consideration would show beyond any question whatever that public management is much cheaper, pays better wages, gives more efficient service, and in every respect is superior to private management.

In all the countries in which private ownership has been superseded by public management the rates were greatly reduced immediately. There is an object on the part of the government in always reducing the rates to the lowest possible point consistent with the due operation of the road, while in countries having private management the companies reduce rates only when forced to do so by competition. In the United States the local noncompetitive rates, in many instances, are as high as they were 20 and 40 years ago, and in some instances higher, whereas no such thing can be found in any of the countries under public ownership. (137-143.)

In New Zealand and Australia, continues Professor Parsons, public and private ownership have been tried side by side, and the overwhelming consensus of opinion there is that public railways serve the public interest best. Switzerland, after a careful study of both systems, has recently come to the same conclusion, and her people have voted 2 to 1 to transfer the railways to public ownership and operation. These are more potent reasons for making the change, and are a better argument than any comparison of average rates can be. (137-141.)

4. *Economies of public ownership.*—Professor PARSONS declares that in addition to the fact that public ownership aims at service rather than profit, and therefore to a lower rate level, it also permits economies which private ownership could not secure. Reasons for the superior economy of public ownership are as follows:

- (1) The public plant has no lobby expenses or corruption funds to raise.
- (2) It has no rebates or commissions or other secret concessions to favored customers to provide for.
- (3) It has no dividends to pay on watered stock.
- (4) It has no large salaries or monopolistic profits to provide for.
- (5) Litigation expenses are less.
- (6) There is a saving on interest charges because of the superiority of the government credit, and also on insurance.
- (7) Public ownership gains through superior coordination of industry.

(8) The civic interest of the people is much increased and business is thus facilitated because people patronize their own institutions much more than they would a private institution.

(9) Strikes and lockouts are avoided.

(10) The expenses and cost of regulative commissions and investigations into the secrets of private monopoly are avoided.

(11) Public morals are improved and labor agitations diminished.

(12) The antagonism between the owners of vast industries and the public is eliminated. (147-149.)

Professor PARSONS asserts that the wastefulness of management of the various railway companies of the country would be eliminated if the Government should take the companies and operate them, because the duplication of the management would be eliminated thereby. In connection with the other economies which would be effected, as shown by a table presented by the witness, he claims that under coordinated public ownership, in round numbers, \$662,000,000 a year would be saved. Traffic would be greatly increased by low rates, and it is probable that rates and fares would be reduced considerably more than half under public ownership if the capital of the roads was paid up. (147-149.)

Coordination.—Professor PARSONS states that in most of the countries where there is public ownership of railways the service is coordinated with the telegraph, telephone, and other public services in such a way that one aids the other very materially. Thus, in European countries, one can telephone a telegram to the telegraph office very often without any extra charge. The effect of this policy is to do away with the antagonism of interest which exists in countries where the public utilities are owned and operated by private companies, and the power of the private companies to make or unmake a city, or an individual, or an industry, is thus destroyed. (156.)

5. *Relative efficiency of service.*—Professor PARSONS says that while the railway service in the United States is perhaps better than that of any other country in the world, still that fact is not of itself evidence of the superiority of private management. In the United States workmen generally are far superior to foreign laborers, and the systems of doing business generally in the United States is superior to systems of doing private business in any European country.

The service in Great Britain, under private ownership, is inferior to that in the continental countries where public ownership is in force. (139, 140.)

Professor PARSONS states further that a review of the public ownership in practice in all the public utilities embraced in the system in different countries shows that public ownership is more efficient than private in those countries where both have been given a fair test. He gives Germany as an instance. He asserts that where there is an apparent lack of economy and efficiency in foreign countries, as compared with the United States, it is due to differences which show themselves between private business in these two countries also, as well as to the improvement of the conditions of labor under public ownership.

6. *Should public utilities be self-supporting?*—Professor PARSONS does not think that it is a universally sound economic principle that every public utility should be self-supporting. Morals, intelligence, and civilization are just as vitally related to economics as are dollars and cents. The development of education is just as much a part of the business of any public utility as the making of a profit, and the serving of the public good is the only admissible purpose of all public utilities. He illustrates this argument by saying that it is right that the elevator in a public building should be run free and the charge put upon the person who owns the building. It might turn out in the same way with railways—that it would be best for the interests of the public generally to make them absolutely free. While in most cases, as far as the mass of the business is concerned, the public railways in foreign countries are managed so as to make a little profit, there is no necessary economic principle that would require them to continue on that basis. In this connection the witness refers to a summary by Professor Seligman, of Columbia University, on the matter of public utilities:

In all the media of transportation and communication there seems to be a definite law of evolution. Everywhere at first they are in private hands and used for purposes of extortion or of profit, like the highways in medieval Europe or the early bridges and canals. In the second stage they are "affected with a public interest" and are turned over to trustees, who are permitted to charge fixed tolls, but are required to keep the service up to a certain standard. This was the era of the canal and turnpike trusts or companies. In the third stage the government takes over the service, but manages it for profits, as is still the case to-day in some countries with the post and the railway system. In the fourth stage the government charges tolls or fees only to cover expenses, as until recently in the case of canals and bridges, and as is the theory of the postal system and of the municipal water supply with us at the present time. In the fifth stage the government reduces charges until finally there is no charge at all and the expenses are defrayed by a general tax on the community. This is the stage now reached in the common roads and most of the canals and bridges, and which has been proposed by officials of several American cities for other services, like the water supply.

Professor Parsons holds that the extent to which public ownership of public utilities and cooperative effort have replaced private action in any community is one of the surest tests of the degree of its civilization. The final stage in the case of a great universal utility, such as transportation, is free service; but of course that stage is not likely to come or be approached very soon, because the country is not ready for it. The change is not nearly so unjust as it might seem at first sight, because the property of the large taxpayers has been chiefly produced by nontaxpayers and taken from them by an unjust system of wealth distribution, wherefore the railroad tax would, in very large part, be merely a step toward a fairer adjustment of wealth and burdens.

Professor Parsons says, however, that if utilities should be taken over at present he would favor making them self-supporting, at least at first. He would provide the money for operating street railways out of the earnings of the roads, and would leave them on the tax list, just as they are now. He would do the same in respect of telephones and telegraphs, the only difference being that the rates would be lower under public ownership than they are to-day; that the lowering of the rates would increase the business of the utility, which was one of the principal advantages of the public system; that some services which do not seem at present to be universal are so merely because under private ownership rates are so high that they are practically prohibitive to the great masses of the people. (143-144-166.)

D. Effect of public ownership on politics.—1. *Public ownership an aid to good government.*—Professor PARSONS declares that public ownership of railroads would tend to eliminate personal discriminations in rates; would increase the wages of the employees and shorten their hours of labor, and would remove one of the principal causes of the present difficulties with legislative bodies. He believes, however, that public sentiment in this country is not quite far enough advanced to make public operation most successful, but that it is continually growing. Democratic government is not inconsistent with good management of these enterprises. In Australia, New Zealand, and Germany the system has worked excellently in respect of the railways, telegraph, and telephone systems, as well as in England in regard to the telegraph; England is quite as democratic, on the whole, as America; New Zealand fully as democratic; and this country, though democratic, will be able to solve the problem in time. Professor Parsons holds further that the transfer of the great interests to public ownership is one of the strongest influences to secure thorough civil-service regulations and would create a higher interest of the people in the Government itself. He calls attention to the cities of Glasgow and Birmingham, in which the increase of public ownership of the national monopolies has resulted in the purification of the cities because the public interests have become so great that the people have become fully aroused to the necessity of having an honest administration of affairs.

Professor Parsons declares that the public ownership of the government itself is essential to real public ownership of other public utilities. In this country, especially in some of the cities, the government is in the control of the monopolists, and it would not be safe under such circumstances to have the government own the public utilities. A distinction is to be drawn between public ownership and government ownership. Russia belongs to the latter class. The public there has nothing to say as respects the administration of government. If the government is a private monopoly everything in the hands of the government is a private monopoly.

Complete public ownership of the government involves civil-service reform and a system of direct nominations and direct legislation, so that the people can at all times control their representatives and their administrative officers. This is a fundamental element in the theory of public ownership and the key to the whole situation. (160, 161, 162.)

2. *Effect of increase of office class.*—Professor PARSONS refers to the generally admitted difficulty in the matter of public ownership of public utilities creating an office class and of increasing the public patronage and the power of the party in power. He thinks, however, that there is nothing alarming in that feature of it. Under proper civil-service regulations the public servants would be freer than they are to-day as the servants of the private monopolies. In New Zealand the employees of the public utilities feel absolutely free, not merely to vote as they believe, but to criticise the government whenever they see fit. Every railway officer and employee there has a vote in electing the appeal board or arbitration court that settles all questions between employees and the government. This he terms "a bit of real industrial democracy." An employee who is discharged can appeal to this judicial tribunal to decide upon the justness of his dismissal or upon any other question affecting his status as an employee. Thus the employees have far more liberty, both industrially and politically, than the government employees or the employees of any private

corporation in this country. The same thing is true to a very great degree in England in respect to the employees of the post-office and telegraph, as well as in Germany. It would be more difficult of course to establish the same system in this country because of the size of the country and, because we are not educated up to that point where there is a public sentiment in favor of it, but these difficulties could in time be overcome and should be overcome gradually, not by taking all the public utilities over at the same time, but by taking one at a time and organizing that thoroughly on the basis of the present employees and officers. Thus the only difference under public ownership would be, so far as the operation is concerned, that it would be operated for the benefit of the people instead of for the benefit of a few stockholders. After one system was thoroughly established another could be taken over and treated in the same manner.

Despite the fact that there are in the neighborhood of 800,000 railway employees in this country, Professor Parsons does not believe that there would be political danger if they were made government employees, or that they would be a political power in the government. They are, after all, only a small fraction of the voting population of the country.

In the administration of government railway affairs, continues the witness, there should be local directories and local advisory boards representing the various interests of the country substantially in the same way as is now the case in the countries where public ownership obtains. This would avoid the danger of undue officialism.

Professor Parsons believes in the pensioning of employees who have served faithfully for a long period of time, and holds that the expense of so doing, or any apparent favoritism, is not any objection at all to his theory. One of the strongest arguments in favor of public ownership, indeed, is that it tends to the elevation of labor, better wages, shorter hours, sick relief, old age pensions, etc. Those features are not objected to as regards the fire departments or the police departments of the cities. (162-165.)

E. Objections to Government ownership.—1. *Generally.*—Professor PARSONS refers to the principal objections urged against public ownership. The one is the matter of patronage. While there might be a tendency to the abuse of patronage under the public ownership system, the system itself creates a powerful force opposed to that abuse by increasing the importance to the community of having good government. The financial interest of the wealthy would be turned in favor of having the Government honestly and fairly administered, while now the tendency is often otherwise. Political abuses from private ownership are extremely serious. (172.)

Mr. WOODLOCK, railroad editor of the Wall Street Journal, does not think that Government ownership of railroads would be good for the Government or good for the people. He sees no more reason for it than for Government ownership of the steel business or of the newspaper business. (463.)

Mr. GREENE, of the Audit Company of New York, does not think that Government ownership of railroads would be advisable under any circumstances. There would be too much politics in the management. (489.)

HON. CHARLES FRANCIS ADAMS, of Boston, says that he has no faith whatever in Government ownership of industrial enterprises. If left alone, individual ownership will beat the Government every time. The best railroads in Europe are the English railroads, and those are left to private enterprise, and are handled accordingly. (829.)

2. *Objections of the Italian commission.*—Professor PARSONS states that the report of the Italian commission of 1880 is often referred to as proving the case for private ownership of the railways. He analyzes that report, however, and asserts that its conclusions are practically worthless for the United States. The reasons of the commission were partly invalid on their face, and partly inapplicable to this country. The commission lacked almost the whole of the important facts and experiences—those of Prussia, Austria, New Zealand, and Australia—that have since demonstrated the superiority of the public railways. Moreover, it was appointed on purpose to make the decision it did make, the appointing power desiring such a decision.

The commission based its conclusions upon three propositions: (1) That the credit and finances of the Italian Government were too weak to undertake the operation of railroads; (2) the unsuccessful results of a brief experience of 3 years with direct operation in northern Italy, these results being due partly to the fact that the lines had come to the Government in a dilapidated condition and had been operated by Austrians who were displaced and their places filled by inexperienced men; (3) that state operation is more expensive than private operation.

Any argument that might be sought to be drawn from any one of these propositions has no application to the United States. The argument as to economy of operation was not based on a careful analysis of detailed facts. The railway pro-

motors of Italy wanted the lease of the roads and the Government desired it also in order to get funds for other purposes, especially for the building up of the army and navy.

F. Government ownership of roadbeds only.—Replying to a question as to whether he thought it possible for the public to own the roadbeds, and corporations or individuals to do the transportation business in competition over those roads, Professor PARSONS says that he does not favor it because that system does not eliminate the element of antagonism of interest which lies at the bottom of the problem. Competition between those operating trains means the building up of great cities and of private individuals, and the system of discriminations which he believes are insuperable objections to it. Moreover, two companies could not operate trains at the same time on any line of railway, so that there would still be monopoly except at larger cities. (165.)

G. Regulation of private monopoly.—Professor PARSONS says that regulation is not sufficient to solve the problem of the public utility monopolies, for the reason that it can not overcome the antagonism of interest between owners and the public nor the congestion of wealth and power. With public ownership the managers would be impelled to administer the system with the same earnestness and honesty as they would their private affairs. (181-182.)

XIII. THE TELEGRAPH BUSINESS.

A. General description and statistics.—1. *Western Union Telegraph Company.*—Mr. CLARK, vice-president of the Western Union Telegraph Company, submits extracts from the annual report of that company showing the mileage and other conditions of business. In 1866 the company had 37,380 miles of poles and 75,686 miles of wire. In 1900 it had 192,705 miles of poles and 933,153 miles of wire. In 1900 it had 22,900 offices. (241.)

2. *Number of messages.*—The number of messages sent by the Western Union Telegraph Company, as stated in its annual report, increased from 5,879 in 1867 to 17,153 in 1875. By 1885 the number had reached 42,096 and by 1890, 55,878. The number of messages sent in 1893 was greater than in any later year, reaching 66,591,858. (241.)

Mr. Clark says that the number of messages transmitted during the year 1900 by the Western Union Company was 63,167,783, which does not include those going over the leased wires to the press and other interests. He figures the latter classes as amounting to 7,500,000, making a grand total of over 70,000,000 messages. (216.)

3. *Postal Telegraph Company.*—ALBERT B. CHANDLER, president of the Postal Telegraph Company, gives a brief history of the organization and development of the company. The Postal Telegraph Company is a reorganization of the original Postal Telegraph Company, and has been 15 years under its present organization and management. It has acquired quite a number of smaller telegraph companies, but its property is chiefly of its own construction. The Postal Telegraph Company and the Commercial Cable Company have been substantially one property since January, 1897, the cable company being in control of the Postal Telegraph Company. (193, 194.)

Mr. Chandler states that at the close of last year the mileage of the Postal Telegraph-Cable Company, not including the Atlantic cables, was 26,042 miles, the wire mileage 169,236 miles, the number of offices 20,781, and the number of messages transmitted 16,528,444. (194.)

4. *Telegraph franchises.*—Mr. CHANDLER states that it is now universally true that in going through any city or town the telegraph company has to acquire a franchise. He claims that under the post-road act of Congress of 1886, and the amendments thereto, a municipality can not prevent the erection of poles and wires in the cities, but can only regulate the construction. Practically, however, the difficulty in obtaining permission for construction of lines is as great as that of obtaining an entire franchise.

Mr. Chandler says that the method of acquiring franchises varies about as much as the number of places. His preference is to pay a reasonable concession to the city government. It is common for the company to make its wants known and to explain the purposes and the extent of its use of the public highways, and make it understood that it is trying to do good and not harm, and is willing to pay what is reasonable for the privileges asked for. It rarely happens now that competing companies offer opposition to the securing of franchises. (196.)

5. *Relations of the telegraph companies to telephone and railroad companies.*—Mr. CLARK states that there are no relations between the Western Union Telegraph Company and the Bell Telephone Company, excepting that the telephone company collects and delivers messages for the telegraph company and is paid for it. There was at

one time some sort of a contract between the two companies, but it expired with the expiration of the Bell patent. The relation of the telegraph company to the railroad companies in a general way is that the telegraph company has constructed lines along the railroads and given the railway companies the use of their wires, and in return the railroad companies employ operators to do their own telegraphing and incidentally the commercial business for the telegraph company at the smaller stations. There is substantial uniformity in those contracts throughout the country. He does not feel at liberty, however, to submit any of those contracts to the commission.

The contract with the Bell Telephone Company grew out of a long fight between the two companies on the patent question, and it was compromised by the telephone company paying a part of its royalties to the telegraph company for the term of its contract, and the telephone company took over the plant that the Western Union had built. The contract expired in 1896, with the expiration of the Bell telephone patent. (217, 219.)

6. *Ocean cables.*—Mr. CLARK states that the Atlantic cables are from 1,800 to 2,500 miles long. The capacity of a cable is not to exceed 17 words a minute. They have only one conductor, and must be made very strong because of the great depth at which they are laid. It is possible to duplex the cable, and there is a fortune in it for any man who can "quad" it.

Mr. Clark states that the cost of laying an ocean cable is much greater than that of constructing a telegraph line on land. The general cost of the cable line is about \$1,000 per mile, and it has only one conductor. Moreover, the cost of maintenance of the cable line is much greater than that of the telegraph line. In the case of a broken cable in deep water it becomes necessary to fit out an expedition on a large ship, which might be out sometimes as much as 3 months in the Atlantic service. (232.)

B. Capitalization and profits of telegraph companies.—1. *Charges of overcapitalization of Western Union Company.*—Professor PARSONS states that of the \$95,000,000 of stock of the Western Union Telegraph Company a very large part is water; \$60,000,000 of the stock represents less than \$10,000,000 of actual value, and \$35,000,000 represents largely stock dividends which can not be analyzed. The highest estimate any legislative committee that has investigated the matter has ever placed upon the amount of money paid in by the stockholders is \$16,000,000. The plant has been built up out of earnings very largely. The railroad commissioners of North Carolina in 1897 had made an extensive examination and came to the conclusion that about \$5,000,000 was the actual value of the Western Union Telegraph Company over and above its bonds. From the best information obtainable, says the witness, it appears that the plant could be duplicated for from \$20,000,000 to \$30,000,000 at the outside.

Professor Parsons says further that when recently the attempt was made in Ohio to increase the taxation of the Western Union lines the assessment was fixed, on the basis of two-thirds of the value, at \$2,000,000 for the 8,272 miles of line in the State. The company claimed that the property should be assessed at not more than \$647,000, and that the total cost, including all wires on a line, and including also the cost of stations and equipment, was on the average \$103 per mile of poles. On this basis the total 190,000 or 200,000 miles of poles owned by the company would be worth about \$20,000,000. (185, 186.)

Mr. ROBERTS quotes from the Washington Evening Star of 1893 to the effect that the paid-in capital of the Western Union Telegraph Company does not amount to over \$10,000,000, while its stock amounts to over \$80,000,000. All above the \$10,000,000 is pure water. The Star also stated that if the time should come when the Government would buy out the Western Union it would be necessary to squeeze this water out of the stock, or else the Government should build its own lines and operate them and let the inflated concern take care of itself. The witness quotes also from the report of the executive committee of the National Board of Trade of November 15, 1882, which gave a history of the great growth of the capitalization of the Western Union Company. That report stated that in 1858 the Western Union had a capital of \$385,700; that 8 years later the stock had increased to \$22,000,000, of which \$3,322,000 was issued in the purchase of competing lines and \$18,000,000 was issued in stock dividends; that afterwards, when the United States Telegraph Company was purchased by the Western Union, over \$7,000,000 of stock was issued, which was alleged to be 5 times the value of the property taken in; and that in the purchases of the other telegraph companies, occurring subsequently, practically the same proportion of stock was issued in respect to real value as in the cases mentioned. The witness states that it is the universal opinion of those who have given the subject consideration that "on one side are the people and on the other the Western Union Telegraph monopoly." (267, 271, 272.)

2. *Denial of overcapitalization of Western Union Company.*—Mr. CLARK denies the charge that the Western Union Telegraph Company is overcapitalized. The rates

charged would compare favorably with the rates charged by any system of telegraphs that could be put upon the same basis without governmental aid, and there are no overcharges. Comparing Great Britain with the United States, the total cost of the lines in Great Britain up to March 31, 1900, was \$66,603,662, or an average capital account of \$1,530.80 per mile of poles and \$215.90 per mile of wire. The total capitalization of the Western Union Telegraph Company, including the stock, the collateral trust bonds, and all other bonds and liabilities, amounts to \$131,364,665. On this basis the capitalization per mile of poles in the United States is \$703.80. Deducting the Atlantic cables from the wire mileage, the capitalization per mile of wire is \$141.70. Thus the capitalization per mile of poles in Great Britain is more than twice as much as that of the Western Union Company and the capitalization per mile of wire one-half as much more.

Figuring the capitalization from another standpoint, and deducting \$11,000,000 of assets from outside companies that are not telegraph companies and whose systems are not in any way comprised in its mileage, the capitalization of the Western Union is \$120,364,665, or \$645 per mile of poles and \$129.80 per mile of wire. (212, 213.)

Professor PARSONS criticises the statement that the capitalization of the Western Union Telegraph Company is \$645 per mile of line and \$130 per mile of wire, while the British capitalization was estimated at \$1,530 per mile of line and \$216 per mile of wire. He says Mr. Clark's estimate of the British capitalization is made up by adding to the outstanding capital debt the whole cost of extensions and improvements from the beginning, and making no allowance for depreciation. Besides this, it is well known that England paid the company at least four times and probably five or six times the actual value of the lines. It would be better to take for comparison the telegraph capitalization in some country that had not made such an exorbitant purchase. Better still would it be to compare the \$645 a mile with the cost of construction in this country or with the Western Union claim in recent litigation in Ohio, that its whole property in that State did not cost over \$103 per mile of line. Even this contrast probably does not show the real inflation in Western Union capital, for Vice-President Clark took the whole mileage of poles and wire reported by the company, which there is the very best reason to believe is the sum of all the lines bought and built from the start, many of them now in the junk heap. Vice-President Clark says that the "capital of the Western Union Company has resulted from the amalgamation of a large number of telegraph companies from the beginning," and everybody knows that when companies amalgamate the resulting capital is a good deal more than the sum of the former separate capitals. What is the relation between capitalization and the real value of the plant is the important question. (889.)

Mr. CLARK states that the Western Union Telegraph Company guarantees the stocks of other companies which it has taken into its system, amounting to quite a large sum, for which no Western Union stock has been issued. The stocks of the companies for which Western Union stock has been issued have been canceled. There are about 11,000 stockholders of the Western Union Company, only about 50 of whom hold large blocks of stocks. The regular dividend is 5 per cent, and has been so for a number of years. (226.)

Mr. Clark states further that the capitalization of the Western Union Telegraph Company has not been increased with the increase of the service and with the amount of money expended in the betterment of the system. Referring to the absorption by the Western Union of the Atlantic and Pacific and the American Union Telegraph Companies in 1879, he says that he is unable to tell whether the capital stock of the Western Union was increased at that time or not, but whether it was or not (referring to an opinion of the United States court of appeals) there was no more increase in the capitalization than the values of the property absorbed would warrant. The capitalization per mile of wire has steadily gone down because the property has been reconstructed without adding additional capital to it, the amount for reconstruction being taken out of the earnings of the company. (221.)

3. *Cost of reproduction.*—Mr. CLARK, referring to the arguments that the cost of reproducing the property should be the proper test of its value, maintains that this is not the correct test. Moreover, the claim that the lines can be reproduced for \$120 to \$130 per mile is preposterous. This would not be true even if there were but 2 wires to the line, and while only about 30 per cent of the lines of the Western Union Telegraph Company have only 2 wires, on many of the lines of the system there are as many as 200 wires, which make it very much more expensive. The cost of expensive terminals in the various cities (many of which run up into the millions of dollars) must necessarily be taken into consideration in determining the value of the property. It cost the company \$100,000 per mile to construct the underground and pneumatic system for 3 miles from the uptown to the down town offices in New York City. The witness further maintains that another factor in the value of the

property is the fact that it has been built up by the brains of many managers and has a certain value which might be termed its good will. The property as it is to-day represents in a large part many renewals and reconstructions; this outlay would amount to from \$50,000,000 to \$60,000,000 expended since 1866. (215.)

Mr. Clark states that he can not make an estimate of the average cost of constructing a mile of poles with 1 wire, because there are so many varying conditions in the country as to render an estimate unreliable. He also states that he can not estimate the cost per mile of wire and the cost of terminals, for the same reason. (221, 222.)

Mr. CHANDLER states that the cost of building a telegraph line varies. He has known a good single-wire telegraph line to be built for \$150 per mile, and he has known single lines of telegraph in cities to cost \$10,000 under ground. (204.)

4. *Capitalization of Postal Telegraph Company.*—Mr. CHANDLER states that the capital stock of the Postal Telegraph Company was, at the time of the acquisition of the property by the Commercial Cable Company, exchanged for bonds of the Cable Company. The whole capital of the Postal Company—\$20,000,000—is in bonds issued by the Cable Company in exchange for \$20,000,000 of stock of the Postal Company and for property since acquired. The Postal Company has no shares of the stock outstanding on its land-line properties. The Postal Company has no sinking fund and no cumulative feature in its interest-bearing bonds. The \$20,000,000 of bonds cover not only the tangible property of the company, but its franchises, patents, and a variety of requisites for carrying on the telegraph business. (194.)

Mr. CLARK states that the Postal Telegraph and Cable Company has \$18,000,000 of 4 per cent bonds, and that that does not cover all that the lines have cost, which is about \$20,500,000. On the mileage given by that company in the United States it is capitalized at \$782 per mile of poles and \$121 per mile of wire. This company was the result of a number of reorganizations of other companies and has been built up on practically a cash basis. (212-213.)

5. *Profits of the Western Union telegraph system.*—Mr. RANDALL traces the growth of the Western Union telegraph system, beginning in 1858, when its capital stock was only \$385,780, and states that during the next 8 years its stock dividends amounted to nearly \$18,000,000; that the largest dividend declared by the company up to 1874 was 414 per cent. The company has realized \$100,000,000 in 25 years in dividends. An investment of \$1,000 in Western Union stock in 1858 would have received up to 1890 stock dividends of more than \$50,000 and cash dividends equal to \$100,000, or 300 per cent of cash dividends per year. (243-244.)

Professor PARSONS states that Postmaster-General Wanamaker's investigations showed that early investments in Western Union stock have received an average of 300 per cent cash dividends per year from 1858 up to 1890 and 150 per cent per year in stock dividends besides. Cash dividends for the period from 1858 to 1866 were 100 per cent a year and the total dividends 700 per cent a year. (190.)

Mr. CLARK states that the annual gross earnings of the Western Union Telegraph Company amount to nearly \$25,000,000, while the gross expenses are about \$18,500,000, which leaves a balance of something over \$6,000,000 for dividends on the stock, for interest on the bonds, and for sinking-fund purposes, with a small surplus. The expenses for a year are made up of operating and general expenses, amounting to over \$13,000,000; rental of leased lines, over \$1,500,000; maintenance and reconstruction, nearly \$3,000,000; taxes, a little over \$500,000; equipment, a little over \$300,000. The operating and general expenses for salaries amount to \$9,000,000, or practically 50 per cent of the whole expenses, which does not include the salaries for regular linemen, special line gangs, and general labor expenses. (216.)

6. *Profits of Postal Telegraph Company.*—Mr. CHANDLER states that the Postal Telegraph Company earned and paid 4 per cent dividends previous to the sale of its property and has just about earned the interest that has been paid by the Cable Company on the bonds since the acquisition of its property by that company. (194.)

Mr. Chandler states that all the earnings of the Postal Telegraph Company above dividends of 4 per cent paid on its \$20,000,000 of bonds have been invested in extension and new construction, but that it is impracticable to ascertain accurately the amount of surplus earnings that have gone into the property. (194, 202.)

Mr. Chandler states that the Commercial Cable lines have up to this time had an advantage over the land lines in earning capacity. (202.)

C. *Telegraph rates.*—1. *Telegraph rates in United States.*—Mr. RANDALL states that the rates for telegrams in this country are so varied that it is difficult to tell what they are from one place to another without going to a telegraph office and making inquiry. He submits a table showing the rates from New York to all the principal cities in the country, ranging from 25 cents for 10 words and 2 cents for each additional word to \$1 and 7 cents. This table is as follows:

Alabama, 50 and 3.
 Arizona, \$1 and 7.
 Arkansas, 50 and 3 and 60 and 4.
 California, \$1 and 7.
 Colorado, 75 and 5.
 Connecticut, 25 and 2.
 Delaware, 25 and 2.
 District of Columbia, 25 and 2.
 Florida, 60 and 4.
 Georgia, 60 and 3.
 Idaho, \$1 and 7.
 Illinois, 50 and 3.
 Chicago, 40 and 3.
 Indiana, 50 and 3 and 40 and 3.
 Indian Territory, 75 and 5.
 Iowa, 60 and 4 and 50 and 3.
 Kansas, 60 and 4 and 50 and 3.
 Kentucky, 50 and 3 and 40 and 3.
 Louisiana, 60 and 4.
 Maine, 25 and 2.
 Manitoba, 75 and 5.
 Maryland, 25 and 2, 30 and 2, and 40 and 3.
 Massachusetts, 25 and 2.
 Minnesota, 60 and 4 and 50 and 3.
 Mississippi, 50 and 3.
 Missouri, 60 and 4 and 50 and 3.

Montana, 75 and 5.
 Nebraska, 60 and 4 and 50 and 3.
 Nevada, \$1 and 7.
 New Brunswick, 50 and 3.
 New Hampshire, 20 and 1 and 25 and 2.
 New Mexico, 75 and 5.
 New York, 20 and 1 and 25 and 2.
 North Carolina, 50 and 3.
 North Dakota, 75 and 5.
 Ontario, 40 and 3.
 Oregon, \$1 and 7.
 Pennsylvania, 25 and 2 and 20 and 1.
 Quebec, 40 and 3.
 Rhode Island, 25 and 2.
 South Carolina, 50 and 3.
 South Dakota, 75 and 5.
 Tennessee, 50 and 3 and 40 and 3.
 Texas, 75 and 5 and 50 and 3.
 Utah, 75 and 5.
 Vermont, 25 and 2.
 Virginia, 40 and 3, 30 and 3, and 25 and 2.
 Washington, \$1 and 7.
 West Virginia, 40 and 3 and 35 and 2.
 Wisconsin, 50 and 3.
 Wyoming, 75 and 5.

Mr. Randall says that there are special rates less than the commercial rates given in the table, but that there does not seem to be any universality even in respect of these special rates. He believes in uniformity of rates; he does not think distance should be considered in telegraphy any more than in the carrying of the mails. The company has the line erected and the operators employed, and it really does not cost any more to send a telegram from Maine to California than from Washington to Alexandria. Nineteen-twentieths of the telegraph business of the company is done within a radius of 1,000 miles of New York, and rates on that business would pay for any deficiency in the revenues for longer distances. (251, 257, 258.)

Mr. CLARK describes the various kinds of rates in force in the telegraph system of the country. The commercial rates are made up in different ways. For instance, in some States the rate for a 10-word message is 25 cents for the whole State and there are also such special rates from State to State and between large centers. The rates for local purposes all through the country, if not thus specially determined, are made up by a system of squares, a square being 50 miles each way, and the rate being 25 cents from any square to any two circles of contiguous squares. The highest rate charged for the country is \$1, which is from the Atlantic to the Pacific coast. There is also a system of night rates east of the Rocky Mountains, by which messages can be transmitted during the night and delivered next morning at about half the day rate, there being no rate less than 20 cents. (209, 210.)

Mr. CHANDLER states that the rates of the Postal Telegraph Company for messages of 10 words, exclusive of date, address, and signature, range from 20 cents, applying locally in a few cities, to \$1, applying between the extremes of the Atlantic and Pacific coasts, and that the average amount received per message during the year 1900 was 34.2 cents. He states further that the small customer is as cheaply served as the large customer, a circumstance which is due to the fact that in the transmission of telegrams every message takes exactly as much time of the operating service and as much use of the lines as every other message of equal length.

Rates are fixed on a system similar to the zone system. The whole country is divided into squares, and the rate is made from one square to another. (194, 195.)

2. *Comparison of European and American telegraph rates.*—Professor PARSONS states that the average telegraph receipts in this country are about 31 cents for ordinary messages, while in European countries the rate is very much less. He submits the following table showing the comparative rates for the principal European countries to be less than one-half what the rates are in this country:

Country.	Ordinary rate per word.	Ordinary minimum charge per message.	Average receipt per message.
	Cents.	Cents.	Cents.
Great Britain.....	1	12	15½
France.....	1	10	15½
Germany.....	1½	12	.....
Belgium.....	1½	10	8½
Switzerland.....	1½	12	.....
Austria.....	1	11	.....
United States.....	2 to 7	25	31

Mr. Parsons asserts that the difference in rates between the United States and European countries can not be accounted for wholly upon the greater distances in the United States, as is claimed by the Western Union Company, because, if the total cost for maintenance and reconstruction of the Western Union were taken as a basis for calculation, the increased cost per message would not exceed 3 cents. (186, 187.)

Mr. RANDALL declares that the rates for telegraph service in this country are excessive and very much higher than the rates for similar service in the European countries where the telegraph is under government control. Sixty-one per cent of the telegraph lines of the world are under government ownership. In the European countries no more charge is made for 100 miles than for 1 mile, the same principle being applied to the telegraph there as to our postal system. In most of these countries the postal service and telegraph are combined, and in nearly all of them the combined service makes a profit. He instances Italy in 1890 as having a net profit of \$306,837 from the combined service. He quotes from Postmaster-General Wanamaker:

"I believe that a telegraph company could make a great deal of money on a uniform 25-cent 20-word message to all parts of the country. The increase of business on lower rates would be so large that the profits of the telegraph company, in my judgment, would not be diminished." (244.)

Mr. ROBERTS states that the rates for telegraph service in this country are greatly in excess of the rates in European countries, where the lines are operated by the government, and that the service here is inferior. The Western Union Company, in making comparisons with European countries, has always contended that one of the reasons why rates were higher here than there was because of the greater distances. The Western Union, in making this argument, always attempts to minimize European distances and magnify distances in the United States, and he submits some figures taken from the Western Union statistics in support of his statement. (271.)

Mr. CLARK states that the average rate received for telegrams of all lengths by the Western Union Company is 30.8 cents and the operating expense about 25.1 cents. These figures are obtained by dividing the total receipts and expenses by the number of telegrams. In Great Britain the average cost per message is 15 cents. If the rates of Great Britain were raised to practically what they are in the United States, the service would perhaps be self-supporting. He states, however, that the messages passing over international lines in Europe are charged for at a higher rate than for similar messages in the United States. (224-226.)

Mr. Clark states that the telegraph rates in the European countries are based on the entire count of the message, including address and signature. The rate in Great Britain is 12 cents as a minimum, which covers 12 words, and 1 cent for each additional word. In France the charge is 10 cents for 10 words or less, in Norway 13 cents, and in Germany 12 cents for 10-word messages. In Belgium 15 words or less may be sent for 10 cents. The additional rates in each of these countries are about 1 cent per word. Messages to all distances are apparently at the same rates.

Mr. Clark asserts further that the distances in European countries are very short compared with those in the United States. The circuits in which the 25-cent rate would apply in the United States are much larger than the usual circuits in Great Britain, with which he makes particular comparisons. About 65 per cent of all of the messages in Great Britain are sent into and out of London. Distance is a very important item in any consideration of the question as to whether the rates in England can be properly compared with the rates in the United States, the conditions being so different.

Finally Mr. Clark emphasizes the fact that in the United States there is no charge made for the address and signature of the message, while in the European countries, with which comparisons have been made, these matters are counted as part of the message. While the rates of the European countries would appear on their face to be much below the rates in the United States, it would be found upon examination that a message in the United States costing 25 cents would average 21 words long, and at the rate of 1 cent a word, which is common in the European countries, this would cost 21 cents per 10-word message. (208, 209.)

Referring to the rates in the European countries, Mr. CHANDLER says:

"In European countries the distances are very short in comparison with ours, and, besides, in European countries every word is charged for. Here the rate is upon the message itself. The date, address, and signature are not paid for. * * * I have repeatedly been informed, both by telegraph officers abroad and persons using the telegraph there, that, taking into account the fact that all words are charged for by foreign governments and that the distances within the limits of European countries are less than in the United States, rates there are nowhere lower than here, and in case of messages going from one country to another they are much higher." (194, 195, 202, 203.)

Professor PARSONS replies that Mr. Clark's comparisons are vitiated by his assumption that 11 words is the average of the address and signature, thus making 21 words the ordinary message as the basis of comparison. President Green, of the Western Union Telegraph Company, some years ago placed the average number of words in the address and signature at 7 per message. Even if the average message were 21 words here the comparison would not be fair, for it is perfectly certain that the average message for England is about 15 words only. The minimum rates at which messages can be sent, and the actual average charge, are vital matters for making comparisons. In Great Britain a message from any point to any other point in that country may be sent for 12 cents. From any point in the States of Massachusetts, New York, Connecticut, or New Jersey to another point in the same State is 25 cents. The average charge for all messages in Great Britain is about 15 cents, as against 31 cents in the United States. Mr. Clark admitted, says Mr. Parsons, that 3 cents a message added in Great Britain would pay for all extensions and cover the interest charges on a debt overloaded by the purchase of lines at about four times their value. By Western Union data less than 3 cents of the 31 charged in the United States are due to distance, and the evidence shows that telegraph expenses are not run up by paying high wages. (887.)

3. *International rates.*—Mr. CLARK states that, as to the through business on the Continent of Europe, one can register a code address just as is done in respect of cable messages and pay \$5 per year for that registration, but that that system is not used by the general public because it is too expensive. It is safe to assume that practically all the general business passing between London and any of the large cities on the Continent would be on the same count as business in the United States, the tendency being to make it more, because the names of streets are much more involved there than here. The rate for all international business in Europe is made on a word-count and not on a count of 10 words or less. The rate between London and Paris is 5 cents per word, or \$1.05 on the message of the average sent in this country at the 10-word rate; whereas from New York to any part of New England, Pennsylvania, or New Jersey (which is practically the same distance), the rate would be but 25 cents. "From London to Marseilles, 827 miles, the rate is 5 cents a word; that would be the same as Paris—\$1.05—while our rate from New York to Chicago, about the same distance, is 40 cents. From London to St. Petersburg the distance is 1,774 miles, and the price is 11½ cents a word, or \$2.41 for 21 words, while our rate from New York to Galveston, 1,789 miles, is 75 cents. From London to Berlin is 746 miles, and the telegraph toll 6 cents a word, or \$1.25 for 21 words, while our rate from New York to Cincinnati, the same distance, is 40 cents. From London to Rome is 1,192 miles, and the rate is 6½ cents per word, or \$1.37 for 21 words, as compared with our charge of 60 cents from New York to New Orleans, 1,344 miles." (209.)

Mr. Clark states that the cable rate from New York to Europe is 25 cents per word, and that for a less distance it might be less, because less money is invested in the line for a shorter distance. The comparisons as to the rates from New York to various points in this country with the rates from London to various European countries are fair, although as a part of the distance from London to the continental cities is by cable, because the cable distance from England to the Continent is very short. The rates from one continental place in Europe to another are practically the same as from England to any of the continental countries, the rate from Paris to Berlin being 4 cents per word. (218.)

Professor PARSONS replies that Mr. Clark's comparisons of American rates from New York with European rates from London is unfair, (1) because the American rates are internal, while the European are international, each country adding its own tariff; (2) the American rates are land rates, while the European rates include the cable from England to the Continent, which, as Mr. Clark admits, is infinitely more costly than the land service. (887.)

Professor PARSONS criticises the statements made at various earlier times by the Western Union Telegraph Company in respect of the distances between various European places and between places in the United States, saying that for the purposes of making out their cases the Western Union has magnified the American distances and minimized the European distances, and in a table submitted to a Congressional committee in 1870 had not correctly stated the distance, but had put the distances from one-third to one-half less than the actual distances.¹ The rates compared by the Western Union, moreover, were for internal traffic in the United States and for international traffic in Europe, international traffic being, because of different controlling

¹ The distances stated by Mr. Clark in his testimony—126—before the Industrial Commission are nearly the same as those stated by Mr. Parsons as being correct.

authorities, much more expensive than internal. For internal traffic in the United States, the rates were found by the committee of 1870 to be from three to four times as high as for internal traffic under European systems operated by the government. (187-188.)

4. *Density of population and amount of service in United States and foreign countries.*—Mr. THOMAS F. CLARK, vice-president of the Western Union Telegraph Company, states that, in his opinion, the comparisons that have been made by other witnesses in regard to the telegraph in Great Britain, Ireland, Switzerland, and Belgium are unfair. The area of all these countries, their population, the density of population, and all things of that nature should be taken into consideration. It would be found therefrom that the service in the United States reaches more people, comparatively speaking, and was better than in the other countries mentioned. He gives statistics in support of this general proposition, showing that there are about 39,000 places reached by the telegraph companies and their connections in the United States, while there are but 76,000 post-offices; that in Great Britain there are about 40,000 post-offices and 10,816 telegraph offices. About 50 per cent of the places where there are post-offices in the United States are reached by the telegraph, while in Great Britain, with all its density of population (which he gives as 333 to the square mile, while it is only 24 to the square mile in the United States), only about 25 per cent of the places reached by the post-office are reached by the telegraph. (206-208.)

Mr. Clark submits also a table showing for each of the European countries and for the United States the number of people, the miles of telegraph lines and telegraph wires, the number of offices, the messages sent, the receipts, the number of people to the square mile, and the number of people to 1 mile of wire, and other facts. He asserts that these figures show that the United States has fewer people to the square mile than any of these other countries, and that nevertheless there are more miles of wire proportionately to the population than in any other country. There are here only 76 people for every mile of wire, while Great Britain, with a very dense population and a large proportion of mileage of wire to territory, has no less than 130 people to every mile of wire. In Germany there are 188 people per mile of wire, while in Russia there are no less than 699 inhabitants per mile. The witness holds that these figures show the superior adequacy of American telegraph facilities, in proportion to the needs of the country. (233, 234.)

