

The Canadian National Railways: 1948-1949

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DURING the past three decades, the Canadian National Railway has become one of the world's major transportation systems. A brief glance at the size and scope of its operations today gives perspective to the highlights of its history and to its current problems.

The Canadian National system has a total of 24,148 miles of lines, extending all the way across the continent from St. John's, Newfoundland, on the Atlantic, to Vancouver and Prince Rupert on the Pacific. Through all ten provinces, it serves the established industrial areas and aids in the development of the newer agricultural, forest, and mining regions. It operates nearly 2,000 miles in the United States, linking Canada with important centres south of the international border.

During the second world war, the Canadian National carried more than 463,000,000 tons of freight, 75,863,000

express shipments, and 144,676,000 passengers. In the year 1948, the freight load amounted to 85,240,738 tons, while 21,461,807 express shipments and 20,083,064 passengers were carried in the same period.

These figures give an inkling of the daily work of the railway. But the transport of people and goods is only part of its duties. The CNR operates a telegraph system, with more than 24,000 miles of pole line and 175,000 miles of wire circuit, augmented by over 400,000 circuit miles through carrier and telephone. This network handles more than 1,000,000 messages a month. The organization also owns twelve hotels, including the three resort Lodges at Jasper, Minaki and Pictou. It operates three ocean steamship services—one between Canada, Bermuda, the West Indies and British Guiana, one along the Pacific Coast between Vancouver, Prince

Rupert and the ports of Alaska, and a third connecting Newfoundland with the mainland and serving the outports of the new province. Ten vessels ply the Caribbean and two the Pacific Coast. One of the latter, the new "Prince George", which made its maiden voyage in 1948, is of Canadian design and construction, the largest passenger vessel ever built in British Columbia. There is a score of vessels in the Newfoundland service. In addition, the railway system includes twelve car ferries at various points. The "Abegweit", connecting Cape Tormentine, N. B., and Borden, P. E. I., is said to be the world's largest icebreaking car ferry.

The Canadian National operates tram and bus lines, stockyards and many other facilities. Trans-Canada Air Lines is owned by CNR, but functions separately with its own board of directors and staff. To assist in the development of Canada and, at the same time, to stimulate its own business, the system maintains a Department of Colonization and Agriculture and a Lands Department, to help immigrants and others to settle on farms across the country. Its Department of Research and Development provides assistance to industrial firms in the location of new sites. The tourist industry is fostered by the Passenger Department, the General Tourist Agent and the Public Relations Department. The system has offices in the United States, in Europe and in Australia, New Zealand, China and India.

The System's Formation

While the Canadian National Railways in its present form is just over 30 years old, the history of its constituent lines goes back as far as 1832. In that year, Canada's first railway, the Champlain and St. Lawrence, was incorporated. Opened for traffic in 1836, the line extended from Laprairie to St. Johns, Quebec, a distance of 16 miles. The Champlain and St. Lawrence, then known

as the Montreal and Champlain, was acquired by the Grand Trunk Railway in 1867.

During the second half of the nineteenth century and the early years of the twentieth, Canada witnessed a series of waves in railway construction. As a result, the 66 miles of single-track line operated by steam railways in 1850 increased to more than 38,000 miles in 1917.

Some of these lines were undertaken from the first by the Government, but numerous private companies flourished at least for a time. The financial history of these companies was generally far from happy, so that gradually most of the lines comprising the present CNR came under the control of either the Canadian Government Railways, the Grand Trunk or the Canadian Northern Systems. Even these large privately owned systems became engulfed in financial difficulties which proved too formidable. This situation, coupled with the necessity of continuing railway service to the communities located along the lines, resulted in the Federal Government acquiring their properties.

The Canadian National Railways first came into being in 1918. In November of that year, the Canadian Government Railways were entrusted to the directors of the Canadian Northern for operation and in December authority was given for the use of the name "Canadian National Railways". At that time, the Canadian Northern had 9,650 route miles in operation. The Canadian Government Railways comprised the two lines owned by the Dominion Government—the Intercolonial, extending between Montreal and Halifax, Sydney, Charlottetown, and Saint John, and the National Transcontinental, running from Moncton to Winnipeg—with a combined total of 4,105 miles in operation.

