RAFTING OPERATIONS AT THE FRED-ERICTON BOOMS.

THE LUMBER CUT ON THE ST. JOHN AND ITS TRIBUTARIES.

One of the grandest sights to be seen in the Province and one that would well reward a journey of many miles, is the enormous mass of Jose, estimated at over 50,000,000 feet, at prosent lying in the new boom of the Fredericton Boom Company at Sugar Island, above Frederiction. A fine view of the logs can be obtained from the Keswick bank, which, at this point, ries to a considerable height above the level of the river. Competent judges pronounce it to he the largest mass of logs over collected together on the St. John. The logs lie in a natural packet, the sides of which are formed by the mainland and the Island shore, with the hase resting upon and being supported by enermons piers built up from the flat rock bottom of the river, a height of 28 feet, the larger ones being each loaded with over 150 cords of stone. There are some 14 piers all told, including side piers to which booms are hung to keep the logs off the low parts of the Island shore, and a few supporting piers on the main shore. The breaking up of the ice at an unusually early period last spring, prevented the completion of all the proposed piers, and it was feared by some that the been would, therefore, prove too weak to hold the great run of logs, but these fears fortunately turned out to be groundless, though the boom was tested by one of the greatest freshets over known on the river. When the grand rush of logs came, the current was so strong that after the boom had partially filled the logs began to 'run under," and at such a rate that for three days there was little or no increase on the surface, million after million disappearing from sight as soon as they touched the edge of the jam-the consequence being that the logs as they now lie in the been are piled to a depth of twenty-five feet. Had the water risen above the tops of the piers the booms would have been torn away and the great mass of logs, thrown into the current, would have swopt all before it, wrecking the old Fredericton boom miles below, and strewing the shores of the river on down through Sunbury and Queens. As it was, the water came within a few feet of the top of the piers, which, though built on the flat sand-stone bottom of the river, were so strongly constructol and heavily weighted with stone that they nobly withstood the enormous and somowhat unexpected strain. It is the intention of the agent of the company, Stephen Glasier, Esq., under whose personal direction this boom (as well as all the others along the river) was constructed, to further strongthen it next winter. and to raise the piers five feet higher. The boom space at Sugar Island is from two to three miles long, and, if required, 100,000,000, or double the amount now in the boom, can be held there. The logs are conducted into the Sugar Island boom from the natural channel of the river by means of Pond's sheer booms, an invention that has to a great extent

REVOLUTIONIZED THE RUNNING AND DRIVING of lumber on the St. John. Formerly the loca floated down with the current, great numbers being deposited on low lands where they were left high and dry by the receding freshet, only to be removed later in the season by the "stream drivers" with great labor and at considerable expense. In addition to the delay thus caused in getting the logs to market, the log owners had to indemnify the farmers for the damage to their intervale and island lands caused by the deposit and removal of the drift logs. Now, sheer booms, placed at various points along the upper St. John and its chief tributaries, keep the logs in the current of the river and carry them by the low lands, on which they would otherwise lodge. Not only is the work of stream driving thus reduced to a minimum, but the logs are hurried on to the Fredericton booms, and consequently to market, at a much earlier date than by the old method. The almost simultaneous arrival at the booms of the great mass of the cut on the upper waters has necessitated a radical change of operations on the part of the

PREDERICTON BOOM COMPANY, which has been successfully carried out this season on a large scale. In former years the streams.

several booms below Fredericton on the Lincoln and Maugorville shores were sufficient to meet the demand, the first run being raited so as to make room for successive arrivals, but when the drives began to come in more rapidly it was found necessary to provide more extended boom facilities. The old boom ground had been well chosen, though despite all precautions the boom run of logs in the spring, supplemented by high winds and heavy freshets, entailing an outlay for the recovery of the logs along the shores of Sunbury and Queens that materially reduced the profits of the company. There were other localities, of course, that might have been chosen for the booms, less exposed to the rake of the wind and sweep of the freshet currents, but they lacked one great essential-the current would carry the running logs away from, instead of into them. But oven this seemingly insurmountable obstacle has been mot and overcome by the application of Pond's sheer booms, an invention whoreby the course of running logs can be directed towards either shore at will, despite the set of the current. After a series of experiments with the sheer boom, it was decided to locate a large beem on the Douglas shere, between the island and the main land, into which logs could be directed by a sheer boom placed at the head of the island. This boom is attached to thirteen jam aild seven sunken piers, is about two and a half miles in length. and will hold nearly forty million feet. This venture proved to be a decided success, proving conclusively that the company acted wisely, when enlarging their facilities, in selecting a site at Douglas. Rafting operations were carried on there with great rapidity last summer, the only drawback being the delay caused by the unusual lowness of the water at one time. In addition to the booms there, the company put up suitable buildings for the accommodation of the men, a cook house, stables, business office. &c.

