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REGULATION OF RAILWAYS

BY SAMUEL O. DUNN

The Regulation of Railways

The American Transportation Question

Government Ownership of Railroads

D. APPLETON & COMPANY
Publishers New York

REGULATION OF RAILWAYS

INCLUDING A DISCUSSION OF GOVERNMENT OWNERSHIP VERSUS GOVERNMENT CONTROL

BY

SAMUEL O. DUNN

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PREFACE

When the preparation of this book was begun the United States was at peace with all the world and in a state of industrial depression.

While the book was being finished the nation was making gigantic preparations for developing and exerting its tremendous potential strength in the Great War, and was also in the midst of a period of extraordinary, although perhaps not healthy, industrial activity and prosperity.

Before the book could be published President Wilson decided that the system of private management and government regulation of railroads, which had prevailed since the Hepburn act went into effect in 1906, was not adapted to securing the efficiency in transportation required during the war; and on December 28, 1917, he took, on behalf of the federal government, direct control of all railroads. He appointed a Director General of Railroads having supreme authority over regulation and management.

The foregoing summary statements show how rapidly important developments recently have occurred in the field of transportation.

The new system of government control is designed to serve merely as a war measure. It contemplates the return of each existing railway in unimpaired physical condition to the management of its owners on the coming of peace. But to return to the old system of man-

agement without first making important reforms of regulation would be extremely undesirable. It would mean a revival of the influences, tendencies and conditions which brought railway development almost to a stop before the war; which made it almost impossible for the carriers to handle all the business that came to them in the year and a half before this country entered the war and which made it entirely impossible for them to do so after this country entered the war. If the railways are to undergo no radical alteration in their ownership and management, their welfare and that of the public will require many changes in our past machinery and policy of regulation. The changes which the writer believes should be made in regulation are indicated in the following pages.

Perhaps radical changes should be made in our system of private ownership and management, as well as in our system of public regulation. Some able students of the subject believe that to solve our railroad problem under private ownership we must create a number of regional railroad holding companies. The government, under this plan, would guarantee a return on the stock sold by these companies; and with the proceeds from its stock each company would acquire control of all the railways operating in an entire section of the country. The objects of this plan are to take the financial control of many railways from Wall street; to stabilize railway securities; to solve the problem presented by "weak" and "strong" roads in every territory; and to eliminate the wastes attributed to competition. The regional railroad holding company plan is discussed in the following pages.

Many persons believe not only that government con-

trol of railroad management during the war will make government ownership inevitable, but that government ownership and management will best solve our railroad problem. The question of government regulation versus government ownership also is quite fully discussed in the following pages.

A good deal of material which the author has used in magazine articles and public addresses is again used, but in thoroughly revised form, in the present work. Parts of Chapter II appeared in an article entitled, "What Is the Matter with Railway Regulation?" which was published in the *North American Review* for November, 1915, and in an article entitled, "Ten Years of Railroad Regulation," which was published in *Scribner's Magazine* for October, 1916. Chapter X was published in almost its present form in *Scribner's Magazine* for March, 1917. Large parts of Chapters XI, XII and XIII were published as parts of an article in the *Yale Review* for January, 1918. Chapter XIV is based upon an article having the same title which appeared in *The Atlantic Monthly* for February, 1915. Large parts of Chapters XV and XVI were published in the *Journal of Political Economy* for June, 1916. To the editors of these magazines the author extends thanks for kind permission to make use of this material in the present volume.

Washington, D. C.

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REGULATION OF RAILWAYS

CHAPTER I

INTRODUCTION

The conditions under which the railways of the United States were operated and regulated were greatly changed by the transition from peace and adversity to war and prosperity.

During the two years before the autumn of 1915 railway traffic, especially freight traffic, declined; there were many idle cars in every yard, and the efforts of the railway managers were directed mainly to reducing expenses and to convincing regulating authorities that the companies could not live on the existing freight and passenger rates. They were but partially successful in these attempts.

The revival of industrial and commercial activity in the autumn of 1915 caused augmentations of traffic as unheralded as they were unprecedented in amount. There was a large increase in gross earnings, but it was accompanied by advances in taxes and wages and by the most rapid and greatest advances in fuel, material and equipment prices ever known—developments which threatened in the absence of advances in rates to wipe

out the large increases in net operating income which began in the fall of 1915. The surplusage of freight cars gave place in the spring of 1916 to a car shortage which returned much enhanced in the fall of 1916 and which surpassed all previous records in the spring of 1917.

In other words, when, in the year preceding and the year following the beginning of the Great War in Europe, railway traffic and earnings declined, and the railways were able to offer more service than they could sell, their net return dwindled because they were unable to reduce their expenses, taxes and fixed charges in proportion to the decline in their traffic and earnings. When the traffic increased, it caused a demand for railway service exceeding what could be supplied, and the resulting terminal congestion, together with the advances in wages and prices, soon again rendered it impossible for the railways to maintain their net return on a satisfactory basis.

In short, during the almost four years from the middle of the calendar year 1913 to the spring of 1917, whether traffic and earnings were decreasing or increasing, the situation of the railways from the standpoint of their owners and managers, and from that of shippers and the general public as well, was highly unsatisfactory.

The declaration of war against Germany in April, 1917, aggravated the seriousness of their position. It was foreseen by both officials of the government and the managers of the railways that the entrance of the United States into the war would cause a still greater increase in the traffic which the roads would have to handle.

It would require the carriage of large bodies of troops, first to the training camps and thence to points of embarkation for Europe. It would require the transportation of vast quantities of building materials, tentage, foodstuffs, supplies, etc., to the training camps. It would necessitate the movement of largely increased quantities of munitions and foodstuffs to the various seaports destined for the use both of our own troops abroad and of our allies. It would necessitate the movement of vast quantities of lumber, steel, etc., for the construction of shipping. As the railways already were overwhelmed with business, and as the tendency of labor, material and equipment costs continued upward, it was apprehended that without the adoption of radical measures they would be unable to bear the burdens imposed upon them and maintain their solvency. Therefore, their managements took two important steps.

First, five days after war was declared their chief executives, on the suggestion of the Council of National Defense, met in Washington to confer regarding the measures which they ought to adopt in order to enable the railways to render the maximum possible amount of useful service to the government and the public. They decided that to accomplish this they must eliminate competition which caused the rendering of unnecessary service, and that to do this they must centralize the supervision of the management of all lines in the hands of a single committee. They therefore established at Washington a committee of five, composed of two railway chairmen and three railway presidents, which became known as the "Railroads' War Board," and gave it authority to direct the operations of all the railways of the United States.

Second, at about the same time all the railways petitioned the Interstate Commerce Commission for a general advance of 15 per cent in interstate freight rates, and submitted similar petitions to the various state railway commissions regarding state rates.

The need for centralizing management and unifying operations to enable the railways efficiently to do their part was as plain to President Wilson and the members of his cabinet composing the Council of National Defense, as to the managers of the railways. Obviously, however, the railways could not eliminate competition without violating the Sherman Anti-Trust law, nor could they, if they eliminated competition, do entire justice as between individual lines without making some arrangement for the pooling of traffic or earnings or both, which would be in violation of the anti-pooling clause of the Interstate Commerce act. Accordingly, at one stage of its progress through Congress, in the summer of 1917, provisions were inserted in the so-called "Priority" act which would have suspended the application to the railways of the Sherman law and the anti-pooling clause of the Interstate Commerce act during the war. The Sherman law as it applies to railways, and the anti-pooling provision of the Interstate Commerce act, as is shown in the following pages, could not be justified on economic grounds. Much less could they be justified when, for purposes of national defense, it was desirable for the railways to be operated as a single system. Nevertheless, the provisions for their suspension were stricken out. The Interstate Commerce Commission granted only part of the increases in interstate rates asked for, and the downward trend of net operating income continued.

The war was adding to the already overwhelming evidence that the railways should be not only managed but regulated regardless of state lines. There was a large number of state laws regulating the rates which the companies might charge, the number of men that they must employ in train crews, the number of freight cars they must furnish to shippers and the time within which they must furnish them, the expenditures which they must make on unproductive improvements, and so on. The enforcement of some of these laws, such as those regarding the size of train crews, was making it necessary for the railways to employ for entirely valueless work thousands of men that they should have been allowed to use elsewhere in order to render the largest practicable amount of useful service. Some other state laws, such as those regulating car service, were adapted seriously to interfere with the work of the Railroads' War Board if enforced.

Although the Interstate Commerce Commission granted the railways some of the advances in freight rates for which they asked, many states refused to permit corresponding advances in state rates. The Commission had conceded the railways' increases in interstate passenger rates, but only a few states took similar action. In other words, in war as in peace, state regulation was a hindrance rather than a help to the solution of the railway problem. Nevertheless, state regulation was holding its ground and it was evident that unless greater efforts were made to abolish it, or at least entirely to subordinate it to federal regulation, it would continue to hold it.

In spite of all the difficulties under which they labored, the railway managements tried, patriotically and

energetically, to handle the traffic. In most of the countries of warring Europe the transportation of commercial traffic was practically suspended during the first mobilizations. The movement of passengers and commodities not essential in carrying on the war has ever since been sharply restricted. Our railways tried to handle all the business that came, commercial and military. The increase of commercial freight business continued; and there was added an unprecedented increase of commercial passenger business and a vast military business. Nevertheless, the Railroads' War Board so advanced efficiency that for several months the car shortage declined. During the nine months it was in charge, the railways, with practically no additional facilities, handled 15 per cent more traffic than in any corresponding previous period, and about 50 per cent more than in the corresponding period of 1915. They transported in a way satisfactory to the government vast quantities of freight for constructing and supplying the cantonments and for building ships. They moved vast quantities of freight exported to our European allies, and to our own troops abroad and for the construction of our military railroad in France. In the five months from August 1 to the end of the year they transported 2,000,000 troops, mostly in special trains, without serious delays or accidents.

Signs of serious trouble appeared, however, in the fall. Loud complaints began to be made that inadequacy of cars was limiting the output of the coal mines. The shortage of cars of all kinds on November 1 was the largest since May 1.

Recognizing the trend of developments, the Railroads' War Board submitted to representatives of the govern-

ment a list of commodities which it was believed could be without public harm excluded from transportation. Its recommendation on this subject was shelved. On December 5 the Interstate Commerce Commission sent to Congress a special report urging that one or the other of two plans it outlined be immediately adopted. These contemplated first, suspension of the Sherman anti-trust law and the anti-pooling law, to enable the railways to solve the operating problem themselves, and financial assistance from the government treasury; or, second, the assumption of direct control of operation by the government, together with government guarantees of net return to the carriers during the period of government operation. It soon became known that President Wilson had decided to adopt the latter alternative.

The conditions which precipitated government control existed chiefly on the eastern lines in the zone of the most intense industrial activity resulting from the government's preparations for war. Elsewhere there were complaints of car shortage, but no acute congestions. The Railroads' War Board had adopted drastic measures to relieve the congestion in the east; but government control was adopted before these measures had time to bear fruit.

The main causes of the unsatisfactory transportation conditions generally, and especially of the acute congestion in the east, were:

General inadequacy of railway facilities.

Inability of the railway managements, because of law-enforced competition, to secure the greatest efficiency in the use of available facilities in general; regulative restrictions preventing the use of all effective means

for increasing efficiency in the use of freight cars in particular; and abuse by representatives of the government departments of the use of freight preference orders.

Many believe that if under either private or government control the most efficient possible use of existing facilities could be secured, either by operating all railways as a single system or otherwise, the existing facilities would be adequate to all demands during the war. The writer does not share this view. The increase in the productive capacity of the country during recent years has been so enormous, and the increase in railroad facilities relatively so small, that the demand for transportation during the war was bound, under any system of railroad control, to exceed the maximum service which the railways, and especially the eastern railways, could render. This should be borne in mind in judging of what the railways accomplished under private control, as well as what they will do under government control.

That the laws designed to enforce competition contributed largely to making it impossible for the railways, while under private management, to make the best use of the facilities available, is beyond question. The course of the government regarding railroad competition would afford material for the satire of a Juvenal. Before the original Act to Regulate Commerce was passed in 1887 the railways organized pools of traffic and earnings. These were intended to reduce competition and stop rate-cutting, gross discriminations and the depletion of earnings, but they had incidentally the effect of largely pooling facilities. The anti-pooling section of the Act to Regulate Commerce destroyed these

pools. The railways then formed traffic associations to restrict competition. The Supreme Court held these in violation of the Sherman anti-trust law. The railways again tried to reduce competition, this time by forming mergers of parallel lines. At about the same time Congress passed laws taking the rate-making power from the carriers, and leaving them no means of competition except solicitation and service. But the Department of Justice started proceedings under the Sherman law which directly or indirectly destroyed most of these mergers, the conspicuous examples being the Northern Securities Company, the Harriman combination and the New Haven combination in New England.

Obviously, the railways could not compete with each other and at the same time operate as a single system. In the emergency of war their managers voluntarily reduced competition and went far toward operating as a single system, meantime watching warily for signs that they were attracting unfavorable attention from the Department of Justice. Soon there began to be heard complaints—not, however, that they were eliminating competition—but that they were not operating with the greatest possible efficiency because they had not entirely eliminated it; and, therefore, it was argued, the government would have to take control of them!

In addition to being hampered by laws designed to enforce competition, the Railroads' War Board was hampered by inability to increase minimum carload weights or demurrage rates without governmental sanction, and there was gross abuse by government representatives of orders for preference in the movement of freight. When the congestion on the eastern lines be-

came severe 60 to 80 per cent of the freight on some lines was moving under such orders. Their excessive use defeated its own purpose and produced demoralization.

Since the inability of the railways to operate with the maximum possible efficiency was due mainly to restrictions and burdens imposed by the state and national governments, it seemed to many that the best way to solve the problem presented would be for the governments to remove these restrictions and burdens. But the problem had another important phase. Some railways were feeling dire need of new capital. The huge financial transactions of the national government had closed the market to railroad securities. To enable the railways to get enough new capital it would be necessary to reënforce their credit with that of the government or to loan them public money. It was assumed that Congress would not suspend restrictive laws or give the railways financial aid while they were privately managed. The old system of private management subject to public regulation was regarded as unequal to the occasion; and the adoption of government control was the result.

The management of the railroads under the new system of control will be followed with great interest. President Wilson recommended that the average annual net operating income of the three years ended June 30, 1917, be taken as a basis in fixing the guarantees of return to be made during the period of control. The railways contended this basis would be unfair to them because it included the very bad fiscal year 1915. Others contended it would be unfair to the public because it included the very good fiscal year 1916. Oper-

ating income in the three years was as follows: 1915, $728,212,000; 1916, $1,043,840,000; 1917, $1,050,000,000, an average of $940,700,000. The percentages of return earned on book cost of road and equipment were as follows: 1915, 4.09; 1916, 5.8; 1917, 5.72—making an average of 5.2 per cent.

It is believed that the President's recommendation will prevail in the end. The basis he suggested is fair both to the public and to the railways as a whole, although very unfavorable to many individual lines. However, Congress can constitutionally determine only what the government may offer to the railways. It must leave the exact amount which must be paid to each company to be settled by negotiations between representatives of the company and administrative officers of the government, or by decisions of the courts. It is probable that most companies would accept the compensation suggested by President Wilson, and that government administrative officials could effect settlements with practically all the rest. Government guarantees will, of course, stabilize railway securities during the war.

The Director General of Railroads will have most of the advantages in directing the operation of the railways which the Railroads' War Board had and some it did not have, but he will also have some disadvantages it did not have. He can command all the railroad talent and experience in the country—all the organizations which have been built up under private management. He can control government priority and preference orders; and one of the first things he did was to suspend all of them. He need not consider the financial effect on any railway of anything he does, as the returns of all companies will be guaranteed; he is not subject

to the restrictions imposed upon the railway managements by national or state regulating laws; and he can, therefore, route traffic by the most open lines and gateways, increase minimum carload weights, disregard provisions regarding the number of men to be employed in train crews, increase demurrage rates on freight cars, and make unlimited changes in train service. One of his first acts was to increase demurrage rates 50 to 100 per cent. He can increase facilities, for he can set aside all regulations which have prevented the railways from getting equipment and supplies, and can use the credit of the government to get new capital. If the facilities continue to prove inadequate he can order that "non-essential" commodities cease to be transported.

Referring to the work done by the Railroads' War Board, President Wilson said in his message to Congress on January 4, in which he outlined his policy of railroad control:

"The group of railway executives who were charged with the task of actual coördination and general direction performed their difficult duties with patriotic zeal and marked ability, as was to have been expected, and did, I believe, everything that it was possible for them to do in the circumstances. If I have taken the task out of their hands it has not been because of any dereliction or failure on their part, but only because there were some things the government can do and private management cannot do."

The above partial enumeration of things the Director General can do, but the Railroads' War Board could not do, doubtless indicates some of the "circumstances" which, in the President's opinion, made it impossible

for private management to get the needed results. All the "circumstances" mentioned were due to government regulation of one kind or another.

While the Director General of Railroads will have these advantages he will have some disadvantages. For example, the morale of the railway staffs had been at its highest pitch for several months before he took charge. Because of the uncertainty as to the future of the railways caused by government control, he may have difficulty in maintaining morale.

The results of government control under such abnormal conditions will afford no fair test of the desirability of government management in time of peace. Many persons, however, will regard the results as yielding arguments for or against government ownership. Many already are predicting government ownership as the inevitable outcome. Equally confident predictions of government ownership in the near future have been made for at least forty years. Since at the end of the war the financial obstacles to government purchase will be much greater than ever before, one may doubt if current predictions are any more likely to be fulfilled than earlier ones.

But it does not seem probable that we shall return to the former system of regulation. Under that system "rich" railways found it hard to keep rich, while their "poor" competitors found it almost impossible not to keep poor. State and federal regulation endlessly conflicted with and duplicated each other. There were fundamental inconsistencies in federal regulation itself. Railway affairs were kept in a constant turmoil, and the development of facilities was almost arrested. When there were enough facilities to handle the available

business, business was so small that it did not yield enough net return to keep many roads out of bankruptcy. When the net return earned was sufficient to keep roads of less than average strength out of bankruptcy it was derived from a business so heavy that the facilities available were insufficient to handle it properly. The results of the old system were unsatisfactory alike to the regulating authorities, to railroad managers and owners, and to the public. It will be agreed on all hands that some better system can and ought to be adopted. The best preparation for devising a new system which will be better will be study of the conditions, influences and factors which have made the old system a failure.

CHAPTER II

WHAT IS THE MATTER WITH RAILWAY REGULATION?

No problem more important and difficult confronts the people of the United States than that of establishing between their governments and their large business concerns relations which will promote greater equality in the distribution of the burdens and benefits of the production of wealth, without impairing the efficiency with which production is conducted.

There has been within recent years a great increase in the amount of government regulation of business. Its main purpose has been to equalize economic burdens and benefits. The most important experiment being made in this field is in the control of railroads. This experiment is so important partly because the railway industry is one of the largest in the country. It is so important partly also because there is a tendency for other large classes of commercial and industrial enterprises to pass mainly into the hands of a comparatively few large aggregations of capital. This tendency, if continued, will give quasi-monopolistic power to a few concerns in these other fields. There will then be as much reason for subjecting them to strict regulation as for subjecting railways to it.

The policy applied to them probably would be modeled on that applied to railways, having alike its strength and its weaknesses. Therefore, the wisdom or folly of

our regulation of railways may determine the wisdom or folly of our regulation of other classes of concerns and the success or failure of government control of business in many fields.

The past history of our railways is divisible into three periods. The first, or formative, began when the first spike in the Baltimore & Ohio was driven by Charles Carroll of Carrollton in 1828 and it ended about 1875. The second, that of competition, began about 1875 and lasted until 1906. In the first period the various lines were so short and scattered that active, widespread rivalry between them was impossible. Conditions so changed in the second that its most prominent features were competition and the efforts of the railway managements to abate it.

The third period, that of regulation, began when the Hepburn rate regulation act went into effect in 1906. There had been regulation before that, but it had been sporadic, temporary or ineffective. There has been such effective regulation since then that it has played the leading rôle in railway affairs.

Still a fourth period was entered when the government, as a war measure, took direct control of railroad operation.

A joint committee of senators and representatives is now engaged in investigating the entire subject of regulation.

Two facts stand out while this important investigation is under way which are highly significant. One of them is that before effective regulation began, public control of railways was opposed as an unwarranted interference with private property, while today nobody denies the soundness of the principle except the advocates of gov-

ernment ownership. The other is that the specific questions to which the discussion of regulation now relates are different from those to which it related when the adoption of the policy was under consideration. For example, prior to 1906 the argument for regulation was based chiefly on the ground that it was needed to stop rebating and other forms of unfair discrimination. Now discrimination is seldom referred to, and rebating is hardly mentioned.

These facts indicate truly that the eleven years of effective regulation have seen great changes in the field of transportation and in the relations between the railways and the public. Experience has convinced many, who formerly opposed regulation on principle, that it is not unsound in principle. They see that it has done much good. It has abated or abolished the chief abuses at which it has aimed; and this is the main reason why some of the phases of the railway problem formerly much discussed are now seldom mentioned.

Nevertheless, many who have wanted to see regulation thoroughly tried have been unable to acquire entire confidence in its ultimate success. They have seen that some principles on which it has been based have been unsound, that the machinery used in regulation has been unsatisfactory and that many of the results produced have been harmful. It is because not only some good, but also some bad results have been produced that the phases of the problem which are the most discussed now are different from those which were the most discussed ten years ago. It is this which explains why denunciations of the railways for dominating and corrupting politics and building up large shippers at the expense of small are now seldom heard, while the

air is filled with complaints that the exercise of the overlapping authority of the state and national regulating commissions is causing new forms of unfair discrimination; that regulation is unnecessarily increasing railway expenses; and that between increasing expenses, and low rates fixed by public authorities, the companies are becoming unable to earn reasonable net returns, or to improve their service or enlarge their facilities enough.

The policy entered upon in 1906 was a unique experiment. The railways subjected to public control were spread over an area almost equaling that of Europe and had a mileage five times that of the railways of any other country. The method adopted was chiefly that of imposing broad statutory requirements and limitations on the companies, and delegating discretionary authority to commissions to enforce them.

Regulation by commission was not previously unknown. But the extent and nature of the authority and duties given the Interstate Commerce Commission, which were at once legislative, administrative and judicial, differed from those ever delegated to any other national regulating body. There already existed a number of state railroad commissions. It seemed as if it would be desirable, when the national government commenced assuming greater control over the roads, for the states to begin to step aside; but immediately following the enactment of the new federal railway laws many new state laws were passed, new state commissions were created and the powers of those already existing were enlarged. No other country ever tried to regulate its railways by a multiplicity of overlapping laws and agencies operating independently of one another.

Nobody could have foreseen what would be the results. That all would not be good was inevitable. By now studying those which have been produced we can get light on the best policy of regulation to follow in the future. Such study should be made, for the improvement of our policy of regulation of railways is the only alternative to government ownership.

When the Hepburn bill was under consideration discussion centered especially around four classes of evils. These were the activities of the railways in politics; the wholesale distribution of free passes; the granting of secret rebates and of unfair discriminations of other kinds; and the juggling of the finances of some companies. All of these evils were traceable to conditions which had prevailed in the formative and competitive periods of railway development. Why they have been reduced is not difficult to see.

The relation of the railways to politics long was disgraceful. In many states their lobbyists controlled nominations and elections and dictated to the legislatures. Their influence was almost as great in Washington as at the state capitals. It was originally necessary for the companies to secure special legislation to obtain charters. The public was more anxious to get railways than as to the terms on which it got them, and the lawmakers were correspondingly compliant. The practice then developed, of employing political lawyers to obtain satisfactory charters and other concessions, was found useful to continue when the formative period was past and the problem of the railways was no longer that of securing from the government what the railways wanted, but that of keeping the governments from taking away privileges, immunities and rights which the

railways desired to keep. The downfall of the political influence of the companies, which was practically coincident with the beginning of effective regulation, was primarily due to the general uprising of the public against political bossism and against the activity of large corporations in public affairs. But the effects produced on the relation of the railways to politics would not have been lasting if this uprising had not led to certain legislation.

One of the best provisions of the Hepburn Act was that prohibiting the giving of free passes except to certain classes of persons. Those on whom passes had been bestowed most generously were politicians and newspaper editors. Every politician who had one was more friendly or less unfriendly to the railways than he otherwise would have been. Every pass accepted by an editor had some influence on what the press said about the railways. The legislation regarding passes had immediate effects on the press and politicians. "Pitiless publicity" concerning railway affairs became universal. A flood of laws which the free pass had helped keep back was poured forth.

The laws creating regulating commissions or giving them increased authority tended to complete the destruction of the political influence of the railways. Legislative bodies, with their numerous members elected for short terms to represent many localities, are likely to be influenced more by political considerations than commissions with a small number of members chosen for comparatively long terms. Consequently, legislatures are more likely to be subservient to large corporations when public sentiment is friendly to them, and unreasonably hostile when public sentiment is unfriendly.

Secret rebating and other forms of unfair discrimination were results of that excessive competition between the railways which prevailed for many years. Competition between railways, unless limited by agreements or regulation, will be carried to greater extremes than between concerns of any other kind. When competition between concerns of other kinds bankrupts the weaker, it eliminates them. If a railway company quit business it would forfeit its charter and could not sell its plant to be used for any other purpose. It is always cheaper to keep on competing than to stop running a road entirely.

Therefore, there is no extreme to which railway competition may not go and has not gone. Throughout the period of competition the managements tried, by pooling arrangements, agreements or contracts to maintain rates, and consolidations, to moderate their rivalries. These attempts were defeated by anti-pooling and anti-trust legislation. While competition prevailed the roads naturally fought harder for the business of large than of small shippers and communities. The result was the discriminations in favor of the former.

The original Act to Regulate Commerce made it a crime for a railway to give a rebate, but not for a shipper to receive it. This was unfair; and, as the giving and receiving together constituted the offense, merely prohibiting the giving was not sufficient. The Elkins law of 1903 made it also a crime to receive a rebate. This caused an improvement. The Hepburn Act increased the penalties against rebating, enlarged the investigating authority of the Interstate Commerce Commission, and gave it power to fix maximum reasonable

rates. It thus substituted regulation for competition as the controlling factor in rate-making.

Competition being thus reduced, and the provisions against rebating having been made clear, comprehensive and mandatory, and being now enforced, that practice ceased. The efforts to abate unfair discriminations in the published rates and the complaints about them have been less successful. Doubtless this is because the determination of what adjustments in rates should be made is a matter requiring expert judgment; and the Interstate Commerce Commission, although more impartial, has not as much expert knowledge and judgment as the railway officers. However, the delegation to the Commission of large authority over rates has done good, not only by reducing discriminations practised by the railways, but by assuring the public that in the making of rates the rights of all will be considered.

Our railways long have been reproached on the ground that those in control have juggled their securities to defraud minority stockholders and have watered their capitalizations to get a fictitious basis for charging rates and earning profits. Originally the security issues of most companies did exceed their investments. Railways were speculative enterprises, and it was impossible to sell their securities at par. Furthermore, until comparatively recent years the issuance of securities in excess of actual investment was not regarded ordinarily as an improper business practice, and railways were not looked upon as different in their nature from other classes of concerns.

Before public opinion became adverse to the overcapitalization of railways, the management adopted the

"American practice" of making many improvements from earnings and charging them to operating expenses or surplus. There was also a natural increase in the value of the properties. Consequently, when effective regulation began there probably was not much difference between the value of the railways as a whole and their capitalization. Since then there have been few cases of stock watering, and the increase in investment has exceeded the increase in capitalization. It is significant that those who imply that stock watering continues to be prevalent always use to illustrate the practice the cases of a few roads—Erie; Chicago and Alton; Rock Island; St. Louis & San Francisco; New Haven. Now, the condemned transactions on all these roads were begun and most of them were consummated before 1906. The increasing conservatism and honesty of railway financial management are partly due to the development of a sentiment which condemns practices formerly condoned. They are partly due to the publicity which has been given to these practices. They are partly due to regulation in several states prescribing the purposes for which and the conditions on which securities may be issued.

The foregoing shows that regulation has helped to confer some important benefits on the public. It has destroyed the railways' domination of politics. It has abolished the issuance of free passes except to certain classes of persons who are expressly authorized by law to use them. It has extirpated rebating and greatly reduced unfair discriminations in the published rates. It has caused the adoption of a uniform system of accounting which has made it more difficult for those in charge of the management of railways to evade public control or deceive or overreach their stockholders, and has given

so much publicity to the mismanagement, financial and otherwise, of certain roads as to render such mismanagement more difficult and improbable in future. This is but a partial list of the good results it has achieved.

If this were the whole record it would be very satisfactory. But it is not the whole record. While regulation has been doing so much good, it also has been producing, or contributing toward producing, other effects that are more questionable. We must consider its doubtful and bad as well as its good results before we can decide whether the policy now being followed should be continued unchanged, or should be modified, or whether regulation should be abandoned and some entirely different policy adopted.

The main provision of the Hepburn Act of 1906 was that authorizing the Interstate Commerce Commission to substitute maximum reasonable rates for rates it should find unreasonable. This was intended both to abolish unfair discrimination and to secure the reduction of excessive rates.

The latter purpose, in the opinion of many, was as important as the former. Not only the Hepburn Act, but also the Mann-Elkins act passed in 1910, were framed accordingly. While they empowered the Commission to reduce rates and suspend advances, they did not authorize it to advance rates or to interfere with reductions. The Sherman anti-trust law and the anti-pooling provision of the Interstate Commerce Act, both intended to prevent the railways from combining to raise rates, were left in effect; and the Hepburn Act was followed by a flood of state legislation requiring reductions in rates. The intention of the public that regulation should get it lower rates was clear.

The new policy did not cause as great reduction in rates as either its advocates hoped for or its opponents feared. Yet in 1914, 1915 and 1917 the Interstate Commerce Commission rendered decisions which seemed to mark a reversal of that policy. In the so-called "Five Per Cent Case" it authorized the eastern railways to make general advances in their rates; and it has since allowed advances in both passenger and freight rates over a large part of the country.

The public began the policy adopted in 1906 with great expectations. It was anticipated that it would not interfere with the right of the railways to earn reasonable profits, but that it would prevent them from earning excessive profits, while securing to the public reasonable rates and satisfactory service. The railway managers were less optimistic. There was danger, they thought, in giving to public officials authority to control rates and earnings, while leaving the responsibility of furnishing railway service, developing railway properties, and finding the necessary capital for these things, to private stockholders and managers.

As regulation has increased, the pessimism of the managers has increased with it. The rates of the railways have been reduced, they declare, and their expenses and taxes increased until their profits are vanishing. New construction has been almost stopped, improvements have been curtailed, even necessary expenditures for maintenance cannot be made and the railway situation has become a chronic menace to the welfare of the country.

Most business men and many economists believe there is foundation for these views. There has also been a change of public sentiment. The public's faith in regu-

lation has been shaken. Has there been anything the matter with regulation which has justified the complaints of railway managers and financiers, the change in public sentiment, and the action of the Interstate Commerce Commission in partially reversing the policy recently followed?

Railway managers contend there has been. Others vigorously maintain that there has not been. The latter class denounce the efforts of the railways to get advances in rates; criticize the decisions of the Commission granting them; and see in the success of the railways in such proceedings the breakdown of regulation. They point out that in some respects regulation has been beneficial to the railways. By abolishing rebating and the indiscriminate giving of free passes it has tended to increase their earnings. Is regulation to result, these persons ask, in rates tending upward, and in the imposition of heavier burdens on commerce and the people? If so, they assert, the sooner we fly to some other policy the better.

While the attitude of the public toward the railways has changed, it has difficulty in deciding between these conflicting views.

Perhaps this difficulty may be reduced if attention be fixed upon certain important facts regarding the former trend, and the more recent trend, of railway affairs. These important facts are, in brief, that our recent policy of regulation has been based on the experience of the railways in the period immediately preceding 1906, while their experience since then has been very different from what it was before. This has been due only partly to regulation; the change has been produced largely by economic forces which would have operated in

the absence of regulation. There have been several things wrong with regulation; and the main one has been that it has been predicated on the experience of the railways in one period and applied to them in another period when the tendencies, conditions and needs of their business have been greatly altered. We have been putting new wine in old bottles, with the usual results.

Treatises on political economy teach that the railway business is one of "increasing returns." The economists hedge the theory about with qualifications, such as that the tendency toward increasing returns may be counteracted by advances in the unit costs of labor and materials, and so on. But the theory of the economists has not always been correctly understood by laymen. What it has meant to many laymen has been that the investment that must be made, and the operating expenses that must be incurred, by railways, never increase as fast as the business handled. Therefore, when the traffic is growing, and freight and passenger rates are stationary, the percentage of profit earned will rapidly increase. The experience of the railways before 1906 seemed strikingly to demonstrate this theory; and this led to some interesting developments.

Before the panic of 1893 there was a rapid expansion of transportation facilities. In the depression which followed traffic was light, and rates and net earnings were low. The roads were built away ahead of their business. Every mile of line could have handled much more traffic than was available. Therefore, when along in 1899 and 1900 business of all kinds began to "boom" and railway traffic began to grow rapidly, there was no need for large investments to handle the additional traffic. There was less competition than in earlier years,

and the tendency of rates was upward. Between 1898 and 1906 extensive labor-saving improvements were introduced in railway plants and operating methods; and, as the advances in wages were small, the increases in expenses were nowhere near as large as the increases in earnings. The taxing authorities had only begun to discover the possibilities of railway properties. In short, in the seven or eight years before 1906 every condition favored an advance in gross earnings exceeding in proportion the additions to investment and expenses; and the business was one of strikingly "increasing returns." Roads which before had barely earned their interest and dividends now piled up surpluses. Others which recently had been bankrupt because they could pay neither interest nor dividends now became able to pay both. The investors in the stock of such properties as Union Pacific and Great Northern garnered profits beyond the dreams of avarice.

Optimism regarding the future of the railways, therefore, reigned among investors, speculators and railway officers. Large and juicy "melons" were cut. Control of some railways was acquired by other railways, and stocks readily sold in the market at prices wholly excessive in proportion even to the favorable net earnings then being made. These prices were based on the substance of things hoped for, rather than on the evidence of things seen; for it was assumed that railway profits would go on increasing indefinitely. The "practical" men of the railways and of Wall Street were more obsessed with the theory of "increasing returns" than the professors ever were.

Meantime, the obsession was taking hold on political

leaders and the public. They began to reason with the lawyers that the railways were public service corporations, and that the public had special rights in respect to them. They began to reason with the economists that when railway traffic increased and railway rates remained stationary, profits tended to advance; and concluded that when traffic was increasing rates should go down. But rates were tending upward. The conclusion of the public and its leaders was natural. The public ought to share in the increasing prosperity of the railways through reductions in rates and improvements in service; and these results should be gained by regulation.

It was this experience and reasoning which produced the Hepburn act, started the flood of state legislation, and passed the Mann-Elkins act authorizing the Interstate Commerce Commission to restrain advances in rates. The public having gotten the same notion as the "malefactors of great wealth" concerning the economic nature of the railway, it set to work to checkmate those evildoers and capture most of the cream of "increasing returns" for itself. Many protesting voices were raised. But the public remained cheerful. There might be mistakes made; but the railways "could stand it!"

When one is in a forest he cannot see it for the trees. Looking back now over the years following 1906 much can be noted which could not be observed before. One of the main reasons why the railway business had been one of rapidly "increasing returns" was that facilities had been built ahead of the business. Within a month after the Hepburn act went into effect in 1906 there came a serious "car shortage." The traffic had caught

up with the facilities; henceforth it would be necessary to make large new investments to handle additional business. The next year railway employees carried through the first of several successful movements for general advances in wages. The taxing authorities became more active, and railway taxes have since increased enormously. Meantime, there has been a panic and depression causing a slowing up of the growth of traffic.

The results of the play of these various forces are illustrated by the statistics for the periods preceding and following 1906. In the seven-year period 1899-1906—fiscal years being used—railway traffic and gross earnings per mile of line increased almost 50 per cent, the average annual wage per employee increased only 4.6 per cent, and taxes per mile increased 36 per cent. In consequence, while investment in road and equipment per mile increased only 6 per cent, net operating income per mile—what was available to pay a return on investment—increased 47 per cent; and the percentage of operating income on investment was 5.33 per cent. On the other hand, in the seven-year period 1906-1913, traffic per mile increased only about 25 per cent and gross earnings only 23 per cent, in spite of the fact that traffic and earnings in 1913 were the largest up to that time. The average annual wage per employee increased 33 per cent, operating expenses per mile 29 per cent and taxes per mile 55 per cent. In consequence, while investment in road and equipment per mile increased 12 per cent, net operating income per mile increased only 6¼ per cent; and the percentage earned on investment in road and equipment was only 5.1 per cent.

Almost simultaneously with the adoption of a policy

of regulation predicated on the theory that the railway business was one of increasing returns, it became in actual fact one of diminishing returns. This tendency of net return to decline becomes still more apparent if comparison be made between the statistics for the two eight-year periods 1898-1906 and 1906-1914, or between the two nine-year periods 1897-1906 and 1906-1915. In both 1914 and 1915 there were declines in both traffic and gross earnings, while investment, wages and taxes continued to increase. In consequence, in 1914 the percentage of net operating income on the investment in road and equipment declined to 3.99 per cent, and in 1915 to 3.9 per cent. Complete statistics for the seven-year periods 1899-1906 and 1906-1913, and the nine-year periods 1897-1906 and 1906-1915, are given in the accompanying tables.

The policy of regulation followed did not slow up the growth of traffic. It has not caused most of the increase in investment or the advances in wages. It has not directly caused the increase in taxes. But it has had its effects on them. Laws and orders of commissions, such as those requiring the separation of grade crossings, the installation of block systems, the use of electric headlights, the reduction of hours of labor and the employment of extra men in train crews, have contributed toward the increases in investment and expenses. Other laws and orders have prevented the advances in rates which have been needed to offset the increases in fixed charges and expenses, or have even caused reductions in rates. The application of a policy predicated on the theory of increasing returns to economic conditions tending to cause decreasing returns

TABLE I

TREND OF RAILWAY AFFAIRS IN TWO SEVEN-YEAR PERIODS

ITEM	AMOUNT			AMOUNT OF INCREASE		PER CENT OF INCREASE	
	1899	1906	1913	1906 over 1899	1913 over 1906	1906 over 1899	1913 over 1906
Passenger-miles per mile of line	77,821	114,529	143,067	36,708	28,538	47.17	24.92
Average rate per passenger-mile	1.925c.	2.003c.	2.008c.	.078c.	.005c.	004	25
Ton-miles per mile of line	659,565	982,401	1,245,158	322,836	262,757	48 94	26.74
Average rate per ton-mile	.724c.	.748c.	.729c.	.024c.	.019c.	.033*	*2.54
Investment in road and equipment per mile of line	$56,079	$59,624	$66,900	$3,545	$7,276	6 32	12.23
Gross operating revenue per mile operated	$7,005	$10,460	$12,873	$3,455	$2,413	49.32	23 07
Average annual wage per employee	$562	$588	$758	$26	$170	4 62	28 91
Average wages per mile	$2,788	$4,052	$5,420	$1,264	$1,368	45.34	33.76
Operating expenses per mile operated	$4,570	$6,912	$8,939	$2,342	$2,027	51.24	29.32
Net operating revenue per mile operated	$2,435	$3,548	$3,934	$1,113	$386	45 70	10 8
Average taxes per mile operated	$247	$336	$521	$89	$185	36 03	55.06
Average operating income per mile operated	$2,188	$3,212	$3,413	$1,024	$201	46 85	6.25
Per cent operating income on property investment	3.9	5.33	5.1	1.43	*.23	36 66	*4.31

* Decrease.

TABLE II

TREND OF RAILWAY AFFAIRS IN TWO NINE-YEAR PERIODS

ITEM	AMOUNT			AMOUNT OF INCREASE		PER CENT OF INCREASE	
	1897	1906	1915	1906 over 1897	1915 over 1906	1906 over 1897	1915 over 1906
Passenger-miles per mile of line	66,874	114,529	131,165	47,655	16,636	71 21	14 53
Average rate per passenger-mile	2.022c.	2.003c.	1.985c.	*.019c.	*.018c.	* 0094	* 0089
Ton-miles per mile of line	519 079	982,401	1,121,059	463,322	138,658	89 26	14.11
Average rate per ton-mile	.798c.	.748c.	.732c.	*.050c.	*.016c.	*.063	*.021
Investment in road and equipment per mile of line	$55,586	$59,624	$72,689	$4,038	$13,065	7.26	21.91
Gross operating revenue per mile operated	$6,122	$10,460	$11,827	$4,338	$1,347	70.86	12.88
Average annual wage per employee	$565	$588	$827	$23	$239	4 07	40.65
Average wages per mile	$2,540	$4,052	$5,147	$1,512	$1,095	59 53	27.02
Operating expenses per mile operated	$4,106	$6,912	$8,341	$2,706	$1,429	65.90	20.61
Net operating revenue per mile operated	$2,016	$3,548	$3,486	$1,532	*$62	75.99	*.175
Average taxes per mile operated	$227	$336	$544	$109	$208	48.01	61.90
Average operating income per mile operated	$1,789	$3,212	$2,840	$1,423	*$372	79.48	*11.58
Per cent operating income on property investment	3.22	5 33	3.9	2.11	1.43	65 53	.27

* Decrease.

has aggravated and intensified the tendency toward diminishing returns. The great fault of our policy of regulation has been that instead of working in the same direction as economic forces, it has antagonized them; and, caught between, railway profits have suffered severely.

Owing partly to the financial mismanagement of some roads, and partly to this declining tendency of net operating income, the mileage of railways in the hands of receivers in the United States on October 1, 1915, exceeded all previous records. At that time there were in the hands of the courts 82 companies operating 42,000 miles of line and having an aggregate capitalization of $2,264,000,000.

The effect produced on railway expansion by the tendency toward declining railway profits has been very marked. While the percentage of net return was increasing there was great activity in the construction of new mileage and the purchase of equipment. Even when credit was yielding, owing to the diminution of net returns, the managements felt that they must go on with the improvements necessary to enable the existing mileage to handle the traffic offered. Therefore, there has been since 1906 a large increase in investment in road and equipment per mile. But there was no reason, when railway net returns were declining, for anybody to build and equip new mileage. Consequently there has been a great decline in new construction and in the purchase of equipment.

The following table shows the new construction and the purchases of equipment in the five calendar years ending with 1907 and in the five years ending with 1917:

NEW CONSTRUCTION AND EQUIPMENT ORDERS

	1903-1907 (Inclusive)	1912-1917 (Inclusive)	Decrease
New mileage built.....	24,347	7,613	68.7%
Freight cars ordered.....	1,049,743	586,209	44.1%
Locomotives ordered ..	21,210	12,058	43.1%
Passenger cars ordered...	13,005	11,993	7.7%

The increase in railway mileage in the calendar year 1915 was less than 1,000 miles. This was the smallest it had been in any year since 1864, and the smallest in any year excepting three during the Civil War since 1848. In the calendar year 1916 it was only a little more than 1,000 miles.

The reduction of new construction and purchases had for a long time an extremely serious effect on concerns making and selling railway supplies. The effect which this situation in the railway and affiliated industries had on the general business of the country was, necessarily, very harmful. It was regarded by many students of economic matters as the main cause of the protracted continuance of the industrial depression.

When the warring nations of Europe began to place enormous orders for munitions and other supplies in this country, many concerns which previously had been engaged chiefly in the manufacture of railway equipment and supplies turned their attention and energies to the making of munitions. This industry grew so large as to be very profitable to many of those engaged in it, and as to help set in motion a wave of prosperity over the whole country, which caused a very large increase in traffic. The effect upon railway net operating

income was remarkable. The Interstate Commission divides the railways into classes according to the amount of their gross earnings. The net operating income of the railways comprising Classes I and II, which include all except the very small roads of the country, suddenly increased in the year ended on June 30, 1916, to 5.96 per cent, the highest figure ever reached. The tendency of net return to decline seemed to have been sharply arrested.

But the large percentage of net return earned in 1916 was to some extent artificial. First, the large increase in traffic in that year, being due mainly to conditions growing out of the war, was abnormal. Second, the operating expenses incurred by the railways in handling the traffic were made abnormally small by the fact that the companies were unable to get enough labor and secure delivery of enough equipment and supplies adequately to maintain their properties. Heavy reductions had been made in maintenance expenses in the fiscal years 1914 and 1915 because of the reductions in earnings in those years. Consequently, when the large increase in earnings came in the fiscal year 1916, there should normally have been a more than proportionate increase in maintenance expenses to take up the deferred maintenance. This did not occur. The increase in freight traffic per mile between 1913 and 1916 was 17½ per cent; the increase in earnings per mile, 14 per cent; the increase in operating expenses and taxes per mile 2.16 per cent; the increase in expenditures per mile for maintenance of way and maintenance of equipment only 2½ per cent. Third, the investment in road and equipment on which the percentage of return was computed was too small. The proof of this is found in

the fact that if the investment had increased as fast in proportion as the available traffic, the facilities for handling the traffic would have been adequate; whereas, the shortage of cars and congestion of traffic which began to develop in 1915-1916, and which in the years 1916 and 1917 was of unprecedented severity and duration, demonstrated that the facilities which had been provided were inadequate.

Why had not the investment in facilities been larger? As already indicated, it had not been because in the years immediately preceding 1916 net return had so declined that there was not sufficient inducement to make new investment. In other words, when investment increased normally the percentage of net return earned declined; and one of the main reasons why the percentage of net return earned in the fiscal year 1916 was so large was that the normal increase in investment had been arrested.

Is the tendency of railway profits to diminish likely to continue after the war? Beyond serious question, it will unless radical changes are made in regulation. Among the reasons are: First, for some years the net earnings shown have been gained by keeping down maintenance expenses unduly. If this deterioration is to be stopped, and that which has occurred is to be repaired, this must be done by expenditures charged either to capital account or to operating expenses. In either case there will be an increase in the demands on earnings. Second, railway employees are still asking and receiving large advances in wages. Third, the authorities make increasingly heavy advances in taxes, whether earnings increase or not. Fourth, legislatures and commissions will continue to impose new requirements which

increase fixed charges and operating expenses. Fifth, there have been unprecedented increases in the prices of fuel, equipment and materials. In spite of the largest traffic and earnings ever known, the net operating income of the railways was $100,000,000 less in the calendar year 1917 than in 1916.

Regulation has had other bad effects besides that of accelerating the tendency of railway net earnings to decline. While it has helped to destroy railway domination of politics, it has been made at times and in places a pretext and vehicle for harmful political agitation and action with very harmful results.

To break the political power of the railways it was necessary to engender a bitter public sentiment against them. This sentiment having been created, various classes have used it to serve their own purposes. While regulation has abolished rebating and reduced some forms of discrimination in rates, it has engendered other forms of discrimination, especially those growing out of inconsistencies and conflicts between federal and state regulation. While it has afforded protection to other interests from the railways, it has failed to give the railways adequate protection from other interests.

Some will declare the foregoing facts show that the system of government regulation and private ownership has failed, and that we must take refuge in government ownership. But suppose we had had government ownership: Would that have prevented the advance in wages, and the need for large increases in investment, which have changed the railway industry of America from one of increasing to one of diminishing profits? The tendency toward increasing capital and operating costs, and toward diminishing returns,

has been widespread on both state and private railways throughout the world; it has been due elsewhere to causes similar to those in operation here; and nowhere else have the railway managements done as much to offset it by increasingly efficient methods as in the United States. There is no magic in government ownership to prevent economic forces from producing their appropriate results.

Others may say the facts show that government regulation is harmful and should be abandoned. But the public feels, and rightly, that it must be protected by either railroad regulation or railroad competition; and if regulation is now "strangling" the railways, it can not be said that their cutting of one another's throats by competition before regulation was adopted was any better either for them or for the public.

The trouble is not with regulation in itself. The trouble is with the particular *policy* of regulation that has been followed; and the remedy is to adopt a policy which will be consistent and fair; which will be predicated on the experience of the railways since 1906 rather than before; and which will be adaptable to any other tendencies or conditions which may develop. The Interstate Commerce Commission has partially recognized this by its decisions in certain rate advance cases. But the advances in rates it has granted, besides being too small, in most instances apply only to interstate traffic; and, anyway, regulation, if it is to do the maximum practicable amount of good for the public, requires many other changes besides that of merely substituting sporadic advances in rates sought by the railways for sporadic reductions in rates sought by travelers and shippers.