In 1919, the Canadian National Railway Company was incorporated to operate the Canadian Northern, the Canadian Government Railways, and all lines that

were then or were to become the property of the Dominion of Canada. In 1920 was added the Grand Trunk Pacific, consisting of 2,874 route miles, with the main line running from Winnipeg to Prince Rupert. The Grand Trunk Railway, which at that time operated 4,747 miles in Canada and the United States, was amalgamated with the Canadian Railway Company in 1923. The route mileage included in the system reached a total of 21,923 miles in that year. Since then, additional branch lines have been constructed and other smaller lines have been taken over. The latest addition is the Newfoundland Railway, together with its steamship services.

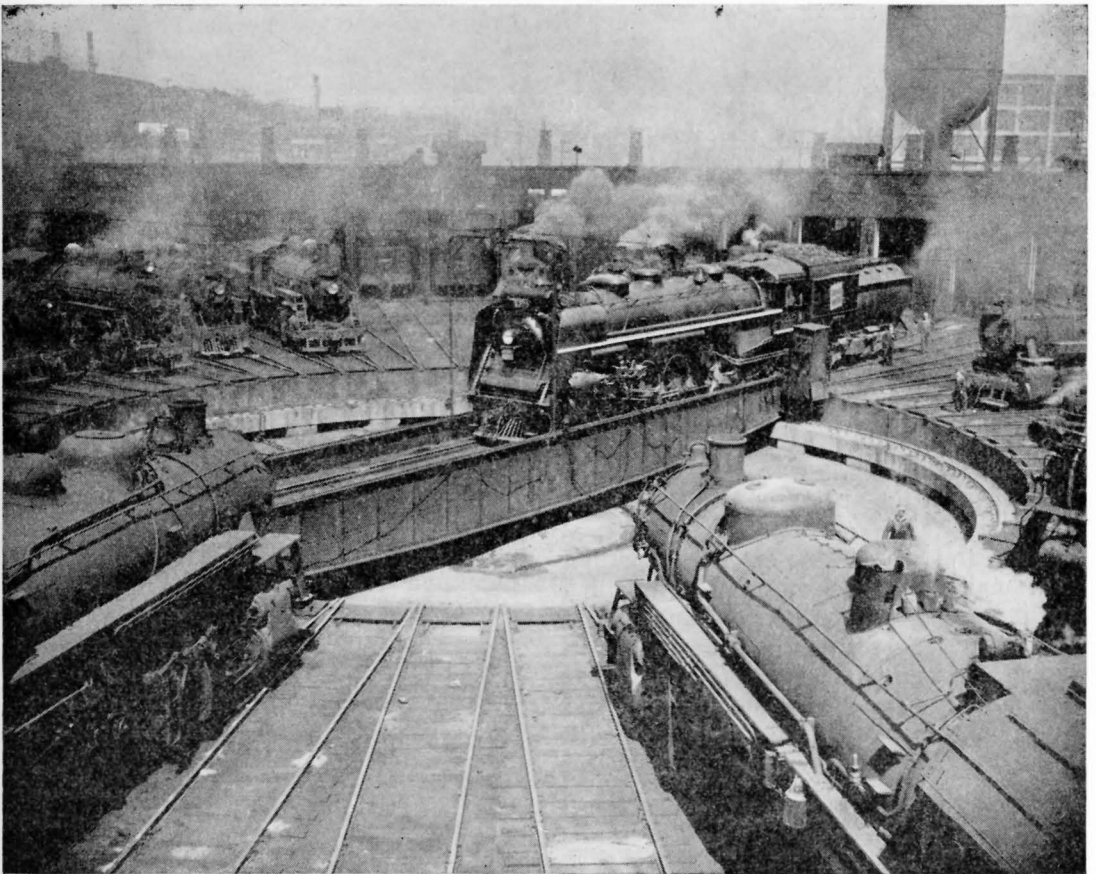
Direction and Control

When the Canadian National Railways came into being, the responsibility for direction and control of the system's policies and operation was entrusted to a Board of Directors appointed by the Government. Thus the form of control and organization of a private company was retained for the Government-owned enterprise.

