

## THE FORESTS OF CANADA.

IN the wise and beneficent arrangements of Providence, nature is provided with a reproductive quality to guard against the destructive course of time. The avarice of man, however, too often overlooks the bountiful provision thus made for his benefit, and acts in the present as though there were no future. One of the purposes for which governments are established in the world is to guard against the consequences of this fatal propensity. The unnecessary waste and improvident destruction of the forests of Canada present a lamentable illustration in point. Hundreds, indeed, we may say thousands, of square miles of timber are, almost annually, destroyed by fires in the woods. Pine lands of great value for the timber quality are settled upon, under the existing government regulations, by persons who have no interests at stake in the productions of the forests, beyond the whiskey and beer profits which can be made from keeping taverns or groceries along the roads travelled by lumbermen.

We are informed that five out of six of the fires in the woods can be traced to the clearances of such settlers as these. Another class of settlers, less pernicious, but equally damaging in the main to the true interests of the country, is to be found amongst irresponsible speculators who rent the public timber lands for a short time. Thus a double system of injurious consequences is—unintentionally, no doubt—encouraged by the government in its desire for immediate realization from the forest lands of the country. The first injury, as we have already remarked, arises from an attempt to settle lands by agriculturalists, which nature did not intend for that purpose, and the second, from inducing all sorts of adventurers to embark in the business of cutting timber from public lands, which they can rent at 50 cents a square mile. Let the reader just imagine 50 square miles of pine and forest lands rented for \$25. It is true that, in addition to the ground rent of 50 cents per square mile, to be paid under the license to cut timber on the space of land named in the license, the following rates are also payable to the collector of Crown Timber Dues, on timber actually cut and returned for market.

The Timber cut shall be paid for at the following rates, viz:

Oak and Walnut, per cubic foot . . . . .	1 d.
Red Pine, Elm, Birch, Ash and Tamarac . . . . .	1 d.
White Pine, Bass Wood, Cedar, Spruce, &c . . . . .	0 d.
Red Pine Saw Logs, 12 feet long per log . . . . .	7 d.
White Pine do do do . . . . .	5 d.
Spruce do do do . . . . .	2 d.
Cord Wood (hard) and Lath-wood per Cord . . . . .	8 d.
do (soft) per do . . . . .	4 d.

Each Stick of White Pine to be reckoned as containing 70 cubic feet.

Each Stick of Red Pine to be reckoned as containing 35 cubic feet.

All other kinds of wood, as containing 34 cubic feet. Railroad Timber to be taken at actual measurement, provided it does not average more than half the regular size, or on the party exhibiting a contract and specification corresponding with the timber in his raft.

All Saw Logs cut in future upon Public Lands, if exported from the Province shall be paid for at double the rates mentioned above respectively.

But the speculator for a season or two, cuts the timber nearest the water communications which surround or lie along its extent, and is not very particular with regard to the remainder whether it be destroyed by fire or not. His great object in renting the tract being to shut off other parties engaged in the lumber trade, from the water communication and privileges which belong to its area, whilst he avails himself of the most convenient and wasteful method of procuring timber to satisfy advances, perhaps made by commission houses at Quebec, or the present demands of labour. The desire of the Government for the permanent settlement of the Public Lands is not accomplished. Like the undue encouragement to settlers upon Pine Lands, which require to be cleared by burning the timber thereon, the fires which originate frequently get beyond the control of the settlers and extend to great distances into the forests, causing immense destruction to valuable timber, great loss of public property, and tending in a great extent to the destruction of the timber trade of Canada.

The lumber interest is one of the greatest in Canada. It consists of half her exports. It deserves the most special attention and protection of the government. The forest lands are the richest domain of the country. If a mistake has been made in the course heretofore

pursued by the government, in the management of this great public interest, another course ought to be adopted. At least an investigation into facts should be made, and the reports of men, well informed by long acquaintance with the lumbering districts, and having undoubted means at stake, should be well considered. There is no interest in Canada which deserves, and apparently requires more special attention than that involved in the public forest lands of the country. The Government should ascertain from the most reliable sources, and in an undoubted manner, whether lands in the lumbering districts be suitable for agricultural purposes before they are disposed of to poor settlers—who, subsequently finding themselves unable to live by agricultural pursuits upon unproductive lands, become dissatisfied and dangerous inhabitants of pine and forest regions, which are very valuable for the purposes which nature intended them for. What if some of the fires in the woods have risen from the discontent to be found amongst such settlers? That the fires do occur, no one in Canada who knows that smoke is an evidence of fire can deny, and it is hardly to be imagined that the wealthy persons engaged in the lumber business, nor the men and families they employ, who are the great sufferers by fires, have any agency in their origin. The enormous interests at stake in the lumber trade of Canada have so frequently and recently been laid before the public, we deem it unnecessary to state them here. Those who make the lumber trade the business of a life time are interested in protecting the young growth of the forest as well as the matured tree, and however we may presume their motives to be self-interested, it must be allowed, even in this view, that their course and aim, as regards the public forest domain, must lie on the side of the true interests of the country.

## DEVELOP MANUFACTURES.

IN our last issue we suggested several branches of manufacture which might be deemed worthy of the attention of both the great and the small capitalists. We, this week, continue the list with the manufacture of iron, the raw material for which our country affords such an abundant supply, and that of the finest quality.

