

BOOMS AND BOOMAGE.

The Municipal Council of the County of Northumberland, New Brunswick, have passed a By-law, ordaining:—

1. That the Boom Master of Barnaby River Boom shall, on or before the 31st day of December in each and every year, render to a Committee of three persons appointed by the shareholders of said Boom, a detailed statement of all lumber that shall pass through the said Boom during the season, together with the amount of boomage collected thereon.

2. That the Boom Master shall be entitled to receive out of the amount collected, the sum of \$1.00 per day for each day's actual attendance at said Boom, and the balance of the boomage collected shall be distributed by said Committee among the shareholders in proportion to the quantity of lumber each may have.

SLIDES AND BOOMS.

From the report of the Minister of Public Works for the year ending 30th January, 1880, under the heading "Slides and Booms" we have some instructive figures. The Government slides were constructed to effect the passage of timber, where impediments to navigation exist. Works have been constructed on the Saguenay, St. Maurice, Chaudiere, and Trent Rivers and some of their tributaries. On the former stream they consist of one slide 3,840 feet in length, with a boom of 1,311 feet and dams, piers and bulkhead. The slide takes the timber past the rapids between Lake St. John and the River Saguenay. The works extend over a distance of 60 miles, and occupied four years in building, having been begun in 1856 and completed in 1860. The slides and booms on the River St. Maurice and the Vermilion, one of its tributaries, are met in the order following:—

Stations.	Distance from Three Rivers.
River St. Maurice:—	
Booms at mouth of river	0 miles.
Gres Falls	16 "
Shawenegan	23 "
Grand Mere	29 "
Little Piles	31 "
La Tuque	100 "
Pamondon Eddy	103 "
River Vermilion:—	
Mouth of River	116 "
Iroquois Falls	121 "

The principal tributaries of the River St. Maurice are the Shawenegan, Mackinac, Matawan, Petit Bostonais, Grand Bostonais, Croche, Vermilion, Tranche, Grand Pieriche and Manouan. The following works were executed during the fiscal year:—A new pier was built at the mouth of the river St. Maurice with the view of rendering the fastening of the boom more secure, and the working of the swinging boom easier. Old piers at this station were repaired and raised. At Gres Falls, a new wharf was built on the site of the one carried away by last year's freshet. The old booms were repaired and 800 feet of new ones constructed. The slide at Shawenegan was completely restored, the booms repaired and other improvements made at this station. A dam measuring 110 feet long and 7 feet high was constructed at Little Piles, but the water carried it away. \$768.81 were expended during the year at La Tuque, towards widening by blasting the channel of the river at the head of the falls. The Government Works for the descent of timber in the Ottawa district, include 11 stations on the Ottawa Main River, 1 on the Gatineau, 15 on the Madawaska, 2 on the Coulonge, 1 on the Black, 21 on the Petowawa, and 12 on the Du Moune. On most of these, more or less work was, of an improving nature, done during the year. The booms, piers and slides and all such portions of the works as are connected with the lumbering operations on the River Trent at Chisholm's Rapids, Ranney's Falls, Middle Falls, Heeley's Falls and Crook's Rapids, were transferred to a company formed purposely for the management and maintenance of those works, with the right of levying tolls thereon, at the rate of five shillings per crib, at each of the slides, except at Chisholm's and Crook's Rapids, where the works constructed do not facilitate the descent of timber. This rate was altered by an Order in Council, on the 8th Dec., 1866, fixing the tolls to be levied at Ranney's Falls and Heeley's Falls, at one cent for each log of 13 feet in length, and a proportionate sum

on pieces of greater length; and one dollar on each crib of square timber. The company are not liable for the renewal of the works, in case of their failure from decay of materials, or their destruction by fire, flood or any other cause. It is their duty to keep an exact account of all monies collected by them, and to transmit the same to the Department of Public Works, as provided by the Orders in Council passed on the subject. The extraordinary repairs which from time to time were required have been executed at the expense of the Government, as also new works at localities other than those mentioned. Since the 20th of May, 1879, when the division of the Public Works Department into two Departments took place, the charge of the works connected with the Trent River navigation has not yet been apportioned between the two departments to which they respectively belong, but has been under the control of the Department of Railways and Canals.

THE TIMBER TRAFFIC AND THE Q. M. O. & O. RAILWAY.