The following is a partial statement of the serious faults of our present policy of regulation of railways:

(1) It does not clearly and properly discriminate between the functions of management and of regulation.

(2) It creates commissions to do the regulating, and then permits numerous and frequent incursions by the inexpert lawmaking bodies into the fields of work assigned to the commissions.

(3) The functions which commissions are created to perform and the duties delegated to them require, for their proper performance, expert knowledge; but men with expert knowledge are almost never appointed as commissioners.

(4) There is duplication and conflict between regulation by the state and federal governments.

(5) There is a fundamental inconsistency in federal regulation itself. The Sherman anti-trust law and the anti-pooling provisions of the Act to Regulate Commerce deal with the railways as if they should actually compete with each other. Most other federal laws deal with them as if they should be regulated monopolies.

(6) The policy followed does not recognize the principle that it is just as important to the public that railway rates should be high enough as it is that they should not be too high.

(7) The Interstate Commerce Commission has not been given either enough or the right kind of authority over the physical construction, maintenance and operation of railways.

(8) It has not been given supervision over the issuance of railway securities.

(9) The Commission's personnel and organization are

not adapted to securing the greatest fairness and efficiency in regulation.

Almost every one of these faults of regulation is due largely to the fact that regulation is influenced to an excessive degree by politics. If the railways are to be restored to the management of their present owners after the war, these defects of regulation must be corrected. Otherwise, the stagnation of railway development will continue, and it will be made impossible again, as it has been found to be in the midst of the war, for private management to operate the available facilities with the greatest possible efficiency. The greatest possible efficiency in railroad operation will be as necessary, however, from the economic point of view after the war as it is from both the economic and the military points of view during the war.

CHAPTER III

FUNCTIONS OF GOVERNMENT IN RELATION TO RAILWAYS

The service rendered by railways is familiar to all. It is, therefore, remarkable that its true nature often is not clearly recognized. That it is not is constantly disclosed by public discussions.

The service and rates of railways often are mentioned together with those of steamship companies, and even with those of companies rendering motor truck and "jitney" service, as if they were all strictly comparable. It is true these are all carriers for hire. But the railway company furnishes one extremely important and expensive service which is seldom rendered by any other kind of transportation concern. Other such concerns merely furnish carriage. The highways over which they operate are provided by nature or the public. The railway company not only furnishes carriage, but also the highway over which the carrying is done.

From such estimates as are feasible it appears that, on the average, 60 per cent of the operating expenses, interest and dividends of our railways go to provide carriage, while 40 per cent go to provide and maintain the highways over which the carriage is conducted. Obviously, therefore, to compare the cost incurred in rendering railway service, and the rates charged for it, with the costs and rates of steamship companies and concerns

operating motor vehicles, as is often done, is economic nonsense. If the public, at the expense of the taxpayers, provided highways for railway companies, as it does for other carriers, it would be practicable for the railways of the United States to make their freight and passenger rates approximately 40 per cent lower than it is feasible for them to do now.

It is also a common thing for persons who are treating of the relations of the railways and the public to base their arguments on the premises that the provision of highways is a function of the state, and that railways are highways. Of course, on this theory it follows that railways should be owned and managed by government. But this argument disregards the fact that railways not only provide a highway but also carry goods and passengers. Now, this fact is of some importance, for never before the railway was invented was it considered a function of the state to carry for hire, and even since it was invented governments very seldom have assumed the function of carriage except when they have become the owners and managers of railways. They provide highways for water carriers; but they do not ordinarily own the ships operated on them. They provide highways for vehicle traffic; but they do not ordinarily own the teams and wagons and the motor trucks and motor busses, which use them. While it must be conceded that governments always have provided highways, it cannot logically be concluded that the ownership and management of railways are naturally government functions. How can they be, when, as has been shown, 60 per cent of the expenses incurred are attributable to the service of carriage, which, on historical grounds, may

be held to be within the normal scope of private enterprise?

Attention has been called to these facts, not to confute the advocates of the development of waterways, or the advocates of government ownership, but to show the dual nature of the railway service. Besides showing the duality of that service, the points mentioned illustrate the danger of starting from arbitrary assumptions in reasoning about affairs of such great moment. If we start, as many do, with the premises that it is a function of the state to provide highways, and that the railway is a highway, we necessarily arrive at the conclusion that the ownership and management of railways are properly government functions. If, on the other hand, we start with the premises that the railway is engaged in furnishing carriage, and that carriage is properly a function of private enterprise, we just as inevitably reach the exactly opposite conclusion that railways should be owned and operated by private companies.

Such reasoning, with the conclusions to which it leads, is typical of many arguments which have been made within recent years regarding the relations which railways should bear to the state. Another good illustration is afforded by a paper presented recently at an important meeting by a prominent economist in one of our universities. He laid down the proposition that the relationship between the public and the railways is one of principal and agent. But, he added, an agent is not allowed to make any profit out of his employment; the profits belong to his principal. Therefore, the railway, being an agent of the public, should not be allowed to earn any more than enough to cover the cost of its

service, including operating expenses and interest on investment.

Even if it be conceded that the relationship is one of principal and agent, there is a fallacy in the argument which vitiates it. It assumes that agents are never allowed to make any profit out of their agency. But this is not a fact. There are many examples of agencies in which the agent makes large profits. For example, an automobile manufacturer may have an agent who is required to sell each car at a specified price. But the agent, as is often done, may furnish his own capital. In that case so long as he sells each car for the price fixed by his principal, he is allowed to make any percentage of profit on his capital that he can. How much he will make will depend on how many cars he sells. He may make 100 per cent a year, and at the same time scrupulously and efficiently perform all the duties of his agency.

Now, if the railway is merely an agent of the public in providing transportation service, it must be admitted to be an agent which furnishes its own capital. Therefore, pursuing the analogy with the automobile manufacturer and his agent, we may reason that the proper function of the public in the regulation of railways is merely to fix rates at which it will be reasonable *per se* for them to sell their service, allowing them while they charge those rates to make any percentage of profit on their capital that they can.

These illustrations show that labored ratiocination on the proper relationship of the state and the railways, of which there is such a plethora, may be, and often is, of no practical value, or even worse than valueless. If we are really to understand railway serv-

ice, and to arrive at correct conclusions concerning the proper functions of government in relation to it, we must patiently and thoroughly study the facts about that service, and the conditions under which the railways must be managed and operated, and be guided in reaching our conclusions concerning the proper functions of government by the great principle of public expediency. What policy on the part of the state in relation to railways will be most likely to promote the greatest good of the greatest number? That is the question which we must answer; and no theory of principal and agent, or as to the duty of the state to provide highways, or as to the rights of property, or any other mere theory, is of any use except in so far as it throws light on this vitally important question.

Now, as we have seen, the railway performs a dual service. It provides a highway, and it furnishes carriage. In the early history of railways these were clearly recognized as distinct services. In many cases the roadway and track were provided by the railway company and the vehicles for carriage by other persons and concerns. It was considered feasible for any number of carriers to move their vehicles over the rails, some of them operating for public hire, others merely transporting their own goods. The toll of the railway company and the rate of the carrier for hire were separate charges. In some instances the highway was provided by the state, and the vehicles by private persons, as is the case now on our public highways.

It was soon found, however, that as all the vehicles must run over the same rails, it was not practicable to have them operated by a multiplicity of persons under no common control. Therefore, the function of furnish-

ing the highway and that of furnishing carriage speedily were combined in the same companies. This elimination of competition between carriers operating over the same rails afforded at an early day evidence that railway service was monopolistic by its nature. That this was the case was not, however, clearly recognized from the start in any country excepting, perhaps, in France. Possibly this was because for many years, especially in England and the United States, there was active competition in the construction of railways, and, after they were built, in the rendering of their service and in their rate-making. But every stage in their development illustrated more clearly the fact that unrestricted competition between them, whether in construction, or in service and rates, had different effects from what it had in any other line of industry; that commonly it was of no benefit to the public, and was destructive of the interests of the competitors. Therefore, many years ago George Stephenson uttered his famous dictum that "where combination is possible competition is impossible."

When the tendency toward combination, especially between parallel and competing lines, began to manifest itself, governments began to try to arrest it. The government of the United States has continued this attempt to the present time. These efforts have sometimes hindered the tendency and sometimes hastened it, but they have never arrested it. There is still some competition between railways in England, and more of it between railways in the United States. There always will be such competition as long as private ownership obtains, especially between different groups of railways, as, for example, between our railways running from the wheat

belt to the Atlantic seaboard, and those running from the same section to the Gulf of Mexico. But the competition of railways is and always will be narrowly restricted. Every stage in their development has illustrated the principle that a concern which combines the functions of providing a railway and of furnishing carriage is at least quasi-monopolistic by its very nature.

Now, the general public would not be very much affected by the monopolization of some lines of activity. It would not, for example, suffer much if a single concern acquired a monopoly of the entire diamond business of the world. But the public is bound to be largely affected, favorably or unfavorably, by the development of even a quasi-monopoly of any commodity or service which is a necessity not only to its prosperity, but even to its existence. Railway transportation is such a service. It is true, the world got along many years without railways. But it was a different world then from what it is now; and the revolution which has been wrought has been due more to the development of better facilities of communication and transportation, perhaps, than to all other causes. Our entire present commercial, industrial, social and political organism has grown up around the railways. We recognize this, as to our industry at least, by sometimes calling them its skeleton and sometimes describing them as its arteries. The rates charged by railways enter into the business expenses and the cost of living of every class and individual. Directly or indirectly, every class and individual use their services; and their rates cannot be made excessive or unfairly discriminatory, or their service be deteriorated or interrupted, without doing great public harm. The world existed long without railways; but the mod-

ern world having grown up around railways it could not maintain a normal existence a single hour without them.

There have now been indicated the two features of the service of railways, and the only two, which afford any rational ground for the exercise by government of any special functions in relation to it. These are, first, that the service is at least quasi-monopolistic, and is perhaps naturally monopolistic; and second, that it is of a character which, under modern conditions, makes the prosperity, and almost the very existence, of the public dependent upon it.

Considering these two characteristics of it together, it requires no argument to demonstrate that it is not only a proper function, but is the positive duty, of government to keep a very watchful eye upon railway service, and to adopt in relation to it that policy which, under the particular conditions existing, is best adapted to protect the public and to promote its interests.

There at once arises, however, the question of where, if we are to have private ownership and public regulation, the jurisdiction of the management of a concern subject to regulation properly ends, and that of the regulating authorities begins? We shall most accurately trace the line of demarcation if we consider the precise nature of a public utility.

A public utility has been defined by the courts as private property affected with a public use. The same meaning has been conveyed when it has been said that a public utility is private property devoted to a public service. The property is just as absolutely private in its ownership as a factory or a farm or a store. It is the fact that it is "affected with a public use" that gives the public the right and power to regulate it.

But why is it "affected with a public use"? Because, as has been pointed out specifically with reference to railways, first, its service is one which, under modern conditions, is of vital importance to the public, and, secondly, because the service is naturally quasi-monopolistic or even monopolistic. When the service rendered by any concern takes on these two characteristics there is established between its owners and managers and the public a most important relationship from which emerges both the right and the power of the public to regulate it.

Continuing to be private in its ownership, its owners retain both the moral and the legal right to manage it as they see fit so long as it renders good service to the public at reasonable rates. It remains the province of the management to perform in the first instance all the functions performed by the management of any business concern—to fix the rates to be charged, to determine the amount and character of the service to be rendered, and to decide how the company's financial necessities shall be provided for. And if the rates fixed are all fair and reasonable, if the service rendered is uniformly adequate and good, if the financing is honest and conservative, there is nothing for any regulating body to do.

But experience has shown that the managers of railways and public utilities, being human, are good and bad, wise and unwise, just like other people. In addition, they have more power to do harm than the managers of concerns which are small, or which do business under ordinary competitive conditions. There are farmers who put all the large apples at the top of the barrel, and sell impure milk which poisons little chil-

dren. There are merchants who sell short weight. There are manufacturers who underclassify the goods they ship and thereby rob the railways. And there are some managers of railways and public utilities who, having the same human shortcomings as some farmers, some merchants, and some manufacturers, seek to exact excessive rates, to discriminate unfairly in their charges, and to render service that is poor and inadequate. It is to stop and prevent these abuses that regulating bodies are created.

In brief, the proper function of the management is executive in the broadest sense; that of the regulating body, corrective. This is the only rational and practical view of the matter. For no body exercising regulating authority over numerous concerns can possibly acquire that intimate knowledge of all the conditions and needs of the business of each of them which their managers have, and which is essential to their wise and efficient management; and, therefore, when the regulating body oversteps the limits of its appropriate field of work, its influence ceases to be intelligent and corrective, and begins to be ignorant, meddlesome and harmful.

The fact that a policy of regulation is adopted implies a conviction that the government cannot best promote and protect the interests of the public by undertaking the management of railways and other similar concerns itself. It may be assumed that if the public believed that government management would be preferable it would adopt that policy. By adopting public regulation the public shows that it wants the duties and responsibilities of management left with the owners and officers, and intends that the regulating

authorities shall interfere with and control their acts and policies only when they require control for the protection of the public. It is not ordinarily the place of those who regulate to tell the managements what they must do any more than it is ordinarily the place of a police department to tell citizens what they must do. It is ordinarily their function to tell the managements what things they must not do, and keep them from doing those things, as it is the duty of a police department to tell citizens what they must not do and keep them from doing those things. Because policemen are required to prevent burglaries and apprehend those who commit them is no reason why the police departments should be authorized to control and direct every action of every citizen in every detail of his life. Likewise, because it is necessary to have laws and commissions to control those public service concerns and their officers who may be disposed to act dishonestly or unfairly, it does not follow that all public service concerns and all their officers should be presumed to be malefactors and extortionists and should have their every business act subjected to scrutiny and direction by public authorities.

The purpose of public regulation is, or ought to be, to conserve all the benefits of private enterprise and management, while curbing the excesses and abuses to which they give rise when unregulated. To attempt to control and direct in detail the acts and policies of public service concerns while leaving them in private hands, would be to sacrifice all of the advantages of private ownership and management and secure none of the advantages of public ownership and management.

Having decided for private ownership, in order to se-

cure a high degree of administrative efficiency and to avoid the political dangers of government ownership, we must, if we are to attain the objects of this policy, actually leave the management of the railways to the companies which own them. The public cannot both eat its cake and have it. Under a system of private management and public regulation there always will be abuses and evils. If we retain private management we must do so, not in the expectation that its results will be perfect, but because we expect them to be less imperfect than those of government management would be; and we must not try to make them perfect by interfering with every detail of the business. We must recognize the fact that regulation which is not content to stay within its own sphere, but, without assuming the burdens, risks and responsibilities, seeks to usurp the functions of ownership and management, will result more unsatisfactorily than either unregulated private management or government ownership. There is at present a constant tendency on the part of public authorities to attempt to usurp the functions of management.

The writer would not give the impression that he is in favor of what is called a "weak" regulating commission—that is, a commission with a narrow jurisdiction and which has constantly to appeal to the courts to enforce its orders. He believes in a strong regulating body—strong in personnel, and strong in the power to compel the managements of public utilities to do what they should when compulsion is necessary. He believes compulsion would be necessary less frequently if our commissions were fairer and more expert; but that it is often necessary he has no doubt. But, as the Supreme Court of the United States said in one case, the public

is not a general manager of the railways; nor is it a general manager of other public utilities. Public utilities are not public property with which the public may legally or equitably do as it pleases. The public may become their general manager by becoming their owner, but it has no right to assert the authority of management until it is prepared to assume the responsibility and bear the expenses of management.

Not only has it no right to do so, but for it to do so would be highly inexpedient. Public management of public utilities under public ownership might succeed. Public regulation of private property may succeed. Public management of private property could not succeed. It would involve divided responsibility in its worst form. There would be incessant struggles between the officers selected to represent the owners, seeking to recover the authority they had lost, and the authorities representing the public, seeking to hold the authority they had gained. Each side would exert itself more to nullify the work of the other than by its own policy to get results. The capital needed for adequate development would not be forthcoming; for the public could not lay it out so long as the ownership was private, and private capitalists would not—probably could not—supply it while the management was public. The resulting conditions would be intolerable, and both the owners of the utilities and the public might throw themselves into government ownership as the only haven of escape.

Unfortunately, this is not an altogether unapt description of what has been occurring within recent years, in many states, and, with respect to certain phases of railway regulation and management, in the nation itself.

CHAPTER IV

COMMISSION VERSUS LEGISLATIVE REGULATION

The spread of regulation of business by administrative commissions is one of the most marked and important politico-economic developments in the United States in our generation. The policy was first applied by a few states to railways. It has now been adopted as to railways by the nation and most of the states, and has been extended by several of the states to public utilities of many kinds. It has also been applied to a limited extent to industrial concerns, by the creation of the Federal Trade Commission.

The development of the policy of regulation by commission has resulted from the belief that lawmaking bodies, courts and ordinary executive officials are incompetent to deal with the problems raised by unsatisfactory relations between the public, on the one hand, and public utilities and other business concerns, on the other. The legislatures cannot deal with these problems intelligently and effectively because to do so requires a body possessing expert knowledge and continuously in session, in both of which respects lawmaking bodies are deficient. The courts cannot satisfactorily deal with these problems because they lack expert knowledge, because they have too many other kinds of business to transact, and because their too slow, cumbrous and formal process rigidly excludes whole classes of evi-

dence, which, while logically irrelevant in a lawsuit, are precisely the considerations which would influence a business man in deciding a business proposition. And the ordinary executive or law-enforcing officials are incompetent to deal with the problems of regulation because they lack expert knowledge, because they have other and inconsistent duties to perform, and because a regulating body should approach its work in a judicial and impartial spirit which is incompatible with the purely executive spirit by which the ordinary law-enforcing officials should be animated.

So long as we continued to try to regulate public utilities by the ordinary legislative, judicial and administrative agencies, abuses persisted both in their management and in their regulation. The managements of the utilities were not properly controlled, and they were often arrogant, unfair and rapacious in their treatment of the public, and dishonest in their dealings with investors. When regulation by laws enforced merely by judicial process was attempted, the laws often were conceived in public prejudice, vindictiveness and covetousness, and when the courts nullified them, whether in accordance with a spirit of fairness and in obedience to constitutional mandates, or because of an excessive regard for vested rights or wrongs, there was an outcry against the courts; and when the courts uphold and give effect to unwise laws, the results are bad for the concerns regulated and worse for the public.

It long seemed that we must accept either unregulated management of public utilities, with its attendant abuses; or unwise and inefficient regulation by courts and legislatures; or public ownership. But out of this confused condition of affairs there grew up the idea of

creating commissions possessing at once legislative, judicial and administrative functions, and especially qualified and empowered to deal solely with this problem of public regulation. This system has been developed farther and on a larger scale in the United States than in any other country. Many persons regard the development of the regulating commission with enthusiasm and optimism. They consider it a great discovery in political science, and believe it is the best, if not the only, means by which we can steer clear of both the Scylla of uncontrolled and rapacious private management and the Charybdis of public ownership.

This view is shared by some intelligent and able foreign students of our affairs. "There can be little doubt," says Sidney Brooks, one of the leading publicists of England, "that it is in the utilization of such commissions to stand between the local authorities, on the one hand, and the corporations, on the other, that the United States is destined to lead the world and make the most valuable of all contributions to the problem of combining private initiative and enterprise with protection of public rights."

Another Englishman who is a very keen student of public affairs and economic matters in this country is W. M. Acworth; and a few years ago, when Mr. Acworth appeared before the British Royal Commission on Railways, he described the authority and work of the Interstate Commerce Commission, and advocated the creation of a body with somewhat similar powers in England.

Theoretically, at least, the system of regulation by commission has the advantage not only of providing expert bodies that are in practically continuous ses-

sion to pass upon the questions arising between railway companies and other concerns and persons, but also that of reducing the influence that politics will exert on regulation. As has been remarked elsewhere, legislative bodies, with their numerous members elected for short terms to represent many localities, are likely to be influenced more by political considerations than commissions with a small number of members elected or appointed for comparatively long terms. Consequently, legislatures are more likely, for political reasons, to be subservient to large corporations when public sentiment is friendly to them, and, for similar reasons, to be unreasonably hostile to them when public sentiment is unfriendly.

The principle underlying regulation by commission seems sound. But sound principles are valueless without sound practice; and two things are essential to sound practice in regulation by commission. When suitable powers have been conferred upon a regulating commission it must be left by the lawmaking body creating it to perform its duties almost without interference; and its members must be possessed of expert knowledge and ability and must be entirely impartial.

Unfortunately, these two prerequisites to fair and constructive regulation by commission seldom have been found together, especially in the various states. The state legislatures—and to some extent the same thing is true of Congress—while indorsing the correct principle in the abstract, have constantly violated it in practice. Literally thousands of state laws have been passed regulating railway rates and facilities after full authority to deal with them had been given to commissions. If regulating commissions are to command the respect

of railroads, their employees, shippers, and the public, if they are to perform their duties fairly, intelligently and beneficially, they and their work must be left as free from legislative interference as are the courts and their work.

We have given much consideration to the powers that a regulating commission should have. We have conferred on many of them very great authority. We have given much less attention to the subject of the kind of men who are able to exercise this authority. But in all political and business affairs the kind of men to whom authority is given is at least as important as the amount and character of the authority conferred. Capable, public-spirited men will accomplish much more good with small powers than incapable, self-seeking men will with large powers. In fact, the greater the powers given incompetency, especially if it be associated with selfish ambition, the less is the good and the greater the evil it will usually work.

The disqualifications of legislatures, courts and ordinary executive officials for the regulation of business suggest some of the qualifications that ought to be possessed by the members of regulating commissions. Ability, expert knowledge, fairness in utterance and act, moral courage to resist public opinion when it is wrong, as well as to enforce their duty on refractory public utility managements when they are wrong—these are prime essentials. While some members of our regulating commissions have had the needful qualifications in a high degree, most of them have not had them. By what means may we more generally secure for the commissions the sort of men of which they ought to be composed?

First, we must pay them reasonable salaries. We may get able men to serve temporarily in emergencies for small pay; but the commercial spirit is so strong in this country that we cannot long retain capable men in public service for small salaries. The salaries now paid to the members of most state commissions are too low. In New York the salary is (in 1917) $15,000 a year, which certainly ought to be ample even there. In Illinois it is $12,000, in Pennsylvania, $10,000, and in Massachusetts, $8000. The lowest salary paid is in Vermont, $1,700; in twenty-six states it is $4,000 or less; and the average for all states is $4,500. It is impossible to believe that in a large and important state competent men can be induced to sit long on a commission for less than $5,000 to $10,000 a year. The members of the Interstate Commerce Commission are paid only $10,000 a year. In view of the very high qualifications they should possess and the onerousness and extreme importance of their duties, they ought to be paid much more.

Secondly, the kind of men chosen as commissioners depends largely on the mode of choice. Reason would suggest, and experience shows, that qualified men are more apt to be secured by appointment than election. Occasionally capable men are elected; and frequently unfit men are appointed; but on the whole the appointive commissions are superior in personnel to the elective. The voters have both less fitness and less opportunity to select good men than the governor of a state or the President of the United States. The members of the Interstate Commerce Commission are appointive, as are the commissioners of twenty-four states.

Third, the term of office should be fairly long, cer-

tainly not less than four years and preferably longer. The duties are not only technical, but they relate to a diversity of subjects. Railway commissions now regulate both railway traffic and operation; in some states the issuance of securities; and in many states and in the nation, other public utilities besides railways. On railways only the higher executive officers usually have a working knowledge of all the various departments, and most students of railway matters outside of railway service specialize along only one or a few lines. Therefore, a new commissioner, even though formerly a railway officer or a diligent student of railway affairs, is apt to have a knowledge of only one or a few branches of the railway business. As commissions deal with all branches of the business their members must, if they are to perform all their duties fairly and intelligently, be given long terms so that they may acquire the broad knowledge and experience that the performance of all their duties requires. The members of the Interstate Commerce Commission are appointed for seven years, and we seem now definitely to have adopted the wise practice of repeatedly reappointing those who desire reappointment. On the other hand, the terms of the members of state commissions vary from as little as two years to as much as ten, and average five years. In thirty states they are appointed for six years.

Of course, where commissions regulate not only railways but all kinds of public utilities, the need for appointing their members for long terms, and profiting by their experience by repeated reappointments, is much greater than where they regulate only railways; and there is a marked tendency thus to extend the jurisdic-

tion of commissions originally created to regulate railways only.

Finally, the commissioners should be possessed when they are chosen of special knowledge of the businesses they are to regulate. The best way they can have acquired this knowledge is by having served public utilities themselves in an official capacity. Unfortunately, very few men who have had such experience are appointed or elected. One reason is that there is a strong tendency to put active politicians on commissions, and generally public utility officers are not politicians. Often those chosen are politicians who have gained their reputations by carrying on agitations against public utilities, and who have therefore a bias against them which tends to unfit them to sit fairly in judgment on them. Of the 158 members of state commissions at this time 79, or one-half, are lawyers, while only ten have had any experience as railway employees or officers.

There is a feeling that officers of railways, if appointed to commissions, would be biased in favor of the railways. That probably is true. But surely they are no more apt to be biased in favor of railways than shippers or politicians who have made war on railways are to be biased against them; and it is difficult to see in what way the one kind of bias is any worse or any better than the other. A little more bias in favor of public utilities, accompanied by expert knowledge, would be an excellent antidote to the bias against them, the playing to the political galleries and the want of expert knowledge, that now characterize many commissions. The English law requires at least one of the members of the Railway and Canal Commission—of whom never

more than three are sitting at one time—to be "of experience in railway affairs." The Railway and Canal Commission is merely a court which passes on rate cases. How much more important that a body such as the Interstate Commerce Commission, which regulates so many phases of the railway business, should have some members "of experience in railway business"!

However, it is not necessary to go to the railways or other public utilities to get men who have some special qualifications for membership on regulatory commissions. Germany, "the land of damned professors," has learned to make good use, in its public affairs, of earnest and intelligent students of economic and industrial problems, drawing them sometimes from the faculties of universities, sometimes from the ranks of professional and business men. Unfortunately, in the United States we have never had much use in public affairs for men who prefer investigation to guessing and cogitation to agitation.

If we are to continue to have private ownership of railways in any form after the war, we shall require some form of regulation by commission.

If the potential advantages of regulation by commission over regulation by legislative enactments and judicial procedure are ever to be realized in actual experience—as they have not been in the past—there must be less interference with the commissions by the law-making bodies, and their personnel must be improved.

CHAPTER V

FEDERAL VERSUS STATE REGULATION

Under our present system the facilities and the rates of the railways are subject to regulation by both the nation and the states. Where there is conflict the states must yield. This is the constitutional theory. In practice it has proved impossible for a state to regulate rates and facilities within its borders without affecting interstate commerce and commerce within other states; and up to the present time very little effort has been made by the national government to assert its paramount authority over commerce and the instrumentalities by which it is carried on.

Some of the most palpable shortcomings and worst effects of the present system of regulation result from duplication and conflict of effort by the state and national governments. In many cases the duplication of effort is complete, and the resulting waste of the money of both the public and the railways glaringly obvious. For example, some states have inspectors of locomotive boilers; and the Interstate Commerce Commission has inspectors regularly inspecting the same boilers. The railways and public have been put to the expense of valuations of the railways in numerous states; and now they are being put to the expense of a federal valuation of all railways.

As the Interstate Commerce Commission is the most

important regulating body in the country, most people give it the credit or blame for the results of government regulation, commending it if they regard the effects produced as good, and condemning it if they consider them bad. It is probable that a majority of business men and students of economic and industrial affairs believe the reduction of railway net earnings within recent years has been unjustified and has had a bad effect on business generally. Therefore, among these classes the Interstate Commerce Commission is a less popular and more criticized body than a few years ago.

But much of the criticism visited on it is misdirected. The Commission is often called the most powerful governmental body in the United States. In a sense, it is so. It has large authority over the railway industry, which involves the possession of great power to affect the national welfare. But an examination of the laws and court decisions under which the Commission acts shows that its authority, while great, is fragmentary and subject to many limitations; that it is more negative than positive; that it is such that the harm which the Commission can do if disposed to be unfair is greater than the good it can do if disposed to be fair. Before judgment is passed on the Commission's work the nature and limitations of its authority should be carefully considered.

In theory, regulation should, and in practice in this country it does, relate to the financing of railways; to their construction, maintenance and operation; to their accounting; and to their rate-making. As financing must precede construction, and as construction, maintenance and operation must precede accounting and rate-

making, logically, regulation should be applied to these features of the business in the order in which they are named. In France, where logic usually counts for more and opportunism for less in public affairs than in English-speaking countries, this is almost exactly what was done. But in the United States—and much the same thing is true in England—regulation has been applied to one and then to another part of the business as there have come to the notice of the public and its representatives real or supposed abuses which have seemed to require correction.

How our system of regulation has grown up is illustrated by the way in which from time to time its powers have been conferred upon the Interstate Commerce Commission. The act to regulate commerce went into effect in 1887. There had been prolonged, widespread and well founded complaints of rebating and other forms of unfair discrimination in rates, and the law was passed mainly to abolish these practices. It prohibited rebating and other forms of unfair discrimination, and forbade rates to exceed reasonable maxima. There was apprehension lest the pools of traffic and earnings which had been formed by various groups of competing lines would cause rates to be made and kept excessive, and therefore pooling also was prohibited. The Interstate Commerce Commission was created to enforce these provisions. It understood that it was authorized to prescribe and put into effect maximum reasonable rates; but the Supreme Court of the United States held otherwise.

During the twenty years following the creation of the Commission the question of rates, and especially the rebating phase of it, continued to absorb public

attention; and regulation, state and national, dealt mainly with this question. Several minor amendments to the Interstate Commerce law, all dealing with rate matters, were passed, and in 1903 the Elkins law was enacted, strengthening the provisions against rebating. In 1906 was passed the Hepburn Act, specifically authorizing the Commission, when it found rates unreasonable, to fix maximum reasonable rates. In 1910 was passed the Mann-Elkins law, empowering the Commission to suspend advances in rates pending investigation of them and to prohibit them if found unreasonable.

Meantime, in 1890, there had been enacted the Sherman Anti-Trust law. Originally assumed to have no application to railways, this law was soon construed by the courts to prohibit all agreements and combinations between competing carriers.

Gradually the attention of the public and its representatives began to be directed toward other phases of the railway business. The Hepburn Act authorized the Interstate Commerce Commission to prescribe a uniform system of accounting. This the Commission did, and several states followed its example.

As early as 1893 Congress had begun the physical regulation of railways by passing the Safety Appliance acts, requiring the use of power brakes and automatic couplers. The Erdman law of 1898, providing a scheme of conciliation and arbitration of disputes between railways and their employees in train service, was intended as a regulation of operation, its principal purpose being to prevent interruptions of service by strikes. After being long ignored, this statute, now in amended and strengthened form known as the Newlands Act, has in

recent years often been resorted to with important results.

Within the last ten years federal laws affecting the physical equipment and operation of railways have followed each other in rapid succession. In 1907 an act was passed limiting the hours of service of railway employees. In 1908 the kind of ashpans to be used on locomotives was prescribed. In 1909 the transportation of explosives was dealt with. In 1910 the present Employers' Liability Act, applying to interstate carriers, was enacted, and provisions were adopted affecting all safety appliances used on locomotives and cars. Still later there was passed an act for the inspection of locomotive boilers, which more recently was made to cover the entire locomotive. In 1916 was passed the Adamson Act requiring the wages of employees in train service to be paid on the basis of an eight-hour day. The Interstate Commerce Commission has nothing to do with the arbitration of labor disputes, but is required to administer and enforce most of the federal laws affecting operation.

The example set by Congress during the last ten years in passing laws relating to physical equipment and operation has not only been followed but greatly surpassed by most of the states. During the six years ending with 1917 the states adopted no less than 605 laws relating merely to the physical operation of railways; and in numerous cases the legislatures and commissions have regulated features of the business which Congress has not touched or authorized the Interstate Commerce Commission to deal with.

The foregoing shows that the Interstate Commerce Commission's power is fragmentary. Its authority, even

over the phases of the railway business with which it does deal, is limited in various ways. Its authority over rates is great, but far from unbounded. The extent of its power over state rates is unsettled. In the Shreveport case it was held that if a state rate prescribed by a state authority was so low compared with a related interstate rate as to be unfairly discriminatory against interstate commerce, the Commission could compel the railways to remove the discrimination even though this involved the advance of the state rate. But it is conceivable that a state rate fixed by a state commission or legislature may be too low as compared with interstate rates approved by the Interstate Commerce Commission, and yet not be so related to the interstate rates as to work directly, at least, an unfair discrimination.

What control, in that case, can the Commission exercise over the state rate? The courts will not interfere with either interstate or state rates merely because they are low unless they are actually confiscatory. How much it may be reasonable and expedient for rates to be kept above the line of confiscation is a question of public policy to be determined by lawmaking bodies and commissions. Suppose, now, that the courts should hold that rates which would yield a return of 5 per cent on a fair valuation barely avoided confiscation and that state authorities should then fix rates which would yield only 5 per cent on state traffic, but that the Interstate Commerce Commission should believe a more liberal policy was desirable, in order to induce sufficient investment in railways, and should allow rates which would yield 6 or 7 per cent. This is practically what is really being done in many cases, except that the rates of return allowed to be earned do not average as much as

those mentioned. There are many instances where state legislatures and commissions are enforcing lower passenger and freight rates than the federal commission is allowing to be charged on interstate traffic in the same states.

In its decision in the western rate advance case in 1915 the Interstate Commerce Commission refused to permit increases in certain interstate freight rates, not because they would not be reasonable in themselves, but because the interstate rates already being applied were higher than the corresponding state rates. The attorneys for the railways contend that it was within the competence of the federal commission, first, to fix reasonable interstate rates, and then to require the state authorities to permit the collection of corresponding state rates. Does the failure of the Interstate Commerce Commission to adopt this course indicate a belief that it lacks the necessary authority? If it does lack the authority in such cases to bring state rates into line with interstate, its power to prevent unfair discriminations against interstate commerce and to carry out a fair policy of regulation is limited in a very important respect.

The Commission's authority over the way railways shall be equipped, maintained and operated is much more limited than its authority over rate-making. In numerous states the commissions, by general provisions of law, have been given extensive discretionary control over the physical management of railways. In some states, by declining to issue "certificates of public convenience," they can even prevent new lines from being built at all. In many they can order the construction and control the location of passenger and freight stations, prescribe the headlights that shall be used, re-

quire the installation of block signals, and regulate the distribution of freight cars and the schedules of passenger trains. The authority over physical management given to such commissions is, as already shown, supplemented by hundreds of state laws regulating details of construction, maintenance and operation. On the other hand, the legislation enacted by Congress regarding physical management and operation is of a piecemeal nature. While the Interstate Commerce Commission prescribes the safety appliances used on locomotives and cars, it has nothing to say about block signals. It inspects and regulates locomotive boilers, but has no authority to regulate roadway and track. When state legislatures and commissions, in the nominal regulation of state commerce, impose on the railways requirements as to train crews and clearances, which affect interstate more than state commerce, the Interstate Commerce Commission apparently cannot interfere; it has no authority over such matters.

Comparatively limited as is the Commission's power over the physical management of railways, its authority over their financial management is still more restricted. Practically all railways are engaged in interstate commerce. Investors in them are scattered throughout the country. Yet, while many states regulate the issuance of railway securities, the Interstate Commerce Commission is without authority over this part of the railway business.

The facts presented in the foregoing portray an anomalous situation. The railway question is emphatically a national one. Most railways operate in more than one state and many have lines in six, eight or a dozen states. There is no state in which the state traf-

fic approaches the interstate in amount, and in most states the interstate freight traffic is 90 per cent or more of the total. A road's total expenses and earnings determine its total profits, and on these depend both the state and the interstate service which it can render. If one state makes its rates too low or its expenses and taxes too high, that state affects the rates which the railway must charge and the service it can render everywhere else.

A state legislature or commission represents only the people of its own state. Therefore, it usually considers what will especially appeal to them more than what will tend to benefit the nation as a whole. The Constitution, by repeated interpretations of the courts, makes the federal authority to regulate interstate commerce paramount to the state authority to regulate state commerce. The desirability of the assertion and exercise by the federal government of its paramount authority over commerce usually is recognized by the public with great promptness and clearness. Nobody would seriously consider a proposal to let each state deal separately with the tariff question, imposing duties that would affect both interstate and foreign commerce. The federal government exercises exclusive authority in the regulation of commerce on navigable waterways.

A few years ago Mr. William J. Bryan advocated the adoption of government ownership of railways, and suggested that the national government should operate the main lines and the states the branch lines. The storm of opposition and ridicule which greeted this proposal was due not only to a strong public sentiment against government ownership, but to a general recognition of the fact that the railway question is a national one; that

the doctrine of state's rights in its correct form has little to do with it; and that it was absurd to suggest the operation of parts of the railways by the federal government and parts by the states.

Yet in regulating railways we are following the very kind of policy the pursuit of which in dealing with the tariff or in the public ownership and operation of railways we would consider undesirable and absurd. We have partially asserted the paramount authority of the federal government over railway transportation by passing a number of national laws and creating the Interstate Commerce Commission to administer most of them. But, as has been shown, the national commission has not nearly as much authority over interstate transportation as many state commissions have over state transportation; and state legislatures are allowed to pass laws and state commissions to issue orders which purport to affect merely state transportation but which actually interfere with interstate regulation and have a greater total effect on commerce among the states than on commerce within the states.

The present system cannot be defended on the ground that state regulation gets better results than interstate regulation. The national government, and especially the Interstate Commerce Commission, deserve credit for most of what is unquestionably good that has been accomplished. On the other hand, most of the questionable or positively bad results of regulation cannot be attributed to the federal government.

The fact that it is necessary to discuss where the credit should be given and the blame placed for the results points to one of the serious faults of the present policy. This is the division of the responsibility for it.

Where responsibility is so much divided it is impossible to apportion with exact, or even substantial justice the credit and the blame for what is done. But the policies of most of the states have been of such a character and present so great a contrast to that of the national government that it is possible to mete out a rough kind of justice.

In a few states, among which Wisconsin ranks first, most of the regulatory legislation has been intelligently and fairly drafted; the members of the commissions have been chosen largely because of their special fitness, and have not allowed political or other improper influences to control them; and regulation has, in consequence, been fair and beneficial to both the railways and the public. But as to most states, the opposite of all these statements would more accurately express the truth. Furthermore, the policies followed by the states, and even by states adjacent to each other, have been utterly wanting in consistency and uniformity, and often have been directly conflicting. State legislatures have passed most of the laws and state commissions have issued most of the orders affecting railway rates and operating expenses; and to them are fairly attributable most of the bad effects which railway regulation has had directly on the railways and indirectly on the welfare of the public. That this is the case will more clearly appear when we consider the policies which the states, on the one hand, and the national government, on the other, have followed.

The states within the six years ending with 1917 passed 605 laws for the regulation of the physical operation of railways. These have been supplemented by innumerable orders issued by state commissions. In one

respect, and in one only, have most of these laws and orders been alike. Practically all have tended to increase railway expenses. A large part have been enacted to enable special classes of persons having large political influence to benefit directly by the increased expenditures made necessary. This has been true, for example, of the many so-called "full crew" laws, the real purpose of which has been to compel the railways to employ men they do not need.

The federal government has passed some laws tending to increase railway expenses. In some cases these have been enacted as the result of the pressure of interested classes. But there usually has been some justification for the federal laws which have been enacted. Furthermore, a federal law has the advantage that it applies uniformly throughout the country. Finally, the Interstate Commerce Commission, in the administration of statutes affecting operation, usually has been intelligent and fair. It, like Congress, may sometimes manifest a disposition to give undue consideration to the wishes of the labor organizations; but in the administration of the hours of service act, the safety appliance act, and the locomotive boiler inspection act, for example, it has usually given satisfaction to both the railway management and the railway employees.

The policy of the states regarding the issuance of railway securities has been extremely unsatisfactory. For years most of them let railways issue bonds and stocks without any supervision or control. There has been much complaint regarding the over-capitalization of some roads. Most railway corporations have been created by the states, and if the states had not failed to exercise proper control over their financial manage-

ment the over-capitalization complained of could not have occurred. The states which earliest began regulation of securities were Texas and Massachusetts. Texas imposed such severe restrictions that it has been impossible for its railways to finance their needs. Most of the new capital for lines in that state has had to be raised by the companies controlling them on the credit of their mileage in other states. Roads in Texas which have not been controlled and supported by outside companies have often been unable to get adequate capital for improvements and have become decrepit physically and in many cases bankrupt financially. Massachusetts provided that securities should not be sold at less than their market value, this to be determined by the railroad commission. The commission often decided that the market value was more than the securities could be sold for. In consequence, the railways found it difficult and in some cases impossible to raise needed capital, and the law had to be amended to provide that the prices at which securities should be sold should be determined by the stockholders with the approval of the commission.

The inconsistencies between the policies followed in different states is strikingly illustrated by the legislation in the adjacent states of Massachusetts and Connecticut. The Massachusetts law both required the issuance of securities to be approved by the railroad commission and specified the purposes for which they could be issued. Connecticut imposed no similar restrictions. The New York, New Haven and Hartford had charters from both states. The laws of Massachusetts, if they alone had controlled, would have prevented the "high financing" which was a main feature of the Mellen management of the road; but the laws of Connecticut permitted

it. Therefore, it was carried on under the road's Connecticut charter regardless of the laws of Massachusetts.

New York, Wisconsin and several other states have within recent years passed strict laws for the regulation of the issuance of railway securities. But when a railway is required to be chartered under the laws of more than one state and to receive approval of security issues from more than one commission, the expenses and trouble incurred are needlessly multiplied and the subject is likely to be differently dealt with in different states. There is no reason for expecting or hoping that regulation of railway securities will ever be intelligently, fairly and beneficially conducted as long as it is left in the hands of 48 states.

It is a generally accepted principle that fairness to the railways and the welfare of the public require that the carriers be allowed to charge rates which will enable them to earn a reasonable profit on the investment honestly and judiciously made in their properties. If this is not done they cannot raise enough new capital to improve and enlarge their facilities and to render good and adequate service. There are few well-informed persons who believe that the net return earned by the railways as a whole has ever been positively excessive. The statistics of the Interstate Commerce Commission show that during the last decade, on the whole, their net return has been seriously declining.

This decline has been due to the fact that their operating expenses and taxes have been rapidly increasing and that they have not been allowed to make needed advances in their rates. The Interstate Commerce Commission has required many extensive reductions in

freight rates. The most important cases involving advances in rates have been heard by it. In the so-called "Five Per Cent Case" (in 1914) it expressly held, after thorough investigation, that the net earnings of the eastern lines were insufficient and granted some advances, and in 1917 it granted advances to railways in all sections. But in earlier cases in both the east and the west it refused to permit advances, and the advances more recently allowed by it are regarded by most students of railway matters as inadequate. Therefore, the Commission has been the object of criticism by most people who have believed that the railways were entitled to higher rates.

But the fact is, that the Interstate Commerce Commission has been less one-sided in its regulation of rates than almost any state legislature or commission. In the years 1906 to 1908 a large number of states, by legislation or orders of their commissions, which usually were adopted without a pretense of investigation, required the railways to reduce their passenger fares from 3 to 2 cents a mile. Neither Congress nor the Interstate Commerce Commission has reduced passenger rates, and the latter has indicated that it believes that 2 cents a mile is too low, and has allowed part of the railways to restore their interstate fares to 2½ cents and part to 2.4 cents. The roads have appealed to the states to take similar action; but except in New England, and very recently in Missouri, their petitions have not been granted without appeals to the courts.

In 1906 and the years immediately following numerous states, by legislation or the orders of commissions, and usually without any real investigation, required general reductions in freight rates. In many cases they

made the state rates lower than the corresponding interstate rates. In more recent years the railways have appealed to the legislatures and commissions of many states for the restoration of some of these rates, presenting masses of data showing the downward tendency of net earnings. Some advances in state freight rates have been allowed, as in New England, Alabama, Michigan, Missouri, and Illinois; but in most states the public authorities have been openly hostile to any considerable increases.

Furthermore, many of the individual states try so to adjust the rates within their borders as to effect unfair discriminations in favor of shippers in their own states and against those in other states. The Interstate Commerce Commission in the Shreveport case some years ago attacked such an adjustment of rates which had been established by the Texas Commission for the purpose of giving Texas shippers an advantage in certain markets in East Texas over shippers at Shreveport and other points in Louisiana. It held that the regulation of rates by the Texas commission was unreasonable and worked an unfair discrimination against interstate commerce; and the Supreme Court of the United States upheld this conclusion. The Interstate Commerce Commission has been trying ever since to remove the discrimination; but so pertinacious has the Texas commission been in its efforts to maintain the unfair advantage of the shippers of its state that the controversy has not yet been entirely settled.

On the whole, it must be conceded that the Interstate Commerce Commission's regulation of freight rates has been much more intelligent and fair, and, consequently, less one-sided, than that of most of the

states. In fact, there are now in effect many state freight rates which are lower than the corresponding interstate freight rates, whereas, for reasons familiar to all students of the subject, state rates ought ordinarily to be higher than corresponding interstate rates. The result of the methods some of the states have followed in the regulation of rates has been the creation of many discriminations as unfair as those which regulation, especially federal regulation, was adopted to abolish.

Besides having been more fair as between the railways and the public, regulation of rates by the Interstate Commerce Commission has the advantage of being governed by national and not by local influences and considerations. The unfairness of the attitude of most state commissions is illustrated by the fact that seven of them actually appeared in the Five Per Cent Case as parties in opposition to the proposed advances of interstate freight rates in eastern territory, and that sixteen of them appeared as parties in opposition to the advances in freight and passenger rates in western territory sought at the same time.

The attorney for these commissions, who was the chairman of one of them, appeared also as the attorney for two large shippers' organizations, the American Live Stock Association, and the Grain Dealers' Association; and part of the expenses incurred by him in preparing his testimony was borne by the large meat-packing concerns. It is tacitly assumed by the laws of their creation that railroad commissions, in passing on the reasonableness of rates, will act as impartial arbiters between the companies that charge the rates, and those who pay them. It is hardly to be assumed that state

commissions will be impartial in hearing and deciding state rate cases when they are regularly appearing in interstate rate cases, against the railways, as many of them do. These state commissions are led to take such a course largely by political considerations. From a political point of view it is advantageous to their members to struggle to get the lowest rates they can for their own states, regardless of the effect on the nation as a whole. The Interstate Commerce Commission does not and cannot act on similar principles, because it must consider railway matters from a national standpoint.

The facts presented in the foregoing bring out clearly several points which are of much gravity and importance but which unfortunately are not generally understood. They show that the Interstate Commerce Commission cannot be held solely, or even perhaps mainly, responsible for the serious reduction of railway net earnings, so far as it is attributable to regulation, because the Commission has not done most of the regulating. The federal authority over interstate commerce is exclusive, at least when exercised, and is paramount to that of the states over state commerce. The facts show, however, that the Interstate Commerce Commission is exercising, and has been expressly empowered to exercise, practically no control over state regulation even when it affects interstate commerce and interstate regulation; while, on the other hand, state legislatures and commissions are so regulating state commerce as seriously to burden interstate commerce and to interfere with federal regulation. They show that in regulating rates many states are trying to further the interests of their own people at the expense of those of the rest of

the nation. They show that in their regulation of operation the states are often influenced by political and other improper considerations; that the requirements they impose upon the railways are consistent only in increasing operating expenses; and that most of the increases in operating expenses they cause have to be borne not by state but by interstate commerce, since interstate traffic constitutes the great bulk of the total handled. They show that in the regulation of the issuance of securities the states have been entirely inconsistent; that they have been excessively negligent in some cases and excessively stringent in others. They show, if past experience is a safe criterion, that so long as the individual states are left free to do as they like the regulations imposed by them will be utterly wanting in uniformity, and even directly conflicting.

The conclusions to which these facts point are clear. Neither the Interstate Commerce Commission nor any other body should be held responsible for results produced by any system which it cannot direct and control. The results produced by our system of railway regulation will never be satisfactory until that system is radically changed. As long as the states are allowed to regulate the railways without control by the federal government they are sure to continue so to regulate them as to impose burdens on interstate commerce and to interfere with federal regulation. But since our commerce among the states is vastly more important than that within the states, if the regulation of the one is to affect that of the other, then the regulation of the larger and more important part of our commerce should be made supreme and controlling over the regulation of the smaller and less important part. The obvious way

in which to do this is either to empower the Interstate Commerce Commission to regulate both state and interstate transportation, or so to increase its authority over interstate transportation as to enable it to veto any action by state legislatures or commissions which will directly or indirectly burden interstate commerce or interfere with interstate regulation.