Professor PARSONS replies that 1 mile of wire to 76 people in the United States against 1 mile to 130 people in Great Britain proves nothing except the relative sparsity of population in the United States. The wire mileage tabulated by the Western Union includes all the worthless lines that were bought up solely to get rid of rival companies. Mr. Clark's comparison as to the number of post-offices and places reached by the telegraph companies is invalid: (1) Because by his own exhibit there are only 29,000 places reached by telegraph and telephone. (2) Because the number given for the British telegraph offices is the figure for more than 2 years prior to the date of the figures for the United States. (3) Because the British post-offices are overestimated. The 1898 report gives the number of post-offices in Great Britain as 21,197 and the telegraph offices as 10,483. (4) Because telephone connections are included in the American figures and not in the English. (5) Because about three-fourths of the Western Union offices are railway offices, while less than one-fourth of the British offices are railway offices. (6) Because in Great Britain every post-office and postal box is a place of deposit for telegrams. Moreover, the figures, even if correct, would only show that Great Britain had a much greater relative development of post-offices than the United States. The implication that the telegraph development in Great Britain is relatively less than the United States is wholly unwarranted, even on Mr. Clark's figures, since 10,816 offices is a more extensive service in Great Britain than 39,000 in the United States with 30 times the area. (886, 887.)

Professor PARSONS admits that probably there is greater efficiency of service in this country in the telegraph system in some respects than in Europe, but says that can be attributed to general superiority of America in any business affairs. (188.)

5. *Reduction in rates in United States.*—Mr. CLARK says that the Western Union company has resulted from the amalgamation of a large number of telegraph companies. In the early days a number of small companies were exploited in all directions, and made their own tariffs, so that if one wished to send a message from a remote place to another remote place it would be necessary to send it over a number of different lines and pay what is known as the transit rate for each line, there being no unification of service. This system became so burdensome that consolidation became necessary.

As the result of the consolidation, rates have been greatly reduced. The rates of the East are lower than those of the Middle and Western States, and they in turn are lower than the rates in the South. The reduction of rates for the country in

and about New York has been about 20 per cent since 1866, while for the western and southern places the reductions were much greater.

The rate from New York to Buffalo, which was 75 cents, finally became 25 cents, which is the rate to all other places in New York State; from New York to Cleveland, \$1.45 in 1866, is now 40 cents, which is the rate to all other places in Ohio; to Chicago, \$2.05 in 1866, now 40 cents; other places in Illinois, 50 cents; Omaha, formerly \$4.45, now 50 cents; Denver, \$7, now 75 cents; Salt Lake City, \$7.25, now 75 cents; San Francisco, \$7.40, now \$1; Portland, Oreg., Seattle, Wash., and Victoria, British Columbia, which were from \$10.20 to \$11.55, now \$1; Washington, formerly 75 cents, now 25 cents; Richmond, \$1.25, now 35 cents; Atlanta, \$2.35, now 50 cents; New Orleans, \$3.25, now 60 cents; Galveston, Tex., \$5.50, now 75 cents.

Mr. Clark states that so far as practicable the divisions by squares have been abandoned and the rates fixed by States.

The result of this consolidation has been very beneficial to the business interests of the country and to all other interests in effecting great economy of service and great saving in time. The rates to-day aim to follow the development of the business all the time, and with an earnest desire on the part of the company to keep them as low as possible, at the same time giving the company a reasonable return on the investment. (214-215.)

A table submitted by Mr. Clark, from the report of the Western Union Telegraph Company, shows the average tolls received per message by that company each year since 1868. These figures are obtained by dividing the total receipts of the company from ordinary messages by the total number of ordinary messages, so that the average includes messages of all lengths sent for all distances. The average toll received in 1868 was \$1.047 per message. By 1875 the average had fallen to 54 cents, and by 1880 to 38.4 cents. The average receipts in 1885 were 32.1 cents and in 1890, 32.4 cents. Since 1895, when the average receipts were 30.7 cents, there has been practically no change in the average from year to year. The statistics showing the average cost of sending messages, which are obtained by dividing expenses chargeable to messages, not including interest on investment, by the total number of messages, show a reduction in the average cost from 63.4 cents in 1868 to 25 cents in 1878. The average for 1900 is almost precisely the same—25.1 cents. The average for the latter year is somewhat greater than for the years from 1885 to 1895, during several of which the average cost is stated at between 22 and 23 cents per message. (241.)

Mr. CHANDLER says that the tendency is to cheaper rates, and states that since 1880 the rate between the Atlantic and Pacific coasts has been reduced from \$1.50 to \$1, and that the rates between many other points have, since 1880, been reduced from 75 cents and \$1 to 50 cents and 60 cents, respectively; that many 50 and 60 cent rates of 15 or 20 years ago have been reduced to 40 and 50 cents, and many rates of 40, 35, and 30 cents have been reduced to 30 and 25 cents, while the limits within which the lower rates apply have from time to time been extended. The reduction in rates has been brought about largely by the disposition to secure greater uniformity and to extend the limits within which specific rates prevail. (194, 195, 202, 203.)

6. *Proper telegraph rates.*—Professor PARSONS states that Postmaster-General Wanamaker informed him that his investigation led him to believe that a uniform 10-cent rate in this country under Government ownership, in connection with the postal system, would be remunerative. There was a line of telegraph between Milwaukee and Chicago installed some years ago, on which a 10-cent rate was made, and the company paid back from 30 to 40 per cent of the receipts to patrons of the road after paying 7 per cent interest on the capital; subsequently it reduced the rate to 5 cents and still paid back from 25 to 40 per cent of the total receipts to the patrons of the company, and at the same time had doubled its stock, making it half water, thus showing some of the immense profits to be made in the telegraph service from low rates. (189-190.)

Mr. CLARK thinks that the effect of a general reduction in rates throughout the United States would mean a loss to the telegraph company because the physical capacity of the wires has practically been reached. The company has considered these questions and has not thought it wise to adopt any reduction; it has been tried by other companies, such as the Baltimore and Ohio, and always with failure. While it is true a reduction of postage rates greatly increased the number of letters sent and also increased the revenues of the postal service, that principle would not apply to the telegraph because the Government uses the facilities of other people for the postal service and has no large investment. For instance if the mail matter increases considerably all the Government has to do is to put another car on the railway, while in the case of the telegraph a new line has to be constructed with an increase of the business. While the rates of postage in the United States are higher than they are in Great Britain, yet the British post-office makes a profit while the United States post-office is operated at a loss. He attributes this to the greater distances that mail has to be carried in this country than in England. If the telegraph service were carried

into every nook and corner of the country, as the advocates of Government ownership desire, the result would be a deficiency very much greater than the deficiency in Great Britain. He admits, however, that the decrease in rates would perhaps result in an increase of the number of messages sent. (227-228.)

Mr. Clark refers to numerous attempts that have been made in this country to reduce telegraphic rates, all of which, he says, have been unsuccessful. The present rates are justified by the business of the company. (215.)

Baltimore and Ohio Telegraph.—Professor PARSONS criticises the statement of Mr. Clark, that the Baltimore and Ohio telegraph, which maintained a 10 cent rate on 19 long routes and other low rates, averaging 16½ cents a message on the whole system, became bankrupt in consequence of its low tariff. The manager of the Baltimore and Ohio telegraph system testified at a hearing before a Congressional committee that the system made a profit in spite of its low rates, and that the Western Union succeeded in buying up the Baltimore and Ohio lines merely because other departments of the railroad company were unprofitable, and the sale of the telegraph was the most available source of realizing funds. (888.)

7. *Relations between telegraph companies and effect on rates.*—Mr. CHANDLER states that there is an understanding between the Postal Telegraph Company and the Western Union Company in respect to certain methods of competition, giving of rebates, etc., but that there is no understanding in reference to any division of business, and neither company, as a rule, accepts messages which must be transmitted over the lines of the other company. Since this understanding has been had, there has not been any increase in rates to the public, except that certain particularly low rates—10, 15, and 20 cent rates—that had been established by the various smaller competing companies and which meant a loss were done away at the outset. At the same time, he says, a much larger number of rates, particularly rates between distant points, was reduced. Previous to this understanding the most insistent customer got the largest rebate, and, in Mr. Chandler's judgment, the understanding has resulted in benefit to the public in that now every man engaged in the business knows that he has just the same rates as his competitor and that no one has any advantage over another. No complaints because of the refusal to give rebates have been had since customers have understood that there is no exception to the rule. (195, 198.)

Mr. Chandler states further that the business of his company is not competitive at all points with the Western Union Company, that the Postal Company has offices at a great many places where the Western Union has none, and the Western Union has offices at a great many more places where the Postal Company has none. At the majority of the Postal Company's stations, however, there is competition. The number of messages transmitted by the Postal Company in 1900 was about one-fifth of the whole number in the country.

In Mr. Chandler's opinion, the understanding in reference to rates, etc., between the Postal Company and the Western Union Company has not destroyed competition, though it has restricted it. Unrestricted competition would mean destruction. The existence of competing lines, however, the witness holds to be of advantage and to result in the doing of business on better terms.

Business could be done much better under one management, he thinks, but the difficulty has been hitherto, that "when the whole telegraph business has for a time been done under one management new competition has sprung up of a wasteful sort and legislation has been instituted against telegraph companies. Public clamor has been raised against monopolies, and it has not so far been practicable to maintain a single service for any considerable time." (195, 201, 203.)

Mr. CLARK states that there is no community ownership between the Western Union and the Postal companies. The Postal follows the rates of the Western Union. They have no interchange of messages. (228-229.)

8. *Cost of using the telephone in connection with the telegraph.*—Mr. CLARK states that sometimes, in the case of independent telephone companies which run their lines into a remote place, there is an increased cost to the public, but that for collecting and distributing through the telephone companies generally there is no increased cost. (227.)

D. Government ownership in Great Britain.—1. *General working.*—Professor PARSONS says that England made a mistake when it bought out the telegraph companies by buying them all at once instead of one at a time, as Prussia had done with the railroad service. It also paid about four times as much as the lines were worth. Notwithstanding these disadvantages the rates were immediately lowered and the service increased and bettered in every way. Telegraph offices have been opened in the post-offices, and messages can be deposited in post-office boxes. The hours of labor have been shortened from 56 to 48 and 42, and wages increased. The public operation of the telegraph has brought about a harmony of interest. Press

rates have been reduced to the lowest figure in the world to-day. The number of messages doubled in 2 years after the Government took possession and has subsequently very largely increased. Social intercourse has been promoted. The percentage of social messages, not only in England, but in Belgium and Switzerland as well, runs up sometimes as high as 63 per cent of the total, whereas the Western Union has stated that 46 per cent of the telegraph business of the United States was speculative. Where the rates are low and the facilities ample the masses of the people use the telegraph to a very great extent. The advantages in England are low rates, good service, rapid growth of the system, progressive improvement of labor, harmonious, uninterrupted operation, large popular use of the telegraph, a management whose sole aim was to serve the people, moderate salaries for leading officials, no big fortunes from telegraph manipulation, and universal satisfaction with the situation. The opposite of all this is true in the United States. The United States need not make the mistakes England made in some of its management of the telegraph system. (182-185.)

2. *Deficit in English telegraph.*—Mr. CLARK says that the financial conditions of the telegraph system in Europe are very much obscured in all the countries with the exception of Great Britain, which has had the manhood to come out and say that the telegraph there is operated at a loss. There has been a deficit of nearly \$40,000,000 in the operation of the telegraph system of Great Britain since it was taken over by the Government in 1870; the witness submits an itemized statement to verify these figures. The losses on the telegraph in Great Britain are provided for by the annual grant made by Parliament to the department. The grant covers all the cost of extensions, as well as of operation, and no capital charge is made especially for the telegraph department, the whole amount including the interest on the original stock going in as a part of the expenses of the post-office. (211-213.)

Mr. Clark says further that the deficit in the operation of the English telegraph since 1870 is brought about largely by extending the system without commercial considerations to remote and insignificant places, and that if the same policy were pursued in this country, which is twenty-five times as large, and not nearly so thickly populated, the same result would follow in an intensified degree. (215-216.)

Mr. Clark states that it would be a very difficult thing to raise the rates in England so as to make the telegraph service self-supporting, for the reason that the policy of the British Government is to serve the interest of the comparatively limited number of people who use the telegraph, at the expense of all. (220.)

Professor PARSONS states that while there is a deficit in the operation of the English telegraph system, a deficit has not occurred in any of the other European countries. He states that in England the returns for the telegraph system are so mixed up with those from the post-office service that it is not possible to tell whether the telegraph is responsible for the deficit. The post-office and telegraph systems together do make a profit in Belgium, France, and Germany, and the British post-office is operated at a profit of \$16,000,000. Moreover, other reasons for the deficit in the English telegraph system are: That England paid four times the fair value of the lines; that she has been burdened by the competition of the telephone; and especially that she did not aim at a profit at all, but at the development of the country. Telegraph experts in England have stated that if the expenses were properly divided between the mail system proper and the telegraph, there would be no deficit of the telegraph; that the postal authorities were anxious to make a strong showing for the mail department, and that a 2 per cent variation in the division of expenses between the mail department and the telegraph, or a slight increase in the press rates, which are 9 cents per 100 words, would make up the deficit. Moreover, the railroads in England are permitted to use the telegraph free, which is a mistake. (188-189.)

Professor Parsons says that the English telegraph system is not run as a means of raising revenues for the public treasury, but as a means of disseminating information throughout the whole country and giving increased facilities of communication to all classes, as well as a means of increasing the trade and commerce of the Kingdom. (126.)

Professor PARSONS criticises, in a supplementary affidavit, Mr. Clark's statement that the deficit in the operation of the English telegraph amounts to \$37,000,000, and says the estimates of deficiency are made by including the cost of new construction, extensions, etc., whereas these should belong to the capital account. The difference caused by the wrong use of construction cost might turn a small deficit into a big one, or might change a profit into a deficit. For example, Mr. Clark's statement shows a deficit of £29,909 for 1880, whereas there was a profit of £7,187 above all cost of operation and maintenance and interest on the debt. In 1881, 1882, 1883, and 1884 there was also a profit if the amounts paid out for new construction, etc., are put

into capital account. The British Government believes that the country gets more than a full return for the deficit in the development of business, etc., through low telegraph rates. If the telegraph had remained in private hands the service would have cost the people many millions more than the total Government cost, deficit and all. Moreover a deficit is not necessarily a bad thing, it depends on what there is to show for it, and there are plenty of countries that do not have any deficit in the operation of the telegraph. (88.)

E. General discussion of Government ownership.—1. *Right under Constitution.*—Professor PARSONS states that he believes that, under the Constitution of the United States, it is the duty of the Federal Government to establish a postal telegraph system. He quotes from a report of the House Committee on Post-Offices and Post-Roads of the Twenty-eighth Congress, wherein it was asserted that the telegraph came under the same category as the post-office as a governmental function. The Government is bound to supply the people with means of communication. The postal service was placed under the control of the National Government, and with the increase of inventions and other means of communication, they likewise should be administered by the General Government. (182.)

Mr. ROBERTS, a member of the International Typographical Union Telegraph Committee, does not think it necessary to argue the question of the right of the Government to own and operate the telegraph. The operation of the Post-Office Department is the best evidence that the Government has the right; if it has the right to transmit letters it certainly has the right to handle telegrams. In 1866 the Western Union Telegraph Company practically conceded this right to the Government, merely asking that Congress should permit it to operate the system for the term of at least 5 years, in order that the capital invested in the plant might not be destroyed. (266.)

Mr. HITCHCOCK says that it is the duty of the Government under the Constitution to utilize the best available means for the transmission of correspondence, and it is therefore unconstitutional for the telegraph to be operated as a private monopoly. Of 75 countries the telegraph is owned and operated by the Governments in all except Bolivia, Cuba, Cyprus, Hawaii, Honduras, and the United States. This witness favors especially the introduction, by the Government, of the methods of machine telegraphy, his account of which is summarized below. (89.)

2. *General argument for Government ownership.*—Mr. RANDALL says that his general reason for advocating governmental ownership of the telegraph is his opposition to a monopoly of any sort, but that there are more particular reasons why the telegraph should be under the control of the Government. Thus the press rates are extortionate. Large dividends are paid on watered stock, two-thirds of the entire stock of the Western Union being water. The telegraph is a very important agency in the communication of intelligence, and has been so concentrated in the hands of a few persons as to become a monopoly, with power to levy such exactions as it may choose. The first telegraph in America (from Washington to Baltimore), was built with an appropriation from Congress and was operated by the Post-Office Department for 3 years, and the control by the Government now would be simply a return to original conditions. (242.)

Mr. ROBERTS says that while practically all the business organizations and the great thinkers and statesmen of the country favors governmental ownership and operation of the telegraph, nobody with the exception of the Western Union Company seems to oppose it. It is, in fact, a contest of the people against the Western Union. The witness quotes Postmaster-General Wanamaker to the same effect. He refers to the greed of the Western Union Telegraph Company in requiring the public to pay the late stamp tax on messages, when the evident intent of Congress was that the company itself should pay it. (272, 273, 274.)

Professor PARSONS states that when the English Government began to consider the absorption of the telegraph the companies used every effort to prevent the reform, and made all sorts of objections, every one of which has been answered by the results of the public system. There is really no force in the current objections to Government ownership aside from the patronage question, and that difficulty can be solved. (179-180.)

Mr. ROBERTS states that there would be great similarity between an extension of the telegraph service under governmental ownership and present rural free delivery in the Post-Office Department. Only a few years ago, when the establishment of rural free delivery was suggested, it was denounced by some as impracticable, and substantially the same arguments were made against it as are made by the Western Union Telegraph Company against the extension of the telegraph service to remote places where the service would not be self-sustaining. But the rural free delivery has been greatly increased; it is found very beneficial to rural communities, and it would hardly be suggested that it should be abolished. (272.)

Mr. HITCHCOCK says that a select committee of Congress in 1870 estimated that the annual saving by Government ownership of the telegraph would be at least \$1,500,000. Inasmuch as the receipts of the telegraph company are now four times what they were in 1870 the saving under Government operation would be very much greater now, even if there were no improvements made in operation. By cutting off dividends upon watered stocks alone the saving by Government management would probably be not less than \$4,000,000 per annum. (892.)

Mr. CHANDLER, of the Postal Telegraph Company, knows of no reason why the Government might not conduct the telegraph business as well as it can be done by corporations. Whether this would be the case, however, he thinks is another question. He says, however, that judging from the excellence of the mail service, and from the fact that the Government could conduct the business more cheaply in some respects than corporations can, and because of the absence of the incentive to earn dividends it might be that the Government could carry on the telegraph business to the satisfaction of the public. It would be practicable, he thinks, to introduce the telegraph into many country post-offices and have both the mail service and the telegraph service operated by the same force, with a considerable saving in expenses. Mr. Chandler has not sufficient knowledge to make a definite statement as to results of governmental ownership in Europe, but believes that the management of the telegraph by the Government of Great Britain is generally acceptable to the public but not profitable to the Government. (200.)

Mr. Chandler thinks that the regulation by Congress of the telegraph business under competitive conditions would be an exceedingly difficult matter. (202.)

3. *Argument against Government ownership.*—Mr. CLARK states that there would be no advantage in the governmental ownership of the telegraph even by combining postal and telegraph business in the small offices, because the employees of the Government would necessarily have to be operators as well, and it would be difficult to secure telegraph operators to run the other business of the Government. The argument in favor of governmental ownership is chiefly based on the experience of a few foreign countries where conditions are much different from those in the United States. (229.)

Mr. Clark supposes that the Government, by employing the same class of ability that the companies have, and by maintaining a permanent civil service, could operate the telegraph substantially as well as a private company could. But there is very much popular antagonism to the civil service examination arrangement. If the telegraph were put into the hands of the Government there would be clamoring from all over the country for telegraph service, whether there was any need for it or not, and it would be made the basis of log-rolling schemes by members of Congress just as is the case now in the river and harbor appropriations.

He does not think the fact that there is no great deficit in the Post-Office Department is an argument in favor of the Government operating the telegraph, because the conditions are so different from those of the telegraph. The post-office employs a vehicle provided by the capital of corporations or others for the distribution of the mails, while in the telegraph a great deal of capital must be invested in lines.

The Western Union endeavors to keep pace with the demands of the business of the country. After the discovery of oil at Beaumont, Tex., there was an immediate rush of people, but the telegraph company already had quadruplex instruments on the ground and was able to handle the business. The policy of extending the telegraph to unprofitable places in Great Britain has caused the deficiency. While it would be a public convenience to those places, the question is as to who should bear the expense. The witness does not believe the whole people should. He believes the Government could not make a juster or fairer division of rates than now exists, that it would not do the business on business principles, but would be influenced by local and political considerations. (229-232.)

Mr. ROBERTS criticises the argument that governmental operation of the telegraph would be unwise because of the increase in the number of governmental employees. There is nothing to fear on this ground. The 130,000 people employed in the post-office service throughout the country do not endanger the public welfare, and the number of employees in the telegraph service could be added to the Government rolls without any danger whatever. (270.)

Professor PARSONS, in his affidavit, criticises the statement of Mr. Clark that the evidence given in favor of public ownership of the telegraph was chiefly based on the conditions in Great Britain, Switzerland, and Belgium. Mr. Parsons says that the evidence was chiefly based on the broad principle that the fundamental test of any telephone is its effect on character, justice, government, civilization, the human effect being far more important than any material consideration, and upon other like broad facts. He recapitulates the arguments set forth in his original testimony.

The philosophy of public ownership and cooperative industry rests primarily on considerations entirely above the material plane and wholly out of the range of statistics of dollars and wires and offices, etc. (886.)

Mr. HITCHCOCK answered the general objections to governmental ownership of the telegraph by saying that political influences should not control the selection or discharge of employees. The operation of the telegraph is a technical service, and civil-service rules should be rigidly applied, promotions being based upon efficiency and skill. Life positions and a pension system should be the reward of faithful service. (890.)

4. *Advocates of Government ownership of the telegraph.*—Mr. ROBERTS states that the governmental ownership of the telegraph has been advocated by some of the ablest thinkers and statesmen of the country for many years (many of whom he names); by legislatures, city councils, boards of trade, chambers of commerce, and labor organizations, representing many millions of citizens; by many of the most important and influential newspapers of the country (some of which the witness names). Since 1866 committees of the Senate and House have favorably reported bills looking toward Government ownership on sixteen different occasions. Only twice in that time has any adverse report been made. One of these was a short report which did not consider the question at all. A great many of the Postmasters-General have advocated the governmental ownership and operation of the telegraph in connection with the postal system, beginning with a Postmaster-General under the Administration of President Polk in 1846. The same thing was advocated by Henry Clay in 1844. The witness gives quotations from many of these persons, all of whom favored the governmental ownership and operation of the telegraph, either on constitutional grounds or on grounds of public policy. (266-268.)

Mr. HITCHCOCK says that more than 75 bills have been before Congress advocating the postal telegraph, and 16 investigating committees have reported in its favor. The Farmers' Alliance, the National Grange, the Knights of Labor, the Railway Union, the American Federation of Labor, the International Typographical Union, the People's Party, the Prohibitionists, and many boards of trade and commercial bodies have advocated the system, and more than 2,000,000 votes have been cast for it. Mr. Wanamaker, in 1890, declared that the only visible opponent was the Western Union Telegraph Company. (890.)

Mr. A. L. RANDALL, chairman International Typographical Union committee on Government control and ownership of the telegraph, states that in 1893 the International Typographical Union of North America, at its forty-first annual session, held in Chicago, first advocated governmental ownership and control of the telegraph in resolutions offered by himself; and that a committee was appointed at this meeting to organize the country, and in a short time petitions and resolutions bearing the signatures of 300,000 people came up to Congress and were referred to the House Post-Office and Post-Roads Committee, which in 1894 accorded a hearing, at which the American Federation of Labor and other interests were represented. With only a few exceptions members of that committee and other members of Congress admitted that it was not only the right, but the duty, of the Government to furnish the speediest and most efficient postal service possible, and that the telegraph is a necessary adjunct to the postal service. In 1896 the Senate Post-Office Committee granted another hearing, at which Mr. P. B. Delany, a famous electrical expert and inventor, among others, made arguments in favor of the measure. Mr. Delany had personally investigated the working of the telegraph systems of nearly all the countries of Europe, and was particularly well qualified to speak on the subject. A great many mass meetings have been held throughout the country agitating the question, and the business community is regarding governmental ownership with great favor.

Mr. Randall says further that almost every Postmaster-General since 1846 has been in favor of the Government owning the telegraph; the witness cites especially the reports of Postmaster-General Wanamaker, of 1892; Postmaster-General Maynard, of 1880, and Postmaster-General Gresham, of 1883. Mr. Wanamaker's report, among other things, contained the following:

"I am fully convinced that the Government will never properly do the postal work committed to it until it uses electricity in some form, and therefore I advocate the utilization of both the telegraph and telephone at its earliest practicable day."

Postmaster-General Gresham said:

"The same principle which will justify and demand the transference of the mail on many chief routes from the horse-drawn coach on common highways to steam-impelled vehicles on land and water is equally potent to warrant the calling of the electro-magnetic telegraph in aid of the post-office in discharge of its great functions of rapidly transmitting correspondence and intelligence."

This measure, says the witness, has been indorsed by every commercial body in

the United States; the National Board of Trade at almost all of its sessions for the last 12 years has resolved in favor of it. He cites a report made by the Hon. Henry W. Blair, of New Hampshire, in 1894, in which he elaborately discussed the question, and favored in unequivocal terms the taking over of the telegraph and telephone service in aid of the postal service. (241-245.)

5. *Attitude of labor organizations.*—Mr. ROBERTS states that the International Typographical Union numbers 35,000 members, and is one of the most conservative and influential labor organizations in existence. In 1893 that organization, at its annual meeting, put itself on record in favor of the governmental ownership and operation of the telegraph system, and since that time it has effected a great deal by way of creating a sentiment throughout the country in favor of this proposition. There is a permanent committee of the union for this purpose. The American Federation of Labor, at the head of which is Samuel Gompers, is also in favor of governmental ownership and operation of the telegraph, and is doing all it can in that direction. A great many petitions have come up to Congress from all over the country advocating governmental ownership. (268, 273, 274.)

6. *Method of introducing Government ownership.*—Mr. CHANDLER thinks that in case the Government should ever take over the properties of the telegraph companies it should, in justice, appraise, at a fair value, the property of the telegraph companies which exists in the form of contracts, franchises, and privileges, etc., as well as the tangible property of the companies. Property of that kind, he says, enters very largely into the telegraph, has cost money, and is indispensable to the conduct of the business. In case of the acquirement of telegraph properties by the Government, he thinks that great care would have to be exercised and time taken for the change. (200, 201.)

Mr. Hitchcock believes that the purchase of the properties of the existing telegraph companies by the Government would be inexpedient, because the Government would be called on to pay many times the actual value of the plant. The simplest course for the Government to pursue would be to enter into an agreement with the owners of some improved system, such as the Denany system, for the latter to construct the first line and operate it for 6 months or a year for their own profit at 10 and 15 cent rates for 50 and 100 word messages. If at the end of that time the plant is working satisfactorily the Government should then be obligated to take over the line, paying an advance of 10 per cent on the cost of construction. He does not believe that the competition thus engendered would result in ruin to the Western Union Company, because there would be time for a natural readjustment to meet the changed conditions. The company might lose all the general telegraph business and the press business, but there is enough of other business remaining to enable it to continue at a profit. (895.)

F. Relations to newspapers, exchanges, and Government.—1. *Newspaper and other special rates.*—Mr. CLARK states that the press rates are made on a basis entirely their own, because of the larger volume of business, most of it being done during the night. The business of the press associations is largely done over leased wires, the associations paying a certain rental therefor, the company itself not having any further connection with that business. The press rates on matters handled by the company are made on a basis of circuits, by which a large number of papers can be served at the same time, thereby promoting economy as much as possible, with due regard to the return to the telegraph company. The special rates to newspapers for a single transmission to one paper are based on what are called "the additional-word rate" of the day message; i. e., one-third of the additional rate for the daytime and one-sixth at night, so that where the regular rate is 25 cents and 2 cents for additional words the press rate for the daytime would be two-thirds of a cent and at night one-third of a cent.

Mr. Clark further states that commercial reports are distributed to exchanges and the various subscribers throughout the country at a rate made on a basis somewhat similar to the press rates for individual subscribers. Those rates are lower than a general rate, but how much the witness can not say. (209, 210.)

Mr. CHANDLER states that there is a special press rate for news messages different from the commercial rate; that there are several classes of newspaper service and the rates are uniform for each class. The rate differs according to the circumstances of the case, the distance, and the number of newspapers served. In many cases a great many papers are served by one sending, and distribution is made to 20 or 30 different places. The lowest rate applies to dispatches filed by press associations, to be delivered at 5 or more places on one sending. On such the rate to each paper is in some cases as low as one-fifth of a cent a word. Rates on newspaper specials vary from one-fourth of a cent per word, on matter transmitted at night, between comparatively near points, and one-half of a cent per word for the same message transmitted during

the day, to 1½ cents per word for night and 3½ cents per word for day service between distant points. (197.)

2. *Government rates.*—Mr. CLARK refers also to the Government rates, and introduces a copy of a contract between the company and the Government. Under the law of 1866 the Postmaster-General was authorized to establish a rate from year to year for Government business. Those rates are shown to be considerably lower than the ordinary commercial rates. They are made not upon any particular commercial basis nor with the hope or expectation that they would yield the company anything like an adequate financial return, and in fact the company loses money on its Government contracts. (211.)

Mr. Clark states, further, that Government business has priority over the lines of the Western Union, that being a part of the agreement with the Government. The Western Union does other business for the Government than that specified in the contract. It has been transmitting free over the cable of the International Ocean Telegraph Company all the business with Cuba ever since the beginning of the Spanish war. The Western Union Company having had that contract with the Spanish Government, is carrying it out with the United States very much to its detriment financially, inasmuch as in 1 year it has done more business for the United States Government than it did for Spain in the 30 years preceding. The Western Union is pursuing this policy not for the purpose of keeping the Postal Telegraph Company out of Cuba, as has been charged, but merely to protect its own property rights. (228-229.)

3. *Alleged news monopoly.*—Mr. ROBERTS says that the Associated Press has a complete monopoly of the news service of the country. By its arrangement with the Western Union Telegraph Company it is enabled to prevent the starting of any new papers, or it may cut off the service from any paper now in existence. The effect of this is to decrease the business of printing, which is very detrimental to the typographical union which the witness represents. Governmental ownership and operation would break up this monopoly and give the printing craft much more labor. No newspaper can secure service to-day that is not a member of the Associated Press combine. For instance, in a city containing 75,000 inhabitants an attempt was recently made to start a new daily paper, but it was found that this could not be done without paying \$35,000 for an Associated Press franchise, and the paper was not established. The witness instances also the case of the Washington Times, which is not able to get an Associated Press franchise because the Washington Post and the Washington Star will not consent to it. (266, 268, 269, 273.)

Mr. RANDALL states that the printers of the country are in favor of the governmental ownership of the telegraph, because they believe it would break the monopoly of the news, and would enable a great many newspapers to start up that could not do so now on account of the relations between the Western Union Telegraph Company and the press associations, thus increasing the work of printers. The witness gives instances of newspapers which attempted to start up, but were prevented from doing so because they could not get a news service from the telegraph company or telegraphic rates such as it furnished the Associated Press. He also quotes from the report of Hon. Henry W. Blair to the effect that in New Hampshire an attempt had been made to start a newspaper, but that it failed because the paper could not get an equitable rate from the telegraph company. (245, 246, 250, 252, 255, 256.)

Mr. Randall refers to the great telegraph strike of 1883, and says that the newspapers then asserted their independence, and insisted on governmental ownership and operation of the telegraph. He has a large book containing extracts from newspapers of that period in favor of governmental ownership. As soon as the strike was over the newspapers were forced by the Western Union Telegraph Company to refrain from further agitation of governmental ownership on penalty of being cut off from any news service whatever. (251.)

Mr. CLARK states that there is no such thing as a news monopoly so far as the telegraph company is concerned, and that if any such monopoly has existed it is the fault of the press associations. Every newspaper is free to get any quantity of service it wishes on the same basis as any other paper. A circuit provides that there shall be a terminal place, and not less than 4 drops to begin with. The rate is for the first 300 miles. A rate of one-sixteenth of a cent for each 100 miles is added, and a rate of one-eighth of a cent for each connection made. These rates are open to all associations alike, and there is no discrimination on the part of the telegraph company. There is no arrangement whatever by which newspaper associations or newspapers have any special privilege in the use of the wires in cases of emergency when there are but few wires in operation. (219.)

Mr. RANDALL criticises severely the testimony of Mr. Clark that there is no news monopoly in this country, and introduces a copy of a contract between the

Western Union Telegraph Company and the Associated Press to refute this statement. The contract is as follows:

"And said Associated Press agrees that during the continuance of this agreement they and their agents, and all parties furnished by them with news for publication, and the agents of such parties, shall employ the said telegraph company exclusively to transmit to and from all places reached by its lines all telegraphic messages relating to the news or newspaper business; and that they will not in any way encourage or support any opposition or competing telegraph company."

He also introduces a private circular to the members of the Western Associated Press, signed by M. Halstead, of the executive committee of that association, as follows:

"Your attention is invited to the clause in our contract with the the telegraph company which forbids us to encourage or support any opposition or competing telegraph company. That clause was to the telegraph company a valuable consideration for the favorable terms upon which they contracted with us."

The witness further quotes from Senate Document 65, of the first session of the Fifty-sixth Congress, in which the direct charge is made that the Western Union would not permit any press criticism of its methods or of the methods of the Associated Press in reference to news, and threatened to, and often did, cut off newspapers from the service if they had the hardihood to make any such criticisms. He states that the Western Union serves a paper in the Associated Press Association for a mere fraction of the price that must be paid for the same service by a paper not in the association. The understanding between the telegraph company and the press association secures the latter low rates and the power of excluding new papers from the field, and also enables the Associated Press to color its dispatches to suit its purposes. On this point the Washburn committee report states that "the associations themselves, and consequently the newspapers, are completely in the power of the telegraph companies, which can at any moment raise the rates for news telegrams to a par with those charged for private messages, and thus prevent their transmission almost altogether."

He also quotes from a statement made to the Blair committee by Mr. D. H. Craig, the originator of the Associated Press, in which he stated: "The Western Union and the press association work together to ruin a paper that buys news from any competing telegraph line." He also quotes from statements made by Mr. Gardiner Hubbard and Mr. F. B. Thurber, who represented the National Board of Trade before committees of Congress, to the same effect, that there was a combination between the Associated Press and the Western Union Telegraph Company to have a monopoly of the news.

The witness declares that if a man with a large amount of money wants to start a newspaper in any large city—say, for instance, Washington—it would be impossible to obtain an Associated Press franchise without the consent of the newspapers of that city who already have that franchise. The Washington Times is unable to get an Associated Press franchise because of opposition of the Post and Star. He relates an instance of a newspaper correspondent who gave part of his business to the Postal Telegraph Company, because it was more convenient for him to do so; but the Western Union, finding it out, complained to the home office, and the correspondent got notice from his paper to discontinue using the Postal Telegraph service.

Mr. Randall holds that governmental ownership of the telegraph would do away with all the evils mentioned, and by reducing the rates would enable any newspaper to secure a rate on the same terms as are given the Associated Press. He contends that the gathering of news at a central point and there editing it and sending it out over the country generally would be a very useful thing to newspapers if the rates were uniform and low, as they would be under governmental ownership, and if the editor in chief were impartial. He suggests that any paper that might choose to pay therefor might have the privilege of having a "supplemental editor" in connection with the editor in chief to look after the news that was especially applicable to the section represented by his newspaper. He believes that these features would greatly facilitate the dissemination of news and the growth of intelligence, and would break up the trust or monopoly in the news service. (245-248, 252, 255-259.)

Mr. HIRCOCCK quotes from Mr. S. H. Bell, representing the Typographical Union before the Senate Committee on Post-Offices and Post-Roads, to the effect that the news of this country is controlled by two great press associations, and no new paper can secure a telegraphic service except on such terms as may be prescribed by the paper or papers which already occupy the field. In England all papers are on an equal footing. Under governmental operation a similar condition would soon prevail here. (891.)

G. Alleged discrimination in use of wires.—Mr. RANDALL states that a telegraph operator told him that the Western Union Company favors the speculative class of business in forwarding messages and refuses to do justice to the social and commercial business; that brokers' messages have special rights over everything else; that many brokerage companies hire wires for use during a few hours in the middle of the day, with the result that from 9 a. m. to 3 p. m. the other business of the country is allowed to accumulate, because the Western Union Company is not able to take care of it with the few wires left. The witness gives instances of telegrams having been sent from one city to another and not delivered until after the sender had traveled to the second city. (244, 257.)

Professor PARSONS states that the telegraph service of the country is not equal to that in the countries where the telegraph is owned and operated by the Government. One fault of the system is that it discriminates in transmission in favor of speculative telegrams as against social messages or even Government business. The witness gives instances of great delays in the sending and delivery of messages. Postmaster-General Wanamaker accused the Western Union of having suppressed 16 inventions for the improvement of the system, instead of giving the country the benefit of them. The tendency of the company is to adopt only those inventions which increase the profits, and to try to repress an invention, no matter how meritorious, if it does not conduce to that end. (190-191.)

Mr. CHANDLER states that there is no rule of precedence in respect to telegraphic dispatches. Government business is entitled to go first, but there is no other regulation or order of business, except such as might be instituted by a chief operator in case of emergency. Railroad business is given no precedence over other business, except in cases of emergency. There are, however, usually on railway routes certain wires assigned to railway purposes, for the exclusive use of the railway companies, and over those wires the company gives preference to messages referring to movements of trains. Ordinary messages might be delayed at times through accident or oversight. (199.)

Brokerage dispatches.—Mr. CHANDLER says that there is no arrangement by which brokerage dispatches are given precedence over other messages, but that a very large proportion of stock exchange and brokerage business is done over wires that are leased for that purpose. Sometimes several brokers lease a wire, and in that case each has his own operator and connection and takes care of the operating service altogether. (199, 200.)

Mr. CLARK states that there is no discrimination permitted by the Western Union Company under any circumstances in favor of the business of brokers and large speculative firms, as has been often charged. He can not state how large a proportion of the business of the company is brokerage and how much commercial work, because a large number of the brokers have private wires and a great many messages which ordinarily might seem private commercial messages might be in fact brokerage messages. He is very positive that the business which comes to the company regularly is transmitted without discrimination, in the order in which it is received, and that it is delivered in the same way. (209, 210.)

H. Alleged influence of the telegraph company in politics.—*Franking privilege.*—Professor PARSONS states that the Western Union Telegraph Company goes into politics very largely. According to the statement of the president of the company, the franks issued to Government officials constitute nearly one-third of the total complimentary business. These franks are issued to the officials of the National Government and of the various State and municipal governments for the purpose of influencing them in favor of the company. The company has confessed to having received large benefits from the distribution of these franks. Perhaps one reason why Congress has not been more alive to this question is that the members do not want to get rid of a system under which they can do their telegraphing free. (191.)

Mr. CLARK states that the practice of giving complimentary franks to different classes of people is a matter of personal courtesy only, and that he does not know that it has any immoral effect. They are not given as a quid pro quo, because the companies do not expect and do not receive anything in return therefrom, even if the franks are given to members of the State legislatures or to members of Congress, as is often the case. If the frank system were abolished it would not make any difference in the rates, because that business amounts to only a fraction of 1 per cent of the business of the company. (223.)

Professor PARSONS criticises this statement, and he offsets that of the late President Green of the Western Union, in his report some years ago, that the judicious use of complimentary franks among Government officials has been the means of saving the company many times the money value of the free service performed. The franks

are still given to the same class of beneficiaries and the purpose and results are probably the same. (888.)

Mr. CHANDLER states that the franking privilege prevails to a considerable extent in the Postal Telegraph Company. Originally franks were only given under strict rules involving reciprocal service. They are now given to quite a good many public men, among them members of State legislatures, aldermen, mayors, judges, and members of Congress. In the main the franking privilege is extended upon application. Newspaper correspondents and newspaper proprietors, to a considerable extent, have the franking privilege. In these cases it is given as a matter of accommodation and as a privilege which has grown up from long years of practice. To a limited extent franks are given to people doing private business, but purely as a matter of reciprocity. The franks given to newspaper men do not enable them to transmit news to their papers.

A substantially accurate account of the value of franked messages is kept.

In Mr. Chandler's judgment the franking privilege is not a sufficient factor to have any effect upon rates in general, and its abolishment would not result in cheaper rates. As a matter of individual judgment, he would be glad to see the whole franking privilege, in respect to telegrams, done away with. (195, 196, 197, 198.)

Mr. ROBERTS criticises the statement of Mr. Clark that the issue of telegraph franks to governmental officers is purely a matter of personal courtesy. Mr. Roberts does not believe this is the case, but thinks that they are issued for favors received or expected. He quotes from the statement of the president of the Western Union Company, made some years ago, in which he said that the franks issued to Government officials constitute nearly a third of the total complimentary business; that in all of the States where the company's lines extend their property is more or less subject to the action of the national, State, and municipal authorities, and that the judicious use of complimentary franks to them has been a means of saving to the company many times the money value of the free service performed. (270.)

Mr. RANDALL read from Senate Document 65, first session Fifty-sixth Congress, to the effect that the issuing of telegraph franks to members of legislative, judicial, and municipal bodies is a very great evil, and tends to misgovernment and political corruption. He criticises the statement of Mr. Clark that the issuing of these franks is merely a matter of personal courtesy, and declares that they are cut off as soon as a statesman is out of a job. (259.)

I. Improvements in telegraph devices.—1. Policy of the Western Union in respect of new inventions.—Mr. RANDALL disputes the statement that the Western Union is progressive and adopts new inventions in telegraphy whenever they prove useful. He affirms that the contrary of this is the fact, and that there are plenty of improvements in telegraphy which the Western Union will not use, because it believes they would not redound to its financial interest. Whenever a new invention is found to be beneficial it is bought up by the Western Union and laid away. The Western Union will not lease a wire to private individuals to make experiments with new inventions. The witness introduces in evidence two letters written by a person interested in what was known as the "Anderson machine telegraph" to substantiate his assertions. These letters and the testimony of Mr. Randall tend to show that the representative of the Anderson machine patent was willing to permit the Government to make experiments with his patent until the Western Union people made some negotiations with him, when he at once appeared to lose interest in the matter. It is the belief of Mr. Randall that the Western Union had bought the patent. (249, 250, 251, 253, 254.)

Mr. ROBERTS states that while the Western Union Company always tries to get hold of the new inventions, it does not use them for the benefit of the public, but keeps them locked up in the office in New York unless they would contribute to the profits of the company. (270.)

