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REPORT

OF THE ROYAL COMMISSION

TO INQUIRE INTO

Railways and Transportation in Canada

1931-2



OTTAWA F. A. ACLAND PRINTER TO THE KING'S MOST EXCELLENT MAJESTY 1832



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ORDER IN COUNCIL P.C. 2910

CERTIFIED to be a true copy of a Minute of a Meeting of the Committee of the Privy Council, approved by His Excellency the Governor General on the 20th day of November, 1931.

The Committee of the Privy Council have had before them a joint report, dated 19th November, 1931, from the Right Honourable Sir George H. Perley, the Acting Prime Minister, and the Minister of Railways and Canals, submitting:

That the Select Standing Committee on Railways and Shipping of the House of Commons of Canada at the recent session of Parliament in its final report, dated July 16, 1931, to the House of Commons, set out amongst other things, as follows:—

"Your Committee desire to call the attention of the House to the proposal made by Sir Henry Thornton at one of the sessions of the Committee. He referred to the serious position of the transportation business generally and recommended that a commission be appointed for the purpose of considering the whole question of Canadian transportation. Your Committee regard such a recommendation coming from such a source at this time as worthy of the serious consideration of the Government."

Having regard to the vital importance of transportation to the trade and commerce of Canada, the serious and continuing deficits of the Canadian National Railways System, and the diminished revenues of the Canadian Pacific Railway System, conditions which have been brought about in part by duplication of tracks, facilities and services of every kind and in part by competition by other modes of transportation, particularly motor vehicles operating on highways, the Ministers concur with the proposal that the whole subject be studied by Commissioners with the powers hereinafter set forth.

The Ministers, therefore, recommend as follows:---

- 1. That the Right Honourable Lord Ashfield, of the City of London, Eng.,
 - The Right Honourable Lyman Poore Duff, P.C., of the City of Ottawa, in the Province of Ontario,
 - Sir Joseph W. Flavelle, Bart., of the City of Toronto, in the Province of Ontario,

Beaudry Leman, C.E., of the City of Montreal, in the Province of Quebec, Leonor Fresnel Loree, C.E., of the City of New York, in the United States of America,

Walter Charles Murray, LL.D., of the City of Saskatoon, in the Province of Saskatchewan; and

John Clarence Webster, M.D., of Shediac, in the Province of New Brunswick,

be appointed Commissioners under Part I of the Inquiries Act, and that the said The Right Honourable Lyman Poore Duff, P.C., be Chairman.

2. That the Commissioners inquire into the whole problem of transportation in Canada, particularly in relation to railways, shipping and communication facilities therein, having regard to present conditions and the probable future developments of the country, and report their conclusions and make such recommendations as they think proper.

- 3. That the Commissioners shall have all the powers vested in, or which can be conferred on, commissioners under the Inquiries Act, and that all or any of the powers which can be conferred under Part III of the Inquiries Act may be exercised by any three of the Commissioners.
- 4. That the Commissioners or any three of them shall have power to call before them such persons as they shall judge likely to afford any information on the subject, to call for information in writing and also to call for, have access to and examine all such books, documents and records as may afford the fullest information on the subject, and to inquire of and concerning the promises by all other lawful ways and means whatsoever.
- 5. That the Departments of the Government Service of Canada and the Board of Railway Commissioners for Canada shall afford the Commissioners and all persons acting under their authority or by their direction, such assistance and co-operation in the matters of the inquiry as the Commissioners may think desirable.
- 6. That the Commissioners shall report their findings and conclusions with the least possible delay.
- 7. That a Commission shall issue to the Commissioners in accordance with the terms hereof.

The Committee concur in the foregoing recommendations and submit the same for approval.

(Sgd.) E. J. LEMAIRE, Clerk of the Privy Council.

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THE ROYAL COMMISSION CANADA

GEORGE THE FIFTH, by the Grace of God of Great Britain, Ireland and the British Dominions beyond the Seas KING, Defender of the Faith, Emperor of India. To all to whom these Presents shall come, or whom the same may in anywise concern.

GREETING:

WHEREAS pursuant to the provisions of Part I of the Inquiries Act, Revised Statutes of Canada, 1927, Chapter 99, His Excellency the Governor General in Council by Order P.C. 2910 on the twentieth day of November, in the year of Our Lord one thousand nine hundred and thirty-one, copy of which is hereto annexed, has authorized the appointment of Our Commissioners therein and hereinafter named to inquire into the whole problem of transportation in Canada, particularly in relation to railways, shipping and communication facilities therein, having regard to present conditions and the probable future development of the country; and has conferred certain rights, powers and privileges upon Our said Commissioners as will by reference to the said Order more fully appear.

Now know ye that by and with the advice of Our Privy Council for Canada, We do by these Presents nominate, constitute and appoint The Right Honourable Lord Ashfield, of the City of London, England; The Right Honourable Lyman Poore Duff, P.C., of the City of Ottawa, in the Province of Ontario; Sir Joseph W. Flavelle, Bart., of the City of Toronto, in the Province of Ontario; Beaudry Leman, of the City of Montreal, in the Province of Quebec, Civil Engineer; Leonor Fresnel Loree, of the City of New York, in the United States of America, Civil Engineer; Walter Charles Murray, of the City of Saskatoon, in the Province of Saskatchewan, Doctor of Laws; and John Clarence Webster, of Shediac, in the Province of New Brunswick, Medical Doctor, to be our Commissioners to conduct such inquiry.

To Have, hold, exercise and enjoy the said office, place and trust unto the said Lord Ashfield, Lyman Poore Duff, Joseph W. Flavelle, Beaudry Leman, Leonor Fresnel Loree, Walter Charles Murray and John Clarence Webster together with the rights, powers, privileges and emoluments unto the said office, place and trust, of right and by law appertaining, during pleasure.

AND we do further appoint the said The Right Honourable Lyman Poore Duff, P.C., to be Chairman of Our said Commissioners.

AND for greater certainty but not so as to restrict the generality of the foregoing, Our said Commissioners are hereby authorized to engage the services of such accountants, engineers, technical advisers or other experts, clerks, reporters and assistants as they may deem necessary or advisable, and the services of Counsel to aid and assist them in such inquiry.

AND we do hereby require and direct Our said Commissioners to report to Our Governor General in Council their findings and conclusions with the least possible delay.

IN TESTIMONY whereof We have caused these Our Letters to be made Patent and the Great Seal of Canada to be hereunto affixed.

WITNESS: Our Right Trusty and Right Well beloved Cousin and Counsellor, Vere Brabazon, Earl of Bessborough, a Member of Our Most Distinguished Order of Saint Michael and Saint George, formerly Captain in Our Territorial Army, Governor General and Commander-in-Chief of Our Dominion of Canada.

At Our Government House in Our City of Ottawa, this twentieth day of November in the year of Our Lord one thousand nine hundred and thirty-one and in the twenty-second year of Our Reign.

By command,

THOMAS MULVEY,

Under-Secretary of State.

Report of the Royal Commission to inquire into Railways and Transportation in Canada

INTRODUCTION

To His Excellency the Governor General in Council.

MAY IT PLEASE YOUR EXCELLENCY:

1. We the commissioners appointed to inquire into the problem of transportation in Canada, have the honour to report that, in pursuance of the comprehensive terms of reference contained in the Order in Council, P.C. 2910, of November 20, 1931, we have conducted an inquiry into the pertinent aspects of the transportation situation. The more detailed and searching phase of our investigation has, by reason of the seriousness of railway affairs, concerned itself with the position of the two principal railway companies, whose problems, difficult enough under normal conditions, have been aggravated in recent years by the continued depression in world trade. A factor of growing importance also has been the rapid development of mechanized road transport, which has already deprived the railways of much short distance passenger and freight traffic. Within the limits of recognized constitutional authority in such matters we have given consideration to certain features of that development.

2. In the course of our investigations we have held eighteen sittings, occupying fifty days altogether, and have travelled over most of the main line mileage of the two chief railway systems. Throughout our journeys we were accompanied by the responsible officials of both railways, thus enjoying the advantage of almost constant discussion with them of matters relating to the inquiry, and of transportation problems more particularly affecting the territories traversed. Our itinerary included the principal centres of the various provinces, with the exception of Prince Edward Island, the only province of Canada in which railway competition may be said to be non-existent. In the case of Prince Edward Island the provincial Government kindly indicated their willingness to transmit in writing any representations on the general question of transportation they might desire to make. With this exception we have had the benefit of direct conference with the government of each province, which has included, in most instances, a full statement by the provincial Prime Minister of any considerations of a special or local character affecting the subject of our inquiry. The expositions we have received in this way of provincial policy regarding highway construction and motor traffic have been comprehensive and valuable.

At all of the provincial capitals visited, and also at Vancouver, Calgary, Montreal and Saint John, we have conducted, in addition, public hearings, duly advertised, at which representations from public bodies, labour and transport organizations and private individuals were invited and received. A list of witnesses appearing, and of persons or organizations who have filed submissions, is included as an appendix to our report.

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APPENDIX I

THE DEVELOPMENT OF TRANSPORTATION IN CANADA

TRANSPORTATION IN RELATION TO PHYSICAL FEATURES AND POPULATION

Transportation in Canada—whether by water, road, rail or air—is, and always has been, dominated by the physical geography of the country. The position of mountains, lakes and rivers; the distribution of mineral wealth; the location of good agricultural land; and the varying nature of the climate have dictated both the placing of settlements, and the lines of communication. With an area of 3,684,723 square miles Canada is a very large country; thirty times as large, for example, as the British Isles. While a large portion of this area has at present no need for established transportation services, the main lines of communication are required in the most heavily populated districts, which stretch in a broken and comparatively narrow fringe along the four thousand miles of the southern boundary.

Of necessity, then, the principal transportation routes are of relatively great length. In addition, they pass at intervals through country which by its character creates natural obstructions. In relation to roads such obstructions take the form of mountainous areas or water barriers; and, in relation to water routes, falls and rapids or complete breaks in the chain. The most significant obstacles, however, are those in the path of the transcontinental railways. The maritime provinces of the Atlantic Seaboard are separated from direct access to the central industrial areas of Quebec and Ontario both by the northern part of the State of Maine and by the sparsely settled upland forest that runs towards the St. Lawrence.

Near where the vast waterway formed by the St. Lawrence and the Great Lakes makes its contact with the edge of the western plain, two thousand miles inland from the Atlantic, occurs the second major obstruction to communication overland. Reaching north from lake Superior to Hudson's bay, a stretch of country broken by rock and lakes, nearly eight hundred miles in width, divides Eastern Canada from the prairie. That this sparsely inhabited region forms part of the great pre-Cambrian shield, which is now beginning to provide an important source of mineral wealth, makes it none the less a continuing hindrance to the economical operation of transportation overland.

These largely undeveloped and sparsely settled lands north of lake Superior form, in fact, not only the central, but the chief obstruction to the east and west channel of communication upon which depends the political no less than the economic vitality of Canadian Confederation. For while the third great barrier, the mountain range, or rather the four ranges, five hundred miles in width, of the Cordillera System which separate the western plain from the Pacific ocean, present, as an obstacle of nature, by far the most imposing appearance, they do not present, from an economic point of view, as serious an obstruction as does the vast area, wooded and mineralized, that cuts Canada in two. This region, largely barren from the transportation standpoint, constitutes an unproductive traffic bridge of exceptional length and ruggedness.

While the physical conditions in Canada thus create serious problems for the construction and operation of railways, the waterways offer a ready method of transportation. Disposed by nature for east and west communication, the rivers and lakes are, and always have been employed for this purpose; but their use is limited by a comparatively severe climate. Navigation, even in the most southerly districts, can be maintained for less than two-thirds of the year. As a further limitation there have already been mentioned the presence of rapids and falls, and the lack of natural communication between one waterway and another.

Thus the fundamental problem of transportation in Canada may be traced to two principal and related factors: the population is relatively small, and is spread over a long stretch of territory; and to connect the settled areas, railways must overcome great obstacles reared by nature.

EARLY METHODS OF TRANSPORTATION

The water routes which led the French explorers, settlers and fur-traders into Canada, remained throughout the French regime the chief means of communication for men and goods. The birch-bark canoe, the river boat and the lake sail-boat were all suitable to a land of rivers and lakes, on the shores of which began the limitless forests. Roads, however, were also necessary to connect the settlements, and these were early begun. In 1734, the fist continuous road between Quebec and Montreal was opened, and the mails followed this route.

The loyalists of the American revolution, the first British immigrants to enter Canada in any large numbers, followed, too, the St. Lawrence route. Passing beyond the French settlements on the river, they gradually opened districts on or near the shores of lake Ontario. For half a century the building of roads was continuous, but the results were far from satisfactory. The rough "corduroy" road was, whenever possible, superseded by planked or macadam roads, but these, being expensive, remained rare. In all settled parts of Canada through roads were opened, though the surfaces were bad and the grades heavy. Many of the roads were little more than forest trails. The Kempt Road, connecting the Saint John, New Brunswick, with Quebec, traversed 455 miles. but as late as 1840 it was often impassible over long stretches. In 1817 a stage service was begun between Montreal and Toronto, but the discomfort was considerable, and the cost was high-from Toronto to Kingston alone the fare was \$18. This high cost of transportation affected freight as well as passenger traffic, with the result that, though roads were built for military purposes and to connect inland districts in all the provinces, road travel long remained slow, uncomfortable and expensive. But, with all their weaknesses, the roads were constructed as a necessary means of communication between localities, between provinces, and with the ocean ports and the United States. By 1830 there were some 6,000 miles of post road. Up to 1841 the provinces of Upper and Lower Canada alone had spent two million dollars in aid of road construction, and had also guaranteed interest on the obligations of some of the many turnpike trusts.

In all parts of Canada in which it was feasible, transportation by water was used as an alternative to that by road. On the St. Lawrence and on the waterways used by the Hudson's Bay Company, *bateaux*, Durham boats and York boats were an ordinary method of travel. On the Great Lakes sailing boats of various types continued to increase from the days of French rule. In the maritime provinces, coastal schooners were, of course, common.

INLAND LAKE AND RIVER STEAMERS

Though sail-boats continued to flourish for many years the invention of the steamboat greatly added to the comfort of travelling. In the year 1809, the steamer Accommodation, with some assistance from horse towage at difficult points, made its first halting trip from Quebec to Montreal. In 1816 the first steamboat in the tnaritime provinces made its appearance on the St. John river. By 1837 the lower St. Lawrence boasted in the *Canada*, the largest and fastest steamer in North America; and lake Ontario enjoyed a service of steamers that, for speed and comfort, compared favourably with anything on the continent. Indeed, the twenty years that had succeeded Fulton's first demonstration on the Hudson had witnessed a development in inland steam navigation that not only brought to a country with such extensive waterways as Canada's an entirely new outlook in transportation, but actually an approximation to perfection in the instrument itself. Judged even by present-day standards these early lake and river steamers had already achieved speed, safety, and a high degree of comfort.