The railway management makes its own decisions on matters of policy without prior reference to the Government or to Parliament, but subject, of course, to approval by its own Chairman and Board of Directors. Each year the an-

Servicing Locomotives in a Round House: In these locomotive service stations, located at strategic points, engines are cleaned, lubricated, fueled and watered before each run.

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nual report of operations and the annual capital budget are submitted to the Government for approval by Parliament after consideration by a Committee of the House. The procedure is, in effect, not dissimilar to that of a private company having its annual report and budget approved by a meeting of shareholders.

This form of direction and control has been maintained throughout the existence of the system, with the exception of the years 1933 to 1936 when the president was responsible to a Board of Trustees which, in turn, reported to the Minister of Railways and Canals.

The first president of the Canadian National Railways was D. B. Hanna, who held office from 1918 to 1922. Sir Henry W. Thornton, KBE, became president on 1922 and continued in that position until 1932. He was succeeded by S. J. Hungerford, CMG. In 1941, R. C. Vaughan, CMG, assumed the office of president, a position which he holds today.¹

Changing Conditions

The owners of the private companies acquired by the Government prior to 1923 did not relinquish control of their properties until every expedient had been exhausted. As a result, generally speaking, the lines amalgamated to form the present Canadian National Railways were not in good physical condition and were saddled with heavy debts. These factors increased the formidable task of welding the widespread properties into a co-ordinated and efficient system.

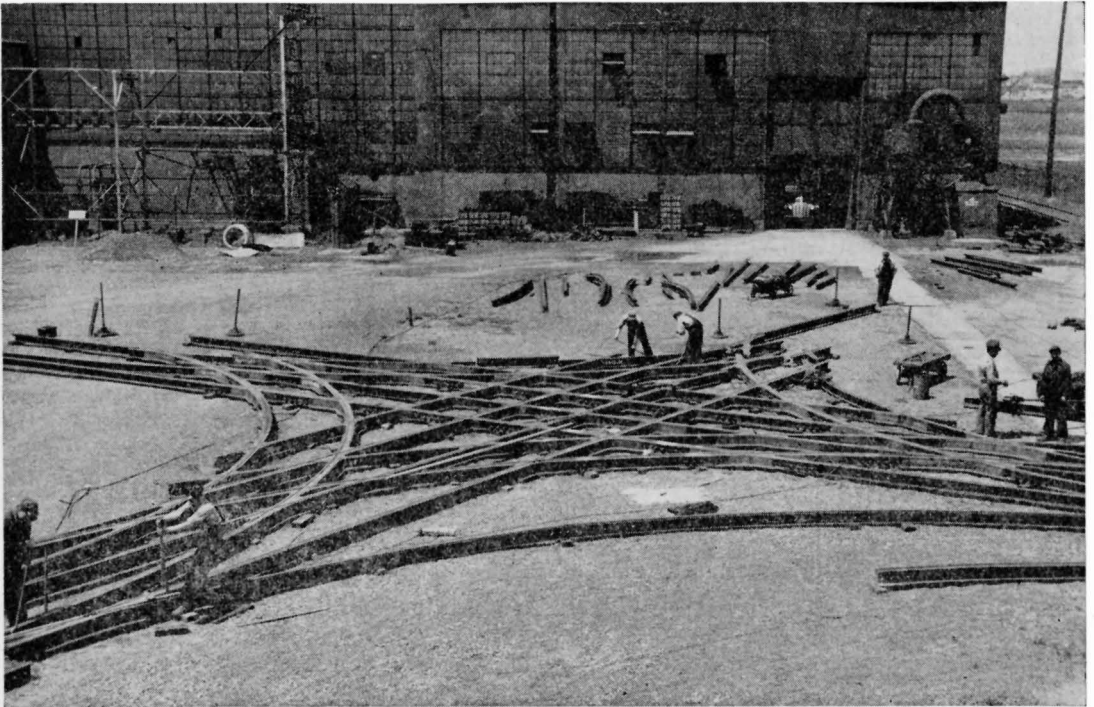
The first few years of the Canadian National's existence were accompanied by increasing prosperity in Canada and increased traffic for the country's railways. For the Canadian National, it was also a period of rehabilitation and co-ordination, requiring huge expenditures for roadway and equipment—and

it saw the system rise from a conglomeration of run-down lines to be a rival of its privately-owned competitor, the Canadian Pacific Railway. This period also witnessed the development of another serious competitor—that of highway transport.