The railways have been petitioning for years for relief both from federal laws which have caused wasteful competition between them, and from state regulation which interferes with federal regulation. It is a significant fact that when, in the midst of war, the national government took direct control of railroad operation, it did so mainly to relieve the railways of the trammels imposed on them by laws intended to enforce competition and by state regulation.

CHAPTER VI

REGULATION OF RATES

The part of the railway business to which effective and extensive regulation was first applied was the making of rates. The main purpose of the early regulation of rates was to eliminate unfair discrimination. The most pernicious form which this took, especially in the United States, was the secret giving of rebates to favored shippers.

Within recent years the regulation of rates has been directed mainly to the prevention of the charging of rates which would enable the railway companies to earn profits which would be excessive, according to standards set up by the opinion of the public and the regulating authorities.

While, however, the subject of discrimination in rates attracts much less attention than formerly it has not ceased to be of importance. It is not meant to imply by this that the condition in respect to railway discrimination is as bad as it was in years past. There has been a very marked improvement since the Hepburn act went into effect in 1906. But existing conditions fall far short of perfection. There still are many evil forms of discrimination; and many of them, under existing laws, cannot be stopped or prevented by either the railways or the Interstate Commerce Commission.

The railways cannot stop or prevent many of them,

because to do so their managers would have to make arrangements which almost certainly would be held illegal; and even if such arrangements were legalized, a minority of the managers might in some instances not agree to them; yet any arrangement by railways to prevent discrimination, to be effective, must be made by all competing lines.

The Commission cannot stop or prevent many of these discriminations, because it has not been given so much power over discriminations as experience has shown it must have if it is to exercise control over them with uniform equity and effectiveness. If the main purpose of past legislation on this subject is to be accomplished, there must be more legislation regarding it.

Existing forms of unfair discrimination may, for the purposes of this discussion, be divided into two classes. To the first class belong those which are in effect, if not legally, rebating. The Interstate Commerce Commission has authority to suppress them by the issuance of orders for their cessation and by causing prosecutions for them; but the desired result would in many cases be sooner and more surely accomplished if certain changes were made in existing laws affecting railway agreements and discriminations.

The second class consists of unfair adjustments in the rates of competing shippers or communities. These are in many cases the result of excessive railway competition, and often take such forms that no fair order can, under the law as it stands, be issued in respect to them by the Interstate Commerce Commission. In other cases these unfair adjustments are results of the overlaps and conflicts of state and federal regulation. The Commission under existing laws has not enough authority to

correct unfair discriminations arising from inconsistent state and federal regulation.

In order to see why the Commission's power to deal with rates is inadequate, let us consider the authority to stop and prevent discriminations in rates which it possesses.

The Commission now has two very important kinds of authority over interstate rates: (1) When it finds them excessive or unfairly discriminatory it may reduce them, and fix maximum reasonable rates. This power it was given by the Hepburn act of 1906. (2) It may suspend for a maximum period of ten months proposed advances in rates, while it is investigating their reasonableness; and if it finds them unreasonable, may prohibit them. This power was conferred by the Mann-Elkins act of 1910.

The provision of the Interstate Commerce act giving the Commission the authority first mentioned is in substance as follows:

> Whenever, after full hearing, the Commission shall be of the opinion that any rates are unjust, or unreasonable, or unjustly discriminatory, the Commission is hereby authorized to determine and prescribe what will be just and reasonable rates as the *maximum* to be charged and to make an order that the carrier shall cease to collect any rate *in excess of the maximum rate so prescribed.*[1]

This gives the Commission authority, when it finds an adjustment of rates unjustly discriminatory, to reduce only such rates as it may consider too high. It cannot raise any that it may regard as too low.

The provision of the Mann-Elkins law authorizing

[1] Sec. 15.

the Commission to suspend changes and prevent advances in rates is in substance as follows:

Whenever there shall be filed with the Commission any new individual or joint rate, the Commission is hereby given authority, upon reasonable notice, to enter upon a hearing concerning the propriety of such rate. Pending such a hearing and the decision thereon, the Commission, upon filing and delivering to the carriers affected a statement in writing of its reasons for such suspension, may suspend the operation of such rate, but not for a longer period than one hundred and twenty days beyond the time when such rate would otherwise go into effect; and after full hearing, whether completed before or after the rate goes into effect, the Commission may make such order in reference to such rate *as would be proper in a proceeding initiated after the rate had become effective.*[2] Provided, that if any such hearing cannot be concluded within the period of suspension, as above stated, the Commission may extend the time of suspension for a further period not exceeding six months.[3]

As the only action the Commission can take in reference to any rate after it has become effective is to reduce it by fixing a lower maximum rate, it has been assumed that this last quoted provision authorizes it to deal only with proposed advances. In one case,[4] however, the Commission held that "it has power to suspend reductions in rates in any case where such suspension will operate to prevent an apparent discrimination."

[2] The italics in all the citations are mine.

[3] Loc. cit.

[4] In the Matter of the Request for Suspension of Reduced Rates on Packing-House Products and Fresh Meats from Fort Worth, Texas, to Mississippi River Crossings and Points East Thereof. Opinion 1571, decided June 2, 1911.

It is also contended by some lawyers that when, under the present fourth section of the Interstate Commerce Act, the Commission authorizes a carrier to charge a lower rate for a longer than for a shorter haul, it may fix the minimum below which the rate for the longer haul may not be reduced. The fourth section says that "upon application to the Interstate Commerce Commission such common carrier may in special cases, after investigation, be authorized by the Commission to charge less for longer than for shorter distances for the transportation of passengers or property; and the Commission may from time to time prescribe the extent to which such designated common carriers may be relieved from the operation of this section."

It is argued that this, together with other provisions of the law, not only authorizes the Commission to fix the maximum reasonable rate that may be charged for the shorter haul, but also the minimum reasonable rate that may be accepted for the longer haul. But other lawyers argue that the courts must hold that any authority that the law does not clearly give to the Commission is not given at all, and that as the power to fix a minimum rate is not expressly conferred, it must be decided that it has been withheld.

This latter view the Interstate Commerce Commission itself has adopted. In its annual report for 1911,[5] in discussing the cases arising in the western intermountain territory under the amended fourth, or long-and-short haul, section of the act—its decisions in which were overruled by the Commerce Court—it said:

The Commerce Court intimates that the mistake of the Commission is in having attempted to fix a relation of rates

[5] Page 38.

instead of establishing reasonable rates; but, as we have already pointed out, there is no way in which the discrimination found to exist in these tariffs can be prevented except by fixing a differential, *since we have no power to establish an absolute rate or fix a minimum charge below which the carrier is not free to go.*

There never has been any question in the minds of most of those thoroughly familiar with the law that, except possibly in the fourth section, it does not give the Commission power in any circumstances to fix a minimum or absolute rate; and the Commission's ruling that it has no power to fix such a rate, even under the fourth section, shows that under the statute as it stands the Commission will not try to exercise any such power in any case unless, indeed, the Supreme Court of the United States shall interpret the fourth section differently from the way in which the Commission interprets it.

Even if the Supreme Court should hold that under the fourth section the Commission may fix a minimum rate for the longer haul where it allows a lower rate to be charged for a longer than for a shorter haul, by no interpretation, it would seem, could it be held that the law authorizes the Commission to fix minimum or absolute rates in any case where the long-and-short haul principle is not involved. The only final order it can issue under other provisions of the law to prevent any change in rates is "such an order in reference to such rate . . . as would be proper in a proceeding initiated after the rate . . . had become effective"; and the only order it can make in reference to any rate after it has become effective is one substituting for it a reasonable maximum rate.

These limitations on the Commission's power are not a merely fanciful evil. This will appear from consideration of some of the motives and forces that influence, first, the railways, and second, the state regulating authorities, in making rates, and some of the concrete results.

The railway traffic manager has long been the target for harsh criticism. He has been portrayed as an autocrat who has used his power of making rates to build up some communities and tear down others, to make the rich shipper richer and the poor shipper poorer, and to determine arbitrarily in what market the producer shall sell, and from what centers of production the consumers of each community shall draw their supplies.

This picture is too highly colored. It is also inaccurate in essential details. The traffic manager is a sales manager. He does what other sales managers do: he gets as wide a market and as good prices for his wares as he can. He has to fix rates on numerous commodities. He has to deal with many communities, large and small, and with many shippers, large and small. He has to meet the competition of numerous rivals. He has been, and is, subjected to heavy, incessant pressure both by the large communities—through their commercial organizations—and by the big shippers, for rates lower in proportion than those given to other communities and shippers. The weapon that has been most often and successfully used by shippers and communities to get unfair advantages has been the giving of increased traffic to roads that would yield to their importunities, and the withdrawal of traffic from those that would not. This is attacking the traffic manager in his most vulnerable spot. He is paid to get business, and such in-

cidents weaken him with his management no matter how he explains them.

In every territory there are several competing railways. In every considerable number of men there are sure to be some who are unwise or unfair. Now, it has happened many times that a big corporation or community has demanded some concession in rates which the management of every railway concerned but one has regarded as unfair and has opposed, but which that one has granted. When such a concession is made by one road it must be made by all competing roads on pain of losing competitive business. Consequently, that there are many unfair rates and arrangements does not show that railway managers as a class are either unwise or unfair, but merely that the unwise or unfair among them, aided by economic conditions—and, as I hope to show later, by the existing statutes—have been able to put and keep in effect unfair rates, in spite of the opposition of the large majority of traffic managers.

Suppose a great industrial corporation not only has a large amount of traffic to give, but is controlled by men who are also influential in one or more of a group of competing trunk-line railways. The federal and state governments claim, and exercise, the power to limit railway profits. They do not have any such authority over industrial concerns. Men who are influential in both a large industrial concern and a railway, therefore, may have an incentive to cause the railway to make extremely low rates on the commodities shipped by their industrial concern, and may do it over the opposition of the officers of all the railways concerned. Now, there has been a marked integration of the control of industrial and railway corporations. Men who are largely

interested in industrial concerns are also potent in the counsels and financial affairs of a number of railways, and, whether owing to this or other causes, there is a pernicious tendency to make rates that are disproportionately low on commodities produced and shipped by big industrial corporations.

It may be asked: Who is hurt by such unduly low rates? Railways are entitled to earn a reasonable profit from all of their business; and if a road makes some rates unreasonably low, either (1) it will not earn a fair profit, in which case its stockholders will be injured, and its public service will be impaired, or (2) it will, in order to earn a fair profit, have to impose unnecessarily high rates on other traffic.

It already has been shown that it is not only impossible under existing laws to remedy many unfair discriminations resulting from rates already in effect, but also impossible to prevent unfair discriminations from being made by reductions in rates. Let us see to what practical consequences this may lead.

One of the most interesting and important traffic situations in the country is that created by the differentials in the rates from Chicago to Boston, New York, Philadelphia, and Baltimore. There used to be the fiercest competition for traffic between the roads leading from Chicago to the various Atlantic seaboard ports, and oftentimes the rates were cut until the carriers hauled many commodities—particularly grain—for almost nothing. This unbridled competition was responsible for several lines being repeatedly thrown into bankruptcy. Under an arrangement entered into in 1877 the rates to Boston and New York were made the same; and the rates to Philadelphia were made two

cents, and to Baltimore three cents, per 100 pounds less than to New York and Boston. This and similar agreements were successively broken, abrogated, and renewed, until in 1904 the entire question of the proper differentials to be established was submitted to arbitration by the Interstate Commerce Commission. The Commission, after carefully considering the matter, held that, with a few exceptions which at its suggestion were modified, the existing differentials were fair and reasonable, and they have since been maintained.

Assuming that the Commission was right, any change in the differentials would work an unfair discrimination against one or more of the communities concerned. If it were proposed to effect the discrimination by raising the rate to one of the ports, the Commission could prevent it by issuing an order forbidding the proposed advance. On the other hand, if it were proposed to reduce the rate to only one of the ports, the Commission would be helpless to prevent it; and yet obviously this would be just as much in violation of the Commission's arbitration decision, and would work the unfair discrimination just as effectively, as would an advance in rates.

Undoubtedly, some of the present discriminations may be remedied by better enforcement of existing laws. The Interstate Commerce Commission and the Department of Justice seem to be doing their best, and with much success, to enforce the laws against rebating in all its forms.

One way in which their efforts probably would be furthered would be by abolition of the control by industrial corporations of all industrial railways which are common carriers; for, as it is only to those that are common carriers that the trunk-line railways can

properly pay any switching rates or give any divisions of the through rates, this would preclude the possibility of the payment of rebates in the form of switching rates, divisions, etc. The commodities clause of the Hepburn act, in substance, prohibits railways from handling in interstate commerce for commercial purposes any commodity owned by them except lumber. The intent and effect are to prohibit railways from owning and operating coal mines and other industries. It is doubtful if the unfair discrimination in favor of large industries will ever be entirely stopped so long as big industries, having a large amount of traffic, are allowed to continue to own and operate common carriers by either water or rail.

There should also be legislation modifying the Sherman Anti-Trust law and the anti-pooling provision of the Interstate Commerce Act. The past effects of these laws have been harmful. Often they have accomplished the lawmakers' purpose of compelling unrestrained competition in rates. Then they have always caused unfair discrimination. For when the railways compete in making rates, they naturally compete harder to get a large amount of traffic than a small amount; and this usually leads to the making of relatively more favorable arrangements or lower rates for the big concerns and the large communities which have a large amount of traffic to give than for the small shippers and the small communities.

Legislation for prohibiting competing railways from acting in concert regarding rates and traffic arrangements, such as the Sherman Anti-Trust law and the anti-pooling provision of the Interstate Commerce Act, plays directly into the hands of the big shippers who seek

unfair discriminations. It helps them to play the railways off against each other by disabling the roads from making a public united stand against improper solicitation and unfair demands.

In other cases this legislation has had the effect of eliminating, instead of stimulating, competition, because it has sometimes forced on the roads the alternative of mutually cutting each other's throats, or combining and refusing to compete at all. Whenever possible, they have chosen the latter horn of the dilemma.

European opinion is much more advanced than American opinion regarding the proper attitude of government toward competition between railways. Throughout Europe competing railways, even when some of them are owned by private capitalists and some by the state, are allowed, and even encouraged, to form agreements and pools to mitigate the intensity of competition and prevent the unfair discriminations which inevitably result when competition is carried on without restraint. If we should follow in this country the policy favored by the enlightened economists and public officials of Europe we would so modify the Sherman act as to permit reasonable agreements between competing railways, and also repeal the anti-pooling provision of the Interstate Commerce act.

The argument most commonly and most effectively used against permitting agreements between, and concerted action by, competing railways, in respect to competitive rates, has been that the railways would thus be empowered to form combinations to maintain or to fix rates on an unreasonably high basis. Federal legislation has, however, as we have seen, given the Interstate Commerce Commission authority to reduce any unrea-

sonable rate or to prevent any unreasonable advance in rates, whether made or proposed by one railway or by any number of railways. It seems clear that the passage of the Hepburn and the Mann-Elkins acts have destroyed the last vestige of reason in the arguments against authorizing the railways to make traffic agreements and even traffic pools; and it is doubtful if most people realize how helpless, under existing conditions and laws, the largest railway may be in dealing with certain large shippers.

The steel manufacturers, for example, can, and, it is understood, do to some extent, pool the orders for rails placed with them by the railways. On the other hand, the railways cannot pool the traffic given to them by the steel manufacturers. In consequence, one or more of the steel manufacturers can, if they wish, withdraw their traffic from any road they please, can concentrate it on any other road they please, and can thereby to a large extent dictate to each road both where it must buy its rails and what divisions of the through rates on the steel mills' traffic the trunk lines must give to the railways controlled by the steel companies. Is it not the height of absurdity and inconsistency that the people of the United States should deliberately make and keep in effect laws which thus, to a large extent, put the railways at the mercy of big shippers, and should then when, largely owing to this, unfair discrimination results, denounce and even prosecute the managers of the railways for it?

The foregoing relates only to discriminations resulting from railway policy, or from law-enforced railway competition. There is another important and growing class of discriminations in rates. These are discrim-

inations arising from the overlapping and conflicting regulation of rates by the state and the national governments. Two specific examples will suffice to illustrate the general situation.

The railways fixed certain interstate rates on freight from Shreveport, La., a jobbing point, to communities in northern and eastern Texas. The Railroad Commission of Texas prescribed certain absolutely and relatively lower rates from Houston, Dallas, and other jobbing points in Texas to the same communities in northern and eastern Texas. Out of this adjustment of interstate rates from Shreveport and of state rates from Texas points sprang the famous "Shreveport case." The unfair discrimination against Shreveport was obvious; and its people appealed to the Interstate Commerce Commission for relief. The Commission held that the unfair discrimination was not primarily due to the interstate rates fixed by the railways from Shreveport being too high. It followed necessarily that it was primarily due to the rates prescribed by the Railroad Commission of Texas within the state of Texas being too low. But the Interstate Commerce Commission could not, within its legal authority, order these state rates to be advanced. In the first place, it has no direct jurisdiction over state rates; and in the second place, it has no power to order any rates to be advanced. To order an advance in rates would necessarily involve fixing *minimum* rates; otherwise, the order would be of no effect. But the Interstate Commerce Commission, as already pointed out, is legally authorized to prescribe only *maximum* rates. Therefore, all it could do about the unfair discrimination against Shreveport was to order

the railways to remove it. It could not tell them how they must remove it.

For the railways to remove it by reducing the interstate rates from Shreveport would be to put those rates below what the Interstate Commerce Commission had held was reasonable; while for them to remove it by advancing the state rates in Texas would be to violate the order of the Texas Commission.

Again, the state of Illinois fixed 2 cents a mile as the maximum fare on passenger traffic within its borders. The Interstate Commerce Commission held that 2.4 cents a mile was a reasonable rate on interstate passenger traffic in states west of the Indiana-Illinois state line. The result was that if a passenger went from a point in Illinois to East St. Louis, Illinois, he paid 2 cents a mile; if he went from the same point in Illinois to St. Louis, Missouri, which is just across the Mississippi river from East St. Louis, he must pay 2.4 cents a mile.

The people of St. Louis, Missouri, complained to the Interstate Commerce Commission about this unfair discrimination against them. The Commission had prescribed the 2.4 cents interstate rate itself, but it could not order an advance in the state rate. Therefore, as in the Shreveport case, it simply ordered the railways to remove the discrimination. But for the railways to remove it by reducing the interstate rates would be to make interstate rates which the Commission had held were unreasonably low; while to raise the state rates would be to violate the 2 cent fare statute of the state of Illinois.

In this dilemma, the railways asked the federal courts for a permanent injunction restraining the officials of

the state of Illinois from enforcing its 2-cent fare law; and the resulting litigation is now on its way to the Supreme Court of the United States.

The unfair discriminations in rates resulting from the overlapping and conflicting regulation of the state and federal governments, which have been here cited, are typical of almost innumerable discriminations which have been created by the same cause in nearly every part of the United States. It is evident that the effects of such discriminations are just as harmful when they are due to the policy of regulating bodies as when they are due to the policy of the railways.

The Interstate Commerce Commission took notice in its annual report for 1916 of the situation resulting from its inability to fix minimum rates. It made two recommendations having a direct bearing upon this phase of regulation. These are:

(1) That by statute the Congress fix the interstate rates, fares, charges, classifications, rules and regulations existing at a specific date, prior to that of enactment, as just and reasonable for the past, and provide that *no change* therein after that specified date may be made except upon order of the Commission. . . .

(2) That, without abdication of any federal authority finally to control questions affecting interstate and foreign commerce, the Commission be authorized to coöperate with state commissions in efforts to reconcile upon a single record the conflicts between the state and the interstate rates.

With respect to the conditions which prompted it to make the former recommendation, the Commission said:

The act authorizes us to prescribe for the future only the maximum reasonable rate, fare or charge. The carriers are at liberty to adopt the maximum so fixed, or anything lower.

It may easily transpire that an adjustment contemplated by the fixing of maximum rates, fares or charges will be distorted or set at naught by the action of some individual carrier. . . . These and other contributing causes lead to the result that in this respect and to this extent the present system of regulation resolves itself largely into a continuous moving around in a circle. The necessity for flexibility in order to fairly meet rapidly changing industrial and commercial conditions is fully recognized, but the soundness of this theory of leaving each carrier free to initiate its own rates and thus investing each of them with the power to overthrow or seriously disturb an adjustment that is recognized as reasonable and fair by the overwhelming majority of the carriers and shippers interested therein may well be doubted.

As already indicated, the Shreveport case arose from discriminations resulting from unfair relationships between interstate rates and state rates made by the Texas Commission. With respect to discriminations arising from this general cause the Commission said:

Were we to look about for opportunities to apply the principles of the Shreveport case, we could find them in every part of the United States, and we have been requested in several instances to institute investigations upon our own initiative with a view to removing unjust discriminations in such cases. . . . The situations requiring adjustment present two rates, one state and the other interstate, the one higher or lower than the other, applicable on the same commodity for transportation by the same carrier under substantially similar circumstances and conditions. Assuming both of these rates which give rise to the controversy to lie within the zone of reasonableness, an assumption which is not always warranted by the facts, the difference between them creates an unjust discrimination and the undue preference or advantage which we are called upon to remove.

Neither in principle nor in effect is there any substantial difference between an unfair discrimination caused by the managements of the railways and one caused by the conflict between the regulation of the state and national authorities. The Interstate Commerce Commission, however, asks for different kinds of authority with which to deal with them. To remedy and prevent discriminations caused by the policy of the railways it would have all existing interstate rates as of a given date declared reasonable, and have the railways forbidden thereafter to make any change in them without the Commission's consent. It would deal with discriminations arising out of conflicts of regulation more tenderly —that is, by coöperation between it and the state authorities.

It has been more than once suggested that the Commission ought to be given as great authority over rates that are unreasonable or unfairly discriminatory because too low, as over rates that are unreasonable or unfairly discriminatory because too high. Few students of the subject ever have believed that on the average the rates of the railways of the United States are excessive. If it be conceded that on the average they are not excessive, it must follow that fairness requires that, when rates are to be changed in order to correct discriminations, they shall be reduced in some instances and raised in others, according to circumstances; and this being the case it follows that the regulating authority ought to have the same power to order advances as reductions.

One suggestion which often has been made for giving the Commission the additional power needed is that it be authorized, after a proper hearing in each case, to

fix both maximum and minimum rates, the railways being left free to adjust the rates between these superior and inferior limits. Another suggestion which has been made is that it be empowered to fix the exact rates that must be charged, whether higher or lower than those already in effect. This is practically the plan outlined by the Commission in its annual report, above quoted. Under this plan, Congress by statute would declare all existing interstate rates reasonable, which would make it unlawful either to increase or reduce them without the Commission's consent. After that, when the Commission authorized a change either upward or downward, the rates specified by it would, until further action by it, be the exact rates which every carrier must charge.

The legislation suggested by the Commission would enable it to deal effectively with discriminations in interstate rates, but it does not seem at all probable that it would remedy discriminations in rates arising from conflicts in the regulation of the state and federal authorities. In most cases where state rates are unfairly discriminatory as compared with interstate rates, this is the result of a policy deliberately adopted and stubbornly maintained by the state authorities, partly to give the shippers within the state unfair disadvantages in its markets over shippers in other states sending commodities into the state, and partly to gain for the politicians responsible for the adoption of this policy the favor of their constituents. It seems most probable that this class of discriminations will never be removed until either the Interstate Commerce Commission is given the same power to fix state as interstate rates, or until it has been authorized to substitute minimum rea-

sonable state rates for rates fixed by state authorities which, from being too low, work an unfair discrimination against interstate commerce.

Note.—In 1917, after the text was in type, Congress passed an amendment to the Act to Regulate Commerce prohibiting any advance in interstate rates without the previous consent of the Interstate Commerce Commission. Under the law as it previously stood, when the railways filed a tariff providing for increases in rates, it automatically went into effect, unless the Commission suspended it. The new provision enhances the already very great difficulty of advancing interstate rates; but, since it leaves the railways as free as ever to make reductions of rates, it has no tendency to remove or prevent discriminations.

CHAPTER VII

VALUATION IN RELATION TO REGULATION OF RATES AND SECURITIES

In March, 1913, Congress passed a law providing that the Interstate Commerce Commission should begin within sixty days to make a valuation of all the railways of the United States. The Commission has now been engaged on this work for more than four years. The public takes these developments as matters of course; yet the project for which Congress has provided, and on which the Commission is engaged, is without a real precedent in any country.

Its main purpose is to establish a basis for the regulation of rates; an important auxiliary object is to establish a basis for the regulation of the issuance of stocks and bonds; and the valuation will consist chiefly of a complete inventory of the physical properties. In no other country has a valuation of railways ever been made to establish a basis for the regulation of either rates or securities. Practically all of the valuations elsewhere have been steps toward government purchase. In these appraisals consideration has been given to the actual cost and the physical condition of the properties; but preponderant weight usually has been accorded to the net earnings for a period of five years or more immediately preceding.

Valuations of railways similar in their purpose, and

in the methods employed in making them, to that which the Interstate Commerce Commission has begun, have been made by several of the states in this country. But they have been small tasks compared with that which Congress has assigned to the Commission.

Indeed, the valuation of all the railways of the United States probably is the largest detailed appraisal of property ever undertaken. The United States doubtless is the richest nation that ever existed, and its railways represent approximately one-twelfth of its total wealth. Only its farms and factories constitute classes of industries representing larger investments. The book cost of the road and equipment of our railways is over $17,500,000,000, which exceeds the combined capitalizations (or costs of construction) of the railways of the United Kingdom, Germany, France and Italy; and their mileage is approximately 260,000 miles, which is more than one-third of the total railway mileage of the globe, and exceeds by almost one-third the total railway mileage owned by governments in all the world.

The mere extent of the roads to be inventoried, spreading, as they do, over a very large area, would make the task assigned to the Interstate Commerce Commission protracted, arduous and difficult. Its difficulty and complexity are augmented by the fact that the principles which should be applied, the factors which should be considered, and the weight which should be given to each principle and factor in valuations of public utilities made for the purposes for which this valuation is being made, are largely unsettled. There are numerous elements, some of small and some of great importance, which some persons contend should be included and which others contend should be excluded. There are

wide differences of opinion concerning the proper methods of appraising even parts of the properties which all agree should be included in the physical inventory. The way in which these disputed points are settled will affect the total valuation to the extent of hundreds of millions of dollars. They must be passed on first by the Commission. That the Commission's rulings will satisfy all concerned is not probable. It is likely that numerous important questions will be appealed to the federal courts.

In framing the valuation law, Congress recognized the fact that there are many open questions regarding valuation. Instead of merely requiring the Commission to appraise the properties, it also instructed it to compile a large amount of information which will show on what evidence it bases its findings, and will be accessible to courts and litigants if the correctness of the findings become issues in judicial proceedings. The following is a partial list of the information which the Commission must secure and compile:

The details of the financing and physical development of each property, and its cost to date.

Its cost of reproduction, new.

Its cost of reproduction, new, less depreciation.

The amount and value of the donations of cash, land, and so forth, made to each company by governments or private individuals or associations.

The original cost of all lands, rights-of-way and terminals owned or used for the purposes of a common carrier, ascertained as of the time of dedication to public use, and the present value of the same, and, separately, the original and present cost of condemnation

and damages or of purchase in excess of such original cost or present value.

All other elements of value in the property.

The parts of the value of each property assignable to each state.

The law requires the Commission to make a "tentative" valuation of each carrier. This must be sent to the company and other persons directly interested. In case no protest is made within 30 days the valuation will become final. When protests are entered the Commission must give rehearings. If there are appeals to the courts they must ascertain whether the findings are correct, and, if they find them incorrect, they must refer them back to the Commission for readjustment by it. The Commission already has made several tentative valuations; and in every one the interested carriers have protested against the methods used and the conclusions reached.

General direction of the valuation has been given by the Commission to Charles A. Prouty, formerly its chairman, who resigned from membership on the Commission to take up this task. There is a board of engineers to supervise the engineering work involved, and an army of engineering and other employees has been recruited to do field work. There is also an Advisory Board to counsel with the director on matters of policy.

The carriers are required to coöperate with the Commission in making the valuation, and the railways have appointed a committee of eighteen of their presidents, of which Samuel Rea, of the Pennsylvania Railroad, is chairman. This committee has appointed a committee of engineers to represent the roads in matters affecting the engineering features. Such is the magnitude of the

work that although already (in 1917) it has consumed four years, it has just been got well under way. The whole of it will take at least 10 years; and it now seems probable that its cost to the government will be at least $20,000,000, and its cost to the railways at least $50,000,000.

The principles that should be applied and the factors that should be included, together with the weight that should be accorded to each, and the methods that should be followed in making valuations of public utilities, are so largely unsettled because the entire theory of valuation as a basis for the regulation of rates is of recent origin—how recent few appreciate. It was never advanced in any country until within the last twenty years; it seems never to have been advanced at all except in the United States; and it is yet only in the early stages of its development.

Many governments, especially in Continental Europe, regarding the construction and operation of railways as a function of the state, have built and operated them from the start. In numerous other cases, while granting charters to private companies, they have guaranteed them a return on part or all of their investment and exercised strict control over their management. Under a policy of public ownership, or of state guarantee of profits, the government is free to regulate rates as it thinks desirable. The rates of state railways usually have been made too low to cover interest on the investment, the deficits being paid from taxes. The rates of private railways have also in many instances been so regulated as to prevent them from earning their interest and dividends, the governments in such cases usually paying them subsidies raised by taxation.

The situation in England and the United States has been different from what it has been in most other countries; and in each of these countries it has been different from what it has been in the other. In both England and the United States government ownership, and government guaranties of interest and dividends, have been almost unknown. The rule of the English common law was that the person who engaged in a public service had "a right to charge for each separate service that which was a reasonable compensation therefor." If a carrier and a shipper fell into litigation over a charge made by the former the court determined whether the charge was reasonable by ascertaining what was customarily paid for like service under similar conditions; the cost incurred by the carrier in rendering the particular service; the skill with which it was performed; its value to the shipper, and so on. The value of the carrier's property and the profit made on its entire business had nothing to do with the matter. In the early history of railways in England and America this was the rule applied in determining the reasonableness of their rates.

A new element was injected when Parliament in England, and the legislatures in some American states, began to insert in the charters of projected railways schedules of the maximum rates which they might charge. The maxima thus fixed, being parts of the contracts voluntarily made by the authority giving the charters and the companies accepting them, were necessarily valid. Another, and more important, element was introduced when the law-making bodies began to pass acts fixing maximum rates for railways which already had their charters and were in actual operation. There could be no doubt of the validity of such legislation when enacted

by the English Parliament, for the power of Parliament is not limited by any written constitution. The questions presented when it was enacted by the legislatures of American states, beginning in the "Granger" period of the '70s, were very different. Their power to act was restricted both by the constitutions of their respective states, and by the Constitution of the United States. The legislatures began at the same time to create railway commissions, and these also began to fix maximum rates.

The railways brought proceedings in the federal courts to get many of these state laws and orders of state commissions regarding rates set aside. In its earlier decisions the United States Supreme Court held that the function of regulating rates belonged to the law-making department of the government, and that its exercise could not be reviewed by the courts. Subsequently it reversed itself, holding that the courts might review legislation fixing rates and set it aside if unconstitutional. Finally, in the Nebraska rate case in 1898, the Court laid down for the first time the great principle that "the basis of all calculations as to the reasonableness of rates . . . must be the fair value of the property being used for the public convenience. . . . What the company is entitled to is a fair return upon the value of that which it employs for the public convenience." It was this ruling, made less than twenty years ago, which laid the foundation for all the projects for and discussions of the valuation of public utilities.

The valuation of the railways has been undertaken mainly to provide a basis for the regulation of rates. The question naturally arises as to whether it is likely to afford a sound basis for such regulation. What is,

or should be, the great, fundamental purpose of all regulation of railways? Should it not be, to secure good and adequate transportation service? And is not the securing of service which will be good and adequate fully as important as the securing of the lowest practicable rates for the service actually rendered? Every sensible person will answer both of these questions in the affirmative.

But how is good and adequate service to be secured, so long as the railways are owned by private companies? It can be secured only by the investment of sufficient capital to provide all needed facilities; sufficient capital can be obtained only by paying such rates of interest and dividends as will attract it; and enough interest and dividends to attract the necessary capital can be paid only if the railways are allowed to earn enough net operating income to pay the necessary interest and dividends.

Of what assistance will a valuation be in determining how much net operating income the railways must be allowed to earn in order to pay sufficient interest and dividends to raise adequate capital? Apparently of none at all. When the "fair value" of the railways has been ascertained, and it has been determined to what percentage of net return on this the companies can be restricted without depriving them of what the courts call a "fair return," we shall have learned what is the least amount to which the net return of the roads can be reduced without confiscating their property. But what will that have to do with the question of how much they must be allowed to earn in order to provide adequate facilities? Apparently nothing at all.

The amount of net return which the railways must

be allowed to earn in order to avoid taking their properties for public use without just compensation—in other words, in order to avoid unconstitutional confiscation—is one matter; the amount they must be allowed to earn in order to provide good and adequate facilities is a different matter. The former is a judicial matter; the latter is a matter of economics and public policy. And yet, so great is the confusion of mind which has arisen regarding the underlying principles and purposes of regulation of railways that Congress in passing the valuation law, and the Interstate Commerce Commission in carrying it out, apparently have proceeded on the assumption that, by making a valuation, and thereby determining what is the least amount to which the net return of railways can be limited without confiscation, we shall also determine how much the railways must be allowed to earn in order adequately to develop their facilities.

The fact cannot be too much emphasized that the most elaborate, scientific and legally unassailable valuation can be useful only in determining whether railway rates are confiscatory, and that after the question of confiscation has been settled by the highest court, it will still remain to be determined whether, as a matter of public policy, it is expedient to base rates on the valuation. It is a function of the courts to determine whether rates are confiscatory. It is a function belonging peculiarly to administrative commissions to determine whether they are higher or lower than is in the interest of the public welfare; and it is very unfortunate that most of our railway and public utility commissions attempt, in the regulation of rates, to usurp

the function proper to the courts instead of performing the function proper to themselves.

Numerous theories regarding the way valuations for the regulation of rates should be made have been propounded. These may be roughly divided into two classes, (1) those holding that valuations should be based chiefly on the amount that railway properties have actually cost, provided they have been managed honestly and with prudence, and (2) those holding that valuations should be based on the present value of the properties.

Actual cost is, of course, the total amount that has been expended on construction and permanent improvements, whether derived from the sale of securities, or from earnings. But some of the advocates of the cost theory believe that there should be included in a valuation only that part of the total investment which has been derived from the sale of securities—in other words, that investments from earnings should be excluded. Others believe that where investors have not enjoyed, on the average, a fair return throughout the life of the enterprise, and investments have been made from earnings, these, at least to an amount not exceeding the difference between the return the investors have received and that which they should have received, should be included.

Others go further and hold that investors should receive, on the average, a "fair return" on their out-of-pocket investment throughout the life of the enterprise; and that if they have not done so they should be reimbursed, either by having the deficiency added to the valuation of their property, or by being allowed to re-

ceive enough more than a fair return in future to offset the deficiency suffered in the past.

The "actual cost" theory appeals with especial force to those who believe that society, and not individual property-owners, or stockholders in corporations, should benefit by the "unearned increment" in land. Of course, if valuations were based on actual cost the unearned increment would be excluded, and rates would be so regulated as to yield no return on it. The "original cost" theory also appeals to those who believe that investors in public utilities are entitled only to a fair return on their out-of-pocket investment, and that any earnings in excess of this which have been invested should be regarded as held in trust for the public and should not be included in a valuation to determine what rates the public should pay.

The advocates of present value as the basis of valuation reject the views both of those who believe that the owners of public utilities should not be allowed to benefit by the "unearned increment," and of those who believe that the owners should not be allowed to receive a return on part or all of the invested earnings. They argue that while such concerns are public as regards the service they render, and, therefore, may be compelled by regulation to deal fairly with the public, they are as private in their ownership as any other property. The true justification of public regulation, it is contended, is that the quasi-monopolistic nature of public utilities tends to enable them to charge rates that are discriminatory, or higher in proportion than those that could be charged by concerns operating under competitive conditions, and that regulation is necessary to prevent this. But because regulation is necessary to keep pub-

lic utilities from charging the public more in proportion than competitive persons or concerns, is no reason why regulation should deny to them rights and advantages enjoyed by other persons and concerns. To do so would be not merely to prevent them from dealing unfairly with the public, but to deal unfairly with them. Therefore, it is concluded, it would be neither equitable nor expedient for society to appropriate the unearned increment of public utilities, while permitting the owners of city real property, mines, farms, and so on to retain and benefit by the unearned increment.

As to the treatment of invested earnings: How much the net earnings of any concern will be depends not only on its rates or prices, but also on the efficiency with which it is managed. Now, suppose that two railways, representing the same out-of-pocket investment, have been operated in the same territory and have charged approximately the same rates. One has been very efficiently managed, and has enjoyed large surplus earnings which have been invested in its property. The other, while operated with ordinary prudence and skill, has not always earned a "fair return" on its out-of-pocket investment, and has had no surplus earnings to invest.

If the two roads were evaluated at their actual cost the valuation of the better-managed one, in which there had been invested surplus earnings, would be the greater. If they were evaluated at the amount of capital the owners had invested out of their own pockets, the valuations would be the same. If they were evaluated on the theory that investors are entitled to a fair return, no more and no less, and that any deficiency in the return should be added to the out-of-pocket invest-

ment, then, the valuation placed on the road which had been the less skillfully managed, which had earned no surplus to invest, which had even failed to earn a fair return, and which had actually cost the less, would be the larger. Valuation based wholly on what railways have cost would, it is contended, penalize economical and efficient construction and operation; and this would be especially true if investments made from earnings were partially or wholly excluded from consideration.

It would appear that even if the cost theory of valuation were satisfactory as a matter of economics it could not be adopted as a matter of law. The federal courts, from the inception of the theory of valuation for the regulation of rates, have held that it should be based not on the cost of the properties, but on their present value. Some consideration of why the courts originally ruled that "fair value" was the proper basis for calculating the reasonableness of rates will indicate why it is the present value, and not the cost, of properties, which is held to be their value.

The Fifth Amendment to the Constitution of the United States prohibits the federal government from taking private property without just compensation. The Fourteenth Amendment prohibits any state from taking property without due process of law or from denying to any person within its jurisdiction the equal protection of the laws; and it is held that these provisions, as well as those of the Fifth Amendment, require the payment of just compensation when property is taken for public use.

It is these constitutional provisions which protect all persons from having their property taken unjustly by the state or national government under the power

of eminent domain. And it was behind these that the railways took refuge in the Nebraska rate case. The rates fixed by the state of Nebraska, they argued, were totally unremunerative. To compel them to accept such unremunerative rates would be to destroy the value of their properties. Thus to destroy the value of the properties would be to confiscate them as effectively as to condemn them and take them without just payment, and was, therefore, unconstitutional.

It was this line of reasoning which the Supreme Court accepted. In other words, it held that the regulation of the rates of a public utility so as to destroy its fair value to its owner, leaving to him only the empty title, was equivalent actually to taking the possession of and title to the property under the power of eminent domain without paying its fair value.

The reasoning and language of the federal courts indicate that to them "fair value" means substantially the same thing in a rate as in a condemnation case. "Now," said Justice Brewer, in the opinion of the Circuit Court in the Nebraska rate case, "if the public was seeking to take title to the railroad by condemnation, the present value of the property, and not the cost, is that which it would have to pay. In like manner, it may be argued that when the legislature assumes the right to reduce rates, the rates so reduced cannot be adjudged unreasonable if under them there is earned by the railroad company a fair interest on the actual value of the property." But the "fair value" which must be paid when property is condemned is not its cost, but its present value. It follows that the fair value which is the proper basis for calculating the reasonableness of rates is the present value.

The courts have said that the actual cost and many other elements should be considered; but merely as aids to ascertaining the present value. If the present value of a property is less than its cost, the owner must lose by its depreciation; if more, he gains by its appreciation. "We concur with the court below," said the Supreme Court of the United States in the Consolidated Gas case in 1909, "in holding that the value of the property is to be determined as of the time when the inquiry is made regarding the rates. If the property which legally enters into the consideration of the question of rates has increased in value since it was acquired, the company is entitled to the benefit of such increases." And in the Minnesota rate case, decided in 1913, it said, "The property is held in private ownership, and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law."

However, there is one important difference between making a valuation of property preliminary to dispossessing its owner and giving him its equivalent in cash, and making a valuation for fixing reasonable rates. The market value of a property depends on its earning capacity; and when property is taken under the power of eminent domain it is approached from a commercial standpoint. Therefore, the chief consideration is earning capacity, and ordinarily the chief measure of earning capacity is the amount of profit actually earned.

In valuation for the regulation of rates, on the other hand, the fundamental assumption is that the chief measure of the reasonableness of the rates is the ratio of the net earnings to the value of the property; and the immediate purpose of the valuation is to ascertain this

ratio. Obviously, in such valuation little or no weight can be given to the net earnings.

This presents a great obstacle to the valuation of some public utilities. For example, in the case of express companies—which under the provisions of the Interstate Commerce Act are common carriers—the exclusion of the net earnings from consideration raises a serious difficulty because the investment in and value of the physical facilities used are so small compared with the investment in and value of the organization built up and maintained to handle the traffic.

In the case of a railway, on the other hand, the physical property is a very large part of the whole property, and represents a very large part of its entire value. The capacity of the physical property determines how much traffic can be handled, and, largely, therefore, how much gross income can be earned. The investment that has been made in the physical property, the skill with which it has been developed, the condition that it is in, largely determine whether the expenses of operation will be relatively high or low, and, therefore, whether the net earnings will be relatively low or high. In the ascertainment of the present value of its property a public utility is entitled to have considered, not only its physical capacity and present condition, but also, of course, the value of the real estate owned by it and constituting part of its physical property. On the whole, the best measure of the various elements of value just mentioned is the probable cost of reproducing the physical property. Therefore, the cost of physical reproduction has been accepted by engineers, economists and courts as ordinarily the principal factor in valuation for the regulation of rates.

But when the cost of reproduction has been thus accepted the way in which a valuation should be made has not been settled. It is generally agreed that in estimating the cost of reproduction of roadway, structures and equipment the prevailing unit prices of materials and supplies, and the prevailing wages of labor, should be used; the thing to be ascertained is what grading would cost per yard now, not what the grading done in the past actually did cost; it is what would have to be paid for freight cars now, not what actually was paid for those that are in service.

There is, however, hardly an element of the physical property which at any given time is not worth either less or more than it would cost to replace it. Rails, ties, cars, locomotives, and so on, begin to wear out or to drift toward obsolescence as soon as they go into service. Therefore, it is generally conceded, and the Supreme Court of the United States seems to have held, that some deduction must be made from the cost of replacement, new, of all such parts of the physical property in arriving at its present value.

On the other hand, there are some parts which increase in value. For example, for periods of five to ten years after the construction of a railway its roadbed becomes more solidified and better adapted to its function if the property is at all well maintained. It has been contended that no allowance should be made for this solidification and adaptation, because it is largely due to the work of the operating department, and the expense incurred is charged to operating expenses. But this contention is made upon the theory that valuation should be based on actual cost; whereas, as has been seen, it must be based on present value.

It apparently follows that an allowance should be made for solidification and adaptation, although this is unsettled. It also follows that value created from earnings must be included.

As to the so-called "unearned increment," the Supreme Court of the United States has expressly indicated that it must be given weight. When a railway acquires land for right-of-way or terminals, whether it gets it by voluntary sale or condemnation, it ordinarily must pay from one and one-half to several times as much as would have to be paid if the land were acquired for almost any other purpose. This is because the severance of the land acquired and the construction of the road cause damage to adjacent property, and because land so situated that a railway must buy it to carry out plans for construction or improvements attains a monopoly value. Following the reproduction theory to its apparently logical conclusion, many economists, engineers, railway commissions and courts have held that railway land should be included in a physical valuation at what it would probably cost the railway to acquire it now.

In the Minnesota rate case, decided in June, 1913, the Supreme Court of the United States seemed to lean to the view that railway land should neither be inventoried at what it cost originally, nor at what it would cost the railway to acquire it now, but at its present market value for ordinary purposes. The counsel for the railways do not, however, agree that this is what the court meant, and contend that all land should be appraised at what it would cost the railways to acquire it now.

While it is established that the cost of physical reproduction is the most important element in the valuation

of public utilities, it has been contended, and the federal courts have held, that there are other important elements which should be given weight. This view seems logical and sound in principle. The immediate purpose of valuation is to ascertain the entire present value of the property. The net earnings cannot be considered because they result from the application of certain rates, and the ultimate purpose is to ascertain whether these or some other rates would be reasonable. But, after all, the true value of most property does depend on its earning capacity, and, therefore, while net earnings cannot be accepted as a basis for the valuation of public utilities, there should be considered all factors, except the rates charged, which go to make up earning capacity.

Now, while the amount of business that can be handled, and the economy with which it can be handled, depend on the characteristics of the physical plant, the amount of both gross and net earnings actually secured depend not only on these things and on the rates charged, but also on the amount and nature of the traffic actually secured and handled; and the amount and nature of the traffic and the economy with which it is dealt with, depend on the skill with which the concern is organized and the ability and energy with which it is managed. It follows that the organization of the company, and the value and character of its established business, are important elements in the present value of the property.

It is contended that the courts have determined that ordinarily no allowance can be made for franchises in the valuation of public utilities. The various elements of value just mentioned are, however, sharply distin-

guishable from franchise value. They, with others, constitute "going value"; and as "going value" is just as much a part of the true, present value of a public utility as the value of its physical plant, it would seem that some allowance should be made for it. Certain of the public utility commissions, notably the Railroad Commission of Wisconsin, do this; others refuse to do so; and decisions of the courts, including those of the United States Supreme Court, are conflicting. It has been almost uniformly held, however, that going value must be considered in condemnation cases; and it seems probable that this rule will finally prevail in rate cases, although no allowance for it has been made in the tentative valuations thus far reported by the Interstate Commerce Commission.

Having in mind the bases on which the valuation which the Interstate Commerce Commission has begun probably must be made, to what results does it seem likely to lead? For many years it has been alleged that the railways of the United States are greatly over-capitalized, and charge excessive rates in order to earn and pay a return on their watered securities. This allegation is vigorously controverted.

Defenders of the railways concede that some of them have been over-capitalized. But they point out that some companies have retired parts of their former capital, that many have made large investments from earnings, that there has been a large increment in the value of the land owned by railways; and it has, therefore, been argued that the value of the railways as a whole now equals or exceeds their total capitalization. As the return paid on the total capitalization is, and always has been, relatively small, the conclusion has been

drawn that, on the whole, railway earnings and rates are and have been not too high, but too low.

It is chiefly with a view to settling this disputed point, and to adopting a policy of regulation harmonizing with the facts found, that Congress has required a general valuation to be made. How much, then, will the valuations of individual properties, and the valuation as a whole, probably amount to as compared with the capitalizations of the individual properties, and the capitalization as a whole? And what use probably can and will be made of the valuations of individual properties and of the valuation as a whole? These are questions which no one can answer with any degree of positiveness. There are, however, some facts and conditions on which a forecast can be predicated.

The railways formerly opposed a general valuation. But their opposition declined; and the legislation finally passed by Congress encountered practically no objection from them. This change in their attitude was due to the results of various valuations in recent years, some of them made by the companies themselves to introduce as evidence in rate cases, others of them made by various public utility commissions and other public authorities. Among the states which have made valuations of railways are Washington, South Dakota, Michigan, Minnesota and Wisconsin. In these states the valuations of some roads were greater, and of some less, than their capitalizations. In New Jersey, likewise, the valuations of some railways were greater, and of some less, than their capitalizations.

Some of the "tentative" valuations which the Interstate Commerce Commission has made have been larger and some smaller than the capitalizations of the rail-

ways concerned. The railways claim, however, that in every instance the Commission has omitted important elements of value which ultimately must be included.