DEVELOPMENT OF THE WATERWAYS: CANALS AND PORTAGE RAILWAYS

The wide use of the steamer, together with the increase of population and of industry, brought with it a demand for the construction of canals to permit the uninterrupted utilization of the inland waterways. Hitherto canalization had been confined to the provision of an occasional shallow work to facilitate the passage of the Upper St. Lawrence bateaux at points of special difficulty. The advent of the steamer now revealed the possibilities of enlarged operations: but the first important undertaking deliberately avoided the direct, main channel. Military considerations arising out of the War of 1812, inspired the selection of the more secluded, triangular, and restricted route of the Ottawa river and the Rideau lakes as a line of communication between Upper and Lower Canada, and the work, carried through at the expense of the Imperial Government, and completed in 1832, for a time diverted much of the through traffic from the St. Lawrence. The completion of the post-road from Montreal to Kingston, utilized in conjunction with the navigable reaches of the river as a composite route partly by land and partly by water, restored much of this traffic to the St. Lawrence even before the difficult work of canalization was completed; and when, in 1841, the union of the provinces made possible a complete canal system nine feet in depth on the direct route of the Upper St. Lawrence, the issue was placed beyond doubt. Henceforth the tortuous, small-scale route of the Rideau system continued steadily to decline in importance, while the St. Lawrence continued to expand.

Meanwhile, as settlement spread further west beyond lake Ontario across the Niagara peninsula to the Huron Tract, a demand had arisen for a canal that would provide a passage from lake Ontario to lake Erie around Niagara falls. This most formidable obstacle to the continuity of inland navigation, which had involved the transhipment of all supplies for the western settlements across a portage twenty-seven miles in length, had been surmounted in 1829 by the completion of the first Welland canal, which gave a depth of eight feet. Wood was used for the locks and sides. So that, prior to the advent of railway operation in Canada upon a commercial scale, the development of inland navigation had proceeded to a point where it provided an uninterrupted channel of communication from the tide-waters of the lower St. Lawrence to the most remote settlements on lake Huron.

As an alternative method of overcoming the obstacles of the great falls and rapids on the St. Lawrence System, portage railways were for some years employed to transport goods around the break in navigable water. The first experiment of this kind—actually the first steam railway in British North America—was the Champlain and St. Lawrence, opened in 1837, which ran from La Prairie on the St. Lawrence to St. John on the Richelieu river, thus facilitating the movement of passengers and freight from Montreal to New York. In accordance with its purpose the railway was only operated during the navigation season. Further lines of the same nature were later built, such as the Montreal and Lachine (1847), which ran the eight miles around the Lachine rapids, and the Erie and Ontario (1854) which ran from Chippewa to Niagara-on-the-Lake.

THE FIRST RAILWAY ERA: THE 'FIFTIES

In 1850 the steam railway mileage of Canada amounted to only 66 miles of primitive and fragmentary line. For all its economy and natural advantage, a system of transport that depended primarily upon inland waterways presented serious shortcomings in a country exposed to a winter climate of sufficient severity to interrupt navigation for nearly half the year. As a substitute, particularly in the spring and fall, the rough unsurfaced highways of those days were totally inadequate to the growing colony; and it is said that, with the forming of the ice on the river, the prices of produce in Montreal used to double. During the 'forties the early "experiments" in Canada, together with the more ambitious performance in England and the United States, showed that steam railways were more than a mechanical novelty; and the new method of transportation offered nowhere greater possibilities of usefulness than in Canada with its long distances and scattered population. Together with the realization of the importance of railways came the willingness of the various governments to assist financially a means of transportation that was increasingly seen to be essential to the development of the coun-The ten years from 1850 to 1860 saw a remarkable outburst of contry. struction, and an even greater activity in promotion, chartering and stockjobbing.

The support which the governments brought was more than financial; for the statesmen as well as the financiers and builders began to take an active part in the furtherance of railway projects. Government guarantees, in various forms, became the order of the day; and thus railways were almost from the first, like roads and canals, matters of national concern. In Nova Scotia and New Brunswick ambitious plans were drawn, but in spite of the energy of Joseph Howe sufficient financial assistance could not be obtained. Neither of the two rival plans-a line from Halifax to Quebec, and a line from Halifax to Portland-was actually constructed for more than a few miles. In the Province of Canada the results were more tangible. Francis Hincks was the chief driving-force in the government, while the willingness of the great English contracting firm of Peto, Brassey and Company to undertake construction and find part of the capital was a further factor making for success. Lines, variously financed, were struck out in several strategic directions: the Northern Railway joined Toronto and Collingwood (on Georgian Bay) by 1854 and so facilitated travel to the upper lakes and far west. After many delays the Great Western was pushed through, so that in 1860 it operated lines from Toronto and the Niagara river to Sarnia and Windsor, and from Windsor through American territory to lake Michigan.

ORIGIN OF THE GRAND TRUNK

But the most important railway project of these years—both in its original plan and further development—was that of the Grand Trunk Railway. Various proposals for route, management and financing were made, but finally one was adopted and appeared in the glowing prospectus of the new company, issued in London early in 1853. This promotion called for the construction or operation of 1,212 miles of road, extending from Sarnia, through Toronto and Montreal to Trois Pistoles in Canada East (province of Quebec) and to Portland, Maine, by lease of the Atlantic and St. Lawrence Railway. The project was backed by government guarantee.

One-half the shares and debentures were offered at once and heavily oversubscribed. Construction of new line was begun, and arrangement made for the acquisition or rental of certain existing lines. By 1860 the first program was more than carried out, giving the Grand Trunk a direct line from Sarnia through the length of southern Ontario to Montreal. There it divided: one line going southward to Portland, Maine, and the other along the St. Lawrence to Riviere du Loup.

END OF THE FIRST PERIOD OF CONSTRUCTION

By 1860 the force behind early railway construction in Canada was exhausted and a pause ensued. In the decade 1850-1860 there had been added almost exactly 2,000 miles of road in operation to the humble total of 66 existing in 1850.

Constructed, in the case of the Grand Trunk particularly, to a standard intended to be high, with costly adjuncts such as the Victoria bridge at Montreal, and traversing to a great extent a settled community, the early railways of central Canada were not so much "development roads" as colonial counterparts of the first trunk lines of Great Britain and Europe. Long sections of their routes paralleled existing highways-then no disadvantage-but their main lines, to follow the belt of population, had to hold to the general course of the great waterway, then their principal competitor, which the Government continued periodically to deepen and improve. Nearly all of them suffered, too, from the defect of absentee direction; for, even in the case of the Grand Trunk, the initial arrangement for Canadian representation on the board of directors gave way, in time, to control from London. Confronted with these difficulties the wonder is, not that they failed to prosper, but that they succeeded generally in avoiding the receivership soon to become so prevalent in the United States. All things considered, the Grand Trunk especially constituted a noteworthy achievement; involved in a ceaseless contest with the railways of the then American West whose through traffic it sought to tap (though still dependent upon them for its connection with Chicago), handicapped at the outset by differences of gauge, and duplicating in part the line of its principal local rival, the Great Western, the Grand Trunk yet succeeded in supplying Central Canada before Confederation with an extensive and on the whole effective railway service.

CONFEDERATION AND TRANSPORTATION

For services of transportation, the provinces of Nova Scotia, New Brunswick and Canada (Quebec and Ontario), which were federated into the Dominion of Canada in 1867, brought roads, waterways and canals. The roads, which remained under the control of the provinces, had developed both in quantity and quality, but in neither were they adequate for through transport, for, though stage coaches plied over certain main highways, no motive power for quick road transportation had yet been discovered. The waterways had been to a large extent made available for through communication by means of canals, the total expenditure on canals before 1867 being \$20,692,244. The mileage of the railways and the principal routes have already been mentioned. The total capital expended on Canadian railways in the period ending in 1867 was \$147,817,217. Of this expenditure \$11,054,000 was in Nova Scotia and New Brunswick and \$136,763,217 in the Canadas. In these latter provinces the investments by municipalities in railway enterprises amounted to \$5,867,000. As the direct contributions of the two Canadas amounted to \$20,264,800 the sum of \$116,498,417 will be seen to have been provided from other than government sources. The British North America Act of 1867 joined the older provinces in a political union; it remained, however, to make that union a[•]reality both politically and economically. One of the principal means towards this national end was the development of transportation to a state in which all the provinces had easy communications with each other. As has been mentioned above, transporation in Canada was never wholly disassociated from government enterprise; but political union made possible for the first time a national policy towards transportation, which is best expressed in the original meaning of the phrase "political economy."

JURISDICTION AND ADMINISTRATION

It was provided by the British North America Act that all transportation agencies, the operations of which extended beyond the confines of any province, should be subject to the jurisdiction of the Parliament of Canada, while those operating within any one province should remain subject to provincial jurisdiction.¹ Railways are chartered either by the Parliament of Canada or a provincial legislature. In the early years of the Dominion responsibility for the construction and operation of government railways and the general oversight of private railway enterprises lay with the Department of Public Works; but at the time of the completion of the Intercolonial Railway, and the consideration of a Pacific Railway, it became necessary to set up a separate Department of Railways. Because of the relation of the problems of railways and waterways, the construction of canals was also placed under the new department. Improvements in channels below Montreal were placed under the jurisdiction of the Department of Marine, and improvements in Canadian waters above Montreal under the Department of Public Works.

CANALS, AFTER CONFEDERATION

Though the most spectacular developments in transportation in the era after Confederation were in railway building, the improvement of the waterways system was pursued with similar object. Confederation, operating in a political sense, produced the strongest incentive to the development of the one natural channel of communication possessed by the new Dominion.

Agricultural expansion in the middle west, operating commercially and in a manner similar to its effect upon the strategic location of the Grand Trunk, prompted an expansion of the waterway that would attract to the Canadian route the export grain traffic of the mid-western States, and thus neutralize the diversion, not only of American, but of much Canadian traffic through the Erie canal to New York.

Under the influence of these factors a further enlargement of the connecting canals in the Great Lakes-St. Lawrence System was undertaken, the deepening of the Welland canal to twelve feet being commenced in 1871 and a further deepening to fourteen feet being decided upon in 1875. Work on the St. Lawrence canals lagged somewhat behind, but before the close of the century the whole connecting canal system had been enlarged to a minimum depth of fourteen feet, at a cost to the Dominion Government of approximately \$100,000,000.

As a bid for the American grain trade the work of enlargement, however, proved largely ineffective. The draught of the upper lake freighters increased faster than the depth of the Welland canal; and these larger vessels, which the Welland canal could not accommodate, enjoyed an ascendancy in the matter of rates. Moreover, all grain vessels discharging at American ports enjoyed an additional advantage in the availability of return cargoes of coal. So the bulk of the grain trade, instead of following the Canadian route to Montreal,

¹ Imperial Statute, 30 and 31 Victoria, Cap. III, Section 92.

either descended the Erie canal under the inducement of reduced tolls or moved by American rails to the port of New York, the attraction of whose diversified shipping, then as now, exercised a potent influence upon the flow of export grain.

No substantial change in this situation, either from the point of view of the flow of the grain trade or the capacity of the canals connecting the Great Lakes, occurred until after the turn of the century, when the expansion of the Canadian West was to result not only in an increased outflow of export grain through Canadian channels but was to involve the further enlargement of facilities for inland shipping.

Inland waterways in Canada have never failed to offer an effective competition to railways in the carriage of heavy freight. The presence of great rivers and lakes, forming almost an uninterrupted passage from the Atlantic to the western prairies, accounts for the continuance of water transportation. Whereas in some other countries—England, for example—the value of canals almost disappeared with the development of railways, in Canada there have been needed only short canals to make navigable those sections of the waterways that were obstructed in one way or another.

INTERCOLONIAL RAILWAY

The promise of railway construction formed an integral part not only of the arrangement of 1867 but also of the terms on which Prince Edward Island and British Columbia later entered the Dominion.

In relation to Prince Edward Island no more need be said than that the adoption by the Dominion Government of the railway debt and the guarantee of a year-round ferry service were two of the reasons that brought the island into the federation in 1873.

The failure of the early attempts to secure a line from Halifax to Quebec has already been mentioned. One of the arguments which successfully carried the confederation project in the maritime provinces was that a railway joining them to Central Canada could and would be built. The promise was written into the Act of 1867,¹ and the long cherished hope soon became a reality.

For this formidable undertaking, there was selected, largely at the instance of the Imperial Government, which had agreed to guarantee a loan, the long circuitous route of the Royal Engineers' Survey of 1847. This route, its supposed military advantage emphasized by certain incidents of the American Civil War, represented the most distant practicable arc from the American border. In other respects, however, the so-called military survey suffered by comparison with the more direct routes—one approximating that of the National Transcontinental of nearly fifty years later, another projected to descend the fertile valley of the St. John. Thus excessive length and costly construction were added to the economic difficulties of bridging the unproductive gap between Central Canada and the Maritimes, and any real prospect of profitable operation was excluded from the start.

Completed in 1876, from Truro where it connected with Halifax, to Riviere du Loup where the Grand Trunk gave it access to Quebec and Montreal, the Intercolonial added some 700 miles of railway, and its cost brought the amount to which public credit was involved in railway construction at that time, to considerably over \$100,000,000. Subsequent extensions, and operation by the Government upon a generally unprofitable basis have since added greatly to the investment represented by the Intercolonial. The line constituted in its inception, however, and remains to-day an essential national undertaking. Besides forming the original link in what has since become the extended and multiple chain of railway communication that connects from east to west the

¹ Section 145.

geographically disjointed belt of Canadian Confederation, the Intercolonial continues to serve as the principal purely Canadian outlet, available throughout the year, to the Atlantic seaboard. So if to-day the Intercolonial, forming with the National Transcontinental Railway the eastern lines of the Canadian National System, seems to present many of the aspects of commercial failure, it should be remembered that its economic defects are to a great extent inseparable from an origin that had its roots, and remains rooted, in the broader considerations of public policy.

INITIAL PROJECTS FOR WESTERN DEVELOPMENT

The Intercolonial formed the eastern arm of the railway link between the sections of Canada. In 1869, two years after the original Act of Confederation, the vast western territory that had formed the preserve of the Hudson's Bay Company was acquired. This addition had long been a dream of certain farsighted Canadians, as had been its corollary, rail connection with Central Canada. The Red River rebellion which broke out on the initiation of government land surveys in the new territory drew attention to the difficulties of transportation. Unless use was made of American railways, the new west could only be reached by rail to Georgian bay, and thence by alternate boat and waggon transport.

The immediate pressure towards a Pacific railway came, however, from the terms on which British Columbia joined the Dominion, for one of these called for the commencement within two years, and the completion within ten, of a railway from the Pacific to join the existing railway system of Canada.¹ The Canadian Government decided that the road should be built by private enterprise, and towards that end made arrangements with a private syndicate, largely Canadian in its direction. Before these arrangements could be put into effect, however, the ministry resigned, partly because of its relations with the syndicate, which then voluntarily gave up its charter.

The succeeding administration of Alexander Mackenzie, hampered by the economic depression which began in 1873, made slow progress. Having failed to interest other capitalists to undertake the work, the government undertook the construction as a public enterprise of the Pacific railway, building first only those sections which could be integrated with the waterways to form a line of communication.² The plan implied modification of the agreement with British Columbia and protests were made. Finally Lord Carnarvon acted as arbitrator, and on November 17, 1874, he gave a decision, which was in part that the railway should be completed from the Pacific coast to the western end of Lake Superior by the end of 1890.