The years of depression which followed, together with intensified competition from highway transport, forced a drastic curtailment of expenses, with the result that the maintenance of the property in a condition capable of handling an increase in traffic when it should occur became a real test of managerial ability. This difficult period also caused the introduction of certain measures of co-operation with the Canadian Pacific Railway, following on the report of the Duff Royal Commission and the passage of the Canadian National-Canadian Pacific Act. These measures consisted of the pooling of certain passenger train services, the joint use of certain tracks, station facilities, etc., and co-operative line abandonment.

Business began a slow recuperation after the bottom of the depression was reached in 1933. The improvement continued, except for a slight recession in 1938, until the peak of the war traffic was attained in 1943 and 1944. Some indication of the increased traffic handled by the Canadian National is apparent from the fact that revenue freight ton miles in 1943 were 58 p.c. greater than in 1928, the pre-war high, and were over three times the 1933 figure. Passenger miles increased to an even greater extent: in 1944 the total was more than double the peacetime record of 1928 and more than five times the 1933 figure. Of course, railway traffic during the war was inflated not only by the movement of freight and passengers incidental to the war, but also by the reduction of highway and water competition through tire and gasoline rationing and the shortage of shipping. However, the record of the Canadian National in the war years served to indicate the potentialities of the system, and also demonstrated that,

1. Since the above article was prepared for the press the Federal Minister of Transport has announced that on 1 January, 1950, Mr. Vaughan will retire and be succeeded by Donald Gordon, formerly Chairman of the Foreign Exchange Control Board and the Wartime Prices and Trade Board.



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Completed sections of trackwork being assembled in the yard of the shop before being moved to final location.

given the traffic and a reasonable rate structure in relation to existing wages and prices, the property was capable of earning a substantial profit. During the years 1941 to 1945, the Canadian National turned over to the Government \$113 million in profit after all interest charges.

Since the end of the war, new problems have arisen. As the country adjusted itself to a peacetime economy and most of the economic controls imposed during the war were discontinued, strong inflationary pressures have been generated. Railway freight traffic has remained at a high level, but railway operating costs have increased due to rising prices and wage rates. These increases in 1948, for example, as compared with 1939, added \$170,006,000 to the system's operating costs, with \$107,741,000 for labour and \$62,265,000 for material. While in 1948 the gross revenues were the highest in the company's history, there was a net

operating revenue of only \$26,529,980 and the year's operations resulted in a deficit of \$33,532,741 after the payment of taxes and all interest charges, including \$21,627,033 in interest to the Canadian Government.

Today's Problems

The foregoing paragraphs have outlined in very general terms the history of the Canadian National up to the present day. The story cannot be told adequately in such short space, but the main purpose of this article is to discuss today's problems. The historical sketch has been included to provide the background for a better perspective of the system's current problem. A knowledge of history is a prerequisite to intelligent discussion of current questions in almost any field.

Let us now consider some of the important problems faced by the Canadian

National in this post-war era:

1. The increased cost of wages and materials without a corresponding increase in charges for railway services;
2. The freight car shortage;
3. Deferred maintenance of roadway and equipment;
4. Highway competition in relation to the railway freight rate structure;
5. The capital structure of the Canadian National Railways.

No attempt has been made to list these factors in the order of their importance. It will be noted that the first three have become serious more recently, while the others have been with the system for many years. Also, the first four apply generally to most railways on the continent, while the last-named is a particular problem of the Canadian National.