THE MANUFACTURE OF IRON.—The first consideration is, can we obtain a market for our iron? To this we answer in the affirmative, principally for that obtained directly from the ore by smelting, known as "pig," and for castings of various patterns. There is no reason, however, why wrought iron might not be made. We believe it is at present made at the Radnor forges at Batiscan. Some small shipments of ore having been sent to England, on being tested, were found to be of such a fine quality that, for the manufacture of steel, Sheffield firms will take, of pig reduced from magnetic ore by charcoal, all that several furnaces could produce. It is from a similar ore to this, smelted by charcoal, that the celebrated Swedes iron is produced. To show the estimation in which our ore is held by the Pittsburgh (U. S.) smelters, we cite the following facts. Although possessing an unlimited supply of iron ore at their own doors, this is of such a poor quality that they have been in the habit of annually importing many thousand tons of Canadian ore, for the purpose of mixing with their own during the process of smelting. To reach them it is transported 70 miles by canal, 320 miles by lake to Cleveland, thence 115 miles, by rail, to Pittsburgh, with two transshipments on the passage. The price of the ore, ready for shipment, previous to 1860, ranged from \$2 65 to \$3 00 per ton; and in 1865, although it rose to \$4 65 per ton, they still imported it as extensively as before. Nor would the abrogation of the treaty affect this import, as notwithstanding the heavy protective duty levied on English iron, the American ironmasters are unable to compete with it in their own market, owing to the poor quality of their iron, coupled with the fact that they have to smelt with Anthracite coal. But besides this there is always a large provincial consumption to supply.

Iron is distributed more or less in all sections of the Province, with the exception of the Western peninsula. We will mention several localities having good and plentiful supplies of iron capable of being worked.

In selecting a place for operations, three essentials are requisite. First, an abundant supply of fuel, as this is the most important item in smelting, it becomes a serious matter for consideration. Second, proximity to navigation or rail. Third, a large supply of ore containing a good percentage of iron. Two localities which have the foregoing requisites in an eminent de-

gree, suggest themselves to our mind. These are in South Crosby, on the Rideau Canal, and at Hull, near the city of Ottawa. The former is situated on a small island in Mud Lake, and on the belt of land which forms the division between Mud Lake and Upper Rideau Lake. Being on the canal, the convenience for shipment cannot be surpassed; the iron ore is magnetic, and yields from 50 to 60 per cent. of metal. Large quantities have been shipped to Pittsburgh from here; the ore is of a superior quality, but the supply of beech and maple is not very extensive, the softer kinds of wood, however, could be used, although not yielding the same amount of charcoal, they nevertheless do equally well for smelting. The ore (magnetic, at Hull, yields a larger per centage than any other in the country—from 60 to 80 per cent.—and the beds are of unlimited extent. The mine is about three miles from the river Ottawa, and in the neighbourhood of a well wooded country, capable of supplying fuel for many years to come. The cost of wood either at this place, or at the mines on the Rideau Canal, would not be more than \$2 per cord, 22 per cent. or about forty bushels of charcoal is the average amount obtained from a well piled cord of wood, and allowing for expense of charring, the cost per bushel would be six cents. The probable consumption of charcoal per 100 of crude iron from Canadian ores of mean fusibility is 180 to 210 per cent., and for refractory ores 250 to 300 per cent. This species of fuel must, in a few years, diminish in the neighbourhood of a large town, or where copulas are in constant operation, but in Canada there are large deposits of peat which may be used for fuel in smelting. In France, Germany, and Russia, charred peat is very much used in the reduction of iron ore. Within five miles of the Hull mines a large peat bog, called the Mer Bleue, occurs, covering 5000 acres. This deposit was sounded in many places with a rod, to the depth of twenty-one feet without finding bottom. In the event then of scarceness of wood, here is an immense bog which may serve as a source of fuel for many years to come.

Our attention is now directed to the fine deposits of magnetic ore in the contiguous townships of Madoc, Marmora, and Belmont. These are situated about twenty-six miles north of Belleville. Many years ago an English capitalist erected furnaces and buildings at Marmora, and for some time made a superior quality of iron; but the distance of transit to the front, which was by a wagon road, was such a serious drawback that he ruined himself in the enterprise. Several parties have since endeavoured to resuscitate the business, but have invariably failed from the same cause. We understand that many thousand tons of ore are now being got out on American account; for the removal of the ore, however, a different route has been selected, viz., by the Trent River via the northern terminus of the Cobourg railroad, on Rice Lake to Cobourg. This route might be improved very much by the addition of three or four locks on the Trent river, by which several portages by wagon would be avoided and the transshipments would be reduced to that at Harwood. This would entail too heavy an outlay on a company but we think assistance might be obtained from the Government. It would be the means of opening up a large section of the country which cannot be surpassed for its richness in economic minerals. Did space allow we should like to enter into this subject more fully. We have noted several townships in the Province, the resources of which render them peculiarly adapted for the production of iron. There are numerous other localities where iron is known to exist and where large deposits occur, but which their inland positions at present render unworkable. The manufacture of iron particularly requires a large capital, and many no doubt will hesitate to enter this arena single handed, but let them do so collectively, let them put their heads and their funds together, and go to work under the Joint Stock Company's Incorporation Act; better results can be attained in this way than by individual enterprise.

## Now Brunswick and Canada Railway.

Comparative statement of traffic receipts for six weeks, ending 27th January, 1866:

	4 weeks ending 27th Jan. '66.	Corresponding Month '65.
Freight . . . . .	\$3,313 97	\$2,013 68
Passengers . . . . .	328 71	242 88
	\$3,672 48	\$2,256 54
Increase—January, 1866, \$1,315 94.		