Mr. CLARK denies the charge that the Western Union Company is keeping some of the latest and best inventions out of operation, and states that the policy of the company is to develop every invention that it can find. He instances the history of the quadruplex and other systems. There is a system in force which can be used for short distances by which messages are sent and received in the ordinary written characters, and signatures and outlined pictures can be sent by the telautograph. (229.)

Professor PARSONS criticises this statement of Mr. Clark and quotes from Postmaster-General Wanamaker's argument on the postal telegraph in 1890 to the effect that the Western Union does suppress inventions, and that it has no use for devices which cheapen and quicken the telegraph service and warrant a claim for reduction of rates. (888.)

Mr. ROMYN HITCHCOCK, a civil engineer of New York City, says that many improvements have been made in the telegraph, but the Western Union Company has opposed all changes with the logical result that the United States has the poorest, most antiquated, and expensive telegraph service in the world. It is conducted on the basis of small business at high prices, whereas the teachings of experience demonstrate that a larger development with cheaper rates would be more profitable. A dependence upon the purchasing power of wealth is relied on to buy up inventions and suppress them. It has been a battle of money against the pervading spirit and the irresistible tendency of the age, but the opposition will be overcome eventually. (891.)

2. *Attitude of Postal Company.*—Mr. CHANDLER states that the Postal Company has endeavored to use new and useful devices to the fullest extent; that at all times it is glad to avail itself of anything that is a real improvement in the conduct of its business. A great many so-called improvements, however, when brought into actual practice in comparison with appliances already existing, have been found wanting. (200.)

3. *Anderson machine telegraph.*—Mr. RANDALL describes a system of telegraphy invented by a gentleman named Anderson, and known as the Anderson Machine Telegraph, whereby, he asserts, it has been found from careful experiments that on a circuit of 500 miles it is possible to transmit 2,000 words a minute; on a circuit of 1,000 miles, 1,000 words a minute, and greater distances in like proportion. He states that the experiments made under this system between New York and Chicago and between New York and Washington were eminently successful, but that nothing came out of it, because, he believes, the Western Union has bought up the patent and will not use it. The advantages to the newspapers from the use of a system of this sort, Mr. Randall states, would be incalculable, in that it would work a great saving of time and expense in the transmission of news matter. He submits a description of the Anderson Machine Telegraph, taken from Senate Document 65, first session Fifty-sixth Congress, together with the opinion of numerous experts relative thereto, not only in respect of a great saving in time and the great increase in amount of business that could be done by it, but also in respect of the lessened cost of doing business by this system.

The following extracts from statements of witnesses before that committee describe the system, with estimates of cost of operation:

The method of operation is simple. The message is perforated on a strip of paper, which is put into the transmitter and passes under metal points. At each perforation these points pass through the paper and close the circuit for a length of time corresponding to the length of the perforation. At the receiving end the closing of the circuit makes a prussian-blue stain on a moving ribbon or sheet chemically prepared for the purpose.

The perforating machine is as simple and efficient as an ordinary typewriter, and can be operated with the same ease and speed (1,800 to 2,000 words per hour).

The page and line recorder prints the message on a letter sheet about 10 words to the line, and is a great improvement over the paper ribbons for recording long messages, letters, or news reports. So says Mr. A'hearn, and Mr. Bates says, "The page and line recorder marks a long step forward, and its use removes one of the chief obstacles heretofore barring the way to full success in autotelegraphic transmission."

The business men's composing machine enables any person after a little practice to perforate a message for telegraphing as quickly as it could be written with a pen or typewriter (a perfect copy of the message for the office file being simultaneously printed in roman characters). The use of this composer would considerably lessen the cost of telegraphing and would shorten the time required to get a message under way, the message being ready for the automatic transmitter the moment it is written and stamped, thus avoiding even an instant's delay.

Passing from the construction account (which estimates a cost of \$600,000 for a line from Chicago to New York) with the impression that it is too high, we come to the cost of operation. Calculating at the minimum average of 800 words per minute, or 1,600 for the two wires, Mr. Delany's data place the cost per message of 70 words from New York to Chicago at 4¢ cents, including interest on his construction account and every expense but postage, which ought not to be over 1 cent. If the sender does his own perforating, and the message is sent to the addressee in Morse characters, the cost of transmission would be a trifle over 1½ cents per message of 70 words, or 2½ cents a hundred, not including postage. This is not probably below the truth, for the tendency of the witness was to make his estimates of operation high as well as his estimates of construction—a tendency plainly manifest in his giving the perforators a speed of about 15 words a minute, which is far within their practical capacity. (249-252, 255, 262-265.)

4. *The Delany high-speed automatic telegraph system.*—Mr. HITCHCOCK advocates the establishment of Government ownership, making use of the improvements in telegraphy made by Mr. Patrick B. Delany, an ex-vice-president of the American Institute of Electrical Engineers, and the inventor of numerous telegraph devices. One of his inventions, whereby one wire is made to carry 6 messages simultaneously, one way or in opposite directions, has been in use by the British post-office for 15 years, and his system of cable transmission holds the record for high speed over Atlantic cables. His high-speed automatic system of transmission has attained the limit of the working speed of a telegraph wire. The inventor received a medal

for the invention in 1895, but it is much improved now. The messages are first punched on tapes, which are then run rapidly through the transmitting apparatus.

"The tapes are now punched by the ordinary operating of a Morse key, and the signals are recorded in Morse characters. The electro-static conditions of a telegraph line have hitherto imposed limitations upon rapid signaling by the ordinary methods. By a recent improvement Mr. Delany has succeeded in utilizing the static charge in the production of signals on the receiving tape."

The points of superiority in the Delany system over the Wheatstone invention, which is its nearest competitor, are (1) more certain legibility of signals; (2) simpler mechanism; (3) improved methods for handling a large volume of business. It will work without repeaters from New York to San Francisco. The receiving instrument is controlled by the operator at the sending instrument. The transmitter increases the efficiency of ocean cables. By this system it is possible to send over a single wire 1,000 words a minute for a distance of 1,000 miles, as against 60 words a minute by the quadruplex system now in force, which requires 8 operators, 4 sending and 4 receiving, and as against 200 words by the Wheatstone automatic system duplexed. The great item of cost in telegraphy is the construction and maintenance of a large number of wires, and great economy would thus result from the use of the Delany invention. A simplex Morse operator sending at the rate of 15 words a minute may monopolize a line which cost \$20,000.

The witness says that if 10 hours of constant operation for business and social messages are taken, and 20 per cent of the time allowed for manipulating the apparatus, the practical working result of the Delany instrument would be 800 words a minute. If 15 cents were charged for 50 words, the witness estimates the profit of a line between New York and Chicago, fully equipped, with an assumed cost of \$1,000,000, at \$540,000, with only one-fourth of the working capacity of the line utilized. Mr. Hitchcock says that the routine of business under proposed governmental operation of the telegraph would be substantially as follows, viz:

A central transmitting and receiving office would be established with a number of branches. Small local offices where letter telegrams could be received would be connected with the central office by ordinary wires, and at each of those local offices an operator could manipulate a Morse key upon a tape-punching apparatus at the central office. The tapes at the central office would be immediately run through the line transmitters at a speed of from 500 to 1,000 words a minute. A single instrument on one wire can do all the business that can be provided by 50 men constantly working Morse keys. When a wire is working to anything like its carrying capacity it will be earning so much money that under Government control there will be either a large profit at the 15-cent rate, or that rate might be reduced perhaps to 5 cents for 50 words. At the destination of the message it is recorded in Morse characters on a tape and ordinarily will be written out on a typewriter, inclosed in an envelope, stamped and addressed, and deposited in the post-office. Absolute secrecy for all correspondence can be had whenever desired.

Mr. Hitchcock says that the universal use of the telegraph under such improved methods, whether attained through Government ownership or by a private corporation, would reduce charges at least 90 per cent. While personally favoring Government ownership, he thinks it is possible to make the telegraph a public utility in private hands by the use of the Delany system. The 10-word message could be substituted by letter telegrams—that is, letters carried by wire instead of by train.

Cheap letter telegrams are sure to increase the bulk of the telegraph business, and if the telegraph remains in the control of private parties it would interfere seriously with the postal service. The delivery of these letter telegrams should be made through the Post-Office Department by carriers, or if the letter telegrams require immediate delivery, special messengers should be employed and a special charge made. The less urgent business should not be taxed to pay for the special service rendered to a comparatively few correspondents. Ordinary letter telegrams handed in at New York, for instance, would be posted in Chicago 20 minutes later, and would reach their destination soon enough through the carrier service of the Post-Office Department. (891-895.)

5. *Underground wires.*—Mr. CHANDLER thinks there has been some change of sentiment on the part of the telegraph companies, and that in the main they are rather desirous of putting their wires under ground in the thickly settled portions of cities and towns. He says that it is done to a very large extent now, and has many advantages to the telegraph companies, as well as to the public. (204.)

J. Conditions of labor.—1. *Number of employees.*—Mr. CLARK states that there are about 35,000 people in the United States handling Western Union telegraph business. Many of these are only constructively in the employ of the company,

being the agents of railroad companies and handling commercial messages at the small stations where the telegraph business is not sufficient to justify the employment of an independent operator. While they are paid directly by the railroad companies, they must be taken into consideration as employees of the telegraph company, because of the contracts that the telegraph company has with the various railroad companies. (217.)

Mr. CHANDLER states that nearly 9,000 people are employed by the Postal Telegraph Company; that in the principal cities 30 per cent of the employees are women, and in the country 25 per cent are women. (200, 206.)

2. *Wages of telegraph employees.*—Professor PARSONS states that statistics show that the average wages of telegraph operators in Europe are greater than in the United States. In Great Britain the average wages are \$400; in Germany, \$446, and in other European countries, \$320, while, according to the statement made by the president of the Western Union Company to a committee of Congress, the average salary of the telegraph employees in this country is only \$200. Statements made by the Western Union people to the contrary, also their statements that the work done by employees is greater here than in Europe, are not borne out by statistics. (188.)

Professor Parsons states that the Western Union Telegraph Company pursues a systematic policy of reducing the wages of its employees. It employs boys whenever possible, and pays them a much smaller salary than it would pay a man. An investigation made by Congress showed that there was a 40 per cent reduction from 1870 to 1883. The great strike of 1883 throughout the telegraph system was largely due to the low wages and long hours, the operators having asked for an increase of pay of 15 per cent and for an eight-hour day, with no salary lower than \$50, which the company refused to grant. After the strike the company was able to get one-third more work out of the men for the same pay. The hours of the operators are long, the work trying, and they are unable to continue many years under the strain. The Western Union Telegraph Company is also opposed to labor unions, and blacklists its employees on many occasions. (190.)

Mr. ROBERTS says that the Western Union Telegraph Company contributes largely to the support of a school in New York "that grinds out every year a large number of boys and girls as telegraphers," the result of which is to increase the supply of telegraph labor and thus reduce wages. The company has thousands of boys, ranging from 12 to 16 years of age, working long hours at the paltry salary of \$3 to \$4 per week, while the United States Government pays its letter carriers, engaged in a similar occupation of carrying messages, from \$60 to \$100 per month. It is admitted by the Western Union people that, while wages have been increased in nearly every industry in recent years, the wages of its employees have remained practically what they were in 1883, while the low wages at that time were the cause of that great strike. (269, 270, 271.)

Mr. CLARK states that the wages paid to the operators in different parts of the country vary according to the experience and ability of the operator, ranging from \$100 per month down. There was no reduction of wages during the depression from 1893 to 1897, nor has there been any general increase since, the regular scale remaining practically the same, except that since 1883 the operators have been paid for overtime, and for over 9 hours for the 6 days in the week, and for Sunday work. Operators very often begin in the large offices as check boys and check girls, and in the small offices they are generally friends of the operators and grow up with the business in the office. Very often graduates from the commercial schools are taken as operators; so that the supply always exceeds the demand. The witness thinks there are about 2,500 women employed by the Western Union, and that their wages would not average as much as the wages of the men, because they can not do as heavy work. (223-224.)

Mr. Clark thinks that the wages of the Western Union employees are satisfactory, and that they are higher than in Europe; just how much he can not say, because the classifications are entirely different. In Europe operators come under civil-service rules, and their salaries therefore are not governed by the law of supply and demand, as they are in this country. (217.)

Mr. Chandler, of the Postal Company, states that the wages of employees vary according to the nature of the work. The salaries of operators range from \$25 to \$35, the average being about \$60, the salaries of clerks averaging somewhat less. It is the intention of the Postal Company to make no discrimination in wages because of sex, but to pay a woman the same wages as a man for the same work. In general, however, the wages paid to women are less than those paid to men, as there are comparatively few women who are as skillful operators as men, and as there are limitations to the nature of the service that can be performed by women.

In Mr. Chandler's opinion there has been little change in the rate paid to telegraph operators either way in the last 15 years. Wages paid by the Western Union Company are, he thinks, very nearly uniform with those paid by the Postal Telegraph Company for the same service.

The amount paid in salaries by his company, Mr. Chandler states, is approximately, 70 per cent of the total expense of operation.

Comparing salaries paid in this country and those paid in Great Britain, he says that in America a young man of good conduct and of skill demands a first-class operator's salary very early in his career. In Great Britain, the youth having acquired a fair amount of skill, is appointed at a salary of about \$4 per week, and so long as his conduct is satisfactory and he develops ordinary skill as a telegrapher, he receives regular annual increments until he arrives at the maximum figure for a first-class operator, about \$65 per month. In considering salaries paid to the British operator it must be remembered that at the age of 60 he is retired on a pension. (200, 205, 206.)

Mr. HIRCHCOCK says one of the worst features of the Western Union Telegraph monopoly is its utter disregard of the welfare of its employees. Their wages are insufficient for comfortable living. The average operator should receive about double his present wages. (893.)

3. *Hours of labor of telegraph employees.*—Mr. CHANDLER says that the hours of labor vary somewhat in different localities, and in small offices and branch offices the hours of duty are arranged with reference to the necessities of the case. In the principal cities 9 hours are counted a day's labor, and 7 hours a night's labor. (200.)

4. *Attitude toward labor organizations.*—Mr. ROBERTS states that the Western Union Telegraph Company is opposed to labor organizations, and that out of this opposition grew the great strikes of 1870, 1871, and 1883. According to the statement of President Green, of the Western Union Telegraph Company, "after the great strike of 1870 the company took back some of the strikers on condition of their taking what was called the 'iron-clad oath'—an oath to renounce their union and never connect themselves with any similar organization." After the strike of 1883 practically the same promise was required. The Western Union will not permit any of its employees to petition for increase of pay or shorter hours on penalty of dismissal. That company was the first corporation to establish a black list. (269.)

Mr. Clark states that he does not care to discuss the question as to whether his company is opposed to labor organizations. There was, however, an organization in 1883 which the company refused to recognize. The company is always ready to deal with its employees directly with reference to any personal grievances which they may have, and he supposes the employees are perfectly satisfied. (223.)

Mr. Chandler reports that he does not know of any organization of telegraph employees that is in existence now. The Postal company makes its engagements with operators singly, no inquiry being made before engaging them as to whether or not they belong to a union. (200.)

K. Taxation of telegraph property.—Mr. CLARK states that as to taxes and supervision there is a difference in methods in all of the States. The total amount of taxes paid by the company last year was about \$529,000. He thinks the taxes are very high, but does not desire to be considered as not wishing to pay on the full valuation of the property. In some of the States the taxes are based upon the proportion of the capital used in the State; in some, on the estimated value of the property. Connecticut makes a charge upon each mile of wire, while Texas puts a tax of 1 cent on every message sent. In New York a law was recently proposed authorizing the entire capital stock of the company to be taxed at one mill and a quarter on the dollar, which means practically \$125,000 per year on the capital of the Western Union, besides a tax on the capital of the other companies that it is responsible for in that State. This would be a very harsh and unjust law. (216-217.)

Mr. CHANDLER states that the methods of taxation are almost as many as there are States. He thinks that generally telegraph companies are not taxed reasonably. There is a hardship, he holds, in the levying of license fees in the form of a lump sum, as is sometimes done, as this bears unequally upon the small telegraph company as compared with the large one. It is a hardship, also, for the municipality to make a fixed charge per annum for each pole and each mile of wire constructed on the streets and highways, as that bears more hardly upon the telegraph company which has to construct its lines on the highways, as is the case with the Postal company, than upon the company which is able to construct its lines on railroad rights of way, as is the case with the Western Union company. As an equitable method of taxation he suggests that there be a single assessment on the entire property which a telegraph company has within a State, that the company pay the entire tax to the State, and the State distribute it among the localities. (204, 205.)

XIV. THE TELEPHONE BUSINESS.

A. History and description of business.—1. Early telephone conditions.—Mr. EDWARD J. HALL, vice-president and general manager of the American Telephone and Telegraph Company, testifies that the telephone first received public notice at the Centennial Exposition at Philadelphia in 1876. Attempts were made to develop its commercial use shortly thereafter. At first agents were appointed by the Bell Company to rent telephones and bells for the equipment of short private lines. Each customer built his own line, usually employing the agent who rented the telephones, and the agent's income was derived from the profit of this construction and a commission on the rental charged for equipment. The telephone exchange soon grew out of the desire of the owners of these short lines to be interconnected with other users of the telephone, and as a result there was a demand for the building of lines by the company or its agents. The Bell Company did not have the capital necessary for the construction of these lines, and local companies were organized wherever there was a demand, each company having exclusive exchange rights within the area allotted to it, and the Bell Company reserving to itself to give other licensees the right to connect exchanges with each other by trunk lines. The Bell Company also issued licenses for lines connecting the small local companies, usually to the most progressive of its licensees. Larger companies were soon organized which purchased the local interests, with the result that better service was rendered. Fairly good service was given between the larger exchanges and their tributary points, but the state of the art up to 1885 made it impossible to talk any considerable distance. Up to 1885 the apparatus in use was adapted wholly to grounded circuits, and iron and steel wire was practically universal. Some experiments had been made with the hard-drawn copper wire, which promised good results. (817.)

2. Development of long-distance service.—Mr. HALL says that early in 1885 the American Telephone and Telegraph Company, which has since been popularly known as the long-distance company, was organized, and the construction of a commercial line between New York and Philadelphia was at once commenced, and the line was completed 2 years thereafter. Very heavy poles were used and 24 hard-drawn copper wires were strung. A serious difficulty was encountered in transferring the current from the metallic circuit trunk lines to the grounded circuit wires, but this was finally overcome also, and with the introduction of the metallic-circuit service in the local exchanges the companies were obliged to go through another era of plant reconstruction. (817-818.)

Mr. Hall states further that the present era of telephonic development in America commenced with the opening of the long-distance line between New York and Philadelphia, January 1, 1887. Lines were commenced about the same time from New York to Boston and from New York to Buffalo, and there has been a constant extension and development ever since, until at the present time the American Telephone and Telegraph Company and 38 associated companies, known as the Bell system, furnish local exchange service to about 900,000 stations and trunk-line service over nearly 700,000 miles of wire. (819.)

3. Capital stock of the American Telephone and Telegraph Company.—Mr. HALL testified that the capital stock of the American Telephone and Telegraph Company has been increased from time to time, as developments required, both for the construction of long-distance lines and the purchase of telephones, real estate, etc. A table accompanying his testimony shows that the capital outstanding on March 3, 1885, was \$100,000, and on July 1, 1901, it had increased to \$94,237,500. The authorized capital has been increased to \$150,000,000, and stock to the amount of \$20,709,000 has recently been offered for subscription at par. In addition, collateral trust 4 per cent bonds have been sold to the amount of \$15,000,000. (819.)

4. Earnings of telephone companies.—The following extract from the annual report of the American Telephone and Telegraph Company, for 1900, shows its earnings and expenses. (823.)

Comparative statement of earnings and expenses.

EARNINGS.

	1899.	1900.
Dividends of subordinate companies	\$3,044,908.89	\$3,846,821.67
Rental of instruments	1,714,526.54	2,427,037.52
Telephone traffic	2,668,359.01	3,027,171.85
Real estate	42,285.11	31,824.67
Interest	217,301.53	201,643.50
	7,687,381.08	9,584,499.21

Comparative statement of earnings and expenses—Continued.

EXPENSES.

	1899.	1900.
Expenses of administration.....	\$591,826.84	\$746,259.48
Legal expenses.....	103,748.46	85,134.07
Interest and taxes.....	1,284,275.83	1,376,199.94
Telephone traffic.....	1,487,021.88	1,840,847.86
	3,416,872.51	4,048,441.35
Net revenue.....	4,270,508.57	5,486,057.86
Net revenue, 1900.....		5,486,057.86
Dividends paid.....		4,078,601.25
		1,407,456.61
Carried to reserves.....		937,258.22
Carried to surplus.....		470,198.39
		1,407,456.61

5. *Present development of the telephone industry.*—Accompanying the affidavit of Mr. Hall is a report of the president of the American Telephone and Telegraph Company for the year ending December 31, 1900, which shows a great growth of the industry from 1891 to 1900.

The estimated number of exchange connections made during 1900 in the United States by companies operating under licenses of this company amounted to about 1,825,000,000. The average number of daily calls per subscribers' station throughout the United States is about 7.1. The average cost to the subscriber varies according to the size of the exchange and character of the service from less than 1 cent to 9 cents per connection. The long-distance toll system owned and operated by the company on the 1st of January, 1901, consisted of 12,427.63 miles of pole line and cable, and 167,410.39 miles of wire, connecting 359 offices. The total mileage of wire, local and long distance, is 1,354,202. The past year has been one of marked progress in the development of the business. The message-rate system with metallic-circuit lines and correspondingly lower rates have increased the service very materially and at the same time the efficiency of the service has been steadily maintained; 705,000 miles, or more than one-half the entire mileage, is operated under the surface of the streets. The expenditures which were required for the extensions of the business throughout the country have been greater than any previous year, nearly \$29,000,000 having been expended by the company and its licensees for this purpose, and in addition thereto over \$2,000,000 was invested in real estate for telephone purposes. The entire expenditure for construction, including real estate, to the close of the last year has been \$168,474,517.83. Further expenditures on a large scale will be required for the current year. (820-822.)

6. *Bell Telephone Company—Its relations to American Telephone and Telegraph Company.*—Mr. BETHELL testifies that the American Telephone and Telegraph Company rents its instruments from the Bell Telephone Company, but he does not consider this payment as in the nature of a royalty. The Bell Company owns at least 51 per cent of the stock of the American Telephone and Telegraph Company. (810-811.)

7. *New York telephone system.*—Mr. U. N. BETHELL, general manager of the New York Telephone Company, testifies that the New York telephone system is the largest in the world and has the greatest per capita development, the number of subscribers' stations now amounting to more than 62,600. The system embraces not only the old city of New York, but all of Greater New York and many places across the river in New Jersey, and a few in Canada. The business was first started in New York in 1878, and up to 1894 the development was not very rapid. Since 1894 there has occurred a great development in the system. During the last 2 months there has been a gain of about 2,000 subscribers, and at the close of the present year, 1901, there will be perhaps 75,000 stations in New York City. The causes of this rapid development are efficient service and general recognition of the utility of the telephone, and principally the reduction in rates and the adoption of the rate-message plan. The policy of the company has been to adopt improvements whenever they have been demonstrated to be useful regardless of cost. The metallic-circuit underground system has been established, and at present there is not a pole on Manhattan Island, outside of a very small section north of 130th and 140th streets, excepting

one main trunk line used for long-distance wires, which runs the entire length of the island. The entire plant was reconstructed between 1887 and 1893 at a very large expense. The most important change that has been made recently was the introduction of the common battery system, about 3 years ago, which required the substitution of an entirely new equipment at all of the central offices. This work will be completed about September, 1901. A European expert recently wrote that New York has not only the largest but technically the best system in the world. The underground system is installed in subways, which were provided for by act of the legislature, the subway system having been in charge of electrical commissioners under whose supervision the work of construction was carried out. The functions of this board are now lodged in a commissioner. The subways were constructed by a separate company, but most of the capital came from the telephone people, many of the members of the subway corporation being also members of the telephone company. The municipal wires and those of telegraph, electric light, and other companies are also placed in the same subways. (777-780.)

Mr. Bethell declares that the New York plant is maintained at all times so that the service is absolutely permanent and reliable. The rapidity of the operator is tested without the operator's knowledge, and for the last 3 or 4 years tests have shown that the average time elapsing between the giving of the subscriber's signal and the answer is from 3 to 5 seconds. In only one case during the last year and a half did the average go over 5 seconds. The New York service has been praised by a number of experts. (786, 787.)

Dividends.—Mr. BETHELL testifies that from 1888 to 1896 the New York Telephone Company paid no dividends. Since 1896 it has paid 6 per cent per annum. The percentage of expenses to earnings for the same time has been about 65 per cent. During the first 4 months of this year it was 65.3. (783.)

8. *Relations of Western Union Telegraph Company to the American Telephone and Telegraph Company.*—Mr. BETHELL testifies that the Western Union Telegraph Company can not be considered as a competitor with the American Telephone and Telegraph Company because both do a different class of business. He is not a director of the company, but from newspaper reports he thinks that some of the directors of the Western Union Telegraph Company are also directors of the American Telephone and Telegraph Company. He does not know to what extent long-distance telephoning has affected the telegraph business, and he does not know whether the American Telephone and Telegraph Company is doing any telegraph business. (813.)

9. *Underground wires.*—Mr. HALL testifies that upon the multiplication of wires a general demand arose that they should be put underground, especially in the business centers around the large exchanges. The rapid development of high-tension currents for electric lighting and street-railway purposes tended to seriously impair the service over single wires using the ground for a return. It took some time to devise suitable cables for underground purposes, and even now they can not be used over long-distance lines, except in the short section from the terminal exchange to the customer's station. The purpose of the American Telephone and Telegraph Company from the outset was not to use the method which largely prevails in other countries, of requiring users of the lines to come to special toll offices at terminal points, but to connect the long-distance line with the subscriber's line. (818.)

10. *Secrecy in telephoning.*—Mr. BETHELL testifies that under the laws of New York it is a misdemeanor to divulge telephone messages, and very few complaints have ever been made to the management on this matter. Occasionally some subscriber thinks his conversation has been listened to and used, but these complaints do not average more than 2 a year, and upon investigation they have been found to be without foundation. Most of the service in New York is on direct wires, there being very little of what is known as party lines, that is where 2 or 3 persons are on the same wire. (813.)

11. *Telephone system of Detroit.*—Mr. BETHELL said that he was not very familiar with the telephone system of Detroit, but he understood that there was great dissatisfaction there and the competition by the independent telephone companies created worse conditions than existed previously. (807.)

B. Telephone rates.—1. *General charge of excessive rates.*—Professor PARSONS refers to the telephone rates in the United States, especially in the city of Washington, and compares them with the rates in cities of practically the same size in Europe, where the municipalities own and control them. He states that the rates in Washington are from \$36 to \$96 for residence and \$120 for a business phone. While telephone instruments can be bought in this city cheaper than they can in Europe and while the wages of the operators are practically the same, Stockholm, which has a population substantially the same as Washington, has a telephone system with metallic circuit, underground wires, unlimited service, with a rate of \$16 for a resi-

dence and \$22 for business phones, and interurban communication within a radius of 43 miles; and that the Bell Telephone Company, when it was operating the Stockholm system, was charging \$44 for a very inferior service without metallic circuit or underground wires.

Professor Parsons submits the following table as showing the relative rates for telephone service in leading American and European cities, together with the relative number of persons in the population for each telephone. American figures relate to years 1897 and 1898, and those of European cities to somewhat earlier years. The relative sizes of the various cities are indicated by comparisons with Washington, D. C., which has a population of 250,000. The cities marked with an asterisk have public systems and the others have private plants. (177).

Cities.	Relative size.	Rates.	Number of persons to 1 telephone.
Washington (1898)	1	\$36 to \$136; \$100 average.	120
Stockholm *	1	\$20 average	23
Christiania	1	\$22 average	30
Trondhjem	1	\$18 average	38
Berne *	1	\$10 upward	40
Zurich *	1	\$10 upward	50
Berlin *	7	\$36	60
Copenhagen	1 1/2	\$41	70
Amsterdam	2	\$50 to \$100	150
Paris *	10	\$78	170
Greater London	22	\$100	700
Greater Boston	4	\$25 to \$150	60
Greater New York	13	\$90 to \$240	120
Chicago	6	\$60 to \$175	130
Philadelphia	6	\$60 to \$250	170

In most of the American cities offers have been made to furnish telephone service at a much lower rate than the Bell Company was charging. In the state systems of Europe the charge for a local telephone conversation to a nonsubscriber is from 2 to 5 cents, as against a charge of 10 to 15 cents in many of our cities. In the small places an average charge of from \$8 to \$12 or \$15 per year is a fair charge for the use of a telephone, while in larger cities a somewhat higher rate is made necessary. In Boston, where the underground system is necessary, a company is operating a system at about one-half the rate charged by the Bell Company. While it costs more to install an underground system in the first instance, the expenses of maintenance are less than for an overground system. The witness believes it would be possible to furnish telephone service in Washington City for from \$30 to \$35, unlimited. One of the reasons why the Bell Company can not furnish service at such rates is that it is greatly overcapitalized, and is trying to pay a dividend on watered stock. The New England (Bell) Telephone Company, operating in Boston and other cities and towns in Massachusetts and New England, is capitalized at more than \$300 per subscriber's line, whereas the Massachusetts Telephone Company (independent) has installed a system there equally as good at less than \$100 per line.

The witness also states that in Grand Rapids, Wis., there is a cooperative telephone system, comprising about 300 subscribers' lines. The average cost of construction per line has been only \$42, as compared with \$300 for lines in some of companies controlled by the Bell Company. The charges are only \$1 per month for residence service and \$2.25 for business service. One and one-half per cent dividends have been paid monthly on the shares, which are held by the telephone users, so that the actual charges for a residence telephone amounts only to 25 cents per month, and for business telephones \$1.50 per month. The Bell Company in this place charges \$36 per year for resident telephones and \$48 for business telephones.

Professor Parsons refers also to a small telephone system in Kansas which operates at a profit of 10 or 12 per cent while charging only \$12 or \$15 per year for telephones. In Rochester, N. Y., an independent telephone company is making rates of \$36 to \$48 while paying 8 per cent dividends on a large amount of watered stock.

The witness criticises the decision of the supreme court of the District of Columbia in *Manning v. Chesapeake and Potomac Telephone Company*, which held unconstitutional an act of Congress, fixing the minimum telephone charges in Washington at \$50 per year with 1 telephone on a wire, \$40 for 2 telephones on a wire, \$30 for 3,

and \$25 for 4 or more on the same wire, and undertakes to show that the court was incorrect in holding that the rates charged by the telephone company in Washington were necessary for the successful operation of its business. The evidence in the case showed that wherever the rates are lowered there is a much larger use of the telephone, and that fact was not thoroughly considered by the court in its decision. The witness believes that the lowering of the rates to the level fixed by Congress would very largely increase the number of subscribers without any very great increase of the expense of maintenance, so that the company would in reality make as much money as it did under the present system. The Supreme Court of the United States has clearly recognized the principle that the increase of business from lower rates must be taken into account. He further states that he has consulted with the president of the new company operating in and about Boston over the matter of reduction of rates proposed for Washington, and that official thoroughly agreed with him that the reduction was possible.¹ (173-179.)

He admits that in many cases the public is not ready for it, and thinks for the present, in most instances, public regulation would be better than governmental ownership and operation. (100, 173-179.)

Mr. BETHELL, commenting on the figures given regarding the charges for telephones in Grand Rapids, Wis., implies that it is absurd to suppose that telephone service should be furnished by any company anywhere at \$3 per month if proper methods of accounting for expenses were employed. Even if the concern were cooperative, so that the members did part of the work or met part of the expenses, it would be difficult to conceive of any efficient service at this rate. (811.)

Professor PARSONS, in an affidavit replying to these criticisms, testifies that the data relative to the Cooperative Telephone Company of Grand Rapids, Wis., was received by him from the first president of the company, who is a man of excellent reputation and thoroughly familiar with the facts, and that the statements theretofore given to the commission by him were taken from a letter from the president of that company. (883.)

Professor BEMIS thinks that there is quite an opportunity for municipalities to develop telephone service in connection with the police and fire-alarm system, and thus extend it gradually; some little tendency in that direction was observed in Chicago until a private company made a greatly reduced rate to the city. He believes there would be much more use of the telephone and that the companies would not lose anything in the end by greatly reduced rates; and he instances the case of the town of Manhattan, in Kansas, with a population of only 3,000, or about 600 families, where a private company had placed 220 telephones or one to every 3 families, and had made over 10 per cent on its investment by charging only \$1 a month for the household use of telephones and a little more for mercantile use. He admitted that in larger cities the cost would increase somewhat with the size of the plant, because the number of connections had with others tends to increase the operating expenses somewhat per phone, but not enough to justify the general charges prevailing in large cities. (100-101.)

2. *General defense of existing rates.*—Mr. HALL testifies that the constant and rapid changes made in the telephone industry, requiring continuous reconstruction of the plant and improvement in other conditions, make the question of rates one of great complexity. At first the fixed flat rate for the unlimited use of the telephone by the subscriber was put in force, but later it developed that the message-rate system, by which charges are based on the number of messages, was the proper one, and it is so recognized generally by the customers. The flat rates are reasonably equitable in small places, where traffic is fairly uniform, but they have no place in the service of a large city, where uniform conditions do not prevail. Trunk-line long-distance rates were originally started under the message-rate plan. At first the rates were usually about one cent a mile, with an allowance of five minutes for each message. The prevailing rate to-day in this country is substantially three-fifths of a cent per mile for a conversation of three minutes, with a proportionate increase for use in excess of that time. (818.)

Mr. PARSONS in his affidavit says that he believes in the message-rate plan for large plants, but thinks the double flat rate, one for residences and one for business establishments, simpler and better for small exchanges. If the message charge is carried too far it will limit communication and subserve no useful purpose. (883.)

Mr. BETHELL testifies that it has been demonstrated and is acknowledged on all sides that it is more costly to operate a telephone system in large cities than in small ones. More than half the operating expenses go for labor, wages, rents, and other

¹The decision above discussed regarding telephone rates in the District of Columbia was reversed by the district court of appeals in 1901, which held the rates established by Congress to be adequate.

items, which are very much higher in a great city than in a small town. Then there are so many subscribers in a large city that there have to be numerous exchanges, all connected together, and this requires plant and labor of a kind and amount which is not required at all in the smaller exchanges. A large exchange, therefore, requires many fold more labor and more plant to accomplish a particular thing than does the smaller exchange. Again, in a very large exchange there is necessarily a very large surplus plant. Underground cables must be of a standard size, say of 50 or 100 wires, and very often it may be necessary to take the 100-wire cable when only a fractional part of that number is required for the service. There are surplus subways for the same reason and for the additional reason that when once the street is opened ample conduits for future growth must be laid, and there is thus a great investment lying idle for a long time, and during the slack hours of the day and night the plant must be up to the highest requirements of the busiest five minutes of the day. The message in a great city costs vastly more than a message in a small city, but the volume of traffic in a large city tends to equalize that and to bring down the cost. Every message occupies the whole line during its transmission, thus differing from a railway, where many trains may be operating at the same time.

The witness thinks the average use per line would doubtless be increased by lower rates. It has been increased in New York by lower rates, and the New York system may be capable of carrying more traffic than it does carry, but there are so many facts and conditions surrounding the question that it is not by any means easy of solution as to whether a reduction of rates would pay or not. There is a limit to the carrying capacity of a telephone line—not as a single line between two points, but as part of a very complicated and very extensive system of lines, any two of which may have to be connected at any moment. One might use his telephone 50 or more times a day, but such use is only possible when the line over which such a number of messages is sent is connected with other lines not used to that extent. That line is so fully occupied by outward messages that few, if any, incoming messages can be handled over it. Practically it is "busy" to all inquirers. It is obvious that all lines could not be used to any such extent; an attempt to so use them would necessarily result in complete failure. The rate of \$30 a year, suggested by Professor Parsons in his testimony before the commission as a proper rate for New York, would not be fair. (808-810.)

Mr. Bethell testifies that a committee of the New York legislature in 1888 investigated the system and reported that the loss to the New York company through installation of the new underground metallic circuit system amounted to three-fifths of the company's net profits from its organization, and that the company's profits for seven years were 9.66 per cent on investment. This committee also reported that no telephone company in the State had made unusual profits and that some of them had lost money, and that nowhere in the State had it found excessive salaries paid to telephone officials. (782, 783.)

3. *Interior Department service.*—Professor PARSONS refers to the operation of the telephone by the Interior Department in Washington. The Department had been paying an average of \$75 per 'phone for 65 'phones. The Bell Company having refused to reduce the rates, the Department put in a system of its own, which it operated at a total cost of \$10.25 per 'phone, including interest, depreciation, and repairs, or \$6.43 without those items. (173.)

Mr. BETHELL testifies that he found the system of telephones for the Interior Department confined to a few buildings, all near together and connected with a very few wires. The Government had invested \$6,000 in that plant. He criticises the testimony of Mr. Parsons; says that for 65 'phones the figures given would allow only \$248.30 a year interest, depreciation, and repairs. The interest alone at 4 per cent on \$6,000 would amount to \$240 a year, which would leave only \$8.30 for depreciation and repairs. The repairs alone would require the service of one man practically all the time. From official reports of officers of the Interior Department, made in 1897 and 1898, and which were filed as exhibits to his testimony, Mr. Bethell states that the Interior Department service was very inferior in quality. (786.)

Professor Parsons, replying to these criticisms, says in an affidavit that he had obtained the facts about the Government telephones directly from the books of the Department by a personal visit to the Department. At the time of his former testimony he did not know that the Department exchange had been given up, but he now finds that the installation was not satisfactory and that a wider service was needed. He used the data in his former testimony to show that the Bell Company was wrong in its refusal to reduce the rates to the Department, and that idea is borne out by the fact that the Bell Company now supplies a wider service and long-distance facilities at rates close to the cost under the public system. (883.)

4. *Rates in New York.*—Mr. BETHELL says that during the early period, when single wires were used, the rates were all flat; that is, all subscribers had the same character of equipment and paid the same amount, whether they used the service much or little. The correct idea is that the company's business is to render public service, and consequently the flat rates were discontinued and what was known as the message-rate system was introduced. During the early days the flat rates in New York ranged from \$60 to \$150 a year for single service, and when the metallic service was introduced they ranged from \$120 to \$240 per year. Under the message-rate system the message instead of the station is taken as the basic unit in making the rate. There is a minimum charge for which the subscriber may send a stated number of messages, with additional charges for additional messages, the amount per message decreasing as the number of messages increases. The rates in New York range from \$24 per year up for exchange services. There are also rates for supplemental stations, some of them being as low as \$8. In Manhattan the rate is \$60 a year for 600 messages. Additional messages are charged at from 6 cents down to 3 cents each, being arranged so that the traffic-carrying capacity of a subscriber's line in New York practically limits the total rate which he might pay in most cases to \$240 a year. In Harlem there is a rate by which the subscriber pays 5 cents for a Harlem message and 10 cents to any other part of Manhattan or the Bronx, guaranteeing the company \$3.25 a month, or \$35 a year, from the combined business. The message-rate plan has been worked out also in a way adapted to business concerns. A small switch board is located on the subscriber's premises, and in the various parts of his building, where he may desire them, telephones are located. The rate is \$12 a year for each. A trunk line runs to the nearest central office, which is paid for at the rate of \$36 a year. The subscriber guarantees 3,600 messages a year, and may send all the messages he pleases for 3 cents each. This system has proved very popular. At present the New York company is operating more than 1,200 such private exchanges. In hotels the rates for stations in connection with a private branch exchange are from \$8 to \$12 per year per station. The average annual rate actually paid by all subscribers in the city of New York under the message-rate system was on the first of the year 1900 \$87.62. At present, June 15, 1901, it is about \$85. This includes all stations, even the \$240 flat-rate stations. At the pay stations the rate is 10 cents per message to any part of Manhattan, 8 cents of which goes to the company. The rapid development of telephone business in New York City shows that the rates and service are generally satisfactory to the public, and there is no demand for a revision or reduction of rates. (780, 781, 782.)

5. *Telephone franks.*—Mr. BETHELL testifies that the State of New York in adopting its new constitution provided that the giving of franks to public officials should be prohibited, and since the adoption of that constitution no frank has ever been issued to any official for telephoning. The constitution would interfere with the Bell Telephone Company giving free service to any official or politician of the State, and would prevent any discrimination in favor of any person. The city of New York itself has to pay for its telephones. There may be a little courtesy occasionally shown the police and fire department, but speaking generally the service has to be paid for at the same rates. (810, 812.)

C. Comparison of American and European telephone rates and conditions.—1. *Generally.*—The statements of Professor PARSONS as to local telephone rates have already been referred to. For the long-distance telephone, continues this witness, the rates in this country are very much higher than they were in Europe. As an instance, the rate from Philadelphia to Washington is \$1.25 for 5 minutes. In England the rate, for the same distance would be 48 cents and in France 30 cents.

"They have a distance rate in France of 10 cents for 62 miles and in England 6 cents (3 pence) for the first 20 miles—any towns within 20 miles—and 12 cents (or 6 pence) for towns within 40 miles, and 12 cents for each 40 miles afterwards. New York is 228 miles from here (Washington) and the charge is \$2. In England it would be 72 cents and in France 40. Boston is 417 miles away; * * * the telephone rate is \$4. In England it would be \$1.30 and in France 70 cents. Chicago, 716 miles; the rate is \$4.25, England \$2.16, France \$1.20. Richmond is 116 miles away; our rate is 75 cents, England 36 cents, France 20 cents. New Orleans is 1,116 miles; our rate is \$6.35, England \$3.16, France \$1.90. * * * The English distance tariff is from one-half to one-third of ours and the French from one-third to one-sixth of ours."

The services of the telephone in other countries where the system is public is far superior in its coordination with the post-office and telegraph to what it is in this country. In some countries letters and telegraph messages can be telephoned. (174.)

Mr. HALL, of the American Telegraph and Telephone Company, says that the development of the telephone industry in America is greater than that in Europe. The charges for service are higher here than in Europe, but there are so many different conditions that it is almost impossible to make a fair comparison. The greatest single factor in the problem is the low cost of labor in Europe. Charges for long-distance service in Germany, if one desires prompt service, are sometimes as much as three times the regular rate. In Sweden double rates are charged for prompt service. In Holland the regular schedule is doubled between noon and 4 p. m. The trunk lines provided in Europe are very limited, and one does not know when he will be served unless he offers in advance to pay two or three times the regular rate. In England a customer is absolutely limited to a three-minute talk, no matter how much he desires to use the instrument longer. (818-819.)

