

QUEBEC FOREST RESERVES.

The following is the text of the measure passed in the Province of Quebec for the purpose of establishing Timber Reserves. The other Provinces might well imitate this good example:—

An Act to further amend chapter 23 of the Consolidated Statutes of Canada, respecting the sale and management of timber on public lands, and the Acts amending the same.

Her Majesty, by and with the advice and consent of the Legislature of Quebec, enacts as follows:—

1. The Act of this Province 39 Vic., cap. 11, is amended by adding at the end thereof the following sections, which shall be taken and construed as forming part of the said act.

"5. The Lieutenant Governor in Council may, as soon as the necessary information can be obtained, after the coming into force of this act, set apart as: "Forest land" all the ungranted lands of the Crown now held under licenses to cut timber," except such parts of such licensed lands on which no merchantable pine or spruce timber grows and which are fit for settlement, and also such other portions of the ungranted lands of the Crown as the Lieutenant Governor in Council, on the recommendation of the Commissioner of Crown Lands, may think fit so to set apart; and as soon as the order or orders in Council setting apart such forest land shall be published in the Quebec Official Gazette and from and after the date of such publication, no land included in the territory so set apart shall be sold or appropriated for settlement purposes, until after the expiration of at least ten years, and not then until it is established to the satisfaction of the Lieutenant Governor in Council that the whole or any portion of such territory may with advantage be opened for settlement. The order or orders in Council withdrawing such territory shall likewise be published in the Quebec Official Gazette. The land so set apart shall be known and designated as a "Forest reserve."

"6. In the renewals of licenses effected after the publication of an Order in Council creating a forest reserve, it shall be the duty of the Commissioner of Crown Lands to exclude any land therefore under license in the locality and which is not included in the reserve."

2. Whenever any such lands cease to form part of a "Forest reserve" and for the purpose of securing to settlers, who may thereafter occupy the same, the timber they may require, to facilitate the performance of their settlement duties, section 2 of the said chapter 23 of the Consolidated Statutes of Canada, is amended, by adding after the words: "in all," in the sixth line thereof, the following words: "red and white pine, spruce, tamarac, birch, oak, walnut, cedar, butternut, and basswood."

3. After the coming into force of this act any license issued for the cutting of any timber under the authority of the said chapter 23 of the Consolidated Statutes of Canada and its amendments shall contain a special description of the trees, timber and lumber which it is permitted to cut thereunder, and they shall be of the kind mentioned in the preceding section and none others.

4. This act shall come into force on the day of its sanction.

DEVICE FOR TRANSPORTING LOGS.

THE *Lumberman's Gazette* says:—The great expense involved in transporting logs by raft has stimulated the minds of many who are interested to an unusual degree of activity, and the question has been, and is still with many, can we get up something to transport our logs economically and safely? Cribs have been tried, but so far without success, one gentleman expended \$100,000. Some lumbermen have given up all hope of transporting logs and have contemplated moving their mills near the source of supply. Mr. D. W. Case thinks he has solved the problem. He has very recently been granted a patent on a sectional boat designed for the purpose of carrying logs. Mr. Case claims he can carry logs at one-half the cost of rafting. The risks of loss he further claims would be reduced to a minimum, being no greater than the transporting of a cargo of lumber by vessel. He also claims, first, that the boat can be loaded with 500,000 feet of logs in three hours; secondly, it can be unloaded in 30

minutes, and is of light draught. Mr. Case has received numerous letters of inquiry, some parties wishing to make a purchase of the patent. A successful device for carrying logs would be of incalculable value to Bay City, and we sincerely hope it may be all that he anticipates.

SOILS ADAPTED TO HARDWOOD.

Long observation and diligent research appears to have proven that mild loamy soil in which sand and lime are present in a higher degree than clay—fresh, deep, and rich in vegetable mould—is favourable to the growth of many forest trees, such as the oak. Lime is best suited for beech, ash, maples, elms, black and Austrian pines, dwarf pine and yew. A binding clay without sufficient humus is not adapted for forest trees. In the heat of summer it cracks and injures the rootlets. Soils, if rich mineraly, although these yield trees of greater height and solid contents, will, if moist, produce timber of inferior quality and less durability.

The beech requires a strong mineral soil fresh and rich in humus. Its true home is on lime, basalt and green-stone, if the soil is not too thin. It is often found with the oak on sandy-loamy deposits, if not too dry or too moist, but on poorer and lighter soils or in exposed places it grows but slowly. Its wood is usually worth less than other hard woods in the market.