We have no hesitation in affirming that a feeling of intense disappointment has been caused here by the failure of the owners of timber for this market, to make arrangements for shipping it to Quebec by Q.M.O. & O. Railway. It is well, however, to understand the causes that have so far prevented the inauguration of this most desirable traffic. Merchants having timber for Quebec, have of course a certain limit to which they can go in respect of the price to be paid for shipments. The first part of the route by rail to be traversed by this timber is that over the Canadian Central Railway from Pembroke to Aylmer, a distance of rather less than 100 miles. From Aylmer to Quebec by Q. M. O. & O. Railway is 280 miles. The merchants who have thus far attempted to bring timber by rail to Quebec, have found that on the 80 to 100 miles of the Canada Central Railway, the charge for the carriage of their freight has amounted to about two cents per ton per mile, or equivalent to \$16 to \$18 per car load for the run to Aylmer. This sum is found to be about one-half of the merchant's limit for shipping timber to Quebec, and consequently it has so far been necessary to unload the cars in the vicinity of Ottawa and send the wood to Quebec by water, owing to the very natural refusal of the management of the Government railway to convey it over that road 280 miles for the same figure as the Canada Central receives for carrying it about a third of the distance. The management of the Q.M.O. & O. Railway has, however, offered the lowest possible terms to the shippers in question, in order to foster and develop a traffic which is so urgently demanded in this city. With this object in view, a proposition has been made to shippers, looking to the carriage of timber from Aylmer to Quebec, at something like one instead of two cents per ton per mile, or an amount not exceeding \$19 or \$20 per car load for the whole distance from Aylmer to Quebec. A less amount would, it is said, entail an absolute loss upon the management of the Provincial road, which of course nobody desires. Mr. Chapleau has occupied himself very largely during his recent visit to Ottawa, in seeking to obtain some reaction in the rates of the Canada Central Railway, and, if possible, to secure some understanding between the management of the two roads relative to a similarity of rates. The Premier is not without hopes of accomplishing his project. The matter rests primarily, of course, with the Canada Central Railway, and it is so hoped the management of this road will see the advisability of agreeing to such rates as will enable the Q.M.O. & O. Railway to assist in the development of this very important and desirable traffic.—*Quebec Chronicle.*

The Publishers of the CANADA LUMBERMAN desire to obtain a reliable and well informed correspondent in every lumbering centre in the Dominion of Canada, and to that end would ask those disposed to act as such, to communicate with them at once, stating the facilities they possess for obtaining reliable, early and full information as to the lumber trade in their respective districts, and the remuneration which they will expect for their services as such correspondents.

LOSSES BY FOREST FIRES.

The *American Agriculturalist* says:—

"We some time ago stated that the Superintendent of the Census had placed all that relates to Forestry, including lumbering, and whatever concerns forestry as a source of national wealth, in the hands of Prof. C. S. Sargent, of the Arnold Arboretum of Harvard University. How thorough his investigation would be, those who know him need not be told. In a general way we may say that his own journeys to the Rocky Mountains and to the Pacific, as far as the forests of Washington territory, his employing of local agents, and the sending of experts to important localities, have been but a part of his labors. To show how every ramification of the subject is provided for, we may refer to the circulars sent out to collect information as to forest fires. We often see articles in the journals lamenting the destruction of our forests by the demand for railroad ties and fuel; the wanton waste in clearing for farms, and the rapid destruction by lumbermen. It is believed, by those best able to judge, that the destruction of our forests by fires, is greater than from all other causes together. It is also known that such fires are annually increasing in number. It is believed that these fires are mainly due from avoidable causes, and that proper legislation is needed to prevent this useless waste of national wealth. For proper measures of prevention to be taken, it is an important point to know just the extent of the evil, and this it is proposed to learn by means of the Tenth Census. Prof. Sargent has prepared a circular to be addressed to the town officers in all parts of the country where forest fires may occur. This blank form, which can be readily filled, asks for the number of acres, or square miles of forests destroyed by fire in 1880; the value of the property thus destroyed; causes generally producing such fires, and any suggestions relating to the general subject of forest fires and how they may be prevented or diminished."

TORONTO AND NIPISSING RAILWAY.

The following statement shows the supply of saw logs on hand adjacent to the Toronto and Nipissing Railway, on the 15th March, which will be supplemented during the spring to make up the estimated cut of 1881, at the places mentioned below:—

Manufacturer.	Place.	Logs in ft.	Shipments.
J. F. Gould	Coloconk	1,000,000	2,000,000
Capt. Corson	Victoria Road	50,000	500,000
A. Washington	"	"	250,000
J. Graham	"	"	60,000
McKenzie Bros	Kirkfield	6,000	500,000
J. McDonald	"	1,700	150,000
J. Cowie	"	"	110,000
J. Roddie	Sunderland	"	20,000
I. J. Gould	Uxbridge	"	500,000
W. Link	"	"	75,000
H. Clarke	Goodwood	2,000,000	2,250,000
Bessie Bros	"	"	1,500,000
White Bros	Stouffville	"	100,000
J. Milne	Agincourt	400,000	30,000
W. A. Milne	"	750,000	100,000
J. Ramsden	Mount Albert	600	60,000
E. B. Appleton	Vivian	3,000	700,000
R. McCormack	"	4,000	1,500,000
R. & A. Bessie	Ballantrae	5,000	1,300,000
W. S. Ramsay	Sutton	600,000	800,000
			12,415,000 ft.