THE INITIATION OF THE CANADIAN PACIFIC

In 1878 Sir John Macdonald once more came back into power, and the Pacific railway became one of the primary interests of the new government. For two years construction by the Government was continued, attempts to interest either the British Government or the Grand Trunk having failed. In 1880, however, the Government was successful in signing a contract with a syndicate (later known as the Canadian Pacific Railway Company) for the construction of a Pacific railway. By the terms of the contract, which was signed on October 21 and laid before Parliament in December, the syndicate was given free the 710 miles of track constructed or under construction by the Government, and representing a cost of \$37,791,435; a cash subsidy of \$25,000,000; a land subsidy

¹See the Imperial Order in Council of May 16, 1871. ²37 Vic., Cap. 14.

of 25,000,000 selected acres;1 exemption from import duties on materials for construction, from taxes on land for twenty years after the patents were issued and on stock and other property for ever; exemption from regulation of rates until 10 per cent per annum was earned on the capital; and a monopoly clause by which the Canadian Pacific was practically freed from competition between its line and the American border.²

Although encountering financial difficulties of a serious nature, which necessitated further assistance from the Government in the shape of loans amounting to \$35,000,000 the railway was completed (to the accompaniment of a further rising of Indians and half-breeds) in, roughly, half the stipulated time; and, in 1886, it began to operate as a complete link between Eastern Canada, the prairies and the Pacific coast.

DEVELOPMENT OF THE CANADIAN PACIFIC IN THE EAST

To secure a through haul and the full benefit of its enterprise, the Canadian Pacific had now to expand in the East, or remain, in the words of its first president, a body without arms, dependent upon the charity of its principal eastern antagonist. The Grand Trunk had, in fact, now assumed, after its absorption of the Great Western in 1883 (following ineffectual efforts in pooling and co-operation) the dominating position in eastern transport; and it now opposed with every means at its disposal the development in the east of the new railway. A second burst of railway construction in Ontario in the "seventies" had created a considerable independent mileage, for the acquisition of which the Canadian Pacific and the Grand Trunk proceeded to compete; and by 1890, little remained that had not been absorbed by one or other of the two principal antagonists. Thus, by purchase, as well as by new con-struction, the Canadian Pacific expanded its eastern interests to include a continuous system through southern Ontario and Quebec, a link with the maritimes through Maine, a winter port at St. John, N.B., and control of the Dominion Atlantic Railway of Nova Scotia. The construction of hotels, and operations in inland, coastal, and ocean shipping, both on the Atlantic and the Pacific followed.

While providing facilities in eastern Canada, on the whole less extensive than those of the Grand Trunk, the Canadian Pacific enjoyed the advantages of a long haul, low initial cost, and an energetic management, which soon put it in a position of financial strength to which the older company, with its handicaps of heavy capitalization, absentee direction and restricted territory was never able to attain.

PROJECTS OF FURTHER CONSTRUCTION IN THE WEST

While additional mileage continued to be added in the industrial districts of Central Canada, the next important stage in the development of Canadian railways-and indeed of Canadian transportation as a whole-came with the decision to construct further transcontinental lines.

There were several reasons which suggested such additional lines. Some dissatisfaction existed in the west over the lack of railway competition, the strong desire for which was shown when the Manitoba Government, following the virtual abrogation in 1888 of the monopoly clause in the Canadian Pacific's charter in consideration of a Dominion guarantee of interest on a bond issue of

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¹ Of this 6,793.014 acres were later returned in exchange for a cash subsidy of \$10,189,521. Later grants totalling 1,710,400 acres were made, and subsidiaries which later formed part of the C.P.R. received grants totalling 6,139,963 acres. The original grant was given in alternate sections of 640 acres, 24 miles deep on each side of the railway from Winniper to Japer House. Sections unfit for settlement and deficiencies were made up between 49th and 57th varallels or along branch lines. ²44 Vic., Cap. 1.

\$15,000,000 by that railway, hastened to arrange for an extension into Manitoba of the Northern Pacific. A further reason was the growth of immigration and business that came at the close of the century with the end of a long period of depression. The number of immigrants, which fell to 16,835 in 1896, gradually rose again, reaching 128,364 in 1903 and continuing to climb. This increase was, of course, in part a result as well as a cause of railway construction. Industry in general, however, got a new impetus; agricultural production, for example, increased by 36.8 per cent and manufactured products by 142.3 per cent in the first decade of the twentieth century. Coming as it did after a number of lean years, the improved situation led to general optimism.

There existed two railways which were anxious to take advantage of the business arising out of the growth of the west. The proposal came from the Grand Trunk that that company should reach out to the prairies by leasing lines from Chicago (its western terminus) to Winnipeg, and build thence a line to the Pacific. The proposal, however, was not acceptable to the Government as not providing a Canadian route and in fact the final move came on the part of a young rival, the Canadian Northern (to use the name adopted somewhat later). This line had its origin in the enterprise of a remarkable partnership in railway construction and operation—the firm of Mackenzie and Mann, who pieced together a series of lines in Manitoba, beginning in 1895 with a short line chartered as the Lake Manitoba Railway and Canal Company, and including a lease of the Manitoba extension of the Northern Pacific. Aided by the various governments the Canadian Northern was completed from Winnipeg to Port Arthur by 1902. In spite of the freedom with which governmental assistance was given, the original portions of the road were constructed, equipped, and operated with great economy.

MONOPOLY AND FREIGHT RATES

The objections raised against railway monopoly in the West had, as has been seen, been partly met by the abrogation of the Canadian Pacific's monopoly of territory and the beginnings of competitive lines. Another provision of the Canadian Pacific charter that aroused increasing apprehension was the one under which Parliament had agreed to abstain from regulating freight rates and tolls on the western main line in such a way as to reduce the net earnings of the company to an amount less than would be sufficient to permit the payment of an annual dividend of ten per cent upon its ordinary shares. In point of fact, at the time of the granting of the Canadian Pacific charter, there existed in Canada no adequate machinery for the regulation of rates. Not until 1888, did Parliament, following the example of Congress in relation to the Interstate Commerce Commission, see fit to grant certain restricted powers of rate regulation to the then existing Railway Committee of the Privy Council. From this supervision the terms of its charter exempted the Canadian Pacific; and it was not until 1897 that modification of the company's charter rights in respect of rates was secured by means of the famous Crow's Nest Pass Agreement.¹ Under this agreement the Canadian Pacific undertook, in return for a Government subsidy of \$3,360,000 on the construction of a line from Lethbridge to Nelson over the Crow's Nest pass, to make, as of January 1, 1898, certain reductions in the rates on specified classes of freight and merchandise westbound from points east of the head of the Lakes to points west thereof on the main line; and, on eastbound shipments of grain and flour from points west of the head of the Lakes to points east thereof, to make a reduction of 3 cents per 100 pounds. Eventually these Crow's Nest pass rates, extended to all railways, were to form the basis of the western freight rate structure. Mean-

¹ 60-61 Victoria, Chap. 5.

while on the Crow's Nest pass line itself the Canadian Pacific agreed that rates should be approved by the Government or by a Railway Commission.

Not until 1903 did the Railway Commission contemplated in the Crow's Nest Pass Agreement take shape in the form of a Board of Railway Commissioners of Canada a statutory body entrusted (except in the case of Government lines which were originally excluded from its jurisdiction) with the determination of questions relating not only to rates, but also to train services and safety appliances.¹ In the meantime, however, the introduction of railway competition in the West had begun to alleviate the apprehension of the western people regarding freight rates and monopoly.

THE TURNING POINT IN RAILWAY DEVELOPMENT

As the period of economic expansion continued into the early years of the twentieth century it became clear that the Canadian Northern would not be content with anything short of a complete line from the Pacific to Atlantic tidewater: while the Grand Trunk also was again intent upon extension westward. The problem arose as to whether it would be feasible to secure co-operation between the Canadian Northern and Grand Trunk leading to one, instead of two, additional transcontinentals. The former acting as the western and the latter as the eastern link in the chain. Negotiations to this end were conducted in 1902 and 1903, but it proved impossible to arrive at terms.

The die was cast in 1903, with the conclusion of an agreement between the Grand Trunk and the Government, and the passing of an act for the incorporation of the Grand Trunk Pacific Railway, a company owned by the Grand Trunk.² Directed primarily to the provision of an all-rail route that would make Canadian shippers independent in all circumstances and in all seasons of the railways of the United States and of its bonding privilege, the plan called not for an adaptation of existing resources, but for a completely new and costly transcontinental line constructed under the aegis of the Grand Trunk, the eastern section directly at the public expense, the western section at the expense of the Grand Trunk, assisted by Government guarantee. To add to its obligations, the Grand Trunk acquired, a year later, the Canada Atlantic Railway which provided it with a second connection between the Georgian Bay and the American seaboard. At the same time, the Canadian Northern was to be assisted to the attainment of its more economical ambitions. The spout of the western hopper, to the smallness of which Sir William Van Horne had drawn attention, was now to be enlarged almost to the size of the hopper itself.

The statutes and agreements embodying the new policy provided for a line from Winnipeg to the northerly Pacific port of Prince Rupert along the same general route as that followed by or projected for the Canadian Northern. A portion of the cost, which proved to be greatly in excess of the estimate, was guaranteed by the Dominion Government, the balance by the Grand Trunk. This line, the Grand Trunk Pacific proper, which was commenced in 1905 (almost coincidentally with the completion of the Canadian Northern between Port Arthur and Edmonton) was not designed to form a transcontinental link with the old Grand Trunk in southern Ontario and Quebec, but with the so-called National Transcontinental, which the Government itself undertook to construct, under the joint supervision of the Grand Trunk and a Government Commission, from Winnipeg across unopened country to Quebec, where by a work of great cost and engineering magnitude, which twice collapsed during construction, the St. Lawrence was to be bridged and a short route provided to the maritimes.

¹ Revised Statutes of Canada, 1927, Chap. 170. Its powers were increased in 1919 to include the determination of route-map applications. ² Statutes of Canada, 1903, Chap. 71.

The eastern terminus would be Moncton, N.B. In addition a connection between the National Transcontinental and lake Superior was to be constructed by the Grand Trunk, which agreed also to equip the whole Government section and, upon completion, to assume its operation under lease on terms of no rent for the first seven years and 3 per cent of the cost of construction annually thereafter. In this case, as in the case of the Grand Trunk Pacific, the final cost of \$168,000,000 greatly exceeded the estimates, while another twenty-two and a half millions was added by the Quebeo Bridge.

THE SITUATION REVIEWED

These ambitious plans were formed during the opening years of the twentieth century, when the extension of western settlement appeared to be out-running the existing railway mileage. The Canadian Pacific line which had first precariously spanned the continent, largely with the help of direct subsidies, had achieved through skilful management and national growth a comprehensive system both east and west, and a position of financial strength and independence.

In Central Canada, the Grand Trunk, its earlier financial vicissitudes apparently dispelled by the vigorous management of Charles M. Hays, was acting with renewed force and reputation; while, in the maritime region, the Government line continued to serve its necessary and important purposes at a cost to the public which was not excessive.

The decision, however, to add to these lines, and to the western lines of the Canadian Northern, such additions as would create in the total three complete transcontinental railways, changed the whole aspect of the railway situation in Canada. The policy of expansion was determined upon, and construction begun, in the atmosphere of the early years of the century, when almost unlimited growth was predicted for Canada. Here and there voices were raised in protest, but without avail. Even the resignation of the Minister of Railways and Canals was unheeded. It was not long, however, before less favourable conditions made it apparent that railway construction had too far anticipated national growth.

DISTRESS OF CERTAIN RAILWAYS

Even before the new lines had reached completion, a period of extreme depression intervened, land speculation collapsed, and in spite of the northerly extension of the wheat belt through the discovery of a seed-grain that could be brought to maturity in the shorter seasons of the more northerly latitudes, western agriculture and settlement experienced a severe restriction. As for the railways, increasing capital charges combined with inadequate revenue obliged both the Grand Trunk Pacific and the Canadian Northern to fall back repeatedly upon the public treasury, although, in the case of the original Grand Trunk lines, earnings were still sufficient to pay the usual dividends. The outbreak of war found both of the new transcontinental systems incomplete and in a state of serious financial embarrassment. The Canadian Northern, in spite of Government guarantee to nearly half the amount, was unable to secure the \$100,000,000 which it estimated as necessary to complete its enterprise; and both systems, with restriction of traffic and heavy fixed charges threatened to collapse.

While, in the result, the Canadian Northern, with State aid, attained a scamped transcontinental service, the anticipated transcontinental service by the Grand Trunk never became effective, the company refusing, on the ground ot excessive cost of construction, to take over the operation of the National Transcontinental upon its completion in 1915. In consequence, the Grand Trunk Pacific, inadequately furnished with branch lines, was left unconnected with the East; and the National Transcontinental built to an unnecessarily high standard was operated by the Government in a desultory way, and at a heavy $\frac{5478-6}{2}$

loss, as a development road. In a little more than ten years, the whole railway situation had passed from a position of manageable cost and moderate expansion to one of financial confusion and over-extension.

EFFECT OF THE WAR UPON THE RAILWAYS

The war proved to be a severe strain upon most of the Canadian railways, while, of course, the other methods of transportation were not seriously affected. The rise in cost of labour and materials, virtual cessation of immigration, closing of international money markets, and technical problems of operation combined to create a very difficult situation.

With a well-equipped and co-ordinated service, and with ample resources to met any strain that had been thrown upon it by fresh construction in the northern prairies, the Canadian Pacific was able to sustain the increased physical burden of wartime transportation. But on the other two chief railways, already severely crippled financially, the war imposed even from the operating point of view, an insupportable strain. In the first place it threw upon their incomplete transcontinental services a burden of traffic which, in their disconnected, unco-ordinated condition, they were unable to handle with efficiency and despatch; and the resulting congestion created in its turn a necessity for immediate and heavy expenditure on connecting lines, terminals and equipment, for which neither of them was able in the midst of war to find the funds. In these circumstances, the two incomplete systems, so much of whose recent construction rested on Government guarantees, found themselves entirely dependent upon the Treasury, the Grand Trunk (whose cash advances to the Grand Trunk Pacific by the beginning of 1916 exceeded \$25,000,000 with guarantees on bonds of nearly \$100,000,000) declaring that it was at the end of its tether in the West, and that the only alternative to further assistance was a receivership. To such an extent had the Treasury become involved in the plight of the Grand Trunk, on behalf of whose subsidiary \$54,000,000 had already been advanced from public funds apart from guarantees, and so close had become the connection between the Government and the Canadian Northern through acquisition of a portion of that company's stock in consideration of subsidies and guarantees, that the Cabinet, also apprehensive of a serious breakdown of transport in time of war and fearful of the effect upon public credit of allowing the railways to go into bankruptcy, appointed a Royal Commission to investigate and advise.