Summing up the results of his comparison of the American and European systems of telephones (see below), Mr. BETHELL said the cheapest and poorest conditions are obtained through Government and municipal ownership; the next best conditions under private ownership with Government control, and the best conditions are obtained where there is unrestricted private ownership. There are 20 American and 44 European cities with 200,000 or more population. In the American group there are 21 telephones per 1,000 population; in the European 13 telephones per 1,000 population. Among cities of 1,000,000 or more, New York stands at the top, with twice as many telephones per capita as any other city in its class except Berlin, which has been favored by the Government in the matter of rates. Of the cities of 500,000 to 1,000,000 Boston is at the top, with twice as many as any European city except Hamburg, and almost twice as many as that. Of the cities that run from 200,000 to 500,000 Stockholm is at the top, with San Francisco a close second. The European small towns have shown a most insignificant development and the American small towns a great development. "The English and American maxim is that whatever can be done without Government should be thus done. The continental principle is that whatever can be done by Government should be done." (807.)

Professor PARSONS, in a supplementary affidavit, says that the comparison made by Mr. Bethell as to the telephone developments of the various cities and countries is entirely unfair, because he selects carefully American cities where service is most highly developed. The fact that New York City has 26 telephones per 1,000 people while Paris has 13 per thousand proves nothing as to public ownership, because there is even a greater difference in favor of New York in respect to transit and other interests which are private in both cities. Moreover, in Mr. Bethell's comparison the heart of New York is selected for comparison with all Paris, instead of taking the whole city of Greater New York. A fairer comparison would be between London's 7 telephones per 1,000 people, under private ownership, and the 13 per 1,000 in the public system of Paris, for general conditions are more similar in London and Paris than in New York and Paris. The low development in Warsaw and Moscow and other similar places in Europe are the principal factors in pulling down the average of the European cities dealt with by Mr. Bethell.

In Greater New York there are 20 telephones per thousand people; Brooklyn, 11 per thousand; Philadelphia, 16 per thousand; St. Louis, 17 per thousand; Washington, 14 per thousand. These are all under private management. Berlin, with public ownership, has 25 per thousand.

Mr. Parsons criticises especially Mr. Bethell's comparison of Larchmont's (N. Y.) 170 telephones per thousand with Trondhjem's (Sweden) 38 per thousand. Larchmont is a guilt-edged residence town filled with wealthy New Yorkers, while Trondhjem is a city of more than 30,000 people of various classes. A fairer comparison would be with Chester, Pa., with 34,000 population and only 6 telephones per thousand; or Camden, with 10 telephones per thousand; Trenton, with 19 per thousand; Wilmington, Del., with 14 per thousand. Mr. Bethell's statements in reference to the telephone system of Stockholm are misleading. In that city the impulse for development came from the Government and not from the company, as Mr. Bethell indicates.

The truest comparison is between public and private ownership in the same place. The true test of telephone development is not the number of telephones in a few of the most progressive cities, but the average development throughout the country. The variations between 6 telephones per 1,000 in Chester, and 7 in London, and 62 in San Francisco, and 170 in Larchmont, all under private ownership, are much greater than the difference between the public group and the private group. A table of comparisons of the principal cities of the United States and Europe is submitted in Mr. Parsons' affidavit in favor of his argument. (883, 884.)

Mr. Bethell says that in comparing New York conditions with European conditions, consideration must be given as to whether the service is self-sustaining and also as to wages, purchasing power, conditions of living, and other matters of that kind.

There is no common factor between the New York and European conditions to make the comparison simple. The proper method of fixing rates is that the amount to be paid by the telephone subscriber in a large city should be more than that to be paid by the subscriber in a small town. This is the almost universal practice by private companies and governments, except Switzerland and Sweden. The comparisons given below are based on public documents or on personal observation. (785, 787.)

In the report of the president of the American Telegraph and Telephone Company there is a comparison of telephone development in the United States with the countries of Europe, which shows that the German Empire, with 229,391 stations, comes next to the United States in telephone development. Then follows, in the order named, Great Britain, Sweden, France, Switzerland, Austria, Russia, and Norway. The United States, with 800,000 stations, has a greater development than all the countries of continental Europe combined. (822.)

2. *Telephones in Great Britain.*—Professor BEMIS stated that in England he had found the municipal operation of telephones extending very rapidly. In Glasgow and London municipal operation is soon to begin and the charges will be scarcely more than one-half those of the private companies. The National Government owns the trunk lines in England connecting the various cities, while the municipalities will construct plants for their districts. Much confidence is expressed by the people in the result. In Norway and Sweden, and some portions of Germany, where there is public management of the telephones, the result had been entirely satisfactory. (1004.)

Mr. BETHELL testified that in Great Britain the telephone was held by the courts to go under the telegraph act of 1869, which made the telegraph a Government monopoly. Under this decision the postmaster-general had an exclusive right to provide the telephones, but being unwilling or unprepared to do so, he granted licenses to various private companies, limiting the operation of each to a specified area, and providing for the payment of a royalty to the Government of 10 per cent of the gross receipts. All these licenses were made to expire in 1911. The restrictions to specified area prevented interurban communication and proved most unsatisfactory, and in 1894 other licenses, which removed the restrictions and limitations as to the area in which the licensed company could operate, were granted. As a result, trunk lines were very rapidly built between the several telephone centers and the long-distance business grew up. For a time the post-office endeavored to establish a competing system, but met with no success, notwithstanding the fact that it was taking 10 per cent out of the earnings of the private company as a royalty. The Government competing exchanges have entirely disappeared, with the exception of those at Newcastle and Leicester. In 1898 the National Telephone Company was formed and it now operates all over Great Britain. The rates have been reduced practically to one-half of what they formerly were. The concentration under private management has produced better results than under Government management. The reduction in rates is accounted for by the fact that there were economies through concentrated management and uniformity of methods which could not be practiced before. In London and Glasgow the local authorities persistently refused to permit the substitution of underground for overhead wires, and the company is unable therefore to render efficient and satisfactory service. In 1899 the English Parliament voted the necessary funds to enable the Government to begin competition in London and empowered the postmaster-general to grant licenses to municipalities to construct and operate their own systems. It was stipulated in the law that whenever the postmaster-general licensed a municipal competitor the National company's license should be extended for a like time. The post-office is now constructing its plants and will probably begin rendering service in London before the end of the year 1901. Glasgow has already opened an exchange, but the movement has not yet proceeded far enough to produce any results. The dissatisfaction in respect to rates and the lack of service were the moving causes on the part of the British Parliament in enacting this law. Mr. Bethell quotes numerous authorities to the effect that the service in England was not so efficient as in the United States; but says that the development in Great Britain was far in excess of that attained on the Continent under Government ownership. On January 1, 1901, London had 41,111 telephones, or 7 per 1,000 population. New York at the same time had 26 telephones per 1,000. Among large cities in Europe, London's development is exceeded only by that of Berlin.

The rates in England, generally speaking, are flat, but a committee of Parliament in 1895 reported in favor of the message-rate system. The London rates for direct-line business service is \$100, the residence rates \$60, with discounts for long term contracts. The National company has a very large fund which it carries forward from time to time, as rentals are paid in advance. Its annual statement at the close of

1900 showed \$3,840,000 carried forward in that year. The average rate in London approximates \$72. Inasmuch as there is a great difference in wages, the witness thinks the New York rate is in reality lower than the London rate. The wages of the company's operators in London vary from 5s. to 17s. per week. Lady superintendents receive about 2 guineas per week and wire-men 6s. a day. The other pay per week for the operators in Glasgow is 9s. 4d. New York wages average double those in London.

Mr. Bethell says further, that private companies operating telephones in Great Britain have been constantly hampered by the Government, so that any deficiency in the service or any unduly high charges are chiefly to be attributed to this policy. The witness quotes from a writer in the London Times, from a speech of Mr. Arthur Chamberlin, as well as from articles by 2 English telephone experts, all to the effect that the Government had impeded the private companies in many ways. The Government royalty upon the use of the telephone is considered unjust by some of these English authorities. They assert further that the British have had to borrow their inventions and improvements in telephones from the United States. Obstruction has been due not only to the action of Parliament and of the central executive authorities, but also to action of municipal governments. An officer of the National Telephone Company is quoted as saying that the history of the telephone branch of electrical engineering has been one long fight by the company to be allowed to serve the public properly. (797-803.)

3. *Telephone conditions in Germany*—Mr. BETHELL testifies that in Germany patents were never allowed for a telephone, and the Government had monopolized the business from the beginning. It is now operated as a part of the postal-telegraph system. There has been a very large development in Germany, especially in large cities which have been favored by the German rate policy. Until recently there were uniform rates throughout the Empire. There are 720 telephone centers in Germany, and Berlin alone has 25 per cent of the total stations. At the beginning of this year 1901 Berlin had 47,586 telephones. Up to 1899 the service was rendered only from 7 in the morning until 10 in the evening. Since that time a night service has been installed, but there are extra charges for night calls. The lines are largely single wires and a very large percentage of them are still over head. In Berlin the subscriber has to do a great deal of his own operating; that is to say, he calls the nearest central office and must work his own way from that office to the next, and so on. On the whole, the Berlin service is not to be compared with the New York service, but it is apparently satisfactory to the Berlin public.

The uniform rate in Germany prior to April 1, 1900, was \$37.50. At that time flat rates, varying from \$16 to \$45, and minimum message rates from \$20 to \$30, were put into force, the rates now differing with the size of the town. Since that time the development in the smaller towns has been more rapid. The administration many times reported to the German Parliament that the Berlin system did not pay, with the result that the rate in 1899 was increased 20 per cent—to \$45. The postal telegraph and telephone accounts are all merged together. Wages, rents, and almost all other items that enter into the cost of furnishing telephone service range from 2 to 4 times as high in New York as in Berlin. Considering the character and amount of service and the purchasing power of money, the rates in New York are lower than in Berlin. In Bavaria the telephone system is operated separately from the imperial system by the telegraph department of that Kingdom. They have the same rates and the same policy as to rates as exist in other parts of the German Empire, and the general conditions are about the same. The plants and the service in Munich are much better than in Berlin. (791-793.)

4. *Telephone conditions in Austria-Hungary*.—Mr. BETHELL says that private companies conducted the telephone in Austria until 1894 and 1895. Then the Government purchased the plants, and since then has run the business as a monopoly. Nearly all the development is to be found in the greater cities in Austria, chiefly in Vienna, and in Hungary, chiefly in Budapest. The Vienna plant was bought by the Government on a valuation fixed by experts. The Government took possession of it on the 1st of January, 1895, at a cost of \$1,600,000. There were between 7,000 and 8,000 stations. In November of that year the Government began the construction of a new plant, and has expended \$1,200,000 on it up to this time. The number of stations in Vienna is about 13,326, and in all Austria there are 31,902 telephones. Vienna's population is substantially the same as that of Chicago, but Chicago has more than twice as many telephones. When the private company operated the system, the Vienna flat rate was \$40, and it has continued the same. Elsewhere in Austria there is what is known as the installation charge or entrance fee of \$40 per kilometer of line, plus \$20 per year. The wages are low—operators receiving from \$1.80 to \$3.40 per week and linemen about \$5 a week. In Vienna the telephone business

suffered very greatly because of the fact that for 3 years the Austrian Parliament did not meet and no appropriations could be made for its support.

In Hungary there is no development outside of Budapest worth speaking of. In this city, with a population of 729,000, there are 5,796 telephones. With the exception of Moscow and Warsaw, in Russia, Budapest has the lowest telephone development among cities of its size or larger. The people in Budapest are very progressive, the city having been practically reconstructed in recent years. Magnificent buildings have been erected, and the first electrical underground railroad in the world was constructed there. Yet the telephone plant is antiquated and the service is inferior. The rates are the same as in Vienna and wages are even lower than in Vienna. (791.)

5. *Telephone conditions in France.*—Mr. BETHELL states that up to 1889 the telephone industry in France was operated by a private company. Since that time it has been a Government monopoly. The development outside of Paris is practically nothing. There are more telephones in New York than in the whole of France. Comparing the large cities of France with cities of practically the same size in the United States, Mr. Bethell says that the American cities have from 4 to 5 times as many telephone stations as in France. There is a very large development, relatively, in Paris, which has 33,000 telephones to 2,536,000 people, due in a great measure to the inferiority of other means of communication. The rates are now relatively low, and the system is technically far behind the times. There are few modern appliances, much of the old apparatus used by the company before the Government took hold of the company being still in service. Except possibly in Belgium, it would be difficult to find a less efficient service in any large European city than is found in Paris. The subscriber is required to buy his own instrument, and as the Government has approved 500 styles of instruments, from which he may select any one, it is readily seen that there is no such thing as uniformity of instruments in the telephone service. There is a very lax discipline among the employees, because they are all civil-service employees. The provincial conditions outside of Paris are very much worse than in the city. The rates in Paris, when the system was operated by a private company, were \$120 a year. The Government now charges the flat rate of \$80 a year, business and residence alike. In 1902, in accordance with a law recently passed, the rate will be reduced to \$60 a year, if the plant can be provided by that time. The French rates do not include the original cost of the instrument, or of a line from an underground cable, which is in the sewer. If the subscriber is beyond the fortifications he must pay for the whole cost of construction beyond that point. In a town outside of Paris the flat rates range from \$30 to \$60 per year. The operators in France get about \$6 per week, and the linemen and mechanics \$7.20 to \$8.50 a week, with 10 hours a day. There are no separate telephone accounts, as distinguished from the post-office system, and it is impossible to say whether the service is self-sustaining or not, but considering the low wages and other differences, the Paris rate is absolutely higher than the New York rate. (787, 788.)

6. *Telephone conditions in Switzerland.*—Mr. BETHELL testifies that in 1900 there were 38,864 telephones in use in Switzerland. Zurich, the largest city, with a population of 152,000, has 6,000 telephones. The Government operates the system at present. Rates are uniform without regard to difference in size of places. For the first year the subscriber pays \$20, for the second year \$14, and after that \$8 a year for the privilege of having a telephone. There is an additional charge of 1 cent for every local message. Mileage at the rate of 4½ francs per 100 meters is charged for the construction of the subscriber's line for every distance beyond 2 kilometers from the central exchange. In the larger cities these extra installation charges amount to as high as \$150. More and better service can be had in any of the American towns and cities than in the Swiss towns. The telephone plant in Switzerland is cheap, and grounded circuits are still in use. There has been a very small outlay for maintenance. The post-office collects the accounts. Wages are low, skilled operators being paid \$4, wiremen and chief operators in large offices \$7, linemen \$4.20 to \$6, and foremen \$6.50 to \$8.40 per week. Wages in all other functions in Switzerland are very low. The telephone receipts in 1899 were \$1,007,011. The expenses were \$1,254,803, being 125 per cent of the earnings, which would result in bankruptcy if it were a private concern. The responsibility for the antiquated conditions in Switzerland can be traced to politics. The telephone has practically been a political plaything in Switzerland; the service has been starved, and the rates run down. (789, 790.)

7. *Telephone conditions in Belgium.*—Mr. BETHELL testifies that in Belgium the telephone industry up to 1889 or 1890 was conducted by a private company, and since that time it has been a Government monopoly. At the beginning of the year 1901 there were 14,920 telephones in the whole of Belgium, or about one-fourth of the number in New York City alone. In Brussels, which has a population of 560,000, there were 4,525 telephones; in Antwerp, population 278,000, 2,802 telephones. In

general, the plant installed before the company took hold of the office is still in use. The central office equipment is completely out of date and almost worn out. Single wires or grounded circuits are generally in use, but work is under way for installing a metallic circuit. The company rates were adhered to as to the grounded circuits, but for metallic circuits they were raised. In Brussels and Antwerp the grounded circuit is \$50 and the metallic circuit \$70. Elsewhere in the Kingdom the minimum rates are \$25 for ground circuit, \$54 for metallic circuit. Operators get from \$1.90 to \$2.77 per week. Belgium is a cheap country with respect to labor. Telephone accounts are not separately kept, but it might be safe to say that the system is self-sustaining, because the rates are so high and the system is so small and the expense for maintenance is so little. The telephone development nowhere in Europe or America is as poor as in Belgium. (788, 789.)

8. *Telephone conditions in Sweden.*—Mr. BETHELL says that the Swedish Government has no monopoly of the telegraphs or telephones, but has the advantage of exclusive rights over State highways. Except in Stockholm, the telephone industry is now conducted exclusively by the State. The development of the telephone in Stockholm is the largest among cities of its class either in Europe or America, with the possible exception of San Francisco. On January 1, 1901, it had 69 telephones per 1,000 population. There is a public and a private system in the city, which have been in active competition since 1890. The private company has at least two stations to the State's one. Operators are paid \$1.95 to \$2.92 per week; linemen and mechanics about \$6, and foremen about \$8.30 per week. In the entire territory in and around Stockholm there are 27,247 stations and 573 employees, or 1 employee for every 47 stations, as against 1 employee for 17 stations in New York. The private company and the Government company have been in very bitter competition, with the result that rates have been placed very low. The shares of the private company are held principally by a retired manufacturer, who is satisfied with little or no profit in order to sustain his battle with the Government. The rates are too low even for Sweden. The private telephone company has obtained the right to work telephones within a system of 70 kilometers radius from Stockholm, but may not extend operations outside of that circle. The Government rates in Stockholm are much lower than in any other part of the country. If the telephone does not pay, the State has its own revenues from other sources to fall back upon if necessary. There are now 7,000 or more subscribers who have to take both telephones, and the number of intercommunications amounted last year to 1,099,837. The result of this double service is quite annoying to the public, and causes a waste of capital and energy. The State plant is operated by the State telephone and post department, and has an exclusive right of way over State highways and on Crown property. The municipality of Stockholm has strongly supported the private company and will not permit the State to have underground privileges within the municipality. The State discriminates against the company over its long-distance lines by imposing an extra charge on messages originating at the company's stations, and thus forces a number of people to take its service merely to avoid these charges. This accounts for the many duplications in service. Many quotations from writers of eminence and others are cited by Mr. Bethell to support his statement. (803-807.)

9. *Telephone conditions in Holland.*—Mr. BETHELL testifies that a private company conducted the telephone industry in the cities of Amsterdam and Rotterdam until 1896, when the cities obtained franchises from the State for 25 years. The company's rate was \$47.20. The municipal rate is \$36 yearly at residences and business places and \$46 for hotels, restaurants, and places accessible to the public, plus in each case an installation charge of \$10. Under its franchise the company had been required to pay the city 21 per cent of its gross receipts. In 1894 this tax amounted to \$17,125.22. In 1898 the city treasury received from the telephone industry only \$20,000. The slight increase in receipts was more than an offset for the increase in the community's general expense due to the telephone operations. Whatever reduction in charges was made benefited the subscribers at the expense of the general taxpayer. At The Hague the telephone is conducted by private enterprise at a rate of \$24 a year. In Amsterdam the service is better now than under the company's administration, but it is not so much that the present service is especially good as that the former was inferior. The service now is not so good as that rendered in private companies in Scandinavia or the United States. It is entirely inadequate for so large a city. The operators in Amsterdam receive from \$2 to \$4 per week, linemen \$6.40 to \$8 per week, 10 hours per day. The plant was developed 50 per cent in the 3 years following the taking of it by the Government, but compared with that in cities of the same rank in this country or Europe where private companies operate, the development was insignificant. There are 4,462 telephones, 8.7 per 1,000 population. Boston, with a population substantially the same, has 42.3 per 1,000 population, while Manchester, England, has 19.6 and Liverpool 20.1 per 1,000 population.

The development of the service in the suburbs of Amsterdam is practically nothing, because the rates are so high in such territory as to deter anyone from using it. Rotterdam and Amsterdam lie very close together and their interests are closely united, yet each municipality is proceeding in different ways, different styles of equipment and engineering methods, and different rates being offered to the public. The traffic is light because there are so few places where the subscriber can reach. The cost per station in Amsterdam, including working expenses, interest, and depreciation, was less than the New York company's outlay per station for labor alone in the year. At Rotterdam the rates range from \$26.40 to \$38.40 per year, plus an installation charge of \$30. In 1896 there were 100 telephones and at the first of the year 1901 3,089, or about 10 telephones per 1,000, a little better development than that of Amsterdam. (793-797.)

10. *Telephone conditions in Copenhagen.*—Mr. BETHELL testified that the telephones in Copenhagen's suburbs are operated by a private company, and the system is one of the best in Europe. It has 15,311 telephones, or 49 per thousand. The residence rate is \$27, and business rates from \$32.40 to \$48.60 per year; message rates, \$13 per year up. Skilled operators are paid from \$2 to a little over \$3 per week; linemen about \$5.70 per week. The overhead wire plant is used, but is now being gradually changed to the metallic circuit underground. The central office plant is somewhat out of date, but plans for a new building and new equipments are now under way. Considering the relative purchasing power of money, the rates in Copenhagen are relatively as high as those in American cities. (803.)

D. Labor conditions.—Mr. BETHELL testifies that the New York Telephone Company has 3,615 employees in New York City, and the pay roll, exclusive of officers' salaries, is more than \$40,000 a week. Very liberal wages are paid. The hours are reasonable, and the conditions which surround the employees are the best that any telephone operators in the world enjoy. The employees are of a high character. The company has gone to a very large expense in providing rooms for the comfort of the operators when they are off duty, and dining rooms where the company furnishes tea, coffee, and milk free of charge. The average wages of all employees are about \$12 a week and are from 50 to 150 per cent higher than the London wages. The trained female operator in New York is paid from \$8 to \$12 per week. When a girl is first employed she serves a period of apprenticeship, and is paid about \$3 a week. As soon as she is able to go to work she is advanced. Linemen, wiremen, and inspectors and mechanics are paid from \$12 to \$21 a week. Foremen are paid from \$18 to \$25 per week. The hours of labor for men are 8 hours a day in New York. The girls at the switch boards have various shifts. An operator who works on Sunday has a day of rest with pay in lieu of Sunday. There is extra pay for Sunday and overtime, the rate being time and a half or double time. There is a night force and a day force, and the arrangements are such that the operators going on early in the morning go off early in the afternoon, and those going on later in the morning remain later in the afternoon. They have an hour at noon, and there are 2 rest periods, 1 in the morning and 1 at night. The actual employment is from 8 to 8½ hours per day. The telephone traffic is very light during the night and up until about 10 in the morning. From that time until 12 it increases very rapidly. It slacks again during the lunch hour, and in the afternoon at 2 or 3 o'clock it goes up to a very high pitch, and off again toward evening. More operators are on duty during the busy hours than during the slack hours.

The company has never had a strike or labor trouble of any sort. It endeavors to anticipate the demands that may reasonably be made of it and never has any grievance presented from any body of employees. No one employed by the company can be dismissed except for cause, and then only with the approval of the officer of the company. The effect of the work upon the girls is not deleterious. There are very few resignations, except when a girl gets married or gets a better position. The private branch exchange systems which have been created in New York have made a great draft upon the skilled operators of the company, and the wages paid there are higher than in the central office. An inspector of the New York board of health reported officially that he found all the conditions under which the operators worked most excellent, and that he found no ill health among any of the operators. (783, 784, 785.)

For further comparisons as to labor conditions see under Section C.

Professor PARSONS in an affidavit criticises the statement of Mr. Bethell with respect to the wages of the telephone girls. He is informed on high authority that in the smaller cities of this country the telephone girl receives only \$10 or \$12 a month, \$16 being considered good pay. The comparison made by Mr. Bethell of the wages of the telephone employees in New York City with the wages of the employees in foreign cities was very unfair, because New York is recognized as the high-wage center of the country. (883.)

XV. MUNICIPAL PUBLIC UTILITIES.

A. General discussion of regulation and public ownership.—

1. *Importance of problem.*—Professor EDWARD W. BEMIS, of the Bureau of Economic Research, says that the problem of municipal public utilities is made important by the fact that competition has broken down under them and that they are virtually monopolies. The same problems are already confronting us in cities as will later become conspicuous regarding railroads, and the experience in the management of public utilities in cities will be a valuable lesson. The magnitude of the problem may be judged from the fact that the capital of the privately owned water, gas, and electric plants in the country is nearly \$1,400,000,000, while the capital of street railways is \$1,800,000,000. The further fact that certain syndicates and individuals are getting controlling interests in the street railway, gas, and electric-light companies of very many different cities increases the importance of the problem. (86-87.)

2. *Tendency of public utilities toward monopoly.*—Professor BEMIS declares that competition in the street railways, electric light, and water supply business has almost entirely broken down. Efforts have been made in the most important cities in this country to maintain competing companies, but in nearly every instance the experiment has ended in consolidation. The tendency toward consolidation has been slightly less marked in the case of electric-light companies, but consolidation has still gone on very rapidly, and in most cities street lighting and household lighting are furnished by a single corporation, although large establishments are often able to supply themselves by means of private plants.

Consolidation of plants of this sort results in great economies. There is a saving in office force, in avoiding the duplication of mains, pipes, and wires, in the collection of bills, and in other ways. (87,100.)

3. *Consolidation of plants of same or similar character.*—Professor BEMIS says that in recent years there has been a marked tendency toward the concentration of ownership of plants in different cities and of plants of different character in the same city. Thus in New York City the Consolidated Gas Company increased its stock in July, 1900, to \$80,000,000, and bought up the other gas and electric light companies of that city. The same syndicate has also a controlling interest in the street surface railways of New York, although the elevated roads are in the hands of a different syndicate. The Elkins-Widener-Whitney syndicate also controls the street railways of Philadelphia, Chicago, and a rapidly increasing number of other cities. Similarly, the United Gas Improvement Company of Philadelphia has a controlling interest in the gas companies of over 40 different cities, among them Jersey City, Kansas City, and Atlanta. The officers of the Standard Oil Company have also a very large interest in gas and street railway enterprises all over the country. In Chicago the surface railroads and several of the elevated railroads have been at times in the past, and doubtless will be in the future, owned by a single syndicate. (87, 100.)

Mr. ALLEN RIPLEY FORTÉ advocates the consolidation of the gas and electric-light plants of a municipality, and also the consolidation of the electric street railways with the electric-light plants. It would make a saving in the cost of the management and would cheapen the cost to the consumer.

In dealing with a consolidated syndicate, however, there should be thorough control of capitalization to prevent stock watering, and thorough publicity of accounts. Without such system of public accounting consolidation might not be beneficial to anybody but the syndicates themselves. (116, 117.)

4. *Possible methods of managing public utilities.*—Professor BEMIS says that there are three methods of solving the problem of municipal public utilities. One is to regulate the private operation of them; another is direct public ownership and operation, while a third is public ownership with private operation. Regulation of private ownership has been most advanced in England and Massachusetts; public ownership has gone furthest in England, while the system of public ownership and private operation scarcely exists in the United States, but is very common in England. (91.)

5. *Comparison of public and private ownership of municipal utilities.*—Professor BEMIS declares that there are certain evils and dangers in public management to be carefully guarded against, but he still believes that progress lies in the direction of public management of municipal utilities. Private companies in England do not oppose the public as they do here. Since the Brooklyn Bridge Railway has been taken over by private management there is a great deal more dissatisfaction than ever before, while under public management for many years it had given universal satisfaction. (102.)

Professor Bemis holds that the principle of municipal ownership of gas, electric lights, and street railways is the same as that in respect of water supply, which is generally considered a public function, but that it is more a question of expediency as to how fast we should go in relation to those utilities. He does not believe all

industries should be owned and controlled by the people, but where competition breaks down of its own weight and monopoly thus results, then the public must control it in some way. We should begin by learning through publicity of accounts what profits these monopolies are making and by seeing what can be done through regulation and taxation; but experiments in municipal operation should be at once undertaken and the causes of success or failure carefully studied. (97, 99.)

Mr. Foote thinks that in a sense the socialistic idea is the basis of or the initial point in the advocacy of municipal ownership. The people feel that the public should have the benefits and profits, if there are any, in the operation of the quasi-public plants, and that private corporations have been making excessive profits and have exercised more or less venality, not only in the securing of their franchises, but also in the operation of the plants. (113, 115.)

Mr. Foote asserts that it is impossible to compare the results of a municipal or political monopoly with those of the properly supervised private industrial monopoly. When the waterworks are under private ownership everything has to be paid for by private capital in the way of extending lines and making improvements, etc., and the rates have to be sufficient to pay all operating expenses and whatever profit is made. If the municipalities should buy these works, they would frequently reduce the price to the consumer, but would make up the difference by taxation. They would especially extend the service lines and charge the cost to special improvement assessments on property rather than to consumers. The city does not have to earn profits.

As to whether there is any advantage in municipal ownership, assuming honesty of operation in both cases and the same elements of cost, etc., there are not sufficient data at hand to reach a conclusion, and they can not be obtained without having the accounts of the municipalities and quasi-public corporations public and uniform. The witness, however, does not think the business of the municipalities of the country is yet sufficiently developed to permit the satisfactory operation of their public utilities by the taxpayers. As yet it always costs more to do public business than to do private business of the same nature. (111, 113.)

Mr. Foote says further that if it were possible to get men sufficiently patriotic to work for the people as a whole as loyally as they would in their own business, municipal ownership would be very desirable; but such a condition does not exist, and when the factor of self-interest is eliminated from industrial management there is eliminated at the same time the factor of efficiency. The witness has never yet seen an industry so well managed by the public but that a set of private men, having the same opportunities in the details of the management, could operate it and make a profit, and give the price as low, if not lower. (117.)

Mr. Foote believes, however, that there are more reasons why waterworks should be managed by municipalities than any of the other public utilities, because there are more regulations required in the operation of these plants that partake of the nature of police regulations. He sees no reason, indeed, why a small municipality might not operate its own waterworks plant more economically than a private company, because in a small plant the duties of the officials of the private company would be so light that to pay any sort of salary to them the cost of operation would be high; whereas, if the plant were operated by a municipality, the work could be performed by officials of the municipality who had other municipal duties to do. (119-121.)

Mr. Foote says that if the theory of municipal ownership should be adopted he would recommend the management by the municipality of every public utility where an economic gain could be made to the public; but that he would still insist that the accounts of the municipalities should be kept in such a way that it could always be ascertained what the actual cost of construction and of the management of the plant would be. He instances several cases of municipalities owning and operating certain utilities in which the accounts were so kept that while on the face of the records there seemed to be great economy in such operation, yet as a matter of fact they had been operating less cheaply than a private corporation could have done. (115.)

6. *Political effects of extension of public ownership.*—Professor BEMIS asserts that whenever there has been a failure of any municipal public-service plant, such failure can be traced generally to the spoils system in politics or to a lack of general business sense in the council, which has led to the selection of poor managers, or to the plant not being properly equipped. A proper reform in the civil service would show the people that they could improve the government, and have it practically useful in a cooperative way, by cheapening transportation, fuel, light, telephone, and telegraph service. Moreover, an increase in public functions increases the popular interest in having the government better managed. (99.)

Professor Bemis thinks the efforts of the influential and wealthy companies to keep their own old franchises, or get better ones, or to escape their share of taxation, are a potent source of municipal corruption. A very intelligent employee of a certain gas company informed him that all the employees in that company had to be recommended to their places by the political boss of their precinct, and had to keep up their membership in the political organization in order to retain their positions. When the Philadelphia Gas Works were still under public management, they were buying 40 per cent of their gas from a private company, and they always took their employees at the recommendation of the Philadelphia aldermen, and did not keep them longer than they could help. Their motto was: "The more different people we can hire in a given month the more aldermen we can please the more times." It would be easier to convince the people of the need of civil-service reform and business efficiency than it would be to get rid of the demoralization connected with this relation of private companies to legislative and administrative bodies. (102.)

Civil service in municipal affairs.—Mr. Fooks advocates a rigid civil-service reform in municipal affairs in case municipalities should take over to themselves the operation of their public utilities. He believes that the employees engaged in operating utilities should be retained for life, during good behavior. The witness declares that he is somewhat different from the average civil-service reformer in that he does not believe it is of any interest to the public how a man gets his position, but that it does interest the public what he does after he gets it. Therefore primary appointments should be made in any way that would seem best—not necessarily by examinations—but there should be a probationary period of six months before the employee goes upon the regular roll. Promotions should be made from the lower to the higher grades from those in the service, and not from the outside, thus creating a stimulus for efficient work. (118, 119.)

7. *Proposed legislation in Ohio.*—Mr. Fooks states that in the State of Ohio the municipal code commission has been studying the question for two years, and finally brought in a bill at the 1900 session of the legislature permitting every municipality in the State to own and operate its own water-works, gas works, street railways, telephone system, garbage plant, or any other utility. He criticises this bill because the public has not safeguarded the grant of power sufficiently. Under this bill the electors might vote bonds to acquire the properties, to operate them by the municipal government, and if there was any deficiency of revenue as the result of their operation, that deficiency should be entered into the tax list. He asserts that it would be a very easy matter under such a system to have innumerable deficiencies piling up. Thus, in the case of street railways the municipality would be authorized to reduce the fare to a very low figure, and create a deficiency; and thus the general public would be made to pay for the operation of the road, whereas the correct principle should be that those who use the roads should pay for such use. (119.)

8. *Will perpetual franchises interfere with municipal ownership?*—Professor BEMIS believes that when the public is ready to treat the companies having what is known as perpetual franchises as they treat each other it would be a very easy matter to find many legal ways to get rid of those franchises without interfering with the rights of private property. There are certain reserved rights possessed by the people which the courts would recognize. Legislatures could regulate the charges and could tax monopolistic earnings by special forms of taxation. The witness refers to the famous perpetual franchise granted to Robert Fulton and his associates to operate steamboats on the Hudson River, which was declared unconstitutional by the Supreme Court of the United States. (99.)

9. *The relation of municipal ownership to labor conditions.*—Professor BEMIS says that the tendency of public employment is to improve labor conditions. The hours of labor are usually reduced. The municipalities in England attempt to pay the standard trade-union rate of wages. Tramways when operated by private companies had refused to recognize unions and had worked their men very long hours; but as soon as the municipalities took hold of the plants, union wages and hours, etc., were introduced. (95.)

B. Experience with municipal ownership in the United States.—

1. *Extent of municipal ownership.*—Professor BEMIS says that there is no instance in the United States of public ownership of street railways except in the case of the railway over the Brooklyn bridge. There is a rapidly growing number of electric-light plants owned by municipalities. The capitalization of private gas plants is \$330,346,274; of public plants, \$1,918,120. Private water companies have a capitalization of \$270,752,468, and public plants are valued at \$513,852,568. (87, 88.)

2. *Results of municipal ownership of water plants.*—Professor BEMIS states that it is difficult to study the water question satisfactorily, but one thing is most conspicuous,

that the charges are usually lower under public management, while the service is better. At the same time there has been a reduction of fire risks. There is a growing desire to increase the number of municipal waterworks. The city of New Orleans is the only instance in the history of the country of the waterworks' plant of any large city, originally started in public hands, going back to private ownership, while in a list of over 50 of the largest cities there are 20 instances of a change from private to public management. Of the 78 cities in the United States having a population in 1900 of over 50,000 only 19 have private ownership of waterworks, the most important being San Francisco, Omaha, Los Angeles, and Memphis.

The witness further states that he has known a great many waterworks' engineers who were very proud of the fact that they were connected with the public enterprise, and that the sentiment is almost overwhelming that water should be owned and managed by the community. (97.)

Professor PARSONS asserts that, according to Baker's Manual of American Water Works, charges of private water companies in the United States average 43 per cent above those of public waterworks. (146.)

3. *Municipal ownership of electric-light plants.*—Professor BEMIS says that there is a rapid increase in the extent of municipal ownership of electric-light plants in the United States. At present the capitalization of privately owned plants is \$265,181,920, and the cost of publicly owned plants is \$12,902,677, but the private plants are largely overcapitalized and their cost of construction is not so much greater than that of the publicly owned plants as these figures would indicate. The acquisition of plants would be more rapid were it not that many legislatures, under the influence of corporations, either refuse to allow cities to operate plants or forbid them to sell light to private consumers, restricting them to furnishing public light. In other cases the terms under which private plants may be acquired are regulated in such a manner as to make acquisition expensive. Thus, in Massachusetts the law requires that municipalities desiring to operate electric-light plants must first offer to buy out existing plants at a price to be determined by referees. The law implies that while referees shall not take account of the probable increase in earning power in the future, they are to base their valuation on existing earning power, which is often excessive because of monopoly prices. Several cities complain that they have paid very high prices—much more than the original cost—for plants which were worth practically nothing. There is a growing sentiment in this State in favor of more liberal provisions regarding the construction and acquisition of electric-light plants. (88, 92, 98.)

Professor PARSONS introduces the following table as showing the cost of electric lighting in a number of cities which have changed from private to public ownership.

Column 2 is made up of the operating cost plus 5 per cent on the investment for insurance, taxes, and depreciation, and 4 per cent for interest, except where the actual interest is known.

Cost of electric light before and after public ownership.

City.	1.	2.	3.
	BEFORE. Price paid private company per street arc just before public operation began.	AFTER. Cost per arc, including operating expenses, taxes, insurance, depreciation, and interest.	Cost under complete public ownership, excluding interest, there being no interest when the people own the plant free of debt.
Aurora, Ill.....	\$325	\$72	\$61
Elgin, Ill.....	228	65	56
Fairfield, Iowa.....	375	96	80
Marshalltown, Iowa.....	125	40	30
Bay City, Mich.....	100	67	58
Detroit, Mich.....	132	83	68
Allegheny, Pa.....	180	86	75
Bangor, Me.....	150	58	48
Lewiston, Me.....	182	58	52
Peabody, Mass.....	185	73	62

Mr. A. D. ADAMS, an electrical engineer of Boston, states that where gas works have been supplanted by electric-light plants the result has been more a question of quality than of price. Electricity can not compete with gas on a private basis, and is selected by the great majority of users because they like it better, though more expensive. (282, 283.)

4. *Electric-light plants in Massachusetts.*—Mr. A. D. ADAMS states that for the last 2 years he has been investigating the subject of electric lighting in Massachusetts for the purpose of making comparisons between municipality-operated plants and plants operated by private companies. In 1891 Massachusetts passed a law allowing towns and cities to buy existing electric-light plants or to build new ones. The law required existing plants to be purchased by the municipalities under certain conditions, instead of permitting construction of new plants. Three municipalities in Massachusetts operate gas plants in connection with their electric-light plants. The investigation of the witness covers 14 cities and towns which operate their electric-light plants only. These towns ran in population from a little over 1,000 to a little over 27,000, and the plants have been in operation from 3 to 13 years, two of them having been constructed prior to the passage of the law of 1891. (275, 276.)

Mr. A. D. Adams states further that in order to compare the results attained in these municipal plants with the results in private plants it is necessary to reduce all the earnings of the municipal plants to a money basis. In some of the municipalities the plant in addition to furnishing all the public light also furnishes light to private consumers. It is a difficult matter to determine the value of the public lighting furnished by cities because of the great variance in the prices paid for electric lighting in private municipalities in Massachusetts as well as elsewhere. His plan therefore has been to take a number of Massachusetts towns and cities, all as nearly as possible of the same population as those having municipal plants, and find the average price in those towns paid for electric-light service. For 17 such towns the average price paid for arc and incandescent lighting per lamp hour is 4.7 cents for arc light and 1.2 cents per incandescent lamp. On this basis he finds the value of the public lighting furnished in the 14 municipal plants for the year ending June 30, 1899, to be \$173,429.40. The income of those towns from the sale of electric light and power for the same time was \$83,948.38, making the total earnings \$259,377.78. The operating expenses were found to be \$148,493.63, leaving net earnings of \$108,884.15. The aggregate total investment for the municipal plants in these 14 towns and cities was \$891,591, making the ratio of net earnings for the total sum of money invested 12.3 per cent.

These statistics show, says the witness, a higher proportion of profit than in private plants. His comparison is made as follows:

The investments of private corporations in the electric light and power plants in Massachusetts, including Boston and the other large cities, are as follows: Capital stock, \$10,926,030.40; bonds, \$3,771,200; notes payable, \$1,933,215.46, or a total of \$16,630,445.86. Under the law of Massachusetts the stocks and bonds of corporations operating public utility plants can only be issued for money or its equivalent actually paid in, so that the capitalization given represents actual value. The net earnings of these plants in 1899 were \$1,699,265.96, or 10.2 per cent on the investment. This comparison takes in all the large cities of Massachusetts except 2 or 3 good-sized towns where the electric and gas plants are owned by a single corporation, and consequently includes those cities where the sale of electric light and power is supposed to be more profitable than in the smaller cities where the municipal plants exist, because small towns and cities do not afford so profitable a field for the sale of electric energy as do the large cities. (278, 279, 281.)

Mr. Adams states that the next basis of comparison taken by him is therefore with all the electric plants operated by private corporations in Massachusetts cities having less than 30,000 population, there being 43 such cities. The total amount invested in electric-light plants in these 43 cities is \$3,797,862.56, their net earnings being \$246,067.67. The ratio of net earnings to total investment is found to be 6.4 per cent, as compared with 12.7 per cent for the municipal plants in the 14 cities mentioned. The calculations are based entirely on the 1,200 candlepower for arc lights. Most of the plants furnish light only, while two or three of them furnish light and power. There is very little call for electric power in small places. (279, 280.)

Mr. Adams concludes therefore that the result of his comparison of the 14 cities having municipal control of their electric plants with the cities with private corporations shows that the capital invested by the municipalities in electric plants is more economically invested for the community and is earning a better return than capital invested through the medium of private corporations.

The witness states that he found the people in Massachusetts towns very well satisfied with municipal ownership of electric plants. No municipal plants have been bought out by private corporations, but in several instances the municipal authorities have bought out the private corporations. The municipal plants, under the law, must charge a depreciation of not less than 5 per cent per year, but so far as the witness knows there is no fixed per cent of depreciation for the private plants. His explanation as to why the municipal plants show a higher per cent of profit than

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the private plants is that the municipal plants are more efficiently and carefully managed. The people in the small places where municipal plants are operated are very jealous of any unnecessary expenses, while the State gas and electric light commission takes much interest in these plants, so it is not possible for them to run into excessive outlays or to operate at a loss.

There are private gas works in 8 of the towns having municipal electric plants. The city of Taunton, which has a public electric plant, has a gaslight company with a capital stock of \$80,000. These gas plants, of course, reduce the use of electricity by private consumers. (281-283.)

Mr. Adams makes another comparison on the basis of the actual prices charged by private companies for public lighting in Massachusetts and the actual cost of operation in municipal plants. The figures in each case are reduced to cents per hour for arc lamps and incandescent lamps. The municipal figures include interest on the plant and depreciation at the rate of 5 per cent. The 2 tables thus prepared are as follows:

Prices per hour paid for street lamps under private operation.

