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THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion being the only representative in Canada of this foremost branch of the resources of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

THE CHICAGO DRAINAGE CANAL.

EVERYTHING relating to the carrying trade on the great lakes is of such importance to the lumber interest that we do not require to apologize for referring at some length to the Chicago drainage canal, about which so much is being said in connection with the unprecedented low water, which has and is interfering so much with navigation, and which has been attributed in a large degree to the effect of the canal.

It will be remembered that the United States Government some time ago appointed a commission of engineers to inquire into the effect the canal was exerting on the water levels in the great lakes. This commission recently reported, and having been fortunate enough to secure a copy of the report from Washington, we are in a position to state how far the conjectures as to the effect of the canal on the lakes are correct, at least from the standpoint of the United States officials.

The commission consisted of Brigadier General O. M. Poe, U. S. Army; Major E. H. Ruffner, Engineers' Dept., U. S. Army, and Major W. L. Marshall, Corps of Engineers, all men well qualified, we should judge, to make an impartial inquiry. Their instructions were to consider and report upon "the probable effect of the operation of the Chicago drainage canal upon the lake and harbor levels, and upon the navigation of the great lakes and their connecting waterways." They met in Chicago on the 12th of August, and in company with the officers of the canal made a trip over the line under construction.

In the report a brief description of the work is first given. This we may pass over, as we are concerned only with the effect of the work on the navigability of the great lakes. The commission point out that this effect can only be ascertained by a series of minute measurements and observations. These were to some extent taken after the canal was placed under contract, but further data are required before an accurate determination can be arrived at. These observations must be made at the Niagara river, the only outlet of the

great lakes, supplemented by observations at the St. Clair river, where there is a considerable fall from the level of lakes Huron and Michigan.

The conclusion arrived at by the commission is that the levels of the great lakes (i.e., Michigan, Huron and Erie) will be lowered by the Chicago canal. To what extent remains to be shown by future investigation.

The water levels of the great lakes are very delicate. Storms, barometric changes, rain fall, and even tidal changes are felt. Records kept at Buffalo show a variation of as much as 13 feet between the lowest and highest readings. A series of very careful observations is therefore necessary to determine the effect of any one cause on the lake levels. The act authorizing the Chicago canal, and the intention of the trustees, contemplates the abstraction of 300,000 cubic feet of water per minute from Lake Michigan. This would probably permanently lower the water in the lakes three inches. But it is contemplated ultimately to enlarge the canal so as to abstract 600,000 cubic feet per minute, which would lower the lakes six inches. Mr. Johnston, assistant chief engineer, as the result of some observations made by him, thinks it may amount to seven inches. Any of these figures is enough to cause alarm to navigators.

As a rule vessels carry all they can take, so as to go out of one port and into that they intend to reach. Some harbors are deep enough for them to disregard this consideration, but it is the rule. If the average depth is reduced three or six inches they must load accordingly. A vessel that when light draws six feet, and loaded twelve feet, will, if the water is lowered three inches, lose three inches out of seventy two, or about four per cent. in capacity each loading; a vessel drawing twelve feet light and twenty loaded, would lose over three per cent. Should the load be reduced six inches these figures would be doubled.

The commission further point out that the effect of the canal on the inner harbour of Chicago itself, by creating a strong current, may be disastrous. With that, however, we have no concern, further than that it might effect the carriage of lumber to that city by vessel to a limited degree.

What is to be done, then? The commission recommend a series of close and accurate observations, and if it should be determined that the canal is going to seriously affect the navigation of the great lakes, the federal authorities at Washington must exercise their undoubted right to control what becomes not a state but a national affair, and take such steps as may be considered necessary to preserve the navigability of the lakes from injury.

There is one aspect of the case which the United States commission has not touched, and which has a special bearing upon the lumber interest. By a lowering of the levels of the great lakes the water will be drawn more rapidly out of the streams flowing into them. A very superficial knowledge of hydraulics will make this manifest. Many of our streams on which lumbering operations are carried on have diminished in volume, or have become subject to more rapid changes from flood to low water in consequence of the draining of swamps, the clearing of the forests and other causes arising from the settlement of the country. Anything that would tend to draw off their waters more rapidly must work injury to the lumber trade. The Canadian government has appointed an engineer to inquire into the effect of the canal on Canadian interests. We would suggest that he be instructed to investigate this feature of the case.