The Commission's investigation, like those already made by various states, is certain to show that some railways are earning and paying large returns on the value of their properties, while others operating in the same territories and charging the same rates are earning and paying very small returns. On the theory underlying valuation, the public may reduce the rates of any railway which is earning more than a fair return. But, on the same theory, the owners are entitled to advances in the rates of any railway which is earning less than a fair return, if it is being managed honestly and with reasonable prudence. It is axiomatic, however, that the rates of railways operating in the same territory must be the same. Otherwise, all the competitive traffic will go to the one whose rates are the lowest. Therefore, if the rates of the railways earning more than a fair return were reduced the rates of those earning only a fair return or less would also be forced down, making their returns much less than would be fair.

As a matter of fact, if rates were so regulated as to restrict the strongest roads in each territory to net earnings of 6 or 7 per cent the weaker roads would all be bankrupted. This would be neither just to railway owners nor expedient for the public. On the other hand, if the rates were so fixed as to enable the weaker lines to earn fair returns, they would be made so high as to enable the strong lines to earn very large returns.

These conditions present a perplexing situation. The Interstate Commerce Commission has said that the conditions as a whole should be considered, and the rates

regulated with reference alike to the needs of the weaker lines of a group and the prosperity of the stronger. If it adheres to this view doubtless it will prevail. The Commission possesses legislative discretion, and, therefore, while it probably has power to reduce rates until they verge on confiscation, it is not legally bound to make them any lower than it deems consistent with justice and public expediency.

Assuming that the situation will be dealt with as an entirety, and not with reference to the position of individual railways, what is likely to be the general effect of the valuation on rates? The aggregate net capitalization of the railways in Washington, South Dakota, Michigan, Minnesota and Wisconsin—net capitalization being arrived at by eliminating the duplication in the gross capitalization caused by intercorporate ownership of securities—amounted to $1,210,999,000, and the estimates of the cost of reproduction, new, of the physical properties aggregated $1,211,806,500, while the estimates of present value—arrived at by making deductions for depreciation—amounted to $1,035,089,184. The total gross capitalization of the seven principal railways in New Jersey was found to be $357,346,000 and their total valuation, $361,157,000.

The largest masses of value in railway properties are concentrated in the terminals in large cities, such as New York, Chicago, Philadelphia, Pittsburgh and St. Louis; and most of the state valuations referred to have been made in states where there are no very large terminals. In most of these valuations no allowances have been made for going value. Yet the state valuations usually have approximated the net capitalization assignable to the railway mileage evaluated.

Let us approach the matter from another angle. The railway companies reported to the Interstate Commerce Commission that on June 30, 1915, their investment in road and equipment aggregated $17,247,000,000. Their net capitalization, at the same time, as computed by the Commission, was only $16,307,000,000.

On the whole, the available evidence points to the conclusion that the aggregate valuation of the railways will equal or exceed their aggregate net capitalization. If this should be the case, what would it indicate as to whether the earnings and rates as a whole are reasonable or unreasonable?

The net operating income of the railways on their investment in road and equipment in the five years 1906-1910, inclusive, averaged 5.41 per cent, and in the five years 1911-1915, inclusive, it averaged 4.56 per cent. In the fiscal year 1916, when both total and net earnings were the largest ever known, the return earned was estimated by the Commission at 6⅓ per cent. On this showing it could not be held that the net earnings or the rates generally were excessive. An opposite conclusion would be indicated.

It is commonly assumed that once a valuation has been made it can be kept up to date and available for rate cases merely by adding to it from time to time the additional investments made in the properties. It is questionable if this is correct. After a valuation has been made there may be not only additional investment, but also changes in the unit costs of labor, and of materials and supplies, in the value of land and in the "going value" of the property, all of which will affect its "fair present value." Therefore, the increase in value might be much more or much less than the addi-

tional investment. It would seem, therefore, that if valuation is to be used for the regulation of rates, there must be complete revaluations from time to time.

Some persons regard with alarm the proposition that not only additional investment, but changes in value due to other causes, must be considered. They fear the increment in land will cause railway valuations to mount higher and higher, thereby causing rates to be steadily advanced. Probably these apprehensions are not well founded. Increases in the value of land are not fortuitous; and if the value of that owned by railways continues to advance this will be due to the growth of population and industry. If population and industry grow, their growth will cause an increase in the volume of railway traffic. Each increase in the volume of traffic, other things remaining equal, reduces the operating expenses and fixed charges for handling each unit of traffic.

In the case in question, all other things would not remain equal. The increment in the value of land would increase the amount of return that would have to be paid to railway owners. But the effect of this on the unit cost of handling the traffic would be very much less than the effect of the increase in the volume of the traffic. From 70 to 76 cents of every dollar earned by the railways annually is paid out in operating expenses and taxes, and only the remaining 24 to 30 cents is retained to be used in paying interest and dividends and making improvements. Now while the increase in the volume of traffic would tend to reduce the operating expenses, taxes, and fixed charges per unit of traffic, the increment in the value of land would tend to increase only the relatively small part of the

outgo per unit represented by interest and dividends.

Consequently, if the wages and the prices of materials and equipment entering into operating expenses did not increase while the volume of traffic was increasing, the value of the property and the return paid on it might increase, while passenger and freight rates were actually reduced.

The operating expenses of the railways of the United States are so very much larger than their net earnings or the return paid by them on capital that anything that affects expenses produces a very much greater effect on rates than anything that affects to a similar degree net earnings and return on investment. The need within recent years for advances in rates has been created by increases in unit costs due to advances in taxes, wages and other operating expenses.

While the main purpose of the valuation being made is to establish a basis for the regulation of railway rates, an important auxiliary purpose is to establish a basis for the regulation of securities. There have been various forms of regulation of securities ever since the railway was invented. Sometimes the law has forbidden the issuance of stock or bonds except for cash, property or valuable services. Sometimes it has provided that the amount of bonds should not be more than one-half or one-third as great as the amount of stock. Sometimes it has provided that bonds, or even stock should not be sold for less than their par value. Sometimes it has prohibited securities from being sold for less than their market value. Sometimes it has specified that securities should be issued only for the acquisition of property, the construction of new or the improvement of old lines, or the refunding of outstanding obligations. In several

states the railways and other public utilities are required to get the permission of public utility commissions before issuing any securities.

The plain intent of practically all legislation on the subject has been to prevent securities from being issued without consideration, or to prevent the capitalization accumulated from exceeding the actual investment made. There apparently is no question as to the validity of state legislation intended to make the securities issued correspond to actual investment; and Congress could constitutionally legislate regarding the utterance of securities and delegate to the Interstate Commerce Commission authority to regulate it.

In no case, however, does there appear to have been legislation to make the securities issued correspond to the valuation of the property. If Congress and the Commission should attempt to do this, their action would be unique, and great legal and practical difficulties would be encountered. No doubt the valuation will disclose that the capitalizations of some roads just about equal their present value; that the capitalizations of others are less; and that the capitalizations of others are greater. The values of all roads will be increased in future by natural increment and by investments of both new capital and earnings. Are those roads whose valuations are found to be about equal to their capitalizations to be allowed in future to capitalize the value added by all these causes? Are those whose valuations at present exceed their capitalizations to be allowed to issue stock dividends large enough to make the capitalizations and valuations equal? Finally, if the securities of the roads whose capitalizations exceed their val-

uations were all issued legally, can they be compelled to recall them?

It may be suggested that they should at least be forbidden to issue more securities until their valuations and capitalizations correspond. But if this were done the value of their properties could be increased subsequently only by the investment of earnings and by natural increment. If the net earnings of a road thus situated were restricted to a fair return on its valuation and it chose to pay them all out to its security holders, it could hardly be prevented from doing so. In that case no expenditures whatever for improvements would be made. Natural increment might ultimately bring its valuation up to its capitalization; but meantime the public would suffer from the backward development of the road and its deficient service.

These and other considerations indicate that valuation can hardly serve as a satisfactory basis for the regulation of securities.

The foregoing discussion might give the impression that the valuation of railways probably will have no results of importance. Such an impression would be erroneous. The valuation is sure to have some results of importance. It may have results of very great importance. If it should not differ widely from the total investment in road and equipment or from the net capitalization of the railways, it might satisfy the public that, on the whole, the railways have not been overcapitalized, as has been represented, and might cause the public to adopt and the railways to accept a firm, but consistent and liberal, policy of regulation. These would be results of very great importance.

The expectations expressed in this chapter as to what

the total valuation will amount to may, however, prove illusory. It is conceivable that it may be much less than the total outstanding capitalization of the railways, and may, therefore, lead to sweeping reductions of rates. This would throw many railways into insolvency and seriously impair the financial strength of others. The result would be that needed improvements in existing lines and needed construction of new lines would, if the policy of private ownership were continued, be hindered, because capital for them could not be obtained. The public might then decide that it would be best to take the railways over at their valuation and operate them as a government function.

It is conceivable, on the other hand, that the valuation may very much exceed the total outstanding capitalization. This would show that the present net earnings and rates of the railways are lower than they are legally entitled to receive, and would apparently justify substantial advances in their rates. This would be a result the very opposite of that anticipated and hoped for by most of those who have advocated valuation and by a large part of the public, and they probably would be disappointed and indignant.

If the valuation should greatly exceed the net capitalization this would be due largely to the "unearned increment" in the railways' land. Those who were disappointed with the results might say that if under private ownership the value of the properties was going to continue to increase in excess of the investment made in them, and this increased value was going to be made a basis for advances in rates, it would be best for the public to acquire the railways and secure for itself the benefit of the increases in their value.

Such developments would be very far from showing that the results of the valuation were unjust or that government ownership was desirable. But such an argument as that just outlined might, nevertheless, fall on many hospitable ears. And the owners and managers of the railways might not, in such circumstances, vigorously oppose government purchase, for in case of purchase the owners doubtless would be paid the high valuation that had been put on their properties.

The valuation being made is, therefore, fraught with great possibilities. Whatever its aggregate amount may be, compared with the aggregate capitalization of the railways, it seems likely to have important results. And these are quite as likely to be results that are unexpected as to be results that have been generally anticipated.

CHAPTER VIII

REGULATION OF SECURITIES

The management of the railways of the United States, which in the main has been highly efficient, has suffered much discredit chiefly because of two abuses. One of these has been the practice of unfair discrimination in the making of rates; the other, the issuance by some companies of securities in excess of their business requirements, or for illegitimate purposes.

The practice of unfair discrimination by the railways formerly was all but universal. It has been greatly reduced since 1906. This has been due mainly to effective regulation; but, as we have seen, while regulation has reduced the practice of unfair discrimination by the railways themselves, it has produced, as a result of the inconsistencies and conflicts between state and federal regulation, a large crop of new discriminations in rates which are as unfair and almost as harmful as those for which the railways formerly were condemned.

As to financial mismanagement of railways, it never was universal in this country like unfair discriminations in rates. In fact there are many railway companies the financial affairs of which have been managed with great honesty and conservatism throughout their history. When people assert that the railways of the United States as a whole have been mismanaged financially and are grossly over-capitalized, they always cite

as evidence the examples afforded by a few roads, such as the Erie, the Chicago and Alton, the Rock Island, the St. Louis and San Francisco and the New Haven. But roads with episodes in their histories such as these have are but a small minority. The Lackawanna, the Burlington, the Chicago and Northwestern, the Pennsylvania, the Santa Fe, the Delaware and Hudson, the Illinois Central and others which could be mentioned have records for conservatism in financial management which are more than an offset to the records for recklessness in financing of certain other roads. The average capitalization per mile of the railways of the United States is smaller than that of any other important system of railways in the world. This could not be if their managements generally had been guilty of the recklessness and dishonesty which often is alleged against them.

Nevertheless, there have been enough cases of stock-watering and even looting to show the need for government regulation of the issuance of securities.

First, such regulation is needed to protect investors. Almost every case of unwarranted over-capitalization has caused heavy losses to many of those who already owned the securities of the over-capitalized roads, to those who subsequently bought them, or to both. In the New Haven case, for example, the losses were suffered chiefly by those who long had owned its stock. In the Alton case they were suffered chiefly by those who bought its bonds and stocks after its recapitalization.

Second, government regulation of securities is needed to protect the traveling and shipping public. The real reason for this is very generally misunderstood. It is often assumed that when a railway is over-capitalized it will raise its rates to earn a return on its excessive capi-

talization and that regulation of securities is needed to help keep rates down. But it is very doubtful if the capitalization of an individual railway ever had any effect on its rates. Under free competition the railway with a large capitalization had to make the same rates as parallel roads with smaller capitalizations, for if it had raised its rates it would have driven its traffic to its competitors. Under regulation the public authorities take the investment and the value of railways as a basis for fixing rates, ignoring their capitalization.

It is not on the rates but on the service of a railway that over-capitalization has a bad effect. The management of an over-capitalized railway is under a constant temptation to economize unduly in making expenditures for maintenance of way and equipment, especially the former, in order that it may use a larger part of earnings to pay interest and dividends. Inadequate expenditures for maintenance mean deterioration of the property; that, in turn, means deterioration of the service; and poor and inadequate service is even worse for the public than high rates.

The argument for government regulation of railway securities in the interest of both the investor and the public is so conclusive that it has been widely adopted in the United States within recent years. But mistakes have been made in the regulation of financial management similar to those made in the regulation of rates. Authority to regulate security issues has not been given to the Interstate Commerce Commission, or any other federal tribunal. On the other hand, about twenty states have conferred such authority on their railroad and public utility commissions. In consequence, as regulation of rates has created almost as many unfair

discriminations as it has abolished, so state regulation of the issuance of securities bids fair, if allowed to continue, to do more harm than was ever done by the unregulated issuance of securities. If the abuses arising under unregulated management are merely to give way, under the system of regulation, to abuses on the part of regulation itself, we shall gain little or nothing by the change from the one to the other.

The methods being used and the conditions being created by the states by their regulation of railway securities were clearly and forcibly stated by Judge Robert S. Lovett, chairman of the Union Pacific System, in his testimony before the Newlands Committee on March 19, 1917.

Judge Lovett said:

> The country is only beginning to feel the effect of the multiplicity of regulations by the several states with respect to the issue of railroad securities. State railroad commissions with power to regulate the issue of securities and control the financing of railroad companies became numerous only within recent years. Ten years ago only two commissions had that power. Nineteen states now have it. The great trunk lines in the East today must get the consent of not less than six railroad commissions before they can issue any stock or sell any bonds to raise money, and such consent is given in most, if not all of them, only after application, notice, hearing and deliberation by the commission that sometimes makes ordinary court procedure seem like speeding.
>
> Railroads must apply to the different commissions by formal petition, produce witnesses, have a hearing and satisfy the varying views of the many commissioners, influenced perhaps in many cases by purely local rather than national considerations, before they can issue stock or borrow money. Aside from the inevitable delay incident to such a number of different pro-

ceedings, the whole plan can be defeated by any one state commission refusing to give its consent. It is not surprising that the sudden shackling in this manner of these great trunk lines whose securities are in the hands of almost every investor, great and small, should have made a profound impression upon the railroad investing world. The increasing activity of these commissions as they feel more and more their power, and the conferring of power upon commissions in other states, will add to the difficulties unless Congress exercises its right exclusively to regulate the capitalization and financial operations of these interstate railroads.

Judge Lovett stated that the Union Pacific recently had to pay a fee of $10,962 to the state of Missouri for the privilege of issuing some bonds, although it has only a few hundred feet of track and a total investment of but $125,000 in that state.

Referring to regulation of securities under the "stock and bond law" of Texas, he said that it prevents the railways from borrowing capital on their Texas lines with which to make improvements, and thereby prevents the improvements themselves. E. H. Harriman once planned to construct a new line from Kansas City into Texas and to rebuild the Houston and Texas Central, in order to establish a line from Kansas City to the Gulf, but had to abandon the project because it was impossible to issue bonds against the Texas road for its improvement.

No foreign corporation [Judge Lovett continued] can build a railroad in Texas. You have got to get a state charter, and you have got to raise your money under the restrictions that the Texas Commission imposes, which thus far have been sufficient to bankrupt every railroad company that undertook to build a railroad in Texas unless it was backed by one of

the large systems. No railroad company can get to the Gulf of Mexico; no interstate railroad can reach the Gulf of Mexico, between the Mexican boundary and the mouth of the Mississippi River, because the only practicable access to the Gulf of Mexico west of the mouth of the Mississippi River is controlled by the State of Texas.

And Texas is not the only state that exercises this right which it possesses. Take the State of California. I will not say that no road can be built without the consent of the commission, but certainly it cannot be built without the consent of the State of California. Access to the Pacific Ocean, from the Mexico boundary to the mouth of the Columbia River, is controlled by California and the California Commission, and access to the Gulf of Mexico, from the Mexican boundary to the mouth of the Mississippi, is controlled by the Texas Commission. No railroad can reach these ocean outlets in that vast stretch without leave of those two states. They control the hinterland of that vast territory.

The right to extend an existing system of railroad by building a new line or buying or leasing an existing line comes only from the states. Congress makes no provision therefor, although the object may be exclusively the extension and promotion of interstate and foreign commerce. Each of the large railroad systems derives its existence from some state and that state can paralyze the development of a system in other states by imposing restrictions upon the capitalization or otherwise. . . .

Over 87 per cent of the freight revenue of the Union Pacific System for 1916 was derived from interstate and foreign traffic and 68 per cent of its passenger traffic was interstate. Yet any one of the states through which its lines run could block the financial plans for a considerable part of the system, if not for the whole, if it so willed.

Now, if Congress is going to perform its duties, under its obligation to regulate interstate commerce, is it right to leave it so that either one of these states—one that contributes one-

tenth of one per cent—can say whether or not an issue of a hundred million dollars of bonds or a hundred million dollars of stock, or some other amount, for the development of this important interstate highway, shall be made or not? They have that right today.

Illustrations of the baneful results of leaving the regulation of the issuance of securities in the hands of the states could be greatly multiplied. As has been shown in an earlier chapter, the New York, New Haven and Hartford Railroad had charters from two states, Massachusetts and Connecticut. The laws of Massachusetts specified the conditions on which securities could be issued, and placed their issuance under the supervision of the State Railroad Commission. Under the laws of Connecticut railways could issue securities almost as they pleased. In consequence, the New Haven, under the regime of Charles S. Mellen, conducted its security-issuing operations under the laws of Connecticut and disregarded the laws of Massachusetts. Under a federal law with suitable provisions, it would not be possible for a railway thus to evade proper public control of its financial operations.

There has been much condemnation of the pyramiding of the capitalization of the Rock Island Lines. In this case, there was superimposed upon the underlying Illinois company a holding company of Iowa creation, and on top of this a New Jersey holding company. Thus, not only were the capitalization inflated and the fixed charges made excessive, but it was rendered possible to keep control through ownership of but a small part of the outstanding capitalization. Obviously, the responsibility for this financial legerdemain rested not

only on those who took advantage of the laws of Iowa and New Jersey, but on the legislators who passed and the public that countenanced these laws.

While some states have been too lax in dealing with the issuance of railway securities, others have been too rigid. The Massachusetts law formerly prohibited new securities from being issued except at a price fixed by the State Railroad Commission. The Commission repeatedly fixed the prices so high that the railways had securities left on their hands which they needed to sell in order to raise money with which to make improvements not only in Massachusetts but in other states. As shown by the quotations given above from Judge Lovett's testimony, the Texas "stock and bond" law, as administered by the State Railroad Commission, has rendered it impossible for most railways to raise new capital on the security of their lines in Texas with which to make extensions and improvements, and has thereby seriously hindered not only the development of railways in Texas, but in all the states having railways which extend, or which would like to extend, into Texas.

Experience demonstrates not only that there should be government regulation of the issuance of railway securities, but with equal conclusiveness that such regulation should be performed exclusively by the federal government.

This is necessary, first, for the protection of interstate commerce. When the states regulate security issues with such laxity as to permit indefensible overcapitalization the effects produced upon the service rendered in handling interstate commerce often are bad and serious. The effects produced upon interstate commerce are even worse when states so regulate securi-

ties as to arrest the development of interstate railroads.

Second, federal regulation of security issues is needed to protect the states from each other. So long as this matter is left entirely in the hands of the states, they will continue to injure each other, some by turning loose predatory companies to prey at will upon the people of neighboring states; others by so restricting the freedom of action of the railways that even conservative and honest managements will be seriously hampered in their efforts properly and adequately to serve the people of other states. The fact that exclusive federal regulation has become desirable is now recognized even by some of the members of state commissions. Testifying last December before the Newlands Committee, Max Thelen, president of the Railroad Commission of California, and president of the National Association of Railway Commissioners, said:

> You will find among the strongest advocates of action by the federal government in this field of security regulation commissioners of the various states. . . . Whatever action the judgment of this Commission and of Congress may think necessary in connection with control of security issues by the federal government, whether concurrently with the states, or exclusively, no one will applaud more heartily than the commissioners of the various states.

There is a wide difference of opinion between lawyers as to what kind of legislation must be adopted in order to give the federal government exclusive authority over the issue of securities. Some believe that an amendment to the Act to Regulate Commerce providing for federal regulation of securities, which would let the railways retain their state charters of incorporation, is all that

is necessary or desirable. Others contend that the federal government cannot assume exclusive control of the issuance of the securities of a corporation holding its charter from a state, and that therefore legislation providing for federal incorporation will be prerequisite.

As objectionable and harmful as is the present system of regulation by the states, a system under which the issuance of securities was regulated concurrently by both the state and the federal governments would be worse. Altogether aside from the waste of time, energy and money involved in having the authorities of the federal government and of 48 states deal with the same subject matter, and in requiring the representatives of the railways to present the same subject matter to all these various authorities, there would inevitably be cases in which the various authorities would differ in their decisions. Suppose a railway has lines in fifteen states. Suppose the Interstate Commerce Commission and the regulating bodies of fourteen of these states should consent to the issuance of certain securities to be used by the railway in raising funds for improvements on all its lines, while the authorities in one state should withhold their consent. This is exactly what the Railroad Commission of Texas would do, if it continued to administer the "stock and bond" law as it has in the past. Is a system desirable under which the railroad commission of a single state may overrule the judgment of the Interstate Commerce Commission and of the commissions of fourteen states, and thereby prevent railway improvements in all fifteen states? Such a system would not be desirable. It would be harmful and preposterous. And yet this is what "concurrent" regulation by the federal and state governments would mean.

Since exclusive federal regulation of securities is desirable, and since there is much doubt as to whether it can be obtained without federal incorporation of railways, the conclusion is inevitable that a provision for federal incorporation should be included in legislation for the reform of our present system of regulation. There are other strong arguments for federal incorporation, but this is the strongest.

If a federal incorporation law shall be enacted, it should provide not only for reincorporation under federal law of existing railway companies, but also for the federal incorporation of regional railroad companies. One of the most difficult problems presented in connection with railway regulation grows out of the differences in financial strength of railways operating in the same territories. Some on a given scale of passenger and freight rates can earn 10 or perhaps even 15 per cent, on their capitalizations, or on their physical valuations. Others running parallel cannot earn enough on the same rates to give satisfactory service and keep solvent. If the rates are raised the "strong" roads earn more than public opinion considers reasonable. If they are reduced, or if under present conditions they are not raised, the "weak" roads have to economize so rigidly that their properties and service deteriorate, and finally, in many cases, they become bankrupt. Various solutions of the problem presented by this existence of "strong" and "weak" roads side by side have been suggested. The Interstate Commerce Commission bases its regulation of rates on the average situation of all the roads of a group. Experience shows that while this method enables some roads to prosper, it keeps many in a chronic condition of penury.

Another method which has been suggested is that of basing rates on the needs of the weaker lines, letting the stronger lines earn as large profits as they can on this basis; and then dividing the profits in excess of a specified amount between the railways earning them and the government. Suppose, for example, that 8 per cent were this specified amount. If, then, a road earned 10 per cent, it would be allowed to retain 9 per cent as a reward for and incentive to efficient management, while 1 per cent would be taken by the government; if the road earned 12 per cent, it would keep 10 per cent and the government would get 2 per cent.

Still another method suggested is that of organizing regional railroad companies under which the parallel railways of a territory might be merged. As under such an arrangement all the lines owned by the regional railroad company would be operated as a single system; as the traffic would be routed over the lines by which it could be handled the cheapest; and as all the net earnings would flow indiscriminately into a single treasury, the differences between the "weak" and "strong" lines, and the problem which they present, would largely disappear.

Some years ago there was a prevailing tendency toward the pooling of the traffic or earnings of parallel lines, and later toward their actual consolidation. It is probable if this tendency had not been arrested we would not now have these wide differences between weak and strong lines to trouble us. The tendency was arrested by the anti-pooling section of the Act to Regulate Commerce, and the Sherman anti-trust law. Probably in the long run the best solution of the problem of the strong and weak lines would be to permit and

encourage pooling arrangements and actual consolidation, but this cannot be done without repealing the anti-pooling law, and the Sherman law as it applies to railways. In addition the creation of regional railroad companies should be authorized.

Assuming that the issuance of railroad securities is to be regulated exclusively by the federal government, what objects should this policy seek to attain; and by what means should it seek to attain them?

The fundamental purpose of all legislation to control issues of securities should be to get all the money derived from them spent on permanent improvements or additions to the property. The good of the property is, in the long run, the good of stockholders, creditors and public. . . . My own view would be that, in a broad way, future legislation should let only actual investment in permanent improvements or additions be capitalized, but that it will be desirable to allow railways to earn such a return on the increment in value of their . . . property as will make investment in them as attractive as in other concerns.

The main defect of past legislation upon this subject has been that in one way or another it has divided the responsibility for wise and honest financial management. . . . Any law that gives a railway commission power to control the directors in the issuance of securities transfers part of the responsibility for what is done from the directors, who should know thoroughly the conditions and needs of the corporation, to the commission, which must know less about its conditions and needs. If the directors act unwisely and dishonestly and the commission—whether through ignorance or guilty knowledge—permits their act, the directors can defend themselves by saying the commission approved. In this way such legislation may be a cloak and an incentive to corporate mismanagement. If the directors attempt to do something which ought to be

done and the commission thwarts them, stockholders and public are harmed, and government regulation is discredited.

It would seem that, instead of thus dividing responsibility, regulation should fix it upon the directors so clearly and firmly that it could not be shirked or evaded.

The foregoing views were expressed by the author in a book [1] published five years ago and subsequent developments have but confirmed their soundness. As the Hadley Railroad Securities Commission well said in its report in 1912:

It is far more important to ascertain just what are the facts connected with the issue of securities, and what is actually done with whatever money has in fact been realized from the stock which has been issued than merely to make sure that the par value of the stock was paid in at the time of issue.

And as the Hadley Commission said in another place:

If railroad securities were to be issued only after express authorization of each particular issue by the Interstate Commerce Commission or other governmental agency, it is difficult to see how the government could thereafter escape the moral if not the legal obligation to recognize these securities in the regulation of railroad rates.

and

The possible consequences of such a system are too serious to warrant its adoption at the present time.

The Hadley Commission, after a thorough investigation of the entire subject of the regulation of railroad securities, confined itself to recommending legislation

[1] "The American Transportation Question."

to require each railway corporation to file with the Interstate Commerce Commission prior to the date of issuance of any securities a full statement of their character and amount; to furnish to the Commission at such times as it may require full statements of its financial transactions which the Commission may make public at its discretion; and to compile for its stockholders such information as the Commission may require regarding its financial transactions during the fiscal year, and any interests that its directors may have had in any transaction under investigation; these provisions to be enforced by the Interstate Commerce Commission under appropriate penalties to be fixed by the proposed legislation, including fine and imprisonment.

The author has advocated somewhat more radical legislation than the Hadley Commission recommended. He has favored legislation providing (1) that securities may be issued only to refund existing securities or to raise funds for new construction, or for the making of additions to or permanent improvements in existing properties; (2) that when securities are to be issued a majority of the directors of the railroad shall subscribe on the corporate minutes to a full statement of the purposes for which the money is to be used and send a copy to the Interstate Commerce Commission; (3) that the directors shall annually make a sworn statement to the Commission of how securities were sold, the proceeds and their use; (4) that it should be a criminal offense for directors to issue securities for any purpose not authorized by law, or to spend money realized from them for any purpose but those for which it was originally declared that it was to be raised; provided, however, that the Interstate Commerce Commission, on

proper showing, might in its discretion authorize funds raised for one lawful purpose to be diverted to other lawful purposes.

As has already been said, the main purpose of regulation of the issuance of securities should be to cause every dollar of new capital raised by their sale to be honestly spent on construction, additions and improvements. The best way to bring this about, without needlessly interfering with railway management, would be to define clearly the duties of the directors and provide for full publicity for their acts and for punishment for any illegitimate use of the corporate funds. It may be objected that under the plan proposed the sale of stock, and even bonds, below par would be permitted. But in many cases if securities to be issued to raise money for needed extensions and improvements could not be issued below par, they could not be issued at all. There would be no incentive for watering the securities of old, prosperous lines if it were known that every dollar raised by the sale of their securities would have to be invested in their properties; and when the securities of a new railway are sold below par and subsequently rise to par, in most cases the investors thereby get no more than a reasonable return for the risks incurred and the losses suffered in the earlier stages of the enterprise.

CHAPTER IX

REGULATION OF RAILWAY OPERATION

The great requisites of good railway service are reliability, convenience, comfort and safety. The railway service of the United States is the best, all the conditions considered, in the world; but it has some serious shortcomings. We have much poor track and defective equipment, many roads without block systems, many whose trackage, terminals and equipment are not adequate, numerous unprotected grade crossings, and thousands of employees who have not been properly trained and disciplined.

Consequently, we have many trains that ride uncomfortably, many that are late, congestions and delays to traffic, and a discreditable accident record. If government regulation will help improve these conditions, it is desirable. The railway renders a service the cost and character of which are of vital concern to the public. Doubtless wise and fair regulation can aid in making its cost and character satisfactory and in establishing and maintaining salutary relations between the roads, their employees, and the public.

Unfortunately, past experience gives no assurance that such regulation as may be adopted will be wise and fair. The only proper object of regulation is the furtherance of the welfare of the public—the promotion of the greatest good of the greatest number. A piece of

legislation may incidentally benefit some class, as shippers, or employees, or railway stockholders; but if its main aim and effect are to benefit the public it is justifiable. If, on the other hand, its main purpose and effect are not to promote the public welfare, but to benefit one class at the cost of another, the case is entirely different, no matter what class the regulation benefits or what class it hurts.

The public desires, and is entitled to have, not only economical, but good and safe, service; and true efficiency consists in rendering as economically as may be practicable in the circumstances such service as best furthers the public convenience and welfare. The test of the desirability and wisdom of government regulation is whether it hinders or promotes efficiency as thus defined. A good deal of the regulation adopted or proposed cannot meet this test.

One of the main causes of past shortcomings in the service of our railways has been excessive competition. Many persons consider competition a specific for all commercial and industrial ills, although this view prevails less widely than formerly. In the railway business the effects of competition are varied. Competition between railways often stimulates them to improve their track, equipment and train service; but when the rivalry becomes very unequal because the financial resources of the competitors are unequal, or for some other reason, it often does more harm than good. The stronger lines are able to put and keep their track, structures and equipment in good condition; to build second tracks where they are needed; to install block systems. The weaker roads are not able to do all these things, and in trying to get and hold business they often do the things which

attract the most favorable notice from the public and leave undone those, failure to do which attracts the least unfavorable notice. Most travelers judge railways chiefly by their passenger equipment and train schedules. Some roads, therefore, are tempted in the competitive struggle to neglect their track, to refrain from installing block systems, and then to buy and operate as heavy passenger equipment and publish as fast schedules as rival lines having better track and structures. The results are late trains; running that is too fast to be comfortable or safe; and large contributions to the collision and derailment statistics of the Interstate Commerce Commission.

The main cause of the shortcomings of the physical properties, and of certain of the defects of the service, of many of the railways of the United States is that their earnings are relatively small; and the relative smallness of their earnings is due partly to the fact that their traffic is comparatively light, but even more to the fact that their rates are low. The railways of Germany earned before the Great War over $22,000 gross per mile; those of Great Britain, almost $29,000; those of Belgium, almost $24,000; those of Switzerland, $16,000; those of France, $15,000; while the average for our roads as a whole, up to 1916, never had reached $13,000. Furthermore, a dollar will not go as far here as in Europe. Our railways pay twice as high wages as those of Europe. As the railway dollar of the United States will not go as far as that of Europe, and as the number earned per mile is less than in France and Switzerland, only a little more than half as great as in Belgium and Germany, and less than half as great as in England, our

railways' opportunity to put their properties in good shape has been limited.

In their earlier history their earnings were small because they were built into undeveloped territory, and also because as soon as more than one road was built into a territory destructive rate wars began. Their earnings have continued to be too small because when they began to make coöperative arrangements to increase and maintain their rates and earnings, the government stepped in, destroyed these arrangements and forbade the advances in rates.

Many accidents are due to defects of the plants of the railways which can be remedied only by large expenditures of capital. Every grade crossing is really a physical defect. There are 256,000 such crossings on our railways; and many persons are killed yearly at them. The absence of block signals from about 160,000 miles of our 260,000 miles of line is a physical shortcoming, and numerous persons are killed annually in collisions whose lives might be saved by adequate signal systems. Fragile wooden passenger equipment is a physical defect, as are also light track when heavy trains are run on it, and rails whose manufacture has been faulty.

But, after all, as the Interstate Commerce Commission has said, "the most disquieting and perplexing feature of the problem of accident prevention is the large proportion of train accidents caused by dereliction of duty of the employees involved." To the tendency of employees to disregard operating rules and take risks is also attributable most of the casualties and fatalities, other than those of trespassers, which result from accidents other than train accidents. The application of automatic couplers to practically all engines and cars

has largely reduced the accidents occurring in connection with coupling and uncoupling; and their continuance is due mainly to risks carelessly or recklessly taken. The many accidents resulting from employees stepping in front of moving cars, engines and trains are due to the same causes. Fully 75 per cent of all railway accidents, excluding those occurring to trespassers, are due to the conditions just mentioned; and most of this 75 per cent are such that no number or kind of safety devices that human ingenuity could devise, that legislation could require, or that money could buy could prevent them.

It is the isolated, daily accidents, not the occasional sensational collisions and derailments, that take most of the lives. A large part of the blame for such accidents must be visited on the employees. It is the duty of the managements to use all available disciplinary and educational means properly to instruct and train the employees. But the employees, and their organizations also, owe a duty to the public as well as to themselves; and the state has its duty; and few familiar with the facts would maintain that the employees, their organizations and the governments have done as much in proportion to reduce the fatal carelessness and recklessness shown by so many employees as have the railway managements.

The laxity of the managements and the carelessness of the employees that have caused so many accidents are responsible also for other defects of service. While the frequent lateness of trains is often due to the managements publishing schedules which cannot be maintained, it is also often due to delays at stations which could be prevented by reasonable alertness and celerity on the part of employees.

The worst feature of the accident reports of the Interstate Commerce Commission is the statistics regarding fatalities to trespassers. Every year the number of trespassers killed on railways exceeds the fatalities to all other classes of persons combined. Over 50,000 trespassers, usually persons who were stealing rides or walking on tracks, have been killed within the last ten years. It is commonly assumed that all trespassers are tramps. Investigations have shown that most of them are reputable citizens from all the walks of life. While the deaths of trespassers are charged up against the railways, the municipal and state governments, which do not make and enforce proper laws against trespassing, and not the managements of the roads, are really responsible for them. They are not railway accidents at all; and the statistics regarding them should not be included under that head.

What has government regulation done about the various defects of the physical properties, of the operation and of the service of our railways? What can and should it do about them? What form should the regulatory legislation take, and to whom should its administration be entrusted?

There have been many laws passed by state legislatures and Congress, and many orders issued by state commissions and the Interstate Commerce Commission, for the regulation of operation. These relate to varied subjects, including safety appliances on locomotives and cars, drinking cups on trains, block systems, the drinking of intoxicating liquors on trains, the frequency with which employees must be paid their wages, the number of hours they may be kept on duty, the number of them that must be employed on trains, the elimination of

grade crossings, the speed of live stock trains, the clearances between tracks and overhead and lateral structures, and so on. At almost every session of a state legislature some new kind of law, and at almost every session of some state commissions some new kind of order, for the regulation of operation is produced. It would be astonishing if this mass of regulatory measures did not include some that were good. But those which have been conceived in intelligence and public spirit and brought forth in justice are so few compared with the total that great difficulty is experienced in finding them. In most cases the law-making and administering bodies have not really tried to ascertain the conditions to be dealt with, the true evils to be remedied or the effects that their laws or orders would produce. The results of such regulation have not been, and could not be, good.

Excessive competition has been mentioned as one of the causes of the shortcomings of our railway service. The regulating authorities have acted so as to compel competition. The various anti-trust laws, and especially the federal anti-trust law, have been rigorously applied to railways. Consolidations, agreements and other arrangements to moderate competition have been treated as crimes. Active competition in service is incompatible with rendering the maximum possible service with any given facilities; and it is mainly to eliminate competitive service that the government has taken control of railroad operation for the rest of the war. It would be to the interest of the railways and the public for the roads to be permitted in time of peace to make binding and enforceable agreements regarding competitive rates and competitive service, subject to the super-

vision of competent regulating bodies. The spirit of our laws is hostile to this.

In some cases when railways with bad track have been running trains at unsafe speeds to meet the competition of roads having better track, state commissions have fixed maximum speeds to be observed until their tracks were improved. But the need for such action is created chiefly by excessive competition. Why try to nullify the effect while continuing to stimulate the cause?

Furthermore, such action merely substitutes one kind of poor service for another. It is better that trains should be slow than unsafe, and our accident record would be better if some railways had fewer trains with schedules too fast for their track and other facilities. But a fast passenger service is desirable on all railways; and when passenger trains cannot make good speeds safely the evil consists, not so much in their attempts to make the speeds, as in the physical conditions which render the attempts unsafe. The true function of regulation is to ascertain the causes of the unsatisfactory physical conditions and to stimulate and coöperate with the railway managements in removing them.

While there has been much regulation purporting to be intended to cause physical improvements, there has been very little which has been adapted to that end. Probably the best legislation for the regulation of railway operation ever passed was the safety appliance act enacted by Congress in 1893, together with the subsequent amendments. This required the railways to equip their trains with power brakes, automatic couplers, secure grab irons and other safety appliances. But it did not require them to do anything which the investigations of their own officers had not shown was practical,

or which the practice of many of the more progressive lines had not shown was desirable; and it gave the Interstate Commerce Commission a discretion in administering the law, which made it possible for it and the railways closely to coöperate. Such coöperation was secured, and the result has been a steady improvement of the safety appliances on equipment of all kinds.

In this case it was right and desirable that the legislation passed should apply uniformly, because, as freight cars circulate throughout the country, it would be dangerous to have them equipped in different ways. But in many cases to apply the same provisions to large groups of railways or to all is unjust and injurious. Their needs and deficiencies vary widely. One has bad track and a good block system; another, bad track and good equipment; another, good track, but neither good equipment nor a good block system. If the same requirement, as for steel cars or block signals, is imposed on all, the results to the roads themselves and to the public will be widely different. If a road has bad track, a law requiring it to use heavy steel cars probably will increase derailments. Similarly, there is not the same need or justification for requiring the elimination of grade crossings in sparsely populated as in densely populated territory.

In the preparation of most of the regulatory legislation such points have not been considered. The same requirements have been imposed on many, or even all, roads without regard to their differences in conditions. They have been required to use high-power headlights regardless of whether they may have had greater need for block signals. They have been required to increase their clearances regardless of whether it would not have

been better to have spent the money on their tracks. They have been required to waste millions in employing useless men in train crews, when they have needed the money to maintain their equipment. Even when improvements which have been needed have been required, the legislation regarding them often has been unjust. In the city of Chicago the roads are being forced to bear the entire cost of elevating their tracks, which it is estimated will be $150,000,000. Now, many more of their grade crossings have been created by streets being opened across their tracks than by their tracks being opened across streets.

The regulation of service adopted is often as futile as it is unfair. Ten years ago (in 1906-1907), as also more recently, the country suffered severely from want of facilities to handle the freight traffic. The railways charge demurrage on freight cars which are held by shippers or consignees beyond the free time allowed for loading and unloading. A number of legislatures passed what were called "reciprocal demurrage" laws, which penalized the railways for not furnishing cars promptly when ordered. Now, there is no reciprocity between a charge for failure to load or unload cars promptly, and a penalty for failure to fill orders for cars promptly. The real reciprocity is between the furnishing of cars to haul freight and the furnishing of freight to load cars. The management of a railway may be relied on to provide itself with as many cars as it believes there will be a demand for during any considerable period, if it is able to buy them, for the more traffic it handles the more money it makes. The shipper also tries to furnish all the products for shipment for which he thinks there will be a demand, be-

cause the more products he produces and sells the more money he makes. If, then, it is expedient to penalize the railways for not supplying enough cars, on the same principle it would be expedient to penalize shippers for not furnishing enough traffic to load the cars that the railways supply. While there were shortages of cars in 1906 and 1907, and again in 1916 and 1917, nine-tenths of the time between there were surpluses of cars that greatly exceeded any shortages ever reported. The legislatures did not see fit to penalize the shippers because they did not supply traffic for these idle cars.

Reciprocal demurrage legislation is not only unfair, but futile. It is intended to cause the prompt supplying of cars. But it is operative only at the period of heaviest business, and at that time the average earnings of a freight car are about $5 per day. If the certain loss of $5 a day through failure to supply a car will not effectively stimulate a railway to provide it, a penalty of $1 a day will not.

Some of the worst examples of regulatory laws are those which have been passed to placate and win the votes of the members of the railway labor brotherhoods. Such is the law limiting to nine hours the service of telegraph operators, including not merely despatchers and signal operators, but even agents at country stations, who do not do telegraphing connected with train operation one-third of their time on duty. This provision was framed to increase the number of jobs for telegraph operators, not to promote safety. The same is true of practically all the laws prescribing the number of men in train crews. Nominally enacted in the interest of safety, their real purpose is to increase unnecessarily the number of jobs, and their effect is to increase

the cost of transportation. The Adamson act, passed by Congress nominally to reduce the working day in train service to eight hours, was intended really to give the employees in that service a 25 per cent increase in wages.

Such legislation cannot be advocated or defended on any sound principle of public policy. The only ground on which special regulation of railways can be justified at all is that they are quasi-public corporations; that they render a service regarding which the public is especially concerned; and that regulation is needed to cause them to render that service in such a way and at such rates as will promote the interests of the public. Legislation which tends to confer some advantage on the employees at the cost of the roads, or on the roads at the cost of the employees, and which is not primarily intended and does not operate to confer a real, substantial and principal advantage on the general public, is no more justifiable than similar legislation regulating manufacturers and their employees, or farmers and their employees, or grocers and their employees. It is not meant that legislation primarily to promote the interests of employees at the expense of employers, by limiting the hours of work, or regulating contractual relations, is in all cases unjustifiable. What is meant is that such legislation is not especially applicable to the relations of railways and their employees, any more than to the relations of other classes of employers and employees, and that neither Congress nor legislatures can fairly apply it to railways and their employees until they are ready to extend it to other kinds of concerns and their employees.

It is a good rule that the public's interests should

be considered and attended to by its representatives first, and those of special classes afterward; but in much of the legislation for the regulation of railway operation that has thus far been adopted the wishes and supposed interests of a class with a large number of votes, viz., railway employees, have been considered first, and those of the public later or not at all.

Law-making bodies and commissions are disposed to require expensive changes in operating methods and physical improvements while ignoring the fact that it will be impossible to put many of the railways in satisfactory condition without increases in rates and earnings. When the roads ask for higher rates it is always attempted to show that they are earning enough on the *present* investment. But if they are earning barely enough on their present investment, clearly they cannot, with the present rates and earnings, raise the billions which must be invested if block systems are to be generally installed, grade crossings to be eliminated, tracks to be strengthened, better equipment to be provided. Most of the investment for such purposes would not add to their earning capacity. But a return must be paid on the additional investment; the means of paying it cannot be obtained except by increasing earnings; and a great part of the necessary increase in earnings can be gained only by increases in rates.

The question of regulation of operation is largely a financial one. Most railways would gladly make every kind of improvement which the public demands. There are roads that have had enough money and have not utilized it best to promote safety. But with some exceptions, the most prosperous railways are also the best built and equipped, and have the best records for safety.

The evidence shows that when railway managers have had the necessary means they usually have done about all that could reasonably be asked to put the physical plants in good shape. But the regulating bodies control what they may earn, and, therefore, what funds they can raise. Therefore, the financial problem presented by regulation of operation must be faced by the regulating bodies if it is to be solved. As long as the earning capacity of the railways is limited as now, to require many of them to make one improvement is in effect to forbid them to make others which may be more needed.

It is notable that while government regulation has dealt with many subjects, it has been careful to abstain from taking any steps to deal with those derelictions of their duty by railway employees to which the Interstate Commerce Commission attributes a large majority of train accidents. When a railway employee in England or Germany is guilty of an infraction of duty which causes an accident he is taken in hand by the government. Not so here. Those who regulate our railways and enforce our laws seldom forget the voting power of organized labor.

Why has past regulation of operation been such as it has been? Too much of it has been inspired by prejudice and vindictiveness. Too much of it has been promoted by the representatives of labor brotherhoods, seeking to further the supposed interests of their members, and adopted by lawmakers and commissioners who were thinking little about the rights of the railways and the public and much about the votes they hoped to get from organized labor. Too much of it has been inconsistent or conflicting because the states and nation have dealt with the same subjects in different ways. Too

much of it has been adopted in ignorance or disregard of whether the railways were or were not able to bear the financial burdens imposed. Most of it has been adopted and administered by persons having no expert knowledge of the matters dealt with.

Lawmaking bodies are more likely than commissions to be inspired by prejudice and political motives. They are less able to adapt their regulations to circumstances and conditions, for the provisions of laws must be broad and sweeping. The commissions are more likely to act with knowledge, for their members have opportunity to study the conditions to be dealt with and to consider the probable effects of their measures, while lawmakers have not. Therefore, as far as is constitutional and practicable, the regulation of operation should be delegated to commissions.

While the various states and the nation attempt to regulate operation independently there will be inconsistencies and conflicts. Therefore, the states should be divested of their regulating authority or it should be subjected to the control of the central government. Most of our regulation of railway construction, maintenance or transportation causes an increase in railway expenses. Therefore, it should be either done or controlled by the body which chiefly controls railway earnings, for a proper relationship must be maintained between expenses and earnings. For these and other reasons the Interstate Commerce Commission should be given either paramount or exclusive authority to regulate railway operation.

When this has been done regulation and the regulatory authority of the commission probably may safely and beneficially be extended over a number of phases of

the railway business which federal regulation does not now cover. Since many more accidents are due to "man failures" than to defects of rules or physical plant, it seems even more important that government regulation should undertake to deal with them than with the physical plant, provided any form of regulation can be devised which will tend to stop them. In England the operating rules of each railway are required to be filed with and approved by the Board of Trade, and this makes them the law of the land, a violation of which is punishable as a misdemeanor. In many of the English railway stations are often seen large posters telling of infractions of the rules by employees and of the legal penalties imposed. The Indiana Railroad Commission, following its investigation of a bad accident in 1907, caused by an employee's disregard of the rules of his company, got a law passed providing that rules for the operation of trains should be drawn up by the roads and copies filed with the commission, after which any act of an employee in violation of them should be punishable by fine or imprisonment.

The United States government requires the masters and pilots of steamships to be licensed, and if a master or pilot violates a rule or order governing the navigation of his ship his license is suspended or canceled, thereby temporarily or permanently depriving him of his employment. A few years ago a captain of twenty-eight years' experience on the Great Lakes had his papers withdrawn for six months following his first accident, although his employers had exonerated him from blame. That is how the federal government deals with those who violate its rules for the operation of steamships. The operation of a train requires more care in

some ways than the operation of a ship. No regulation will ever materially reduce accidents which applies only to the railway companies. Really and effectively to promote safety, government regulation must either strengthen the hands of the railway managements in enforcing the rules, or it must enforce them itself. This would not hurt or wrong, but would benefit, employees as a class, for they are the greatest sufferers from accidents, and would be the greatest beneficiaries by their reduction.

The way laws are administered is as important as their provisions; and the character of their administration depends on the characters and attainments of their administrators. The problems to be dealt with in the regulation of operation are extremely technical and difficult. They are problems with which many men of great experience in railway affairs and of great ability have grappled with only partial success. They are problems of which no man can get even a good working understanding without living in close touch with them for years.