DRAYTON-ACWORTH COMMISSION

The conclusions of this commission, which were not available until April, 1917, took the form of a majority report commonly known as the Drayton-Acworth report, and a minority report by the chairman, Mr. A. H. Smith, of the New York Central Railroad. Both reports found a condition of over-extension, unnecessary duplication, deficient equipment and complete financial impotence in the case of both the Canadian Northern Railway and the Grand Trunk Both reports recognized the urgent necessity of reorganization and group. co-ordination if continued congestion was to be avoided and the drain on the public finances in any degree controlled. Finally, both reports recognized the disastrous situation of the Grand Trunk in relation to the Grand Trunk Pacific. In their recommendation, however, the commissioners differed. Messrs. Drayton and Acworth, deprecating not only further advances to either railway, but also any further relief of the Grand Trunk from its western obligations, urged, though with great reluctance, the immediate assumption of control by the Government of both the Canadian Northern and the Grand Trunk group under a species of foreclosure, with practical consideration for holders of equity securities. The only alternative in their opinion was a receivership, a course which, in view of

the Government's close association with both of the new transcontinental enterprises and the heavy loss that would result to the investing public, they dismissed. They proceeded to recommend the vesting of these properties, thus acquired, together with the Intercolonial and National Transcontinental, in a self-perpetuating Board of Trustees consisting of five members appointed initially by Parliament to operate the united Government lines on a non-political basis for the benefit of the people of Canada.

The dissenting report of Mr. A. H. Smth, on the other hand, expressed not only apprehension of a proposal that would have the effect of adding approximately \$1,000,000,000 to the direct debt of Canada, but also doubt as to the adequacy of the machinery proposed by his colleagues to obviate what he considered the inherent defects of any scheme of public ownership and operation of railways. The solution proposed by him involved a further revision of the Government's agreement with the Grand Trunk that would free it from its western entanglements and permit a continued operation by it of its eastern lines, with which, he proposed, there should be consolidated the eastern lines of the Canadian Northern. A corresponding consolidation under the Canadian Northern of its western lines and those of the Grand Trunk Pacific was also recommended, with Government operation or control of the lines intervening between the east and the west. Mr. Smith's report, like that of the majority, recommended an extension of the jurisdiction of the Board of Railway Commissioners that would bring within the powers of that body not only the regulation of rates for all railways, Government lines included, but also "the issuance of securities, the building of new railways or the extension of lines, and other matters properly within the scope of Government super-vision."¹ was also recommended, with Government operation or control of the lines

ACQUISITION OF CANADIAN NORTHERN

The recommendations of the Drayton-Acworth report were adopted to the extent of the Government's assuming almost immediate control of the Canadian Northern Railway, the alternative being a continuance of Government assistance or an immediate receivership with consequent default and call in respect of the Government guaranteed securities and a heavy loss to the investing public in respect of unguaranteed securities. The Act of acquisition provided for payment of a sum not to exceed \$10,000,000 for the bulk of the outstanding equity stock (apart from what already had been transferred to the Government) the value of which, upon reference to arbitration was set at \$10,800,000.² This transaction, completed on November 16, 1917, added 9,559 miles of railway to the 4,393 miles of Government lines already included in the Intercolonial Railway and the National Transcontinental. The operation of the Canadian Northern by its own board, reconstituted by the Government was continued. Shortly after the Armistice, the operation of the Government lines, enlarged by accretions to the Intercolonial, was also entrusted to it; and the name "Canadian National Railways" as a descriptive term for the com-bined operating system was authorized by Order in Council.⁸

In 1919 an Act of Parliament incorporated the Canadian National Railway Company, a corporation designed to absorb all railways owned or con-trolled by the Government.⁴ The act provided for operation by a Board of Directors, from five to fifteen in number, nominated by and replaceable at the pleasure of the Government, and subject, in the matter of financial policy involving capital expenditure, to the control of the Minister of Railways and of Parliament. While the Act purported to assign to the Board of Directors un-

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¹ Drayton-Acworth Report, p. CII.

 ² 7.8 George V, Chap. 24.
 ³ P.C. Order 3122 of December 20, 1918.
 ⁴ 9-10 George V, Chap. 13; Revised Statutes of Canada, 1927, Chap. 172.

restricted responsibility in the field of railway operation and management, it omitted the proposed safeguards against political interference recommended in the Drayton-Acworth Report. The Canadian National Railways, including the former Government lines, were, at the same time, brought within the jurisdiction of the Board of Railway Commissioners, whose powers were enlarged, however, only to the extent of supervision of the issue of free passes and the location of new lines, by means of approval of route-map applications. Decisions of the commissioners remained subject to review by the Government, and control of the issue of railway charters was retained by Parliament.

ACQUISITION OF THE GRAND TRUNK GBOUP

Meanwhile, the Government having taken the stand that it would make no further advances to the Grand Trunk Group without securing the ownership of the entire system including the eastern lines, negotiations looking to a transfer had been commenced in 1917. These negotiations were still dragging on inconclusively when, early in 1919, the Grand Trunk Pacific, which had been showing heavy deficits on operations, was informed that the Government would not permit the use of the remaining proceeds of its last loan for interest charges falling due in March, whereupon, the Grand Trunk Board, having declined to make an advance for the same purpose, the president of both. companies notified the Cabinet that the Grand Trunk must cease to operate the Grand Trunk Pacific as of March 10, 1919, at the latest. The Government responded with the appointment under the War Measures Act of the Minister of Railways as receiver for the western road.

In the resumed negotiations, the Cabinet maintained its refusal to release the Grand Trunk from its western obligations, except as part of an arrangement for the transfer to the Government of the whole Grand Trunk group, including the original eastern system. Such an arrangement was concluded towards the end of the year and ratified by Parliament,¹ the Government receiving the entire assets of the group, and assuming all obligations including the payment of dividends on the Grand Trunk 4 per cent Guaranteed Stock, which the company insisted should be included with the debentures as a fixed charge to be assumed by the Government. The company had, in fact, previously declined an offer by the Government to make available an annual sum rising to \$3,600,000² for distribution by the company among the various classes of equity shareholders, provided the 4 per cent Guaranteed Stock was included among the equity issues and not among the fixed charges. The new arrangement comprised in the category of equity issues only the first, second, and third preference shares and the ordinary shares, upon which last issue no dividends had ever been The determination of the value of these issues was now referred to an Daid. arbitration with an agreed limit to any valuation of approximately \$64,000,000,* and with the proviso that, in reaching a valuation, the obligations of the company, to the Government, and as part guarantor of the Grand Trunk Pacific, were not to be regarded as extinguished. The agreement for acquisition having been ratified, a joint committee of management for the Grand Trunk, appointed partly by the Government and partly by the company, assumed control of operations on May 1st, 1920,⁴ and as of that date financial responsibility was assumed by the Government. On July 12 of the same year operation of the Grand Trunk Pacific was entrusted to the Canadian Northern Board.5

¹9-10 George V. Chap. 17, assented to November 10, 1919. ² This sum was based on the average total dividends of the previous ten years as ascer-tained by the Drayton-Acworth Report. ⁸ Acquisition Agreement, March 8th, 1920, ratified by 10-11 George V, Chap. 13. ⁴ P.C. Order 1089 of May 15th, 1920. ⁵ P.C. Order 1595 of July 12, 1920.

The arbitration not having been completed by April 9, 1921, the date set by the Act, and the Government being dissatisfied with the results of joint management, the arbitration was allowed to lapse. Upon the company's agreeing two months later, however, to the establishment of a Canadian Board of Directors with a head office in Canada, the arbitration was revived; and, on September 7, 1921, a majority award by Sir Walter Cassels and Sir Thomas White—the Hon. W. H. Taft dissenting—declared the Grand Trunk equity shares to be without value. An appeal to the Privy Council against the award was dismissed.

The acquisition of the Grand Trunk group (including the Grand Trunk Pacific) gave the Government another 7,621 miles of track, and thus a total of approximately 22,000 miles at the end of 1922.

THE NEW MANAGEMENT OF THE CANADIAN NATIONAL

In October, 1922, the Government completed arrangements to secure the services of Sir Henry Thornton, formerly of the Pennsylvania Railroad and latterly of the Great Eastern Railway of England, as President and Chairman of the Board of the Canadian National Railways. Unified operation of the combined National System, including the former Grand Trunk eastern lines, began as of January 1, 1923. The lines now combined for operation by the Canadian National Railway Company comprised the lines formerly known as:----

The Canadian Northern Railway.

The Grand Trunk System

(Including the Grand Trunk Western Railroad, operating into Chicago and the Central Vermont Railway.)

The Grand Trunk Pacific Railway,

and the lines comprising the Canadian Government Railways, namely:---

The Intercolonial Railway.

The National Transcontinental Railway.

The Lake Superior Branch (leased from the G.T.P. Ry).

The Prince Edward Island Railway.

The Hudson Bay Railway.¹

Under the new management the machinery of administration continued to be provided by the Canadian National Railways Act.² The temporary Canadian Board of the Grand Trunk passed out of existence, and the former Canadian Northern officials and others who had constituted the original Cana-dian National Board were replaced by fifteen directors, selected on a basis of regional representation—a method which necessarily gave weight to other con-siderations as well as those of business capacity or technical qualifications.⁸

The inauguration of the new management was not made the occasion for any broad administrative changes or of any readjustment in capital structure. Behind the simple legal facade set up by the Canadian National Railways Act, there continued to exist the confusion of predecessor companies with their multiplicity of corporate entities, directorates, and securities—in all one hundred and thirty-nine separate companies with two hundred and fifty-one different issues, requiring the preparation annually of forty-two income accounts

¹ P.C. Order 115 of January 20th, 1923. ² The Canadian National Railway Act, and amendments 1919, 9-10 George V, Chap. 13, 1924, 14-15 George V, Chap. 13. Revised Statutes of Canada, 1927, Chapter 172, 1928, 18-19 George V, Chap. 13, 1929, 19-20 George V, Chap. 10, 1931, 21-22, George V, Chap. 6. ⁸ P.C. Order 2094 of October 4th, 1922.

REPORT OF ROYAL COMMISSION

and ninety balance sheets.¹ Only the Grand Trunk was actually absorbed in the Canadian National Railway Company,² the former Government Lines retaining their legal identity, and the corporate existence of the Grand Trunk Pacific and the Canadian Northern with all their subsidiaries being preserved for technical reasons connected with certain issues of securities. Thus the administration of the Canadian National Railways, while unified from a practical and an operating point of view, remaining encumbered with a mass of legal and accounting ramifications.

THE RAILWAY ACT OF CANADA

The Railway Act of Canada applies to all railway companies and railways within the legislative authority of the Parliament of Canada. Until recent years its provisions did not completely apply to the original Canadian Government lines. Where Dominion railways connect with or cross provincial railways the Dominion Railway Act is paramount with respect to such works as are necessary to the connection or crossing.

The Railway Act constitutes and defines also the general jurisdiction and powers of the Board of Railway Commissioners, which, since 1904, has been the regulatory authority with respect to Canadian railways. The Act deals with the financing of railways; construction and location of new lines; regulations for safety; and rates of freight and passenger traffic.

DOMINION OUTLAY FOR RAILWAY DEVELOPMENT

The participation of the Government of Canada, and the application of its resources to railway development, may, for convenient reference, and also because of its historical interest, be broken into four distinct periods of railway activity.

The first period may be taken as extending from Confederation in 1867 down to about the year 1903. To this period belong the Intercolonial and Prince Edward Island Railways and the Canadian Pacific Railway.

The second period comprises the years extending from about 1903 to 1917-1920. During this period the Canadian Northern and the Grand Trunk Pacific received very substantial backing of the government in the form of guarantee of securities. The National Transcontinental Railway was also constructed entirely at government cost.

The third period begins about 1917-1920, with the collapse of the former privately-owned Canadian Northern, Grand Trunk Pacific and Grand Trunk Systems, due largely to financial difficulties incident to the Great War and to the general interference with established trends by reason of economic reaction to the great conflict. The third period ends with the creation of the present Canadian National system late in 1922, but which may, for historic convenience be established as of January 1, 1923.

The fourth period may be taken as extending from January 1, 1923, to the present time, during which the properties now comprising the Canadian National Railway system have been operated under one management.

From Confederation (1867) to December 31, 1931, the Dominion Government has expended on all railways, or pledged its credit therefor, an aggregate sum of \$2,652,539,388. By periods this sum was apportioned as follows:----

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¹ The Schedule of the Canadian National Railways Act. Revised Statutes of Canada, 1927, Chap. 172, enumerate the various lines comprised in the Canadian Northern Systems alone; see also—Proceedings p. 45, Vol. 1, (Sir H. Thornton). ² P.C. Order 181 of January 30, 1923.

FIRST PERIOD (1867-1903)

Roads now comprising Canadian National System\$ Canadian Pacific Railway System All other roads	114,886,224 91,705,033 3,094,578	209.685.835
		203,000,000

SECOND PERIOD (1903-1917-20)

Roads now comprising Canadian National System\$	508,646,798	
Hudson Bay Railway	18,352,188	
Canadian Pacific Railway System	12,022,915	
All other roads	5,809,855	
-	\$	544,831,756

THIRD PERIOD (1917-20-1923)

Roads now comprising Canadian National System	\$1,287,888,433
Hudson Bay Railway	2,373,306
Canadian Pacific Railway System	21,078
All other roads	479,574
	\$1,290,762,391

FOURTH PERIOD (1923-1931)

Roads now comprising Canadian National Railways\$ Hudson Bay Railway	576,496,951 28,021,189	
Canadian Pacific Railway	728,469 2,012,797	
Grand total, cash and credit		607,259,406 2,652,539,388

The aggregate sum mentioned above was divided as follows:-

Cash outlay		1.366.082.181
Liabilities for which the credit of the Dominion is		
fundamentally the security		
Canadian National Railway securities guaranteed\$	970, 562, 290	
by Government	305, 894, 917	
Liabilities of Northern Alberta Railways	10,000,000	1 000 488 005
		1,286,457,207
Grand total		2,652,539,388

Of this grand total, the railways comprising the Canadian National lines received:-

Cash Credit	 1,201,461,199 1,286,457,207
Total	2.487.918.4061

The cash expenditures by the Dominion Government as to railway corporations and systems from 1867 to 1931, showing what had been contributed prior to government ownership and the amount subsequently required, is indicated in the following statement:---

RAILWAYS NOW COMPRISING CANADIAN NATIONAL SYSTEM

Canadian Government Railways Group: (Direct Payments)— Intercolonial Railways and Additions	294,445,172 169,318,185	462 762 287
Canadian Northern Railway— Prior to Government ownership Since Government ownership Sept. 30, 1917, to March 31, 1923.	61, 650, 261 292, 554, 561	354,204,822

⁽¹⁾ This sum represents the proportion of Dominion Government outlay which went into lines now comprising the Canadian National railways and should not be confused with the total of \$2,660.926,371 given in paragraph \$5 of the Commission's report. That paragraph has reference to Canadian National system accounts, and includes interest accrued on government loans, less certain adjustments. In it the Canadian National Capital structure is under consideration; in the above historical presentation government expenditure on railway construction and contributions of eash and credit only are taken into account.