THE SPOOL BAR TRADE.

PRACTICALLY all the wood used for making spools for thread, in both Great Britain and America, is cut in the forests of Maine. The wood is shipped in the form of bars, from which the spools are turned in a lathe. So great is the quantity of lumber required each year for these seemingly insignificant articles that Maine will not be able to supply it much longer. About 4,000,000 feet is consumed per annum, 2,000,000 for export and 2,000,000 for domestic use. The business began in Maine twenty-five years ago, and the land which was cut over then is grown up with young trees, but they will not be ready to cut for twenty-five years more, as it takes fifty years for white birch trees to attain a growth to fit them for profitable use for the purpose indicated.

Spool bars are, however, being cut in considerable quantities in New Brunswick, the character of which province is in many respects similar to that of Maine, which it adjoins. One mill has recently shipped its season's cut to Scotland, and it is being equipped with steam power, which will enable it to make a larger output next year. Vast quantities of white birch are to be found on the Miramichi river, which will become available. The thread-makers cannot depend much longer on Maine for their supply.

There are large quantities of white birch up the Ottawa which should be suitable for spool bars. We are not aware that any of it has yet found its way to the market, but as the supply becomes exhausted in other places it will doubtless be turned to account, and prove a valuable asset, unless indeed the thread-makers should take to using some other material, paper for instance, for making spools.

EDITORIAL NOTES.

AN English paper gives the value of the wood pulp imported into Great Britain from Canada last year as \$14,205. For the previous year it was only \$178,255. These figures indicate a large and rapid growth and are extremely satisfactory. A further increase may be confidently looked for in consequence of a short supply of straw for the English mills.

ONE of the best opportunities for investment in timber lands on the Pacific coast is said to be North-Western Oregon. It is estimated there are nearly 30,000,000,000 feet of spruce, fir and cedar on the five streams emptying into Tillamook Bay. Who of our Canadian lumbermen will go in and capture it? If it was the other way, and the timber stood on Canadian soil, we venture to say some enterprising United States lumbermen would soon have it.

THE question how to dispose of sawdust has always been a difficult one with millmen, and even in steam mills, where it is used for fuel, the subject will not down, for more sawdust is produced than the ordinary furnace can burn. A new industry is being started in Ottawa, which it is hoped, will help to solve the difficulty and at the same time turn to useful account the waste product which has caused so much perplexity. A Mr. Olier has patented a process for converting the dust into fuel. What his method is has not been given out, but we presume it is some plan of mixing it with tar, or other inflammable material, and pressing it into blocks. He has associated with him Mr. John McLatchie, and a plant is being set up at the Chaudiere, where abundance of the raw material can always be obtained. The fuel will be tested on a locomotive of the C. P. R. It will be cheaper than coal, will give a quicker fire, is cleaner even than wood, and gives little smoke or ashes. It is to be hoped it will prove all that is claimed for it. Better burn the saw dust in our furnaces than allow it to fill up our streams and kill the fish.

VERY little lumber is being carried through the Welland Canal this season, a condition of affairs for which the vessel owners blame the tolls which are imposed by the Government. The toll on lumber is 30 cents per M feet, and on coal, which the vessels count on carrying back as return cargo, 20 cents per net ton, (the vessel being paid freight on the gross or long ton.) In both cases this is considered excessive as compared with the toll on grain. Anthracite coal makes a convenient return load for lumber carriers going to Oswego, but the toll prevents vessels taking on cargoes, and they pass through the canal light, and go either to Buffalo or an Ohio port for a cargo of coal for the upper lakes. The toll on bituminous coal going east also prevents many vessels from using the canal. The Erie canal is free and makes that route the cheaper to Oswego. Shippers would prefer to use the Welland Canal for lumber, as it would go through without transshipment, whereas by the Erie canal route it has to be transhipped from lake vessels to canal barges at either Buffalo or Tonawanda, being deteriorated by the handling. Only two or three vessels are engaged in lumber carriage through the canal this season, and they belong to parties who own the lumber and have lumber yards at Ogdensburg.