The addition of the Douglas boom enabled the company to successfully catch, hold and raft all the logs cut for the past two or three years; but the indications of an increased output for 1881 lead the company to make a still further enlargement to meet the requirements of this season's operations. To this end, the boom at Sugar Island, above described, was constructed last winter, and it has proved to be one of the best moves ever made by the company.

THE SEASON'S WORK.

The operations of the Fredericton Boom Company this season have been on an unusually large scale. They have, so far, received some 125,000,000 ft., divided as follows: 50,000,-000 in the Sugar Island boom; 30,000,000 in the Douglas boom, and the balance in the Gill, Glasier, Sterling and Mitchell booms, below Fredericton. Some idea of the extent of their operations may be formed when it is stated that it is about 18 miles from the foot of the Mitchell boom in Lincoln to the head of the boom at Sugar Island. None of these booms in any way interfere with the free navigation of the river either above or below Fredericton. The company employ some 250 men this season, including drivers and sheer boom men. Rafting operations are carried on at Douglas, where 200 joints per day are made up, and at the Mitchell boom, below Fredericton, where the day's work averages about 140 joints. One hundred men are working at Douglas and about eighty men at the Mitchell boom. The logs in the Sugar Island boom will be run down to the Douglas boom, some little distance below, and rafted there as fast as possible. The Douglas been is so constructed that rafts from the Keswick, at its head, can be floated down through into deep water below, for towing to market. It is expected that all the logs in the Mitchell boom will be rafted in about a week, when the erew of rafters will be transferred to the old rafting ground at the Glasier boom. The entire operations are in charge of Stephen Glasier, Esq., the veteran agent of the company, and so far this season without the loss of a single log.

It is estimated that there are about 20,000, 000 yes to come down the river, though much more is hung up high and dry by the sudden fall of water in the main river and tributary OTHER OPERATIONS.

Mr. Alex. Gibson has done a heavy business on the Nashwaak during the past winter, con fining his operations exclusively to that section, It was thought that he would get out some fifty millions, but the actual output will fall short of that figure. Finding the spruce dying out in one locality, he concentrated a large were occasionally broken by the pressure of the force there, having 90 span of horses hauling run of logs in the spring, supplemented by high out to one landing, though over two reads. He has the Nashwaak so well provided with dams that he can get water enough to carry down his logs at any time desired. This season all his logs were got out early. They are being sawed at his mills on the Nashwaak, and at Morrison and Robinson's mills below Fredericton.

The output on the Keswick river this season is estimated at about five millions, all of which will be rafted on that river.

A careful estimate, based on the most reliable information, shows that independent of Mr. Gibson's operations, about two hundred million feet have been cut on the St. John and its tri butaries during the past winter.

The tugbeats of Messrs. D. D. Glasier & Son ro all at work towing rafts down to this port. The water is unusually low for the time of year, much to the annoyance of operators on small streams,-St. John Sun.

NEW INDUSTRIES.

Two gentlemen intend to apply to the Council at their next meeting for exemption for a term of years for an extensive tannery which they propose establishing in Toronto.

Less expected that in about four months an important new industry will be in full running order in this city. An application has been made for a charter to incorporate the "Toronto Grapo Sugar Company," having a capital of \$200,000, the applicants being the Hon. Thomas N. Gibbs, Oshawa; Mossrs, James Michie, John Loyes, James McGhee, James S. Holt, Toronto; and E. P. Stikes, Buffalo. Plans are being pre pared for a factory with a capacity to use 2,000 bushels of corn per diem, and so arranged that it could be enlarged to a capacity of 5,000 bushels. The factory will be erected on the Esplenade, on the water lets granted by the City Council three weeks ago to Mr. Holt for that purpose. Arrangements will be made so that corn and coal can be received direct into the factory from all the railways or by boat on the water side, and goods will be shipped in the same manner. The refinery will be eight stories high, with an elevator tower on top, and will be built of brick with stone foundations on piles driven into the rock. To get the buildings erected as rapidly as possible the electric light may be used, so that building operations may be carried on both day and night. The company will employ about 150 hands, and the best skilled experts have been secured. The latest pat ents and improvements will also be introduced. The property has been exempted from caxation by the City Council and a 21 years' lease of the water lots, 133 feet by 375 feet, obtained at a nominal rental. - Toronto Globe.

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