Municipality.	Prices, 1,200 candle-power arc lamps.	Prices, 16 to 25 candle-power incandescent lamps.
	<i>Cents.</i>	<i>Cents.</i>
Pittsfield.....	3.6	1.02
Marlboro.....	3.8	.74
Amesbury.....	4.7	1.80
Leominster.....	3.2	.71
Gardner.....	4.3	.96
Abington.....	4.3	.99
Milford.....	4.6	1.04
Athol.....	5.5	1.10
Greenfield.....	4.4	1.40
Andover.....	5.1	1.07
Framingham.....	4.6	1.10
Whitman.....	5.9	.92
Orange.....	4.6	1.40
Westboro.....	4.5	1.50
Union.....	5.8	2.10
Winchendon.....	5.4	1.09
Amherst.....	5.9	1.60
Average cost per hour.....	4.7	1.20

Cost per hour of operation of electric lamps by municipal plants, including interest and depreciation, year ending June 30, 1899.

Municipality.	Incandescent lamps, 25 to 32 candle-power.	Arc lamps, 1,200 to 2,000 candle-power.
	<i>Cents.</i>	<i>Cents.</i>
Belmont.....	2.05	8.19
Braintree.....	.98	3.92
Chicopee.....	.....	3.65
Danvers.....	.....	3.21
Hingham.....	1.07	.....
Hull.....	4.34	.....
Marblehead.....	.59	2.29
Needham.....	.83	.....
North Attleboro.....	.88	.....
Peabody.....	.75	2.02
Reading.....	.....	5.85
Taunton.....	.....	3.41
Wellesley.....	.56	.....
Hudson.....	1.38	7.88
Middleboro.....	2.01	6.83
Wakefield.....	.....	6.10
Westfield.....	.55	3.05

He points out that this table shows that in the majority of cases the cost per hour of lamps operated by municipalities is lower than the average for the private plants, in some cases scarcely exceeding one-half the private rate. (277, 281.)

C. Capitalization. Charges under private and public ownership.—1. *Overcapitalization of private municipal monopolies.*—Professor Bemis declares that there is a very slight connection between the cost of construction and the capitalization of private corporations conducting municipal monopolies or utilities. Usually capitalization is based on earning power. Often the bonds issued by such corporations cover the cost of construction, while the stock, even in many cases preferred stock, represents only the hope of extra profits. Overcapitalization deceives the public as to profits. Moreover, investors will pay more for two shares of stock bearing 4 per cent interest, than for one share of 8 per cent stock. Finally, the banking syndicates, which are largely interested in these corporations, desire large stock issues because the profit in floating the stock is greater for the promoters and underwriters.

It is frequently the case in the initiation of these plants that a broker is employed to arrange for floating bonds, and he receives a large block of stock as a bonus. It is doubtless necessary to issue enough stock to obtain the necessary funds, and if stock can not be sold at par there must be overcapitalization; but if fewer securities were issued it would not be so difficult to sell them at par; indeed, with the expectation of profits based on monopoly prices, stocks representing the actual value could be sold much above par. (88, 90.)

Mr. Foose says that in authorizing the construction by a private company of a plant for quasi public service, or in authorizing any consolidation of existing interests, he would provide that the investment account, or the "initial account," as he calls it, should be determined in one of three ways:

1. Either by agreement between the municipalities and the corporations;
2. By arbitration; or
3. By asserting the right of eminent domain.

After that point had once been established, a proper system with public accounting would permit no addition to that investment unless it was certified to by the State auditor as being necessary and the money actually invested for the full amount entered into the account. (117.)

2. *Overcapitalization of street railways.*—Professor Bemis says that in Massachusetts there has been since 1885 a fairly effective restriction on the issue of securities by street-railway corporations. This has prevented the issue of capital stock except for actual improvements and extensions. We find accordingly that the average capitalization per mile of single track for street railways in that State was \$44,683 in 1897. In the rest of the country the average capitalization per mile of track was twice as great. In 9 States in the Mississippi Valley, ranging from Ohio and Kentucky to Minnesota and Missouri, where the same number of cars are operated per mile of track, the average capitalization of street railways was \$91,500 per mile. In the Atlantic States, from New York to Virginia, where 23 per cent more cars are operated per mile of track than in Massachusetts, the capitalization per mile of track was three times as great—\$138,600. In 1900 the capitalization of street railways in Massachusetts was only \$38,500 per mile, while in the Mississippi Valley, in the States named, it was \$91,360, and in the Atlantic States \$153,650. (88-89.)

Professor Bemis says further that the steam railroads of the country are capitalized at only \$59,610 per mile, while street railways are capitalized at \$90,000 per mile. The latter do not have to pay for right of way. The net income above operating expenses per mile of road is more than 50 per cent greater for street railways than for steam railways, while the entire passenger receipts on street railways are half as great as the passenger earnings of steam railways. (90-91.)

Mr. Foose, while not criticising the testimony of Professor Bemis relative to the capitalization of street railways, calls attention to different items which enter into the cost or capitalization in the several States. In one State the cost might mean simply the laying of the track on the street; in another it might be the laying of track through a street and paving a street for 3 feet on each side of the rails; while in Philadelphia, for instance, it means the rebuilding of the street entirely, paving it from curb to curb. Therefore until all the items which enter into this cost and capitalization are fully known it is impossible to make any comparison that would be of any great value. There is not sufficient information at hand under the different systems of accounting in vogue in different parts of the country to determine the relative merits of public and private ownership of municipal monopolies. (117, 118, 120.)

3. *Overcapitalization of gas plants.*—Professor Bemis declares that a capitalization of \$3 or \$4 per 1,000 feet of annual product of gas is considered by experts to be ample to cover the real structural value of gas plants. The average capitalization of gas companies in the large cities is about \$9 per thousand of annual product. In 1898

the Mutual Fuel and Gaslight Company of Hyde Park, in Chicago, was capitalized at \$2.69 per 1,000 feet, and was making a very large profit by selling gas at an average price of 87 cents, but when it entered into combination with the People's Gas Company its capital was raised to \$9 per 1,000 feet. (90.)

4. *Cost of gas, and prices.*—Professor BEMIS says that the report of the United States Department of Labor, recently published, shows that returns of several hundred gas companies indicated an average cost of manufacturing gas and delivering it to the burner, aside from taxes, interest, and depreciation, of about 46 cents per 1,000 feet. If 5 cents were added for taxes, 7 cents for depreciation, and 7 per cent on an average capitalization of \$4 per 1,000 feet of annual product (a reasonable capitalization), the cost will be brought up to 86 cents. But the average price of gas charged by the largest companies is \$1.14, which indicates an excessive profit. Recently the Mutual Fuel and Gaslight Company of Hyde Park, in Chicago, reported that the cost of manufacturing gas, aside from interest and depreciation, was 37.45 cents per 1,000 feet. The company further stated the value of its tangible assets at \$3.80 per 1,000 feet of annual product. Eight per cent on this added to the cost would have made the price 67.5 cents. The actual average price was 87 cents, but this was raised to \$1 after the consolidation with the People's Gas Company. In New York City the price until recent years was \$1.25, but by an act of the legislature it was reduced 5 cents yearly, and reached \$1 on January 1, 1901.

Professor Bemis asserts further that the differences in the cost of coal do not affect the cost of gas as greatly as is generally supposed. A ton of coal will make about 10,000 feet of gas, so that if coal goes up \$1 per ton the cost of gas would increase 10 cents in the absence of residual products, but the value of coke and other residuals rises with the rise in coal, so that the net additional cost from an increase of \$1 per ton on coal is only from 5 to 7 cents per 1,000 feet of gas. In the manufacture of water gas 4 or 5 gallons of crude oil are used in making 1,000 feet. In Ohio this oil costs 2 or 3 cents per gallon, and an increase of 50 per cent in price would only cause an increase of 6 or 8 cents per 1,000 feet in the cost of gas. (89-90, 94.)

5. *Electric plants—Rates under private and public ownership.*—Professor BEMIS says that the charges of municipal electric-light plants are much lower in general than those of privately owned plants. In many instances public plants are restricted to the furnishing of light for public purposes, so that they could not be expected to operate as cheaply as plants furnishing private light also. Professor Bemis admits that there is often a misunderstanding in comparing public and private plants, from the disregard of interest, depreciation, and taxes in calculating the cost of public plants.

In the municipal plant in Chicago, continues the witness, the cost of furnishing an arc light per year was formerly, in 1895, \$96.76. By more efficient administration and civil-service reform the cost was reduced to \$55.93 in 1899. In Detroit there are 2,000 lights under public management, and the operating expenses, which were at first about \$102 per year, have been reduced to \$66.45, including 4 per cent on the cost, 3 per cent for depreciation, and a proper amount for taxes. The private company before the construction of this plant offered a ten years' contract at \$102 per year, although it also supplied private consumers. In Allegheny the cost of operating 1,300 arc lights in 1899 was \$47.35 each, while by adding 4 per cent for interest and 5 per cent for depreciation and taxes the cost is brought up to \$71.17. In Pittsburg, across the river, a private company charges from \$95 to \$100 for the same kind of service.

A large majority of municipal electric plants are allowed to do only public lighting. In England and in Massachusetts municipal plants are allowed also to furnish supply to private consumers. (97, 98.)

Referring to the testimony of Professor Bemis, Mr. FOOTE asserts that while on the face of the reports it would seem that there was a saving in the operation of the Detroit electric plant by the city of about \$12 yearly per arc light, yet he believes, from personal examination, that if all the items entering into the cost of the operation of the plant were fully known, including interest, depreciation, and loss of taxes, it would be found that the saving is more apparent than real. The private company itself could, and perhaps would, have reduced the price substantially to the same extent as the city has done. While the accounts of Detroit are as well kept as those of any other municipality, still there is not such uniformity as would warrant a just conclusion on the relative merits of public or private operation of the plant. (114.)

6. *Street-railway fares in England.*—Professor BEMIS states that in England fares are graduated according to distance in the case of private as well as public management. The tendency under public management is to increase the distance one can ride for a given fare, and a few cities are talking of introducing the uniform fare like America. The uniform fare has already been introduced in a private subway recently completed in London. (102.)

D. Municipal ownership in England.—Professor BEMIS thinks the best place to study municipal ownership is in England, because it has had a longer experience than any other country. The movement has, however, been checked there in the matter of water and gas by the high prices that had to be paid to buy out the plants, the private companies there having originally secured perpetual franchises. The keen regard the English have for vested interests in property made the prices of sale high. Within the last 10 years, however, some 40 gas plants have changed from private to public management, and over half of the water plants are under public management, while a little over half of the gas sold outside of London is made and sold by municipal plants.

In the case of electric lighting and street railways, which are of more recent development, the public has become aware of the dangers of perpetual franchises, and consequently these latter companies when chartered have been given franchises for very limited periods—21 years ordinarily in the case of tramways, and from 21 to 42 years in the case of electric light. In other cases the cities have built their own plants originally. Nearly one-half of all the electrical supply, both for lighting and power purposes, is in the hands of the cities. In many instances these two classes of service are combined. The witness further states that his own investigations show that in the case of tramways, electric light, and water there is especial satisfaction in England with the results of public management, and that the transfer to public management, whenever it has been made, has been attended with enormous development of plant and output and a large reduction in charges.

In the case of publicly managed gas works one of the greatest difficulties in England consists in keeping the workmen energetically employed to the same degree as in private management. While well paid, they do not yet fully appreciate that they are working for the public. Nevertheless public employment tends to create a somewhat higher morale and a better feeling of public responsibility than working for private companies. The municipal councils in England are composed of a very fine class of business men; they include often prominent labor leaders as well. Some complaint is made by engineers in the public plants that it is harder to get an increase in salary than in a private plant, because of the publicity that is given to the subject, but there is more liberality in paying them than there was formerly. (94-95, 102.)

Advantages of municipal operation.—Professor BEMIS enumerated several advantages which have come from municipal operation, especially as seen by him in Great Britain. Municipalities charge less to the public than the private companies and give the same or even a better service. There is a financial advantage in that the municipality can borrow at from 3 to 3½ per cent, which is very much below the rate charged the private companies. In public management there is fully as much enterprise and a greater readiness to introduce the latest inventions, this being accounted for particularly by the fact that they pay higher wages and work the men fewer hours, and therefore feel the desirability of having as much labor-saving machinery as possible. The consumption of the product or service has greatly increased. In Great Britain there is very little difference in operating expenses between public and private corporations, aside from interest and dividends. In municipalities better machinery is put in, which counterbalances any tendency to increase the labor cost. In the case of gas the net cost of production is a trifle less in municipal plants than in private companies, although the men are paid better wages. The municipal plants are growing very rapidly, but owing to the fact that they cheapen the price they get along without adding to the force. A better class of men than formerly has been found willing to go into the city councils in England and to serve the public in the management of the financial interests. (95, 96.)

Street railways in Glasgow.—Professor PARSONS declares that when the city of Glasgow took over the management of the street railways, in 1894, fares were reduced at once about one-third. Fares are graduated according to distance. The average fare was at first reduced to 2 cents, but later reductions have brought it down to 1½ cents, while more than 35 per cent of the fares are only 1 cent. The private tramways had collected an average fare of 3.84 cents. It is true that the density of traffic is greater and that the distances are usually shorter in Glasgow than in American cities, and it is impossible to get the average rates per mile. The average number of passengers per car mile in Glasgow is 12, in Boston 7, in New York, on Broadway, 12, and in Chicago 5 or 6. The witness does not think that our street-car companies could afford to apply the Glasgow fares, because of the longer distances and the higher wages. Nevertheless, the fact that fares were reduced under public ownership in Glasgow, and that the city with the lower fares realizes at least as high a profit as the private company did, shows the possibility of economical and satisfactory public operation. At the same time the conditions of labor have been improved and the character of the service is very much better, electric traction having been introduced. (140, 147.)

E. Regulation of private ownership.—1. *General discussion.*—Professor BEMIS insists that the municipality has the right to regulate corporations operating public utilities, and especially to require publicity from them. There is undue secrecy in the operation of private companies holding municipal franchises. There ought to be a difference between them and ordinary private enterprises. They are monopolies in most instances; they get their rights by grant of the State or the city; they are given the right of eminent domain—the right to use the streets and the highways. The power which they have over the public, as well as the special privileges which the public grants to them, accordingly justify public regulation to prevent abuses. Professor Bemis especially favors the requirement that the accounts of these quasi-public corporations shall be open to public inspection and subject to public regulation. (91, 93, 98.)

Mr. Foote holds that no public need should be supplied under the management of a political monopoly that can be supplied with equal advantage to the users of the service under the management of any industrial monopoly, the best interests of the users of the service being the first object of the protection and care of the State. He lays down two general propositions:

(1) That an industrial corporation organized to supply a perpetual municipal need shall have the exclusive right to supply the need perpetually.

(2) That all accounts shall be honestly and correctly kept; that economic thrift shall be insisted upon in every department, and that charges for the use of service shall bear a fixed relation to the necessary cost of production.

The basic principle in the settlement of this question is that there should be a uniform system of accounts of all governmental offices and of all quasi-public monopolies. (103, 104.)

Mr. Foote quotes from a paper by the State examiner of Wyoming, Mr. Henderson, opposing public ownership of public utilities and expressing the opinion that a uniform accounting and State supervision would accomplish the desired results much better. The public-service company should be permitted—

First. To retain from its earnings the interest on its bonded debt.

Second. A reasonable interest on the investment.

Third. A reasonable profit upon the investment.

Fourth. A sinking fund for the redemption of the bonds as they mature.

Fifth. A reasonable amount for maintaining the physical condition of the property.

The residue, if any, should be divided between the company and the municipal corporation. (110.)

2. *Public regulation in Massachusetts* (see also under *State Railroad Commissions*, p. CLXXII, and *Capitalization*, p. LXII).—Professor BEMIS says that Massachusetts has created a street railway and railroad commission and an electric-light and gas commission, with very considerable powers to regulate these classes of corporations. These commissions have the right to compel the companies to make reports in such manner as they see fit. They may prescribe the methods of bookkeeping, although as a matter of fact this has not been done to any considerable extent. They may send auditors to examine the books. The two commissions do not publish all the facts which they gather, as the witness believes they should do. Moreover, they are not supposed to take any direct action unless complaint is made by city officials or by 20 consumers. If their decisions are not obeyed they may inflict penalties, although more usually appeal is made to the legislature, which issues special orders. There had been no appeal against the decisions of these commissions for a number of years until a decision as to the gas company in Haverhill, in 1899, was appealed to the United States courts. The Massachusetts law also requires the consent of these commissions for any increase in the capitalization of the corporations. (88-92.)

Referring to the laws of Massachusetts, Mr. Foote states that the commissions created by those laws require reports from all corporations, municipal as well as private, but that there is no uniformity in their accounts. They are kept in a way only sufficient to enable the commission to make its report. The law does not require that the price of the service should be based upon cost plus a proper profit; it does not go far enough. (120.)

3. *Regulation of public utilities in England.*—Professor BEMIS states that great interest is manifested in England in the regulation of public utilities, but that the tendency toward public ownership is strong. Regulation there is always by act of Parliament. Companies can not increase their capitalization; they can not even buy an extra foot of land without going to Parliament for permission, at which time an opportunity is always offered to investigate charges and efficiency of service and to prevent any watering of stock. There is also an auditing of the accounts of the companies by central boards. Electric-light companies are required to submit complete

accounts to examination by the board of trade. The accounts of the municipalities also are very carefully audited by 2 auditors, one selected by the city council and the other elected by the people at large, and these auditors exercise a powerful influence. The great lesson to be learned from these attempts at regulation is the importance of publicity of accounts of the municipalities and also of private companies furnishing quasi-public service. The English city governments have thus been preserved from many abuses that exist here. (93.)

4. *Municipal ownership and private operation.*—Professor BEMIS states that in Great Britain there were at one time 44 instances of the ownership of the street-railway track by the municipalities with private operation of the railway, but that the companies did not seem to be progressive, and as their franchises ran out the plants are being taken over very generally and operated by the municipality. He does not know whether the unsatisfactory character of the operation by the private companies was due to the system of ownership or whether it was due to the limited duration of the franchises, which were for 21 years only. While the English people are opposed to the system, it yet has had its benefits, in that it enabled them when they did want public ownership to get it more easily and cheaply than in any other way. (102-103.)

F. Uniform and public accounting—Municipalities and public-service corporations.—1. *General advantages.*—Mr. ALLEN RIPLEY FOOTE, editor of Public Policy, of Chicago, believes that there should be uniformity and publicity of accounts of corporations performing quasi-public services and of municipalities, so that the effect of each essential economic factor will be shown, to the end that correct comparative statistics may be obtained as a basis for intelligent, economic discussion and legislation. An agreement should be had as to what items properly constitute the cost of public utilities, and those items should be all included in any statement of cost. The correct principle as to the returns which should be made by a corporation receiving franchises from the public is in the nature of a quid pro quo, the duty of the government being to see that the people get a fair return for the grant. The only way to ascertain whether this is done at all is to have the accounts kept by uniform methods and made public. There should be no secrecy in respect of the corporations. The public is generally willing that a corporation should have a reasonable profit, say 8 or 10 per cent, upon its actual investment. When the accounts are properly kept the price of the service can be very readily fixed. If the business of the country were actually done on this basis an economic condition would result which would make the United States master of the world in commerce. (115, 116.)

Mr. Foote asserts that the system of uniform accounting as applied to municipal plants would, if the accounts are properly audited by an auditor independent of the corporations and the political parties, make a uniform system of cost in the purchase of all supplies by municipalities and would tend to create a uniformity of price for the sale of the municipal product; that no municipality would pay more, for instance, for coal used in the manufacture of gas than any other municipality under the same conditions. A large percentage of the failures in municipal establishments come from the fact that the men who manage the affairs do not know how to figure the cost of the operation of the plants, because their system of bookkeeping is inefficient. (116.)

Professor BEMIS thinks that legislation as to publicity of municipal public-service corporations would have to come from the States, but that there should be uniformity of State legislation along certain lines. The United States Department of Labor might well continue its investigations of cities and report upon them annually. While the Department has no authority to dictate any form of bookkeeping, it would have an influence in calling the attention of the country to the need of it the more it tried to get the information. In Massachusetts, in his opinion, the gas and electric-light companies admit that the publicity given to their accounts in that State has been of great benefit to them in showing them what some companies are doing, and thus leading them to introduce improvements. In the States power should be conferred upon the State auditor to investigate and audit the accounts of quasi-public corporations using the streets, and also the accounts of municipalities. While there is nothing radical in this course of procedure, it is susceptible of great results. (101.)

Professor Bemis is of opinion that, inasmuch as public utility companies got their right to exist from the State, and are thus quasi-public corporations, the people should have the right to demand publicity as to the cost of construction and operation. There should be uniformity of accounts in all plants. There is now so much secretiveness that even the United States Government is not permitted to ascertain any of the facts except under the pledge of absolute secrecy as to names of plants. (91.)

2. *Necessity of public accounting in national affairs.*—Mr. FOOTE holds that it would

be a very great benefit to the Government if the Interstate Commerce Commission had the authority to go into the accounts of the railroads and audit them as they ought to be audited, and that if such were done the railroad tariffs of the country would be very materially affected. A uniform system of public accounting and independent auditing of public accounts in the new possessions of the Government would be of very great benefit, and would be easy of introduction there. (122.)

3. *Uniform accounting in Wyoming.*—Mr. Foote states that Wyoming has done the best work in the line of uniformity of public accounts of any State. That State has had for 10 years an officer known as State examiner, who has authority to examine the accounts of all the State institutions, and all other accounts affecting the public interest. He may enter any public office at any time without notice, and may even turn out the incumbent of the office if he finds a condition that justifies it. He can compel the attendance of witnesses, the production of books and papers. He is responsible only to the governor of the State. Mr. Foote thinks that the same principle would apply to any of the larger States, necessitating, of course, assistance to an examiner where the work required it. He further states that the duties of the examiner relate only to purely public accounts and not to the quasi-public corporations operating municipal monopolies. (104, 105.)

Professor BEAMS called attention to what he considered the great work now being done in Wyoming in the auditing of municipal and county accounts. In that State all of the accounts of the counties and subordinate local bodies have to be audited by the State auditor, who prescribes their methods of bookkeeping. The American Economic Association, the New England Waterworks Association, and other like bodies are agitating the extension of this sort of bookkeeping to other States and municipalities, and its application to local monopolies in private hands. (94, 95.)

4. *Views of the State examiner of Wyoming.*—Mr. Foote introduced as a part of his testimony a paper read by Mr. Harry B. Henderson, State examiner for Wyoming, before the League of American Municipalities at Charleston, S. C., in December, 1900, the substance of which was as follows (pp. 105-110):

The system of uniform accounting and public auditing or examination superinduces a higher standard of intelligence and morals among office seekers and officeholders, and lessens the burdens of taxation. The Territory of South Dakota was the first to provide for a Territorial examiner, whose duties, however, were quite limited and superficial. Minnesota afterwards provided for an examiner, and included in his duties the examination of accounts of building associations; but Wyoming was the first and only State so far to provide for the thorough examination of accounts of all State, county, and local officers, accounts of State institutions and State banks, and, in fact, every public account. The only opposition to a measure of this kind came from officeholders, schoolbook companies, bridge companies, individual members of boards of trustees, etc., none of whom had any material interest in the economical administration of the affairs of the government.

Mr. Henderson defines uniform accounting as being a system of accounting where all the accounts are kept alike, or in the same regular form; so that if an officer from one county should go into a similar office in another county he would at once be able to keep the accounts and perform the duties of the office.

The principal objects sought to be accomplished by having a system of uniform accounting are: (1) To prevent lavish expenditure in the use of public moneys by public servants; (2) that public affairs should be administered as carefully as private interests; (3) that in the administration of public affairs an equivalent should be rendered for every dollar expended; (4) that it is necessary to a correct determination of the policy of municipal ownership to have a uniform system of accounting so as to determine the cost of construction and operation of any particular industry; (5) that it is the right of every taxpayer to have public accounts so kept that the various expenditures made for any purpose whatever should be clearly shown; (6) that the principle is an evidence of progress and forms a base upon which the revenues for the support of the government can be estimated with a reasonable degree of certainty.

Mr. Henderson in his paper asserts that there are many advantages to be derived from the supervision of public accounts, among which he enumerates:

First. A curtailing of public indebtedness. In this connection he states that in Wyoming he has succeeded in securing the enactment of a law making it an offense to create any floating indebtedness in excess of the actual receipts of the current year, and providing that any such indebtedness shall be null and void, but would operate as a lien against the officers creating the same and their bondsmen. The result of this is that every county in the State is now on a cash basis, and the expense of maintaining the county and municipal governments has been decreased.

Second. State supervision eliminates the opportunities for embezzlement, and at the same time corrects the innocent mistakes of fiduciary officers.

Third. This system reduces taxation. (105-110.)

5. *General interest in public accounting.*—Mr. FOOTE states that within the last 2 or 3 years the movement in the direction of uniformity in public accounts has grown very rapidly. There are some 12 or 14 organizations, representing every species of public utility, and different organizations of municipal reformers, at present on record in favor of initiating this system of accounting, and they have committees appointed studying the question. He calls attention to certain proposed bills, prepared by himself, which he states will be introduced in many of the legislatures at their next sessions.¹ (122, 123.)

The League of American Municipalities adopted the following resolution in 1900: "Resolved, That uniform municipal accounting is desirable, and that the executive committee of this league is authorized to cooperate with other organizations to that end, through its president and secretary, or in such other manner as it sees fit." (111.)

G. Street railway development and problems.—1. *Effect of application of electricity to street-railway systems.*—HON. CHARLES FRANCIS ADAMS, of Boston, says that the introduction of electricity has entirely changed the character of the street-railway system and is really introducing a subordinate system of railroads. The motive power is the only difference between the street railways and the railroads. All the conditions in respect to street railways have changed so far as speed is concerned, and they are rapidly changing with regard to the methods of doing business. Sometimes the street railways go through at least a dozen different municipalities and operate roads 50 miles in length. The time is not remote when these street railways will have to be operated at a rate of speed which has hitherto been incompatible with the joint use of the street with other conveyances. In order to perform their functions they will have to run very large cars close together. They will have to carry freight and do other things not done in the past. The cars are now being made very much heavier than used to be the case, and the solidity of the track used is not in any way different from that of the railroad. With the heavy cars and the solid track, a very great rate of speed can be made with safety. (825, 828.)

2. *Growth of street-railway systems.*—Mr. ADAMS says that although the recent growth of street-railway systems has been very great, the appliances and methods are all tentative and elementary, and that street-railway systems are going to be developed to an extent beyond anything which can now be realized. The time will soon come when there will have to be a separation of the highway from the railroad traffic. In the cities there will be elevated roads or subways; in the country districts, instead of running on streets, as is now the case, the street railways will run on private rights of way. In the West, street railways now run for miles and miles on private rights of way through the country. (826, 827.)

3. *Legislation for street-railway franchises.*—HON. CHARLES FRANCIS ADAMS, of Boston, says that in order to secure satisfactory results from our street-railway systems there will have to be a great deal of new legislation. We must go back in legislation and build from a new foundation. A new power has come into existence which requires radically different treatment from anything we have had in the past. It would require great study to determine what legislation should be enacted. The one thing that is clear is that there should be such legislation as would permit the separating of highways and street railroads. (826, 829, 830.)

HON. CHARLES FRANCIS ADAMS, of Boston, says that the street-railway companies of Massachusetts are organized under a general law, but have to obtain their franchises from each municipality in which they operate. This system of local franchises is part and parcel of the old theory that a street railway is merely a matter of local interest, whereas to-day the street railway runs through a number of different towns and has to face the regulations and the selectmen of those different towns and satisfy them all. The system works badly and is an impossible one under present conditions. (827, 828, 830.)

Mr. Adams further says that in Massachusetts street railways have always had indefinite franchises; that is, franchises subject to revocation at any time by the local authorities. It is an absurd system of tenure, and it would not have been expected that any large investment of capital would have been made under it; but as a matter of fact it has been found that more satisfactory results, political and economical, have been produced under it than under any other system yet devised. In many of the Western States, where limited time franchises, subject to renewal, have been granted, the renewal of the franchises has been one of the most crying causes of municipal corruption. (829, 830.)

4. *Comparison between American and European street railways.*—Mr. C. F. ADAMS says that there is not a street-railway system in Europe that he has seen or has

¹ Such a bill was actually passed in Illinois.

knowledge of which would bear comparison with the street-railway systems in American cities. Everything up to date which the European systems have is purely American. All the companies want is to get their money back, and they get it back by giving the poorest of accommodations and by managing their traffic in the most niggardly way. The European municipalities are very restrictive. They have been so afraid of being cheated that they cheat themselves and will not give an opportunity for that development which is essential to any enterprise. The Glasgow street-railway system is nothing but a very imperfect American system. Fares are graded according to the distance traveled. There is no system of transfers, such as is found in this country, by which a passenger can ride 15 or 20 miles for 10 cents. (828.)

5. *Massachusetts Electric Company.*—Mr. JACKSON, a member of the Massachusetts State board of railroad commissioners, says that the Massachusetts Electric Company is an unincorporated association which owns stocks in certain street-railway corporations, very largely those in eastern and southeastern Massachusetts. These stocks stand in the names of certain persons as trustees. The trustees, who are 15 in number, have a legal title to the stock and control the management of the street-railway corporations in which they own by voting the stock. They exercise practically the ordinary duties of a board of directors. The association issues preferred and common shares and has a so-called capital stock. Strictly speaking, the association has no stock. It has no shares known to the laws which cover the issuing of stock and which limit the purposes for which stock may be issued. Mr. Jackson's understanding is that the Massachusetts commissioner of corporations does not pass upon the ownership of the certificates issued by this company.

In order to equalize things and to make the prosperous companies help out the weaker companies, there might be a temptation for the trustees to improperly manage some particular company or companies which they control, but these trustees are governed by the same laws which apply to the ordinary holders of stock. The Massachusetts board of railroad commissioners, in passing upon questions which come up in connection with the street railways controlled by these trustees, pays no attention whatever to the ownership of the stock. The financial interests or affairs of the Massachusetts Electric Company receives no consideration from the board of railroad commissioners. Mr. Jackson thinks that the certificates issued by the Massachusetts Electric Company aggregate something more than the actual investment value. (844, 845, 846.)

6. *Boston street-railway system.*—Mr. J. F. JACKSON, a member of the Massachusetts State board of railroad commissioners, says that the Boston Elevated Railway Company now controls all the surface street railways operated in Boston. There is only one suburban company independent of the Boston Railway Company which makes Boston its terminal. There are two distinct methods of street-railway operation now in Boston—subway and surface. The elevated railway will be in operation very soon. The elevated system goes from one end of the city to the other, and passes through the congested district; the subway is in the congested district itself; the surface roads are in both suburban and congested districts. The general opinion is that the subway has been a success. (843, 844.)

7. *Vestibules on street cars.*—Mr. JACKSON, a member of the Massachusetts State board of railroad commissioners, says that a statute was passed in Massachusetts making it mandatory upon all street railways outside of Boston to have vestibules on the cars during certain winter months, for the protection of the motormen and conductors. It was contended by the Boston Elevated Railway Company that vestibules would be dangerous in some of the narrow streets of Boston. The legislature referred to the board of railroad commissioners one question, viz: Whether or not it was consistent with safety that the Boston Elevated Railway Company should use vestibules on its street cars. The board held several public hearings and made inquiries all over the United States and Canada, with the result that it decided that vestibules could be used with safety, under proper conditions. As a result of that decision the Boston Railway Company must equip its cars within a certain number of years with vestibules. In order that there might be no injury done, however, the board interpreted the statute so that the company is to test the vestibule in the most difficult places first. If the decision of the board that vestibules are safe is proved to be erroneous it may recall its recommendation. (842, 843.)

XVI. RAILWAY LABOR. LABOR QUESTIONS GENERALLY.

[See, also, as to conditions of labor in anthracite coal field, p. CLXIV.]

A. Employment and discharge.—1. *Conditions of entrance to employment.*—Mr. FULLER, representing the brotherhoods of railway employees, says that railroad companies have various rules regarding the conditions of entering employment. Some of these requirements, such as those that the men shall be examined as to the working rules, the handling of machinery, apparatus, and their duties generally, are considered fair and just. Other conditions imposed by certain railway companies, however, are considered unfair by the employees. Thus, some companies attempt to prevent employees from holding membership in labor organizations. Various States have passed laws forbidding this practice, but the courts have in several cases held them unconstitutional. The practice is also forbidden by act of Congress, but the spirit of the law is often violated. The requirement that employees shall become members of railway relief associations is sometimes made and is also considered unjust. (10.)

2. *Physical examinations.*—Mr. FULLER says that railway companies very generally require employees to pass a physical examination. The witness submitted a form of the surgeon's certificate required by one company. This provides a test for the ability of the eyes to distinguish types at certain distances and to distinguish colors. The hearing is also tested. The certificate declares that the applicant has been successfully vaccinated and that he does not manifest any evidence of the abuse of intoxicating liquors. Disqualifying defects are enumerated in the surgeon's certificate and also defects which do not disqualify, and the surgeon expresses his opinion as to whether the candidate is qualified or otherwise. The witness has been told that this company makes its examinations very rigid and that the applicants are required to strip before the surgeons.

These physical examinations have resulted, says Mr. Fuller, in injustice to many competent employees. Even slight injuries, such as the loss of a finger or a part of a hand or foot, which would not in the least interfere with the performance of duties, are made grounds for excluding applicants.

The reports of the Interstate Commerce Commission show that in 1898 1 trainman out of every 11 received some injury, and such rules as these accordingly tend to exclude a very large number of persons seeking new employment.

Many railroads have also adopted an age limit, and will not employ persons above that age. Some roads make this age as low as 25 years, while others fix it as high as 40 years. There is a great army of employees over this age, and the result of the rule is often to deny employment to thoroughly competent men who lose their former situations. (10-14.)

3. *Discharge and suspension of employees.*—Mr. FULLER says that the plans of discipline on the different railroads vary greatly. An act which would be considered a serious offense on one road may be treated lightly on another. The general reasons for discharge and suspension are violating rules, negligence, responsibility for accidents, oversleeping, and intemperance.

Mr. Fuller believes that discipline is often inflicted upon employees for offenses which result from the excessive strain placed upon them. The adoption of heavier engines and longer trains, and especially the introduction of new systems of reporting business, which often require twice as much time on the part of employees as before, has greatly increased the strain upon them.

There are also many instances in which men are discharged or suspended through the prejudice of subordinate officers. Where the employees are strongly organized they often succeed in securing the reinstatement of persons unjustly discharged or suspended.

The witness believes that legislation should be enacted, requiring railroad companies to allow employees who are accused of any offense to see and hear all evidence against them, and that specific reasons in writing should be given to them for discharge. (12.)

B. Blacklisting.—Mr. FULLER, representing the brotherhoods of railroad employees, declares that blacklisting of railroad employees is still a common practice, though apparently not as serious as it used to be. With reference to the blacklisting of employees after the strikes of 1894, the witness quotes from an editorial in the Railroad Trainmen's Journal for April, 1895, which states that in the past few months the force of this most potent weapon of capitalism had been felt as never before. Men looking for railroad work since the strike who were not able to give a satisfactory account of their whereabouts and actions during that time by positive

proof were entirely unable to secure employment. There was no doubt in the minds of workmen of the existence of the blacklisting system, though it was practically always impossible to obtain evidence of it. The editorial quotes a newspaper report from Denver, dated March 7, 1895, to the effect that J. A. Hamilton, formerly a conductor on the Atlantic and Pacific Railroad, committed suicide on that day. He had been out of work ever since the strike. Wherever he went the blacklist was ahead of him. Even if he got work for a day or two, he would be dismissed as soon as his connection with the strike was discovered, the statement being given that his service was unsatisfactory. As a last resort he wrote to his old trainmaster, but received a reply that nothing could be promised to a man who had taken part in the strike.

The editorial referred to commended a bill which had been introduced into the Minnesota legislature prohibiting blacklisting, and especially declaring against the use of watermarks and ciphers or secret marks in letters furnished to employers.

Mr. Fuller says further that many States have passed laws against blacklisting, and that the act of Congress approved June 1, 1898, makes it a misdemeanor for any employer to attempt to prevent a former employee from obtaining employment. All these laws, however, are evaded, and it is almost impossible to obtain proof of the use of the black list. As evidence of the feeling of employees on this subject the witness quotes a resolution adopted by the organized employees at San Antonio, Tex., September 9, 1896, declaring that the system is in direct conflict with the principles on which this Government is founded and demanding legislation which will forever prohibit it. The witness says that in recent years the former method of blacklisting has been largely abandoned, but that practically the same results are secured by private correspondence between railroad employers. Men seeking employment are required to give the names of all roads for which they have worked during a certain number of years and the reasons for leaving. The employer then writes to the former employers, and if their statements are not satisfactory the applicant is rejected. The witness submitted a blank form used by one railroad company for applications as illustration of the method employed. This form contains a note to the effect that the applicant, after swearing to the application blank, may be allowed to enter service on probation, "but it must be distinctly understood that before he can be considered an accepted employee the written approval of the employing officers must be obtained." By this arrangement, says Mr. Fuller, a man may be put to work immediately when badly needed, but the railroad company retains the right to dismiss him as soon as it has heard from his former employers.

The witness considers that this method of private correspondence regarding the qualifications of employees frequently results in great injustice. Unscrupulous officers often pursue former employees vindictively, although it may be that they have been guilty of no wrong and have not broken any rules of the company. If the employee were permitted to see the charges made against him and to combat them, the system would not be so objectionable, but he is denied this privilege and is merely told that his references are not good, or, as in one instance cited, is falsely told that his medical examination was not satisfactory.

In view of these conditions, Mr. Fuller recommends the adoption of State and national laws prohibiting any railroad company from furnishing any record whatever of any employee to any other company, either by private letter or otherwise. The postal laws and the interstate-commerce laws should prohibit the transportation of such correspondence.

The witness also criticises the requirement of an oath in connection with applications for employment, which is very common and which is provided for in the application blank submitted by him. He says that oaths should not be used too commonly lest the respect for them shall be diminished. Moreover, employees who are ordinarily honest and law-abiding are tempted by fear of unfavorable reports from former employers or for some other reason to make false statements in connection with their application. (12-17.)

Mr. FITZPATRICK, of the Brotherhood of Railroad Trainmen, says that it is the general custom in railway service to give letters of recommendation to men who are discharged because of necessary reductions in the force. Usually the superintendent, of his own accord, sends such a letter to the discharged employee. (838.)

Blacklisting by the Reading Road.—Mr. FITZPATRICK, of the Brotherhood of Railroad Trainmen, says that the men who have been discharged by the Reading road because of their membership in the Brotherhood of Railroad Trainmen, have been practically blacklisted. When they seek employment elsewhere the officials refuse to employ them until they refer back to the road by which they were last employed.

After it is discovered that the officials of the Reading road disapprove of their working anywhere else the men are told that they are not needed. A great many officials would employ a man if he were sober and industrious regardless of the kind of recommendation which came from the Reading road. Unfortunately, these men have not fallen in with these officials. The Pennsylvania law, providing that workmen shall not be discriminated against because of membership in a labor union, has been declared unconstitutional. An appeal, however, has been taken from that decision. (835, 836.)

C. Wages of railway employees.—1. *Rates of different classes.*—Mr. FULLER, representing the brotherhoods of railway employees, says that engineers are paid the highest wages among the different classes of railway employees, conductors the next highest, and firemen, brakemen, and telegraphers follow in the order named. The reason why telegraphers are paid the lowest wages, despite the fact that they are very skilled employees, is that they have been the last to form organizations and are as yet very weakly organized. There is perhaps also an oversupply of operators turned out from the business colleges of the country, although most who receive employment have learned the business from railway agents and operators themselves.

Railway companies often justify reductions in wages because of a falling off in the volume of their business. They seldom restore wages after reductions or advance them unless under the pressure of labor organizations. Thorough organization is essential to stability of wages. (11.)

2. *Influences affecting wages.*—Mr. FULLER declares that beyond question the wages of railway employees are more or less dependent upon the revenues of the railroads. The employees like to see the roads prosperous and making money. Rate wars doubtless tend to reduce wages, and the same is true of ticket brokerage. There is no doubt, Mr. Fuller says, that the scalping business has taken many dollars from the earnings of the railroads, and being founded on deception and forgery, the practice should be prohibited by law. Conductors especially are injured by ticket scalping.

The watering of stock also tends to reduce wages by requiring larger dividends. Consolidations sometimes result in detriment to the employees, especially where the wages and conditions on the lines which do the absorbing are unfavorable and are extended to the employees on the lines absorbed. Where the conditions and wages are more favorable on the absorbing lines, the employees of the absorbed lines generally share in these advantages, especially as the employees on the large lines are usually well organized. (71.)

D. Relations of employers and organizations of employees.—

1. *Railway brotherhoods.*—Mr. FULLER says that the objects of the railway brotherhoods are to better the pay, hours, and general conditions of their members through negotiations with the managements by committees. They have also secured favorable legislation and have raised the moral standard of railway employees. They have quite thorough control over their members. On some roads nearly 100 per cent of the employees belong to the brotherhoods, and on others not more than 75 per cent. Employees who are not members profit by most of the advantages secured through organization, which are very numerous and great. (69, 70.)

Mr. Fuller believes that more compact federation between the different organizations of railway employees would be advantageous to each organization in its dealings with employers. The success of the strongly organized brotherhoods shows the desirability of carrying organization further. (11.)

Mr. FITZPATRICK, third vice grand master of the Brotherhood of Railroad Trainmen, says that the brotherhood was formed, as stated in its preamble, to unite the railroad trainmen, to promote their general welfare, to establish harmonious relations between them and their employers, to insure the lives of its members, and to protect those dependent upon them. The money for the insurance fund is raised by monthly assessments. Wages and hours of labor were secondary considerations in the formation of the association. The association has, at the present time, more than 38,000 members. The members are principally switchmen, brakemen, and conductors. The association is closely associated with the Brotherhood of Locomotive Firemen and Engineers, and, in fact, with all labor organizations. (831, 832.)

Consideration of grievances by Brotherhood of Railroad Trainmen.—Mr. FITZPATRICK, of the Brotherhood of Railroad Trainmen, says that it is provided by the rules of that brotherhood that any member who considers that he has been unjustly treated by his employer shall make a statement of his grievance in writing, and after having secured the signature thereto of the majority of the members of his lodge, shall present the same at a meeting of the lodge. If, by a majority vote of the members, the

grievance is sustained, the local grievance committee lays the matter before the proper railroad officer. If the result of this is not satisfactory, the matter may be referred to the general grievance committee. In 16 years the Brotherhood of Railroad Trainmen has been engaged in but 2 strikes, each of which was settled by the arbitration committee. (831.)