1. Increased Costs

The increased cost of wages and materials obviously has been beyond the control of the management. The only method of combatting the effects of these higher costs, apart from such increases in efficiency as are possible, is through an increase in the selling price of the Railways' product—transportation. Every Canadian is now familiar with the fact that in the fall of 1946 the country's railways, through the Railway Association, applied to the Board of Transport Commissioners for a 30 p.c. increase in freight rates. The Board granted a 21 p.c. increase with certain exceptions, which, on the whole, would result in an average rise of approximately 18.2 p.c. for all Canadian traffic. The new rates took effect from 8 April, 1948. On September, 1948, certain competitive rates, which had previously been depressed below normal to meet highway and water competition, were increased by 15 p.c. During the year there were also freight rate increases on traffic local

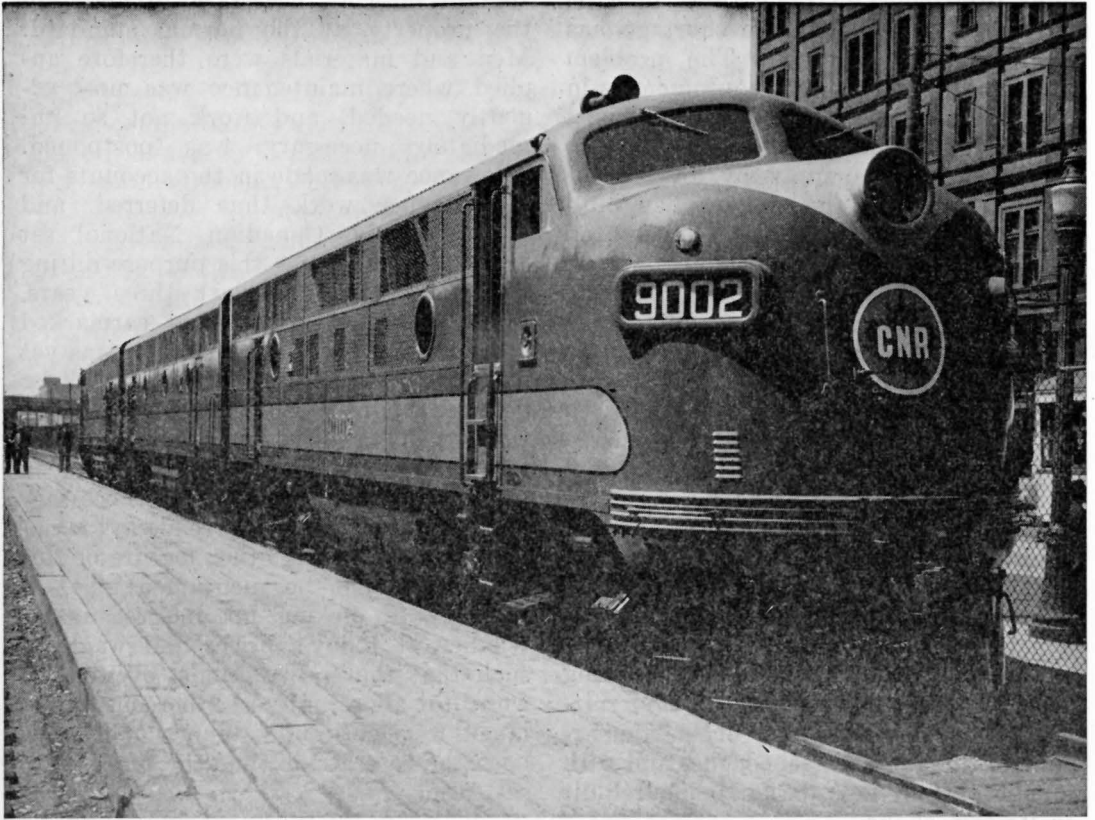
to American lines and on international traffic.

These freight rate increases added \$44 million to Canadian National income in 1948, but wage increases and changes in working conditions, together with the higher cost of materials, more than swallowed up this additional revenue. The former added \$39.1 million to the 1948 payrolls, while the latter added approximately \$21 million to the system's costs. The Railways' application to the Board of Transport Commissioners for a further freight rate increase of 20 p.c. is now pending.² The original award was appealed to the Governor-in-Council by seven Provinces, with the result that the increase was allowed to stand pending review by the Board. Also, a Royal Commission on Transportation was set up to consider, among other things, aspects of the rate case not coming within the jurisdiction of the Board of Transport Commissioners.