It would seem, therefore, that if the Interstate Commerce Commission is to be given extensive authority over operation, there should be appointed to it men with official experience in the operation of railways. As it deals with a diversity of subjects, it should not be composed entirely of such men, but certainly two or more of its members should be railway experts who would be recognized as such by those experienced in railway affairs.

In addition, the Commission probably should have a subordinate board composed of experts in railway engineering, mechanical, maintenance and transportation

matters to look after details. It already has a chief locomotive inspector with two assistants and several district inspectors. There is also a chief of the safety division with district inspectors. Unfortunately, most of these men were selected because they belonged to and were backed by railway labor organizations. Very few of them had received a technical training, and almost none had risen in railway service to official rank. This, of course, does not show that some of them are not well equipped for their duties. A large proportion of the operating and executive officers of our railways have risen from the ranks. A good many even of their technical experts, including chief engineers and superintendents of motive power, have done so. There is no special reason why men taken from the ranks should not demonstrate in the service of the Interstate Commerce Commission the possession of ability and expert knowledge. Some have done so. But, if the Commission should organize a board to deal with the problem of regulating construction, maintenance and operation, it would surely be preposterous for it to fill it with locomotive engineers, conductors and mechanics. Those appointed should have demonstrated their fitness beforehand; and men who had not risen above the rank of employees have not done this.

When the Commission had thus formed its organization, how should it proceed with its work? Probably it should lay the foundation for it by thoroughly investigating the causes of the faulty features of railway plants and service. If statistics should continue to show an increase in derailments it should ascertain whether this was due to general or local causes and what remedy or remedies should be applied. If the

Brotherhood of Railroad Trainmen should petition for an order requiring increases in the number of brakemen employed on trains, the Commission should make a comprehensive investigation of the question whether general increases, or local increases, or any increases, in the number of men employed were required by the public welfare.

When the Commission believed that it had found conditions which demanded action it would seem that its next step should be to arrange conferences between its members or representatives and officers of the railways to ascertain whether the proper remedies could not be agreed upon and applied by the managements of the railways themselves. It has in the past had many such conferences with representatives of the railways and of the labor organizations regarding the administration of the safety appliance, hours of service and other laws, and in most cases they have led to agreements which have been measurably satisfactory to the parties directly concerned and have produced better results than would have been obtained by arbitrary, formal orders which might have led to litigation. In a large proportion of cases the railway managements and the Commission could agree as to what each of them ought to do, if they would confer frequently, frankly, fairly and with less suspicion of each other's good faith.

If after investigation and conference the Commission could not get the roads to do all it wanted them to, it would not follow that it must immediately issue a mandatory order. Publicity seems to many persons not to be a very sharp or heavy weapon, but the publicity which the Commission's hearings and reports have given to facts about the railway business has, perhaps, done

more to raise the economic and moral standards of railway management and to improve railway service than its formal orders. The power of common sense brought to bear, by making facts public and drawing suitable conclusions from them, "does not," as A. T. Hadley has said, "seem as strong as statutory power to prosecute people and put them in prison, but . . . in the hands of a man who really possesses it is actually very much stronger."

It will not be sufficient for the Commission to inspect, to find fault and to issue orders. The managers of most railways know the defects in their properties and service as well now as the Commission ever can know them, and most railway managers are as anxious as the public or any railway commission to see their properties put and kept in good condition. Their great problem is to find the necessary money; and this is the principal problem which the Commission will have to face and help solve, when it undertakes the extensive regulation of operation. If it does not face it and cooperate with the managements in solving it, its regulation of operation will be a failure.

Suppose state is subordinated to federal regulation. Suppose federal regulation is placed entirely in the hands of the Commission. Suppose the Commission is given a large enough appropriation by Congress to perform its functions. Will regulation of operation then become fair, constructive and beneficent? Will the politicians let the Commission alone so that it can do its work right, and will the Commission prove big enough for the task?

These questions no one can answer. The only way to find out will be to make the experiment. If it is

made, it will cost the public and the railways large sums; and the new burdens of the Commission will be very heavy. If the Commission tries merely to regulate the railways and not to manage them it may succeed. If it tries to manage them it will not succeed. In its regulation of rates the Commission, instead of confining itself to its duty of determining the reasonableness of rates, has sought to usurp many of the functions proper to the managements. While the Commission may by corrective measures protect the public from abuses which arise in connection with the financing of railways, the making of their rates and the rendering of their service, it never will be practicable for any single government body successfully to control in detail the policies and direct the management of 260,000 miles of railways.

CHAPTER X

PEACEFUL SETTLEMENT OF LABOR DISPUTES, OR STRIKES?

The American people awakened one morning in August, 1916, to find themselves threatened with an interruption of transportation throughout the country. This danger aroused for the first time in a majority a realization of the extent to which the public welfare has come to depend on the continuous maintenance of railway service.

To ward off the blow Congress hastily passed the Adamson "basic eight-hour day" act. The railways promptly took this measure into court to test its constitutionality. Threats of a strike were then renewed; and because the Supreme Court of the United States did not step lively enough to suit the labor leaders the order for a general tie-up was issued again in March, 1917; and it was averted only by the surrender of the railways, for patriotic reasons, which was quickly followed by a decision of the Supreme Court upholding the Adamson law.

President Wilson recommended the passage along with the Adamson bill of a measure to prohibit strikes or lockouts in train service until after public investigation of the matters in controversy. He renewed this recommendation on the reassembling of Congress in December, but Congress took no action on it. The need

for additional legislation dealing with labor controversies on railways was made more manifest than ever when, immediately after Congress adjourned for the second time without acting on the President's recommendation, the second order for a nation-wide strike was issued.

The problem which gives rise to these controversies is not, however, one which legislation passed to meet a single emergency would have been likely to solve. It is a very difficult problem—a problem at once important, complex and unique. It is a problem which has arisen inevitably, first, from the economic developments of our time, and, second, from the nature of the railway industry.

The changes in economic conditions which have taken place within recent times have made strikes and lockouts in many lines of business matters of serious consequence to the public. When the largest concern represented a capital of only a few hundred thousands of dollars, and employed only a few hundred workmen, when employers dealt only with their own employees, and employees only with their own employers, a lockout or strike might work great hardship or ruin to those directly involved; but the public hardly felt it. There was then little occasion for government intervention except to prevent and punish violence and other ordinary infractions of the criminal law.

Within our time, however, there have been great increases in the sizes of business concerns. Single corporations now represent hundreds of millions of capital, and employ many thousands of men. Confronted by these huge aggregations of capital, employees have organized on a grand scale to pit against the large bar-

gaining power of the great corporations the collective bargaining power of thousands of workers. From local bodies, labor unions have developed into national and international organizations. Individual corporations, even though very large, have found themselves at a disadvantage when dealing single-handed with labor unions national or international in their scope. Therefore, in many industries, labor unions national in their scope are now confronted with employers' associations national in their extent. Thus have combinations of capital and of labor acted and reacted on each other until there has developed a situation the significance of which, in relation to the public welfare, can hardly be exaggerated.

In no other field, however, is organized capital confronted with organizations of labor at once so powerful, so militant, and possessed of so many strategic advantages as in the railway field. The principal of these are the four brotherhoods of employees in train service—the Brotherhood of Locomotive Engineers, the Order of Railway Conductors, the Brotherhood of Locomotive Firemen and Enginemen, and the Brotherhood of Railroad Trainmen. For many years each of these organizations acted alone; and it was the policy of each to deal with only one or a few railways at a time. In not a few cases failure to secure satisfactory settlements resulted in strikes of the members of single brotherhoods on single roads. Perhaps the most famous and bitterly fought of these was that of the locomotive engineers on the Chicago, Burlington and Quincy in 1888. The greatest strike in the history of American railways, that carried on by the American Railway Union in 1894, grew out of a boycott this union had declared

against Pullman cars because the employees of the Pullman Company were on strike. But the American Railway Union soon went out of existence; and the course of the leading brotherhoods continued to be the same as before.

About ten years ago, however, radical changes began to be introduced in their policy. The individual brotherhoods commenced to make identical demands upon, and to insist upon carrying on negotiations with, the representatives of groups of railways operating throughout the three great sections of the country—East, South and West. Then, the other trainmen began to join with the conductors, and the firemen with the engineers, in making demands upon the railways of entire sections. Finally, in 1916, the engineers, firemen, conductors and other trainmen of the whole country united in making demands upon all the railways. This, it may develop, was not the climax of the railway labor movement. It is reported that the employees in train service have been trying to get all the other organized railway employees, especially the mechanics and other shopmen, to join with them in their struggles.

Every step taken by the employees has been countered by the managements. Committees representing groups of railways succeeded representatives of the individual managements in labor negotiations. Finally, in 1916, for the first time in history, a committee representing the managements of all the railways confronted committees representing men employed on all. This was soon followed by another event without a precedent—a meeting in Washington, D. C., of the heads of all the leading transportation systems to decide what should be the final stand of all in a labor controversy.

There will be no dissent from the proposition that revolutionary changes in economic and industrial conditions which powerfully affect the interests of the public may demand proportionately radical alterations in public policy. Likewise, it will hardly be controverted that the growth of great combinations of capital and of huge organizations of labor largely to carry on gigantic struggles with each other has worked an economic and industrial revolution. Finally, to most persons it must be plain that the part of this revolution which has occurred in the railway industry is of peculiar importance. A nation-wide lockout or strike in any of our large industries would soon become a serious matter for the public. The complete closing down of the steel mills would speedily affect all connected with branches of industry which sell them raw materials or buy their finished products, and would soon threaten the general prosperity. Much more speedy, serious and universal would be the consequences of a general closing down of the plants used to produce some essential of industrial activity, which is also a necessity of life, such as coal. But the most immediately and universally disastrous of all industrial catastrophes would be a nation-wide strike in railway train service. Such a strike would soon throw all railway employees out of work. By stopping the movement of coal and raw materials, it would swiftly shut down every mine and factory. The crops of the farmers would soon be rotting upon the ground. Depriving merchants of the means of renewing their stocks, it would soon close every wholesale house and retail store. The people of our great cities are dependent from day to day for their food upon the supplies which the railways bring to them from throughout the

land; and they would all find themselves threatened with starvation. As a nation-wide strike in railway train service would bring all industry and commerce to a stop, it would soon have the effects of a general strike of all workers such as is advocated by the syndicalists.

Until recently it was replied to such statements that the circumstance that the movements carried on by railway employees were growing more and more extensive did not give ground for fears of general tie-ups of the railways, or justify coercive action by the government to prevent them. The ablest report on a labor controversy ever made in this country was that rendered by the board which arbitrated the wage dispute between the eastern railways and their locomotive engineers in 1912. This board, of which President C. R. Van Hise, of the University of Wisconsin, was chairman, was profoundly impressed by the danger of extensive railway strikes. It, therefore, advocated the creation of state and federal wage commissions to determine the wages and conditions of work of railway employees. The representative of labor on the board (P. H. Morrissey, formerly president of the Brotherhood of Railroad Trainmen) vigorously dissented. He said:

> The developing power of the (labor) organizations through concerted methods carries with it increasing responsibilities which the organizations and their leaders recognize. They well know the value of public approval of their activities and are equally conscious of its disapproval. To intimate that the transportation of the country can be brought to a standstill at the whim or caprice of a small group of men is not a fair statement of the manner by which the powers of these organizations are exercised.

There was a strike of the employees of all the railways of France in 1910; and the majority of the arbitration board described this as an example of what might occur in the United States. Mr. Morrissey denied the analogy.

> The immediate cause of the French strike [said he] was the refusal of the railway officials to confer with the representatives of their employees in order that there might not even be a discussion of the employees' demands. There is no such condition in America.

Every argument made by Mr. Morrissey was swiftly refuted by the irresistible logic of events. In 1914 the engineers and firemen of the railways west of the Mississippi river made demands upon the companies, and the companies made counterdemands. The railways offered to arbitrate the demands of both sides. The employees consented to arbitration of their own demands, but refused to arbitrate those of the railways. The order was issued for a strike. The war in Europe had just begun. It was a time of industrial and financial crisis. President Wilson intervened, finally appealing to the managers of the railways on patriotic grounds to withdraw their demands and arbitrate only those of the employees. Only the compliance of the managers averted the disaster.

Still more impressive and conclusive was the lesson taught in 1916 and 1917. In this instance not only did all the locomotive engineers, conductors, firemen and other trainmen for the first time join in making demands on all the railways, but they refused to submit to arbitration in any form any of the points in controversy, whether raised by themselves or by the railways. President Wilson asked the companies to accede

to the demand for a "basic eight-hour day" and leave other matters in issue to subsequent determination. When the labor leaders heard that the railways had decided to reject the President's plan, they immediately issued an order for a nation-wide strike; and it was averted only by the hurried passage of the Adamson act. The order for a strike was withdrawn only thirty-six hours before the strike was to have begun. When the decision of the Supreme Court regarding the constitutionality of the Adamson act failed to be rendered as soon as the labor leaders thought it should be they again (in March, 1917) ordered a nation-wide strike. It is clear that labor leaders who would twice issue orders for a nation-wide railway strike in this manner and under these conditions would put such an order into effect. It is clear that railway managers who would meet the issue unflinchingly, as the railway managers did in this instance, would let a strike come. It is evident, therefore, that the time has arrived for a change in our methods of dealing with labor disputes on railways.

There has been frequent government intervention in labor disputes on railways in this country for some years. The laws under which it has occurred have applied only to disputes between the carriers and their employees in train service. The Erdman act, passed by Congress in 1898, provided for mediation by the Commissioner of Labor and the chairman of the Interstate Commerce Commission, and, if this failed, for arbitration by a board composed of one representative of the railways, one representative of labor and one member chosen by these two or by the mediators. The Newlands act, passed subsequently at the joint request of the railways and the labor brotherhoods, created a permanent

mediation and conciliation board of three members, and provided for arbitration, if mediation failed, by a board of six members—two representing the railways, two the employees and two supposedly impartial. The Newlands act, like the Erdman act, left it optional with the parties whether they should accept mediation or arbitration. So long as the parties were disposed to make settlements through mediation, or to arbitrate, this system was useful as a preventive of strikes. When, however, in 1916 the employees announced that they would not arbitrate, and stuck to it, the system of voluntary arbitration broke down.

Government ownership is urged by some as a specific for all the ills which develop under private ownership; and recently it often has been suggested as the only sure preventive of strikes. But strikes have not been unknown on state railways. The locomotive engineers and firemen of the state railways of Victoria struck in 1903. A serious strike occurred on the state railways of Hungary in 1904. The employees of the state railways of Italy, by threatening to strike, succeeded in 1905 in getting rid of an objectionable general manager. The employees of the two state railways of France went on strike with the employees of all the private railways in 1910. There even has been a strike already on the railway which the government of the United States is building in Alaska; and it was quite successful, the strikers getting practically all they demanded.

Under either government or private ownership differences are sure to arise from time to time between the management of the railways and the employees. In case the differences become serious, and strikes are permitted, the employees, especially if they are organized, are quite

likely to strike. The Prussian government, true to its character in other respects, makes strikes on the railways it owns and operates practically impossible by prohibiting the employees from belonging to unions or from holding meetings except such as are attended and presided over by their officers. The employees of the French railways, state and private, on the very day the general strike was declared in 1910, were mobilized under the military laws, and ordered to the colors for three weeks' training. The duty to which they were assigned was that of maintaining and operating the railways in the usual manner. It will be noted that this strike was on both state and private railways, and that precisely the same measure was used on both to break it. Similar methods were employed in breaking the strike on the Hungarian state railways in 1904.

It would be neither practicable nor desirable for the government of the United States to interfere, after the Prussian manner, with the organization of railway employees. Nor would it be possible in this country, at least in time of peace, to break a strike by mobilizing railway employees, as was done in France and Hungary. At the same time, our recent experience has demonstrated that we cannot reasonably hope much longer to avoid nation-wide railway strikes unless some form of coercion is adopted by the federal government to prevent them.

Legislation has been passed in many countries for the prevention of strikes and lockouts, not only on railways and other public utilities, but in industries of almost every kind. Until a comparatively few years ago proposals for the arbitration of labor disputes usually originated with labor and were often rejected by capital.

Consequently, at that time labor leaders, seconded by most social reformers, advocated legislation making arbitration compulsory. Within the last quarter-century this system has been tried in several countries, especially New Zealand and Australia. The original compulsory arbitration act of New Zealand was passed in 1894. District boards of conciliation, consisting of both employers and employees, and a court of arbitration, consisting of a president, one representative of the unions of employers and one representative of the unions of workers, were created. Reports as to the operation of this system are practically unanimous. From 1894 to 1900 New Zealand was prosperous; the awards of the arbitration court usually resulted in substantial advances in wages; and during this time compulsory arbitration was in high favor with labor and there were no strikes. During the next six years the country was less prosperous, the awards began to result in small increases in wages or none, and, as one author says, "labor became less satisfied, and capital less distrustful," but there were still no strikes. Between 1906 and 1912, when labor was "in open revolt and capital endeavored to uphold the act," there were 63 strikes.

The first of these was declared by the employees of the street railways of Auckland in November, 1906, showing that the law was no more effective as applied to public utilities and their employees than as applied to other employers and their employees. There was provided a maximum fine of $2,500 for any employer and one of $50 for any employee who should violate the arbitration law; and in this case both the company and the striking employees were fined. But from that time strikes continued to occur in various lines of industry

in spite of the fact that fines continued to be imposed. In 1909 the law was amended. Three permanent commissioners of conciliation are now appointed by the government. In case of a labor dispute one of them goes to the scene and tries to settle it. If unsuccessful he organizes a council of conciliation, which includes two or more representatives of both parties. Every dispute must now be referred to such a council before it can be carried to the arbitration court. This system is said to work better than the earlier one; but the record shows that while compulsory arbitration in New Zealand has prevented lockouts, it has not prevented strikes. It has been found possible under it always to enforce awards against employers, but not always against employees. In other words, the system is effectively compulsory only in its application to employers.

The experience of Australia has been similar. The Australian commonwealth has a compulsory arbitration act which has been in effect for twelve years, and the different states have tried various similar schemes. They, also, have prevented lockouts, but not strikes. Norway formerly had a compulsory arbitration law, but opposition to it by both capital and labor caused its repeal. After a general strike in 1916, which itself followed a strike of four months in the mining and iron and steel industries, another compulsory arbitration law was enacted to remain in effect during the continuance of the present war in Europe.

A measure similar in purpose to those mentioned, but narrower in its scope, and differing widely from them in the means it provides for accomplishing its ends, is the Industrial Disputes Act of Canada. This law was passed in 1907 as a result of a serious and protracted

coal mine strike in one of the western provinces. It applies to railroads and other public utilities, and to mines of all kinds. It prohibits, under heavy penalties, a lockout or strike until the matters in dispute shall have been referred to a conciliation and investigating board. The party about to lockout or strike must give notice to the Dominion government, together with a statement regarding the matters in controversy. The Minister of Labor calls on each party to name a member of the board. These two are given opportunity to name a third, who becomes chairman. If they fail to do so, he is appointed by the Minister of Labor. The primary function of this board is that of mediation. If it fails to effect a settlement, it takes testimony, and prepares a report, which is made public, summarizing the evidence and giving its conclusions as to the bases on which a settlement should be made.

This measure differs from those establishing compulsory arbitration in not requiring obedience to the awards made under it. Like them, it has not succeeded in entirely preventing strikes. But almost always in cases of industrial disputes its provisions have been obeyed, with resulting peaceful settlements in a large majority of cases. Of 75 disputes on railways which, to the end of the year 1916, had been investigated under its provisions, all but 9 had been settled without strikes or lockouts; and, as already indicated, the Canadian law applies to disputes affecting any class of railway employees, not merely those in train service.

Our experience in the United States has shown that a system which leaves mediation and arbitration of labor disputes on railways entirely optional with the parties, cannot be relied on to safeguard the interests of the

public. At the same time the experience of other countries with compulsory arbitration shows that while it is attractive in theory it often proves unworkable in practice. If employees are determined not to carry out the terms of an award, there appears to be, at least in democratic countries, no practical way of compelling them to do so. Fines have proved ineffectual, and provisions for imprisonment probably could not be enforced.

For the present it seems best to take in the United States a middle course between the policy of entirely voluntary arbitration and that of compulsory arbitration. In other words, we should apply to labor controversies threatening to interrupt railway service a system modeled after that of Canada. The most important feature of that system is that it does not make lockouts and strikes illegal and arbitration and acceptance of the awards compulsory, but that it merely makes strikes and lockouts illegal if declared before there has been a public investigation of and report on the matters in controversy.

Most of the leaders of organized labor formerly advocated compulsory arbitration. At present, most of the labor leaders of this country oppose the placing of any restriction on the right of railway employees to strike. They declare that merely to prohibit strikes until there can be public investigation is to subject railway employees to "involuntary servitude." But such a system does not involve any abridgment of the freedom of the individual. It merely imposes a limitation on the action of employees collectively; and no principle of economics or jurisprudence is more fundamental than that it may be the right and duty of society to im-

pose restrictions on the collective action of large numbers of men which it would be wrong to impose on the action of individuals.

"Involuntary servitude" is merely a euphemism for slavery. It is obvious that legislation prohibiting strikes until after public investigation does not establish slavery. "Involuntary servitude" is prohibited by the Federal Constitution; and yet the United States Supreme Court, in deciding the Adamson law case, held that Congress could provide for compulsory arbitration of labor disputes that might interrupt transportation. We must look beyond this "involuntary servitude" argument for the true reason why labor leaders are so strongly opposed to any restriction of the right of railway employees to strike. The true reason probably is that they fear such restriction will result in weakening the bargaining power of the labor brotherhoods. As already stated, the labor situation on railways and other public utilities is unique, and this point calls attention to one of the most important respects in which it is unique. In every other class of industry employers have the same legal and moral power and right to seize upon favorable opportunities to force through reductions in wages and changes in conditions of employment by resort to the lockout that the employees have to seize upon favorable opportunities to force through increases in wages and changes in conditions of employment by resort to the strike. Therefore, in any other industry in which both employers and employees are strongly organized there may be a substantial parity in their collective bargaining power.

In the case of railways and other public utilities, on the other hand, the employer may not legally suspend

operation. This means, as to most classes of employees, that he cannot use the lockout. In consequence, if the employees of railways and other public utilities are permitted to strike whenever they please this gives them in collective bargaining an important advantage. The employees in railway train service in this country have used this advantage often and skillfully. It is mainly owing to this that they have got their wages on a basis higher than those of any other workingmen in the world. A law absolutely prohibiting strikes in train service, if enforced, would largely destroy the advantage in bargaining possessed by these employees. A law merely prohibiting strikes until after public investigation would greatly impair it. While the investigation was going on the most opportune time for putting a strike into effect would pass, and the ardor of the men for it would cool. This would be partly because of the delay involved. It would also be partly because of the fact that the public would become informed as to the matters in controversy; that it would have before it the recommendations of an impartial board as to a settlement; and that it probably would strongly oppose and condemn any move to bring about a strike in disregard of these recommendations.

From the standpoint of the leaders of organized labor these are strong arguments against imposing limitations on the right to strike. From the standpoint of the public they are just as strong arguments in favor of imposing such limitations. It is not to the interest of the public that the employees of railways and other public utilities shall possess a disproportionate power in bargaining with their employers. The profits of public utilities, unlike those of other concerns, are con-

trolled by public authorities to prevent them from becoming excessive. Since such concerns are required to do business on a comparatively narrow margin of profit, every considerable change in the wages they pay must affect the rates they charge the public or the service they render to it. It is hardly necessary to add that it is to the public interest to interpose all reasonable obstacles in the way of strikes.

However, before a system of compulsory investigation of industrial disputes can be made to accomplish the greatest good, it will have to be given some features which have not yet been introduced into it. Its most important object should be to prevent strikes; but it should also aim to secure settlements of disputes which will be just to all, including the public. But what is just cannot well be determined by such temporary boards as have been organized under the Industrial Disputes Act in Canada and under the Erdman and Newlands acts in this country. The determination of the conditions of employment and the wages that should prevail on railways is as technical, and almost as important, a matter as the determination of railway rates. Therefore, the investigation of labor disputes on railways, like the regulation of rates, should be delegated to some body which, from the training and experience of its members, will be expert in getting at the true facts and conditions, and in making sound and fair recommendations as to settlements. The body to which this function should logically be delegated is that which already regulates railway rates and operation, viz., the Interstate Commerce Commission. In any event, the connection between the body that investigates labor

disputes and the body that regulates rates and operation should be close.

Probably the best alternative to turning the entire matter over to the Interstate Commerce Commission would be to provide that each investigating board should be composed of the following: (1) A permanent chairman, who should preferably be an army officer, and who, because of the permanency of his tenure, would in time become an expert on labor controversies; (2) a member of the Interstate Commerce Commission, to be designated for the occasion by that Commission, who would bring into the deliberations a broad knowledge of the railway situation; (3) a member of the Federal Trade Commission, to be designated for the occasion by the Trade Commission, who would bring to the deliberations a broad knowledge of the general business situation; (4) a representative of the railways, who would bring expert knowledge of railway matters and express the railway point of view; (5) a representative of the employees, who would bring expert knowledge of the labor situation and express the labor point of view.

The Erdman and Newlands acts provided for arbitration boards composed of equal numbers of representatives of the railways, of the employees and of the public. It has been justly complained of these boards that the minority of their members representing the public were impartial but not expert, while the majority, representing the employers and employees, were expert but not impartial. Either the Interstate Commerce Commission or boards organized according to the alternative plan suggested above would largely meet these objections.

As important as it is that the public should have rail-

way labor controversies elucidated for it by an expert and impartial board, the service which such a board could render in influencing the attitudes of the immediate parties themselves might be more important. In order that this service might be rendered in the most efficient manner, the law should provide that no strike vote may be taken until the investigating board has made its report, and that with every strike ballot sent out there should be enclosed a brief statement, prepared by the board itself, setting forth its conclusions and recommendations, and the reasons for them. It might be well to provide that strike votes shall be by secret ballot, so that no employee may be prevented from expressing his true sentiments. The question whether the railway transportation of the United States shall be interrupted is a more important one than most of those voted on at political elections, and therefore no pains should be spared to insure that it will be voted on intelligently and without duress.

The insuperable obstacle that has been encountered in the administration of compulsory arbitration laws has been that of getting employees to carry out awards. Will equal difficulty be met in the administration of a well-devised scheme of compulsory investigation? Both consideration of the conditions and the experience of Canada indicate that it will not be. The only prohibitions of such a system are those applying to strikes and lockouts previous to investigations. There is no reason why the penalties applicable, on the one hand, to the railway companies and their officers, and, on the other hand, to the officers of the unions, to their individual members, and to the unions themselves and their properties and funds, cannot be made heavy enough, if en-

forced, to secure obedience to the law; and it should be much easier to secure enforcement of penalties for violations of such prohibitions than to secure the enforcement of penalties against men who have struck rather than carry out an award already made, and which they regard as unjust. There is no "involuntary servitude" in the former proceeding. The latter may savor of it.

It is not probable that a plan such as that outlined would secure entirely equitable settlements of railway labor controversies; but it would secure much fairer settlements than any plan tried heretofore. It is not probable that it would entirely prevent strikes in railway train service, but it would almost certainly prevent nation-wide tie-ups, while strictly limiting the number affecting smaller areas. Should a well-devised scheme of compulsory investigation of railway labor disputes fail, public sentiment might be educated by its operation and irritated by its failure to a point where it would cause the enactment and enforcement of a law entirely prohibiting railway strikes and providing for compulsory arbitration.

CHAPTER XI

GOVERNMENT REGULATION VERSUS GOVERNMENT OWNERSHIP

The Great War will throw light on many important questions. One of these is the question of government ownership versus private ownership and government regulation of railways.

For many years the railways of the United States were managed by their owners and officers with little government interference. The results were not satisfactory to the public. The discerning foresaw that government regulation would do harm as well as good. The public became convinced, however, that it would gain more by this policy than it would lose. Effective regulation was, therefore, begun with the passage of the Hepburn rate law by Congress in 1906.

Varying opinions are held regarding the results of the policy since followed. The number of persons who still believe in unregulated private management is small. The number who regard the present system of regulation as satisfactory also is small. The number who favor private ownership subject to better regulation probably constitutes a majority. The number who regard government ownership as the ultimate and best solution of the railway problem also is large. It is probable that the struggle of the future over the railway question will be between those who favor private

ownership subject to public regulation and those who favor government ownership.

Before the war the question of government regulation versus government ownership was recognized as having various phases, but three were considered of paramount importance, and the war has not changed this. One of these phases is the military. Which policy probably will have the greater tendency to enable the nation successfully to attack its enemies or to defend itself? Another is the economic phase. Which policy probably will better promote the economic welfare of the country? Third, there is the political phase. Which policy probably will produce the more favorable effects on the government of the country?

I. Railway Ownership and National Defense

Before the present war there was much evidence bearing upon the economic and political phases of the question. There was very little which threw any light on its military phase. There had been no great war in which the service of railways owned and managed by private companies had been directly pitted against the service of railways owned and managed by governments.

The foremost representative of militarism, Germany, had proceeded on the assumption that, primarily for military reasons, railways ought to be in the hands of the state. Austria, the other great Central power, had done likewise. The railways of Belgium also were government-owned, as were 60 per cent of those of European Russia. On the other hand, in England at the outbreak of the war all the railways were in private hands, while in France five of the seven great com-

panies, having over 80 per cent of the total mileage, also were under private management.

It was the railways of these six countries which had to perform the great feats of military transportation in the early stages of the conflict. As to the countries which have since entered it, in Japan, Italy, Roumania, Bulgaria and Turkey government ownership preponderates, while in the United States private ownership prevails. In Canada private ownership preponderates; in Australia, government ownership. Any conclusion drawn now from the experience of the various countries with railways in the war might be negatived by later experience. But at any rate it may be said that consideration of the relative advantages of private and public ownership from a military point of view need no longer be based on pure theory.

Railway transportation is no longer merely incidental to military operations. The experience of the last three years has shown that war on the modern scale could not be conducted without railways. It is railway transportation which has made it possible to move the enormous armies now put into the field and to provide them with the immense quantities of munitions, foodstuffs, and other supplies which they consume. Before the age of railroads, when an army moved any considerable distance from its base of supplies it had to "live upon the country," and the size of an army which could do this was necessarily small, measured by present standards. Now armies can carry on their operations long distances from their bases of supplies because railways enable them to draw their supplies from throughout entire countries and, with the aid of steamships, from throughout the world. The relative efficiency with

which the railways of the combatants render their service has become a factor of vital importance.

Before the Great War it was contended by advocates of government ownership that this policy was necessary in order that in war, railway operation might be directed with the secrecy, the centralization and the unity of control essential to the greatest celerity and efficiency of action. The first moves in the world war seemed to support this contention. The mobilization of the German army was conducted with greater celerity and on a larger scale in the early stages than that of the other combatants. But in England and France, although all the railways of the former and most of those of the latter were owned by private companies, there had been worked out in advance and given the force of law plans for centralizing and unifying the management of the railways and coördinating their operations with those of the army and navy departments. These plans were almost instantly put into effect, and all the available evidence indicates that, on the whole, the English and French railways have given at least as good an account of themselves as those of Germany. If they did not do so in the very first days of the war this probably was due, not to the fact that they were under private management, but to the circumstances that Germany was the aggressor, and that in respect not only to military transportation, but to all other matters affecting the conduct of the war, she was much better prepared than England and France.

In fact, before the war began the manager of one of the large English systems predicted that the railways of his country would be able to bear any burden that the government might ever put upon them in connection

with military operations, and after the war had been in progress some time the chairman of one of the largest British systems made a public statement which stands uncontradicted that the railways were better prepared at the start to perform their part and did perform it better than any department of the government. Now, the management of the British railways during the war cannot properly be called government operation, since they are being managed by a Railway Executive Committee composed of their own general managers and officered by the same men who were operating them before the war began.

Practically the same statement may be made as to the French railways. It is well known that General Joffre, "the hero of the Marne," has said that "This is a railway war," and has added, "The battle of the Marne was won by the railways of France." It was not the two French state railways, but two of the great private railways, the Northern and the Eastern, which had to render the greatest service to the French armies in the battle of the Marne, as they have had to do in the subsequent military operations.

The most conspicuous failure of railways in war has been in Russia; and the government-owned railways of Austria have not made as good a showing as the private railways of England and France.

In no other country, perhaps, has the adaptability of private railways to the conditions of war been better illustrated than in the United States. As shown in an earlier chapter, five days after Congress declared war against Germany, the chief executives of our railways, in response to a suggestion from the Council of National Defense, met in Washington to confer regarding

the means they ought to adopt to enable the roads to render to the government and the public during the war the most efficient service. Their meeting was short, but before it adjourned they had resolved to subordinate all their individual interests and competitive rivalries to the object of rendering the maximum amount of useful service to the government and the public. They determined that during the war the railways should be operated as a single national transportation system, and for the carrying out of this plan they created a committee of five railway chairmen and presidents, now known as the "Railroads' War Board," in which was vested authority to supervise the management of every line in the country.

In consequence the railways were the first industry to tender to the national government a unified service under a centralized management. They were already almost overwhelmed with a commercial traffic which during the preceding two years had expanded at a rate unprecedented; and on May 1, 1917, there was reported the largest car shortage ever known. On August 1, as a result of the exertions of the railroad managements, under the supervision of their War Board, and the cooperation of public officials and shippers, the car shortage had been reduced 75 per cent. But traffic continued to increase; it soon became 20 per cent greater than in 1916 and 50 per cent greater than in 1915; and in the fall the number of unfilled requisitions for cars began to grow rapidly again. Since the war began the traffic of the English railways has increased 50 per cent; and that of the French railways serving the zone of military operations has doubled. The entrance of the United States into the war has added greatly to the already enormous

traffic with which our railways were burdened. It was in anticipation of this that the government allowed, and, indeed, encouraged our railways to adopt the resolution to eliminate their competitive rivalries. President Wilson finally decided that government control must be substituted for private control of management, but this was made necessary—if it was necessary—by restrictive regulatory laws which government control could set aside. The government is carrying out the desire of the railway managers themselves to operate as a single system; and except to the end of accomplishing this purpose there have not been, and probably will not be, any radical changes of organizations or methods. Government control pushed aside government regulation rather than private management.

If we can judge by the experience of our own and other countries thus far, the operation of railways in the war is going to demonstrate that the system of private management subject to public regulation has a flexibility and adaptability, and, if the use of a slang expression may be allowed, a "punch," which makes railways under this system a more potent instrumentality in war than railways owned and operated by a government. This is due to a number of causes. One of them is, that private ownership results in stronger and more resourceful men being advanced to the highest places in railway service. Another is that it does not involve all the parts of a railway organization in the red tape which renders it so difficult for governmental organizations to act with the freedom and celerity required in great emergencies.

While the war continues, however, we shall still have large economic as well as large military problems to

deal with; and when it is ended our economic problems will be more numerous and more difficult to solve than they were before it began. The signing of the treaty of peace will be followed by an international commercial and industrial struggle more intense and on a grander scale than any the world has ever seen. The railways of all the leading countries must take a part in this struggle analogous to and as important as that which they are taking in the war. Therefore, it is extremely desirable that even while the war is going on the people of the United States should be giving intelligent and profound consideration to the economic phases of the question of government ownership versus government regulation. A mistake in the way they settle the railroad question might largely determine the results to them of the great commercial and industrial struggle which is approaching. Congress has created a joint committee of senators and representatives to study the entire railroad problem. Among the things it is specifically directed to investigate is "the comparative worth and efficiency of government regulation and control as compared with government ownership and operation." Considerable testimony on this point already has been introduced before it; and much more probably will be introduced when it resumes its hearings.

CHAPTER XII

GOVERNMENT REGULATION VERSUS GOVERNMENT OWNERSHIP (*continued*)

II. Efficiency of Production as Affected by Private or Government Management

Many seem to believe that practically the only economic question involved is whether government regulation or government ownership will contribute more effectively toward an equitable distribution of wealth. The main ground of the attacks on private ownership is that the stockholders receive large sums which ought to go into the public treasury, or to the employees in higher wages, or to travelers and shippers in lower rates. On the other hand, many seem to believe that practically the only economic question involved is whether government management would reduce or increase the cost of producing transportation.

No form of government intervention in industrial and economic affairs can be justified by its effects on either production or distribution alone. Wealth must be produced before it can be divided. The efficiency with which it is produced determines the amount to be divided. One of the most salient characteristics of modern civilization has been the increase in the amount of wealth produced with a given outlay of labor and capital. But even in the most advanced industrial countries the amount produced per capita is still so

small that if it were divided equally the income received by the average family would hardly exceed the present wage of a skilled mechanic.

Now, the service rendered by railways is in the main merely one of the processes of productive industry. Every time they move a ton of goods they as truly add to the value of the goods and to the wealth of the community as does the factory which produces the goods; and the reasons why it is desirable to have transportation produced economically are precisely the same as the reasons why it is desirable to have manufactured goods produced economically. It is easily conceivable that under government ownership the relationship between the wages paid to labor, the rates charged to shippers and travelers and the return paid to capital, might be made theoretically fairer than it is under private ownership; but that at the same time the productive efficiency with which the roads were managed might be so reduced that their employees, their patrons and the public would all be worse off than they are now.

While, however, efficiency in production is so essential, it is perhaps no more important than equity in distribution. This latter is desirable in itself. It is also desirable as a means of promoting efficiency in production. Nothing is more conducive to efficiency than the rewarding of people according to their deserts, or is more destructive of it than the opposite practice. Consequently, in studying the question of government regulation versus government ownership we must weigh the effects that these two policies are likely to have on both production and distribution.

The effect which either will have on production will depend mainly on its influence on the economy of rail-

way management. The expenses of railways, as of all concerns, are of two kinds, capital expenses—return on investment—and operating expenses. The total return which must be paid on the capital of a railway depends partly on its credit and partly on the amount invested in it. Under public ownership the credit of the government would be used in raising capital. The credit of governments ordinarily is better than that of individuals or corporations. But when the obligations of a government are increased greatly, its credit, like that of individuals and corporations, is affected, and the rate of interest it must pay is advanced. The leading governments of Europe are now paying upward of 6 per cent. It is ordinarily assumed that a government's credit will not be affected as much when it raises funds to invest in a money-earning concern, such as a railway, as when it raises them for an unproductive purpose, as for carrying on a war. This may be correct. But while revenue-producing concerns owned by a government may earn profits, they may also incur losses. The possibility that under public management the railways of this country would incur losses which would have to be paid from taxes would affect unfavorably the credit of the government. Nevertheless, there doubtless would be for some time a reduction in the total return which would have to be paid on railway capital. Various estimates, many of them exaggerated, have been made as to what this would be.

The government of the United States has the best credit in the world. But the purchase of the railways would be an enormous transaction. The investment in their road and equipment is nearly $18,000,000,000. A valuation of them would hardly be less. It was contend-

ed before the United States entered the Great War that it could raise enough capital to acquire the railways by the issuance of 3 per cent bonds at par; and as the return, in interest and dividends, paid by the railway companies on their outstanding bonds and stocks during the last five years for which we have complete statistics averaged 4.44 per cent, it was estimated that under government ownership a large part of the return paid on capital could be saved. But actual experience since the war began has demonstrated the fallaciousness of some of these estimates. The "Liberty Loan" bonds, amounting to $2,000,000,000, were offered to the public at 3½ per cent; they were exempted from taxation; the purchasers were guaranteed that if later bonds bearing a higher rate of interest were issued these 3½ per cent bonds would be accepted in exchange for them; and yet it is well known that a gigantic advertising campaign had to be conducted, and the public had to be appealed to on the ground of patriotism, in order to make the "Liberty Loan" a success. On war bonds issued later our government will pay 4 per cent; and the leading governments of Europe are paying 6 per cent and upward. The fact is, that the amount of capital in the United States seeking investment at low rates of interest even on the very best security is relatively small, and it is probable that, tax and other conditions being equal, there is not a difference of more than ½ of 1 per cent between the return which the investing public will accept on a government bond, and on a gilt-edge security of a large railway company. Therefore, while under government ownership it would not be necessary to pay so high a rate of return as must be paid to raise capital for railway companies, it is easy to exaggerate

the saving which would be effected by substituting the credit of the government for that of private companies.

The total interest on the government's railway debt would depend at the start on the original cost of the roads and on the rate of interest on the bonds issued. But it would be necessary to continue to make great improvements and to build new lines. This would require new investment. Whether the total interest on the debt incurred in providing these additional facilities would exceed the total return that would be paid on the capital invested in them if they were provided by private companies, would depend largely on whether the government would spend more or less on the facilities in question than would private companies. Whether it would spend more or less on them would depend on its skill as a manager and on the efficiency of its labor.

As the skill of the management and the efficiency of the labor of a railway system largely determine its capital expenses, and as they much more largely determine its operating expenses, the advantage which would be derived under government ownership from using the credit of the government in raising capital might be small compared with the gains that might be secured or the losses that might be incurred, according as government management was more or less skillful and economical than public regulation and private management would be.

Both the system of government regulation and that of government management have their advantages and their disadvantages. Furthermore, their advantages and disadvantages are not the same under all political

conditions—under monarchical conditions such as prevail in Prussia, for example, and under democratic conditions such as obtain in the United States. Only by giving due consideration to the particular conditions obtaining in this country, and weighing the advantages and disadvantages that each policy would have under these conditions, can we form a rational conclusion as to which policy will produce the better results here.

One of the great disadvantages of the system of public regulation is the division of responsibility it involves between the regulating bodies and the railway managements. In the United States there is a serious division of responsibility between the regulating authorities themselves. The states as well as the nation regulate the companies; and many of the states endeavor to secure special privileges and benefits for their own people regardless of the effects on the railways and on the people of other states. But the public is awakening to the drawbacks of this dual system of regulation; they are likely to be made especially plain during the war; and in time federal control may be made paramount, or actually exclusive.

It is quite possible that the division of responsibility which would remain even under exclusive federal control would have bad effects. We should continue to have government bodies adopting regulations regarding rates, physical construction, equipment and operation, and perhaps the wages and conditions of work of employees. Perhaps these regulations often would be adopted, as they are now, without adequate investigation or understanding of the probable consequences. The managements would have to interpret and apply them, at the same time assuming responsibility for the safe,

efficient and economical operation of the properties; and the stockholders would have to stand such losses and accept such profits as might result from investment in properties subject to such a system of divided control and management. Intelligence, good faith, and forbearance must be shown both by those who regulate and those who own and manage to make such a system work well. Often in the past these qualities have not been conspicuously in evidence.

The main incentive, under private ownership, to the expansion of railway facilities and the increase of efficiency in operation is the hope and expectation of securing larger profits than would otherwise be obtained. It is conceivable that under a system thus involving divided responsibility regulation might so limit profits as to destroy this incentive.

It does not seem probable, however, that this would be done for long. Congress has tacitly, and the Interstate Commerce Commission has expressly, recognized the expediency of allowing efficiently managed railways to be rewarded for their efficiency. Besides, as a matter of economic necessity, railways must be regulated as to their rates and earnings by territorial groups. Now, even though the average net income of the various groups be restricted to the constitutional minimum which the courts call a "fair return," some roads in each group will earn less than this average, some more; and it will usually be possible for any individual management, by developing more than the average efficiency, to put and keep its road in the class that earns more than the average. Therefore, the division of responsibility unavoidable under the system of public

regulation does not seem likely to destroy the incentive to efficiency in management, although it may seriously impair it.

The greatest essentials to the efficient and economical operation of any large concern are far-sighted, skillful and energetic administration and efficient labor. One of the fundamental and most important differences between government regulation and government management is that under the former public officials exercise merely the authority of supervision and correction, while under the latter they administer the enterprise. The two functions are unlike. The former is chiefly legislative. The main duty of regulating bodies is to make general rules for the guidance and control of the acts of others. The administrative, or managing, function, on the other hand, is an initiating and executive one. The management of a railway system determines where it will be advantageous and desirable to build extensions and make improvements. It determines according to what ideals and standards the property shall be built, maintained and operated. It selects and directs the officers. It selects, directs, trains and disciplines the employees, and determines, within limits fixed by law and public opinion, their wages and working conditions. On its judgment, courage, energy and ability mainly depends the success of the development and operation of the railways, whatever their ownership. The elements and essentials of successful administration are not changed by the transfer of a concern from the ownership of a company to that of the public. Therefore, whether the government would create and support a railway organization which would administer the rail-

ways as skillfully as they may be expected to be administered under public regulation and private ownership, is one of the most important points to be considered.

Under public regulation and private ownership the various railways are managed separately. One argument made for government ownership is that large economies could be effected by consolidating them. But out of the very magnitude of the consolidated business might arise some of the most serious obstacles to managing it successfully. There has been within the present generation a great increase in the size of business concerns. The investment represented by single corporations has grown from tens of millions to hundreds of millions and even billions. It is undetermined, however, whether the science of organization and management, and the executive ability of individual men, have become sufficiently developed to enable such gigantic concerns to be managed with the greatest efficiency and economy.

Large savings have been secured in many cases by increasing the size of business units. But whether there are not laws of economics and human nature which cause a relative reduction of efficiency when the size of enterprises and organizations is increased beyond certain undefined limits, is still in doubt. President Hadley of Yale University has expressed the opinion that "the difficulty of finding men to manage the largest of these enterprises constitutes the greatest bar to their success." He adds:

> Just as in an army there are many who can fill the position of captain, few who can fill that of colonel, and almost none who are competent to be generals in command, so in industrial enterprises there are many men who can manage a thou-

sand dollars, few who can manage a million and next to none who can manage $50,000,000. The mere work of centralized administration puts a tax upon the brains of men who are accustomed to a small range of duties which very few find themselves able to bear.

Under government ownership our railway system would constitute a unit vastly transcending any other business unit that ever existed. In mileage, investment, traffic, earnings, expenses, number of employees and territorial area covered, any other railway system is a pigmy compared with that of the United States. Russia, with 50,000 miles of line in Europe and Asia, has the largest mileage of any country except ours; and the United States has five times the mileage of Russia. The capitalization of the Pennsylvania Railroad, the largest of our railroad corporations, is $755,000,000. The capitalization of the United States Steel Corporation, the largest of our industrial concerns, is $1,495,000,000. The capitalization of the Prussian-Hessian state railways, the largest government railway system under a single management, is $3,000,000,000. The investment in our government railway system would be at least $18,000,000,000, or twelve times as large as the capitalization of our biggest industrial concern, and six times as large as that of the Prussian-Hessian state railway system.

The problem of developing and working an organization which would centralize authority enough to coordinate all parts of this vast system, and which would at the same time decentralize authority sufficiently to enable each part to cope with local conditions and needs, would be the biggest and hardest industrial problem ever presented to the genius and energy of man.

Therefore, even though the best judgment and ability of the country were enlisted and allowed to carry on the business without any political or other vitiating form of interference, it is questionable if the advantages which would be gained by consolidation would not be outweighed by disadvantages arising from the unwieldly magnitude of the undertaking. Under private ownership several very large systems of railways, having from 10,000 to 25,000 miles, have been at different times built up. Only during periods when they have been dominated by men of gigantic ability, such as James J. Hill and E. H. Harriman, have they shown results superior, or perhaps even equal, to those gained on many smaller roads. If under government ownership the railways were not managed as a single system the advantages anticipated from consolidation would not be obtained. If they were managed as a single system, all the difficulties of working such a gigantic enterprise as a unit would be encountered.

On our own country's entrance into the war the railways put direction of all their operations in the hands of one committee. Subsequently the government put a director general in charge, who is trying to operate all lines as a single system. The results doubtless will throw light on both the advantages and the disadvantages of centralized control. Unfortunately, however, the conditions of war are so abnormal that results gained under them do not throw much light on what could and would be done in peace.

Perhaps experience will indicate it is undesirable to return wholly, or even partially, to the old system under which each railway—not merely because it wanted to, but under compulsion of federal and state laws—han-

dled its business independently of, and often antagonistically to, all other railways. But this, while demonstrating the desirability of greatly modifying our ante-war policy of private ownership and public regulation, would by no means demonstrate that it should be entirely abandoned in favor of complete consolidation under government ownership and management. Because improved results might be gained under a modified policy of private management and public control, it does not follow that improved results would be gained under government ownership, because the organization and personnel of a government railway system, and the influences to which they would be subjected, would be widely different.

