

CANADA'S TRANSPORTATION PROBLEM.

BY E. B. BIGGAR.

Re-examining our economic relations to our fellow men and to the state, we find that out of what we produce—whether we are farmers, artisans, merchants or manufacturers—we pay toll or taxes mainly in two forms; first, on what we send out or take in from one place to another within our own country, and second, on what we import from other countries. The first we speak of as transportation charges, the second as customs duties. If we were born and educated in the planet Mars and dropped down upon the earth to investigate things anew, we would wonder why the second class of tolls upon our labor and income, though of minor consequence, is regarded as of the greatest political importance, while that which concerns each one of us most nearly, since it is an impost on everything we sell as well as everything we buy, is considered by many to be a matter almost outside the domain of politics. The readjustment of the customs tariff on an item that may add one dollar to the cost of a suit of clothes is a subject of such contention as may decide the fate of a government, but a railway official may, by a whim, or to meet an exigency, revise a schedule of rates which will add hundreds or thousands of dollars to the cost of our business, and the change seems to be accepted as a decree of fate.

Years before confederation became a practical issue in British America, a transcontinental railway under state control or ownership was advocated as a means of welding together the scattered groups of British colonies throughout the world, and so long ago as 1847 the prophetic vision of Major Carmichael Smyth saw in such a continental railway "a great link required to unite in one powerful chain the whole English race." There is the clearest proof that the need of a government owned transcontinental railway, both for imperial political purposes and for economic reasons, was felt long before there was a conviction in all the provinces that confederation itself was required. Antagonism to the confederation on political grounds lingered in some quarters long after the Act of Union came into force; while the warmest advocates of the measure found it necessary to acknowledge in a formal way in the terms of the union that, "the construction of the Intercolonial Railway is essential to the consolidation of the union of British North America and to the assent thereto of Nova Scotia and New Brunswick."

The Intercolonial Railway, however serviceable for local purposes, has always stopped short of that point where it could give to all the provinces the benefit of the lowest rates and best service from prairie to Canadian seaboard. For a time it ended at Riviere du Loup, then after a long delay at Quebec, and a still longer time elapsed before it reached Montreal; and all this time the railway traffic of Quebec and Ontario, and later on that of the new prairie regions, found its way to the sea, largely by way of Portland, Boston and other United States ports, instead of through the ports of the Maritime Provinces, which had paid for it by their assent to the union.

The high rates charged under the private ownership and control of the Canadian Pacific Railway have operated as a handicap alike upon the people of the West, and upon the fishermen, farmers, manufacturers and merchants of the Maritime Provinces—the former because prices have been depressed and the latter because the excessive tax of transportation cuts them off in competition with the producers and manufacturers of the middle western states, who ship to Canada at a cheaper rate. The same handicap operates against Ontario and Quebec.

Recent investigations of freight rates, passenger rates, express rates and telegraph rates, show that the cost of

heard of it in Winnipeg and St. Paul. The work was in charge of the Forest City Paving & Construction Co., and the architect W. W. LaChance, Esq., of Saskatoon. The reinforced concrete was designed by the writer, using twisted and round bars and following the specifications of the American Society of Civil Engineers. When the writer returned to Saskatoon he found that B. V. Hole, Esq., general manager of our company, had secured the services of W. R. Harris, C.E., M. Am. Soc. C.E., to superintend the making of tests on the buildings and that tests had already been made on the Willoughby building, and that same had proved satisfactory. Soon after, tests were also made on the Willoughby-Sumner building, which also proved satisfactory, and we enclose herewith a copy of the report by W. R. Harris, C.E., on these tests.

I might say that I am sending this letter to you at the suggestion of Geo. H. Archibald, Esq., contractor, Winnipeg, he having called the writer's attention to the fact that the reports circulated regarding these buildings had injured the standing of reinforced concrete construction in Western Canada, and that it was in the interest of the trade in general that a satisfactory explanation be made. The writer agrees with Mr. Archibald in this, and hopes you may see fit to give this letter the publicity it may deserve. Yours very truly,

E. W. HYDE, JR.,

Manager Saskatoon Branch Forest City Paving & Construction Co.

Forest City Paving & Construction Co., Saskatoon, Sask.

Gentlemen,—I desire to report as follows, regarding examination and tests of two concrete buildings being constructed by you in this city:

On October 31st I examined the concrete and supervised the test loading of beams and floor slabs in the Willoughby building and found the concrete hard and sound.

Floor slabs and beams were subjected to a test load equal to $2\frac{1}{2}$ times the estimated safe live load of 70 pounds per square foot, with a maximum deflection of $\frac{1}{8}$ inch.

The deflection was normal and the examination and tests indicate that the structure is fully capable of serving the purpose for which it was designed and constructed.

On November 3rd the Willoughby-Sumner building was examined and tested, and in general the concrete was found to be hard and sound.

It was apparent that the concrete in this building was gaining additional strength with age, as is to be expected of concrete properly made.

All floor slabs and beams tested, except one, showed a normal deflection of $\frac{1}{8}$ inch.

The one exception was a beam through which four electric conduits passed, the deflection on this beam was $\frac{1}{4}$ inch with a development of small cracks in tension side of beam.

This beam was not tested to destruction nor was permanent injury caused same by the test.

This building is capable of carrying the loads for which it was designed.

The first, second and third floors of the Willoughby building and the first and second floors of the Willoughby-Sumner building were tested; the remainder of the floors were not tested because a sufficient time had not elapsed since the floors were poured to justify such a severe test loading. Yours very truly,

(Sgd.)

W. R. HARRIS, Saskatoon, Sask.