2. *Strikes and disputes on railways.*—Mr. FULLER says that the chief cause of strikes on railways is difference of opinion as to wages and conditions of employment, though there are many disputes over unjust suspensions and dismissals. Through strong organization of employees and growing consideration by employers, strikes have in late years been greatly reduced. They are conducted in a peaceful manner and the results are beneficial even though the men do not win their immediate demands, since the strike demonstrates that the employees will resist injustice.

The interstate-commerce and antitrust laws have tended to some extent to repress strikes. The legislative and executive branches of the Government have been inclined to deal fairly with employees, but the judicial branch has been inclined to oppress them. Mr. Fuller feels that the railroads have taken unfair advantage of the fact that they transport United States mail in connection with strikes. In many instances the strikers have agreed to work sufficiently to transport the mails, if other cars were not put on the same trains, but the companies would not agree to this, and the Government should require them to do so and not allow the mails to be detained for the sole purpose of getting other cars through with them and prejudicing the public mind against strikers. (70.)

3. *Joint agreements as to the conditions of employment.*—Mr. FULLER, representing the brotherhoods of railway employees, says that where railway employees are strongly organized the conditions of labor are as a rule determined by mutual agreements between them, through their committees, and the chief officers of the railroads. These agreements determine wages, hours and overtime, conditions of advancement, methods of trial of employees before suspension and dismissal, etc. The system generally gives the greatest satisfaction. Where employees are unorganized they are compelled to work under conditions laid down by their employers. (10.)

4. *Arbitration and conciliation.*—Mr. FULLER declares himself a firm believer in conciliation and arbitration. Employees generally seek these methods, but employers as a rule are unwilling to submit questions to arbitration, declaring that they have nothing to arbitrate, or that they can not afford to let outsiders dictate as to the management of their roads. The witness does not think compulsory arbitration would be safe for the employees. It would be only a matter of time until the courts would be made arbitrators, and their decisions would be more or less affected by corporation influence. (70, 71.)

5. *Attitude of Reading Railroad toward organized labor.*—Mr. FITZPATRICK, of the Brotherhood of Railroad Trainmen, says that during the last 10 years quite a number of complaints have been made to the brotherhood that men have been discharged by the Reading road because of their affiliation with the brotherhood. There are at present about 200 Reading employees out of a total of some 3,500 who are eligible who are members of the Brotherhood of Railroad Trainmen. Their membership in the association, however, is not known to the railroad officials. There are some 12 or 15 lodges of the Brotherhood along the route of the Reading road. The members, however, consist principally of Pennsylvania Railroad men, though there are a few Reading men in every lodge.

The lodges are at junction points of the two roads. Mr. Fitzpatrick refers specifically to two recent cases where men have been discharged by the Reading road for, as he believes, belonging to the Brotherhood of Railroad Trainmen. In January, 1900, he was requested to organize a lodge at Shamokin, Pa. Upon his arrival there he found that some 6 or 8 of the applicants had been discharged. When these men called upon their division officers and asked for the cause of their dismissal the officers declined to assign any cause. All of the men discharged were prospective members of the new lodge.

In February, 1900, 10 members of the Brotherhood in Philadelphia were discharged by the Reading road, all being discharged within a few days of each other. All of these men were able to produce letters showing that they had been very highly complimented by the railroad officials for faithfulness and diligence in the discharge of their duties. They presented their grievances to the lodge to which they belonged, and a committee was appointed to present the matter to the railway officials. The railway officials, however, refused to treat with the committee. The men had stated to the officials that they were members of the Brotherhood and had been appointed by the members to consult with the officials. The three members of the committee were discharged on the following day. Some of the men who were discharged took

the matter up personally with the general superintendent, and he told them plainly that they were discharged on account of their affiliation with the Brotherhood of Railroad Trainmen.

The National Brotherhood officers have not attempted to reach the railway officials in respect to this matter. It was felt that, inasmuch as they had refused to meet a committee of their own employees, it would not be of any use for the national organization to attempt to make an appeal to them. Furthermore, the attitude of the Reading road in the past had led to the belief that its officials would not consult with the officers of the organization. Attempts made by officers of the Brotherhood to approach the railway officials in the past had not been successful, and there was no reason to believe that one made at this time would be more successful. The road has the same general superintendent now that it had when consultation with the Brotherhood was refused formerly. Some 10 or 12 years ago the road made it a condition of employment that no man should belong to a labor organization. While the road was in the hands of a receiver, the Brotherhood of Railroad Trainmen went into court to establish the right of employees of the road to belong to it, and the court records will show that the company was bitterly opposed to organizations of railroad men. If it had not been that the officials of the road were the same ones that had opposed the organization in the past, Mr. Fitzpatrick would have communicated with them and have ascertained their attitude.

All of the men dismissed at Shamokin and at Philadelphia were members of the Brotherhood, and no case has been found where a man not a member of the organization has been discharged in the same mysterious manner in which these men were discharged. The places of these men have been, so far as known, filled by non-union men.

The organization had never had any grievance presented to it by employees of the Reading road up to the time of the Shamokin and Philadelphia troubles. This was due, however, largely to the fact that there is no open organization of the men employed by the Reading road, and that the company has the men under complete submission. The Reading road is the only road in the United States that refuses to treat with organized labor. (833, 834, 837, 840.)

Mr. CHARLES HEBNER, counsel for the Philadelphia and Reading Railway Company, states that the company has no testimony to offer in respect to the questions raised by the testimony given by members of the Brotherhood of Railroad Trainmen. (841.)

6. *Attitude of Pennsylvania Railroad toward organized labor.*—Mr. FITZPATRICK, of the Brotherhood of Railroad Trainmen, says that the Pennsylvania Railroad has been very generous in its treatment of the Brotherhood of Railroad Trainmen. The organization has frequently met with the general manager of the Pennsylvania Railroad to consider grievances of employees. In one case a general manager refused to meet with the officers of the organization, but it is not the policy of the Pennsylvania road to refuse men a hearing. As a general rule, Pennsylvania Railroad officials settle such questions of difference with their men directly. (838, 841.)

E. Accidents. Employers' liability.—1. *Reports of accidents.*—Mr. FULLER favors the enactment of legislation requiring railroads to report to the Interstate Commerce Commission the real causes of injury to their employees. This requirement would tend to reduce the number of accidents by the use of extra precautions. (41.)

2. *Employers' liability generally.*—Mr. FULLER, representing the Brotherhood of Railway Employees, says various States have passed laws extending the liability of employers to their employees, especially with regard to railroad companies. In general, however, these laws have not greatly modified the common-law doctrine which makes the employee bear practically all the risks, in occupations which they voluntarily enter. In particular such legislation, except in a very few States, does not make railroad companies liable for injuries resulting from acts of all their employees, the liability being generally confined to agents and certain specific classes of employees.

In addition to such provisions some States have limited the amount which an employee can recover for injury. In other States, however, the Constitution prohibits the passage of legislation limiting the amount of liability.

Mr. Fuller says, further, that the decisions of the courts under the common law, in the absence of statutes, are, as a general rule, favorable to the employers. The common-law doctrine especially, in so far as it exempts the employers from liability for the acts of fellow-servants, is considered very unjust by the witness. The early English decisions establishing this rule were made with the idea that employees, being thrown together, were in a better position to know their abilities and to pro-

tect themselves against injury than the employers. But at that time employees usually actually worked together on the same piece of work; often there were only two or three employees in a shop. The justice of the rule entirely disappears when it is applied to gigantic manufacturing institutions and railroads, where thousands of persons work in a common employment who never see each other or know anything about each other's capabilities and disabilities. Even if an employee did know that another was incompetent he could not stop his train or refuse to perform his duties since he would be in danger of dismissal for doing so.

Again, the witness considers that the doctrine of the courts as to liability makes an unfair discrimination between the public and the employees. A passenger buying a ticket and an employee entering service alike make no contract to release the railroad from responsibility. If the passenger loses two fingers he can recover thousands of dollars, while if the employee loses a leg or an arm he can recover nothing.

3. *Pennsylvania decisions.*—Mr. FULLER submitted a brief summary of the legislation and court decisions on this subject in Pennsylvania. There is no general employers' liability act in this State and the common-law rule is in operation. The constitution, however, provides that no legislation shall limit the amount to be recovered for injuries or death, and in case of death a right of action must remain to the heirs of the person killed. By legislation this liability for injuries resulting in death must be made the subject of suit within 1 year after death.

As to liability of employers for acts of fellow-servants, the Pennsylvania court decisions cited hold in general that only direct agents of the employers, having full control over the employees in a department, are to be considered as vice principals, all others being considered fellow-servants. Thus, in two or three decisions it is held that only when a master places the entire charge of his business, or of a distinct branch of it, in the hands of an agent, retaining no oversight of his own, does he become liable for the negligence of such agent. One employed as foreman to conduct and manage some part of the general business, even with authority over his coemployees, is not considered such a representative of the employer. Thus a mining boss is held to be a fellow-servant with those under him. A station agent and a brakeman are fellow-servants; also a mail agent and a railroad employee. Laborers employed on a railroad and brakemen and conductors or others employed on a moving train are fellow-servants.

In another decision, however, it was held that where the master delegates duties which the law imposes upon him to an agent, the agent, whatever his rank, in performing that duty acts as the master and the master is liable.

By other decisions it has been held that if the master exercises ordinary diligence in selecting his employees he is not liable for their acts. If the officers of a railroad have made careful inquiry and believe their employees to be faithful and competent the company is not liable.

Another decision which Mr. Fuller considers particularly unjust (*Frazier v. Pennsylvania Railroad Company*), holds that where the injured servant remains in the master's employment with the knowledge of the incompetency of his fellow servant, he can not recover for injuries resulting from such incompetency unless he shows that he had reason to believe that he would be discharged for refusing to perform his duties or that he would be placed where the negligence of the incompetent servant would injure him. By this decision, says Mr. Fuller, a trainman might complain to a railway company that an engineer was incompetent. The engineer might accordingly be reduced to the position of fireman, brakeman, switchman, or even section hand. In any of these positions his negligence might cause injury to the complainant. The courts would then doubtless hold that the complainant could collect no damages because of his knowledge of the incompetency, even though the incompetent person was employed in an entirely different department.

In general those decisions which hold that employees of a common master, even though of an entirely different department, are fellow-servants are considered unjust by Mr. Fuller. Thus if a trainman at Philadelphia is injured by the negligence of a telegrapher at Harrisburg whom he does not know and has never seen he can not recover.

Still other decisions with reference to liability for defects in materials and machinery are cited. Thus it is held that the servant assumes the risk of obvious defects in things which he voluntarily uses. The employer is not bound to stand by during the work and see if a danger arises, it being sufficient if he provides in advance against such dangers as may possibly arise. On the other hand it is not necessary to create liability that the master shall have actual knowledge of defects, if he could have discovered them by reasonable care and diligence. (35-40.)

4. *Desirability of uniform legislation.*—Mr. FULLER maintains further that the deci-

sions of the courts under the common law in Pennsylvania and other States are very conflicting and confusing. Eminent lawyers confess that the law is so uncertain as to demand statute regulation. Mr. Burgen, one of the most prominent lawyers in New Jersey, reported to the State department of labor statistics that "the present law on the subject is exclusively judge made, and has come to be a mass of legal subtleties more fruitful of controversy and litigation than justice."

In view of this state of affairs Mr. Fuller advocates legislation by Congress giving employees of interstate railroads the same right of recovery for injury as is given persons not employees, and similar legislation by the States as to the rights of persons not engaged in interstate traffic. Since the railroads, by their strict rules as to the age of those seeking employment and as to physical examination, take the best of American manhood the obligation upon them is the greater when their employees are crippled and maimed. The witness refers to various resolutions passed by organizations of railway employees in favor of such legislation. (40.)

F. Railroad relief associations.—1. *General criticism. Attitude of employers.*—Mr. FULLER, representing the brotherhoods of railway employees, protests against the management of the relief departments which are maintained by various railroads. He says that though nominally voluntary they are really compulsory; that the employees have not sufficient voice in their management; that the requirement that the employee shall release the company from responsibility for injury in case he accepts relief from the fund is unjust; and that the system tends to injure the organizations of employees and to increase the dependence of the employees upon their employers. The system, he declares, is generally unacceptable to railroad employees, who believe that by it they are financially robbed and are deprived of their legal rights. In this connection the witness submitted a resolution, adopted by the State legislative board of the various organizations of railroad employees of Pennsylvania, adopted April 27, 1900, which refers specifically to the relief associations on the Baltimore and Ohio, Pennsylvania, and Reading railroads. One of the resolutions adopted was as follows:

"Resolved, That we condemn these associations, and assert that instead of their object being that of benevolence, as claimed by the companies, they are based upon iniquitous principles, controlled by arbitrary laws, and are in violation of the laws of Congress; and we earnestly ask Congress to investigate these associations and pass a law that will prevent their being further imposed upon railroad employees."

Mr. Fuller states that while at present only a small number of railroads operate relief associations others are gradually adopting the system, and the large lines which now have them are leasing and buying other roads and thus extending the application of the system. From a competitive standpoint, those railroads which operate relief departments have an advantage over those who do not.

In support of the above contentions Mr. Fuller submits a large amount of evidence, which is summarized below. (43-59.)

Mr. FITZPATRICK, of the Brotherhood of Railroad Trainmen, says that railroads, generally, do not establish relief associations. The principal roads having such associations are the Burlington, the Baltimore and Ohio, the Pennsylvania, and the Reading. It is understood (1900) that the Southern Pacific is going to inaugurate the system. Roads having these associations require their employees, after a doctor's examination, to become members of the association. Employment is conditioned upon membership, and the assessments are deducted from the salaries of members. The employees, Mr. Fitzpatrick understands, are required to sign an agreement that they will accept the insurance paid by the relief association in lieu of all other claims against the companies for injuries. Among the 15,000 railroad men with whom Mr. Fitzpatrick has had association during the past year, he has not found one who approved of the plan or the workings of the railway company insurance associations. (832, 833.)

2. *Compulsory membership in relief organizations.*—Mr. FULLER declares that in practically all of the relief departments maintained by railroad companies there is virtually compulsion upon employees to become members. Applicants for employment are not engaged unless they agree to join the association, and pressure is brought to bear upon old employees to join. While the railroad companies refer to the payments made by the members to these funds as "contributions," they define, in the regulations, the meaning of this word as referring to that portion of wages which the member has agreed in his application shall be applied for the purpose of securing the benefits. The word is, in the opinion of the witness, deceptive, since the general understanding is that a "contribution" is something given of one's own free will.

Mr. Fuller submits the blank form of application of four of the leading railroad relief departments. In the Baltimore and Ohio relief department, and in that on the

Plant System, these applications contain the words: "I, ———, desiring to be employed ———, do hereby, as one of the conditions of such employment, apply for membership in the relief department." On the Pennsylvania Railroad and the Philadelphia and Reading Railroad the application for membership does not contain these clauses, the applicant merely stating that, being employed by the railroad, by reason of such employment, he applies for membership. In the case of all four blank forms, the applicant agrees to be bound by the regulations of the department and agrees that the company shall monthly apply from his wages sums at a specified rate as a contribution, in return for which the applicant receives benefits at a specified rate, the payments by the employee varying according to the amount of benefit to be received. In all four forms also the applicant agrees that the application shall constitute a contract and an irrevocable authority to the company to appropriate the said amounts from wages.

In view of the provisions in the Baltimore and Ohio and Plant System departments, Mr. Fuller asks: "When the employee is required to join the relief department, as a condition of employment, is not membership in that department compulsory?"

Mr. Fuller further submitted a circular, issued by President Huntington, of the Southern Pacific Railway, February 15, 1900, declaring that after March 1 applicants for employment must become members of the relief department. He also submitted a letter, dated March 20, 1900, signed by a supervisor on one of the divisions of the Pennsylvania Railroad, addressed to all foremen, and directing them to increase their respective forces by an additional laborer: "Condition of employment of this man is that he join the relief fund." Another letter by the same supervisor, with reference to a particular employee, which says: "Please get him to join the relief fund at once. If he will not, get another man that will."

The witness also refers to the evidence of Prof. E. R. Johnson before the Industrial Commission as to the statements of officers of railroad corporations regarding the compulsory features of these associations. He also submits replies from many organizations of railway employees to the effect that membership in these departments on the Pennsylvania and Baltimore and Ohio railroads is virtually compulsory. (43, 47, 48, 52, 53, 68.)

Mr. Fuller refers to the act of Congress of June 1, 1898, which prohibits railroad employers from requiring employees to contribute to relief departments or to sign contracts releasing the employers from liability. He contrasts this provision with the facts above described, and comments especially on the testimony of President Cowen of the Baltimore and Ohio to the effect that the act is to be considered invalid, and that the only way to secure a decision as to its constitutionality is to refuse to comply with it. (69.)

Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, asserts that membership in the relief department of the Pennsylvania road is entirely voluntary. On the Pennsylvania lines west of Pittsburg, out of 30,000 employees, 18,500, or about 61 per cent, are members of the relief department. From the date of organization, July 1, 1889, to February 28, 1900, nearly 11 years, the department paid on account of deaths, numbering 1,899, about \$1,160,000; on account of accidents, in 54,433 cases, about \$820,000; on account of sickness, in 80,870 cases, about \$1,024,000. (637, 638.)

3. *Release of liability on account of relief departments.*—Mr. FULLER especially objects to the railway relief departments because the companies require employees, who take advantage of the benefits, to release the employer from all liability for injury or death. He declares that this is especially unjust, because the employees pay practically the full cost of their insurance.

In this connection the witness calls attention to the fact that the blank forms of application for membership in the relief departments on the Baltimore and Ohio, Pennsylvania, and Philadelphia and Reading, and on the Plant System, which he submits, all contain an agreement on the part of the applicant, in consideration of the contributions of the company to the relief department, that the acceptance of benefits from the fund for injury or death shall operate as a release of all claims against the company, by the applicant or his representatives, for damages by reason of such injury or death.

Mr. Fuller asserts that the chief motive of the railway companies in establishing the relief funds has been to free themselves from legal liability for injuries to their employees, and that by this system they make a financial gain for themselves at the expense of the employees. The objects of the funds, as stated in the rules and regulations, are, in a general way, to provide relief to the members. But, in the opinion of Mr. Fuller, these statements are intended to mislead employees as to the real purpose of the railroads, which is to deprive them of their right to sue in case of

injury. As collateral evidence of this motive on the part of the railroads, the witness maintains that in general the railroads use every possible device to escape their just liability for injuries. An editorial from the Railway Conductor, of March, 1897, is also quoted, which maintains that the principal objection to these associations is the fact that employees are required to sign a contract relinquishing their right to recover damages for injury, and that the funds are "established and maintained as a means of escaping legal liability." The replies of lodges of railway employees on the Pennsylvania and Baltimore and Ohio railroads also unanimously state the belief that this is the chief motive of the railway companies.

Mr. Fuller further testifies that when, in 1897, a bill was before the legislature of Iowa which sought to prohibit and nullify contracts releasing railroad companies from liability in virtue of the establishments of relief departments, the Chicago, Burlington and Quincy Railroad, which has such a department, used all its influence, resorting to some questionable means, to defeat its passage.

Again the Pennsylvania Company, at the session of the Indiana legislature held in 1899, tried to secure the passage of a law declaring it lawful for railroad companies to maintain relief departments, and providing that in case any employee, as a member of the department, accepts benefits from the fund, it shall be in lieu of any damages resulting from his injury or death. In a letter from the chairman of the Indiana railroad employees' legislative board to Mr. Fuller, it is stated that this bill was believed to have been drawn up by the chief counsel of the Pittsburg, Cincinnati, Chicago and St. Louis Railway (part of the Pennsylvania system), and that this company kept six employees at the statehouse during the entire session of the legislature working in behalf of the measure. The title of the bill, which was very lengthy, referred with especial fullness to the advantages of relief departments, the only reference to the provision exempting the companies from liability being in the words: "Prescribing the effect of such acceptances, and matters relating thereto."

That this provision was the essential one, however, was evidenced, so Mr. Fuller declares, by the fact that when, on account of the opposition of representatives of the employees to this feature, the entire section including it was finally stricken out, the member of the legislature who had introduced the bill moved to strike out the enacting clause. (43, 52-59.)

4. *Effect of relief departments on labor organizations.*—Mr. FULLER further criticises railway relief departments on the ground that they make employees more dependent on their employers. After an employee has contributed to a fund for some length of time, he does not wish by striking or quitting employment to lose the benefit of the insurance furnished, thus sacrificing all his previous payments. Furthermore, employees who belong to these departments are less able to belong to the labor organizations of railway employees, most of which provide for insurance, since they can not afford to pay the dues in both organizations. The railway companies are thus in a better position to dictate the conditions of employment to their men. The tenth report of the Interstate Commerce Commission is quoted by Mr. Fuller as expressing the opinion that relief departments tend to produce the effect described. Numerous replies to interrogatories by lodges of the railway brotherhoods upon the Baltimore and Ohio and Pennsylvania railroads also declare that the existence of the relief departments tends to keep members out of labor organizations. (43, 49, 57, 64.)

5. *Expense of railway relief departments.*—Mr. FULLER declares that fully five-sixths of the expense of insurance in railway relief departments is paid by the employees themselves. It is thus, in his judgment, especially unfair that railway companies should insist on being released from liability for injury. It might happen that an employee losing a leg or an arm could collect through the courts \$5,000 damages. Under the relief department system he may receive \$100, of which he himself has contributed \$80, while the company has paid only \$20. Since the employees pay much the greater part of the expense of operating the funds, they should have a majority of representatives upon the boards which manage them. In fact, however, while the companies allow the employees some voice in managing the departments, they retain for themselves a majority of representatives in the management, and virtually dictate the policy.

The witness quotes a paper, prepared by the editor of the Brotherhood of Locomotive Engineers' Journal, printed September, 1896, with reference to the cost of membership in the relief department on the Plant System. The application provides that members must insure in the class corresponding to the salary which they actually receive. It also provides that free medical and surgical attendance shall be given by the company's surgeons to all members.

Mr. Fuller testifies that in a leading old line accident insurance company for an insurance of \$1,000 against death by accident or otherwise, with a weekly indemnity

of \$7.50 on account of injury, the rate of payment for the middle class of risks (not those extra hazardous) is \$10.12 per year, while in the relief department on the Plant System, practically the same insurance, except that only \$500 is paid in case of death from natural causes, costs \$24 per year. For an insurance of \$2,500, with \$12.50 per week during the accident, the old line company charges \$18.75 per year, the Plant System \$51 per year. The old line company does not provide for sick benefits, but on railroads where hospital departments are maintained, the payments for the class covered by the \$1,000 policy on the Plant System do not exceed \$4.50, and those for the \$2,500 class, \$12 per year, while the excess of the charge on the Plant System above the old line company is \$13.88 and \$32.25 for these respective classes.

In the case of extrahazardous employments, corresponding to the first class of employees named by the Plant System, the old line company charges, for a \$2,500 policy, with \$15 weekly indemnity during the injury by accident, \$51.36 per year. On the Plant System the same policy costs \$66 per year. Moreover, on the Plant System an employee dying a natural death receives only \$1,250, while the old line company pays the full amount. Sixty per cent of railroad employees die natural deaths, so that the expense in the Plant System is much greater, so the article maintains, than in the old line company.

This article also makes comparison between the cost of insurance on the Plant System and in the insurance department of the Brotherhood of Locomotive Engineers. The Brotherhood does not provide for weekly benefits on account of sickness or injury, but does pay a benefit equal to the amount of death benefit in case of the loss of a hand, foot, or eye, while the Plant System makes no such payment. The cost of carrying a \$2,500 insurance in the Brotherhood of Locomotive Engineers in 1898 was \$41.66, while various local divisions of the Brotherhood provide a weekly indemnity equal to that on the Plant System, at the rate of \$9 per year, making a total cost for \$2,500, with weekly indemnity, \$50.66. This provides a benefit for loss of hand, foot, or eye, and the full amount is paid in case of natural deaths. The cost on the Plant System, without payments for loss of hand, foot, or eye, and with a payment of only one-half the indemnity in case of natural deaths, is \$66 for the first class, corresponding to the members of the firemen's organization. The article calculates that if the Brotherhood paid no more benefits than the Plant System, it could furnish insurance for \$22.50 per year.

These figures are tested in another way. If the members of the Brotherhood of Locomotive Engineers pay \$50.66 per year for accident and death insurance and weekly indemnities, it would amount to \$854,127.60 in the year. In 1899 the Brotherhood paid 253 policies for deaths and permanent disability, amounting, at \$2,500 each, to \$630,000, leaving \$224,127.60 to meet the weekly indemnities. On the Plant System a payment of \$66 per year for an equal number of members would amount to \$1,112,760. This company would have paid only 214 policies, the others paid by the engineers being for disability. The number of natural deaths in 1899, for which insurance was paid by the Brotherhood, was 141. For these the Plant System would have paid only \$1,250 each. The total payments therefore by the Plant System, under the same circumstances as those met by the Brotherhood in 1899, would have been only \$358,750, leaving a balance of \$754,010 for the payment of weekly benefits, \$529,873 more than in the case of the Brotherhood.

In the opinion of the writer of the article, this system meant that the employees were meeting the cost of their insurance, and were contributing toward the general profits of the company. The advantage of the system to the company would be the more conspicuous if the diminution in the expense of maintaining the local department, because of the release of the company from liability for damages, were calculated.

Mr. Fuller also refers to an editorial from the Railroad Trainmen's Journal of May, 1893, regarding the Reading Relief Association. In the preceding year the receipts of the association had been \$262,787 and the disbursements \$241,101. Under the guise of philanthropy it was declared the company took more from the men than it paid them, holding the balance in "anything but a reliable depository." (43, 53-58.)

6. *Opinions of railway organizations regarding the relief system.*—MR. FULLER, in reference to the statement of Mr. Cowen, president of the Baltimore and Ohio Railroad, that he believed 99 per cent of the employees of the company approved the relief system, submitted a tabulation of replies made by the local lodges of the Brotherhood of Railroad Trainmen on the Baltimore and Ohio and Pennsylvania railroads to certain interrogatories sent out in February, 1900. On the Baltimore and Ohio system there were replies from 28 local lodges, in 26 cities and 7 States, representing 1,674 members. All of these replies declare that membership in the relief

department of the system is considered to be compulsory, that men do not receive employment unless they apply for membership in the relief department, and that the actions of the company's representatives make the men believe that the blank must be filled. Sixty-nine per cent of the replies say that employees who are already in the service and not members of the department are coerced into joining it. The percentage is low, because in 24 per cent of the lodges all the members belong to the relief department, so that there is no reason to coerce them.

Ninety-two per cent of the replies from the lodges on the Baltimore and Ohio express the opinion that membership in the relief department has a tendency to keep members out of labor organizations, while all of the replies declare that it is unfair that employees should be required to release the company from responsibility for injury, and further express the opinion that the chief object of the railroad company in maintaining the department is to secure such release.

On the Pennsylvania system replies were received from 45 lodges, in 8 different States, representing 4,031 members. Although membership in the relief department of that system is nominally not compulsory, 96 per cent of these replies declare that the employees consider it to be practically compulsory. Seventy-eight per cent of the replies declare that men seeking employment do not receive it unless they become members, and several of the other replies qualify their statements to the contrary. Ninety-four per cent of the replies state that blank applications for membership in the relief department are handed to new employees without solicitation on their part, and 83 per cent say that the company's representatives lead the applicant to suppose that he must join the department. Eighty-five per cent of the lodges report that employees already in service and not members of the department are virtually coerced into joining it, and various methods of coercion are enumerated.

All of the replies from the Pennsylvania Railroad express the belief that the relief department tends to keep members out of labor organizations, and that it is unfair that members should be required to release the company from responsibility for injury. Ninety-two per cent of the replies hold that the prime object of railroad companies in operating these departments is to release themselves from liability and to alienate their employees from the brotherhoods.

The witness also submitted several letters, received from members of the relief department on the Baltimore and Ohio and Pennsylvania railroads, confirming the statements made by the lodges of the railroad trainmen. One of these letters states that while the Baltimore and Ohio Railroad promises that members of the relief department reaching the age of 65 years shall be pensioned, the writer's father, who has been employed 49 years, is now 71 years old and is told that he can not be given a pension because there is not enough money in the fund. (59-68.)

G. Use of intoxicants by railway employees.—Mr. FULLER states that formerly railway employees used intoxicants to a dangerous extent, but that largely through the influence of railway brotherhoods this is no longer the case. (71.)

Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, declares that the prohibition of the use of intoxicants while on duty is strictly enforced on all the larger roads, and also the habitual use of them or the frequenting of places where they are sold. The enforcement of these rules has had a most excellent effect, and drunkenness is rare among railroad men, where it was very common 20 years ago. (638.)

H. Labor organizations.—Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, has been an employer of labor nearly all his life and has been opposed to labor organizations, but he is less opposed to them than he was. Within the last half dozen years he has met officers and representatives of such bodies, and he finds them to be intelligent and not unreasonable. In the recent sheet-steel trouble the labor leaders have showed themselves as intelligent in their line of business as the managers of the Carnegie works are in theirs. He has never seen a case in which organized labor has asserted itself, and there has been a meeting of the two parties, in which the trouble has not been brought to a settlement. Most strikes, he thinks, could be avoided and most differences settled by a friendly plan of arbitration and a recognition of labor associations. He does not see any difference of principle between consulting the men who are in a workshop directly and meeting three or four intelligent men who are their representatives. Five thousand men in a big works can not come in a body to the proprietors. The men who control the great modern industries do not know their workmen as the smaller employers of earlier days did and do not know their work or their rights or their wrongs. It is hard to see how the difficulties and the rights of workmen are to be settled otherwise than by recognizing the right to organize and the right of representation. (639, 648, 649.)

I. Arbitration and conciliation in general.—Mr. GREENE, of the Audit Company of New York, thinks that everyone who is familiar with labor matters believes in some organization of labor. It is as necessary as combination of capital. At the same time the control of business can not wholly be given over to labor organizations. In Great Britain, for example, trade unions have practically stopped improvements in machinery. The witness thinks that the best way to determine the conditions of labor is by conciliation between representatives of organized labor and of employers. If disputes result in actual cessation of work, arbitration might be necessary. It would perhaps be desirable to have labor unions incorporated in order that they might be responsible in contracts which they make with employers. (474.)

Mr. HADDOCK, independent coal operator, thinks that compulsory arbitration is desirable in the case of labor disputes in which the public interests are deeply involved, as in the anthracite coal strike of 1900. Some means ought to be devised to settle a difficulty which results in so much loss and inconvenience to the community. The witness admits that there is difficulty in establishing compulsory arbitration. It is hard to compel men to work or to compel employers to run their establishments. He believes that it might be desirable to have trade unions incorporated, so that they would be responsible in making contracts and in carrying out the decisions of arbitrators. (533.)

Mr. WALTER, president of the Lehigh Valley Railroad, believes that effort should be made to minimize the amount of friction between employers and employees. He thinks that as a general thing labor organization is desirable, and puts the laborer in a better position to discuss conditions with his employer. The witness is doubtful as to the desirability of compulsory arbitration, even in the case of strikes affecting such industries as the anthracite coal industry, where the public interests are deeply concerned. If there could be some arrangement by which the public should protect the employers against loss under other conditions, it might be proper to compel the employers to regard the interests of the public in their disputes with their workmen. (546, 547.)

Mr. SAWARD, of the Coal Trade Journal, declares himself in favor of the arbitration of disputes between labor and capital. He does not, however, believe in compulsory arbitration. Although the public suffers greatly from strikes in some cases, as in the case of the anthracite coal strike, the people directly concerned must fight these matters out—they do not want to bring in a third party. The proper way to settle the conditions of labor is by conference of employers and employees. The witness has seen conferences in the coal trade. The operators sit on one side of the table and the men on the other side, the table being wide enough so that they can not hit one another. At the first session they almost come to blows, at the second session they are more sober, and the third time they straighten out their disputes. (520.)

Mr. THOMAS, of the Erie Railroad, thinks that the time has hardly come when we can have compulsory arbitration of labor disputes, even those which greatly affect the public, like the anthracite coal strike, with justice to either party. It certainly would be desirable to prevent such serious disputes if it could be done fairly. (556, 557.)

Mr. FLEMING, of the Anthracite Coal Operators' Association, declares himself in favor of the arbitration of labor disputes, provided both parties are equally responsible. He recognizes the right of the public as a party in interest. At the same time, compulsion would be undesirable if it could be applied only to the operator. It is very difficult to compel the laborer to obey the decision of arbitrators, since he has no property. (542.)

J. Chinese and Japanese in California.—Mr. WHEELER says that the Chinese question is not especially a live one in California at present. The people anticipate no difficulty in securing the reenactment of the exclusion law. It is most assuredly desirable that it should be reenacted. The Chinese are not increasing as compared with the general population, and the witness even believes that the census will show a decrease throughout the State, as it certainly will in San Francisco. Many Chinese have made a competency and returned to China. Mr. Wheeler does not regard the Japanese with the same disfavor as the Chinese. From a commercial and business standpoint the Chinese are undesirable. They are conservative, and continue to wear Chinese clothes and eat Chinese food and to live herded together like cattle. Thus they undersell American workmen. Moreover, they send their earnings back to China, and buy much of the merchandise which they use from China. The Japanese on the other hand soon adopt American food and clothes and create a demand for American goods. The witness has heard some complaint from labor organizations regarding them, but from the commercial standpoint they are much more satisfactory than the Chinese. (755.)

XVII. LABOR CONNECTED WITH WATER TRANSPORTATION.

A. Ocean and coastwise transportation.—1. *Navigation laws and condition of sailors.*—Mr. HAYNE says that the conditions suggested by Mr. Furuseth,¹ of the Seamen's Union, and the proposed law which the seamen themselves drafted to amend the navigation laws for the improvement in personnel of the merchant marine do not go any further in the amelioration of the condition of the seamen than the regulations of the Merchants and Miners' Company. He quotes from that proposed law and from the regulations of the company in support of his statement. (422, 423.)

Mr. PENJE, of the Lake Seamen's Union, states that the condition of the seamen in the coastwise trade is far better than that of those engaged in lake commerce. The men generally get watch and watch, and none but competent men are employed. The wages are better than on the lakes, the poorest wages being \$20 per month some years ago. At present on the Pacific coast wages are \$45 per month, and on the Atlantic from \$25 to \$35 per month. The highest wages on the lake passenger boats for a deckhand is \$35. The coastwise men work fewer hours, and the loading is done by longshoremen principally. (408, 409.)

Mr. Hayne states that, generally speaking, he believes the regulations of the coastwise vessels are in advance of the navigation laws of the United States. (414.)

2. *Terms of employment on ship—Coastwise transportation.*—Mr. HAYNE states that the terms of employment are controlled by what are known as "shipping articles," prescribed by law, in which the contract of employment is clearly expressed. The shipping article is in writing; it is read over to the men when they sign, and copies of it are posted in conspicuous places on shipboard. He believes the fact that there are continued applications for employment on the coastwise vessels, while the tramp steamers find it necessary to have agents to secure help, is an indication that the conditions of the men in the coastwise trade are better than on the sailing vessels. Under the liberal policy of the president of the Merchants and Miners' Company there is a personal solicitude for the welfare of the men. Men are engaged for the voyage at the time of their first signing. They are engaged and paid by the month. They have the right to leave at any port, provided they leave immediately after the ship is docked. The employer has the right of dismissal at the ports. There is a custom in coastwise traffic of giving the men a furlough of a few hours at the terminal cities when the vessel lands. The shipping articles contain a provision favorable to the employees that, "while without any cause notice to either party terminates the service of any signer at the expiration of any voyage as prescribed in the articles, it is presumed that this provision will not be enforced to the hurt or disadvantage of any employees without good and sufficient cause, but that reasonable opportunity will be afforded for return to the port of embarkation." (413-415.)

3. *Sailors' rights and remedies.*—Mr. HAYNE states that in case of an injury to a sailor engaged in coastwise transportation or of any difference in construction of the terms of employment, the employee has the right, if the injury occurred on land or if the contract should not be a maritime contract, to seek redress in the State courts, but if the injury occurred on ship, or if the contract was a maritime contract, they would have recourse either in the State courts, or in the United States courts in admiralty. The employees prefer the State courts, because they secure juries there more favorable to their cause than in the Federal court. There is sufficient means of redress for any injury to employees. The most common method among sailors is to apply to a United States district court commissioner, who hears the case, and may pass it on to the court for a hearing. (416.)

4. *Sailors' rations.*—Mr. HAYNE states that his company has adopted the ocean ration as provided by the law of 1898. There is some question as to whether that law applied to coastwise vessels, but the Attorney-General of the United States finally held that it did. The men on the vessels of this company, however, fare very much better than the law prescribes, because of the additional amount of supplies the vessels are required to put on board for their regular passenger traffic, a good deal of which is not used by the passengers and is turned over to the sailors. (414, 416.)

5. *Wages of seamen.*—The following shows the wage rate of the various employees of the Merchants and Miners' Company, board and accommodation being given to the ship men in addition: Masters, \$150 to \$250 a month; first officers, \$75;

¹See Reports of Industrial Commission, Vol. IV, pp. 691 ff.

second officers, \$55; boatswains, \$30; quartermasters, \$30; sailors, \$25; chief engineers, \$120; first engineers, \$75; second engineers, \$60; oilers, \$40; water tenders, \$40; firemen, \$40; coal passers, \$30; stewards, \$55 to \$70; first cooks, \$50 to \$60; second cooks, \$35; mess men, \$20 to \$25; waiters, \$20 to \$25; pantrymen, \$20 to \$30; stewardesses, \$18. (417.)

Mr. GUILLAUMEU, president Old Dominion Steamship Company, submitted a table of wages for service in that company showing that the masters of his vessels received as much as \$200 a month; the chief engineer, \$125; seamen, \$25; firemen, \$40; and various other special classes on a graded scale, ranging down to \$15 for deck boys and \$10 for forward stewardesses and third cook. The average number of the crew is 60. (448.)

Mr. PENJE, of the Lake Seamen's Union, states that there is little difference between the German and English sailors in respect of wages, the English sailor getting a little more money, but the purchasing power of the German's money is greater. In 1881 English wages were about \$12.50 per month, and there has been a little increase since. The wages in the American coastwise trade are better. The wages paid in deep-water traffic in England are £4 (about \$20), while the coastwise wages here are about \$25. The custom in foreign trade is to engage the crew in Europe for the round trip, so that the wages are fixed there. Rules and regulations on all the ocean vessels are practically the same, although there are some countries—especially Denmark, Germany, and Holland—where the sailors fare better than American sailors, even since the passage of the law of 1898. (412.)

6. *Inspection of vessels—Safety.*—Mr. HAYNE states that there are two forms of inspection of vessels, one by the Government and one by the owner. The local Government hull inspectors and engine and boiler inspectors make an annual inspection and their report is kept permanently posted on shipboard. This inspection is in great detail. The owners' inspections include a voyage inspection, a departmental inspection, and the periodical docking and general overhauling. The most important inspection is the one immediately preceding the voyage, at which time all the machinery is turned over and tried, the engines are kept running 15 or 20 minutes before starting, and all the appliances of every kind are tested.

The owners find that in constantly keeping the vessels up, there is less deterioration; the deterioration would otherwise probably run as high as 10 per cent a year. Another condition that makes the owners unusually alert is that if some accident should happen through any imperfection that might have been discovered by careful inspection, all the insurance on the hull and cargo, and every bill of lading issued on the cargo, would be vitiated. A vessel that is overloaded is unseaworthy, and the crew have the right to object to going to sea in a vessel that they feel is in an improper condition. (417-418.)

7. *Classes employed—Nationality.*—Mr. HAYNE states that, generally speaking, all men on shipboard are considered seamen. There is a subdivision into officers and crew. On the 15 ships of the Merchants and Miners' Transportation Company there would be about 552 men employed. The sailors are a shifting class to a certain extent, but there is a certain stability in the personnel on the ships.

Mr. GUILLAUMEU says that the higher grades of seamen are necessarily American, but the lower grades are foreign, largely Scandinavians. Following the sea is not attractive to American men in this day, and it is a very difficult thing to get the old line of well-trained American seamen. Prizes of high positions are too few, and other callings are more inviting. It is a hard thing to find a captain that has had the old training. The foreigner who is capable of managing a ship must be naturalized before he is eligible to promotion. The Old Dominion Line has only one captain of foreign birth, and he has been an American citizen for a good many years. The others were from Maine and Massachusetts, and have come up through efficiency. To the average seaman and petty officer the coastwise trade offers greater inducements than the deep-sea trade, because they can be at home more and have more home life. (450-451.)

8. *Larceny under United States navigation laws.*—Mr. HAYNE states that the navigation laws of the United States fail to provide for larceny committed on shipboard within the State. There is a general law touching embezzlement and damage to freight and cargo, but it is not broad enough to cover larceny. While the United States law specifically embraces larceny on the high seas and in places within the exclusive jurisdiction of the United States, it does not embrace crimes committed within the jurisdiction of any of the several States. There is great difficulty in securing a conviction for such larceny, because of the difficulty of ascertaining within what State jurisdiction the offense was committed, and because, if it were committed in a jurisdiction different from the port at which the landing was made, the offender

could easily escape before extradition papers could be served upon him. Again, if the offender is tried in the wrong jurisdiction, he would of course escape punishment and would have a right of action for civil damages for false imprisonment. The suggestion of Mr. Hayne is that the United States statute in respect of larceny (sec. 5356, Rev. Stat.) should be amended so as to embrace "waters within the maritime jurisdiction of the United States," such jurisdiction having been extended by statute to all navigable waters within the limits of the United States. (414, 415, 421-425.)

This witness submitted an additional statement containing a draft for a bill amending the law on this subject (823.)

9. *Condition and wages of stevedores.*—Mr. HAYNE says that the Merchants and Miners' Company employs continuously about 1,300 stevedores at the various ports touched and pays them by the hour. The stevedores in the South are mostly colored men and in the North white men. He has never known of any strike on the part of any of the company's employees. The company has regular gangs of stevedores and the shipmen are confined to the navigation of the vessel. While in port the shipmen are engaged in cleaning up, inspecting, and seeing that the ship is in proper trim. The officers are often married men, but the seamen as a rule are not. About 75 per cent of the force are Americans, coming largely from New England. There are no colored seamen. (413-417.)

Mr. Hayne states that the stevedores of the Merchants and Miners' Transportation Company are paid by the hour at prices varying from 15 to 30 cents at the various ports. The company finds a regular rate prevailing at the several ports, which he presumes grows out of an understanding among the men, and that rate is paid.