2. Freight Car Shortage

The shortage of freight cars is a problem which has not by any means been confined to the Canadian National Railways. In fact it has affected all railways on the North American continent. The Canadian National—in common with many other lines—has found it economical in the past to depend to a certain extent upon borrowed equipment to meet its car requirements. The reason for this is that the demand for freight cars varies seasonally with traffic, and the peak periods during the year do not necessarily correspond from one railway to another. To own a sufficient number of cars to take care of peak requirements would involve a risk in normal years—and a certainty in low traffic years—of having a good proportion of the cars idle during part of the twelve months. The policy of borrowing cars through the medium of car service rules governing

2. On 22 September, 1949, the Board granted an increase of 8 p.c. pending further consideration of the carriers' application for 20 p.c.

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In 1948, two powerful diesel-electric road locomotives were placed in freight service over Canadian National lines between Montreal and Toronto.

all railways in Canada and the United States worked satisfactorily for the Canadian National for many years. During the war, the car manufacturers were unable to supply new freight cars to the railways in sufficient numbers because of the steel shortage and a continent-wide deficiency in freight cars developed. This shortage would have been much more serious were it not for the following factors:

1. Increased efficiency in the use of freight equipment;
2. The retention in service of cars which would normally have been scrapped for reasons of economy;
3. Regulations as to minimum loading, etc., and changes in car service rules.

For instance, on the Canadian National the net ton miles per car per day—one

measure of efficiency in the use of freight cars—were in 1944 more than double the 1928 figure.

During 1946 and 1947, the Canadian National received 2,360 new freight cars and converted 57 cars. But since 2,559 were retired from service in the same period, the result was a net reduction in ownership of 142 cars from the end of 1945. Consequently, the Canadian National was still experiencing a car shortage at the beginning of 1948. This was true of other railways also, and at that time railways authorities in the United States were advocating a greater allocation of steel to car builders to enable more cars to be produced. During 1948 the Canadian National increased its ownership of freight cars by 5,189 and thereby eased the shortage on its lines. Today, while the system at times still

finds itself short of some types of cars, it can be stated that the shortage has been largely overcome. The problem in regard to this type of equipment is in fact undergoing a change. In the past few years the chief endeavour has been to increase the car supply by any means available. Now the system has built up its ownership, but it has a substantial number of old cars on hand. Thus today's problem is twofold, requiring decision not only on the date of retiring an old car, but also on the question as to whether replacement of that car by a new one is justified by anticipated traffic conditions and other factors.

The same difficult situation has developed in regard to passenger equipment. In the past three years, 178 new cars have been added and 33 cars have been converted, but, with 263 retirements in the same period, there has been a net reduction of 52 cars. In spite of supply shortages, the company is making some progress, however, in modernizing its passenger equipment, particularly with the new all-steel coaches and with lounge cars of new design being rebuilt in its own shops.

There has been a slight increase in the number of locomotives. Most notable is the extension of the use of diesel-electric power. The Canadian National pioneered with this type of equipment as far back as 1925 and in the past three years it had added considerably to its roster of diesel-electric locomotives. In 1948 the multiple unit locomotives, the largest and most powerful of their kind ever introduced in Canada, went into main line freight service.

3. Deferred Maintenance

The increased traffic during the war accelerated the wear and tear on roadway and equipment. Furthermore, the policy of restricting equipment retirements to a minimum increased the amount of maintenance work required. As the shortage of labor and materials developed, however, it was impossible for the available staff to carry out the full

amount of work necessary to maintain the property at the normal standard. Men and materials were therefore applied where maintenance was most urgently needed, and work not so immediately necessary was postponed. Allowance was made in the accounts for maintenance work thus deferred, and altogether the Canadian National set aside \$39 million for this purpose during the war. Over the last three years, \$17.5 million of the amount earmarked for equipment has been used, but as yet only \$4.5 million of the funds held for deferred maintenance of way and structures has been spent. This demonstrates the difficulty the railway has been experiencing in obtaining the necessary men and materials for roadway maintenance work. One other feature of this situation might be mentioned: that is the cost of picking up deferred maintenance at today's prices and wages is such that the special funds, even if we were to allow interest thereon, cover much less work now than would have been the case at the time the funds were set aside.