RAILWAYS NOW COMPRISING CANADIAN NATIO	NAL SYS	TEM-Concluded
Grand Trunk Railway- Prior to Government ownership Since Government ownership May 1, 1920, to March 31, 1923	30, 315, 95 107, 433, 64	7 9 - 137 749 808
Grand Trunk Pacific Railway-		- 101,120,000
Prior to Government ownership	79,854,13	4
Since Government ownership March V, 191V, VO March 31, 1923	42,367,362	2
Canadian National Railway Company—		- 122,221,496
Subsidies, etc. to companies now within this group, but made prior to Government ownership. Cash advanced to this company since April 1 1903 to	4, 112, 81	4
December 31, 1931, for disbursement to all com- panies comprising the Canadian National System	119,409,60	4 - 123 821 018
Total Canadian National Railways Group		\$1,201,461,199
Hudson Bay Railway and Terminals		. 48,746,683
Canadian Pacific System—		, .
Canadian Pacific Railway Company	79,607,12	0
Pacific Railway	10,486,79	3
Subsidiaries—prior to acquisition by Canadian Pacific Bailway	14 383 88	2
		- 104,477,495
AU other Koads	••••••	. 11,396,804
		\$1,366,082,181

The security issues constituting the funded debt of the constituent companies of the Canadian National System (including liabilities of ten millions connected with Northern Alberta Railways) are distributed as follows:---

Canadian Northern Railway System—		
Guarantees prior to acquisition	71,669,914 66,078,976	
	100,910,010	296,717,206
Grand Trunk Kailway System—		
Guarantees prior to acquisition Guarantees since acquisition	265, 433, 142 81, 830, 775	018 020 017
Grand Trunk Pacific Railway—		317,203,917
Guarantees prior to acquisition	43, 432, 848	
Other securities outstanding	41,159,826	
Canadian National Railway Company (Since Jan. 1, 1928)-		84,592,674
Guarantees outstanding\$	523,952,410 62,931,000	
	03,881,000	587,883,410
Total		1,286,457,207

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This sum represents the following division as between guaranteed and nonguaranteed issues, for both of which, however, the Government as owner carries ultimate responsibility:---

Guaranteed securities\$	970, 562, 290
Unguaranteed securities	305, 894, 917
Northern Alberta Railways.	10,000,000
Total	,286,457,207

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LAND GRANTS AND PROVINCIAL AND MUNICIPAL AID

In addition to cash and guarantees of securities, immense grants of land were made to railway promoters by Dominion and provincial governments, as follows:—

	Acres
Dominion	31,781,847
Nova Scotia	160,000
New Brunswick	1,788,392
Quebec	2,085,710
Ontario	3,241,207
British Columbia	8,233,410
	47,290,566

As between the Dominion and the provinces, and also as between the several railways, this acreage was thus apportioned:—

	Total	Government owned and controlled	Canadian Pacific	All other Roads
Dominion Provincial	31,781,847 15,508,719	5,727,002 1,806,215	24,953,133 10,611,846	1,101,712 3,090,658
Total acreage	47,290,566	7,533,217	35, 564, 979	4, 192, 370

A word of explanation is necessary as to Dominion land grants to the Canadian Pacific. Under the original contract of that company 25,000,000 acres of Dominion lands were granted. Subsequently, 6,793,014 acres were returned for a cash consideration of \$10,189,521. Afterwards further grants were made of 1,710,400, principally to the Souris branch. Subsidiaries now forming part of the Canadian Pacific received Dominion land aggregating 6,139,963 acres, but at the time such lands were acquired by the Canadian Pacific these subsidiaries owned only 2,235,145 of these original grants. The total of the grants which may, therefore, be said to have been received by the Canadian Pacific is 22,152,531 acres.

Dominion and provincial land grants do not, however, complete the story of public aid of investment in Canadian railways. The provinces and also many municipalities assisted the promotion of railway enterprises by cash subsidies and subscriptions to shares. These reached a quite substantial total:—

CASH SUBSIDIES

Provincial\$ Municipal	83,160,615 12,988,128	
	\$	46,148,743
SUBSCRIPTIONS TO SHARES		•
Provincial	300,000	
Municipal	2,425,500	
·		2,728,500
Total	 . .	48,874,243

The provinces also undertook in certain instances the guarantee of securities. In so far as these relate to railways now forming part of the National system, these guarantees have been met by the Dominion as the issues matured. At December 31, 1931, there remained, however, \$72,184,488 of these guarantees which on a strict legal accounting would still rank as liabilities of provincial governments. Omitting the guarantees last referred to (they already form part of the funded debt due the public as previously dealt with) it will be seen that the total investment in cash or credit of the Dominion, provincial and municipal governments of Canada amounts to \$2,701,413,631. Setting a value of one dollar an acre on lands granted, this figure becomes \$2,748,704,197. As there are 42,075 miles of first main track steam railroads in Canada to-day, it will be seen that the federal, provincial and municipal contribution to the provision and operation of Canadian railway facilities since Confederation has amounted, roughly, to \$65,300 a mile.

TRANSPORTATION DEVELOPMENTS SINCE THE WAR

All the machinery of transportation within Canada showed a marked development in the years following the war. This expansion of facilities, so far as they had to do with the two principal railway systems, have been most fully dealt with in the report proper, with which this historical reference is designed to appear as an appendix. It remains, therefore, only to deal briefly in conclusion with the developments during the past decade in related fields of transport, such as waterways, airways and roadways.

(a) WATERWAYS

As this is written, two announcements of great moment have been made as affecting the Great Lakes-St. Lawrence navigation system, one, the final completion and official opening of the Welland Ship canal, which has been under construction since 1913, with a period of shut-down during the war; and the other the negotiation of a treaty between Canada and the United States for a proposed deep-water development for navigation and power of the international rapids section of the St. Lawrence river which, between lake Ontario and lake St. Francis, forms the boundary between the two countries. Coincident with this latter work would be the development by the Dominion for navigation of the purely national section of the St. Lawrence river, between Montreal and the head of lake St. Francis, a work already in part provided for by an arrangement with the corporation having in hand the power development at Beauharnois, which project is being adapted to fit in with the general scheme for the improvement of through navigation.

The plans for the proposed deep-water development of the St. Lawrence between lake Ontario and Montreal provide the same standard of navigation facilities as the Welland, and for the development of almost two million horse power of hydro-electric energy in the international section, while there is available a further two and a half million horse power in the purely national section of the river, the development of which for power, as and when required, is under the jurisdiction of the province of Quebec and subject to provincial policy and direction.

Welland Ship Canal

The Welland Ship canal is the fourth canal to be constructed between lakes Erie and Ontario, during the hundred years that have elapsed since the work of circumventing the falls of Niagara was first undertaken. The project, which is twenty-five miles in length, provides for a depth of twenty-seven feet in the canal reaches, while future enlargement is provided for by a depth of thirty feet in all locks and permanent structures. The useable length of the locks is 820 feet; the useable width 80 feet; the lift of each lock is 46½ feet, and the total elevation $326\frac{1}{2}$ feet. A unique feature is the provision of three twin locks (Nos. 4, 5, and 6) in flight at the Niagara escarpment, by means of which

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vessels may be passed simultaneously in both directions. The locks themselves are similar to the Gatun locks of the Panama Canal which, though of somewhat larger dimensions, have an aggregate lift of but 85 feet. The perpendicular distance from the coping of Lock No. 5 to the bottom of Lock No. 4 is 130.8feet. The Horseshoe Falls at Niagara are only 28 feet higher.

The new canal consists of eight locks, including the necessary guardlock. The superseded canal included 27 locks, the original canal, 40. The locks are electrically operated, and the time required to fill one is eight minutes. The entire canal may be traversed in less than 8 hours, compared with 15 to 18 hours on the recent canal. The total anticipated cost of the work will be about \$130,000,000.

Canal Expenditures Generally

Upon the canals of the Dominion as a whole \$314,404,229 had been expended at March 31, 1931. Of this sum \$236,216,461 had been expended on capital account, and \$78,187,768 on operation and maintenance. As against this outlay, \$28,166,203 has been received in revenues, including tolls until 1904, when tolls were abolished. The principal revenue is now derived from hydraulic leases, rentals, elevator fees and wharfage charges. These now amount to a little over a million a year; operation and maintenance cost \$3,329,616 during the federal fiscal year ended March 31, 1931.

(b) AIRWAYS

Under the pressure of war the newest method of transportation—that by air—developed rapidly; and immediately after the Armistice consideration was given as to the possible uses of airways in Canada. It soon became apparent that the aeroplane was of especial value in reaching districts which were not readily accessible by other means, such as the far north, or sections of Northern Ontario. Services were established under various auspices to mining districts: the first regular service being inaugurated in 1924 to the Rouyn area. Similar further routes were subsequently established, and aeroplanes were used also for investigating the mineral resources of northern areas.

Early carriage of mail by air into remote districts led the postal authorities to establish regular and official delivery in such areas. Of a somewhat different nature were the air mail services meeting incoming and outgoing steamers. These were intended merely to give greater speed over routes already covered by rail. For all relative air mail routes co-operation was secured with the American services.

In relation to other modes of transportation, airways are not seriously competitive at present. The main use of the aeroplane for transportation in Canada is either to reach districts with which there are no other regular communications, or to gain speed between well settled districts. The aircraft, alone of transport agencies, is not dependent on rail, road or waterways. Within wide limits, it can follow any course.

For administrative purposes, civil aviation in Canada is divided into two classes: (1) civil operations carried out for other Dominion Government departments under the Director of Civil Government Air Operations; (2) commercial aviation, under the regulation of the Controller of Civil Aviation. Both are under the Department of National Defence, which also controls military air operations through the Royal Canadian Air Force. The total expenditure on civil air-services for 1930-1931 amounted to just short of one and a half million dollars.

REPORT OF ROYAL COMMISSION

(c) ROADWAYS

It is only in recent years with the development of the motor car that roads have attained their full importance for the long-distance transportation of passengers and freight. The days of turnpikes and statute labour virtually came to an end towards the end of the nineteenth century, and, particularly in Ontario, the Good Roads Association made studies which led to reforms. The Highways Improvement Act (1901) in that province organized the financing and construction of new roads. By further legislation in 1915 provision was made for a provincial Highway Department, which, in 1917, was entrusted with the construction and maintenance of provincial highways.

The growing efficiency of mechanized road transport led to constant improvement of roads, as well as to the greater use of road transport, for both passengers and freight, over distances up to medium haul. The increased use of motor vehicles can be illustrated from the multiplication of the numbers of such vehicles in Canada from 2,130 in 1907, to 1,250,000 in 1930. Similarly the total mileage of roads in 1930 had increased to 400,000, of which 80,000 miles was gravel surface or better.

As already mentioned, control of roads was vested in the provinces by the Act of 1867; but in 1919, by the Canada Highways Act, and by subsequent renewals, the Dominion Government undertook to subsidize to the extent of twenty million dollars the construction and improvement of certain highways of national importance. The work itself was undertaken in all cases by the various provinces.

One noticeable effect of the improvement in roads and the great increase in the use of mechanized motor transport was the resulting competition with railway transport. This aspect of the development of transportation can only be described as one of the most significant of modern transportation problems. More extended and detailed reference to road transport will be found in Appendix II.

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APPENDIX II

MOTOR VEHICLES OPERATING ON HIGHWAYS

1. It is stated in the preamble to the Order in Council authorizing the appointment of the Royal Commission on Railways and Transportation that the diminished revenues of the two great railway systems have been brought about in part by the competition of other modes of transportation, particularly motor vehicles operating on highways, and the instruction to the Commission is to inquire into the whole problem of transportation in Canada particularly in relation to railways.

2. In the submissions filed before us and in the very able presentations which were made by representatives of the automobile industry and the related transport interests, questions of regulation and of taxation were dealt with very thoroughly and in great detail. Many matters so raised are primarily to be settled between the motor transport interests and the provincial authorities which build, maintain and control highways, and the adjustment and final solution thereof are not of direct concern to the railways. Whether motor car owners as a class are paying in licence fees and gasoline taxes a proper share of the costs of highway construction and maintenance and whether sufficient safeguards on motor vehicle operations on highways in the interest of the public and of the operators themselves exist in the various provinces, are essentially matters for consideration by the highway authorities of each province. Even if these matters were within the ambit of our instructions, the time at our disposal and the urgency of the immediate problem before us would prevent us from making the necessary inquiries and studies. We confine our remarks and recommendations closely to the one important consideration before us, viz., the effect present and future, so far as we can forecast it, of the competition of the motor bus and truck on railway revenues and the measures which should be taken by the railways themselves, and by the proper provincial authorities, where this competition has had, or is likely to have, the effect of curtailing railway operations to the injury of the public welfare.

I. THE PASSENGER AUTOMOBILE AND THE MOTOR COACH

3. In the nine-year period of railway history registrations of automobiles have shown very great increases. Registration is a provincial matter, and while there are some differences in the systems used in the various provinces, in general it may be said that all motor vehicles are registered by an official of a department of provincial government and that a permit or licence to operate is issued on payment of fees based on some characteristic of the vehicle such as weight, wheel base or horse-power. It is therefore possible to obtain accurate figures as to the number of vehicles in use in each province and so for Canada as a whole.

4. The following table shows registrations of all motor vehicles in Canada, and will indicate the rate of growth:---

Year	Canada
1923	585,050
1926	836,794
1929	1,195,594
1930	1.239.888
1931	1,206,836

Of these totals passenger automobiles in 1930 accounted for 1,047,494 and for 1,024,149 in 1931, the remainder consisting of motor trucks, buses, motor cycles and trailers. It will be at once apparent that there has been a remarkable growth in the use of the automobile in the period under review, and while the figures for 1931 show a small decline from the high point reached in 1930, due to the severe trade depression, the inference to be drawn from the figures as a whole is that the automobile has become a great and increasing factor in transportation in Canada.

5. During the same period, passenger revenues of the two railways have shown a decrease, as appears from the following table:—

Year	Passenger Revenues
1923	. 77,333,438
1926	. 73,709,662
1929	. 73,009,353
1930	. 61,812,742
1931	. 43,759,468

Even if the figures for the years 1930 and 1931 are discarded and the comparison made between 1923 and 1929, it will be apparent that passenger traffic on the steam railways failed to hold its own in the face of a general increase of business and in a time of great prosperity. Passengers carried in 1923 were 44,836,337 and, in 1929, 39,070,893, a decrease of 13 per cent, the reduction in revenues being 5.6 per cent.

6. The seven-year period beginning in 1923 and ending with 1929, was one of great growth in national wealth and production. Since the population growth has averaged about 2 per cent annually in the last decade, one would expect to find a growth in passenger revenues of the railways. The result can only be explained by the loss of passenger travel to the private passenger automobile and motor coach. As the total registrations of motor coaches and buses for the whole of Canada was only 2,255 in 1929, and less than one-half of these operated on rural highways outside the limits of cities and so were directly in competition with the steam railways, by far the most important factor in the failure of the railways to increase passenger earnings consonant with the general increase in population and wealth production, must have been the privately-owned passenger automobile. Figures submitted by the railways in the report of a Joint Committee of the Railways to study motor traffic as it affected their revenues made a division of passenger miles travelled in Canada in 1929, as follows:—

Agency	Passenger miles	Percentage
Passenger autos Steam railways Buses	11,500,000,000 2,900,000,000 250,000,000	78-5 19-8 1-7
Total	14,650,000,000	100-0

7. On a revenue basis, an estimate is made that bus line earnings on interurban services do not exceed 5 per cent of the passenger traffic revenue of Canadian Steam Railways for the year 1929, and the amount of \$3,650,000 to which that percentage attains cannot be looked upon as entirely lost to the railways. A considerable portion of the traffic carried by motor coaches is new business, which they have developed for themselves and which would not go to the railways if motor coach services on the highways were discontinued. Some areas are served that the railways do not touch and the motor coach is also used by those who in default of its services would use the private motor car rather than the steam railway.