The government might put at the head of its railway organization a cabinet minister. This is what is done in most countries where the railways are owned by the public and is what is done in our own country in the case of the postal department. It might put at its head a board or commission. In any case, it would be essential to efficient administration that all the higher officers should be given and should retain their positions solely because of their preëminent ability and special fitness. Great difficulties would be met in getting and keeping such men. The government would not pay them anywhere near as much as they could make in private business. However, the honor inherent in public office is more attractive to many able men than a large income. In spite of small salaries the government might get strong men if appointments and the tenure of office were made to depend entirely on merit.

But this statement suggests a difficulty greater than that of salaries. The policies of large private concerns

and of the government in selecting important officials differ widely. There is hardly a high officer of a railway or of an industrial corporation but owes his place to his ability and experience, and knows that his tenure of office depends on his integrity and efficiency. There is hardly a high official of the government who does owe his office solely to experience and ability. Most of them owe their places to political considerations, and know they will lose them for similar reasons.

Besides being able and specially trained men, the managers of any large concern, in order to conduct it successfully, must be free from interference except on business grounds. In view of our almost unvarying experience, there seems to be little reason for believing that the managers of a government railway system would be free from such interference.

With respect to labor, there appears to be no ground for contending that it would be more efficient under government than under private management. The recent movement of the men in the train service of the railways of the United States, which culminated in the intervention of the federal government and the passage of the Adamson law to raise their wages, and thereby avert a strike, often has been used as an argument in support of the proposition that this country soon will have to adopt government ownership. The result in this case was secured by the power of organized labor to interrupt, or at least seriously interfere with, transportation, and by the political influence of the large number of votes it was supposed to represent. The effect has been to increase the expenses of the railways and the amount that the public must pay for transportation. How would the situation as respects matters

of this kind be improved by the adoption of government ownership and management? Is it desirable and right for railway employees to have and to use the power to strike, and also to use the political influence that their numbers and organizations give them, to secure legislation for their own selfish benefit? If so, recent events show that they have and can very effectively use these forms of power under private ownership.

On the other hand, if it is not desirable for them to have and to use these forms of power, it is clear that they would not be deprived of them by the mere adoption of government ownership. There have been strikes on state railways in France, Hungary, Italy and Australia; on the small railway which the government of the United States is now building in Alaska, and on the Panama canal. Strikes can be prevented under either government or private ownership only by yielding to the demands of employees, or by expressly or in effect prohibiting strikes by law. In Prussia strikes on the state railways are prevented by prohibiting the employees from belonging to labor organizations. In Canada they are greatly hindered on both the government and the private railways by prohibiting them from being ordered before investigation and report by a public tribunal on the matters in dispute.

As to the use of the political influence of railway employees to promote their own purposes at the expense of the public—how would taking them into the service of the government reduce that influence or prevent its use? They would still have the same organizations and the same number of votes they have now unless their unions were abolished and their suffrage were taken away. Can anybody conceive of laws being passed to

abolish their unions or their suffrages under either private or government ownership?

In a democratic country, when, under private ownership, railway employees resort to the threat of strikes and to the use of political methods to further their special purposes, the public is afforded a kind and an amount of protection against excessive concessions being made to the employees which it can hardly hope to receive in a democratic country under government ownership. The owners and managers of private railways can offer organized resistance to attempts to secure concessions; and have a selfish motive for doing so. Under private ownership controversies and struggles between the employers and the employees often are settled by arbitration, in the course of which there are public hearings; and even when there is not arbitration, both sides often are impelled by the circumstances to give great publicity to the facts and arguments on which they rely for winning. In consequence, public opinion is educated regarding the points at issue, it becomes a very important factor in determining the final settlement, and in the long run the rights and welfare of the public are fairly well safeguarded.

On the other hand, under government ownership, especially in a democratic country, there is no compact, homogeneous body of persons susceptible of rapid and effective organization for the purpose of resisting the demands of a large body of railway employees or impelled by any special selfish interest to do so. Organization requires leadership. The owners of private railways are afforded this, in labor struggles, by the managers, whose interests are closely identified with those of the owners. The public, as the owner of the

railways, would often lack such leadership, for the lawmakers and public officials who would control the management of the railways, as they would be largely dependent for their continuance in office on the way railway employees might vote, would be far more likely to try to conciliate them by granting even unreasonable demands than to risk their official positions by vigorously opposing the employees. In these circumstances, there would be limited opportunity for the education and assertion of public opinion.

The employees of the United States postal department are not nearly so numerous as those of the railways, but the fact that they are in government service does not deprive them of political influence which they can and do use for their own benefit.

The efficiency of labor depends largely on the energy and skill of the management in training, organizing and directing it; and reasons have been given for apprehending that the management of our railways under government ownership would be less energetic and skillful than under private ownership. It is probable also that under government ownership labor would be more difficult to train, control and direct. Under private ownership most employees are taken into the service and retained, discharged or promoted because of the management's belief in their fitness or unfitness. It is almost certain that under government ownership many of them would owe their places to politics. Men who owe their jobs to politics are more likely to be loyal to their party politicians than to their superior officers. Even civil service rules are not a satisfactory substitute for business methods in dealing with employees. It seems clear that under government management the

average efficiency of the employee would be reduced, and that more men would have to be hired to do the same work.

Under our political system Congress, in the exercise of its supreme legislative power, completely controls the organization and management of the various departments of the government. In addition, while nominally the President, with the consent of the Senate, makes all appointments to important offices in the departments, in actual practice most of these appointments are dictated by senators and representatives. The insuperable difficulties which, in consequence, are encountered by all who attempt to promote efficiency and economy by introducing business methods into the departments were strikingly illustrated by a debate which took place in the Senate on January 24, 1917. In this debate no reference was made to the question of government ownership of railroads; but what was said has a very direct bearing upon that subject. Senator Overman of North Carolina made the following statement:

> We have just been discussing here the question of the . . . adjustment of office salaries and of the duplication of work. . . . Now, I am going to introduce an amendment which, if adopted, will save this country thirty million dollars. . . . I want the Senate to consider what they are doing, and I ask everybody to listen to the reading of the amendment.

Senator Overman's amendment was as follows:

> Sec. 8.—The President is hereby authorized during the vacation of Congress . . . to transfer and, if deemed desirable, to consolidate bureaus, divisions, offices, and other governmental activities in order that duplication of service may be

abolished and extravagance and unnecessary expenditures eliminated.

Senator Gallinger of New Hampshire here gave expression to the cynicism about economy, which is practically universal in Washington:

Senator Gallinger.—I will ask the Senator from North Carolina in all good faith if he has ever known of an instance where an attempt of this kind has been made when a single clerk was dismissed?

Senator Overman.—As the Senator from New Hampshire says and intimates, I have never known one (clerk) to be dismissed, . . . but it is worth a trial.

Senator Gallinger.—If the affairs of the government were placed in the hands of a business man or a business corporation with a free hand, that saving (thirty million dollars) could be made. Under our system, however, it cannot be made and never will be made.

Senator Overman.—I think the Senator will also agree with me that there are some bureaus of this government that might be changed and consolidated with others.

Senator Gallinger.—That is my judgment; but I do not believe it will be done.

Mr. Overman is a democrat and Mr. Gallinger is a republican, but they agreed, first, that there is a great duplication of work between different government bureaus, and, second, that no past efforts to effect economies in the departments have ever resulted in the dismissal of a single clerk. Similar views were expressed by other senators.

Senator Robinson (Ark.).—I sincerely doubt whether the system of accounting that prevails in any of the departments could meet the approval of any expert accountant. There is

almost unlimited duplication in the work of these various departments.

Senator Vardaman (Miss.).—I have often been impressed before by the helplessness confessed by the Senate when anything of this character is proposed. The mention of such matters is always accompanied with the statement that we cannot make the bad condition any better—sovereign in power, yet helpless to correct or improve an admitted inefficiency or error.

Why do members of Congress confess their impotency to effect reforms? Senator Robinson explained this.

Senator Robinson.—Congress (if in session) will be besieged by those who have personal interests in the matter, and the result will be that very little will be done. . . . It is very rare indeed, if ever, that Congress abolishes a bureau or abolishes an office. The political influences which are constantly brought to bear to perpetuate offices when once created make it a practical impossibility to accomplish the end sought in that way. . . . The reason for this is apparent. Congress is a political body. The abolition of a bureau of the government must be accomplished in spite of great political influence.

It was necessary to secure the unanimous consent of the Senate to adopt Mr. Overman's proposition. The question was essentially a business one; it pertained to the economy and efficiency with which the government departments are managed; and yet the United States Senate, being a political body, is so run that any one of its members could veto this plan. Senator Oliver of Pennsylvania did so on the ground that the "amendment confers powers upon the President that Congress should hesitate long before conferring." Can anyone

imagine the board of directors of a railroad dealing with a business matter in this way? The debate continued:

Senator Overman.—I regret that there is a member of the Senate who would make a point of order . . . when it was admitted, even on the other side of the Chamber by a former leader of this body (Senator Aldrich of Rhode Island), that we are spending $300,000,000 more annually in the conduct of the affairs of the government than we ought to spend. For 30 years we have been trying to do something and have not been able to do it. The best thing I can do now is to try to get a report, and then let us see if Congress will act, but they will not act.

Senator Oliver.—I will not confer upon the President of the United States or upon anyone else the power to do away with any bureau or to restrict any of the executive departments as they have been established year after year and term after term by Congress.

Under private ownership of railways the stockholders elect the board of directors; the directors choose the executive officers, and the executive officers of practically all railways are given a free hand and very wide discretion in the administration of the properties. This is necessary because conditions in the railway business change constantly, and to secure the greatest efficiency and economy it is essential constantly to adapt the physical plant, the organization, the personnel and the methods used to changing conditions.

Under government ownership, on the other hand, if we may judge by the way the present departments of the government are run, Congress would neither effect needed economies itself nor give the executive department the authority to do so. Senators would be heard admitting that there was enormous waste in the man-

agement of the railroads, and at the same time confessing that they were powerless to stop it. Senator Robinson, in summing up the reasons for conditions in the existing government departments, stated the case against government ownership of railways with great force. "'Political influences which are constantly brought to bear to perpetuate offices when once created make it a practical impossibility'' to accomplish any change which will affect anybody's job. "The reason for this is apparent. Congress is a political body."

It is often contended that our government has been very successful in the management of the Post Office Department and in the construction of the Panama canal, and that its success in handling these undertakings shows that it could and would manage the railways efficiently. But the management of the Post Office Department and the construction of the Panama canal are not comparable in their magnitude with the management of the vast railway system of the United States. Furthermore, our experience with them does not constitute an argument in favor of government ownership of railways.

It is not a fact that the management of the Post Office Department has been efficient and economical. That it has not been so has been due to the use of the same methods and the prevalence of the same influences which would interfere with efficiency and economy in the administration of the railways. The accounts of the department have been so kept that nobody knows how much capital has been invested in the buildings and other facilities used in rendering the postal service, and, therefore, nobody knows how much interest should be charged annually against this investment. Even all the

operating expenses of the department are not included in its reports of its expenditures. The statistics of the department itself, however, show that in fifty-four of the sixty-one years from 1855 to 1915, inclusive, its expenditures exceeded its earnings. Its total earnings during this period were $4,694,420,003; its total reported expenditures were $5,013,179,233; its total admitted operating deficit $318,759,230; and its operating ratio 107 per cent. If the expenses of the railways were as large in proportion to their earnings as those of the Post Office Department are on the average they would have $30,000,000 per year less than nothing with which to pay taxes, interest and dividends!

The reason for these results in the postal department are obvious. The principal officers of the department are always selected for political reasons and know very little about its business; and the adoption of methods for increasing its efficiency and economy is constantly prevented by political interference. Let us consider a few specific examples. During the winter of 1914-1915 business of all kinds was bad. All private concerns found it necessary to retrench severely. For the first time in twenty years the receipts of the Post Office Department began to decline. It had been the practice to make annual promotions of postal carriers and clerks, involving increases in salaries. The Postmaster General, the administrative head of the department, recommended that these promotions be suspended for one year. But political influences were brought to bear, and the postal employees received their usual promotions and increases of salary.

When the rural free delivery service was established the carriers were paid $400 a year. In fifteen years this

had been increased to $1,200, and the service was costing $54,200,000 a year and earning only $12,000,000. In 1915 the Postmaster General recommended that the rural service be let by contract, as the Star Route service is, estimating that this would save $18,000,000 a year. The 50,000 rural carriers and their friends appealed to Congress and the recommendation was rejected.[1] Although there was a prospective postal deficit of $20,000,000, the postal employees were able to override the recommendations of the head of the department and dictate to the public the compensation it should pay them. How can it be assumed that Congress would be less responsive to the demands of 2,000,000 government railway employees?

With respect to the Panama canal, the government deserves great credit for the way in which it constructed it. But its success in that undertaking was due to the absence of the very methods and influences which make the management of the Post Office and other departments of the government so inefficient and wasteful. In the first place, the men who had direct charge of the construction were chosen because of their experience and ability and regardless of political considerations. An army and navy commission having got the work hopelessly entangled in red tape, the government created the "railroad regime." A railroad president was appointed chairman of the canal commission and a former railroad vice-president was appointed chief engineer, each being paid $30,000 a year. (The salary of cabinet officers at that time was $8,000.) When the railroad men retired, after having effected the organi-

[1] Address of John W. Weeks, U. S. Senator from Massachusetts, before Traffic Club of Pittsburgh, March 5, 1915.

zation for the project, an army officer was appointed chairman and chief engineer with a salary of $15,000 a year.

The chairman was given, and exercised, practically autocratic authority during the entire period of construction. Most of the employees were West Indian negroes, Spaniards, Italians, Greeks, etc., brought directly from Europe. The general conditions and the numerous nationalities represented made effective and aggressive organization of labor impracticable. Only a minority of the employees were American citizens, and they were far from home where they could not enlist the sympathies and activities of politicians. Because of these and other conditions the discipline administered was not that of an ordinary government department but that of a benevolent despotism. No such methods ever have been used in any government department whose officers and employees have been located in the United States; and for obvious reasons this never can be done so long as the United States continues to be a democracy.

Prussia has been more successful than any other country in the management of state railways, and consequently, the results it has gained are used more frequently than those gained in any other country as arguments for government ownership. The reasons for Prussia's success are very similar to the reasons for our government's success in the construction of the Panama canal. The Minister of Public Works of Prussia, who is the head of the railway system, is a permanent official appointed by the Kaiser because of his special fitness, and the other officers are also chosen because of their training, experience and proved ability. Like-

wise, in Prussia, because of the autocratic character of the government, the employees on the state railways are not allowed to belong to labor unions; and there is very little political interference with the management. The results gained in the management of state railways under an autocratic government such as that of Prussia are no indication of the results which probably would be secured in their management under a democratic government such as ours.

Political considerations, under government ownership, especially in democratic countries, may cause lines to be built and improvements to be made where they are not needed, and prevent them from being provided where they are needed. They may cause contracts to be let and purchases to be made to further party instead of public interests. They may cause passenger and freight service to be rendered, not for the benefit of the public, but to placate favored communities. The conclusion that the total cost incurred in furnishing transportation would be increased under government ownership seems inevitable.

This conclusion is supported by the comparative statistics of government and private railways.[2] It is impossible to study the statistics regarding the capitalization (or cost of construction) of the railways of the world without being led to the conclusion that ordinarily, under comparable conditions, the construction and development of state railways have been carried on less economically than those of private railways. In the

[2] The writer has presented a great deal of data regarding the comparative results of railways managed by governments and by private companies in his book on "Government Ownership of Railways," pp. 143-180.

note [8] is given a table showing the average capitalization (or cost of construction) per mile of all the railways in the world satisfactory statistics regarding whose capitalizations are available. The largest average capitalization is that of the railways of Great Britain, which are privately owned; but the second largest is that of the state railways of Belgium. France (where private ownership preponderates) is third; while Germany, Switzerland, Austria and Roumania, in which state owner-

[8] AVERAGE CAPITALIZATION (OR COST OF CONSTRUCTION) PER MILE OF RAILWAYS OF THIRTY COUNTRIES

Preponderantly Private Ownership		Preponderantly State Ownership	
(1) Great Britain	$274,027	(2) Belgium	$216,143
(3) France	150,439	(4) Switzerland	129,597
(8) Spain	89,348	(5) Austria	122,053
(14) United States	65,861	(6) Germany	120,049
(17) Canada	56,605*	(7) Roumania	90,093
(18) Algeria and Tunis	55,108	(9) Japan	88,633
(28) Sweden	33,940	(10) Russia	86,968
(29) China (Peking Mukden Line)	32,902	(11) New South Wales	71,392
		(12) Hungary	71,226
		(13) Mexico	68,360
		(15) Victoria	63,474
		(16) Denmark	61,397
		(19) New Zealand	55,035
		(20) Union of South Africa	48,527
		(21) Chile	48,265
		(22) Bulgaria	47,133
		(23) India	46,343
		(24) South Australia	44,971
		(25) Norway	43,718
		(26) Siam	40,097
		(27) Queensland	35,360
		(30) Western Australia	26,080

* Does not include government aid.

ship greatly preponderates, are fourth, fifth, sixth, and seventh. Spain with private ownership is eighth, while in the next five countries, in point of the average amounts of their railway capitalizations, state ownership preponderates. The United States ranks fourteenth in point of average capitalization per mile; and in ten of the thirteen countries which rank ahead of it, state ownership preponderates.

Confining our attention to railways in new or comparatively new countries, the average capitalization of the railways of the United States, which in 1915 had increased to $66,447, is exceeded by the average capitalization of the state railways of New South Wales, which in 1916 had increased to $80,000 a mile; by that of the government-owned Intercolonial of Canada, $76,000 a mile; by that of the National Transcontinental of Canada, recently built by the Canadian government at a book cost, not including equipment, of over $80,000 a mile; and by that of the state-controlled railways of Mexico, $68,360 a mile. The charge that the railways of the United States, as a whole, have been, under private ownership, grossly over-capitalized, sounds strange, in view of such facts as the foregoing. They indicate that if the railways of this country, as a whole, are capitalized in excess of the amount actually invested in them—a charge which it is equally impossible either to prove or disprove with the direct evidence now available—there has been surpassingly efficient use made by the managements of the capital which actually has been invested.

The operating expenses of state and private railways disclose facts of similar import. Under comparable conditions the expenses of private railways usually are

less than those of state railways in proportion to the traffic handled. The private railways of France before the war handled more traffic in proportion to their operating expenses than the state railways of that country. The railways of Germany are the best managed state railways in the world, but they handled less traffic before the war in proportion to their operating expenses than the private railways of France. The private railways of Canada handle more traffic in proportion to their operating expense than the government-owned Intercolonial. Indeed, the private railways of Canada and the United States handle more traffic in proportion to their operating expenses than any other railways in the world, and at the same time pay the highest wages.

I do not contend that private railways are always more economically managed than state railways. I am sure, however, after much study of the subject, that, as a rule, private management is much the more economical. It may be suggested that the relatively higher expenses of state railways are due to the fact that they give superior service; but the facts do not show that ordinarily state railways do give better service than private railways.[4]

[4] See the author's "Government Ownership of Railways," pp. 181-227.

CHAPTER XIII

GOVERNMENT REGULATION VERSUS GOVERNMENT OWNERSHIP (*continued*)

III. Equity of Distribution as Affected by Government Management or Government Regulation

As already indicated, even though it be proved that the total expense incurred in furnishing transportation would be more under government ownership than under government regulation, it does not follow that the latter policy is preferable. The comparative effects which the two policies probably will have on the distribution of wealth must also be considered.

Private management of railways in this country formerly promoted unfair distribution of wealth to an extraordinary degree. This was due mainly to two practices. One was unfair discrimination, its most obnoxious and harmful form being secret rebating. The other was financial manipulation. The practice of rebating contributed toward building up big concerns at the expense of little concerns. It gave to those who had, and took from those who had not. The financial legerdemain mentioned tended to enrich a comparatively few investors at the expense of the majority of investors and of the public.

If these pernicious practices still continued unabated we should probably have to conclude that government management would contribute more effectively toward

an equitable distribution of wealth than private ownership and public regulation. But the most beneficent result of the effective federal regulation of the last ten years has been the almost complete abolition of unfair discrimination between persons. Government management could not possibly have accomplished more along this line; and there is no ground for doubting that under continued government regulation the improvement will be permanent.

The reform in the field of finance has not been so complete. But that publicity and an aroused public sentiment have produced great effects is shown by the fact that almost every railway financial transaction which has caused a scandal was begun, and that most of them were consummated, before the present period of effective regulation was entered upon. The improvement made has been achieved in spite of the fact that the Interstate Commerce Commission has been given no power to regulate the issuance of railway securities, although about twenty states have given such authority to their commissions. With the Interstate Commerce Commission clothed with and intelligently exercising a reasonable authority over the issuance of securities, the management of the financial affairs of all our railways probably would become conservative and honest, as the management of most of them has been for many years.

However, under either the system of government regulation, or that of government management, there will always be a struggle going on to determine how the burdens and benefits resulting from the development and operation of the railways shall be divided. Under either system travelers and shippers will want low rates, labor will want shorter hours and higher wages,

and the owners of the railways, whether capitalists or the public, will want to increase the profits or reduce the deficit. The public welfare demands that this struggle be not allowed to result in some of those engaged in it securing unfair privileges and advantages over the rest. The only authority which can both control and arbitrate the struggle is the government.

But a government is not a mechanical device which automatically registers what is right and wrong, what is fair and unfair, and in the same manner issues and enforces its decrees. Governments are officered by ordinary men. In a democratic country these men depend for their places on the suffrages of other men. Therefore, under either system those who, in a democratic country, compose the government will deal with matters affecting railways with some regard to their own political interests. The railway policy most likely to cause equity to be done will be that which tends most strongly to make it to the interest of those in office to hold the balances even between all sections and classes.

Under the system of public regulation the regulating officials occupy positions of some detachment with respect to railway affairs; and experience indicates that the pressure brought to bear upon them by the various classes and communities is likely to be such as ordinarily to cause them to deal out approximate justice. Railways cannot be satisfactorily developed, maintained and operated under private ownership unless those who invest in them are allowed to derive a reasonable return from their investment; and the arguments that may be marshaled and the pressure that may be exerted for a policy which recognizes this principle will usually prevail. Furthermore, under our form of government the

regulating authorities cannot constitutionally reduce the net income of the railways below a "fair return"—in other words, to so low a point as, in effect, to confiscate the properties.

At the same time, under public regulation rates and earnings are not likely to be excessive. Experience has shown that under this policy those who pay the rates can and will organize and fight effectively for reasonable reductions of them and against unreasonable advances. The employees of private railways have demonstrated that they can get and keep their wages on at least as high an average level as employees of other classes of concerns and of governments themselves. Finally, public officials are likely to be alert and active in compelling private railways to pay to the public their share of taxes.

The situation is radically altered when railways become government property. The government, and the men who compose it, are then changed from arbiters of the struggle to parties to it. The constitutional rule which prevents net income from being reduced below a "fair return" would not apply under government ownership. The authority of the lawmaking body over the railways would become practically absolute; and it could make any distribution of the burdens and benefits of their development and operation it might see fit. It might nominally give the managers large freedom of action. But what the lawmakers have given they can take away. Therefore, there would be frequent appeals from the managers to the lawmaking body; and the lawmakers, and through them the management, would be constantly subjected to political pressure. They would be subjected to pressure by bodies of the employees for

higher wages and easier conditions of work. They would be subjected to pressure by organized bodies of shippers for low freight rates, and by organized bodies of commercial travelers, working men and commuters for low passenger rates. They would be subjected to pressure from communities all over the country for "pork barrel" railway appropriations.

There is, however, one class which is never organized, except sporadically and temporarily, to influence government in its behalf. This is the taxpayers. It is the largest class of all. But a small body of voters having a single common interest which it has organized itself to promote often exerts more influence on government than a large class whose members do not clearly recognize their common interest and organize especially to further it. Therefore, the class which under government ownership is least likely to be protected is the taxpayers. Now, most of us pay some taxes directly. All pay them indirectly. They enter into our house rent, into the cost of our clothing, into the prices of everything we eat or drink. Unfortunately, in countries having government ownership the taxes levied to pay the railway deficits are always so mixed up with the prices of goods and with other taxes that those who pay them have no idea what part of them is used to meet the ordinary expenses of the government and what to meet the deficits of the railways.

The conclusion that the increased economic burden which usually will have to be borne by industry and the public because of government ownership will be imposed mainly on the taxpayers is supported by experience. It cannot be shown that the average wages paid by state railways are ordinarily higher, under compar-

able conditions, than those paid by private railways, although under government ownership more men usually are employed to do a given amount of work. It cannot be shown that the rates of state railways ordinarily are lower than those of private railways. The passenger rates of state railways usually are relatively lower than those of private railways. On the other hand, their freight rates usually are relatively much higher, and the total amount which has to be paid for the transportation of a given amount of passenger and freight traffic usually is substantially more than on private railways.

One thing, however, which can be shown conclusively is that while private railways always are required to pay taxes to the public, the rule as to state railways is that taxes have to be collected from the public to pay their deficits. There are some state railways which earn the interest on the total investment in them, and even more. This is true, conspicuously, of those of Prussia. But in Canada, Belgium, Italy, France, Norway, Sweden, Austria, Hungary, Switzerland, Russia, Australia, New Zealand, Argentina and most other countries the state railways usually have failed to earn their total operating expenses and interest.

Under public regulation and private ownership in the United States the railways now pay in taxes to the state and national governments $150,000,000 a year, or 4½ per cent of their total earnings. Under government ownership the states could not tax them without the consent of the federal government. Even though the federal government gave its consent, the public would not be much benefited if the taxes collected by the states merely added an equivalent amount to the taxes which

the people would have to pay to the federal government to make up a railway deficit.

It is evident that there can be no sound defense of railway losses caused by wasteful management; and the deficits of state railways usually are mainly due to such management. The case is different to the extent that the losses are due to low rates. But can even losses caused by low rates be successfully defended? In the first place, high taxes impose just as serious, although not so self-evident, a burden on the industry and commerce of a country as high railway rates. Industry and commerce as a whole do not elude the load imposed by uneconomical railway management by shifting it from the shoulder on which they carry their railway rates to the shoulder on which they carry their taxes.

In the second place, when the taxpayers pay losses due to the inadequacy of passenger and freight rates one of two things is true: either those who pay the taxes are the same persons who benefit by the low rates, or they are different persons. If they are the same persons, what they save by the low rates they lose by high taxes, and they are no better off than they would be if they paid the entire cost of their transportation in passenger and freight rates. If those who get the transportation and those who pay the taxes are different persons, as is usually the case, the result is that some people are given transportation for less than the cost of rendering it to them, while others are required to pay in taxes part of the cost of furnishing transportation from which they derive no benefit.

It can hardly be successfully maintained that such a practice is conducive to the equitable distribution of wealth. It takes money from the public in general, who

have done nothing to justify its being taken from them, to give it to the comparatively few who travel and ship, who have done nothing to entitle them to have it bestowed upon them. Since the richest people of a country are the ones who own the largest interests in big concerns, and since the biggest concerns make the greatest use of transportation facilities, the plain result of operating railways at a loss and making up the deficit by taxation, is to tax the many for the benefit of the few, the poor for the benefit of the rich. The burden of taxes which the present war will put upon the American people will be quite heavy enough, without having large railway deficits added to it.

Candid and logical consideration of the conditions and influences under which either the policy of government management or that of government regulation must be carried out in this country, of the experience of other countries with government management of railways, and of our own experience with private management subject to government regulation, can hardly fail, it would seem, to lead us to the conclusion that our policy of government regulation is more likely than government management to produce favorable economic results here. When, in addition, we contemplate the political perils to which government ownership would expose us, the case made against the adoption of that policy in the United States becomes overwhelmingly strong.

While the writer is convinced that under such conditions as those in this country government ownership is highly undesirable, he is also convinced that in some countries and under some conditions it is desirable. In a country where private initiative and enterprise are relatively weak, timid and inefficient, and the executive

department of the government is relatively strong, enterprising and efficient, the argument for government management may be very convincing. But in a country such as the United States, where private enterprise is aggressive, progressive and efficient, while the administrative department of government is unstable, inefficient and swayed by political influences, the argument against government ownership is overwhelming.

The end sought under all conditions and in all countries should be the most honest, efficient, and economical management of the railways that is practicable. On this depends the service that will be given, the rates that will be charged, the financial results that will be obtained, and the strain that will be put upon political institutions. But the best means which can be used for attaining the desired end vary, depending on the special conditions in each country. That public regulation and private ownership is a better means than government ownership and management for attaining this end in the United States is a conclusion which, it would seem, must be forced on everyone who studies the matter thoroughly, keeping always in mind the many conditions and considerations, political and economic, which are pertinent to the subject.

CHAPTER XIV

SOME POLITICAL PHASES OF GOVERNMENT OWNERSHIP

There has been a revival lately of proposals for and discussion of government ownership in the United States. Congress within recent years has enacted legislation creating postal savings banks and a parcel post; and former Postmaster-General Hitchcock advocated government purchase of the telegraph lines. Government construction of railroads in Alaska has been undertaken. Congress has directed the Newlands Committee to investigate government regulation versus government ownership of railways. A committee of post-office officials lately reported in favor of acquiring the telephone lines. And Senator Kenyon and Senator Martine of New Jersey, after serving on the committee which investigated the strike in 1913, in the coal mines of West Virginia, reported in favor of government acquisition of all coal mines, to prevent such strikes.

In view of these facts, serious discussion of the probable results of state socialism under the conditions in the United States is pertinent. The effects of the nationalization of merely the great public-service enterprises, such as the telephone, telegraph, and railway systems, would be numerous and important enough. Still more varied, numerous, and momentous would be

the results if the coal mines also should be made public property.

Thirty-three years ago an Italian government commission made a most thorough investigation of public ownership of railroads, and reached several important conclusions. One was that under government ownership, "politics," as President Hadley phrased it, "would corrupt the railroad management and the railroad management would corrupt politics." This would cut the public with a two-edged sword. Political influence would cause the government industries to be ill-managed. Nothing else is so fatal as such influence to the efficient management of state enterprises. And if the state management should become a factor in politics, then politics would be demoralized. No influence holding a greater menace to free institutions could be injected into politics than the influence of government departments which controlled the expenditure of billions of dollars annually and employed millions of voters.

Most of the concerns the nationalization of which is suggested render "public services." Therefore, under private ownership, they must secure franchises from the public, and are subject to government control and regulation. In connection with this control and regulation various questions of public policy arise which often get more or less into politics. One is, what rates the concerns shall charge. Another is, what improvements and extensions they shall be allowed or required to make, and on what terms. Still another is the condition under which they may require their employees to work. In some cases the wages they shall pay have nearly got into politics. Under government ownership, questions

of similar character regarding all of the nationalized industries might be drawn into politics.

In the consideration of the rates or prices of a concern regulated or managed by government, controversies and antagonisms spring up between different classes of buyers of goods or service, who think that unfair discrimination is practised as between them. They develop between different communities which think that they are not equitably dealt with. They spring up and become embittered between those who sell the goods or service and those who buy them.

In many cases the questions raised by such controversies and antagonisms have, under private ownership, become issues in politics in the United States. The public service companies have tried to defeat or minimize public regulation by seeking to control the nomination and election, and the subsequent official action, of lawmakers and other public servants. The public service companies which have used these methods have not alone been at fault. Sometimes they have employed them to prevent "strike" legislation. Sometimes the campaign contributions and bribes which they have given have been blackmail.

In time the public found that regulation by mere legislative enactment usually is either futile or harmful. Experience taught it that the way to take public service corporations out of politics, and at the same time to make regulation effective, was to delegate the work of regulation to administrative commissions. The increase of regulation, and the change of its form, have reduced the influence of the public service companies over politics, and seem to have shown that they can be used to destroy it.

While the public service companies have ceased in most places to be an important factor in politics, politics, unfortunately, has continued to be a factor in the regulation of their rates as well as of other features of their business. But the extent to which politics influences state regulation has declined, while so completely has regulation of interstate rates been turned over to the Interstate Commerce Commission that it has almost ceased to be a factor in national politics.

If the railways, telegraph and telephone systems, and other industries whose interstate operations are now regulated by the Interstate Commerce Commission, were acquired by the government, the fixing of their rates might be left in the hands of the Commission. But, wherever the rate-making authority might be lodged, it is doubtful whether telephone, telegraph, or railway rates could, under government ownership, be kept out of politics.

Under government ownership the existing limitations on the fixing of rates by public authority would be razed. Chief among these is the constitutional rule prohibiting the making of rates which deprive a company of a fair return. Under this rule, lawmakers and courts must fix rates according to the special conditions of each case. The result is, especially as to railways, that the rates allowed to be charged are much higher in some parts of the country than in others; in the west and south than in the east. Under government ownership the dominant part of the public could have rates fixed in any way that wisdom, caprice, political expediency, or selfish interest might suggest. For it would always be possible, if any body to which the rate-making authority was delegated should refuse to make rates as

any section or class wished, to appeal to Congress. Congress could require the recalcitrant regulating body to be reorganized, or could abolish it, as it abolished the Commerce Court when that court's decisions did not suit it. Or Congress might lay down new principles according to which the regulating body must act; or prescribe whole schedules of rates itself.

Now, it is very likely that under government ownership the people of the parts of the country where rates are relatively high would demand that their rates be made as low as the lowest. But if this were done, the earnings of the government railways would be heavily reduced. Losses would result which would have to be met by taxation of the entire public. Therefore, the people of the more populous and industrially developed sections very likely would resist the demands of other sections for reductions of rates. This would raise an issue over which bitter political struggles might be fought. Political struggles have resulted from similar causes even in Germany, where politics exerts less influence on state railway management than anywhere else. In Canada, on the government-owned Intercolonial Railway, the rates are thirty per cent lower than the average on the other railways of the country. Owing to this—and to its uneconomical management—the Intercolonial has never earned its interest, and usually not even its operating expenses. Its low rates operate to give a subsidy to the people living along it, which all the people of Canada pay back in taxes. And this subsidy has exerted a more than negligible influence on the results of elections in the eastern provinces.

All who use railway or telegraph or telephone service largely, have a motive for seeking to have the rates

for the service made low. But it is to the interest of the general public under government ownership to have rates charged that will at least cover operating expenses, depreciation, and interest on investment. Otherwise, as on the Intercolonial, there results a deficit which must be paid from taxes. In view of this conflict of interest it is easy to see how, under government ownership, the question how high rates in general should be made, or what rates should be charged this or that large class of users of public services, might become a political issue.

The history of the United States is not devoid of examples of struggles affecting sectional or class interests which have resulted in legislation based, not on scientific and economic, but on political principles. The tariff question, which, while much less complicated and important, is in many ways similar to the railway rate question, has exerted a corrupting influence on American politics for a century and a quarter. If government ownership of railways, telegraphs, mines, and so forth, should be entered upon, the question of what rates and prices should be charged for their services and products probably would add a page to our history similar to that written by the tariff. It is frequently said that under government ownership the fixing of rates for public services would be intrusted to a non-political commission. It is significant that, although long advocated, no step has been taken which has for long kept the tariff out of politics.

Under state socialism it would be necessary for Congress to determine, directly or indirectly, what expenditures should be made for increasing and improving the facilities of the state industries, and for carry-

ing on their services. The annual investment in additions to and permanent improvements in the concerns whose properties it is proposed to nationalize, is enormous. Recent years have been a period of relative depression in the railway business in the United States; yet the investment in the railways alone, during the ten years ending June 30, 1915, averaged about $530,000,000 a year; and during the five years ending with June 30, 1915, it averaged almost $575,000,000 a year. The similar investment of the American Telephone and Telegraph Company in its telephone lines amounts to about $60,000,000 annually. This annual new investment in the Bell system is greater than the largest expenditure ever made by the government on rivers and harbors in any year, while the annual new investment in railways between 1911 and 1915 was twelve times the maximum annual appropriation for rivers and harbors, and about equaled the total expenditure on rivers and harbors since the foundation of the government. Under normal conditions the new investment made annually by the concerns whose properties it is proposed to nationalize is well over $1,000,000,000. Under either private or public ownership the amount invested must steadily, and even rapidly, increase, if the services rendered are to keep pace with the demands and needs of the public.

Under private ownership and management it is necessary in many cases for railway, telegraph and telephone, and other public utility companies to obtain authority from public bodies to make extensions and improvements. In their attempts to secure favorable action, public service companies have often resorted to improper methods. But in a great majority of instances

public service companies decide upon and make expenditures for their additions and improvements without reference to or effect upon politics.

Would it be possible, under public ownership and management, to make extensions and improvements involving an investment of at least one billion dollars annually, with as little effect on politics as is the case under private ownership? Are the expenditures of the government for rivers and harbors and public buildings made regardless of political considerations and without political effect? On the contrary, the appropriations for these purposes, and even those for army posts and naval yards and stations, influence and are influenced by politics. Repeatedly have high-minded and patriotic public men—such men as former United States Senator Theodore E. Burton of Ohio—denounced the grossly wasteful appropriations made by Congress for the political benefit of its members, and spread the disgraceful record before the public.

The desire of Congressmen for reëlection [declared Senator Burton recently] and the local pride of selfish districts frequently occasion indefensible expenditures for both these purposes (the erection of public buildings and improvement of rivers and harbors). It would hardly be exaggeration to say that one-third of our total appropriations for rivers and harbors has been wasted by the extravagant and unscientific system under which they have been applied. . . . By this same system of framing appropriation bills for public buildings, political considerations triumph over the needs of the service and considerations of public economy and efficiency. As a result we have these bills written with an eye to the number of congressional districts in the country rather than to more patriotic considerations.

It is sometimes said that these abuses are decreasing. "The most discouraging feature of this condition," declares Senator Burton, "is that it seems to be growing worse each year."[1]

In many countries appropriations for government railways have played the same kind of part in politics that appropriations for some public purposes play now in the United States. In the earlier history of railways a number of lines were built by individual states in this country. In every instance evidence was afforded that under government ownership politics is likely to corrupt the railroad management and the railroad management to corrupt politics. The experience of North Carolina is typical. The North Carolina Railroad, built by the state, began at Goldsboro and was laid out in the form of a horseshoe, disregarding both physical and traffic considerations. Its historian explains that unless the road "had gone to the home of Governor Morehead, had passed by Hillsboro, the home of the Secretary of the Navy, Governor, and United States Senator Graham, and other distinguished men, had taken in the state capital in its route, and terminated in the midst of the descendants of the signers of the Mecklenburg Declaration of Independence, it could not have come into existence at all!" "So long," he adds, "as the state attempted to operate it, the political factions along its route had to be appeased by seats in its directorate, and favors more or less discriminating were a necessity both to individuals and to influential centers."[2]

[1] Article in the *Saturday Evening Post* (January 3, 1914).

[2] "State Ownership in North Carolina," by T. B. Womack, formerly Judge of the Supreme Court of that state, in *World's Work* (December, 1906).

Expenditures on the railways have always been used more or less to influence political results in Australia and New Zealand. When New Zealand began railway construction in the '70s the government had a comprehensive plan for the development of the lines.

> But from every part of the country arose a clamor for a fair share in the public expenditure, and the appropriations were doled out to more than thirty different districts with undue regard to political influences.[3]

To these perversions of the original plan has been attributed the financial failure of the state railways of New Zealand.

The most recent example of the kind is afforded by Canada. As shown in an earlier chapter, a government commission, of which the recent general manager of the government-owned Intercolonial was chairman, reported that the commission created to build the National Transcontinental had wasted many millions of dollars, and made numerous detailed allegations regarding expenditures dictated by political considerations or by something worse.

In view of such experience in this and other countries, how can anybody doubt that, without a complete revolution in American politics, the appropriations for additions to and improvements in the railways and other large public utilities would, under government ownership here, be made largely with an eye to politics? How can we assume that communities which now demand appropriations for the "improvement" of

[3] "Railways in New Zealand," by James Edward LeRossignol and William Downie Stewart. *Quarterly Journal of Economics* (August, 1909).

little streams which can never be navigated, would not, under government ownership, insist that their representatives and senators get them "their share" of appropriations for the construction of new railway lines, regardless of the welfare of the nation as a whole? How can we assume that towns and cities which demand appropriations for public buildings the cost of which is utterly disproportionate to the population and business served, would not under government ownership demand that their Congressmen get appropriations for railway stations whose cost would be utterly disproportionate to the population and business accommodated?

If public men cannot, or will not, resist the demands made on them now, how can we assume that they could and would resist the new and larger demands that would be made on them then? And if the relatively small appropriations for public buildings and rivers and harbors play such havoc in our politics now, what would be the effect produced by the relatively enormous appropriations which would be made under government ownership of telegraphs, telephones, coal mines, and railways, for the improvement and development of these properties?

In the construction and operation of railways, telegraph and telephone systems, and mines, it is necessary for the managements, whether state or private, to have many business dealings with contracting, manufacturing, and mercantile concerns. The manufacture and sale of railway equipment and supplies alone constitute one of the largest industries in America. Billions are invested in it; and the number of men employed almost equals the number employed by the railways. There sometimes is graft in new construction and in the pur-

chase of equipment and supplies under both private and state ownership. But there is no politics in them under private ownership, while there almost certainly would be under public ownership.

The promise of tariff legislation that would benefit them has always been used by one of our political parties to catch the votes of numerous large concerns and their employees. Under government ownership the argument that one party was more disposed than another to make large expenditures which would increase the business of equipment and supply-manufacturing concerns, might be used very effectively to attract the support of these concerns and their workmen. The commission which investigated the construction of the National Transcontinental Railway by the Canadian government charged that contracts had been let for the specific purpose of influencing national elections, and in one case even a local election in Quebec.

We have seen how large are the expenditures for improvements and extensions in the industries which it is proposed to nationalize. The expenditures for equipment and supplies used in them in the ordinary course of operation and maintenance are probably equally large. These latter outlays for the railways amount to $850,000,000 annually; for the telegraph and telephone systems to about $100,000,000 annually. If any considerable part of these sums should under government ownership be so laid out as to influence politics the results would be demoralizing.

From a political standpoint, the most important phase of the question of government ownership is the effect which would be produced by the transfer of millions of voters from private to public employment. The follow-

ing table gives approximately the numbers of employees in the civil service of the government, and of those in the service of the steam railways, electric railways, and express, telephone, telegraph, and coal-mining companies respectively:

Steam railways	1,850,000	employees
Coal mines	770,000	"
Government civil service	476,000	"
Telephone and telegraph companies	200,000	"
Electric railways	250,000	"
Express companies	80,000	"
TOTAL	3,626,000	

The table includes some employees who probably would not be transferred to government service. Such are those of the street railways, which are more likely to be municipalized than nationalized. It does not include some who doubtless would enter government service, as those of the Pullman Company and the private freight-car lines. On the whole, it gives a conservative idea of the number who would soon be employees of the government if such a policy of nationalization as is advocated should be adopted. In most other countries there have been large increases in the numbers of employees when railways and other concerns have been nationalized, even when there has been no change in the working day. It is safe, therefore, to estimate that, if the various projects for government ownership should be carried out, there soon would be almost 4,000,000 men in government service. If only the railways, telegraphs, telephones, and affiliated systems of communica-

tion and transportation were nationalized, the number of government employees would soon rise to 3,000,000. The total number of votes cast for president in 1916 was 18,440,000. Thus the number of government employees would amount to perhaps 20 per cent of the ordinary vote cast for president. What would be the political effect?

The present regulations concerning the political activities of government employees are strict. Civil Service Rule I, section I, provides that employees subject to the rules, "while retaining the right to vote as they please and to express privately their opinions on all political subjects, shall take no active part in political management or in political campaigns. . . . Petitions or other communications regarding public business addressed to the Congress, or either house, or any committee or member thereof, by officers or employees in the civil service of the United States, shall be transmitted through the heads of their respective departments or officers, who shall forward them without delay, with such comment as they may deem requisite in the public interest. Officers and employees are strictly prohibited from attempting either directly or indirectly to secure legislation or to influence pending legislation except in the manner above described." It is further provided that "an employee may not publish or be connected editorially, managerially, or financially with any political newspaper, and may not write for publication any letter or article signed or unsigned in favor of or against any political party, candidate, faction or measure."

If the railways and other industries should be nationalized, an attempt would be made to apply these

rules to their employees. The employees of the railways, at least, foresee this, and the leaders of their unions detect in it a powerful argument, from their standpoint, against government ownership. The railway labor organizations now use political means constantly to secure changes in conditions of employment and in railway plants and operating methods. At their conventions they adopt resolutions commending public men who assist them to secure legislation, and denouncing those who oppose them. They have at every state capital and in Washington legislative agents who buttonhole lawmakers persistently, to get votes for their train-crew bills, locomotive-headlight bills, and so on. They have publications through which they urge their members to support public men who are "friendly" and oppose those who are "unfriendly." By such means the brotherhoods secure the passage of scores of laws and control the choice of many public officials. A good example of the present influence of the brotherhoods was the passage by Congress in 1916 of the Adamson eight-hour basic day act, and the subsequent defeat of proposed legislation to prevent railway strikes.

If the nation should acquire the railways, the state laws regulating them which the brotherhoods have got passed would be wiped out. A state cannot regulate an instrumentality of the federal government. And if the existing civil service regulations should be applied, the machinery the brotherhoods have built up for influencing legislation would be destroyed. The highly paid conductors and locomotive engineers contrast their incomes, conditions of service, and freedom of political action with the situation of government civil employees; and they declare that if public ownership

would reduce railway employees to the "servitude" of railway-mail clerks they want none of it.

But it is not certain that the present civil service rules would be applied to employees of government railways, telephone and telegraph systems, and coal mines. They would not be if these employees could prevent it; and their numbers would give great potency to their resistance. Besides, while the rules restrict the political activities of government employees, they cannot keep members of Congress from passing legislation for the benefit of employees, or forbid employees to reward their benefactors with their suffrages. Finally, even if the civil service rules should be extended to the new employees, it does not follow that they would be enforced. The control exercised over the two per cent of the qualified voters now in the government civil service is no criterion of the degree of control which could be exercised over from ten to twenty per cent of the qualified voters.

If the railways, mines, and other industries should be nationalized, there doubtless would be created to manage them departments hedged about with legislation designed to make them independent of political influence. The officers of these departments doubtless would try to operate the properties efficiently and economically. But efficiency and economy are not consistent with the constant granting of higher wages and easier conditions of work. And, on the other hand, no body of men ever was satisfied for any considerable period with its wages and conditions of employment. Therefore, in the course of a short time the employees would ask for concessions which the managements would refuse. Even under existing civil service rules the officers would

be obliged to transmit the employees' petition to Congress. In this or some other way it would speedily be made necessary for members of Congress to go on record either for or against the demands of the employees. Does not experience show that most of them, before they went on record, would consider the probable effect on their political fortunes? Members of Congress are human; and the number of humans who will act contrary to their selfish interest when no plain question of personal honor is involved is not large. Now, on every such issue the general public would be divided, or its attention would be distracted by other issues. But on such issues the government employees would be united. The hundreds of thousands of their relatives and friends would stand with them. The result would be that with respect to these special questions they and their sympathizers would usually hold the balance of power. Many members of Congress would therefore decide that it was to their selfish interest to side with the employees.

Let us suppose, however, that Congress should support the managements in refusing to make important concessions to the employees. By "plumping" at the next election for the Congressmen who sided with them and against those who sided against them, the employees and their sympathizers could largely determine the personnel of the next Congress.

Permanently to inject the wages and conditions of employment of from two to four million voters into politics would be to inject a most corrupting and demoralizing influence. Elections and legislation should turn on questions affecting the welfare of the entire public, never on issues affecting the selfish interests of but a part of it. When they are determined by class

interests and considerations, government in this country will no longer be democratic. It will be oligarchic.

The experience of other countries throws light on the effects which would be produced by taking a large body of voters into the employ of our government. In Prussia the government employees exert little influence on politics. But the conditions there weaken, rather than strengthen, the argument for public ownership here. In Prussia under the three-class voting system, which is based on property, the political power of the working classes, including state employees, is extremely small in proportion to their numbers. Besides, government employees are not allowed to organize in any way or for any purpose not sanctioned by their superior officers. The political status of the Prussian state railway employee has been described by J. F. Mills, in an article in the *Railway Review*, the publication of the National Union of Railway Men of England:

> The (Prussian) government's feudal conceptions may be realized from the fact that it regards its employees as bound to it body and soul, politically as well as industrially; and the open voting system places a terrible power for penalization in the hands of the state authorities, should the state employees choose to vote for candidates of whom the government does not approve. In fact, for state employees to exercise the elementary right of citizenship by voting for the candidate and policy most in accord with their own views, is to run the risk of forfeiting their posts and jeopardizing their livelihood.