4. Highway Competition and the Freight Rate Structure

A few years ago, an analysis of railway freight traffic indicated that the railways were then carrying approximately 50 p.c. of all commodities at less than full cost, about 25 p.c. roughly at cost and the remaining 25 p.c. at rates above cost. At today's costs, and in spite of freight rate increases, it is probable that the first mentioned figure is larger and the latter two percentages are smaller. However, these figures will serve for purposes of illustration. If the railways are to operate at a profit under this system of rate making, then the rates for the latter 25 p.c. of commodities must be set artificially high to balance the loss taken on the other 75 p.c. of commodities. Before the highway truck appeared on the scene, many of these rates were higher than truck operating costs, so that when the truck operator

came along he found an artificial field of opportunity made to order for him. Since then, the railways have had to reduce some of these rates to meet truck competition but, as a result, the amount available to make up for the low rate commodities has been lessened.

Diagnosis of the problem is one thing; the solution is something else. It would not do for the railways to base all their rates on cost, even if the Board of Transport Commissioners would approve such a move. To do so would restrict the markets of many commodities to a serious extent, raise the cost of living and of doing business in certain sections of the country, and very probably upset the whole economy of the country. It is doubtful if the railways would stand to

gain anything in the long run from such a step.

Must it be concluded then that the problem is beyond solution? Certainly not. The country as a whole has a large stake in the search for the answer, since the extent to which the trucks have been able to capture railway traffic by artificial means represents an economic loss to all of society. The uneconomic use of highway transport is costing Canada in the neighbourhood of \$75 million a year, and the subject is therefore one well worthy of serious consideration by every thinking Canadian.

A first step towards solution would be the control of competitive railway and highway services by a common authority. At present, the railways are subject to

Section gangs maintain railway roadbeds with the aid of the latest equipment. This powerjack lifts the rails to the required height, permitting the gravel to be shovelled underneath.

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control by the Board of Transport Commissioners, but the highway operators are subject only to the control of the various Provincial Boards. A common control would permit consideration of public convenience and necessity from the national point of view. It would also constitute a progressive step towards the ultimate solution which must, of course, be the development of a national transportation policy that would provide the most satisfactory service at the lowest cost to the country as a whole, with both railway and highway transport operating within their rightful economic spheres. This whole question is one within the purview of the Royal Commission on Transportation now in progress, and it is to be hoped that some forward steps towards the solution of this problem may evolve.

5. Capital Structure of the Canadian National Railways

Mention has already been made of the heavy debts accumulated prior to amalgamation by the privately owned companies now included in the Canadian National Railways. The liabilities of these companies which were transferred to the system in 1923 resulted in fixed charges so burdensome that there was little hope that the Railways would be able to meet all interest charges. The Canadian National, ever since amalgamation with the Grand Trunk in 1923, has always earned an operating profit. But the deficits which were incurred after taking into account the interest charges on funded debt were added to the interest-bearing capitaliza-

tion for several years. Thus the fixed charges assumed increasing proportions. Some corrective action was taken with the passage of the Capital Revision Act in 1937. By this Act, inter alia, Government loans for previous deficits and accrued interest were eliminated from the Government debt of the system, and appropriations for previous capital expenditures were converted to equity capital. Even with this adjustment the fixed charges remained at an inflated figure. The fixed charges of the Canadian National Railways per dollar of revenue are about double those of the Canadian Pacific and of Class I railroads on the North American continent.

Further adjustment of the capital structure of the Canadian National Railways is a matter for decision by the Government and approval by Parliament after a thorough consideration of all the factors involved. It is the feeling of the system's management that some reduction in the fixed charges should be effected and representations to this effect have already been made to the Government. This matter has been specifically referred to the Royal Commission on Transportation for its consideration.

This article has necessarily been brief, and many interesting and important details have been omitted. It is hoped, however, that the reader will have obtained from it a better appreciation of the Canadian National, the service it has rendered, and some of the problems it faces in this post-war era.