The rates at various ports are: Boston, regular time 20 cents an hour, overtime 30; Baltimore, regular time 20, overtime 20; Providence, 16½ to 18½ for regular time, overtime 20 to 26; Norfolk, regular time 15, overtime 15; Newport News, regular time 15, overtime 15; Savannah, 17½ to 22 regular time, overtime 17½ to 22; Philadelphia, regular time 20, overtime 20. (415-417.)

Mr. GUILLAUDEU, of the Old Dominion Line, says that at New York stevedores are paid at 25 cents per hour week days and 30 cents an hour on Sundays and holidays. At the Chesapeake ports in Virginia the rate runs from 15 to 20 cents an hour. This difference is found fairly to reflect the differences in the value of labor and the living conditions between the North and the South. This company does all its own work at all the ports. The sea force will not engage in loading and unloading vessels. (448-449.)

B. Labor on vessels on the Great Lakes.—1. *Lake Seamen's Union.*—Mr. WILLIAM PENJE, Secretary of the Lake Seamen's Union, says that this organization numbers about 3,000 seamen on the lakes, or a little more than one-third of the number employed there. In the winter time there are four local unions—at Milwaukee, Buffalo, Cleveland, and Chicago. In the summer months there are local organizations at other points, there being no occasion to keep the summer office open during the winter time, because the men look out for other employment at that time.

The dues of the organization are 50 cents per month the year round, and the initiation fee \$3. There is a death benefit of \$75, payable to representatives of a 6 months' member in good standing, and a shipwreck benefit of \$30. This organization is connected with the American Federation of Labor through the International Seamen's Union, which includes seamen on the Atlantic and Pacific oceans and on the lakes. The Lake Seamen's Union paid a per capita tax of 3 cents a month to the International Seamen's Union. The organization had no strike fund.

The union has not been recognized by the employers in general, but has been recognized by the schooner owners. The Lake Carriers' Association, an organization of the vessel owners, never recognized the union. The union has no voice and but little influence in fixing the rate of wages. (400, 401.)

2. *General character and condition of seamen employed on the lakes.*—Mr. PENJE states that the seamen on the lakes 10 years ago were more skillful than those of to-day. Ten years ago about 90 per cent of the men sailing vessels on the lakes could pass the examination for the Navy; now he does not suppose over one-fourth of them could do so. Many have gone into other callings, such as bridge building, architectural ironwork, or have become gripmen on street railroads, or farmers; this is partly on account of the hard conditions on the lakes and the invasion of the steamboats, but principally because wages have gone down. About 60 per cent of the men employed on the sailing vessels are Scandinavians, the others Americans, Irish, English, and German, only about 10 per cent being American. He attributes the fact that the Scandinavian race predominates to their love of the sea. Some of the Scandinavians have also drifted into the United States Navy, where the conditions are more attractive.

The condition of the deck hands has retrograded tremendously in the last 10 years. A self-respecting sailor would not under any circumstances make a passage as a deck hand on one of those steamers to-day. The deck hands are so abused and their wages are so low that it is only the worst class of unskilled people who are hard up that will take these places. They never stay at it, but when they find what the conditions are they often get off at the next port, forfeiting their wages. On some of the principal lines, for instance, the Western, Erie, and Anchor lines, conditions are somewhat better than described. Quite a number of these men belong to the Lake Seamen's Union, but the majority of the union men are wheelmen and watchmen; they do not usually take deck hands in. The union is not trying hard to organize these men, but it realizes that that is the only way in which to better their condition. Legislation could not help it. If the calling was respectable they could get a better class of men to go into it, and the deck hand would seek to advance to watchman and wheelman. (401, 402, 403, 411.)

3. *Sailors' food.*—Mr. PENJE states that on the lake boats very poor provision is made for the food of the sailors, 7 cents per meal being allowed for all hands. A contract is made with a supply agent, and he puts just enough aboard to make the scheduled trip. If a vessel happens to be out longer than her schedule, everybody goes hungry. The food consists of meat, potatoes, vegetables, and coffee and tea. For the deck hands the food is put in a bowl and handed to them, and "the first come is the first served." The coastwise trade in that respect is every bit as good as the lakes. Although there is a law providing for a specified amount of food for the men on ocean vessels, it is not always complied with. (409.)

4. *Sailors' accommodations.*—This witness states that the accommodations for the deck hands on the lakes are of the very poorest. The men are not clean themselves, and it would be impossible to keep their quarters clean even if they desired to do so, as they have no time for such work. Their condition is horrible from all points of view. On some of the old vessels they have not the required space, but there is space enough in the more modern vessels, though even in them the deck hands' and firemen's quarters are away down in the fore part of the vessel and are very poor. The lake boats provide mattresses and cotton or calico quilts, but they become unfit for a human being to use.

In the coastwise trade the sailor provides his own bedding, and in that respect fares poorer than the lake sailors, but the quarters are clean, because the boats are inspected and because there is a different class of men. On the lake vessels the deck hands' quarters are nearly always full of vermin. No self-respecting man would be a deck hand on the lakes. The master knows that the deck hand will not remain longer than he has to, and of course will not clean up any more than is absolutely required. The improvement of the sailors' quarters would depend upon reasonable hours and better wages. (409, 410, 411.)

5. *Wages of seamen on the lakes.*—Mr. PENJE states that the wages paid to the skilled seamen on the lakes in 1900 started at about \$1.50 and wound up at \$2.75 per day. Ten years ago wages were better, sometimes winding up at \$4.50 per day at the end of the season. A year ago the wages on schooners on Lake Michigan were \$3 per day. The men are employed between 7 and 8 months in the year, and in manning a schooner they would make about \$300 for the season. The wages on the lakes last summer for wheelmen and watchmen were \$45 per month, an increase of \$10 over the previous year. The wages of the deck hands have increased from an average of \$15 to about \$20 per month. The deck hand has really taken the place of the sailor of 10 years before and the wheelmen and watchmen now are really petty officers. (401, 402.)

6. *Hours of labor.*—This witness states that where the Lake Seamen's Union has control, that is, on the schooners, the men labor 12 hours, but on the steamboats the men work as much as 30 hours on a stretch—24 hours at all kinds of labor on the deck and steering 6 hours after that. After the 30 hours they get 6 hours' rest and again 6 hours at the wheel. While loading, in most of the lake ports, the deck hands work the longshoreman's day, which in most cases is 10 and 11 hours. Then they have to move the vessel and make her fast and pump her out if she leaks. They do all of the loading of the schooners and all the shifting of the cargo, in many cases. The witness believes there is a pressing necessity for regulation in this matter. (403, 404.)

7. *Overloading of lake vessels.*—Mr. PENJE states that it is a well-known fact that the smaller vessels on the lakes are nearly always overloaded. He gave many instances of this, among others submitting a letter from Capt. Henry Leisk, master of the steamer *P. J. Ralph*, in which he charged that there was reckless overloading in the iron-ore trade. The complaints about overloading are usually in the iron-ore trade,

because of the weight of that sort of cargo. The larger vessels can not be overloaded, because the depth of the channels between the lakes is not sufficient. There is no law at present in regard to overloading vessels. The insurance companies insure under a "free-board law," but he does not think it is a United States statute. The competition among insurance companies is so keen that they are glad enough to get the risk and say nothing against overloading. (404, 405.)

8. *Undermanning of vessels.*—Mr. PENJE asserts that practically all of the vessels, both sail and steam, on the lakes, are undermanned, and gives many instances in support of his statement. He analyzes the carrying capacity of these several vessels, stating how many men they carry, and declares that in practically every instance at least twice the number of men should be employed. The undermanning results in especially hard conditions for the men employed. It is also very unsafe, especially in case of a storm. In no other country are the men required to stand at the wheel more than 2 hours, while on the lakes they are required to stand 6 hours, and that, very often, after being continuously at work for 24 hours preceding. The custom elsewhere is 2 hours on and 4 off. He attributes this condition largely to the greed of the owners of the vessels. Two of the "fancy" passenger steamers running between Buffalo and Superior, carrying from 300 to 400 passengers, have 1 captain, 3 mates, and only 12 men that are called seamen. Last year these seamen were paid \$35 per month, and the year before \$25, which is only \$5 more than the deck hands get; they are not competent men and are called seamen only because they have a uniform on. Half of them could not save themselves, much less save a passenger, in times of distress. Many of the disasters on the lakes could be attributed to the failure of the vessels to be properly manned. The majority of the disasters are collisions in the Detroit River, where the passage is in some places only 80 feet wide, and they could be avoided many times if an additional steering man was on the vessel. (405-408.)

9. *Proposed regulations.*—Mr. PENJE states that it is the desire of the Lake Seamen's Union to get some legislation that a vessel should carry a certain number of efficient seamen, and then give the seamen a certificate of efficiency, as every other country does. The certificate might be issued by a Government official, in connection with the custom-house, and the men should be examined before the certificate was issued. All the members of the union are examined by the officer in charge of the union where the men join, and if found sufficient are given a certificate for the capacity in which they can serve. (404.)

10. *Great Lake vessels.*—Mr. PENJE stated that there are very few vessels on the Great Lakes that are square-rigged, most of them being square-rigged on the foremast only, three-masted schooners and barges being used. In the modern barges there is a steam steering gear, and some of them have an electric motor and furnish their own electric light, but the number is small. In some of the more modern vessels there is a steam power in the shape of a "donkey," but that very often gets out of order. (410.)

C. Longshore work—Great Lakes.—1. *International Longshoremen's Association.*—Mr. BARTER, secretary-treasurer of the International Longshoremen's Association, says that this organization was formed in 1892, and was then made up of locals of lumber handlers only. In 1893 its purpose was enlarged to include every dock worker at all ports in the United States and Canada, on the seacoast, the lakes, and the rivers. He estimates the aggregate membership at 40,000, and the membership on the Great Lakes at from 20,000 to 25,000. The chief attention of the organization has been given to the lakes. Mr. Barter mentions among the workmen that are members there the loaders and unloaders of coal, ore, grain, salt, and package freight, dock hoisters and engineers, dock firemen and marine firemen, and all men employed in lumber yards. He does not think that there are more than 1,500 non-union men working at these occupations on the Great Lakes. Such as there are chiefly at Chicago, Milwaukee, Buffalo, and Duluth.

The association holds an annual convention, at which each local organization is entitled to two delegates, but the delegates cast votes according to the membership they represent. The per capita tax paid to the national organization is 5 cents a month. Local dues are generally about 50 cents a month, but they are collected in most ports only for 10 months in the year, and in some cases only for 8 or 9. In some locals, where there are sick and death benefits, the dues are collected for 12 months. The international organization pays no sick or death benefits, but about 20 per cent of the locals do. In some cases the weekly sick benefit is \$5 and the death benefit \$100. Greater amounts are paid in cases of special need. The 5 cents a month paid to the international organization goes to its expenses, including the salaries of officers and the expenses of attending conferences and conventions. These are considerable, as there are a large number of conferences with employers every year. (307, 314.)

2. *Effect of labor organization.*—Mr. BARTER thinks that wages have risen 50 per cent since his organization was formed; but, besides that, it has effected a great improvement in the character of the men. It has done away with the compulsory patronage of saloons, which existed under the old stevedore system, and it does not permit drunkenness. The saloon evil now exists only in Buffalo, Chicago, and Milwaukee, where the organization has not yet been able to abolish it. In many ports the union fines a man if he gets drunk, and does not let him work until the fine is paid. In many ports the union forbids taking liquor on board a vessel during working hours. The enforcement of these rules gives no trouble. The majority of the men are determined that temperance rules shall prevail. This is partly from the desire to make it an occupation for respectable men to follow, and it is partly a matter of business prudence. The men work in gangs, and if one shirks either the work of the gang is interfered with or his work has to be done by his mates. If a man is incapable of working properly because of the influence of liquor, his mates want him removed and another man put in his place. There has been a very marked change in the character of the longshoremen under the influence of the organization. Under the stevedore system competition between contracting stevedores was often carried on by physical force. A stevedore backed by a strapping band of fighters would drive away the stevedore with weaker followers, and ultimately secure a monopoly of the business. The men were forced to become brutes or be kicked off the docks and kicked to pieces. With the growth of the organization and closer touch with the employers "our brains have taken hold instead of muscle, and the conservative man, the man who had some business ideas, has been forced to the front." (310-312, 316.)

3. *Strikes of longshoremen.*—Mr. BARTER says that this organization has no defense or strike fund, and that none of its locals has ever had to ask financial assistance during a strike except in one case. That case was that of the Buffalo freight handlers in 1900. In the Buffalo strike of 1899 there was no appeal for funds. The organization does not have many strikes, and has never made an assessment. (307.)

Mr. Barter says that there used to be perhaps a strike a day at the docks of the large cities on the lakes. The effect of the policy of the organization has been practically to do away with strikes. The international officers always prevent strikes if possible. (316.)

Mr. Barter gives an account of the Buffalo freight handlers' strike of 1899. He says that the handling of freight was done there under contract, and in January, 1899, there was a change of contractors. The old contractor had paid the men a certain sum for unloading the boats, which was supposed to be equally divided among the men. The new contractor tried to introduce a system of time work. The men struck and demanded the abolition of the contract system, and the giving of the work directly to the men. The strongest reason for demanding the abolition of contractors was the saloon system. Most of the stevedores, or freight-handling contractors on the lakes, used to own saloons. The men complained that unless they patronized the saloons freely they could not get employment. The strike was conducted in an honorable way by the men, with no attempts at violence. Some violence was attempted, but not by members of the organization. Mr. Barter thinks that no union man was arrested for violence. The Lake Carriers' Association proposed to become a party to the agreement between the freight handlers and the contractors, and see that it was carried out to the letter. Mr. Barter thinks that they even agreed to pay 5 cents more than the men had received the year before. The men still refused, demanding that the contract be let directly to them. This the lake carriers could not do because of their existing agreement with the contractors. In the end, however, the men got all they contended for except the direct contract with the lake carriers. (308.)

4. *Agreements with employers—Arbitration.*—Mr. BARTER says that the Longshoremen's Association has a general agreement with the Dock Managers' Association, representing men interested in unloading iron ore at the ports of Sandusky, Lorain, Huron, Cleveland, Fairport, Conneaut, Ashtabula, Toledo, Buffalo, and Erie. The first agreement with them was made on March 15, 1900. In December, 1900, an agreement was made for the loading on cars during the winter of ore piled on the docks. This agreement provides that if any work comes up which is not specifically provided for in the contract, the men shall perform it, and the pay for it shall be determined between the representatives of the local organization and the dock managers, and in the event of disagreement shall be arbitrated. In case of any controversy there is a provision for settlement, first, if possible, by representatives of the dock managers and the representatives of the local organization. If they can not agree, they are to choose a disinterested man, who, with them, shall form a board of arbitration. If they can not agree on a third man, each of them is to choose a disinterested man, and the two so chosen are to choose a third, and, with him, to form the board of arbitration.

It has been necessary actually to resort to the arbitration clause only once. In all other cases every question has been settled by negotiation between representatives of the two sides.

The agreement provides that the men shall continue to work under all circumstances pending arbitration. This has always been strictly adhered to, except in one case. In that case the men had not yet become thoroughly acquainted with the contract. It was not possible to educate 10,000 men on all these points at once. A disagreement arose at Conneaut and the superintendent telegraphed Mr. Barter. Mr. Barter went there and explained the conditions of the agreement to the men and they immediately went to work.

Mr. Barter has found the operation of these agreements most satisfactory. The employers are always ready to meet a committee of the men and listen to any grievance or complaint. The relations between the two sides are entirely satisfactory, and Mr. Barter thinks that these agreements are the solution of the labor question. (312-316.)

5. *Direct contracts of lake-freight handlers.*—Mr. BARTER says that his organization deals directly with the various persons who have freight to load and unload, the transportation agencies, and the dock managers. In some ports the men work in gangs, and the gangs take turns in employment, one taking one boat and another the next. When a boat is loaded or unloaded, the foremen and some members of the gang see the bills of lading, figure out what is coming to them, collect the money, and divide it among all the men who have done the work. (310.)

The Lake Carriers' Association has never taken up the question of any particular contract except the Buffalo contract. The Longshoremens' Association has done business since 1898 with members of the Lake Carriers' Union as dock managers, and this means practically the lake carriers. The contracts are always signed on the part of the men by representatives of the international organization. The local union is, of course, also a party to the contracts, and is directly interested in the making and enforcement of them. The other parties to the contracts are sometimes the dock managers, sometimes the local carriers, sometimes, as to package freight, the superintendents of the freight docks of the different railroads.

Mr. Connors, the man who has the freight-handling contract in Buffalo, still operates to some extent in Milwaukee and Chicago. In those cities there is competition in the stevedore system, and he does not have all the docks. There is no organization of freight handlers in Chicago. There is an organization in Milwaukee, and Mr. Barter understands that Mr. Connors pays the same wages that are demanded by the organization. The contracts are let annually. (309.)

Mr. Barter says that his organization practically controls all the unloading of iron-ore boats, and the loading and unloading of coal and of lumber. He believes that all fair-minded employers on the lakes would prefer to deal with the organization rather than to return to the old system. He has lived on the water all his life and he has never seen boats given the dispatch they have had the last season. This is of great importance, especially in view of the competition of the railroads. Under the present system every individual workman is practically a contractor and is interested in the loading and unloading of boats, and is also interested both in the question of dispatch and in the question of freight rates. Freight rates regulate the wage rate to a very large extent. The men are learning that they must not try to lift their wage rate excessively or it will drive the traffic to the railroads. (313, 314.)

6. *Wages of longshoremens.*—Mr. BARTER gives in considerable detail the wages paid to different classes of workers on the Great Lakes. Among them are the following: Coal trimming—that is, loading—60 cents an hour for a 12-hour workday; fueling, 40 cents an hour for any number of hours; lumber loading and unloading, 50 cents an hour; grain scoopers—that is, unloaders—60 cents an hour; grain trimmers—that is, loaders—60 cents and upward; marine package freight handlers, 30 cents an hour, working 10 and 12 hours, and sometimes 24 hours at a stretch; hoisters, \$80 a month, and engineers \$85 a month, from May 1 to December 15; marine firemen, \$45 a month during the navigation season. In some cases time and a half is paid for Sunday work. Several of these rates are average rates from which there is considerable variation. Mr. Barter thinks wages are 50 per cent higher than they were before his organization obtained control of the ports.

Mr. Barter explains that the grain trimmer or loader has rather more dusty work than the scooper or unloader, but either kind of work is one which a man can not stand many years. These men do not live to be old. (310, 311.)

Mr. Barter says that the introduction of a uniform wage rate for the unloading of ore boats at the several lake ports has been advantageous to the business. "One dock manager is not in sharp competition with another dock manager, because the wage rate now is the same in all the Lake Erie ports." An effort is now on foot to secure a uniform scale for unloading lumber. Such a scale is likely to be established—perhaps a sliding scale based on the freight rate. (315.)

The question of a sliding scale for the handling of lumber, to depend upon the freight rate, is under discussion, and he thinks his organization will be willing to consent to it. (315.)

7. *Nationality of longshoremen.*—Mr. BARTER says that the Irish-Americans were formerly predominant in longshoremen's work on the Great Lakes, but that many of them became disgusted during the troubles in the lake ports and looked for other occupations. In the younger element that is coming in Americans are a factor, though very few young Americans worked on the lakes under the old system. In ore-receiving ports there are many nationalities, such as Italians, Finns, Hunns, Slavonians, Poles, and Germans. (310, 311.)

8. *Winter occupations of longshoremen.*—Mr. BARTER says that the closed season of navigation on the Great Lakes usually covers December, January, February, and March, but sometimes begins in the middle of November and sometimes does not end till May. The organization has now got an agreement covering the iron-ore ports whereby about 10,000 members will be kept at work in the winter, in the Minnesota, Wisconsin, and upper Michigan ports. Many of the men go into the woods and work at lumbering. In the cities, however, the men have become accustomed to save enough during the summer to live on during the winter without doing anything. Often they buy coal and flour and other provisions for the winter at wholesale. In the summer they often do not have much time to see their homes. In the winter they can see their families. Ten years ago not 20 per cent were married, but now 90 per cent are married and are raising families. (317.)

D. Labor in Mississippi River traffic.—Mr. BRYANT states that the officers on the Mississippi River boats are white men, but the laborers usually negroes. Whites could not stand the work, especially as the weather is usually very hot. The negro has to be paid pretty high for it. On the upper rivers, where the traffic is somewhat different, there are some mixed crews, but mostly negro crews. On the lower river in the packet trade the pay is from \$40 to \$110 per month and board. The labor is not steady and very few boats ever go out with the same crew twice. The "roustabout" cares nothing about saving money or having a home or family, and has no moral obligations. The most of them lose much of their wages in gambling. The steamboat men are very anxious to improve the condition of these laborers, but find they can not do it. The roustabouts are all strong, vigorous young fellows.

The steamboats provide mess rooms to eat in, and tin pans, knives, forks, and cups, but the men would much rather have the food brought on in a dish pan and put on deck, and take it in their hands and eat it. Places are provided for them to sleep, but they never go there, because they want to hide from the mate when they make a landing and dodge the work. In cold or rainy weather they sometimes go down underneath the boilers and sleep there. These roustabouts, when on shore, mostly go to what are called "barrel houses," where liquor is sold, and where there are dance halls, crap games, etc. The officers often go to these barrel houses to find a crew.

Attempts have been made to organize these laborers into a union, but they were only partially successful. The negroes, however, seem to stand together, and when a boat is ready to ship their demands for wages must be met before they will join the crew. (395-397.)

Mr. Bryant states also that Italian laborers have been tried on the Mississippi River boats in two instances, but they were not found to be equal to the heavy work; moreover, they could not speak the English language. The wages paid the Italians were \$60 per month and board. The Italian fruit men employ none but Italian labor on boats. (397.)

Labor in New Orleans.—Mr. Bryant stated that the stevedore labor in New Orleans up to recently had been mostly white, but now the negro is making inroads into that employment, and they work cheaper; that that is steady labor, and the men work in the same gangs and form a very close corporation. (397.)

XVIII.—CORPORATIONS AND COMBINATIONS GENERALLY.

A. Capitalization and promotion of corporations (see also *Capitalization of Railroads*, p. LVIX.)—1. *Capitalization of corporations.*—Mr. GREENE, of the Audit Company of New York, thinks that the overcapitalization of railroads and industrial corporations has many incidental evils, but he doubts whether it is possible to check them by legislation. He thinks that if it were possible to require more satisfactory statements as to the value of assets, etc., in the inauguration of corporations, the motive for overcapitalization would largely be removed. (See summary of Mr. Greene's evidence as to promotion and publicity, p. CCLXXIV.)

Mr. Greene does not think, however, that industrial combinations and other cor-

porations are overcapitalized to as great an extent as is commonly believed. He says it is the universal opinion of manufacturers and business men engaged in enterprises involving risk that they must hope for a profit of 12 or 13 per cent on the actual investment, in view of the risks. Otherwise it would be better for them to lend out their money on bonds or mortgages. Consequently, when the owner of a plant proposes to put it into a corporation, he finds that he must capitalize it at more than the value of the tangible assets. For example, a man owns a mill worth \$100,000, tangible property. A normal rate of profit on the business is \$12,000. Bonds can be issued to the amount of \$100,000, bearing 6 per cent interest. This leaves a balance of \$6,000 of annual earnings, which can be capitalized in stocks. This half of the earnings is, of course, less certain than the first half. There are some people who prefer to invest at low interest with a certainty of return. They will buy the bonds. Others are willing to take more risk, and will buy stocks. The stocks issued in such an instance as this are frequently called water, but this is scarcely a correct description of them.

Mr. Greene says further that the extra \$100,000 of stock in a case of this sort may be properly treated as a capitalization of good will, while the first \$100,000, represented by bonds or preferred stock, stands for the tangible value of the plant. The witness believes that it is perfectly proper to treat good will as an asset of the company if it is accurately valued. At the same time it would be proper accounting and proper policy to distinguish clearly between tangible assets and good will. The easiest way in the inauguration of a corporation would be to have the property appraised by expert accountants. This would show so much for the plant, so much for accounts receivable, cash, material on hand, etc. The total of the tangible assets could properly enough be represented by bonds and stocks, or the plant proper might be represented by bonds and the current assets by preferred stocks. The difference between this amount and the total capitalization would be good will, in the form of common stock.

Mr. Greene says that the value of good will is very frequently estimated on the basis of the profits which have been made from the business during a series of years and also on the basis of future expected profits. Capitalizing it really amounts to a capitalization of earning capacity. The cost of promotion of a corporation is ordinarily added to the common stock, not being distinguished in the accounts from the cost of property. (476, 486, 490, 491.)

Mr. Greene declares that, in his judgment, it would be better business for a corporation having a high earning capacity to increase its dividends, rather than to water its stock. This would certainly be to the interest of the public; but since the people are jealous of high dividends, the owners of corporations have thought that they were compelled to increase capitalization in case of higher earnings, so that the rate of dividend should be about the same as before. The fact that people think that they are swindled if a corporation pays more than 6 per cent dividends is too powerful for the theory of proper accounting.

Still another reason leading to increase of capitalization of corporations is the psychological fact that people will pay more proportionately for a stock bearing low dividends than for one bearing high dividends. If a company pays 10 per cent on its stock, shares of the par value of \$100 will probably be worth about \$150 in the market. If the number of shares is doubled, so that they pay 5 per cent, the shares will probably sell for \$90 each, or at the rate of \$180 for the former one share which sold for \$150. The same attitude toward the value of securities is found in Great Britain as in the United States. (486, 489.)

2. *Basis of capitalization—Stocks v. bonds.*—Mr. Rice, an officer of various corporations, says that it seems to him a matter of indifference how large the capital of a corporation is, provided it is not in the form of bonds. If a corporation issues \$16,000,000 of stock in \$100 shares which sell at \$10 a share, it is practically the same as if it has issued 160,000 shares at a par value of \$10 each. So long as there is no question of public policy or the protection of the public against excessive charges, it makes no difference about the capitalization. The value of railroad properties, for example, continually fluctuates, although their capitalization remains unchanged.

On the other hand, Mr. Rice asserts, the undue increase of bonds is a danger to corporations and to the general financial condition of the country. Stock has no claim on earnings which can be forced. If a company has a large bond issue it gets on well so long as business is prosperous and interest can be paid, but if there is a setback in business the corporation goes into bankruptcy and the country may get into a chaotic state such as existed in 1893 and 1894. The dangers of panics would be much less if the bonded indebtedness of railroads and industrial companies were small. (735, 740.)

3. *Publicity in connection with promotion of corporations.*—Mr. GREENE says that somewhat more than at present should be done, by legislation or otherwise, to protect investors in corporations, especially in connection with prospectuses and promotion at the outset. Some such regulations would do much to prevent overcapitalization. He thinks, however, that the requirement of greater publicity in these directions should be accompanied by liberal provisions in behalf of corporations. On the whole, the witness is inclined to favor the adoption of such regulations as are found in the English law, which make the persons who issue prospectuses responsible as to any misrepresentations in the statements made.

The difficulty of requiring such statements by legislation is that the information which is necessary varies in each case, and the establishment of definite rules is very difficult. The need of publicity is especially great in the case of the newer and larger companies.

Mr. Greene thinks, however, that the necessity for legislation in this direction is greatly reduced by the precautions which business men themselves have been forced to take against reckless investments. Wall Street has had some bitter experiences lately. This was particularly true as regards some of the industrial combinations whose stocks were floated in 1899, and which now are quoted at very low prices. It is difficult now to float a combination in Wall Street except on the most conservative basis. Moreover, the various banking houses which are connected with the promoting of corporations are becoming more and more careful regarding the nature of the enterprises. A reputable banking house has so many business interests to safeguard that it can not afford to promote a corporation which is not on a sound basis. Banking houses must protect their own reputations if they wish to continue a successful business.

The rules of the New York Stock Exchange, and of other exchanges, also require a certain amount of information at the time when corporations are listed for stock dealings. An audit by a responsible auditing company is usually required.

The result of these methods is that the problem of fraudulent promotions is gradually being solved in Wall street without legislation. At the same time, legislation crystallizing business customs, and the rules of the companies and stock exchanges, might prove advantageous. (476, 477, 482, 483, 491.)

4. *Expenses of promotion.*—Mr. GREENE is disposed to favor greater publicity in connection with the promotion of enterprises. He does not think it imperative that the cost of promotion itself and the expenses of organization should be stated in detail in the accounts of the corporation. It is the practice to include cost of promotion with the total cost of the property. Over against the cost of property are then set the tangible assets and intangible assets, including good will. Cost of promotion would be represented by the stocks issued for good will. As a matter of fact, capitalization is usually based on the supposed earning power and the cost of promotion is taken out of that. The ordinary method of promotion is for the promoter to buy the property for whatever price he can, and then to recapitalize it on the supposed basis of earning power and sell the stock for whatever investors will give, the difference being his profits. The expense of underwriting is often treated separately as part of organization expenses. It is not especially necessary to divide the item of good will as a part of the assets so as to show the pay of promoters. If a property is bought for \$50 and sold for \$100 it makes little difference how much the promoter made if the property is really worth \$100. Often the combination itself so increases the value of property that there is no connection between the new value and the total values of the previous plants. It is true, however, that in certain cases people are deceived into believing that properties were originally worth more than was actually the case, and they would know better if the profits of promoters and underwriters were stated. (491, 494.)

Mr. RICE, who has been connected with the promotion of various companies based on patents, declares that it is very difficult to ascertain the actual cost of promotion, or to judge as to the fairness of the payments for promotion. Most men who obtain stock for promotion are expected also to render services for a long time after the starting of the corporation. In the case of the development of a patent there are great differences in the quality of the inventions, the difficulty of raising money, the risk involved, etc. The owner of the patent in proposing to a capitalist or promoter to furnish money to develop it would be willing to pay comparatively little if the article were already securely established and paying a large profit, while if a considerable amount of capital had to be secured, with much effort in obtaining it, he would be willing to pay more to the promoter. (736.)

B. Exploitation of patents.—1. *General methods—Capitalization.*—Mr. I. L. RICE states that he is president of a number of companies engaged in developing inventions based on patents, such as the Electric Boating Company; the Consolidated

Equipment Company, which produces electricity for lighting trains from the motion of the wheels; the Consolidated Rubber Tire Company, and the Casein Company of America. The witness declares that he is not a promoter in the technical sense, but that he takes up these inventions with the intention of developing them, and not of manipulating stock or making profits by selling out. The new invention, as a rule, is taken up before any tangible plant exists, and the plant has to be created out of the capital which is subscribed. The witness has a number of friends who have confidence in his judgment and who will subscribe for preferred stock, the witness usually making the largest subscription. The working capital is obtained by the cash paid for preferred stock, while the value of the patents themselves is capitalized in common stock. The capitalization of the patent is based on the profits which it is expected to pay. There is very great uncertainty in developing patents. Out of more than 673,000 patents which have been issued the witness does not suppose that 10,000 have ever made any money. Investing in such an enterprise is like investing in a mine—the investor does not know what it is worth, but he capitalizes it at what he thinks it will probably be worth. There are always some classes of people who prefer only safe investments, but others are willing to risk their money in an enterprise of this sort, and the only thing that makes progress is the risking of money in pushing new inventions. Most inventions with which the witness has been connected have proved of very great value. (732, 733.)

2. *Patent monopolies.*—Mr. RICE, president of the Consolidated Rubber Tire Company, says that the stockholders of that company hope that it is a monopoly, and that its patents will be sustained by the United States courts. An enormous price was paid for them on the understanding that they already constituted a monopoly. "Monopoly has a dreadful sound," but this species of monopoly is guaranteed by the United States Constitution, and it brings millions of dollars to the people of the entire country. The invention of rubber tires for carriages has stimulated the carriage industry. The justification for a temporary monopoly is the great hazard of developing the inventions. It not only requires a great deal of effort and money to start the business successfully, but the moment the article is put on the market many others begin to make the same thing, either claiming that it is not patentable, or changing the details in some minor fashion and claiming there is no infringement. (734.)

3. *Consolidated Rubber Tire Company.*—Mr. RICE, who is president of the Consolidated Rubber Tire Company, says that this company controls the patents for the Kelly or Grant tires, which are used chiefly on carriages and other vehicles. The company is somewhat different from others organized by Mr. Rice for the development of patented articles, because at the time it was formed the tires were already being very widely used, and the patent had an enormous value. The company was capitalized at \$8,000,000, which was supposed to cover the value of the patents and of the existing business. Of this \$4,000,000 was in preferred stock and \$4,000,000 in common. There had been litigation regarding the validity of the patents, and it had been sustained in various places, so that a large number of other companies, which had been started, went out of business, and the Rubber Tire Company fell heir to their business. It was not a consolidation of companies in the ordinary sense. At the time the corporation was started the preferred stock was issued at about par, and the common stock at about 50. Soon after there was further litigation regarding the patents, and the stock has now fallen so that the preferred stands about 80, although it paid 6 per cent dividends in 1900, while the common is quoted at about 5. There is no doubt that the stock could not have been sold in the first place if people had imagined that there would be such a decline. The company hopes that its patents will be generally sustained, and in that case it will have almost entire control of the manufacture of tires. It owns a plant at Akron, Ohio, and there are a large number of licensees who pay royalty. (733, 734.)

Mr. Rice says that there is no monopoly of the supply of raw rubber, although there may, perhaps, in the future be an attempt to corner it. The largest supply of rubber comes from South America, and this is of the best quality. The output of Para and Manaos for 1900 was 61,022,585 pounds, of which the United States took 27,413,469 pounds. (735.)

C. Publicity of corporations.—1. *General desirability.*—Mr. GREENE, of the Audit Company of New York, does not favor undue regulations of the methods of business of corporations. For example, such a provision as exists in Germany, requiring that if the accounts show that some of the company's capital will be lost, a meeting of the shareholders shall be called immediately, or that if the liabilities appear to exceed the assets, bankruptcy proceedings shall at once be instituted, would not be suited to American conditions. It would be unwise to hamper the great captains of industry to any unreasonable extent. (492.)

Mr. Greene thinks, however, that a greater degree of publicity of the accounts of corporations than now exists is desirable within proper limits. In his judgment most merchants, manufacturers, and corporation officers in this country are honest. In some instances, however, through ignorance, they make statements which are not, commercially speaking, correct, although they may show the actual figures. There could be no harm, for the protection of investors and of the general public, in requiring publicity of the essential facts. One essential fact which should be demonstrated would be the real profits made. In the case of industrial combinations the existence of large profits would then tend to promote competition. If the corporations are guilty of any erroneous practices the people will find it out by such publicity. The witness believes that the American people will deal justly with the corporations if they know the facts regarding them.

Mr. Woodlock, railroad editor of the Wall Street Journal, believes that if legislation could be enacted requiring certain reports at the inauguration of corporations, and annually thereafter, it would be desirable. Railroads are no longer much at fault in this regard, but the industrial combinations ought to be compelled to report as fully as the railroads do. (466.)

Mr. Rice, president of the Consolidated Rubber Tire Company, says that on general principles a corporation should furnish accounts to the stockholders and the public as soon as it is once on an earning basis. In the case of companies still struggling in the developing stage, publication of accounts would be misleading and would frighten stockholders and investors. The witness does not know that the laws of any State require publicity as to the cost of promotion of corporations, and seems to question whether it would be wise to do so, because the costs of promotion must necessarily differ so greatly, according to the companies. (736.)

2. *Limitations—Expert audit.*—On the other hand, says Mr. GREENE, in the case of some classes of corporations, undue publicity would be undesirable. When a business formerly conducted by a partnership is turned into a corporation its real character is not changed. No one asks a partnership to give information which will help its competitors, and a corporation should not be asked to do so. Even the shareholders in some instances ought not to be given all the information as to the operations of the company. If this were done competitors could become shareholders and get inside information which would result in serious injury. Shareholders are continually changing and have little knowledge as to what information can properly be made public.

As a protection to shareholders and investors in the case of corporations whose accounts, for the reasons suggested, ought not to be published in detail, Mr. Greene suggests that expert professional auditors should be employed from time to time to examine the affairs of the corporations, audit their accounts, and certify officially whether apparent earnings were real earnings and whether the corporation was in a sound condition. The general results of such examinations should be stated without details. The Audit Company of New York, with which Mr. Greene is connected, is frequently called upon to make such examinations as he suggests. It examined the Pressed Steel Car Company, which has recently been issuing mortgage notes to the amount of \$500. This company guarantees that it will have on hand at all times certain things as a safeguard to investors, and it has appointed the audit company to ascertain from time to time whether this requirement is carried out.

The witness implies that some legal requirement of a proper amount of publicity on the part of industrial corporations as well as railroad corporations might be advantageous. He does not think that at present the Federal Government should undertake to regulate the accounts of any but transportation companies.

Mr. Greene explains the difference between an audit and an examination of a corporation. An audit has to do with the books of the corporation as they stand. An examination goes into the affairs of the corporation to find out whether the figures on the books represent commercial facts. "The most dangerous set of books I ever saw in my life were absolutely correct, but they did not represent the facts." Thus in the case of a railroad company it is not customary to keep maintenance and depreciation accounts. If the railroad company wishes to make its earnings appear large it can stop repairing cars and keeping up its system. The books would read all right, but only an examination of the affairs of the company would show its true condition. (479, 482, 492.)

3. *Proper items of public accounts.*—Mr. GREENE discusses the general items which should be stated in the reports of corporations given to the public, especially such as should be prepared by expert auditors in accordance with his suggestions above summarized. The leading items would be as follows:

(1) Cost of property, including or not including good will, as the custom of the company might be. (For Mr. Greene's discussion of good will see p. —.)

(2) Tangible assets, either in one lump or subdivided. There are times in the history of industrial companies when it would be a serious drawback to have to give information as to tangible assets. For instance, it would be undesirable at times to state the amount of raw material in stock or the finished product on hand.

(3) The capitalization of the company, subdivided according to different classes.

(4) Debts of the company, either in one sum or subdivided. It would not be desirable in some cases to show the different elements of indebtedness. The company may borrow large amounts of money from banks while it owes only small amounts for material. It might create discussion as to the credit of the corporation if this fact were known. At another time in the same year a large part of the company's indebtedness might be for goods purchased, and its indebtedness to the bank small. Such matters would affect the investors and should be stated or not as circumstances directed.

(5) Surplus of the company, profits and losses, etc.

(6) Depreciation of plant. In the judgment of Mr. Greene this should be as much a charge on the business as money paid for labor. The difficulty is to determine what should be a proper amount to charge for depreciation. In some instances the amount should be accumulated as a reserve fund actually set aside. In other instances it would be better to reinvest the reserve fund in the plant directly. It would be foolish for a company to set aside a reserve fund, receiving 2 per cent interest, while it is borrowing money at a higher rate of interest for construction purposes. (492, 493.)

4. *Stock exchange control of accounts.*—Mr. GREENE, of the Audit Company of New York, says that the New York Stock Exchange requires a reasonably thorough examination of the affairs of corporations at the time when they seek to be listed on the exchange. It has been often suggested that the stock exchange should also require annual reports from listed corporations, with proper auditing of their accounts. The objection is that the stock exchange is not intended to pass on the solvency of corporations or to determine the value of their stocks. (479, 483.)

D. Rights of minority stockholders and of stockholders generally.—Mr. GREENE, of the Audit Company of New York, does not think that the rights of minority stockholders are likely to be abused. The courts are more and more disposed to protect them. In general the interests of the majority stockholders do not differ from those of the minority. The directors are supposed to be really representative. That theory is not always carried out, however.

Mr. Greene thinks that there is great advantage in the American principle of giving the directors of corporations, especially the president and 2 or 3 leading officers, the main governing power. It would be unwise to have dividends declared and business transacted by actual meetings of the stockholders, as is common in Great Britain. In this country business men are so much occupied that they can not give time as directors to manage the details of business, so that much must be left to the few officers. In foreign countries there are more men who are at liberty to attend numerous meetings of directors. American business men are willing to take individual responsibility, even to take action without the approval of directors in the expectation of future approval, while English and German business men hesitate to take such responsibility. The American policy is more advantageous.

Lists of stockholders.—Mr. GREENE thinks that it is the custom of all large corporations just before the annual election to send out blank proxies all over the country. Only in this way could elections be carried on. The witness does not think that in general there is any injustice to minority stockholders or any difficulty on the part of stockholders in ascertaining who are the other stockholders. It is not often possible for a few persons managing a corporation to continue in control without holding or having the support of a majority of the stock. The stockholder can generally get all the information he needs if he takes the right way about it, although the witness declines to express an opinion as to whether the law is always sufficient, since he is not a lawyer himself. The objection which the corporations have to granting undue access to their books arises from the fact that competitors and others sometimes buy a small number of shares of stock for the sake of getting information, and take advantage of it in one way or another. There are many people who make a business of trying to obstruct something in order that they may be bought off. At the same time, if there were some safeguards in this direction, and especially to prevent outsiders getting information as to financial matters, there would be little objection on the part of corporations to a requirement of greater publicity of their stock books, or to a requirement that the names and addresses of all shareholders should be furnished to all shareholders before each annual election.

Mr. Greene does not think that the New Jersey laws regarding stock books are violated or that it is impossible for a stockholder to get the names of other stockholders. There may be cases where the books of corporations organized in New Jersey are not kept there, but in New York or elsewhere. As a general thing, however, the corporations, particularly the larger ones, are law-abiding and have all the books at their New Jersey offices which the law requires. (477, 478.)

Mr. Woodlock, of the Wall Street Journal, thinks especially that every stockholder ought to have the right to inspect the list of all the stockholders. In New York and New Jersey this right is given by law, but it is difficult to enforce it, while in some States there is no such provision in law. As a rule no one cares to see the lists of stockholders unless there is a struggle between different parties among them. In that case the dominant party naturally does not wish the others to see the list of stockholders. Under present conditions a group of persons may continue to control a corporation, though without owning a majority of the shares, which would be much less possible if the other stockholders knew who the shareholders were.

Mr. Woodlock does not think that the giving of such information regarding stockholders would result in any injury to a corporation. He does not believe that stockholders ought to have the right to see all of the accounts of corporations. Under such a rule competitors might buy a small number of shares and obtain knowledge of the business of a corporation. In some instances it may be justifiable for a corporation in its annual reports to withhold such information, for example, as the actual profit on manufacturing. A statement might show net profits only. In such a case, however, there ought to be a proper auditing of the books by experts to see that real profits have been earned. (466, 467.)

E. Corporation laws.—1. *Liberality desirable.*—Mr. GREENE thinks that if additional restrictions are placed upon corporations the corporation laws should also be modified so as to give them additional privileges, at least in some of the States. The witness understands that in New York and Pennsylvania one corporation is prohibited from holding the stock of another, which is permitted in New Jersey. Greater liberality is desirable in this and other regards. (477, 478.)