The oak depends less on the kind of soil than on its quality, the amount of humus, and above all, of moisture contained in it. The best growth occurs in a deep somewhat loamy sand, or sandy loam, but it thrives well on loam or sand. Although it prefers moisture, it will not grow in marshes unless drained. In forests the oak attains greater dimensions when grown with other oaks alone; for it thrives best with the crown free, the stem sheltered and in shade, and the foot under covering. The oak also thrives well when mingled with the beech, provided the situation is not exposed or the soil shallow.

The ash and elm have much in common, are found on similar soils, and may be classed together as regards their treatment. The true home of the ash is on a rich, loose, strong mineral soils, abounding in humus and even in binding ones, if fertile. Dry, poor soils are not suitable, and it requires a moist soil. The ash must have plenty of light, hence it does not thrive so well in pure forests. It does well in beech forests, and may be grown with oak, maple, hazel, sycamore, elm, etc., etc. In a word, these mixed forests yield in most cases a larger revenue than either of the varieties alone.

The maple delights in fresh, strong mineral soils, such as lime and basalt—in short, such as the beech, but does not bear so much moisture as the ash or elm. The sycamore makes greater claims on the soil in mineral strength and moisture than the maple.

In general, the effect which the soil and sub-soil have on the quality of timber may be expressed scientifically as follows: The combustible tissues of timber, or those liable to decay by exposure to atmospheric or other agencies, are carbon, oxygen, hydrogen, and nitrogen. The absolutely necessary constituents of the ashes, or portions not liable to decay, are iron, potassium, sodium, etc., etc. It follows, then, that according as the percentage of combustible tissue exceeds that of incombustible, the timber will be less durable, and for technical purposes, of less value. Therefore, soils and subsoils in which there is a fair amount of lime, potassium, silica, etc., in a word, those rich in alkalies, produce timber of the best quality, while such as contain an abundance of moisture yield timber neither of such durability nor of so high value.—*Rural Canadian.*

DULUTH BUSINESS.

Duluth is rapidly coming to the front as a lumber producing region. It is predicted that the lumber industry will be prosecuted at that point the coming season with unusual energy, and that the output will be at least one-fourth that of Saginaw River. By some parties the season's cut, which will soon commence, is estimated as high 300,000,000 feet, but probably a closer estimate would be about 250,000,000 feet. The people of Duluth are exceedingly sanguine

in regard to the future prospects of that enterprising and thriving city. There are many citizens of Bay City there and they all concur in the belief of a prosperous future for the new city in which they have set their stakes. The northwest furnishes an eager and remunerative market for their lumber, and being on a direct line of rail communication with that growing and thriving country, with a fair prospect of becoming the terminus of the roads, and an extensive shipping point, the enterprising people who have settled there have excellent foundation for the faith that is in them. Duluth must evidently advance rapidly in population, business interests and permanent growth.—*Lumberman's Gazette.*

ST. JOHN, N. B., DEALS.

The *Monetary Times* says:—The lumber export of St. John during March amounted to 1,276,000 superficial feet of deals, battens and boards, 21,000 pieces palings, 530 tons birch and 7 tons pine timber. This went to Liverpool, Glasgow and Dublin. The shipments from that port for the quarter ended 31st, ult., were as under:

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|--------------------------------|-------------------|
| Deals, battens, deal ends..... | 9,651,386 sq. ft. |
| Scantling and board..... | 40,498 " |
| Palings..... | 39,000 pos. |
| Birch..... | 530 tons. |
| Pine..... | 279 " |

The timber all went to Liverpool, as did some of the deals and palings. But London got the largest shipment of deals. Glasgow 1,399,000 feet, the Continent 1,341,000, Penarth, Dublin, Greenock, Barrow, Belfast and Africa the remainder.

OTTAWA NOTES.

The *Monetary Times* says under the heading of Ottawa:—The amount of timber cut this season will largely exceed that of the past few years. Although this is the case, the number of logs waiting to be forwarded to the mills is about the same as that of last year. In the way of explanation it will be remembered that the year previous to last there was a scarcity of water, and consequently a good deal of the timber cut then was unable to reach the saw mills.