8. By reason of congested driving and parking conditions in our larger cities there is a tendency to use the motor coaches for journeys to and from those centres and to relegate the private car to the purpose of recreation and pleasure. The motor coach is often able to give what is practically a cab or livery service to the dweller in the outlying town or village or to the farmer on its route. For this reason it has a traffic peculiar to itself and its gains have therefore not been entirely at the expense of the railways.

9. Though the interurban traffic carried by these vehicles is increasing, as appears by the figures of the Gray Line Coaches, of the Toronto Transportation Group, which are as follows:—

Year	Passengers carried	Passenger earnings
1927 1928 1929	281,602 567,193 1,037,250	\$ 567,337 815,285 1,234,936

it has not yet in Canada assumed relatively large proportions. There will undoubtedly be further growth and further loss to the railways from this source, but as the field for the profitable operation of these motor coaches in Canada is in general limited to the more thickly settled areas of Ontario, Quebec and British Columbia where there has already been very considerable development of these services, it is likely that the steam railways have already experienced the major effects of the competition under this head, and the loss in this respect has not been so serious as is generally believed.

10. It was agreed both by the railways and by the representatives of the automotive industry and of the motor coach operators in their appearances before the commission, that the loss to the steam railways in passenger revenues is due to the private passenger automobile, and that this loss must be regarded as permanent. Thomas F. Woodlock, formerly of the Interstate Commerce Commission of the United States, in a paper on motor transport on highways published in 1931, estimates a loss by the steam railways in the decade 1920-30 of one-third of their entire passenger revenue of 1920 and all the increase that might have been expected in that period, to the passenger automobile, and he regards the loss as permanent. The loss in Canada has not been so great, mainly because of longer distances over which railway passengers are carried, and for climatic reasons which will always drive passenger traffic to the railways in certain seasons of the year.

11. The railways have estimated that if there had been no competition from the passenger automobile and motor coach in the year 1929, passenger earnings would have been \$17,000,000 more than the actual receipts. Since the motor coach may be credited with not more than \$3,650,000 of this loss, and for the reasons mentioned above probably less than this sum was actually taken from them by these conveyers, the loss to the private passenger automobile must be at least \$13,350,000, and might even be estimated at \$15,000,000. Sleeper, parlour and observation car receipts were approximately \$2,000,000 greater in 1929 than in 1923, and the Joint Committee therefore concludes that long distance passenger traffic actually increased to some extent and this is borne out by the fact that the average distance a railway passenger was carried was 74.2 miles in 1929 as compared with 68.8 miles in 1923. In the same period commuter traffic to and from the larger cities also showed some increase, so that the inference is drawn that those who are using the motor vehicle as a means of transport to the detriment of the steam railways are the medium distance passengers, travelling not more than 75 miles.

12. Since it is likely that the provincial authorities in control of highways will continue to develop all-weather highways, especially to meet the demands of the private motor car owners, who now comprise the great majority of voters and taxpayers, medium and long haul passenger traffic will be subject to increasing losses from the operations of the passenger automobile. The completion of the Trans-Canada Highway, now under construction, and of trunk line highways in the various provinces cannot but have an adverse effect on railway passenger earnings. The economical range of operation of the motor coach in Canada, now estimated to be about 100 miles, is likely to be extended, and it would seem that there is a progressive and continuing loss of passenger traffic to be faced by the steam railways, if the present activities in provincial road building are continued.

13. Considerations of personal conveniences and not of economic costs of transportation are the governing factors in the use of the motor car and motor coach in passenger transport and as the trend seems to have set definitely in favour of the motor vehicle, the railways must adapt themselves to the situation and concentrate on service to the long haul passenger and to such commuter traffic as may remain in and about the larger centres of population.

14. The loss suffered by the entry of the motor coach into the suburban and interurban passenger traffic field could be met in part by the utilization of unit cars moving on the railways, but because of their limitations in usefulness by reason of fixed route and definite stopping places in contrast to the flexibility of the motor coach, it is doubtful if much traffic could be recovered in this way. The capital expenditure for these unit cars is out of all proportion to that of the motor coach and costs of operation are greater. The motor coach could be used on the highway by the railways as a substitute for steam trains and for the purpose of giving more frequent service where traffic is light. Provincial authorities in Saskatchewan, Manitoba and Ontario informed us that permits to operate motor coaches along highways parallel to existing railway lines had been offered to the railway companies, but in no case had advantage been taken of the opportunity. The railways have, it would seem, concluded that there is a very small field at present in Canada for the economical utilization of the motor coach as a substitute for or as auxiliary to the steam train for passengers.

II. FINANCIAL RESULTS OF OPERATIONS

15. We had little evidence before us as to the financial success of motor coach operations. In Ontario, where the services are now well established, figures were submitted by Gray Coach Line, Limited, showing that in some four or five years of operation of interurban coaches a profit had been made after all proper reserves had been set up. Counsel appearing for the Provincial Transport Company, a large operator of motor coaches in the province of Quebec with the city of Montreal as the centre of its activities, expressed the opinion that his company and other well managed companies in Quebec were on a satisfactory basis. In several cases provincial authorities consulted expressed the opinion that no profit was being made by the operators, if proper accounting standards were used. Commissioner Loree stated that his railroad, the Delaware and Hudson, had been operating a large fleet of motor buses and coaches for a period of about eight years, and that they had lost money and were now operating at a loss. Speaking broadly, it was Mr. Loree's opinion that motor coach and bus operations in the United States were not profitable and the same was true of Canada, though there were always exceptional cases where by reason of good management and favourable traffic conditions some profit was being made.

16. Until such time as experience has proved the economic advantages of motor coach operations and that there is some assurance of a fair return on the capital invested, the railway companies have hesitated to engage in conveying passengers by motor coach even where substituted and auxiliary services in connection with steam passenger trains might seem to be indicated. Doubtless their conclusions have been that they would merely add to the loss they are already experiencing in this phase of their transportation services.

III. REGULATION AND CONTROL OF THE MOTOR COACH

17. In all provinces where motor coach services have attained to any considerable magnitude there have been in recent years progressive, and in the opinion of the officials charged with the responsibility, fairly satisfoctory, efforts to regulate the traffic in the public interest. Permits are granted which in effect are franchises to operate on the highways between fixed termini, and in general these permits are exclusive, but must be renewed annually. Schedules of rates or tolls to be charged are filed with the rgulating authority and time tables are required to be posted. The applicant must furnish insurance against injury to his passengers by negligence in operation and vehicles are subject to inspection from time to time. 41

18. The opinion was expressed by the Premier of Ontario that, so far as regulation of the motor coach on the highway is concerned, the situation is well in hand, and that a dependable service is given and one with which the public is well satisfied. The Minister of Highways in that province, remarking on the result of the introduction of regulations by his department, made this statement: "Immediately the law became effective a marked improvement not only in the vehicles but in the type of owner and operator was evident and to-day the service given on the various public vehicle routes licensed by the department is regular and dependable with few complaints of excessive speed or careless driving and with a minimum of accidents." I_{j}

19. There was general agreement amongst those in charge of highways that progress had been made in handling the motor coach situation and that while changes might be necessary they were proceeding in the right way. The regulations that have been put into effect, combined with the system of granting exclusive permits, tended to put the traffic into hands of operators of financial strength, and the result was to give regularity and dependability of service with increasing satisfaction to the patrons and a greater opportunity to transact business at a fair profit. On the whole the operations of the motor coach in the various provinces are well conducted, and, so far as the public are concerned, on a satisfactory basis.

IV. TAXATION OF MOTOR COACHES

20. Taxes paid for registrations of vehicles, fees for licences or permits to operate, and the imposts on gasoline used, provide at least a fair contribution for highway use and maintenance. Figures given by Gray Coach Line Limited, in Ontario showed that a passenger coach with seating accommodation for 30 passengers, paid in 1931 \$640, being at the rate of 1.94 cents per coach mile, or \$143.38 per annum for each mile of highway used by their coaches as a whole. The average tax paid by a motor coach with capacity for 30 passengers 5478-7 travelling 30,000 miles in a year was \$840, as calculated by the Minister of Highways for Ontario. In Quebec the average tax per vehicle paid by the Provincial Transport Company was \$573, being at the rate of 4.39 per coach mile. An average for all Canada was stated to be 8.5 per cent of total revenues paid in taxes to provincial authorities, being for Quebec 11.34 per cent and for Ontario 8.6. It was strenuously urged by representatives of the motor transport interests that taxation was excessive and that any further attempts to increase the burden would not be productive of increased revenue, but would only throttle an activity which had justified itself and which was meeting a public need in an efficient and satisfactory manner, and that the motor coach was now paying more than its proper share of the cost of highway construction and maintenance.

21. Though in the case of the motor truck next to be dealt with, it would appear that there is room for stricter regulation and for increased taxation; in the case of the motor coach there is little prospect that either by further taxation or increased regulation will the railroads benefit. It may be that as in the case of the common carrier truck, communities will eventully have to make a choice between steam railway services and highway services, for the reason that the traffic offering will not support both these types of transportation, but these instances in the case of motor coach services will be limited. If such do arise, and it is decided by the proper provincial authorities that the railway is entitled to give the service, this decision will be made effective, not by ncreasing taxation on the motor coach nor through increased restrictions and regulations, but by direct refusal to issue the necessary permit for highway operations in the particular area.

22. There does not seem therefore to be any necessity to recommend additional taxation and regulation of motor coach operations in the interest of the steam railways of Canada.

V. THE MOTOR TRUCK

23. The motor truck has become an important factor in the transport of goods and it is conceded that a great deal of traffic moving in less than carload lots, that is, package freight and express, has passed from the railway to these vehicles. There has been a rapid increase in registrations which has gone on, though at a slightly reduced rate in the years of business depression. These figures (given in round numbers) will indicate the rate of growth and the magnitude of this agency of transport.

1923	\$4,000
1929	55,000
1930	65.000
1931 1	65,800

24. It is only in recent years that there has been any attempt to classify these trucks according to the nature of their operations and even now, the provinces of Canada have not adopted any uniform scheme of classification. Some are content to register them according to weight, length of wheel base, or horse-power, and to disregard the purpose to which they are put. Where there is classification according to use, the scheme generally favoured is to divide them into classes as follows:—

1. The common carrier truck—engaged in hauling for hire for the public and plying over a definite route and generally between fixed termini.

2. Contract carrier trucks—engaged in hauling for hire the goods of one person or firm at any one time or on any one trip and not confined as a rule to a fixed route. 3. General and commercial trucks—privately owned and engaged in conveying the owners' goods.

25. In 1931 the Ontario figures were:---

Common carrier trucks Contract carrier trucks including farm products carriers	$2,554 \\ 1,119$
- All others (general and commercial)	3,673 59,873

26. There were also 9,673 trailers, many of them small and 80 per cent recorded as of less than one ton gross capacity, bringing the total of all trucks and trailers to 71,834 and showing a percentage of 94.48 as privately owned and operated as against 5.52 per cent operated as common carriers. The corresponding percentages in other provinces show an even higher proportion of privately owned and operated trucks. Manitoba had 169 operating as common carriers of goods and 39 as common carriers of milk and cream. In Saskatchewan there were only 110 common carriers and in British Columbia 226, the percentages of the total truck registrations being much less than in Ontario. A table follows showing truck registrations in all provinces in 1930 and 1931 and it is interesting to note that with certain exceptions there is an increase even under lowered business activity in the latter year.

Province	Public Freight Vehicles		All Motor Trucks	
	1930	1931	1930	1931
British Columbia Alberta	184	226	16,820 15,068	16,799 15.034
Saskatchewan	29	110	18,077	15,568
Ontario	1,155	3,673	67,676	68,433
Quebec New Brunswick	4,680	5,218	27,820	28,384 3,948
Prince Edward Island Nova Scotia	· · · · · · · · · · · · · · · · · · ·		739 6,489	802 6,761

Norm.-In certain provinces, public freight vehicles are not registered or licensed except as motor trucks. In others, the marked increases in 1931 are due in part to revision of classification in the latter year.

VI. EFFECT OF TRUCK OPERATIONS ON RAILWAY REVENUES

27. Freight earnings by the steam railways show a general increase from 1923 to 1929, the figures being \$288,992,220 in 1923 and \$331,679,458 (Canadian lines only) in 1929, and during this period there was a great increase in truck registrations and in tonnage handled by trucks. The gains in railway freight revenues were due to great business activity resulting in an increase in long haul traffic with which trucks do not compete to any appreciable extent in Canada.

28. The Joint Committee of the Railways in their report estimate that if the increase in freight carried on steam railways had continued in the same ratio as in the ten-year period from 1915 to 1925 there would have been 95,000,000 tons of freight on the railways in 1929 more than were actually carried by them. The failure to gain this increase cannot however be entirely charged to trucks. The committee's estimate is that not more than 5,000,000 tons of freight were conveyed by trucks over rural highways in that year, and it is only truck operations beyond urban and suburban areas that can be regarded as competitive with railways. 29. There was a general decline in the previous rate of increase which, beginning in the late years of the decade 1915-25 becomes marked after 1925. The cause of this decline must be sought elsewhere than in motor truck competition. The opening of the Panama canal and the improvement of inland waterways have had, and are having, an effect on freight tonnage on railways and the passing of the construction and settlement era in Western Canada also has a bearing on the situation. Even without competition from the motor truck, railway freight tonnage could not be expected to show the sustained increases that were general from 1875 to 1915.

30. In making the estimate of 5,000,000 tons of freight moved by trucks over rural highways, the Joint Committee of the Railways took into account tonnage which had been developed by the trucks themselves in serving areas not touched by railways and in conveying freight to and from railway stations. In trying to arrive at the tonnage actually lost to the railways, an exceedingly difficult matter, by reason of lack of statistics, they have had recourse to reports sent in by railway agents to the Bureau of Economics of the Canadian National Railways, and for a three-year period they have arrived at an estimate of tonnage lost by the railways to common carrier and contract carrier trucks as follows:—

31. Since experience of several trucking companies indicates the average revenue per ton handled is \$8, the total loss to the railroads was rather less than \$8,000,000 in 1929 and \$12,000,000 in 1930. Losses due to the operations of privately-owned and operated trucks, which for all Canada are about 96 per cent of the total of all trucks and for Ontario, 94.5 per cent of the total for that province, is more difficult still to estimate.

32. The Joint Committee consider it fair to take the same amount as for the common carrier truck, as being directly lost to the railroads. The Ontario traffic census, conducted by the Department of Highways for the past few years indicates that 70 per cent of the freight tonnage moves on common carrier and contract carrier trucks over the King's highways and only 30 per cent on privately-operated trucks and the department deduces from these figures that the operations of privately-owned trucks are largely confined to the urban and suburban areas where they are not directly in competition with the railways.

33. If the railways are correct in their estimate of 1,500,000 tons for common carriers in 1930, it would seem from the Ontario figures that they are well within the mark in estimating their loss to the privately-operated truck in an equal amount. It may be that the percentages ascertained by the Ontario traffic surveys would not obtain in other provinces, for the proportion of common carrier trucks in that province is greater in relation to the total truck registrations than is the case elsewhere, and in Ontario, by reason of the proximity of towns and cities to one another and to the large centres of distribution, the field of operation for the common carrier truck has been more advantageous than in other parts of Canada. Even making allowance for the comparatively small operations of these common carriers in the other provinces as compared with the privately-operated trucks, it is unlikely that these latter vehicles did in all Canada convey as much freight directly competitive with the railways as the common carrier trucks. The estimate of \$24,000,000 lost in freight revenues in 1930 being about 7 per cent of total freight revenues is probably too high, but even if this amount is reduced to say \$20,000,000, the loss is very considerable and of tremendous import to the future of the railways of Canada.