THE UPPER OTTAWA.

Le Moniteur du Commerce says that the timber trade is full of hope at present. Lately there had been abundant snowfalls on the Upper Ottawa, which is what the shantymen required. The cut has been large and snow was necessary to get the wood out of the forests. It is believed that the cut of square timber on the Upper Ottawa will reach 10,000,000 feet. During the last week twenty cars of square timber have arrived at Ottawa, and as soon as navigation opens they will be floated down for the Quebec market. Every day trains of lumber for the United States leave Ottawa by the Canada Central, the St. Lawrence & Ottawa, or the Q.M.O. & O. The opening of navigation at Ottawa gives promise of a greater activity in business than has ever been known there before.

A Vast Amount of Information.

THE CANADA LUMBERMAN.—Messrs. Toker & Co., of Peterborough, have purchased the above semi-monthly. The number of March 15th is to hand and contains a vast amount of interesting information in regard to the lumber trade. We have no doubt but that it will prove a success under the new management.—*Whitby Gazette.*

PENETANGUISHENE.

A report which appeared in one of the monetary journals gave the estimated cut of lumber in Penetanguishene for 1880, at six millions. The figures represent the cut of only one mill, and not of the mills collectively. Our cut this year, says a correspondent, will not be the full capacity of the mills, as our two new mills will not be prepared for working up to the full capacity until the following year. The figures, however, will be as near as possible as follows: Penetanguishene Lumber Company, five million; C. Beck & Co., six million; D. Davidson, three and a half million; F. McGibbon, three million, making an aggregate of seventeen and a half million. To this may be added a little more for the cut of Copeland & Marchildar's mills. The timber shipments over the Northern ria Penetanguishene will be very large, as the great bulk of the timber from the north will be shipped on the rail at Penetanguishene. A good deal of outside lumber, too, is expected to go over the line from mills on the Georgian Bay, and the wharf accommodation is expected to prove altogether inadequate for the requirements of the place.

Think While you Read.

The *Teacher's Journal*, in an article on methods of study, reminds the student that the first essential to successful study is the power of concentration of thought. This power is largely a matter of habit and cultivation. Read five pages of history in a haphazard manner. Close the book and write out all you can remember. Then compare your production with the printed matter, and you will be able to judge of your proficiency. Read five pages more with fixed attention and a resolution to retain the subject, and compare as before. You will find a marked improvement. If your memory is treacherous read but very little, and always write out the subject. When you hear a sermon or address, hear it, and afterward read it to writing. Read no novels, and do not read aloud to please others unless you care (nothing) for the article yourself. A practiced reader can read aloud for hours and carry on an independent train of thought all the time. This ruins the faculty of study as well as the memory. Dismiss all other subjects but the one in hand. Let the ear be deaf to all sounds, and the eye blind to all sights. Let the sense of touch sleep, and smell and taste be as though they were not. A lesson learned in this state of mind will stay with you, and will not need to be "crammed" again the night before examination. It will be like lines carved deep into the rock, or chiseled on the Rosetta stone. The other method is the dim tracing of obscure letters in the sand, which the next wave obliterates.

Travelling up Stream.

Travelling up stream with no other power the force of the current seems an impossibility, and no doubt it is so under ordinary circumstances; but a device has been invented for accomplishing that result. It consists of a car having the ordinary flange wheels and intended to run on rails placed on the edges of a flume. The power is the water in the flume acting on two paddle-wheels at either end of the car atached to the axles of the carriage. The force of the current turns the paddle wheels in an opposite direction from its flow as a matter of course turning the carriage wheels at the same time and propelling the car up stream. When it is desired to follow the course of the stream the paddle wheels are locked so that they cannot revolve and the carriage is carried down with the current. All that is required for this novel railroad is a stream of water passing through a flume, the rails on the sides, and the car with paddles corresponding in shape to the section of the flume. It is a Californian invention and its practicability is said to be established. A test trial with a working model has demonstrated the capacity of the carriage to carry about 8 lbs. of coal (exclusive of its own weight) for every inch (miner's measure) of water in the flume. A flume of six hundred inches of water would therefore furnish power to transport a load of about five thousand pounds, on any grade from four to twenty inches to the rod, at a speed of from four to eight miles an hour; a less grade causing a slower run.