2. *Federal incorporation laws.*—Mr. GREENE, of the Audit Company of New York, doubts the advisability of a Federal law for the incorporation of industrial companies. He thinks the first thing to do is to straighten out the State laws. Uniformity would certainly be desirable. It is a constitutional question whether it would be within the power of the Federal Government to charter companies doing business inside of individual States, and whether this would be consistent with proper home rule. Mr. Greene admits, however, that corporations organized in individual States, like New York, do business through different States. He adds that some persons advocate incorporation under Federal laws in order to escape State laws which are unreasonably severe. (482.)

F. Trusts and combinations.—1. *Generally.*—Professor PARSONS states that the results of the private ownership and management of the railways has been that they go into partnership with some of the great industrial enterprises of the country, and thus create what is commonly known as the trust. He instances the case of the beef combine and the Standard Oil trust as created by railroad favoritism. He does not believe, however, that public ownership of the railroads of the country would abolish the trusts. As a general principle he is not opposed to consolidation of capital so long as it is in the public interest. He does not believe in destroying the trusts, because they represent a movement in the line of progress; each trust being a brotherhood or cooperation on the inside, in that it dispenses with much antagonism and lessens expenses of management and operation. The proper solution of the trust problem would be to extend the limits of it "in some way so that it shall cooperate not only internally but externally—on the lines of cooperative industry—so that great capital will voluntarily, of its own motion, tend to organize along cooperative lines instead of antipublic lines." (157-158.)

Mr. SCHIFF, of Kuhn, Loeb & Co., bankers, testifies that personally he has had no experience in industrial finances. Community of interest, however, exists among bankers as well as among railroads, and they combine their capital when they have large financial transactions, so as to handle a great concern under one management. He says his firm may have been invited to participate in the financing of the United States Steel Corporation and other industrial corporations, and may have accepted the invitation to a moderate amount, but that it had nothing to do with the details of the management. The combination of large resources constitutes what is commonly termed to-day a syndicate. (775.)

2. *Concentration of wealth—Effect on opportunities for advancement.*—Mr. ANDERSON, secretary of the chamber of commerce of Pittsburg, does not think the modern concentration of corporate wealth does away with the opportunities for intelligent mechanics to rise. The managers of the Carnegie Works, from Mr. Schwab down,

have all been taken from the ranks of the workmen. So was Mr. Carnegie himself. (649.)

3. *United States Steel Corporation.*—Mr. WOODLOCK, railroad editor of the *Wall Street Journal*, believes that the formation of the *United States Steel Corporation* was chiefly occasioned by Mr. Carnegie's careful plan to compel some one to buy him out at a high price. (464.)

4. *Fruit trust in New Orleans.*—Mr. BRYANT states that there is a company called the *United Fruit Company of New Orleans*, which last year bought out all the other companies there, some 13 in number, and put them under one management. This trust controls all the fruit trade on the foreign plantations, and not only raises the fruit, but owns the vessels in which it is transported and shipped directly to New Orleans and to other points in the United States. It does not own the cars, but deals directly with the railroads. Fruit is handled very rapidly and economically at New Orleans. This combination claims that it has not raised the prices of fruit to the consumer, but makes profit from the lessened expenses of management, and the witness believes that the prices have not been increased. (397-398.)

G. Export prices.—Mr. GREENE, of the *Audit Company of New York*, believes that the practice of making low export prices is justifiable in order to relieve the country of its surplus products. His argument is the same as that in favor of low export rates on railroads. (See page —.) Mr. Greene adds that the practice of making prices lower abroad than at home is common among the manufacturers of all the leading industrial countries. We find a similar practice also within our own country. The manufacturers in a given section, having a local market, frequently sell goods in more distant sections at lower prices in order to get rid of a surplus. Thus a manufacturer in New England, finding that he is getting overstocked, is likely to continue production, maintaining prices in New England and selling the surplus in Kansas City or some other distant market at prices which, while they may render the Kansas City producer a profit, yield practically no profit to the New England manufacturer.

Because of the advantage in keeping up production and preventing depression, which results from this practice of making low export prices, Mr. Greene believes that ultimately domestic prices as well will be reduced by this policy. (484, 487, 494.)

Mr. HOWES, of the *Boston Chamber of Commerce*, testifies that no doubt a part of the trade with Canada has been obtained by the American manufacturers selling goods in Canada at less than they were selling the same goods in the United States. All nations do this every day. The American manufacturers are not discriminating any more in Canada than in Germany, France, or any other country. No matter what conditions of tariff exist, that is a method of their trade, the practice of making slaughter sales in the foreign markets is one that the manufacturers of all countries employ. Whether the tariff is on or off, trade of this kind will go on just the same. (716.)

II. Concentration of wealth.—Mr. SCHIFF, banker, testifies that in his opinion there are more wealthy people in proportion to population now than there ever was before, and that the present condition of affairs will contribute to a larger distribution of wealth than has ever before existed. (777.)

XIX. MISCELLANEOUS EVIDENCE NOT RELATING TO TRANSPORTATION.

A. Reciprocity with Canada.—1. *General necessity of trade treaty with Canada.*—Mr. OSBORNE HOWES, a member of the *Boston Chamber of Commerce*, declares that in order to maintain and increase our trade with Canada it will be necessary to enter into a reciprocity treaty regarding tariffs. The Canadians are the largest purchasers, man for man, that the United States has. The Canadians resemble the people of the United States more than any other people, and they may be termed a "corresponding people." It is a mistake to think that trade relations can be established with a dissimilar people as readily as with a corresponding people. The business of the United States must be carried on to a large extent with those countries that are producing much the same goods that the United States produces, under different conditions. This is proven by the fact that internal or interstate trade between the States of New York, Pennsylvania, Ohio, and Massachusetts is probably more than equal in volume to the entire export and import trade of the United States. When the witness was in the *Pacific Mail Service*, the steamer on which he ran carried all the imports for Colima, in Mexico, a city of 100,000 inhabitants, and it only amounted

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to about one freight-car load a month. In Canada the market is already established, and the people are willing to purchase of the United States rather than of anybody else. The people of the United States do not realize that this trade with Canada gives employment to every department of American industry from the time of taking the materials from the mines and the fields to the time when they leave the workshop in a finished state, ready for consumption. This trade is infinitely better than mere mining and agriculture, because it represents vastly more employment to American labor and capital.

The trade conditions with Canada are eminently satisfactory, but the difficulty is that they are not likely to continue so, unless we are prepared to do something toward meeting the wishes of Canada in the way of giving her a market for what she has to sell. If we make a treaty with Canada which is satisfactory to her, and which gives her a market here, we shall have a clutch on the Canadian people which they will not care to break. The United States must make concessions in the duties on fish, lumber, and coal. Agricultural products are relatively a small matter. We sell Canada \$19,000,000 worth, while Canada sells the United States only \$2,000,000 or \$3,000,000 worth of them. A proper reciprocity treaty would increase the trade on both sides, and would be very desirable. The United States would have more to gain than Canada, and should make overtures to Canada for reciprocity. This is one of those arrangements which should be made while the opportunity exists. (713, 715, 718.)

2. *Unwise American policy toward Canada.*—Mr. Howes declares that the United States made a very fatal diplomatic error and raised a resentment against them when, by the high duties on foreign goods, they practically shut out Canadian products. We thereby forced the Canadian prime minister to adopt a national policy and to endeavor to build up manufacturing industries in Canada. Canada is now independent of the United States, so far as the market for her products is concerned. The United States see in Canada their best market. Canada sees nothing here that is seriously necessary to her welfare. The tendency has been, and is, to drive Canada away from us, and it may be that by the "federated Empire of England and her colonial dependencies" the tariff on goods entering Canada from all British territory will be swept away entirely, and the United States will have practically no market at all in Canada. The United States can not afford to lose this market. (716-717.)

3. *Extent of Canadian trade.*—Mr. Howes says that last year (1900) the Canadians purchased of the United States \$17.50 per capita, which was much more than the people of any other country bought. The United Kingdom came next, with per capita purchases of \$13.25. With Germany, the per capita trade was about \$5; with Argentina, \$3; Mexico, \$2.65; France, \$2.15; Italy, \$1.10; Japan, 70 cents; Brazil, 60 cents. The 6,000,000 people in Canada purchased more of the United States last year than the 60,000,000 people who live on the American continent south of the Rio Grande. Moreover, the Canadians purchased the goods that the United States most desired to sell. An itemized statement, showing the relative balance of trade of the United States with Canada, shows a very large balance in favor of the United States on a large list of manufactured mining and agricultural products. Taking the Canadian classification of the trade for the year 1896, the net result is as follows:

Products of—	Purchases.	Sales.
Mines.....	\$7,438,000	\$9,222,000
Fisheries.....	3,302,000	322,000
Forests.....	13,528,000	2,752,000
Animals.....	3,341,000	2,308,000
Agriculture.....	3,233,000	10,124,000
Manufactures.....	2,531,000	28,184,000
Total.....	34,373,000	52,892,000

For the year 1900 the trade was as follows, viz:

Products of—	Purchases.	Sales.
Mines.....	\$23,700,000	\$11,600,000
Fisheries.....	3,689,000	484,000
Forests.....	12,805,000	5,200,000
Animals.....	6,326,000	3,420,000
Agriculture.....	2,041,000	19,080,000
Manufactures.....	4,857,000	61,362,000
Total.....	52,418,000	101,146,000

In other words, the sales to Canada by the United States of manufactured wares for the year 1900 were more than \$10 per capita of her people, and were as much of the manufactures as the United States sold to the entire world in 1870, and about one-sixth as much as they sold to the entire world in 1900. (713-715.)

4. *Coal trade with Canada.*—Mr. Howes says that the trade in bituminous coal between Canada and the United States is about an even exchange. It is largely a question of geographical location. The Canadians have not developed coal mines to any extent in the interior regions, but have excellent coal mines in Nova Scotia in the extreme east and British Columbia in the extreme west. The United States have no bituminous coal mines at either extreme, but have them very largely in the center of the country. The United States supplies Canada with bituminous coal from a point about 150 miles west of Montreal, nearly to the Rocky Mountains. On the Pacific coast of the United States the coal supply comes from Canada or New South Wales. In New England the bituminous coal now, under the protective duty, comes chiefly from western Maryland and West Virginia. The cost of mining the coal in those two States is substantially the same as in Nova Scotia, but the railroad haul from there to tide water is about \$1.25 a ton, and this advances the price of the coal just that much. The mines in Nova Scotia are practically on the seaboard. The natural source of supply of New England is Nova Scotia, and inasmuch as the United States supplies the deficiencies in central Canada, and Canada supplies the deficiencies in the eastern and western extremes of the United States, reciprocal relations should be established for the benefit of both countries. When the United States places a duty on bituminous coal Canada does the same, and when the United States takes this duty off Canada likewise removes it. The coal interests of Maryland and West Virginia are exceedingly strong, however, and they naturally object to the removal of the duty, which would have the effect of threatening their New England market. (714-717.)

5. *The lumber interest.*—Mr. Howes says that the lumber interest in the United States is one of the strongest in opposition to reciprocal trade relations with Canada. The market for lumber is largely in the New England and Middle States. It is a long haul from Minnesota and Wisconsin and is a short haul from Canada. The hard pine lumber from the Southern States also requires a long haul. The New England interests naturally turn toward Canada as the place to buy lumber. She thinks she should have the right to go to Canada for her lumber supply. If Canada is ever to be made a part of the United States, it must be by drawing the Canadians to the United States through trade relations. The witness does not believe there would be any difficulty in making a treaty on the ground of equivalent concessions without regard to the special products if it were not for the lumber interests. (717-718.)

6. *Differential tariff of Canada with Great Britain.*—Mr. Howes says that about 4 years ago Canada proposed, by act of Parliament, to grant to any other country that would give to Canadian products what Canada considered equivalent tariff conditions, a concession of 12½ per cent in the duty then existing, to be increased the next year to 25 per cent. At that time there was no country prepared to take advantage of this offer, except Great Britain, for the reason that Great Britain charges practically no duty on any Canadian product, except whisky. In consequence of treaties with England, Belgium and Germany received this benefit for a short time, but at present England is the only country which enjoys it. The differential has been increased to 33½ per cent, so that American goods entering Canada pay 50 per cent higher duty than is paid by corresponding English goods. In spite of this differential, however, which amounts to about \$10 on a shipment of \$100 worth of goods, American manufactures have entered Canada and in very many departments of trade have driven out the English manufactures. England, however, still has the bulk of the trade in cotton manufactures. It is so much easier for the Canadians to get to the American markets than to the English market. Orders can be transmitted in 24 hours, and executed in 48 or 56 hours, and if there is any question about the goods, the differences can be easily settled. Moreover, the goods manufactured in the United States are more to the Canadian taste than the English goods. The Canadians are more nearly like the people of the United States than they are like the English, and they favor the American styles more generally than they do the English.

This differential tariff was very likely initiated for the purpose of forcing a reciprocity treaty with the United States, but it has now obtained such headway that it is working out its results on its own ground. Under this differential tariff policy, Canada has a tremendous market in England. Their sales there last year amounted to \$107,000,000 in value, and will increase greatly in the future. (718-718.)

7. *Fisheries.*—Mr. Howes testifies that the Gloucester fisheries have been held up as the "nursery of the Navy." The fact is, however, they have ceased to be an American industry. American capital is invested in these fisheries and certain American officers are employed on the fishing vessels. The larger part of those

engaged in the fishing industry are from Nova Scotia, New Brunswick, and Portugal, and are not American citizens. None of them, with the possible exception of some of the Portuguese, will ever become American citizens. Out of 50 or 60 men who lost their lives in the fishing industry last year, not more than 3, possibly only 2, were American, and they were captains of American vessels. During the Spanish war the United States Government sent down 2 battle ships or cruisers to Gloucester to get as many enlistments as possible. They stayed there nearly all the time of the war and enlisted a little over 300 men, or about one-half as many as would be necessary to arm one battle ship. Boston is not the "nursery of the Navy" and never claimed to be, and yet she enlisted some 1,700 men during the same time. The American does not like the fishing business. (717.)

B. Grain elevators and inspection—Speculation.—1. *Minnesota law as to elevators and grain inspection.*—Mr. TEISBERG, secretary of the State railroad and warehouse commission of Minnesota, says that the legislature of 1885 passed an elevator law applying to the terminal points St. Paul, Minneapolis, and Duluth. It was based largely upon the Illinois law, but contained an improvement in that it put the weighing of grain as well as the inspection of it under State control. It was soon found that it was more profitable to do business as a private elevator than as a public elevator, especially at Minneapolis. A public elevator must take out a license from the commission and furnish a bond. They evade the law by not mixing, as they claim, the grain of different owners. In a public house the grain of different owners, of the same grade, may be mixed; in the private elevators at these terminal points it can not be. So the elevator owners themselves buy the grain, or grain dealers have their own bins in certain elevators. There are about 30 elevators in Minneapolis and only 6 are licensed public elevators. At Duluth, and also, by an arrangement with the authorities of Wisconsin, at Superior, all the large elevators are public licensed elevators, doing business under the laws of Minnesota.

The State railroad and warehouse commission appoints a chief grain inspector who has charge of all inspection. He appoints a chief deputy at each terminal point, and as many deputy inspectors as necessity requires. The chief inspector's salary is \$3,000 a year; the salary of the deputy inspectors is \$115 a month, and they are employed the year round. From 1889 to 1899 the place of chief grain inspector was held by one man, who managed the department admirably on a civil-service examination basis. During that period grain shipped from Duluth by vessel to Buffalo or New York was sold on the Duluth certificate without being seen by the buyer at all. In 1899, as the result of a political revolution, a new chief inspector was appointed, and he made an almost complete change of subordinates. For the time being, at least, the confidence of grain dealers in other States in the accuracy of the Duluth inspection was diminished.

When an inspector grades wheat his sample is generally kept for the office. The commission man's representative also looks at the car and takes a sample. If, in his judgment, the grain has not been graded high enough, he makes an appeal to the chief deputy inspector. The chief deputy passes on the samples taken by both parties and either sustains or changes the grade. If either party is dissatisfied, there is a further appeal to a board of appeals, consisting of three practical grain men at Minneapolis and three others at Duluth. From their decision there is no appeal.

There is a fee of 25 cents a carload for inspection and another 25 cents a carload for weighing. For inspecting and weighing out to vessels, 50 cents a thousand bushels is charged. These fees give revenue enough to pay the employees of the department. (367, 369.)

2. *Mixing of grain.*—Mr. TEISBERG says that at Duluth all the large elevators are public licensed elevators, in which the mixing of grain of different grades is prohibited. All the grain of a given grade—good, poor, and medium—goes in together, and the result is a fair average of the grade. In Minneapolis, on the other hand, the elevators are mostly private elevators, and the owner can buy a car of good No. 2 and a car of good No. 1, or possibly two cars of good No. 1 to one car of fair No. 2, and mix them together and possibly make the mixture No. 1. There is often trouble when grain goes from Minneapolis, out of these mixing houses, to Duluth. A carload of grain, which in Minneapolis has been graded out as No. 1, is often called No. 2 at Duluth. The Minneapolis grades are likely to be the very least that can be brought within the classification, because of this mixing process. A great deal of the mixing, however, is done for millers for local consumption. The millers, in order to get the best results, want a certain mixture, which is, perhaps, a secret with them. They instruct their men what to mix and how to mix it. At Minneapolis, in consequence of the use of private elevators and the mixing system, grain is very largely sold by sample. Mr. Teisberg believes that this is rather advantageous to the producer. The farmer who has an off-grade grain that could not come into a public elevator has a chance to dispose of it. A farmer who raises gilt-edge grain

gets a premium above the regular grade price. At Duluth he would get the grade price and no more. The mixing system and the sample system are not really advantageous to an elevator man. Duluth grades are held in the world's markets much higher than Minneapolis grades. Indeed, Mr. Teisberg thinks that Eastern buyers, as a rule, will not take Minneapolis grades, because they are mixed to the lowest possible point. (367, 369.)

3. *Elevator combination in Minnesota.*—Mr. TEISBERG, secretary of the State Railroad and Warehouse Commission of Minnesota, has no knowledge of an elevator combine nor of any consultation to fix the price of grain. At the close of the business day the quotations of the last sales are noted, and the line elevators send that information to their agents. If an independent elevator wants that quotation he must make arrangements with a commission man to send it to him by wire or mail. The price paid to the farmer each day is doubtless based on the market price of the preceding day. (370, 371.)

4. *Relation of elevators and railroads.*—Mr. TEISBERG, secretary of the State Railroad and Warehouse Commission of Minnesota, has no knowledge of any combination between railroads and elevator companies, but he sometimes suspects a community of interest between them. He does not know, however, of any rebates being given by railroads to elevator companies. He has heard rumors of such things, but he has never been able to verify them during his 15 years of official experience. (371, 372.)

5. *Independent elevators in the Northwest.*—Mr. TEISBERG says that before the establishment of the Railroad and Warehouse Commission, in 1885 or 1887, the country elevator business was done almost exclusively by what are called line elevators—that is, companies having offices at Minneapolis or Duluth had a line of elevators on one or two railroads. The farmer could not get a car to ship his own grain. The railway companies put every obstacle in the way of such a movement and in the way of independent buyers. But Minnesota has passed laws which give any person who wants to put up an elevator a right to obtain a place for it on the railroad right of way, if there is room for it, under the power of eminent domain, in just the same way that the railroad can obtain its right of way. A law passed in 1885 gave every applicant a right to a site on payment of an annual rental of \$1, but that was thrown out by the State supreme court on the ground that it did not provide for due compensation. The present law was passed in 1893. The legislature of 1893 also passed a law requiring railroads to build side tracks or spur tracks to elevators of a certain capacity, and to mills on sites adjacent to the right of way if the railroad company has refused the applicant room for an elevator at its way station. The applicant must pay the cost of grading and constructing the road, and if the terms can not be agreed on an appeal may be made to the commission.

The law of the State also prohibits the pooling of the business of country elevators. Of course, as a matter of fact, they generally pay the same prices, and the amount of business done by each depends largely upon the character of the man in charge, his standing in the community, and his reputation for honesty and fair dealing.

The producer has also a right to demand a car on the side track of the railroad and to have 24 hours in which to load it without demurrage. That makes the producer independent of the local elevator combine, if there is such a thing. He can ship his own grain and save handling charges, which are usually about 2 cents a bushel at a local elevator.

Mr. Teisberg asserts, however, that the former policy of the railroads, of permitting only line elevators upon their roads, has been wholly reversed. There is a farmers' cooperative elevator or some independent elevator of that character at almost every station in Minnesota. Mr. Teisberg believes that the railroads are not disposed to embarrass producers and independent shippers by denying them cars or otherwise. It is true that it is sometimes impossible to obtain cars, but that is not through the desire of the railroads. The grain is marketed within about 3 months, and when the crop is large the capacity of the railroads and of the terminal elevators is overtaxed. Mr. Teisberg believes that if a producer himself desires to ship his grain the railroad company would stretch a point and give him a car in preference to the elevator man. He believes that the farmers' elevators receive the same treatment from railroad companies as line elevators. (367, 370-372.)

6. *Speculation, effect on farmers.*—Mr. TEISBERG, secretary of the State Railroad and Warehouse Commission of Minnesota, has no opinion to express on the effect of speculation on the prices paid to farmers. At the time of the Leiter wheat deal he knew of one man who had three years' crops in his granary and sold the whole for \$1.45 a bushel at the local station. It ought not to have been worth over 85 cents. That was a good speculation. Ordinarily, Mr. Teisberg is assured by men who are intelligent and who farm on a large scale, it does not pay a farmer to hold his grain. The large farmers usually sell at once, even if they buy futures. (372.)

C. Industrial and agricultural conditions of the Pacific coast (see also *Nicaragua Canal*, p. CLXXXII; *Oriental trade*, p. CLXXXII).—1. *Generally*.—Mr. WHEELER, of the San Francisco Board of Trade, thinks that the industrial condition of California and the Pacific coast is generally good. Attention has been drawn to the resources of the country through the Spanish-American war. The passage of troops through San Francisco has been an education to them as to the possibilities of the coast, while the newspaper reports of the movement of troops have also advertised California. The effect of this advertising has been shown through the winter of 1900-1901 by a great increase in tourist traveling, which has been further facilitated by the prosperity of the country. People going about the State as tourists go back and talk about the country and many of them afterwards return or make investments. The Southern Pacific Company has also made an effort to bring in settlers and has introduced a special colonist rate of \$25 from the Missouri River to any point in California. (754.)

2. *Manufactures on the Pacific coast*.—Mr. WHEELER says that the local manufactures in San Francisco and other California cities are chiefly those of clothing and woolen goods, boots and shoes, cigars, shot, cartridges, lead pipe, sheet lead, mining and milling machinery, harvesting and agricultural implements, wagons and carriages. Bar iron and steel are also manufactured, as well as wire and wire cables and nails. At present, however, the iron and steel business is not in an altogether healthy condition. Formerly a good many nails were manufactured on the coast, but the plants were bought up by the American Steel and Wire Company and the nail part of the works was closed, because goods could be produced more cheaply in the East.

Hitherto, continues the witness, manufactures on the Pacific coast have been greatly hampered by the expensiveness of fuel. But this difficulty is being avoided in large measure by the development of electrical power and of oil wells. There is an inexhaustible supply of oil, and it is now being introduced into the factories and furnaces. Three and a half barrels of petroleum are said to be equal to one ton of coal. Ultimately the oil from southern California will be piped to San Francisco and the northern part of the State. Electrical power is also being generated by the streams of the Sierra Nevada and conveyed thence by wire at a low cost. This will become an important factor in running small factories. There is also good coal on the Pacific coast, though it is expensive. The Southern Pacific Company gets its supply of coal near Tacoma at Carbonado, and it has coal vessels running regularly from Tacoma to San Francisco and Los Angeles carrying coal for use on the railroads. (752, 753.)

3. *Fruit, wine, and raisin industries on the Pacific coast*.—Mr. WHEELER looks upon the canning of fruit as a form of manufacture. He says that the canning industry in California is a very large one. The season for fruit canning is short, but occurs fortunately at a time when the labor of boys and girls can be obtained in the school vacation. Canned goods for export are sent around from San Francisco in clipper sailing vessels, while the Eastern markets are supplied chiefly by rail, the railroads making rates which recognize the possibility of water competition.

Mr. Wheeler says also that the manufacture of wine is an important industry in California and that wineries are quite general throughout the grape growing districts. The industry is now quite profitable, though it was not until recently. The witness understands that a great deal of wine is shipped from California to France and thence sent back to this country again.

Mr. Wheeler says also that the raisin industry has become a very important one. Recently there has been established a form of cooperative distribution of the raisin crop, and the same is true as regards prunes. The farmers, instead of competing with one another to a ruinous extent, have established one central agency for marketing their product and are very generally satisfied with the results. Whether there is an export trade in raisins, the witness is not familiar, but he says that the trade in Eastern markets is good, the railroads making rates which recognize the possibility of competition by water. (754, 755.)

4. *Cooperation among California fruit shippers*.—Mr. STUBBS, of the Southern Pacific Company, thinks that the efforts of the California fruit growers and others to cooperate in the marketing of their product have been very beneficial to them. The system has worked well in the raisin business. There has been less accomplished in the case of other deciduous fruits. It is difficult to get several thousand farmers to agree together and to trust any individual with their business. There is an organization among orange growers, and the witness thinks that even more effective organization in handling oranges and green fruit generally is desirable. The distribution of fruit ought to be under one head, so that no more will be sent to a given market than there is demand for. When everybody ships as he pleases, markets are often overstocked and prices ruined. (768.)

5. *Condition of agriculture in California.*—Mr. WHEELER says that generally speaking the farmers of California are prosperous; as prosperous as those in any other section. They are very largely dependent upon the rains, and during 1901 they have been well favored in that respect. (755.)

D. Manufactures and agriculture in Colorado.—Mr. GRIFFITH, representing the Denver Chamber of Commerce, says that manufactures have not developed much in Colorado, partly because of the high rates of freight on raw materials from the East, and partly because of the high cost of labor and other expenses. There are cotton mills in operation at Denver. The witness believes that they failed once, but whether on account of bad management or of unsatisfactory freight rates he does not know. He thinks they are now operating successfully. (857.)

Irrigation in Colorado.—Mr. GRIFFITH says that irrigation by private initiative in Colorado has proved very advantageous, and has resulted in the production of splendid crops. He believes that the State or the nation should take up the subject, and says there is a general feeling in favor of such action in Colorado. The witness refers especially to the Rocky Ford district, where a great sugar-beet industry has been developed. It is claimed that the beets contain more saccharine than those raised anywhere else. There are now 3 beet-sugar factories running and another is being constructed. It is said that if reservoirs were created in the mountains, by blocking up the gulleys, a very considerable proportion of the arid lands of the State could be irrigated. A great deal of wheat, potatoes, hay, and fruit is being raised under irrigation. (858.)

E. Export and domestic trade in coal.—Mr. FLEMING, of the Anthracite Coal Operator's Association says that there is practically no anthracite coal exported to Europe. The Canadian market for anthracite is large. Soft coal has been going abroad to a considerable extent; during the year 1900 the amount exported being nearly 100,000,000 tons. There was practically no export trade before. The witness believes that there is going to be a great future for the export trade through southern Europe, Spain and Italy producing no coal. They have hitherto imported chiefly from England, with small quantities from Belgium and Germany. (540, 541.)

Mr. McLEOD says that while he was president of the Reading Railroad he had a thorough investigation made as to the possibility of foreign trade in anthracite coal. He believes that the cost of mining with the added freight will entirely prohibit such trade abroad. We have a considerable trade with Canada. (567.)

Mr. MARKHAM says that there is very little export of coal from the Southern States, the only development being in the consumption of coal by the Southern towns. There has been a little export from Pensacola and Mobile to the West Indies, but none from New Orleans. A few years ago coal could be shipped into Mexico from Wales cheaper than it could be from the Southern States, but since that time, with the development of the railway system of the Southern States, the cost per unit of traffic has been greatly decreased. (433-434.)

Mr. ANDERSON, secretary of the Chamber of Commerce of Pittsburg, says that he knows of a firm that sent 2 cargoes of coal to London in 1900, sent special agents to look after it, gave away many tons to introduce it, and yet after all the extraordinary expense netted 25 cents a ton more than they could have got for the coal in this country. (643.)

Coal trade of New Orleans and the South (see also *Mississippi River Transportation*, p. CLXXXIV).—Mr. BRYANT states that nearly all the coal used at New Orleans comes down from Pittsburg on barges. The freight rate is 75 cents per ton. Coal can only be brought down from Pittsburg when there is a rise in the Upper Ohio. Sometimes during low water New Orleans runs out of coal. Coal consumption has very largely increased at New Orleans on account of the war with the Boers, which has increased the number of steamships coming to New Orleans.

F. Commission and jobbing business—Elimination of jobber.—Mr. LANGLEY, of the Merchants' Association of New York, says that the commission man is a third party that does not invest his capital directly in the business, nor does he carry an extensive stock of goods. He has accounts with certain mills and to a certain extent is their selling agent. The jobber, on the other hand, buys his goods outright, assumes whatever loss there may be in conducting ordinary business, and is under the expense of maintaining a store and having his capital tied up. In the commission business it is possible to ship from the mill to the buyer in Central or Western territory direct, there being only one haul and one expense of freight rates. With the jobber there are two hauls. The witness does not think it would be to the interest of the railroads to foster the jobbing trade, although it might look so on the

surface, because the railroads favor large shipments and large shippers. The railroads are assisting the industrial combinations which manufacture and ship direct to the consumer, and are thus working against the interest of the jobbers. The increase in the Southern classification in respect of carload and less than carload lots is directly in line with this tendency, and the effect on New York as a distributing center has been to reduce the number of jobbing houses from 28 to 4.

The ultimate effect will likely be to eliminate the jobber as a factor in commercial affairs and to lessen the importance commercially of many of the large centers of trade. It means a closer connection between the producer and the consumer, and tends toward economy. The department store, the introduction of trolley lines, the maintenance by the department stores of their free-delivery system, and the mail-order system have had a great effect in eliminating the jobber. The elimination of the jobber from business has been caused somewhat, perhaps, by the tariff shutting out foreign importations. The jobber formerly represented foreign houses in this country. Some of the large department stores, as Siegel Cooper & Co., Wanamaker, and others, take the entire product of mills and dispose of it without the interposition of either the jobber or the commission man. (871-872.)

G. Alleged discrimination in Government contracts.—Mr. WHEELER says that the jobbers of San Francisco consider that they have a grievance as to the action of the Government in buying supplies for the army in the Philippines. He understands that practically all clothing is purchased and stored in Philadelphia. Camp equipment is stored at Jeffersonville, Ind. Contracts are advertised for the delivery of goods to these places and other similar Eastern points. These goods are thence shipped through San Francisco to the Philippines, and the San Francisco bidders are barred from any opportunity for competing for the contracts, even though they are at the very gateway of the Philippine traffic. The San Francisco dealers do not ask for a monopoly, but desire that the Government shall call for bids for the delivery of goods at San Francisco. This will give the jobbers there a chance to make bids without barring out those from Chicago and other Eastern cities. The Government could establish storehouses at San Francisco and maintain stocks of supplies there. The witness thinks it would be a proper subject of Congressional inquiry to ascertain why one section of the United States is discriminated against in the letting of these contracts. (756.)

H. Panics.—Mr. GREENE, of the Audit Company of New York, points out that panics do not affect manufacturers and general business as soon as they do speculators. Panics are financial in the first case. The manufacturers of the country suffered most in 1896 and 1897, not in 1893. The witness thinks that industrial combinations, by preventing overproduction and by building up export trade, especially through the aid of low export freight rates, will do much to check panics in the future. (482, 487.)

I. Discriminating tariff on goods carried in bond.—Professor RIPLEY says that a discriminating tariff against all goods carried in bond would have the result of prostrating practically every industry in New England. It would be one of the greatest disasters for New England which could happen if its shippers should be deprived of the advantage which they now have of shipment over Canadian lines, as they now suffer from the disadvantage of being far from raw materials and distant from the great centers of population and wealth. (290.)

J. Southern Pacific Company in politics.—Mr. WHEELER says that heretofore the Southern Pacific Company has been exceedingly active in California politics. There has been no State or local features which it has not tried to grab. The company states that the new administration under the presidency of Mr. Hayes will abandon this policy. (754.)

K. San Francisco Board of Trade.—Mr. WHEELER, a member of the San Francisco Board of Trade, says that this body is an association of wholesale merchants who make use of it exclusively for the purpose of economies in the settlement of bankrupt estates. By joining together more is saved in the administration of an estate for the benefit of creditors than would otherwise be the case. (743.)

L. Michigan Alkali Company.—Mr. BACON, freight manager of the Michigan Alkali Company, says that this is a strictly "family corporation." The manufacture of its principal products is based on salt, of which there is a stratum over 300 feet thick on its property. The company employs about 2,000 men, and over 80 per cent of the cost of its product goes for labor. About an eighth or a tenth of the labor employed is skilled. The wages of common labor are \$1.50 per day and of skilled labor from 25 cents to 50 cents an hour.

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The company consumes daily 700 tons of coal, 100 tons of coke, and 700 tons of limestone; 500 tons of finished material are produced, consisting of soda ash, bicarbonate of soda (baking soda), caustic soda, and Portland cement. The principal buyers of heavy soda ash are the glass factories of Pennsylvania and Indiana, and of light soda ash soap factories. There are only 3 other establishments engaged in this industry—at Syracuse, N. Y., Saltville, Va., and Delray, near Detroit.

The manufacture of these products is protected by the tariff. Formerly in the absence of protection there was a very narrow margin of profit. English ash was laid down in the interior of this country at about what was considered the actual cost of manufacture here. The competition between the factories in this country is active, but not ruinous. (72, 79, 80, 85.)

M. American money.—Mr. SCHIFF, banker, says that the large amount of American money in existence to-day has been partly taken out of the earth in gold and silver. Partly it has been created by the creation of wealth. The bank note represents wealth, and for this reason the Government circulation is not justified, because the Government does not produce anything and should not be the maker of the vehicle of wealth circulation. That function belongs to the banks. (777.)

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STATUTE PROVISIONS.

Railroad companies.¹

Listing, valuation, etc.—Railroad companies are required to make annual reports to the State board of equalization, setting forth all property of operation. On the basis of these reports a valuation is determined covering property and franchises, and is apportioned among the local districts for the computation and collection of the tax.

Local taxation.—Railroad real estate not employed for purposes of operation is locally assessed and taxed. There is also a local tax on the values apportioned by the State.

Telegraph and sleeping car companies.¹

These companies are taxed like railroads.

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I.—METHODS OF TAXING TRANSPORTATION COMPANIES FOR STATE AND TERRITORIAL PURPOSES

Property tax.		Capitalization tax.		Gross receipts tax.	Net earnings tax.	Specific tax.
State valuation.	Local valuation.	On capital stock.	On capital stock plus bonded debt.			
Railroad cos.....				Railroad cos.....		
Long-distance telephone cos.....	Telephone cos.....			Telephone cos.....		Telegraph Long-dis telephone
Sleeping car cos.....						
Railroad cos.....	Telegraph cos.....					
Railroad cos.....	Telegraph cos.....	Telegraph cos.....				
	Telephone cos.....					
	Express cos.....	Express cos.....				
	Sleeping car cos.....	Sleeping car cos.....				
Railroad cos.....	Telegraph cos.....					
	Telephone cos.....					
Railroad cos.....						
Telegraph cos.....						
Telephone cos.....						
			Railroad cos. ²			Telegraph Telephone
				Express cos.....		
					Railroad cos.....	Railroad c Telegraph Telephone
				Telegraph cos.....		
				Telephone cos.....		
				Express cos.....		
				Sleeping car cos.....		
Railroad cos.....						
Telegraph cos.....	Telephone cos.....					Do. Express cos
				Sleeping car cos.....		

a	Railroad cos.....				Telegraph cos.....	
	Sleeping car cos.....				Express cos.....	
s	Railroad cos.....					
	Telegraph cos.....					
a	Railroad cos.....		Telegraph cos.....			
	Telegraph cos.....		Telephone cos. ²			
s	Railroad cos.....		Express cos. ²			
	Telegraph cos.....		Other transportation cos. ²			
a	Railroad cos.....			Telegraph cos.....		
	Telegraph cos.....			Telephone cos.....		
s	Express cos.....			Express cos.....		
	Sleeping car cos.....			Sleeping car cos.....		
a	Railroad cos.....			Fast-freight cos.....		
	Telegraph cos.....					
s	Telephone cos.....					
	Sleeping car cos.....			Express cos.....		
ky	Railroad cos.....					
	Telegraph cos.....					
ana	Railroad cos.....		Telegraph cos.....			
	Telegraph cos.....		Telephone cos.....			
s	Express cos.....		Express companies.			
	Sleeping car cos.....		Passenger car cos.....			
a	Railroad cos.....					
	Telegraph cos.....					
s	Express cos.....					
	Sleeping car cos.....					
a	Telephone cos.....				Railroad cos.....	
					Express cos.....	

Telepho

¹ I. e. taxes of specific gross amounts, or of specific sums per mile of line, per instrument in use, etc.
² On capital stock plus funded and floating debt. ³ Domestic corporations.

a	Railroad cos.	Telegraph cos.				
	Telegraph cos.	Telephone cos.				
		Express cos.				
a	Railroad cos.					
	Telegraph cos.		Express cos.			
	Sleeping car cos.		Other transportation cos.			
mpshire	Railroad cos.					
	Railroad cos.					
	Telegraph cos.					
sey	Railroad cos.				Telegraph cos.	
					Telephone cos.	
					Express cos.	
xico	Equipment cos.				Sleeping car cos.	
		Railroad cos.				
					Express cos.	
rk			Railroad cos.		Railroad cos.	
			Telegraph cos.		Telegraph cos.	
			Telephone cos.		Telephone cos.	
			Express cos.		Express cos.	
			Sleeping car cos.		Sleeping car cos.	
			Other transportation cos.		Other transportation cos.	
arolina	Railroad cos.				Telegraph cos.	
	Telegraph cos.				Telephone cos.	
	Telephone cos.				Express cos.	
	Express cos.					
	Sleeping car cos.					
	Freight car cos.					
akota	Railroad cos.					
		Telegraph cos.				
		Telephone cos.				

Common c

Express co
Sleeping c

¹ Domestic corporations.

METHODS OF TAXING TRANSPORTATION COMPANIES FOR STATE AND TERRITORIAL PURPOSES—

	Property tax.		Capitalization tax.		Gross receipts tax.	Net earnings tax.	Specifo
	State valuation.	Local valuation.	On capital stock.	On capital stock plus bonded debt.			
	Railroad cos.....				Railroad cos.....		
	Telegraph cos.....				Telegraph cos.....		
	Telephone cos.....				Telephone cos.....		
	Express cos.....				Express cos.....		
			Sleeping car cos.....				
			Freight line and equipment cos.				
	Railroad cos.....						
		Telegraph cos.....					
		Telephone cos.....					
		Railroad cos.....					
		Other transportation cos.					
				Railroad cos.....	Railroad cos.....		
				Telegraph cos.....	Telegraph cos.....		
				Telephone cos.....	Telephone cos.....		
				Express cos.....	Express cos.....		
				Sleeping car cos.....	Sleeping car cos.....		
				Freight line and equipment cos.	Freight line and equipment cos.		
				Other transportation cos.	Other transportation cos.		
		Railroad cos.....					
					Telegraph cos.....		
					Telephone cos.....		
					Express cos.....		
	Railroad cos.....						
	Telegraph cos.....						
	Telephone cos.....						
	Express cos.....						
	Parlor car cos.....						
	Freight line cos.....						
	Railroad cos.....						
	Telegraph cos.....						
	Telephone cos.....						
	Express cos.....						
	Sleeping car cos.....						

B.	Railroad cos.						Railroad cos.
	Telegraph cos.						Telegraph cos.
	Telephone cos.						Telephone cos.
	Express cos.						Express cos.
	Sleeping car cos.						Sleeping car cos.
	Railroad cos.					Railroad cos.	Telegraph cos.
							Telephone cos.
			Sleeping car cos.			Express cos.	
						Sleeping car cos.	
	Railroad cos.						
	Telegraph cos.						
	Telephone cos.						
	Car cos.						
	Railroad cos. ³					Railroad cos. ³	
	Telegraph cos. ³					Telegraph cos. ³	
						Telephone cos.	
						Express cos.	
	Other transportation cos. ³					Sleeping car cos.	
						Other transportation cos. ³	
	Railroad cos.					Railroad cos.	
	Telegraph cos.					Telegraph cos.	Telegraph cos.
	Telephone cos.						Telephone cos.
	Express cos.						Express cos.
			Sleeping car cos.				
ton.	Railroad cos.						
		Telegraph cos.					
		Telephone cos.					
		Express cos.					
		Other transportation cos.					
	Railroad cos.						
inia		Telegraph cos. ³				Telegraph cos. ³	
		Telephone cos.					
		Express cos. ³				Express cos. ⁴	
		Other transportation cos.					

not paying the ad valorem taxes.

on property and franchise is alternative with the gross receipts tax.

³ Domestic corporations.

⁴ Foreign corporations.

TABLE II.—METHODS OF SECURING LOCAL REVENUES FROM RAILROAD TAXATION.

From local tax on—		No local tax.	From distribution of State tax.
General property.	Property not in right of way.		
Alabama.	California.	Minnesota. ¹	California.
Arizona.	Connecticut.	Wisconsin. ²	Maine.
Arkansas.	Delaware.		Massachusetts.
Colorado.	Maine.		New Hampshire.
Florida.	Massachusetts.		New Jersey.
Georgia.	Michigan.		West Virginia.
Idaho.	New Hampshire.		
Illinois.	New Jersey.		
Indiana.	Pennsylvania.		
Iowa.	Vermont.		
Kansas.	Virginia.		
Kentucky.	West Virginia.		
Louisiana.			
Maryland.			
Mississippi.			
Missouri.			
Montana.			
Nebraska.			
Nevada.			
New Mexico.			
New York.			
North Carolina.			
North Dakota.			
Ohio.			
Oklahoma.			
Oregon.			
Rhode Island.			
South Carolina.			
South Dakota.			
Tennessee. ³			
Texas.			
Utah.			
Washington.			
Wyoming.			

¹ There is a local tax on lands owned by railroads, such as have been subject to grant either by the state or by the United States.

² Lands used by railroad companies but not used in any way for railroad purposes are assessed and taxed like the similar property of individuals.

³ Not including "distributable property." There are, however, local license taxes on railroads.

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