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34. Common carrier trucks are increasing rapidly in all provinces and though experience of their operations is too short to form a final estimate as to their ultimate place as an agency in the transport of freight, it would appear that unless their operations are being conducted on an unsound basis of cost and will therefore decline, or unless some form of restriction and limitation of their activities is brought about by competent authorities, a progressively increasing loss will be experienced by the railways in the future which cannot fail to have a damaging effect on earnings.

VII. FINANCIAL RESULTS OF CARRIER TRUCK OPERATIONS

35. Information as to the results of common carrier truck operations from a financial point of view was meagre. A representative of the Rural Motor Distributors of Northern Alberta stated that no profits were being made in trucking by reason of competition amongst the truckers themselves. The Manitoba Bus and Truck Operators Association expressed the opinion that operations in that province were on a satisfactory basis as to costs, but the Public Utility Commissioner, to whom applications for permits are made by members of the association, stated that representations were continually being made to him that the operators were not making a fair profit. In Ontario figures for six unnamed freight transport companies were filed by the representative of The Canadian Automobile Chamber of Commerce and the Truck Owners Association which showed that over a three-year period profits, where made at all, were small and that three of the companies were operating at a loss in 1931.

36. These truck owners expressed a desire to have minimum rates for the carriage of goods fixed by a competent body, as they feared that there would be many failures amongst their number if unrestricted competition in rates continued. As a general rule the provincial authorities have not endeavoured to fix tolls for truck services. Manitoba has a tariff but admits it is evaded. Ontario made an attempt to fix rates but has abandoned it for the present until more experience is gained.

37. Until there is regulation and fixing of tolls, as in the case of the motor coach, operating conditions will be chaotic and there will be many failures amongst common carriers of freight, but it is not likely that there will be any considerable diminution in the competition that the railways are now experiencing from this service. The experience in all the provinces has been that when an operator drops out because of financial difficulties, another appears to take his place.

VIII. TAXATION OF MOTOR TRUCKS

38. From various quarters there have come to the commission suggestions that the operations of the motor truck on the highway should be regulated. Regulation in these suggestions generally meant restriction, and restriction was to be attained by higher taxation, particularly for the common carrier truck. At present there is very little in the way of regulation of trucks throughout Canada, and there is a lack of uniformity in the method of imposing taxation. In general a fee is charged for registration of the vehicle and in some instances a charge is made for a special permit to operate as a common carrier. In Ontario where the experience in dealing with the carrier truck is greatest, it is admitted by the provincial authorities that taxation has not been applied to carrier trucks as successfully as to motor coaches. An attempt was made to take a toll per ton mile, but there were so many ways of evading it, that the plan was in operation only about three months. Instead permit fees have been increased, and the registration fees on all trucks advanced in that province for 1932, on the principle that motor trucks have not been paying a proper share of the burden of highway maintenance and that these fees offered the only practicable method of taxation.

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39. Taxation of motor vehicles, as has been stated earlier in this discussion, is a matter of provincial concern. It is not likely that any province of Canada will seek to restrict the operations of these vehicles by imposing excessive fees for registration and for permits. The revenues obtained from licences and permits are not generally applied to read maintenance, nor is any attempt made to equate motor vehicle taxation to highway costs. Motor licence fees and gasoline taxes are a dependable source of revenue and the rate of taxation applied is likely to have relation to provincial revenue requirements rather than to direct highway costs. Under such circumstances uniformity in taxation throughout Canada is improbable, even if it is desirable. There may be a tendency in adjoining provinces to make charges approximately equal on similar vehicles, but the movement towards uniformity is not likely to go further.

40. It is not in the interests of the railways that taxes on these vehicles should be so high as to be prohibitive or even restrictive. The motor truck is a necessity in transport. Freight movement to and from railway stations must take place on the highway, and industrial and agricultural development would be retarded by taxation which might be designed solely to bring about restriction of the use of motor trucks on the highways.

41. At the same time the trucks should pay a fair charge for the use of the right of way which is provided for them by the State, and it would seem doubtful if the scale of fees for registration in the various provinces, even when the gasoline tax is taken into consideration, does provide for a satisfactory contribution from these conveyers. In comparison with charges in many of the states of the Union, Canadian registration fees for trucks are low. Public freight vehicles in Ontario paid on the average about \$112 for permit and registration in 1931. In Manitoba about \$64 in the same year. In Saskatchewan slightly less than in Manitoba. Fees charged for similar vehicles in the United States ran as high as \$750 in the same year and were in general much higher than in Canada.

42. The fees mentioned as being paid in Canadian provinces are exclusive of gasoline taxes, which are considerably higher in Canada than in the United States, and therefore the disparity is not so great as might appear. Including gasoline taxes it was estimated that the average for common carrier trucks in Ontario in 1931, on a basis of 30,000 miles travelled in a year, was \$215. Both permit fees and gasoline taxes have been increased in that province in 1932, and protests have been made on the ground that taxation has passed the limit of the operator's ability to pay and has become prohibitive.

43. It is beyond the scope of our inquiry to deal with questions of provincial taxation and the matter is one which must be settled between the motor transport interests and the provincial authorities. Relief to the railways from the inroads being made by trucks into freight earnings will come by restriction and regulation of truck traffic as distinct from taxation, and by some form of co-ordination with rail traffic.

IX. REGULATION OF MOTOR TRUCK TRAFFIC

44. Of regulation, as apart from taxation of the motor truck, there has been little attempted and less accomplished. Provincial highway authorities are all agreed on the importance of the problem. In the first place, it would appear that gravel surfaced roads would in large areas be perfectly satisfactory for the traffic of the passenger automobile, but the truck requires a hard surfaced road, and if it operates on the former the damage done is excessive unless speed and weight are regulated.

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45. Secondly, from the point of view of safety of the private car-owners and the public generally, there will have to be regulation of the size and length of motor trucks and motor trains and of the speed at which they operate. Congestion of the highways is leading to a demand that those who use it for commercial purposes shall give way to the tourist and private automobile.

46. Thirdly, there is a growing realization that conditions of operation must be equalized as far as possible between the railway and the truck. The truck cannot replace the railway and it must not be allowed to completely strangle its competitor and leave the country without an essential transport service.

47. It is only in the last of these reasons for regulative and restrictive action that the railways have any direct interest. As provincial taxpayers the railways might well join with other property owners in pointing out that expenditures to provide permanent roadways for the commercial operation of carrying goods in direct competition with existing carriers, travelling on their own right of way, built and maintained at their own cost, is unjustifiable, and that a halt in the program of construction of hard surfaced roads is advisable.

48. They might also very well complain that while they are compelled to expend large sums for road-crossing signals and safety devices and to assist in the construction of subways and overhead crossings, that motor traffic may not be endangered by railway operations, the annual record of motor accidents from excessive speed and undue congestion on the highways is rising at an alarming rate and that little or nothing is being done to deal with the situation. In these matters, however, comment from the railways would be regarded as special pleading, and complaints and warnings from interested parties are of little use in arousing public opinion, from which source alone action will come.

49. In regulations designed to bring railway and motor truck to conditions of operating equality, there is a direct interest for the Canadian railways. We doubt, however, if regulations framed for such purposes will be satisfactory. Freight carriage by motor and by steam train should not of necessity be subject to the same conditions. If there are railway operating conditions that make freight carriage costly, then the solution is not to extend such conditions to carriage by motor truck in order that there may be equality of competition.

50. Carriage of goods on the highway should be regulated in accordance with characteristics of the motor vehicle itself and not by adopting regulations applicable to traffic carried on under different conditions. The purpose of regulation should not be to increase the expenses of motor carriers and so bring about equality of working conditions, but rather to regulate for the safety of the public, protection for cargo carried, to secure for those employed in the industry fair working conditions, and the preservation of the highways.

51. Regulations framed for these purposes are within the competence of highway authorities to devise and police administration to enforce. Already considerable has been accomplished in these matters in Ontario, Quebec and Manitoba. Alberta, Saskatchewan and British Columbia are moving in the same direction, and are profiting from the experience of their eastern neighbours. If trucks operating under proper regulation and paying a fair share of highway costs still continue to encroach upon railway earnings so as to imperil the financial position of these carriers, and it seems entirely probable that they will do so, then the problem must be approached from a different angle and a definite policy of restriction of truck traffic and its co-ordination with railway traffic must be adopted.

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X. RESTRICTION OF MOTOR TRUCK COMPETITION

52. In two different and quite distinct aspects is the competition of the motor truck with the railways of direct significance to the public. Railway freight rates have been established on the basis that the steam railway enjoyed a monopoly of the carriage of goods. In the main tolls are high in relation to actual cost on package freight and express carried for short and medium distances, and low and comparatively unremunerative on bulk and heavy commodities moving over long distances. This freight rate structure has been developed not primarily in the interests of the railways but for the benefit of the producers of raw materials which must find access to distant markets at low cost.

53. The motor truck has found its opportunity in carrying a portion of the short haul traffic at rates less than the railways can afford, if the long haul bulk traffic is to continue at its present low rates. The motor truck cannot displace the railways in long haul traffic and in handling bulky commodities. The highways could not stand the strain or accommodate even a fraction of the trucks that would be required.

54. To revise the long distance and commodity rates upward would be a disaster to agriculture and the industries which must seek export markets where laid down costs are matters of vital concern. The country as a whole cannot afford to have the present freight rate structure seriously disturbed and the railways cannot maintain this structure if they are to continue to suffer losses in the short haul traffic.

55. In the second place competition of the motor is threatening the operation of many thin traffic lines in Canada. Motor trucks and coaches, operating along parallel highway routes, especially in the summer months, are taking sufficient of the traffic available to make it advisable or even necessary for the railways to discontinue services altogether. Communities situated along these thin traffic lines cannot expect a railway service as and when they choose to use it, and when motor services are discontinued for climatic reasons. They cannot expect that the railway will be available to move heavy and bulky materials at infrequent intervals while the motor vehicles takes the more profitable less than car load freight business. One of the rival carriers must be dispensed with and in the majority of cases in Canada, the railway must survive.

56. In the more thickly settled areas in Canada, relief may be found in establishing zones for truck operations. The truck has its place in the movement of goods, but its proper function is collective and dispersive and not that of a primary carrier. In a properly co-ordinated transport system, the railway would assume the main burden of the carriage of goods over distances exceeding fifty miles and the trucks would operate as collectors and distributors of freight.

57. Trucks might be licensed only for operations within reasonable distances of manufacturing and distributing centres, which should be fixed by the highway authorities of each province after consultation with the railways and the shippers immediately concerned. As a condition of the establishment of zones the railways might be required to give a more frequent service and to simplify their freight classifications and modify the present onerous requirements as to crating and packing. As the railways develop pick-up and store delivery service, to which they are now giving serious attention, there will be less objection by the public to zoning of truck operations and to the consequent restrictions in the freedom of movement of these vehicles over the rural highways. 58. In the case of thin traffic lines, it would seem that, as a matter of policy, provincial highway authorities will have to make a choice between the motor and the railway, and refuse permits to the common carrier truck and coach. In some cases the railways could assist by giving more frequent service with unit cars, reserving the steam-operated trains for the carriage of heavy commodities when a full load offered. The experiment has met with a fair degree of success in the case of the Winnipeg Water District Railway, operating easterly from St. Boniface for some 60 miles.

59. It is realized, however, that there are many difficulties in conducting branch line operations with unit cars and that the railways have already given these cars very careful study and trial. There are limits to the usefulness of these unit cars arising from their high initial cost and expense of maintenance, and their lack of reserve power when operating under adverse climatic conditions, that will prevent them from going into general use as substitutes on all thin traffic lines throughout the country. Very properly the railways are proceeding cautiously and after careful study of the traffic and of operating costs and conditions in their plans for utilizing these new units.

60. The related problems of regulation and restriction of motor traffic on the highways could best be dealt with by a conference of the highway departmental officials of all the provinces meeting in conference at the instance of the Federal Government. At this conference the broad lines upon which, for example, the regulation of common carriers of goods and merchandise could be effected might be laid down as follows:—

- (a) Schedules of rates and charges must be published.
- (b) Within that schedule common carriers must accept and carry what is offered without discrimination between shippers.
- (c) Operators must be insured against all risks, including third party risks.
- (d) Operators must keep accounts on a prescribed system and render returns to public authorities on a common basis.
- (e) Uniform bills of lading must be used and a copy given to all shippers.
- (f) Minimum standards in regard to working conditions, including wages and hours of labour should be required.
- (g) Due regard must be had to the preservation of roads and to the safety of the public.

61. Similar principles might be applied mutatis mutandis to road passenger services.

62. The administration and adaptation from time to time of the agreed principles of regulation of road transport should be left to the highway authorities of each province, and it should be recognized that varying conditions will call for differences in detail in the framing of provincial regulations.

63. At this conference a body might be set up to study and report upon areas where rail services are being rendered unprofitable without being superfluous by reason of the competition of road transport, to the end that steps may be taken to restrict, or even prohibit, highway carriers in these areas. A study should also be made of the possibilities of assistance to the railways in maintaining their present freight rates structure by a zoning scheme for the licensing of all trucks as a practical step towards co-ordination of rail and motor traffic, or such other plans or schemes as may seem to promise relief to the railways.

XI. EXCLUSIVE PERMITS TO COMMON CARRIERS ON THE HIGHWAYS

64. Since the Joint Committee of the Railways in their report recommended against the granting of exclusive permits or franchises to operate common carrier coaches and trucks on highways and against minimum tolls and charges, and in favour of the free play of competition in these transport activities, an examination of the principles underlying the granting of these exclusive permits and the fixing of tolls seems desirable.

65. All provincial authorities agree in the policy of giving exclusive rights to operate motor coaches over specified routes and between fixed terminii on rural highways under provincial control. In the case of the carrier truck there is not the same uniformity, but there is a general acceptance of the principle that here also there must be regulation and that regulation can only be made really effective for its chief end, that of producing a dependable service if the operations are in the control of one responsible party over a given route. Ontario, Quebec and Manitoba have definite regulations to this effect and in all provinces permits are required and the tendency is to grant these only to one operator. This has the effect of eliminating competition from other common carrier trucks and sets up a monopoly in this form of transportation.

66. The reasons for these permits are set forth in the brief of the Gray Coach Lines, Limited.

67. Previous to the entry of this company, a subsidiary of Toronto Transportation Commission, into the field of suburban and inter-urban coach traffic, motor bus operations were in the hands of irresponsible operators, many of whom were not financially stable. Equipment was poor and there was a lack of spare vehicles for peak service. Wages paid were low and drivers worked long hours. Schedules were not dependable and services were often interrupted.

68. The entry of Gray Coach Lines, Limited, backed by a responsible authority, resulted in an immediate improvement. Equipment is now fully modernized and service is maintained on a high efficiency basis. Labour conditions are satisfactory to employees both in rates of pay and hours worked. As a result there has been a marked increase in public confidence and this is reflected in increased patronge by the travelling public. In turn, the financial outcome has been profitable to the operator. Gray Coach Lines, Limited, could not have attained this position if it had been open to competition by any individual who might choose for a time to carry passengers for hire over any one of the routes assigned to them.