The autocratic Prussian state has kept its employees from resorting to political action; but this result has been accomplished at the sacrifice of their political free-

dom. They do not dictate to the government; but the government does dictate to them. It cannot be said that government ownership has no political effects in Prussia: it strengthens the government and makes a political nullity of the employees.

Let us cross into France. Here the state is half-democracy, half-bureaucracy. The government owns two of the seven large systems of railroads, the telegraph and the telephone, and has monopolies of the tobacco, match, and other industries. According to the estimate put forward by Mr. William Morton Fullerton, in his book, "Problems of Power," 900,000, or eleven per cent, of the 8,000,000 voters are employees of the state. The results are graphically described by Mr. Fullerton. The state employees are allowed to form unions; and the civil servants have been rapidly grouped into organizations designed to get from the state everything that they can.

At present there are in France at least 488 professional associations of state employees in the big central government offices, and 202 unions representing the state employees in the match factories, the tobacco factories, the mint, the state railways, and so forth. These various unions are united in a general federation, and it is this colossal new force, which has been encouraged by the state, that was suddenly brought to the notice of the public by the postmen's strike of March, 1909.

Appointments to desirable positions in the service are used to further the political ambitions of members of the Corps Législatif. As Clement Colson, the leading authority on French railway affairs, has shown, when the government in 1908 took over the Western Railway,

it turned out the experienced officials to make places for politicians. Political influence being paramount, members of the Chambers are constantly besieged for appointments; and, as Mr. Fullerton says, "the deputy is tempted to become a traveling salesman of political or social favors and jimcracks, in return for votes or local influence," while "government in France is the tyrannical monopoly of a minority,"—the ruling minority being the employees of the state.[4]

Both reason and experience indicate the impossibility of any government's taking into its service a large part of the voters without serious political results A government may succeed in adopting and enforcing rules strictly circumscribing the political activities of its employees. But to do that it must be so strong, or must be made so strong, that the political liberties, not only of its employees, but of the great mass of the citizens, will be repressed or destroyed. In most countries, including the United States, the government is much more likely, if it takes into its service a large part of the voters, to prove unable to restrain them from resorting to political action. Then the employees become the masters, not the servants, of the public, establishing, as in France, "a tyrannical government of the majority by the minority." Once let from two to four million voters be brought into the service of our government, and able and unscrupulous men may be able to use them to build a political machine which will dominate the nation.

The fundamental trouble with government ownership is that it reverses a tendency which has marked the

[4] Mr. Fullerton's book was written before the Great War, and had reference to the conditions which existed at that time.

progress of modern civilization and has contributed greatly toward promoting it—the tendency toward differentiation of political and economic functions. Under the patriarchal system all political, social and economic functions were concentrated in the patriarch. He was the head of the family, captain of industry, military commander, chief priest, king. Even under feudalism varied and numerous functions and powers were united in the baron. His economic power, and his military and political authority, were coextensive. His retainers were forced to fight for him in order to keep their right to exact a living from the soil; they had to cultivate his land to secure from him protection from the attacks of others and to obtain justice in his court; and it was from these conditions that the evils of the feudal system chiefly arose. The king was, politically and economically, merely a greater feudal baron. From the Middle Ages to the present time the differentiation of these various functions, while often retarded, has never ceased.

Most important of all, perhaps, has been the segregation of the political function of ruling from the economic function of directing industry. The doctrine of *laissez-faire*, so ardently preached a century ago, was little more than the doctrine that the function of ruling —that is to say, of maintaining peace and order—and the function of managing industry should be kept separate, and especially that the former should not needlessly interfere with the latter.

Doubtless for a time *laissez-faire* was carried too far in both theory and practice. But it is notable that it was during this time that the greatest impetus was

given to the development of political freedom, on the one hand, and of industry, on the other.

Government ownership is a movement backward because it would reconsolidate political and economic functions. There must be some sovereign power. This power must be the political power. And by appropriate means and tribunals the political power should so control the management of industry as to prevent and correct abuses not prevented or corrected by economic law. But it does not follow that the sovereign political power should itself assume the exercise of gigantic economic functions.

The modern industrial system has sometimes been likened to the feudal system, because great captains of industry have sometimes used their money and the votes it has enabled them to command, to dominate and corrupt the politics of cities, states, and the nation. When this condition has existed, however, the real vice in it, as under the feudal system, has consisted in the union of political and economic power in the same hands. Those possessing the two kinds of power have been able to use their economic power to attain their political ends, and their political power to attain their economic ends; and both politics and legitimate business have suffered.

Public ownership often is advocated as the only effective means of destroying the corrupting alliance of big business and politics. But already the two great movements for the purification of politics and for the regulation of concerns of a monopolistic or quasi-monopolistic character have practically dissolved this alliance, and are raising the tone of politics and reducing the abuses in business. A continuance of efforts to

purify politics and improve government, and to use the power of government to destroy and prevent economic and social evils, while avoiding placing unnecessary restrictions and burdens on the exercise of private initiative and enterprise, will have beneficial effects on both politics and business. On the other hand, the adoption of an extensive policy of government ownership would once more combine great political power and great economic power in the same hands.

In the recent past this power has been combined in the hands of leaders of industry; under government ownership it would be combined in the hands of leaders of politics. For government management, like business management, is always more a thing of men than of machinery. Men always have their leaders and bosses, whether in war, or business, or politics; and it is the leaders of politics, whether statesmen or bosses, who really manage the government and who under public ownership would control the management of elections, on the one hand, and of government industries, on the other. They would then exercise a total power incomparably greater than was ever exercised by any body of men in this country. They would have the same political power of the ordinary kind that the leaders of the party dominant in the government have now. The power to determine what rates and prices should be charged by concerns earning billions of dollars annually would be a great power; and they would have it. The power to make contracts for expenditures amounting to billions annually would be a great power; and they would have it. The power to determine whether millions of men should be allowed to keep their jobs would be a great power; and they would have it. The

power largely to determine how millions of men would vote, and thereby what men should keep or lose public office, would be a great power; and they would have it. And these would be powers, which, once acquired, might be transferred from one group of political leaders to another, but which could never be dissolved into their elements without abolishing government ownership itself; and to abolish it would be much more difficult than to adopt it.

Big business never controlled anywhere near as many voters as it is proposed to take into the government service; yet big business has managed at times to control the politics of cities, of states, and of the nation. In politics, as in war, a small, relatively well-organized, well-disciplined force is more powerful than a far larger body, if untrained and undisciplined.

If all the aspects of government ownership be considered, the conclusion must be reached that its extensive adoption would imperil both the economic and the political welfare of the people of the United States.

CHAPTER XV

THE FAILURE OF GOVERNMENT OWNERSHIP IN CANADA

I. The Financial Failure

Discussions of the subject of government ownership of railways usually move along two lines. One class of speakers and writers base their reasoning on certain assumptions as to the honesty, public spirit, and efficiency which would characterize a railway management representing the public. Their conclusions naturally correspond with their assumptions. Another class analyze the results of government management in one or a few countries, find them good or bad, and base on them conclusions as to whether the results in the United States would be good or bad.

Both of these kinds of reasoning have the same defect. They do not take enough account of the conditions in any given country under which a railway policy must be carried out. These conditions are of various kinds, physical, economic, political, and so on; and they largely determine the results of railway management and operation under either private or public ownership.

One of the mistakes most often made is that of ignoring the political conditions under which government ownership is, or would be, tried. The question is often treated as if it were merely one of economics. It is one both of economics and of political science. The effi-

ciency and economy of a government are determined largely by how much it is influenced by politics of the low kind; and the influence of this kind of politics depends on the organization of the government and the attitude of the people. As the efficiency of a government as a whole must depend largely on the part played by politics, the way its railway department would be managed would necessarily be determined largely by the same cause.

The results of government railway management being largely determined by conditions, and especially by political conditions, experience with government management in a single country where the conditions are similar to those in the United States, may throw more light on the question in this country than much abstract reasoning, or than large amounts of data drawn from the experience of countries where the conditions are widely different.

There is no country whose conditions, physical, economic, and political, are more similar to those of the United States than Canada. The Dominion is an adjacent part of the same continent. The larger part of it is extremely like the conterminous larger part of the United States. Its natural resources, industries, and products are similar. Both countries are inhabited mainly by descendants of the peoples of Northern Europe, although this point might be pressed too far. With its big French population, Canada has a large representation of the Latin races. But the ancestries of the people of the United States are not all traceable to Northern Europe; and the French in Canada have as much political capacity as our many voters from Southern Europe, not to mention our millions of negroes.

The government of the United States is a democratic republic. That of Canada is not a republic in form, but its people are as self-governing and its institutions are as democratic in fact as those of any country. There are considerable economic differences; but these are unimportant in comparison with the points of resemblance.

The results of government ownership and management of railways in Canada should, therefore, afford the most reliable indication available as to what would be their results in the United States. Canada has tried public ownership and her experience has been long and on a large scale. The Dominion has owned the Intercolonial Railway for a half century, and certain of the colonial governments owned parts of it before. It has owned the Prince Edward Island Railway for forty-four years, and acquired it from the government of the island. The Intercolonial and Prince Edward Island have 1,736 miles of line; and the Dominion has recently built and is operating the National Transcontinental Railway, which has 2,067 miles. The Canadian government railways now have, combined, 3,803 miles of line.

The construction, by the government, of the National Transcontinental led to a scandal. The plan for its building was adopted in 1903. It was to run from Moncton to Quebec, and from Quebec to Winnipeg, and on its completion was to be leased to the Grand Trunk Pacific for 3 per cent on its cost of construction. The minister of finance presented to parliament a "liberal" estimate. Eighteen hundred miles were to cost $61,415,000, or $34,083 a mile. Four commissioners were appointed by the government to manage the construction, and work was begun in 1904. The cost of the line to 1916, for 1810 miles, had been $159,881,894. This was

$88,332 per mile, or more than twice the original estimate.

A second government commission was appointed in 1912 to investigate the work of the first, with F. P. Gutelius, formerly general superintendent of the Canadian Pacific, and later general manager of the Canadian government railways, as its chairman. In February, 1914, it submitted to the Governor-General a report condemning the way the work had been done as grossly extravagant, and finding that at least $40,000,000 "was needlessly expended in the building of this road without including the money that was unnecessarily expended in building the railway east of the St. Lawrence River." The commission said that, assuming that the Grand Trunk Pacific would begin to pay interest on the cost of construction in 1922, the road would then have cost the country for principal and interest $234,651,251, calculating the interest on the amounts expended during each year from the end of that year up to the end of 1921.

Considerable light was cast on government methods in the investigating commission's report. It said that until 1911 there was no member of the commission in charge of this great work who had any experience or knowledge of railway building or operation. The railway was designed and its standards decided upon without any knowledge as to whether it was suitable for the country and on assumptions as to the business to be handled which were unwarranted.

Having decided upon the design [the report says], the commission proceeded to find a country to fit the design. It may seem incredible, but it is the fact that it was assumed that the road would at once receive the maximum business it was

possible to carry over a single-track, low-grade road. That there was an entire lack of business along the line does not seem to have occurred to them. The government and the commission settled on the design of the road before a reconnaissance survey had been made, simply guessing at its cost. The commission raised the cost of the railway by spending millions of dollars on light curvature, taking out sags, large yards, heavy rails for sidings and yards.

They seem [continues the report of the investigating commission] not to have known that there was a maximum of expenditure beyond which, if this road was to be used as a freight regulator or as a means of cheap transportation, they could not go. The operating company must pay interest on the whole cost of construction or capital investment, and in our opinion, the interest payable to the government and the operating expenses taken together will be about the same as the dividends, interest charges and operating expenses of the competing roads, which are only capitalized at from one-third to one-half as much per mile as is the National Transcontinental, and they will, in consequence, from the same freight and passenger rates be able to pay dividends to their shareholders easier than can the Grand Trunk Pacific pay the rental of 3 per cent on the "cost of construction."

It should be noted that the "competing roads which are only capitalized at from one-third to one-half as much per mile as is the National Transcontinental," to which the report refers, are roads which have been built and are owned and operated by private companies.

Among the examples of impropriety and extravagance alleged in the report may be mentioned the following:

That the rules adopted by the commission in advertising for bids resulted in only five contractors bidding for 806 miles of the line, and in 11 contracting firms

securing all the work and subletting it to upwards of 100 subcontractors, who under ordinary rules would have competed in the bidding. The eleven contractors were paid $8,800,000 in profits for that part of the work which they sublet.

That contractors were overpaid $3,300,000 on improper classification of work.

That $6,200,000 could have been saved by the adoption of different grades; $2,400,000 by the adoption of curves of a shorter radius; $2,947,227 by the use of wooden trestles instead of fill and steel structures; $3,250,000 by the acceptance of an offer from the Grand Trunk Pacific to fill wooden trestles at 25 cents per cubic yard; $2,750,000 by the adoption of pusher grades across the Little Salmon River Valley and at La Tuque, and $679,692 by the construction of 6 miles of additional track where the statute provided for a single track, but where the commission built double track.

That the country was committed to the expenditure of $4,500,000 for the Transcona shops, which, in the opinion of the commission, were not authorized by law and were, in any event, twice as large as were required.

That large sums of money could have been saved if ordinary business methods had been adopted in negotiating for and acquiring the entrance to Winnipeg at the proper time.

That $340,500 was wasted by not using 65-pound rails instead of 80-pound rails on 367 miles of sidings.

That certain contractors were paid two prices for one handling of material, a waste of $75,284.

That $61,380 was spent on unnecessary fences.

That the chairman of the commission paid one man

$7,950 on a pretended claim for damages, for election activity.

That large sums of interest were lost by the premature construction of the New Brunswick section of the railway.

If one-third of the money spent had been expended on the Intercolonial, the commission said, it would have provided all the trunk-line facilities for the province of New Brunswick which would be required for very many years.

The Grand Trunk Pacific refused to take the National Transcontinental over for operation because it could not afford to pay 3 per cent on its excessive cost.

The report regarding the mismanagement of the construction of the National Transcontinental attracted much attention in the United States. As a matter of fact, the results of government construction of the National Transcontinental are typical of the results of public ownership and management in Canada since the various parts of the Intercolonial were acquired by the Dominion fifty years ago.

The Intercolonial, the Prince Edward Island, and the National Transcontinental all failed to earn their operating expenses in the year ended June 30, 1915, their combined deficit from operation being $350,000. A stranger to the facts might attribute the results in 1915 partly to the effect of the war in Europe. For that reason in the following study of government management in Canada, the statistics used are chiefly those for the year ended on June 30, 1914. The most attention has been given to the Intercolonial because it is the only large road on the North American continent which has been managed long by a government.

The Intercolonial in 1914 had 1,457 miles of line. Its main lines run from Sydney and Halifax to Moncton, and thence to Quebec; and it serves the provinces of Nova Scotia, New Brunswick, and Quebec. The Prince Edward Island is a narrow-gauge road of 279 miles, serving the island of that name, and is managed by the same organization. The acquisition of the Intercolonial was provided for by the act of federation of July 1, 1867. It was originally purchased and developed by the government mainly to bind together more firmly the French and English provinces. In 1876 it had 348 miles in New Brunswick, 222 miles in Nova Scotia, and 375 miles which had been constructed by the government from Moncton, New Brunswick, to Rivière du Loup, Quebec—a total of 945 miles. From Rivière du Loup to the city of Quebec it leased a line from the Grand Trunk. The Prince Edward Island became a part of the government system when the island came into the confederation on July 1, 1873.

One of the arguments advanced for government ownership in the United States is that under it the profits made by the railways would be received by the public instead of going to private capitalists. Those who reason thus often forget that while railway companies, if successful, yield profits to private capitalists, they also, unlike state railways, pay taxes to the public. The experience of the world shows that the public, while sure to collect large taxes from private railways, is not certain to receive any profits at all from state railways. Most of them do not earn interest on their investments.

Those of Canada afford an extreme illustration. The statistics which make the deepest impression on the student of their official reports are those showing their

heavy losses; and official figures tell but a fraction of the story. The Canadian people and public officials have only the haziest idea as to what the losses actually have been. No one heretofore has gone thoroughly into the matter. Many know that in some years the roads have not earned their operating expenses, but that in other years the Intercolonial has done so. Therefore, most of them apparently believe that the total losses incurred, while considerable, have not been very great. No impression could be more erroneous. The total losses sustained have been enormous.

The combined cost to June 30, 1914, of the Intercolonial and the Prince Edward Island, as shown by the official reports, was $112,351,000, or $64,718 per mile. The cost per mile of the Intercolonial had been $70,815, and of the Prince Edward Island, $31,973.[1] Computed in a more correct way, their total cost to the public had been $381,000,000, or $219,000 per mile. The cost of the Intercolonial alone has been $239,000 per mile. These figures include expenses and interest which they had failed to earn, but nothing for the taxes which the public would have collected from them if they had been privately owned.

These railways are almost entirely single-track lines; they are not very well constructed, maintained or equipped; and yet their cost per mile to the public, properly computed, has exceeded the average capitalization of any railways in the world except those of Great Britain. Their losses in the fiscal year 1914, as

[1] *Railway Statistics of the Dominion of Canada,* published by the Department of Railways and Canals (1914), p. xii. Capital cost per mile of the Intercolonial, as shown by *Railway Statistics* for 1915, was $75,066.

shown by the official reports, were $445,000, this being the difference between their expenses and earnings. Properly computed, their losses in that year were almost $15,000,000. They could hardly have had a physical value exceeding the $112,000,000, or $64,718 per mile, which they are officially represented to have cost. Assuming that they were worth this, the difference between their value and the total amount they had cost the Canadian public was $268,000,000, or $154,378 a mile. This represents the absolute loss they had inflicted on the taxpayers of Canada. And this estimate, as already indicated, is really an underestimate, for it makes no allowance for the taxes the government would have collected from them if they had been privately owned. If the Intercolonial and the Prince Edward Island were taxed at the same rate as the railways of the United States, their taxes would be $600,000 a year.

Conclusions so startling should not be stated unaccompanied by the reasoning and method of calculation used in arriving at them. Let us consider in more detail, then, the official figures and the computations which may properly be based upon them.

The management of the Intercolonial by the Dominion government up to 1914 had covered forty-seven years. The official figures show that in twenty-two of these years its earnings exceeded its operating expenses, its combined net earnings in these years having been $1,967,000. In the other twenty-five years its operating expenses exceeded its earnings, and its combined deficits from operation in these years were over $11,500,000. Therefore, under government management its

net deficit—allowing nothing for taxes or interest—was $9,500,000.

Still worse has been the plight of the Prince Edward Island. Its operating expenses have exceeded its earnings in every year the government has owned it, its total operating deficit in the years 1875-1914 having amounted to $3,280,000. The deficits from operation of the two roads under government management to 1914 had been $12,800,000. Detailed statistics regarding the cost of construction, the operating expenses, the total earnings, and the net earnings, or deficits from operation, of the Intercolonial are given in columns 1 to 4 of Table I. Totals of similar figures for the Prince Edward Island Railway and for these two government roads combined are appended to the table.

TABLE I

INTERCOLONIAL RAILWAY

Years*	Operating Revenue	Operating Expenses	Net Earnings or Operating Deficit (—)	Official Cost of Construction	Actual Cost to the Public
1867				$10,766,725.54	$10,766,726 00
1868	$420,752.58	$359,961.08	$60,791.50	11,250,079.19	11,619,957.00
1869	455,022.76	387,548.47	67,474.29	11,532,694.37	12,299,896.00
1870	471,245 09	445,208.75	26,036.34	13,262,075.86	14,495,237.00
1871	565,713.52	442,993.31	122,720.21	16,178,857.99	17,869,108.00
1872	622,900.56	595,076.22	27,824.34	21,309,999.50	23,687,190.00
1873	703,458.26	1,011,892.60	—308,434.34	26,511,449.87	30,144,562.00
1874	893,430 17	1,847,175.24	—953,745.07	30,126,348 68	35,918,988.00
1875	861,593.43	1,532,589.62	—670,996.19	33,552,448 23	41,452,843 00
1876	848,861.46	1,277,197.79	—428,336.33	34,660,769.82	44,647,615.00
1877	1,154,445.35	1,661,673 55	—507,228.20	35,979,122.01	48,259,100.00
1878	1,378,946.78	1,816,273.56	—432,326.78	36,387,938.75	51,030,608 00
1879	1,294,009 69	2,010,183.22	—716,083.53	36,614,577.94	54,014,555.00
1880	1,506,298.48	1,603,439.71	— 97,131.23	38,662,592.54	58,320,283.00
1881	1,760,393.92	1,759,851.27	542.65	39,271,325.34	61,287,699.00
1882	2,079,262.66	2,069,657.45	9,605.18	39,856,894.13	64,287,699.00
1883	2,370,910.10	2,360,373.27	17,547.18	41,473,527.09	68,458,293.00
1884	2,384,414.92	2,377,433.62	6,981.30	44,163,216.58	73,879,323.00
1885	2,441,203.66	2,519,751.56	— 78,547.90	45,410,223.03	78,160,050.00
1886	2,450,093.88	2,583,999.67	—133,905.79	46,090,579.37	82,100,714.00
1887	2,660,116.93	2,922,369.62	—262,252.69	47,014,309.44	86,570,726.00
1888	2,983,336.05	3,366,781.74	—383,445.69	48,727,292.73	92,129,984.00
1889	2,967,801.00	3,244,647.73	—276,847.73	51,340,586.76	98,705,325.00
1890	3,012,739.87	3,560,575.74	—847,835.87	53,310,431.46	105,471,219.00
1891	2,977,395.38	3,662,341.94	—684,946.56	54,260,512.44	111,325,096.00
1892	2,945,441.97	3,439,377.00	—493,935.03	54,577,296.40	116,588,819.00

TABLE I (*Continued*)

INTERCOLONIAL RAILWAY

Years*	Operating Revenue	Operating Expenses	Net Earnings or Operating Deficit (—)	Official Cost of Construction	Actual Cost to the Public
1893	$3,065,499.09	$3,045,317.50	$20,181.59	$54,874,186.83	121,529,080.00
1894	2,987,510.17	2,981,671 98	5,838.29	55,311,720.61	126,821,939.00
1895	2,940,717.95	2,936,902.74	3,815.21	55,638,755.12	132,218,037 00
1896	2,957,670.10	3,012,827.62	— 55,187.52	55,897,860.35	137,821,051 00
1897	2,866,028.02	2,925,968.67	— 59,940.65	56,046,972.87	143,542,947.00
1898	3,117,669.85	3,327,648.51	—209,978.66	56,299,729.67	149,747,401 00
1899	3,738,331.44	3,675,686.21	62,645.43	57,381,659 61	156,756,582 00
1900	4,552,071.71	4,431,404 69	120,667.02	60,637,007.81	166,161,526 00
1901	4,972,235 87	5,460,404.64	—488,186.77	64,270,844 38	176,930,001 00
1902	5,671,385.91	5,574,563.30	96,822.61	68,897,685.43	188,537,229.00
1903	6,324,323.72	6,196,653.19	127,670 53	71,151,952 11	198,205,314.00
1904	6,339,231.43	7,239,982.04	—900,750.61	73,032,808.71	208,915,135.00
1905	6,783,522.83	8,508,826.75	—1,725,303.92	77,770,430.64	223,734,666.00
1906	7,643,829 90	7,881,914.36	61,915 54	81,535,601.01	236,387,308 00
1907	6,248,311.00	6,030,171.83	218,139.17	83,041,810.80	247,130,870.00
1908	9,173,558.80	9,157,435.53	16,123.27	87,424,304.00	261,382,476.00
1909	8,527,069.46	9,328,021.55	—800,952.09	91,291,536.00	276,505,959.00
1910	9,268,234.99	8,645,070.33	623,164 66	92,569,945.00	288,221,441.00
1911	9,863,783.40	9,595,976 79	267,806.61	93,332,814.00	300,245,361.00
1912	10,593,785.84	10,591,035.84	2,750.00	95,141,659.00	314,061,270.00
1913	11,984,482.69	‡11,984,482.69	.. ..	97,533,647.00	329,020,209.00
1914	12,878,549.00	‡12,878,549.00	.. ..	103,430,848.00	348,089,518.00
Total, Intercolonial Railway, 47 years	184,707,592.00	194,268,891.00	—9,565,036.00	$103,430,848.00	348,089,518.00
Total, Prince Edward Island Railway, 40 years	7,759,846.00	11,040,428.00	—3,280,282.00	8,920,369.00	32,902,398.00
Total, both government railways, since act of confederation	192,467,438.00	205,309,019.00	—12,845,318.00	112,351,217.00	380,991,916.00

* Until 1907, the fiscal year ended on June 30; since that date, on March 31. The figures for 1907 as given in the table are for nine months

† Of this total $4,500 was paid for "compassionate allowances" by special vote of Parliament.

‡ Of this total, $11,300 was paid for "compassionate allowances" by special vote of Parliament.

§ Total capital cost of the Intercolonial reported in *Railway Statistics*, published by the department for June 30, 1914 The cost as given in the annual report—$101,468,073—does not include several construction items carried in separate accounts, but which are included in accounts showing results of operation.

The figures of these first four columns, bad as they are, take no account of one of the most important factors to be considered. This is interest charges. Interest is as unavoidable a part of the cost of conducting any business as operating expenses. If the interest charges of

a private railway are not earned, it becomes bankrupt. If those of a state railway are not earned, they must be paid from taxes. Nominally, the state railways of Canada have no debt. Actually, the investment represented and the losses incurred by them appear in the government debt and the interest paid on it, for, if the earnings of the railways sufficed to pay their expenses and interest, the government debt and the interest on it would be proportionately smaller. Therefore, to ascertain approximately the true amount which the government railways have cost the public, we must ascertain not only what has been spent for their construction, but the expenses and interest that they have not earned.

To do this the author has recast the official figures. To the original investment in the Intercolonial and the Prince Edward Island have been added the expenditures for new construction during the first year of public management, and interest on the original investment; and the net earnings or the net deficit from operation in the year—whichever resulted—has been deducted or added. This gives approximately the true cost of each railway to the public at the end of the first year of government management. This true cost has been taken as a new starting point, and made the basis of a similar calculation for the second year; and this process has been repeated year by year for the entire history of each road.

The rate of interest used in the calculations is 4 per cent. When the Dominion acquired the railways the rate it had to pay on its general indebtedness was more than this. It appears in official reports that it paid 5 per cent to the provincial government of Quebec for

railway purposes up to 1905, and has paid 4.5 per cent since. The use of an average rate of 4 per cent for the entire period is, therefore, conservative. The results for both roads of the computations thus made are shown in the last column of Table I.

The combined total cost of construction of these lines on June 30, 1914, as officially reported, was $112,-351,217, and the unearned interest on this lost in that year, at 4 per cent, was $4,494,048. Their combined operating expenses in the same year, as reported in *Railway Statistics,* the official publication, exceeded their total earnings by $445,380. (The actual deficits shown in the annual reports of 1913 and 1914, as existing at the end of the fiscal years ending on March 31, were ostensibly wiped out by "compassionate allowances" under special votes of Parliament!) Therefore, in 1914 their total deficit, after adding interest, as indicated by official figures, and allowing nothing for taxes, was $4,939,788. But this deficit for the year, which is demonstrable by the official figures, is small compared with the deficit shown by the corrected figures. The true total cost of the railways to the end of the fiscal year 1913 was $360,285,010. Unearned interest on this at 4 per cent for the next year amounts to $14,411,400. This, together with the deficit from operation, makes a total deficit for the year 1914 of $14,-856,780.

Since the Prince Edward Island Railway is a narrow-gauge line, serving only the island of that name, it may be that in its case the obstacles to profitable operation are insuperable. Entirely different is the situation of the Intercolonial. It is a standard-gauge road with a

large mileage in a territory similar to parts of Eastern Canada and the United States in which privately managed railways operate with profit. Considering the Intercolonial separately, its cost of construction, to 1914, as officially reported, was $103,430,848, or $70,815 a mile.[2] The unearned interest on this in 1914 at 4 per cent was $4,137,233. Its actual deficit from operation was $291,270. Therefore, its total loss in that year, as demonstrable by the official figures, was $4,428,503. But its total cost, including its losses, up to the beginning of the fiscal year 1914, amounted to $348,089,518. Unearned interest on this at 4 per cent was $13,923,580, which together with the operating deficit makes a total deficit for the year ended June 30, 1914, of $14,214,850. And this allows nothing for the taxes the road would pay if privately owned. Such is the price the taxpayers of Canada have been paying for government ownership!

There is in Intercolonial history a minor illustration of the fact that government ownership is less fatal to financial success than governmental management. The Windsor branch, from Windsor Junction to Windsor, Nova Scotia, is a part of the road. It is thirty-two miles long. Since 1881, it has been leased to operating companies and since 1911 it has been operated under lease by the Canadian Pacific. In every year but one since 1881 the government has received net earnings from it. It is maintained by the Intercolonial, and the government receives as rental one-third of its gross receipts. In the last twenty years the amount of net earnings, after deducting maintenance expenses, has varied from

[2] *Railway Statistics of the Dominion of Canada* (1914), p. xii.

$15,000 to $39,000 per year.[3] The net earnings of the branch, in the aggregate, from 1881 to 1914, were $662,555; and they account for more than one-third of all the net earnings the Intercolonial has made since 1867.

[3] Annual Report, Department of Railways and Canals (1914), p. 420.

CHAPTER XVI

THE FAILURE OF GOVERNMENT OWNERSHIP IN CANADA (*continued*)

II. The Reasons for the Failure

The Canadian state railways are an utter financial failure. The losses are due to low rates, to extravagant management, or to both. Many consider it expedient to make low rates on state railways, even if this causes deficits; and it can be said for this practice that those who pay the rates gain what the taxpayers lose. If the losses are due to wastefulness, the management obviously cannot be defended on any ground.

Both common sense and equity require rates to be so fixed that those who receive transportation service shall pay for it in full. The application of this principle to the situation in Canada makes it easy to decide in regard to the soundness of the rate-making policy followed on the government railways, if to it are due their losses. These railways serve only the people of the eastern provinces, and but part of them. The people of the entire Dominion must pay the taxes levied by the government. Therefore, if the trouble with the government railways is that their rates are too low, the few who use their service are unfairly benefiting at the expense of all the people of the country.

In spite of its chronic deficits, the freight rates of the Prince Edward Island Railway are very high, av-

eraging over 4 cents per ton per mile. Its passenger rates are relatively low, averaging about 1.75 cents. But the Prince Edward Island is small and serves a restricted territory. The rates of the Intercolonial are more instructive. The average rate per passenger per mile on the railways of the United States in 1914 was 1.98 cents, and on all the railways of Canada, 2 cents.[1] On the Intercolonial it was 1.67 cents.[2] The average rate per ton per mile in the United States was 7.33 mills, and in Canada, 7.42 mills.[3] On the Intercolonial it was only 6 mills.[4]

But comparison of the rates of a single railway with those of the railways of a whole country may be misleading. For example, while the average freight rate of the Intercolonial is lower than the average rate of all the railways of the United States, there are many individual lines in this country whose average rates are lower than its average rate. The average in 1914 for the entire eastern district of the United States, in which one-half of all the freight tonnage is moved, was only 6.39 mills.[5]

In the eastern parts of both Canada and the United States the rates generally are lower than in the western parts. This is due to various causes. In the eastern part of this country the freight traffic is dense, and the rates for years were determined by fierce competition, which reduced them to a low basis. The effects

[1] *Railway Statistics* (1914), p. xxvi.
[2] *Ibid.*, p. 46.
[3] *Ibid.*, p. xxvi.
[4] *Ibid.*, p. 48.
[5] *Statistics of Railways in the United States*, Interstate Commerce Commission.

were felt in Eastern Canada. There is a great deal of traffic which moves on railways partly in that country and partly in the United States. Among these lines are the Canadian Pacific, the Grand Trunk, and the Michigan Central. In fighting for their shares of this competitive business, these roads made their through rates the same as those of rival lines in the United States, and had to put their local rates in Canada on a corresponding basis. The rates of the Intercolonial were affected by this policy.

The territory through which and the conditions under which the International operates are, of course, similar to those of the private railways of Eastern Canada. Therefore, its rates may most fairly be compared with theirs. The principal privately owned lines serving that section are the Canadian Pacific and the Grand Trunk. Unfortunately, it is not easy to compare their rates with the Intercolonial's. The Intercolonial's lines begin at Montreal and extend to the Atlantic seaboard at St. John, Halifax, and Sydney. The Canadian Pacific divides its western and eastern lines at Port Arthur and Fort William, on the western boundary of Lake Superior. Therefore, while its eastern lines extend as far east as the Intercolonial's, they include a mileage extending more than 1,000 miles farther west than the Intercolonial extends. The Grand Trunk has more mileage west of Montreal than east of it. Because of these facts the average rates of the Grand Trunk and the eastern lines of the Canadian Pacific probably would be higher than those of the Intercolonial, even if their absolute rates in the parts of their territory corresponding to its territory were the same.

There is another factor of no small importance to

consider. This is the relatively great length of the Intercolonial's lines between its main terminals. The immediate purpose of its original acquisition and development by the Dominion[6] was to bind more firmly together the maritime provinces, whose population was chiefly French, and the rest of the Dominion. To accomplish this it was necessary to build a line to Montreal. There was friction between Canada and the United States. It was feared that if this line was built near the border it would, in case of war, fall into the hands of the United States.[7] Therefore, a route was surveyed as far as possible from the border. This extended northward to the wild, inhospitable, and almost unpeopled shores of the Gulf of St. Lawrence and the St. Lawrence River, and thence southward to Quebec and Montreal, making a roundabout and expensive way to handle traffic moving between Sydney, Halifax, and St. John, and Quebec and Montreal.

Friction between the United States and Canada long ago ceased. The Canadian Pacific has built a much shorter line, partly in Canada, and partly in the state of Maine, to the Atlantic seaboard, and has almost completed another which runs entirely in Canada and is also shorter than the Intercolonial. An enterprising management would years ago have built a cut-off to shorten the mileage of the Intercolonial between important points, thereby enabling it to compete more successfully for through traffic and to reduce the cost of handling it. Recently the government has built the National Transcontinental, with a shorter line between

[6] See act of confederation.

[7] *Encylopedia Britannica*, 11th ed., article "Canada" (Railways).

Moncton and Quebec; but it was intended to lease this to the Grand Trunk Pacific, a private corporation, and the government has assumed its operation only because the Grand Trunk declines to pay a rental of 3 per cent on its excessive cost. Because of the original location of the Intercolonial and the persistent error made in not reducing its length, its mileage between Halifax and Montreal is 837 miles, while that of the Canadian Pacific is only 758 miles. From St. John to Montreal by the Intercolonial is 740 miles; by the Canadian Pacific, only 483 miles.[8] The Intercolonial in moving a ton of freight from Halifax to Montreal carries it 10.4 per cent more miles than the Canadian Pacific, and in moving a ton from St. John to Montreal carries it 53.2 per cent more miles.

The effect produced on the comparative average rates per mile of the Intercolonial and the Canadian Pacific is obvious. The Intercolonial cannot charge a higher absolute rate between any two points than the Canadian Pacific. But when a shipment moves over it, the absolute rate must be divided by a larger mileage to ascertain the average per mile. Therefore, while the actual rates of the two roads between competitive points are the same, the average per mile received by the Intercolonial on through business is smaller than that received by the Canadian Pacific. This causes the average rates per mile of the Intercolonial to give the impression that its actual rates are lower in comparison with those of the other railways of Eastern Canada than they are.

These considerations show why it is hard to make a fair comparison between the average rates of the Grand

[8] *Official Railway Guide.*

Trunk, the eastern lines of the Canadian Pacific, and the Intercolonial. But a detailed comparison of their actual rates would be out of the question; and if the various points mentioned be given due weight, a comparison of their average rates may be instructive. Table II gives their average rates for the two years ending on June 30, 1914, and June 30, 1915.[9]

TABLE II

	1914			1915		
	Intercolonial	C.P.R. Eastern Lines	Grand Trunk	Intercolonial	C P.R. Eastern Lines	Grand Trunk
Average receipts per passenger per mile, cents	1.669	1.808	1.778	1.82	1.894	1.753
Average receipts per ton per mile, cents.....	0.600	0.716	0.687	0.52	0.719	0.687

The through rates of the Intercolonial are necessarily the same as those of competing lines. Considering all the conditions, the statistics indicate that its local rates are somewhat lower than those of other lines in corresponding territory; and one of its higher officers expressed to the writer the opinion that they are about 10 per cent lower.

If this is correct, the losses of the Intercolonial are due partly to the lowness of its rates, but more largely to other causes. Its total earnings per mile in 1914 were $8,625.[10] In order to have paid its operating expenses and 4 per cent on its cost of construction as offi-

[9] *Railway Statistics of the Dominion of Canada* for years named, and official information as to Canadian Pacific eastern lines.

[10] Official statement.

cially reported, it would have had to earn $11,541, or 34 per cent more than it did, and its rates would have had to be at least 34 per cent higher. This would have made both its average passenger rate and its average freight rate considerably higher than those of the Canadian Pacific or Grand Trunk.

Not more than one-third of the losses of the Intercolonial can be attributed to its rates. Even this one-third cannot be defended. Like its other losses, this part is defrayed from taxes. The people of the whole country are thus obliged to pay for a large part of the transportation furnished to those who travel and ship over the Intercolonial. If the government charged these travelers and shippers higher rates and voted them an equivalent subsidy, the results to all concerned would be the same, while the public would clearly perceive the true character and significance of the policy followed.

The conclusion that at least two-thirds of the losses incurred by the Intercolonial are not due to its rates suggests that they must be due to uneconomical management. In this connection stress must be laid on the fact that the cost of providing railway service necessarily includes capital expenses, as well as operating expenses. A further fact which often is overlooked is that there is a close relationship between capital expenses and operating expenses. Under either private or public ownership the public must ultimately pay all of both of these classes of expenses; and the amount of operating expenses will under either policy depend largely on the amount of the capital expenses efficiently incurred. To reduce the grades of a railway involves an increase of investment and fixed charges—in other words, of capital expenses; but if the investment is wisely and efficiently

made, it will cause a still greater diminution of operating expenses. The total expenses will thereby be diminished. Likewise, if needed capital expenditures are not made, there will be needless increases of operating expenses; if capital expenditures are unwisely or inefficiently made, there will be needless increases of fixed charges; and in either case the total expenses will become needlessly large. This close relation between capital expenses and operating expenses illustrates the folly, so strikingly exemplified in Canada, of the common practice of keeping the accounts of government railways so as not to show the exact amount of interest paid on the investment, and of calling all their net earnings "profits." It would be equally rational to ignore the operating expenses also, and to call the total earnings "profits."

Bearing in mind these facts and principles, let us investigate the total expenses of the Intercolonial. Its cost to the public to June 30, 1914, including its losses, was $239,000 per mile. Interest on this at 4 per cent is $9,560 per annum, which, added to its operating expenses, $8,718 per mile, makes a total expense to the Canadian public for the service of the road of $18,278 per mile of line, without allowing anything for the taxes lost to the public because it is not privately owned.

To pay this total from its earnings the Intercolonial's rates would have to be raised 112 per cent. The Canadian Pacific on its eastern lines charges rates slightly higher than those of the Intercolonial; it handled in 1914 a traffic slightly smaller; it collected only $10,045 per mile of line in rates from the public; and yet on its system as a whole it paid taxes, interest on its bonds, and 10 per cent dividends on its stock, 7 per cent of

these being from earnings; and it had a surplus averaging $256 for each mile of line.

It may be contended by some that the inclusion of all the losses the Intercolonial has sustained in getting a basis for ascertaining its actual present expenses is not fair. The writer believes that this is the only method which discloses the amount which government ownership and management have cost and are costing the people of Canada. But to avoid this objection, let us disregard the losses sustained prior to 1914. In 1914, the cost of construction of the Intercolonial was officially reported as $70,815 a mile. Interest on this at 4 per cent is $2,833. Added to operating expenses, $8,718, this makes a total expense per mile, as already indicated, of $11,541. Taxes on the same basis as those the Canadian Pacific paid would increase this to $11,671. The Canadian Pacific eastern lines, for each mile of line operated, collected 15 per cent less than this from the public, while handling only 6.5 per cent less traffic per mile; they paid taxes, and they earned $1,573 net operating income per mile; and the Canadian Pacific system, as already indicated, not only paid interest and dividends, but had a surplus. To have paid 4 per cent interest, and paid taxes and put aside surplus in the same proportion, the Intercolonial would have had to collect from the public $11,900 for each mile of its line, or 18 per cent more per mile than the Canadian Pacific eastern lines did. The data on which these comparisons are based are given in Table III.

It is clear that the service of the Canadian Pacific, while profitable to its owners, costs the public much less in proportion than that rendered by the Intercolonial. And the expense of it is more equitably distributed.

It is all paid by those who receive the service, while only one-half to three-fourths of the total expenses incurred by the Intercolonial are borne by those who receive its service. The rest is borne by the taxpayers.

The question naturally arises why the total expenses of the Intercolonial are so great. Its "cost of construction"—the investment in it—as officially reported, amounting in 1914 to $70,815 a mile, is excessive according to the standards of Canada and the United States. The average capitalization of the railways of the United States in 1914 was only $66,661; and an average mile of their line was a much better piece of property and handled substantially more traffic than an average mile of the Intercolonial. The average capitalization of the private railways of Canada, excluding duplications, was $53,619.[11] The average capitalization of the Canadian Pacific system was $51,021. Most of the privately owned railways of Canada, and conspicuously the Canadian Pacific, have received subsidies from the government. But the government aid it has received is not adequate to account for the difference of over $17,000 a mile between its average capitalization and the Intercolonial's "cost of construction." The explanation of the Intercolonial's large cost of construction must be that expenditures on it have been made wastefully, or that its accounts have not always distinguished accurately between expenditures for construction and expenditures for operation.

That there long was scandalous waste in the construction of the Intercolonial is beyond question. Many years

[11] "Operating Results of Canadian Railways in 1914," by J. L. Payne, controller of statistics of Canadian railway department, in *Railway Age Gazette* (March 26, 1915).

TABLE III

COMPARATIVE STATISTICS OF THE INTERCOLONIAL AND CANADIAN PACIFIC EASTERN LINES FOR THE YEARS 1914 AND 1915

	YEAR ENDED JUNE 30, 1914		YEAR ENDED JUNE 30, 1915	
	Inter-colonial	Canadian Pacific Eastern Lines	Inter-colonial	Canadian Pacific Eastern Lines
Mileage	1,457	4,596.2	1,459	4,786.9
Average cost (or capitalization) per mile	$70,815	$51,021*	$75,066	$47,863*
Passengers carried one mile per mile of road	137,390	172,790	115,105	126,208
Passenger-train miles per mile of road	2,096	2,499.5	1,939	2,170.1
Average passengers per train	51	69	46	58
Average rate per passenger per mile, cents	1.67	1.808	1.81	1.894
Average total earnings per passenger-train mile	$0.978	$1.599	$0.966	$1.409
Total passenger-train earnings per mile of line	$2,839.90	$3,895.94	$2,705.80	$3,057.07
Ton miles per mile of road	923,541	823,064	793,315	695,000
Revenue freight-train miles per mile of road	3,466.13	2,655.2	3,101.64	1,999.4
Average tons per train	264.74	309.98	26(54	347.56
Average rate per ton per mile, cents	0.60	0.716	(.52	0.719
Average earnings per revenue freight-train mile	$1.61	$2.219	$1.58	$2 50
Total freight revenue per mile of line	$5,568 54	$5,891.69	$4,887.64	$4,998 51
Operating revenue per mile of road	$8,625 13	$10,044.86	$7,745.15	$8,314.54
Total train miles per mile of road	5,562.25	4,987.4	5,033.9	3,987.1
Operating revenue per train mile	$1.55	$2.01	$1.54	$2.09
Operating expenses per mile of road	$8,717.87	$8,341.34	$7,775.89	$6,199.94
Operating expenses per train mile	$1.57	$1.67	$1.545	$1.56
Net earnings per mile of road	—$92.74	$1,703.52	—$30.74	$2,114.60
Taxes per mile of road	None	$130.30*	None	$123.90*
Operating income per mile of road	...	$1,573.22	...	$1,990.70

* Average for entire system. All computations furnished from official sources.

ago Sir Alexander Galt moved in Parliament that "the present system under which the road is being built as a public work of the Dominion is expensive and unsatisfactory; . . . and that in the opinion of this house the construction and future operation of the line should be committed to private hands." Walter Shanly, the most eminent Canadian engineer of his day, who built the Hoosac Tunnel, alleged that the Intercolonial "had

already involved a vast waste of money and done much to contaminate public life." Sir John MacDonald, when prime minister, said, that he was "tired of the disclosures about frauds and shortages, bankrupt contractors, and contractors who had made a fortune with suspicious ease, and was disposed after construction was completed to turn over the operation of the line to the Grand Trunk or some other company."

Before the Civil Service Commission of 1892, Collingwood Schreiber, a distinguished engineer, then deputy minister of railways, and for some years general manager of the line, testified that he had taken some sand from a gravel-pit in the woods near Gloucester Junction for which he offered $5 as ample compensation. The owner, backed by local politicians, demanded $70,000, and in the end obtained $16,000. "The public's mind," said Mr. Schreiber, "is pervaded with the idea that one has a right to get all one can from the public treasury." The original estimate for an extension from Hadlow, near Quebec, to St. Charles Junction, fourteen miles long, was $600,000. Property owners whose land and buildings were condemned appealed with such success to local politicians for assistance, "and swore one for another as to value" so ably, that the line finally cost $2,200,000.[12] It seems to have been a common practice to let contracts for new construction and improvements to concerns and individuals because they were supporters of the party in power.

Let us turn now from the road's capital expenses to its operating expenses. During most of the last ten years it has handled more traffic per mile, both freight and passenger, than the eastern lines of the Canadian

[12] *Montreal Gazette* (October 21, 1915).

Pacific. Within recent years the Canadian Pacific has had a heavier passenger business; but the Intercolonial still has a denser freight traffic. This was true in 1914; and in that year it ran 5,562 trains over each mile of line, as compared with 4,987 run by the Canadian Pacific eastern lines. Bearing these facts in mind, it is interesting to study the analysis of operating expenses given in Table IV:

TABLE IV

OPERATING EXPENSES, 1914

	INTERCOLONIAL		CANADIAN PACIFIC RAILWAY EASTERN LINES	
	Total Operating Expenses per Mile	Per Cent of Total Operating Expenses	Total Operating Expenses per Mile	Per Cent of Total Operating Expenses
Maintenance of way and structures	$1,454.00	16.66	$1,744.00	21.87
Maintenance of equipment	1,916.00	22.06	1,621.00	20.33
Conducting transportation	4,936.00	56.56	4,247.00	53.27
Traffic expenses	199.00	2.22	171.00	2.15
General expenses	245.00	2.55	188.00	2.37

Why are the Intercolonial's expenditures for maintenance of way and structures smaller than those of the Canadian Pacific, when the amount of traffic it handles and the number of trains it runs are larger? It may be answered that it is because the Intercolonial is more economically operated. This explanation can hardly be accepted, because while its total traffic, passenger and freight, per mile is only about 6.5 per cent heavier than

that of the Canadian Pacific eastern lines, its cost of maintenance of equipment per mile is 11.5 per cent greater, its cost of conducting transportation per mile 13.5 per cent greater, its traffic expenses per mile 16.5 per cent greater, and its general expenses per mile 30 per cent greater. The advocates of government ownership in the United States claim that it would save money by doing away with the "princely" salaries paid to the higher officials of private railways. The salaries of general officers are included in "general expenses," and "general expenses," as just noted, were 30 per cent higher per mile on the Intercolonial than on the Canadian Pacific eastern lines; and the expenses of the railway department of the government are not included in this calculation.

The Intercolonial's small expenditures for maintenance of way and structures are partly due to the fact that, on the whole, its roadway and track are not kept in as good condition as those of the Canadian Pacific. A further explanation may be that expenditures which really should be charged to maintenance of way are charged to construction. The line between maintenance of way, and additions and betterments, is hard to draw accurately; and where a management is confronted with chronic deficits, as on the Intercolonial, it is under a constant temptation to make as good a showing as possible regarding operating expenses, by charging everything it can to capital account.