The supply of water last summer was in excess of what was required, and therefore the cut of the preceding winter not only found its way to the capital, but the retarded portion of the previous year as well. At the close of last season very few lumber merchants had on hand any timber to be manufactured, and none on its way in the river. Indeed, as most of our readers are aware, many of the mills for want of logs had to shut down before the season really came to a close. In a few days the saw mills at the Chaudiere will be in full blast, preparations being at present under way with a view to that end, and no matter how favorable the coming season may be there is an ample supply of timber waiting the freshest to keep the machinery and men busy until the fall.

Mr. Peter McLaren, a prominent lumberman, has stated that his cut this year will be about 80,000,000 feet of lumber and 8,000 feet of square timber. The square timber will be brought to Kingston by train, and then rafted and sent down the river, this trade previously belonging entirely to the Ottawa.

SWEDEN.

The Stockholm correspondent of the *Timber Trades Journal* writing on March 24, says:—Many of the large producers have already acted on the agreement referred to in my last letter, to reduce the log output, and have withdrawn the horses and men from the woods. This is, I am given to understand, more especially the case in the Sundswall district, where stocks are proportionately largest. These measures are already having a beneficial effect, and several transactions are reported during the last fortnight at somewhat higher figures than those current a month ago.

The weather has taken such a severe turn in Norrland lately, that I am obliged to admit that there seems little chance of the timber ports opening so early as was at one time anticipated. There has again been a very heavy snowfall, accompanied by frost, which, at time of writing, has covered the Gulf of Bothnia with ice as far as can be seen from many of the

lighthouses. According to present appearance, therefore, no great weight of sawn wood from Sweden can reach Great Britain before June, thus giving a good breathing space to importers, some of whom will be bare enough of stock by that time from all accounts.

Several inquiries are to hand from the Cape and Australia for sawn wood cargoes, but exports to these places are scarcely likely to be equal to last season. Several orders have also been placed to the north of Africa, more especially to Algerian ports and Tunis, where Swedish sawn wood meets with a comparatively new and extending market. Fair sales have also been effected to Spain and Portugal, and reasonable prices have been obtained, notwithstanding the competition of some of the Finnish exporters.

MONTEREAL NOTES.

The *Gazette* says:—The prospects for the lumber trade during the approaching season are quite of a cheerful character, and it seems to be now generally conceded that there will be a large American demand for pine, and we understand that some extensive contracts have been already concluded both in this and the Ottawa districts on p. t., but said to be at full prices. Hard woods are held with considerable firmness, as there is a good demand on American as well as local account, the principal enquiry being for cherry, ash and walnut. The advance in laths has been well maintained, sales being reported at \$2.50 per 1,000. The export outlook for deals and lumber is said to be very fair, and altogether the prospects are very favorable for a good season's business.

Lake Freights.

The *Kingston News* says:—Private information from Chicago and Detroit has made glad the hearts of vessel owners in this locality. It is stated that the outlook for vessel business is better than it has been for a number of years past, and owners are now unwilling to accept freight that they would have been glad to accept two months ago. There will be more lumber to carry than there was during any previous season, the winter having been most favourable for taking out logs. Every western city is barren of coal, and therefore will require a large amount of tonnage. In consequence of this news the mariners were quite takative this morning.

Indian Forestry.

A report on the forest administration of British Burmah says:—One of Ransome's steam tree-fellers has recently been procured from England for use in the preparation of locomotive fuel for the Irrawaddy Valley railway, the demand for which is at present about 10,000 tons a year. The machine is expected to save much expense and labor. The forests where the timber is to be cut will be re-sown with seeds of teak, pyingado, and other trees, the reproduction of which, with careful protection from fire, runs little chance of failure.

THE *Northwestern Lumberman* says:—Surveying the entire field, we find that at the East prices are firm, trade active and promising, causing a confident feeling as to values at the producing points in New England, New York and Eastern Michigan, for pine and spruce as well as at the wholesale markets that derive their supplies from the sections named. At the same time, while there is an acknowledged active demand throughout the Northwest, there is a considerable weakness manifest in the wholesale yard trade about prices. On the upper Mississippi and in Wisconsin the manufacturers sympathize with the weak feeling, in sharp contrast with the manufacturers of west Michigan, the latter taking their cue from Saginaw. The views of the Green Bay manufacturers seem to be "betwixt and between;" they are prepared to saw lumber to the full capacity of their mills, and take the advantage of either high, medium or low prices. They have yards for assorting and distributing, an unrivaled facility for shipment, and can compete with either Muskegon or the Mississippi. The manufacturers in northwestern Wisconsin, and in Minnesota, seem to have fixed in the minds that lumber this year must be sold cheaper than it was last.