69. Counsel, in his submission for the Ontario Association of Motor Coach Owners, gives the policy of the Department of Highways in issuing of permits. The principles are stated to be three in number:—

- (a) Present traffic offering in the province does not warrant the issuing of more than one permit for local travel between any two points, and the public interest, therefore, is best served by permitting one responsible operator only to furnish such service.
- (b) Every permit-holder who continues to operate to the satisfaction of the department as tested by standards prescribed by it, can make the necessary investment and maintain the required service in the confidence that he will secure a renewal from time to time.
- (c) The department exercises a real supervision over permit transfers and endeavours to see that no transfer is made except to an operator of substance and reliability, preferably to an existing transportation agency in the vicinity.

70. The Chairman of the Public Utilities Board, which issues the permits in Manitoba, in his able submission puts the case for permits thus:---

The monopoly phase of the matter is only incidental. It is in the public interest that this form of transport should be dependable and to be dependable it must be in the hands of a reliable operator who can make his investment and give a service of the standard required without fear that he will suffer loss of business by a division of traffic. If permits were granted to many operators over the same route, it would be impossible in practice to enforce observance of regulations. The threat of cancellation of the permit is a real check on faulty operation where the permit is valuable and the grantee is operating at a profit or can see a profit in future operations. Maximum tolls can be fixed to protect the public and if insufficient or indifferent service is given the permit can be revoked and granted to another applicant. It is not a case of regulating a monopoly by conditions annexed to a certificate of "convenience and necessity", such as pertains in the "Public Utility" field, in the strict use of that word, but rather the grant of a monopoly for the purpose of more effective regulation.¹

71. The exclusive permit has resulted, in the case of the motor coach, in. securing to the public good service and the main defect in a monopoly, that of excessive rates, has been kept in check by departmental supervision. Indifferent service is not to be feared to the same extent as in the case of a natural monopoly like a street railway or a power or light company, for the permit can be revoked and granted to another where the capital in fixed and unrealizable plant is comparatively insignificant.

72. If the free play of competition does not produce good results and makes regulation of motor transport more difficult and the attainment of satisfactory standards of service impracticable, then the provincial authorities would seem to be justified in introducing the exclusive element into their permits to operate, not for the purpose of creating property rights, but for the purpose of better regulation and control of the traffic.

73. There would seem to be little doubt that when motor truck regulations are in process of development the exclusive permit to common carriers will be found of value, but there will remain to be devised, satisfactory regulations for the control of contract carriers and of the privately-operated truck and it will then clearly appear that the permit is only an incident in the process of regulation, helpful in the case of the common carrier, but only a means to an end, and that the principles to be applied by the regulating authority to the problem in hand, must be found in characteristics which are inherent in the motor vehicle as an agency of transport and cannot be adapted from regulations which have been successful in the case of "public utilities" such as street railways, gas or power undertakings. Experience of the traffic alone will indicate the principles to be applied.

74. The following observations made by Mr. Loree, a member of this commission, on the operation of highway carriers in the United States of America call for consideration in any plan or plans which may be devised for solution of the problem in Canada:—

75. "There has been some absorption of freight traffic by motor trucks. For the most part it has been the taking over of less than carload or package freight. The cost of this movement to the railroads has been very heavy. It

¹The evidence has been summarized. The words are those of the editor, but it is believed that the ideas are correctly stated.

REPORT OF ROYAL COMMISSION

makes necessary the provision of expensive freight stations on property well located in the hearts of the cities; it must be trucked twice across the station platforms, weighed and billed in small lots, stevedored in the cars at one terminal and unloaded in the other; while the loss and damage have been relatively very high. Whether or not it is a source of profit is debated, but the activity of the movement is likely to be confined within a distance represented by the ability of the truck to make delivery and return in one working day.

76. "There are in service 3,486,303 automotive trucks; of these 190,644 or $5\cdot4$ per cent only, are used in common carrier service, either interstate or intrastate and this number is so insignificant as to make any effort toward their control scarcely worth while. Along with the increase in numbers has grown an increase in carrying capacity.

77. "Control of automotive traffic must be looked for through the police power of the State to ensure safety upon the highways. The blood-letting in the business as now conducted is appalling. In 1931 there were brought to their death by this agency 34,400 persons and nearly a million received injuries. Of these more than 41 per cent were of a serious character, ranging from slight contusions to maining and crippling for life. It is an instrument more dangerous than was the Great War. During 18 months of the Great War 50,510 members of the American Expeditionary Force were killed in action or died of wounds. During the 18 months ending December 31, 1931, 53,650 were killed in automobile accidents in the United States.

78. "During the 18 months of the Great War 182,674 members of the American Expeditionary Force were wounded, not mortally. During the 18 months ending December 31, 1931, 1,576,840 were wounded, not fatally, in the United States.

79. "We must then expect restriction of length, height and width, limitation of load, including the truck and trailer combination, mechanical restriction of speed, limitations in the hours of labour of chauffeurs, a higher standard in their character and skill and other controls to markedly lessen the appalling danger now attending this traffic".

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APPENDIX III

LIST OF RAILWAY OFFICIALS, GOVERNMENT REPRESENTATIVES, PUBLIC BODIES, AND INDIVIDUALS APPEARING BEFORE THE COMMISSION IN THE COURSE OF ITS INQUIRY (with reference to the relevant volume and page of the recorded proceedings)

ON BEHALF OF THE CANADIAN NATIONAL RAILWAYS

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Sir Henry Thornton, President and Chairman	1	24
Mr. S. J. Hungerford, Vice-President of Operation and Construction	2	739
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Mr. Gerard Ruel, K.C., Legal Vice-President	4	2201 2 18
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Mr. A. E. Warren, Vice-President, Western Lines-Tr. Conf	7	9 310
Mr. W. U. Appleton, General Manager, Atlantic Region-Tr. Conf		372
Dr. W. J. Black, Director, Colonization and Agriculture	4	2107
ON BEHALF OF THE CANADIAN PACIFIC RAILWAY		
Mr. E. W. Beatty, K.C., President and Chairman	1	125
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Mr. Grant Hall, Vice President	4	2401
Mr. D. C. Coleman, Vice-President, Western Lines-Tr. Conf	7	181
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Mr. E. E. Lloyd, Comptroller—17, Conf. Mr. J. N. K. Macalister, Chief Commissioner, Department of Immigration and Colonization.	2	189 982
	-	
GOVERNMENT REPRESENTATIVES		
Sir George Perley, Acting Prime Minister	1	5
Hon. R. J. Manion, Minister of Railways and Canals	1	7
AT VICTORIA, B.C.		
Hon, S. F. Tolmie, Prime Minister and Minister of Railways	1	182
Hon. R. H. Pooley, K.C., Attorney-General	1	241
Mr. G. P. Napier, Assistant Chief Engineer and Acting Deputy Minister	•	100
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AT EDMONTON, ALTA.		
Hon. J. E. Brownlee, Premier and Provincial Secretary	1	322
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Hon. J. T. M. Anderson, Premier Hon. J. F. Bryant, Minister of Public Works Hon. M. A. MacPherson, K.C., Attorney-General and Provincial Treasurer	22	469 478 479
AT WINNIPEG, MAN.		
Hon. John Bracken, Premier	2	537
Hon. W. J. Major, K.C., Attorney-General Mr. W. R. Cottingham, K.C., Chairman, Municipal and Public Utilitie	2	576
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AT HALIFAX, N.S.		
Hon. G. S. Harrington, Premier.	. 3	1007
Hon. Percy C. Black, Minister of Highways	. 3	1019
Hon. John Doull, Attorney-General.	3	1050
AT SAINT JOHN, N.B.		
Hon. C. D. Richards, Premier and Attorney-General	. 3	1201
Hon. David A. Stewart, Minister of Public Works	. 3	1215
Hon. Lewis Smith, Minister of Agriculture	3	1243
AT QUEBEC, P.Q.		
Mr. J. A. Begin, Comptroller of Provincial Revenue (appearing on behal of the Executive Council)	(. 3	1321
AT TORONTO, ONT.		
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Allbright, W. D	Superintendent, Dominion Experimental Substation, Beaver- lodge, Alta.
Alderson: W. H	Muskoka Beach, Ontario, re train services, Muskoka district.
Anderson, S. B	Secretary; with resolution adopted at Public Meeting, City Hall, Moncton, N.B.
Armstrong, C. N	Managing Director, Montreal Central Terminal Company, Montreal.
Begin, J. A	Comptroller of Provincial Revenue, Parliament Buildings, Que.
Bell-Irving	Henry Bell-Irving & Partners, Vancouver, B.C., re Canadian Government Merchant Marine fleet.
Bellamy, Geo. W	Edmonton, Alta. Representations as to railway matters generally.
Blanchard, H. P	Ellershouse, N.S. Suggestions as to improvement of Canadian railway conditions.
Brittain, Horace L	Director, Associations Research Institute of Canada, Toronto; Highway expenditure and motor wehicle taxation.
Brookbank, Arthur	Secretary-Treasurer, Chamber of Commerce, Prince Rupert.
Brownlee, John	Galt, Ontario, re car service charges.
Campbell, W. S	Vice-President, Gaults Alberta, Limited, Edmonton, Alta.
Clermont, J. A	President, Board of Trade, Cochrane, Ontario. Resolution re increased use of the Transcontinental Railway between Win- nipeg and Quebec for passengers and for freight.
Cohen, Miss Sophie	The Canadian Coal Supply, Toronto, Ont.
Cook, J. Stanley	Secretary, Board of Trade, Montreal.
Cross, A. E	Calgary Brewing & Malting Company, Limited, Calgary, Alta,
Currie, David M.	Secretary-Treasurer, City of St. Lambert, P.Q.
Dahl, C. H	Operating Vice-President, Winnipeg Electric Company, Win- nipeg. Man.
Devers, John M	Toronto. Suggestions for the improvement of railway services.
Duffey, Geo. J	Toronto. Re container system of handling freight.
Esling, W. K., M.P	for Kootenay West, Rossland, B.C. Submitting resolutions on behalf of the Brotherhood of Locomotive Engineers at Revelstoke and Nelson, B.C.
Field, R. C	Attorney for J. Arthur Larue, Victoria Cold Storage and Terminal Warehouse Company, Ltd., Victoria, B.C.
Gardiner, J. Rawson	Montreal.
Gell, Wilfred R	Secretary, Western Canada Fuel Association, Winnipeg, Man.
Grierson, J. E	Winnipeg, Man. The relationship of railway prosperity to import trade,
Hall, Grant	Vice-President, Canadian Pacific Railway Company, Mont- real, Re Montreal Railway terminals.
Hawkin, E. L	London, England, Grand Trunk Perpetual Stocks Commit- tee, London, England.
Healey, LtCol. F. P	Managing Secretary, Chamber of Commerce, Hamilton. Brief dealing with various railway matters.
Hope, Chas. E	Vancouver, B.C. Suggestions as to improvement of railway conditions.
Howland, Lucien B	Peterborough, Ont. On the general railway situation.

Hudson, A. B	Submitting statement by W. M. Scott, Chairman of the Com- missioners, Greater Winnipeg Water District, Winnipeg, Manitoba, as to possible economics in railway operation.
Imrie, John M	Edmonton Journal, Edmonton, Alta. Re Canadian railway policies.
Ivey, A. R	Secretary, Retail Merchants Association, Winnipeg, Man.
Kipp, Theodore	Chairman, Industrial Development Board of Manitoba, Win- nipeg.
Kirkwood, T. R	Montreal, re development of the St. Lawrence river for hydro- electric energy and for navigation.
Lymburner, Norman	Wiarton, Ont. Transportation of express freight.
Murin, W. G	President, British Columbia Electric Railway Company, Lim- ited, Vancouver, B.C.
McBain, W. W	Lakeside Coals Limited, Edmonton, Alta.
McCrossan, Geo. E	Corporation Counsel, Vancouver, B.C. Re Canadian National Railway agreement; re Peace River Railway; re removal of Mountain differential.
McDonald, S. A	President, Maritime Board of Trade, Charlottetown, P.E.I.
McKenna, Jas. D	Saint John, N.B. The comparative advantages of Saint John and Halifax as Canadian National ocean termini.
McLennan, Hon. John S	(Senator) Sydney, N.S. Re strategic position of port of Sydney from the railway standpoint.
McMillan, J. F	President, Chisholm Sawmills, Limited, Edmonton, Alta.
O'Kelly, T. P	Vancouver, B.C. Re Pacific Great Eastern Railway.
Patterson, D. W	Secretary, Board of Trade and Chamber of Commerce, Grande Prairie, Alta.
Pattulo, T. D	Leader of the Opposition, British Columbia Legislature, Victoria, B.C.
Pawson, G. R. \ldots	General Chairman, Canadian Pacific Commercial Telegraph Employees, Toronto.
Payne, A. N	Secretary, The Lawson Patent Process Company of Canada, Limited, Hamilton, Ontario.
Phillips, L. V	Kamloops, B.C. Written submissions as to the transportation problem.
Pitts, Gordon McL.	Montreal. Monograph on transportation in Canada.
Poole, I. R	Secretary, Mountain Lumber Manufacturers Association, Cal- gary, Alta.
Poole, I. R	Secretary Spruce Manufacturers Association, Calgary, Alta.
Reynolds, E. J	"The Mail," Winnipeg, Manitoba. An analysis of grain trans- portation as related to Canadian ports and routes.
Ryan, Robert	Three Rivers, P.Q. Re extension of Canadian National Rail- ways into Three Rivers.
Sawyer, J. W	Secretary-Treasurer, United Farmers of Alberta, Grande Prai- rie District. Re Peace River outlet.
Sclanders, F. MacLure	Commissioner, Saint John Board of Trade, Re increased use of West Saint John port facilities, and re Saint John Valley Railway.
Scoular, John M.	Manager Island Freight Service Limited Victoria BC
Scott, Louis G	Vancouver, B.C. Re Quebec and Lake Saint John Railway Company, and the Great Northern Railway of Canada.
Scott, W. L	Eastern Canada Livestock Union, Ridgetown, Ontario. Re improvements in railway livestock transportation necessary to meet truck competition.
Sereth, Alex	Vancouver, B.C. Re lumber requirements, Canadian National Railways.
Sharpe, Hon. W. H	(Senator), Winnipeg, Manitoba. Re Northern Ontario Rail- ways.
Spence, C	Secretary-organizer, Workers Unity League of Canada, Win- nipeg, Man.
Summerhayes, Rev. T. F	Toronto, Ontario. General views as to the solution of the railway problem.

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Walkem, Geo. A., M.L.A Vancouver, B.C. Re Canadian National Shipyard, Prince Rupert.
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Weyman, H. E Vice-President and General Manager, Levis Tramways Com- pany, Levis, P.Q.
Weyman, H. E President, Chamber of Commerce of the District of Levis, P.Q. Supplementary brief on the Canadian railway problem.
Wilson, Ridgeway R Victoria, B.C. Re Pacific Great Eastern and Peace River proposals.
Wright. F Commissioner. North Battleford Board of Trade, North Battleford, Sask.