The small expenditures of the Intercolonial for maintenance of way are not new. In the five years ending with June 30, 1914, it spent on this account an average of only $1,317 per mile of line, while the Canadian Pacific system, handling a smaller traffic per mile, spent

an average of $1,497. The fact that the capital—or "cost of construction"—account of the Intercolonial is rapidly growing larger without causing reductions, absolutely or relatively in transportation expenses, supports the theory that its low figures for maintenance of way expenses are largely fictitious.

There is nothing fictitious, however, about its relatively large expenditures for other accounts. One of the surest indications of uneconomical and inefficient management is that a road is spending a relatively small part of its earnings for maintenance and a relatively large part for conducting transportation and for general and traffic purposes. What is spent for maintenance goes into the physical property and helps to keep up or improve the service, while what is spent for conducting transportation and for general and traffic purposes adds nothing to the physical property, but is gone forever. Relatively large expenditures for maintenance of way are more important than those for maintenance of equipment; for the latter may be due to a system of management which provides and uses an unnecessarily large amount of equipment. It is especially important to keep down the cost of conducting transportation, not only because the outlay made for it is gone forever, but because it is much the largest item of railway expenses.

The main reason for the Intercolonial's relatively high cost of conducting transportation is obvious. The most effective means for restricting this part of expenses is to handle traffic in the largest possible carloads and trainloads. Now, the Intercolonial had a long average haul per ton, 265 miles; it had a denser freight traffic than the Canadian Pacific eastern lines; and yet in

1914 it carried only 265 tons per train, as compared with 310 tons for the Canadian Pacific eastern lines. In consequence it ran 30 per cent more freight trains over each mile of line to handle 12 per cent more freight traffic. Similarly it ran 84 per cent as many passenger trains over each mile of line to handle 74 per cent as much passenger traffic. The comparatively small trainloads of the Intercolonial help to explain not only its high transportation expenses, but also its high maintenance of equipment expenses. The more trains run to handle a given business, the more equipment there must be provided and maintained and the larger, other things being equal, will be the expenditures for maintenance of equipment.

The road's relatively large expenditures for conducting transportation and maintenance of equipment are no more a new thing than its relatively low expenditures for maintenance of way. During the five years ending with 1914, while its maintenance of way expenses per mile were less than those of the Canadian Pacific system, its maintenance of equipment expenses averaged $1,746 per mile, or 33 per cent more, and its conducting transportation expenses $4,075 per mile, or 19 per cent more.

In the United States 20 per cent of the operating expenses of the railways were incurred for maintenance of way, while on the Intercolonial less than 17 per cent were incurred for that purpose. In this country maintenance of equipment expenses were 23.8 per cent of total operating expenses, while on the Intercolonial they were 22 per cent. On the railways of the United States less than 51 per cent of operating expenditures were made for conducting transportation; on the Intercolo-

nial, almost 57 per cent. The Intercolonial made 39 per cent of its operating outlay for both classes of maintenance and 61 per cent for other purposes. The railways of the United States made 44 per cent of theirs for maintenance and only 56 per cent for other purposes. The railways of the United States, with a capitalization smaller than the Intercolonial's cost of construction, handled 5 per cent more passenger traffic and 27 per cent more freight traffic per mile, with only 2.6 per cent greater operating expenses. One need not be expert in the analysis of railway statistics to see that those of the Intercolonial indicate a management which is extremely uneconomical as compared with that of the average railway in Canada or the United States.

When the foregoing facts regarding the results of government ownership of the Intercolonial were first published by the writer, his conclusion that they showed inefficient and wasteful management almost throughout the history of the road was challenged by some writers in Canada. A vindication of this conclusion came quickly, however, from an authoritative source, viz., the management of the Intercolonial itself. Toward the end of the fiscal year 1914, F. P. Gutelius, formerly general superintendent of the Canadian Pacific, a capable railway officer, who had had all his experience and training on private railways, was made general manager of the Intercolonial. He was given large independent authority; and it was the evident purpose of the government that the operation of the road should be put on a more efficient basis.

Unfortunately the Canadian public, especially that part living in the provinces in which the Intercolonial operates, and the representatives of this part in Parlia-

ment, had grown accustomed to having, and, indeed, insisted upon having, the Intercolonial managed in ways which mainly accounted for its high expenses. Almost every increase of rates or reduction in expenses which the new management attempted to make encountered opposition which soon was supplemented by political pressure. When it tried to reduce the excessive local freight and passenger service being given, the communities affected appealed to their deputies, and they to the minister of railways. When efforts were made to dispense with needless employees, deputies interposed in defense of their partisans. The year ending on June 30, 1915, was a period of acute business distress in Canada. There was a heavy decline in railway traffic. How much more freely and energetically the management of a private railway company can act in such an emergency than the management of a state railway subject to political pressure was indicated by the fact that while the Intercolonial suffered a loss of total earnings per mile of 12 per cent and reduced its operating expenses 11 per cent, the Canadian Pacific eastern lines, with a loss of earnings of 20 per cent per mile, reduced their operating expenses 25.7 per cent. The management of the Intercolonial could not have done so well as it did if it had not been saved the trouble of laying off numerous employees by having them voluntarily enlist in the army. It did not discharge these; it simply did not replace them.

In the following year there was an increase in the traffic and earnings of the Intercolonial and then Mr. Gutelius' efforts bore fruit. The earnings and expenses of the road in the year ended on June 30, 1914, and in the year ended on March 31, 1916, were as follows:

	Year Ended June 30, 1914	Year Ended March 31,1916
Earnings.		
Freight	$8,168,438.32	$9,200,339.21
Passenger	3,542,332.01	3,994,641.63
Mail and express	595,323.67	781,452.30
Miscellaneous	104,314.47	92,358.27
Net	$12,410,408.47	$14,068,791.41
Expenses.		
Maintenance of way	$2,118,438.46	$2,279,778.20
Maintenance of equipment	2,791,241.53	2,067,679.33
Traffic	281,562.58	256,871.81
Transportation	7,191,476.68	6,980,716.14
Miscellaneous	.....	152,058.44
General	318,959.98	304,391.92
	$12,701,679.23	$12,041,495.84
Ratio of operating expenses to earnings, per cent	102.34	85.6

Difference of Results in 1914 and 1916.	
Increase of total earnings	$1,658,382.94
Reduction of expenses	660,183.34
Increase in net earnings	$2,318,566.28

The above statistics speak with equal eloquence of the increase in efficiency in the management of the road under Mr. Gutelius, and of the waste and inefficiency in its management under his predecessors. In spite of a large increase in the amount of traffic handled within these two years, and a consequent increase in earnings of almost one and three-quarter millions of dollars, he was able to reduce operating expenses of every class ex-

cept those for maintenance of way with the result that net earnings in the year ended on March 31, 1916, were $2,027,000. The largest they ever were in any previous year was $623,164, which mark was reached in 1910; and 1910 is the only other year in the history of the road in which they ever exceeded $300,000!

The remarkable change which Mr. Gutelius was able to make within two years in the operating results of the road is the best testimonial that could be given either to the incompetency of his predecessors or to the effectiveness of the devitalizing political influences exerted on them.

When a railway produces such results as the Intercolonial did for almost fifty years they may be immediately attributable to a number of causes, but the minor causes usually are themselves the effect of a few major causes. One of the major causes in this case has been that the officers in direct charge of the property have had little incentive to manage it well. The public and Parliament have not demanded this as the stockholders and directors of a railway company do. Consequently, there has been a feeling of comparative indifference regarding results on the part of the officers. Another of the major causes has been the influence of politics. This has been *the* major cause. The part which politics formerly played is freely admitted by the officers of the road, although they say that conditions are somewhat different now. The prevailing low rates have been made as a sop to the people, and especially to the French population, of the eastern provinces.

Almost every abuse known to railroading took root and flourished, such as underbilling—that is, permitting a favored shipper to load the cars with a larger quantity of goods than

he paid for, while his competitors on the other side of politics were restricted to a standard load and mulcted for any excess; the granting of secret rebates; the maintenance of an excessive number of stations and employees in order to swell the political influence of the road at election times; absurd classifications; unjust tariffs; the acquisition of more or less useless branch lines to serve partisan ends, and so on.[13]

It was customary for the party in power to buy railway supplies only from its supporters; and the story is told of a dentist who engaged in the manufacture of a certain device expressly to market it on the Intercolonial by means of his political affiliations. It was common practice largely to increase the number of employees some weeks before election, and every officer of the road frequently had the experience of coming to his office and finding among his subordinates the faces of men he had never seen before, and who had been put on his payroll at the instance of politicians. If an influential politician wanted a man given a job on the railway he did not bother to take up the matter with the general manager or even with the division superintendent. He wrote a letter to the trainmaster or the roadmaster and ordered his friend and supporter employed. If an employee was discharged for incompetency or other good cause, he could usually get reinstated if he had political pull.

When business fell off, politics made it impossible to reduce the number of employees and operating expenses proportionately.

Political influence was used even to get unnecessary and unprofitable passenger and freight service. For example, when the Gutelius management came in it found

[13] *Montreal Gazette* (October 21, 1915).

that numerous passenger trains were being run into and out of St. John, Halifax, Sydney, and Newcastle, to enable leading citizens of these small cities to live in the "suburbs." Most of these trains were earning only fifteen to fifty cents per mile, but when the management tried to reduce the service it encountered a storm of opposition which soon became largely political.

As already indicated, the Gutelius management tried to eliminate political influences and to put the operation of the road on a business basis. But the effects of the old regime are still apparent, and, as has been shown, opposition instead of assistance is offered by the part of the public served by the Intercolonial, while very little help is received from the rest of the people of Canada. In these circumstances it is hard to see how the management can accomplish much that will be permanent, or how it can maintain its reforming zeal long. In fact, Mr. Gutelius himself already has left the Canadian government railways to accept service with a railway in the United States; and it will be noted that even the relatively large net earnings of the year ended March 31, 1916, amounted to only 2 per cent on the official cost of construction.

One of the arguments always advanced for government ownership is that the managements of state railways will and should strive rather to promote the welfare of the people than to earn profits; and it may be contended that to show that the Intercolonial's management has been dominated by politics, that its rates have been made too low, and that there has been waste in its construction and operation, proves nothing regarding the desirability of government ownership and management, because it takes no account of the influence

which has been exerted on the development and prosperity of the territory which the road serves.

The question as to the amount and character of the influence which the Intercolonial has exerted on the development and prosperity of the maritime provinces is a somewhat difficult one to answer. It is easily demonstrable by official data regarding the changes in the population, the agriculture, and the industry of these provinces and of other parts of Canada and the United States, that progress in the territory served by the road has been relatively small and slow. In fact, it probably has been as small and slow as in any other equally large territory in Canada or the United States which has any considerable natural resources.

Doubtless, however, this is due to a combination of circumstances. The natural resources of the maritime provinces from either an agricultural or a manufacturing standpoint are not great, and their population is to a large extent naturally quite conservative. One thing may be said, however, with certainty. This is that the material progress made in the territory served by the Intercolonial has not been such as to support the argument that government management of railways will tend more strongly to promote the material well-being of the public than private management. If any argument at all can be based on it, it is one against rather than in favor of government management.

The results of government ownership and management in Canada, taken as a whole, constitute a powerful argument in favor of the abandonment of that policy in the Dominion and against its adoption in the United States.

NOTE

Since the foregoing was written the members of a Royal Commission appointed for the purpose of investigating and making recommendations regarding the general railway situation in Canada have made a majority and a minority report. Their reports, while dealing with the general railway situation in Canada, have a very direct bearing upon the results of government ownership in that country.

The Commission was composed of an American, A. H. Smith, president of the New York Central; a Canadian, Sir Henry L. Drayton, chairman of the Board of Railway Commissioners of the Dominion; and an Englishman, W. M. Acworth, a well-known authority on railway economics. The members of this Commission disagreed in their recommendations as to the best solution of the railway problem of Canada; but they were unanimous in expressing the opinion that ordinarily government ownership is undesirable and government management a failure in democratic countries.

The majority report was made by Sir H. L. Drayton and Mr. Acworth. They were emphatic, not only in expressing their opposition to government ownership and management in democratic countries when, as a practical matter, it is avoidable, but in condemning the way in which the government railways of Canada specifically have been constructed and managed. They say in one place:

> In our judgment it is not in the interests of Canada that the operation of its railways should be in the hands of the government. We know no country in the world where a democratic state owns and operates its railways, in which

politics have not injuriously affected the management of the railways, and the railways have not had an injurious influence on politics. We do not think government ownership of the railways would tend to reductions of rates, but rather in the contrary direction. For the carriage of one ton of freight one mile the Canadian shipper pays at present on the average three-fourths of a cent. On the railways of New South Wales, the oldest and most important Australian state, where the railways have been in government hands from the outset, the shipper pays well over two cents. But we see no cause to enlarge here on such general considerations. There are several reasons peculiar to Canadian conditions why state ownership and operation should be avoided.

In another place they say:

Our personal belief is strong that in normal circumstances railway enterprise is a matter best left in private hands, subject to proper regulation by government. Were we asked to advise in the case of the railways of the United Kingdom or the United States, which have been constructed by private companies, with money found by private investors, we should give effect to this belief.

They say elsewhere:

We have given expression to a strong view that the operation of the railways of a country by a department of the executive government directly responsible to parliament would be against the interest of Canada. . . . Our reason is not that government by a cabinet responsible to a popularly elected parliament is a bad government for the ordinary purposes of government, but that it is not a form of government suitable to the management of a railway undertaking. . . . It is because we think that the management of a railway undertaking . . . is a matter that in the public interest is best left to experts, that we desire to avoid direct parliamentary control.

In this connection it seems desirable to point out that the Prussian railways, certainly the most successful state-operated railways in the world, are not subject to parliamentary control.

With respect to the management of the Intercolonial Sir H. L. Drayton and Mr. Acworth said in part:

The capital cost of this railway, according to the returns to the Department of Railways and Canals for 1916, is $106,312,705. To pay interest on this investment the railway ought to earn a net return of, say, $5,000,000. . . . Whatever question there may be as to the propriety of endeavoring to earn interest on capital it will hardly be questioned that the line ought to be so managed as at least to earn operating expenses, including therein a proper allowance for taxes. And even ignoring the early history of the undertaking and considering merely the years from 1889 to 1916, during which the greatest advance has taken place in Canada, and the traffic of the Canadian railways has shown the greatest increase, the Intercolonial has paid no taxes, and still not earned operating expenses. During this period the total operating deficits reported amounted to $11,188,885. The total operating surpluses amounted to $1,651,240. In addition, however, there was in the years 1912-16 an amount of $3,046,407 charged to working expenses and devoted to renewals which under the accounting methods in force before that date would have been credited to surplus. Adding together these two latter figures and deducting them from the (operating) deficit, we find that in the twenty-eight years from 1889 to 1916 there was an accumulated deficit from operation of $6,491,233.

And this is not all. Down to the year 1908 no charges were made against revenue for necessary renewals and replacements. . . . Charging to capital the cost of mere replacements cannot be justified. The result of charging such items as renewals to capital account is clearly shown by the growth of

the cost of the railway per mile of line. . . . The return of mileage for the year 1899 shows 1,315 miles, with a cost per mile of $37,957. For 1911, the mileage is shown to be 1,455, and the cost per mile is returned as $57,419.87. In thirteen years, therefore, the capital cost of the system per mile increased on the system's books no less than 51 per cent. During the same thirteen years surpluses of $1,594,955 and deficits of $3,915,193 were reported. It is obvious that the surpluses were illusory and the deficits much larger than returned.

Sir H. L. Drayton and Mr. Acworth took the position that the government railways should be required by act of Parliament to be "worked as commercial concerns" —that is, to earn not only their operating expenses, but, if practicable, interest on the investment in them. They said:

Their construction has cost the people of Canada $276,000,000, and the people of Canada are paying interest on this amount every year out of the general taxation of the country. . . .

We think that reductions in favor of certain classes of business and certain communities which bring railway rates below a reasonably renumerative basis are wrong in principle. Their effect is to conceal the fact that a bounty is being given to certain persons in certain places at the expense of the community at large. If bounties are to be given, as to which it is not for us to express an opinion, we think they should be openly voted by Parliament and not given under the guise of a railway rate reduced to an unremunerative basis.

In the years immediately preceding the Great War, a large, and, as many in Canada believe, an excessive amount of new railway mileage was built in Canada. The Grand Trunk Pacific, which was built by the Grand

Trunk, and the Canadian Northern, which also was built by private capitalists, and the National Transcontinental, which was built by the government itself, incurred heavy losses. The government had guaranteed interest on the bonds of the Canadian Northern and the Grand Trunk Pacific. The question was presented as to whether it should make the companies owning them such advances as might be required to keep them out of bankruptcy or should take the railways over and operate them itself. Many persons in Canada advocated government acquisition and operation of all the railways in the country.

As has been shown, the majority of the Royal Commission, which was created to investigate the entire railway situation, was opposed to government ownership and management in principle. At the same time it believed that as the government of Canada had found the bulk of the capital invested in these lines, and as they were bound to continue to lose large sums of money for some years, it was not practicable to leave them in the hands of private companies. Therefore, it recommended that a Board of Trustees of five members be created by Parliament; that title to the Grand Trunk Pacific, Canadian Northern and Grand Trunk be vested in this Board; and that the foregoing roads, and also the National Transcontinental and the Intercolonial, together with the Prince Edward Island, be entrusted to its management.

In order to avoid the failure in which government management of railways in democratic countries, including Canada, has resulted, it recommended that the Board of Trustees be rendered entirely independent of Parliament and that its personnel be made practically

self-perpetuating. The first members should be appointed by the act creating the Board. Three of them, including the chairman, should be of railway experience. Of the remaining two, one should be of business and financial experience and the other a man especially possessing the confidence of railway employees. Vacancies should be filled by appointment of the Governor-General in Council, on the recommendation of the majority of the trustees themselves. The government, under this plan, would guarantee the interest of the outstanding securities of the railways taken over, and the Board of Trustees would be forbidden to reduce rates until the railways under its management were able to earn their fixed charges.

Mr. Smith, the other member of the Royal Commission, recommended that the Canadian Northern, Grand Trunk Pacific, and Grand Trunk should be left in the hands of private companies. At the same time he advised some radical changes. Briefly, these were:

Let the Canadian Pacific alone; let the Grand Trunk operate the eastern lines now held by that company and the Canadian Northern; let the Canadian Northern operate the western lines, now held by that company and the Grand Trunk Pacific system; let the government operate the connections or procure their operation by private companies.

He added:

If for any reason it should prove inexpedient to carry out the foregoing suggestions and if the government should find it wise or necessary to possess itself of and to hold any considerable part of the railways' properties, I should recommend as an alternative plan the formation of a private company to take over other operations of those properties either

as a whole or in groups. Even where a road does not earn its fixed charges the government could profit in the long run by making the terms of the operating lease sufficiently attractive to induce private enterprise to undertake its management.

CHAPTER XVII

CONCLUSION

One of the first things that had to be done in determining whether railway regulation could be made to work, was to settle whether railways could be brought under effective public control. That has been settled. The railways are the only class of concerns in this country which can truly say that they are to-day receiving less for most of what they sell and paying more for almost everything they buy than ever before. Regulation which has that result is effective.

What has this effective control accomplished?

It has abolished the grosser forms of unfair discrimination formerly practised by the railways themselves; but it has substituted for them many unfair discriminations in rates which have arisen from the duplications and inconsistencies in the regulation of the state and national governments.

It has almost stopped the manipulation of railway finances by "insiders," but under it we have seen the percentage of net operating income earned seriously decline for several years. We have seen more miles of railways in the hands of receivers than ever before, and we have seen investment in railway securities grow less attractive as compared with investment in industrial, and also municipal and other government securities.

We have seen the railways driven out of politics, but we have not seen politics driven out of railway regulation.

We have seen the construction of new railway mileage descend to the lowest point it ever reached in time of peace since 1848, and a car shortage and congestion of traffic of unprecedented duration and severity.

We have recently passed through the bitterest railway labor controversy, and had the two narrowest escapes from a nation-wide paralysis of transportation ever known, one of them occurring when we were on the verge of entering the greatest war in history.

We have seen it become necessary, after we entered the Great War, for the railways partially to disregard certain of the laws adopted for their regulation, and for the government finally to take control of railroad operation because observance of those laws and the rendering of the maximum service in a great national emergency were incompatible.

In the fiscal year ended on June 30, 1916, the average receipts per ton per mile on our railways declined to 7.07 mills, the lowest point ever reached. This reduction of the average freight rate to a new low basis may be a satisfactory result to shippers, unless they consider the effect which it has had on the expansion of railway facilities; but it has not solved the rate problem.

Many persons say that the adoption of government ownership is the only solution of our railway problem. To "solve" a problem is to get the correct answer to it—to settle it. In the foregoing pages many reasons have been presented for doubting if government ownership would yield the correct answer.

A considerable saving could be effected by substituting, in raising capital, the credit of the government for that of private companies, but it would be very easy for government mismanagement to waste vastly more than the largest amount that possibly could be saved in this way in return to capital.

It is improbable that able and specially equipped men would be employed under government ownership to manage the railways. Even if this were done it is improbable that Congress would let them use their ability and special knowledge without interference to secure economy and efficiency of operation. If the railways should be uneconomically managed, as they probably would be, this would render it more, rather than less, difficult than it is under private ownership to advance wages and keep rates down.

Would government ownership prevent railway employees from continuing to want less work and more pay? Not unless its adoption caused them to cease to be human. If they got what they wanted, the public would have to pay the bills. If they did not get what they wanted, would government ownership prevent them from striking? Not unless they were prohibited from doing so; and they can be prohibited from doing so under private ownership. There have been strikes on the government railways of France, Hungary and Australia; in the French Post Office and on the municipally-owned street railways of Glasgow, Leeds, Birmingham, Edinburgh, and many other British cities. There already has been a strike on the small railroad which the United States government is building in Alaska.

Government ownership undoubtedly would result in

more men being employed to do a given amount of work, but it is doubtful if in the long run it would result in wages being increased as rapidly as they have been under private ownership. The average railroad wage now paid in this country under private ownership is the highest in the world.

Government ownership probably would not result in the long run in lower freight rates than private ownership. The average freight rate in this country under private ownership is the lowest in the world, except in India.

Would government ownership prevent car shortages and congestions of traffic? It has not done so where it has been adopted. On no railway in the United States or Canada has the traffic situation been relatively worse recently than on the government-owned Intercolonial of Canada. The most serious car shortages that have been known in Europe have occurred on the state-owned railways of Prussia. There have also been severe car shortages on the state-owned railways of Australia. Government ownership could prevent congestions of traffic only by causing the provision of additional railway facilities; it could not do that except in the way that additional facilities can be provided under private ownership, viz., by the investment of additional capital; and if additional capital were invested, a return would have to be paid on it, either from railway earnings, as under private ownership, or from taxes. The railways of the United States under private ownership have provided the largest transportation capacity in proportion to the population served of any railways in the world; and there is no good ground in the experience of our own or any other country for contending that the facili-

ties furnished would be more adequate under government ownership.

Government ownership would not in any proper sense solve the railway problem. At the same time, we must recognize the fact that our present policy of regulation is almost as ill adapted to solving this problem as government ownership itself. It is fatally defective in the principles on which it is predicated, and in the machinery which has been contrived to carry it out.

One of its main principles—and this is especially true of state regulation—is that the net return of the railways should be reduced and kept as low as it can be without involving confiscation. We are incurring an expense which may reach one hundred million dollars to make a federal valuation of railways the chief purpose of which is to guide the regulating authorities in their endeavors to advance right up to the line of confiscation without crossing it. Would the decision of the government that the value of the railways was a given amount, and that a "fair return" on that valuation would be less than the present net operating income, be sufficient to cause streams of capital at once to burst forth and flow into the railway industry? It would have the opposite effect. How much return the railways must be allowed to earn in order to raise enough capital adequately to develop their facilities, is a question of business—of public policy; and the determination of the question of confiscation will not settle this question of business and public policy.

Our railroad commissions are not courts, but administrative bodies. They should, therefore, leave to the courts the determination of the question of confiscation and devote themselves to so regulating the railways

as to secure to the public good and adequate service at the lowest rates that are compatible with the rendering of such service. It ought to be obvious to everybody that good and adequate service is quite as important to the public as low rates; and yet regulation has been directed almost entirely to holding down and reducing rates. Then, when shortages of facilities have resulted, and the service of the railways has been in other respects unsatisfactory, there has been an outcry against their managements. We have tasted within the last three years the first bitter fruits of the policy of near-confiscation. We have tasted them in the form of an unprecedented record of railroad bankruptcy, of an almost complete cessation of new construction and of an acute car shortage and congestion of traffic. The later fruits of this policy, if it is continued, will prove even more bitter than the first.

Deficient as is our present policy of regulation as regards the principles on which it is predicated, it is equally deficient as respects the character of the machinery which has been devised to carry it out. Railroad transportation in the United States knows no boundaries except the boundaries of the country itself. It is probable that interstate traffic constitutes 90 per cent of all the freight traffic handled, and it constitutes not far from an equal part of the passenger traffic. Since the national government has been intrusted by the public with the regulation of this, perhaps, 90 per cent of the traffic, why should it not be intrusted also with the regulation of the remaining 10 per cent? While, however, we have delegated to a single commission having nine members the task of regulating perhaps 90 per cent of the country's traffic, we have created 48 commissions,

having about 160 members, to regulate the other 10 per cent.

There is no coördination between these 48 state commissions or between them and the Interstate Commerce Commission. Theoretically, the authority of the federal government over interstate commerce is paramount to that of the state governments over state commerce; but in practice the state authorities so regulate state commerce as to burden interstate commerce and to interfere with its regulation by the federal government. The state authorities, inspired by considerations of supposed local interests, jealously compete with each other to see which can reduce state rates to the lowest basis. They impose all manner of requirements on railways in respect to operation and equipment. The result is that the Interstate Commerce Commission requires freight rates and passenger rates to be made on one basis, while the state authorities require them to be made on other bases; that there are glaring discriminations between state and interstate rates; and that railway earnings are unduly depleted.

The results of this medley of regulation, which in an effective form began about ten years ago, are reflected by the net operating income of the railways. In the year ended June 30, 1916, under conditions which were abnormal, the railways on the average earned about 6 per cent, which was the largest percentage of net operating income on the book cost of their road and equipment that they ever did earn. But the results of an abnormal year should not blind us to prevailing tendencies. During the nine years prior to 1916, the tendency of net operating income was downward, and in 1914 and 1915 the ratio of operating expenses and taxes to

total earnings became the highest, and the percentage of return which the railways earned on their investment became the lowest, since the panic period of the early '90s. It was this downward tendency of net return which was chiefly responsible for the large number of railroad bankruptcies in 1914 and 1915; for the practical cessation of railway construction; and for the reduction in the development of facilities which resulted in the recent shortage of cars and congestion of traffic.

After a brief recovery the tendency of net return to decline was renewed. The renewal of this tendency was due to the same causes which originally set it in motion. It was due to the fact that railway taxes and expenses of all kinds have been constantly and recently very rapidly increasing, while owing to our policy of regulation it has been practically impossible for the railways to secure substantial general advances in their rates.

Because of the increases in their expenses the railways have asked repeatedly for increases in their freight rates. It is clear that if the welfare of the country will be promoted by granting advances in rates they ought to be granted. Since the questions involved are questions of public policy and of business it is also clear that they ought to be settled promptly and that we ought to have machinery adapted to thus settling them.

Do we settle them promptly? Have we the machinery for so settling them? On the contrary, as already indicated, most of our regulating commissions insist on trying questions proper only to the courts, instead of determining questions of public policy on grounds of public expediency; and they drag out rate hearings interminably.

Furthermore, when the Interstate Commerce Commission decides a rate case affecting the 90 per cent of the traffic under its jurisdiction, the state authorities which have the other 10 per cent of the traffic under their jurisdiction will almost certainly deal with this 10 per cent of it differently from each other and differently from the way in which the Interstate Commerce Commission deals with the 90 per cent. But you cannot reduce and hold down state rates without either reducing and holding down interstate rates, or causing unfair discriminations against interstate commerce. And so it has come to pass that in almost every state the regulation by the state of the traffic under its jurisdiction to a large extent defeats the intent of Congress and the Interstate Commerce Commission in the regulation of the 90 per cent or more of the traffic under their jurisdiction.

These facts indicate the insurmountable difficulties to the solution of our railway problem which always will be encountered as long as it is predicated on the principles and dealt with by the machinery that it is now.

If, after the war, the railways are to be returned to the management of their present owners, it will be essential to any satisfactory solution of our railroad problem that many changes be made in our present policy of regulation.

First, we must abandon the principle of "near-confiscation" and substitute for it the principle of public expediency, as the fundamental principle of regulation. What must the railways be allowed to earn in order to enable them to raise enough capital to furnish good and adequate service? This is the main question which

the public should require the regulating authorities constantly to keep before them. How does it benefit the shipper to have freight rates kept down to the line of confiscation if this disables the railway from furnishing enough cars to take his freight to market? It should be formally declared by legislation to be the duty of the regulating authorities so to deal with rates as to secure to the railways the opportunity to earn profits sufficient to enable them adequately to develop their facilities.

That our present policy of regulation has done harm as well as good has been largely because it has been postulated on the false principle that regulation should control the managements of the railways but need not help them—an assumption which has not underlaid our legislation regarding any other industry. For example, the Act to Regulate Commerce gives the Interstate Commerce Commission power to reduce rates and to prevent them from being advanced, but gives it no authority to advance them or prevent them from being reduced. In consequence any individual road may at any time make a reduction in rates which will not only injure all the other railways but also operate as an unfair discrimination against all the shippers or communities whose rates are not reduced. Again, the railways may seek to increase rates on certain commodities. The Interstate Commerce Commission may believe that they need larger earnings; but, if it disapproves of the increases on these commodities, it cannot go on and do complete justice by ordering the increases in the rates on other commodities it thinks should be made. The Commission should be given the same authority to increase rates and pre-

vent reductions that it has to reduce rates and prevent increases.

Second, public interest demands action which will expedite the hearing and decision of important rate cases. The present protracted delays cause uncertainty and hesitation in many lines of business; and nothing is more killing to business than such delays.

Third, we must revolutionize the machinery by which regulation is carried out. There is no more sense in having one Congress, one Interstate Commerce Commission, 48 legislatures and 48 state commissions taking their fling at the regulation of railways, than there would be in letting them all take their fling at the management of the postal department or the conduct of a war. If we can trust the federal government and especially the Interstate Commerce Commission, to regulate nine-tenths of railway traffic, why can we not trust them to regulate the other one-tenth?

Many of the states fix rates with the avowed purpose of giving their producers and jobbers advantages in the markets of their states over the producers and jobbers of other states. Such regulation hampers and burdens interstate commerce, and interferes with the regulation of interstate rates by the Interstate Commerce Commission. It was such an effort by the Texas commission to give Texas shippers an advantage in the markets of that state over the shippers of Louisiana which was condemned by the Interstate Commerce Commission and the United States Supreme Court in the Shreveport case; yet the state commissions do not desist from this practice.

In numerous states two cents a mile was made the maximum legal passenger fare, and the railways re-

duced their interstate fares also to this basis. The Interstate Commerce Commission has indicated that these fares were too low, and the railways have therefore raised many interstate fares; but, as long as the lower state fares remain, the higher fares will be largely nugatory and there will be a discrimination against interstate commerce.

In their regulation of operation the states impose numerous burdens, such as requirements for high-power headlights and extra men in train crews, without any evidence that they ought to be imposed, and in the face of evidence that they ought not to be. The Interstate Commerce Commission by refraining from imposing similar burdens, and from recommending that Congress do so, tacitly condemns the action of the states. But it does little, and perhaps has authority to do only little, to prevent such action. In many cases there is complete duplication of state and interstate regulation regarding such matters as the block signals to be installed on the same roadway, and the safety appliances to be put on the same cars. It is manifestly impossible to have disputes regarding the wages and conditions of work of employees settled according to state lines. As the determination of whether a railway running through a half-dozen states may issue certain securities will affect its development and the service it renders in all of these states, and as the total amount of its earnings will determine how much capital it can raise for use in all of them, it is unreasonable and inexpedient to leave it within the power of each state to so control a railway's issue of securities or earnings as to affect its development and service in all the other states. Railways do not begin and end at state lines. Commerce in its de-

velopment and movement ignores such lines. Therefore, we should cease recognizing them in the regulation of railways.

Fourth, if the entire work of railway regulation were imposed on the Interstate Commerce Commission as now organized it would be impossible for that body to carry it; for it is overworked in performing its present duties. But the character of the Commission's duties and its organization should be changed, first, to secure a more satisfactory application of sound principles, and, second, to prevent the machinery of regulation from being broken down. The Commission is now required to serve as a kind of detective bureau for ascertaining whether the railways are violating the laws and for collecting evidence against them, as well as to adopt regulations regarding certain phases of operation and to hear rate cases. It cannot perform its function as a detective bureau and prosecutor without acquiring, in doing so, a bias which will influence it in performing its quasi-judicial duties. Therefore, its duties of detecting and securing evidence regarding violations of law should be turned over to the Department of Justice or to some other body.

While commerce does not move and railways are not built and operated according to state lines, commercial and transportation conditions differ widely in different sections. They are similar in adjacent states, as Massachusetts and Connecticut, or Kansas and Nebraska; but they are widely different in the Northwest and in New England; in the central states and in New Mexico and Arizona. Therefore, if state regulation is abolished, there should be established a number of regional federal commissions subordinate to the Interstate Commerce

Commission whose jurisdictions should correspond with these territorial differences in commercial and transportation conditions. The creation of these commissions would make it possible to adapt regulation to territorial conditions and needs and would prevent the Interstate Commerce Commission from being overloaded. Appeal should be allowed in most, or perhaps even all, cases to the central commission; but probably in most cases the decisions of the district commissions would be accepted.

Fifth, there is an inconsistency in federal regulation itself which does harm. The Sherman anti-trust law and the anti-pooling provision of the Act to Regulate Commerce deal with the railways as if they should actively compete with each other. Most other federal provisions deal with them as if they should be a regulated monopoly. The main purpose of legislation prohibiting combinations in restraint of trade is to prevent prices or rates from being made unreasonably high. Legislation to accomplish this purpose with respect to railway rates has been rendered unnecessary by the provisions empowering the Interstate Commerce Commission to reduce unreasonable rates, and to prevent unreasonable advances, whether made by one road or any number of roads.

But while such legislation as applied to railways is superfluous, it is not nugatory. Regulation causes the charges of competing lines usually to be made the same; but it does not prevent the law-enforced competition from causing the granting of many unduly low and unfairly discriminatory rates to large shippers. Furthermore, as things are, equality of rates by competing lines is a prolific cause of wastes and discriminations in serv-

ice. The railways in every group vary in their mileages between competitive points, in their physical characteristics, in the accessibility of their lines to large industries, and in their financial positions. When their rates are the same the only means they have for attracting business is service. When they are forbidden by law to make pooling or other similar arrangements regarding the division of traffic or the rendering of train service there is an irresistible temptation for each of them to strive to capture business by increases in, and concessions in respect of, its service. This may appear to be a good thing; but it is not.

It is owing to this fury of competition that our passenger service between large cities all over the country has been so unwarrantably duplicated. Between the large cities several railways run numerous trains on the same schedules. As the trains on the different roads leave and arrive at the same hours they do not promote the public convenience, since the traveler can ride on only one train at one time. As many of the trains are seldom well loaded the duplication of service causes waste. Since we entered the war the railways, voluntarily or by government direction, have largely reduced these wastes of service. The public can be as well served and the cost of railway operation can be reduced if arrangements be made under which through trains on different lines will be spaced to leave and arrive at different hours, and under which only the shorter and better lines between any pair of cities will attempt to render fast through service between them, others confining themselves to good local service.

It was likewise owing to fierce competition that many improper concessions in respect of freight service, such

as those which the Interstate Commerce Commission criticized in its opinion in the five per cent case, were made, with resulting heavy losses to the railways, and glaring discriminations between shippers and communities.

This law-enforced competition has been abolished for the period of the war. It should not be allowed to be revived after the war ends. We should recognize that the railways should be treated as regulated quasi-monopolies. The Sherman anti-trust law as it applies to railways and the anti-pooling section of the Interstate Commerce act, should be repealed, and the railways should be permitted to make such agreements and contracts regarding rates and service as the Interstate Commerce Commission may deem not prejudicial to the public interest.

Sixth, the Interstate Commerce Commission having been given authority and a clear mandate to deal with rates as a matter of public policy, it should also be given broader jurisdiction over railway construction, maintenance and operation. The federal government, and not the states, the Commission, and not Congress, should decide what requirements shall be made regarding block signals, headlights, steel cars, hours of service of employees, the size of train crews, and so on.

Seventh, the maintenance of transportation is more important to the public than the rates it has to pay. But so one-sided are our laws that while they will not permit the companies to suspend operation, there is no provision to prevent it from being interrupted by employees going on a strike. The rates which the railways must charge depend on the expenses which they must

incur. Wages are much the largest item in expenses; but while rates are regulated by bodies established for that purpose, wage disputes are arbitrated only at the option of the parties and even then are not arbitrated by the same bodies that regulate rates.

Legislation for arbitration of labor disputes should render it impracticable for transportation to be interrupted by a strike, at least until some body representing the public has investigated and reported regarding the matters in dispute. The wages which the railways must pay are such an important factor in determining the rates for which they can render their service that probably it would be best for wage disputes and rate disputes to be settled by the same body.

Eighth, the Interstate Commerce Commission should be given supervision over the issuance of railway securities. Some of the worst abuses and evils in the railway business have grown out of the unrestricted utterance of securities by boards of directors dominated by men who disregarded equally the rights and interests of investors and of the public. If regulation is to permit increases in net earnings the public has a right to demand that it shall also see that the additional capital which the improvement in the railways' credit will enable them to raise is honestly and efficiently used. However, if the issuance of securities is to be regulated the fact should be recognized that not only is it desirable to prevent stock watering, but that it is equally desirable that securities shall be issued in as large amounts as may be necessary to raise sufficient capital for adequate development of railway facilities. It should also be recognized that the prices at which securities can be

sold depend not on the public's opinion regarding a "fair return," but on the return which investors think that they can reasonably expect to derive from them.

The changes in the principles and machinery of regulation suggested in the foregoing would not weaken the protection afforded to any class of persons or concerns from the railways, but would make regulation more efficient and fair. They would abolish the evils arising from the railways being subjected to "49 masters," but would not lead to excessive centralization and its harmful consequences. They are indispensable to making regulation such that it will secure the greatest practicable benefits for the public. They are indispensable to converting the railway business from one of diminishing to one of increasing, or at least stable, returns, and the railway situation from a menace to the general prosperity to one of its strong and reliable supports.

CHAPTER XVIII

CONCLUSION (*continued*)

Are Regional Railroad Companies the Solution?

While the changes in regulation suggested in the foregoing should be made if the existing individual railways are to be returned to the management of their present owners, it may be that some important changes in private ownership and management should also be made. Some such changes seem desirable in themselves; and they may prove necessary as an alternative to government ownership.

The system of ownership and management which obtained before this country entered the Great War was in several respects very unsatisfactory. Some of its worst defects were caused by regulation. The natural tendency of railways operating in the same general territory has been to draw together. This tendency has been manifested in numerous ways ever since, in the course of railway development, different railways first began to come in contact with each other. It has been manifested as well by parallel as by connecting lines. Government has encouraged the combination of connecting lines, but opposed the combination of parallel and competing lines. How it broke up the early pools; then, the associations to maintain rates; finally, the Northern Securities Company and other mergers, is familiar history.

The public awakened in the midst of war to a realization that, from the public's own standpoint, coöperation between parallel lines may be greatly preferable to competition. When business is as large as all lines together can handle, competition, the public discovered, causes some roads to get less business than they can handle, and some more. The result is that some business, which by coöperation could be handled, is, because of competition, not handled. Public opinion therefore approved the action of the railway managers in agreeing to eliminate competition. When it appeared that private management could not, under the existing restrictive laws, secure the best possible results, public opinion approved the appointment of a government Director General of Railroads who would not be subject to these laws.

The prohibitions of agreements and combinations of parallel lines have had, however, relatively as bad effects in peace as in war. In every section of the country there are "strong" lines and "weak" lines operating side by side. If the regulating authorities base rates on the financial situation of the strong lines, the weak lines starve and their service remains or becomes poor. If rates are based on the position of the weak lines, the strong lines make more money than the public thinks right. Even if rates are based on average conditions most weak roads are kept in a condition of penury.

The rate problem is the hardest problem of regulation. It is so, mainly because there is hardly a section of the country in which the same rates will produce fair results for all the roads within that section. But the existence of weak and strong roads side by side throughout the country is mainly due to the particular

kind of regulation which has prevented railroad agreements and combinations. If natural economic tendencies had not been arrested by regulation most of the weak roads ere this would have been absorbed by the strong roads.

The natural tendencies which the legislation of the past has discouraged are the very tendencies which the legislation of the future should encourage. The reorganization of our railways under a number of companies each owning all the lines within a large territory would solve some of the most difficult and important problems of railroad management and regulation. Still other important and difficult problems would be largely solved if government guarantees of net return were made to each of these regional companies. The holding company is a device created to deal with industrial and financial situations to which the ordinary form of corporation is unequal. Regional railroad holding companies chartered by the federal government probably would be the best agencies through which to effect the needed changes in railroad ownership and management. The writer suggests that a plan, not merely to improve regulation, but to secure a needed reorganization of the railroads under private ownership, might include the following features:

First, federal incorporation of a railroad-holding company for each of the large sections of the country. How many of these companies there should be, and what territory should fall within the scope of each, can be determined only by much study and discussion. Each company should be authorized to acquire all the stock of all the existing railways within its territory, either at an agreed valuation or by condemnation. About

two-thirds of existing railroad capitalization consists of bonds and other funded debt. It would not be necessary for the holding companies to buy the bonds, since they would secure complete title to all the properties by buying the stocks.

Second, all stock of each holding company should be issued under the supervision of the Interstate Commerce Commission or some other federal agency, and the government should guarantee a return upon it sufficient to make it marketable at par—say 5 per cent. Experience has shown that a system of regulation under which the government controls the maximum return railways may earn, but does not guarantee any minimum return, results in the returns earned becoming insufficient to enable the companies to raise adequate capital. Any return earned in excess of that guaranteed by the government should be divided between the holding company and the government, this "profit-sharing" being made such as to afford the holding company incentive to efficient management. The amount of stock each regional company should be allowed to issue at the start would, of course, depend on the total amount it had to pay for the stock of the existing railway companies.

Third, each holding company should have not more than twelve directors, at least two-thirds of whom should be elected by its stockholders and a part appointed by the President of the United States, by the Interstate Commerce Commission or by some other administrative officer or board of the federal government. The board of directors should be required to elect one of the directors representing the stockholders as its chairman, and he should be the chief executive officer of the company. Part of the directors should be government representa-

tives, first, because the government would be guaranteeing net return, and, second, because it would be desirable to have the public's as well as the stockholders' wishes carried out in dealing with employees, making permanent improvements, effecting economies, rendering service, and so on. There should be a large preponderance of directors representing the stockholders to make sure that political considerations would not be allowed to override economic and business considerations; but it is believed representation of the public on the boards would help to solve some difficult problems. Where the directors were equally divided on any question, the chairman's vote should be decisive. The chairman should be chosen from among the directors representing the stockholders to make reasonably sure that he would be an experienced and able railway administrator.

Fourth, there should be organized an equipment company to serve as a central agency for the acquisition and distribution of box cars, and so far as desirable of other kinds of equipment, for all the regional companies. The capital for this company should be furnished and its stock held by the regional companies in proportion to their needs for the kinds of equipment provided by the equipment company. Each holding company should pay the equipment company on a per diem basis for its use of equipment belonging to the equipment company. The organization required for distributing equipment to the lines of the regional companies in proportion to their needs should be provided by the equipment company.

If the government were to appoint part of the directors of each regional company, doubtless the public interest would be so protected by them that the need

for government regulation would be greatly reduced. If, however, there should be any regulation except that by the Interstate Commerce Commission it should be carried on, not by state commissions, but by federal commissions with jurisdictions coinciding with the regions occupied by the regional railroad holding companies.

If regional federal commissions were not created there ought to be created under government auspices in each region an advisory council similar to the advisory councils now found in Germany, in Austria-Hungary and in France. Each regional advisory council should be composed of representatives of the industry, commerce, agriculture, labor, and other interests within the region. Its function would be to present to the directors and officers of the regional railroad the views of the public as to needed railway extensions, improvements, service, rates, etc. The advisory councils of this kind which have been created in European countries, both where private ownership and government ownership prevail, have been found highly useful. Under the regional railroad holding company plan the Interstate Commerce Commission should possess and exercise the powers it now has and also the additional powers which it has been contended in the foregoing pages it should be given.

A plan such as that roughly outlined would have many advantages and few disadvantages as compared either with the present system of private ownership and management or with government ownership and management.

While retaining private ownership it would remove the main obstacles to fair and helpful regulation of

rates, because under it the existence side by side in every territory of weak roads and strong roads would cease. It would eliminate the wastes now caused by undesirable competition and make it practicable to give the best service at the lowest cost. It would remove the financial control of the railways from Wall Street. It would not involve the excessive centralization of control which would be incidental to any attempt to manage and operate the railways permanently as absolutely a single system. Even the railway system owned by each holding company would be so large that in order to manage it efficiently it would be necessary to divide the mileage for operating purposes into very large units, many of which probably would correspond roughly to existing railways. These large units would have to be subdivided into grand divisions, divisions, and so on, as all large railways are now. The plan outlined would solve the problem of credit, which in the case of many railway companies is so acute. If the regulating authority did not make rates high enough to yield an adequate return the government would make up the deficiency. It would thus be rendered possible to raise the capital required for adequate development of railway facilities.

The plan outlined would have numerous and very great advantages over government ownership or any kind of government management which it is probable would ever prevail in the United States. It would render it unnecessary for the government to raise the vast amount of capital which would be required to buy the railways outright. It would keep politics out of the railroads and the railroads out of politics, while under government ownership the railroads would corrupt poli-

tics and politics would corrupt the railroads and destroy their efficiency. Government ownership would prevent the most capable men available from being put in the most important positions on the railroads, while the proposed plan would leave the way wide open for the promotion of those most fit. Government ownership might result in the two million employees of the railways being made parts of a great political machine. Under the regional railroad plan this would be impossible. Government ownership would put it within the power of a few bureaucrats in Washington to prevent the adoption of improved machinery and methods on all the railroads of the United States. Under the regional railroad plan the railroads would be under the direction of enough different managements to make certain that numerous new devices and methods would constantly be experimented with, and those which proved useful adopted throughout the country, as is done now.

The great danger confronting the nation now is that both railway owners and managers, and public men and the public, disappointed and disgusted by the results of the system of regulation and management which prevailed before the adoption of government control of management as a war measure, will decide that government ownership and management is inevitable and adopt this policy without intelligent and thorough consideration of its advantages and perils as compared with those of other policies which are available.

The danger of such unconsidered and precipitate action will be heightened if the system of government control adopted for the period of the war should be a success. Of course, every patriotic citizen hopes it will be a success, and every patriotic railway officer and em-

ployee, every patriotic railway patron, every patriotic public man, will do his best to make it a success. But neither members of Congress, nor administrative officers of the government, nor railway officers and employees, nor patrons of the railways, would act in reference to the railways under government ownership in time of peace in the same way that they will act in reference to them while under government control in time of war. For this reason the results of the present scheme of government control will not be in any sense a fair test of the results which would be obtained under government ownership and management in time of peace. They will not even be a test of what could be accomplished by the present system of government control in time of peace. They will be—or at least they ought to be—much better than could be secured either by government management or by the present system of control of management under normal conditions.

Unfortunately, the general public may not consider such important points; and if it does not, the outcome of government control may be a leap in the dark, with disastrous consequences.

The writer realizes that the plan for regional railroad holding companies outlined above is crude and incomplete. He has, however, for a long time been approaching the conviction that only in some plan of regional reorganization of the railroads can there be found a satisfactory solution for the railroad problem of this country.

No plan of this kind can hope to win the approval of either the doctrinaire advocates of unrestricted competition or the doctrinaire advocates of government monopoly; but some such plan, if skilfully worked out

in its details, ought to be able to win the support of that large majority of intelligent and thoughtful students of the railroad problem who are equally alive to the defects of our present system of railroad regulation and management and to the overwhelming economic and political reasons for avoiding government ownership and management.

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