Mechanics'	Magazine.

MONTREAL, FEBRUARY, 1874.

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PEAT IN THE PROVINCE OF QUEBEC

The total absence, in this Province, of coal measures and the rapid denudation of our forests have caused the question of fael to become one of great importance. Nature, however, seldom leaves any part of her dominion utterly unprovided for and we find that we possess an abundant supply of very valuable fuel in our peat bogs. These bogs extend, at short intervals, from Niagara to Gaspo, it is said, and at a distance of from ten to twenty or thirty miles from the St. Lawrence. The Island of Anticosti, also contains an immense deposit, a hundred miles long. 'The fuel contained in these bogs is of a very valuable nature and the quantity is apparently almost inexhaustible. One of these deposits is situated at St. Hubert, a small village about 12 miles from Montreal, and it extends from the line of the Grand Trunk Railways, on one side to that of the Chambly road on the other. The general appearance of these deposits is that of a low-lying matsh whose water is coloured a darkish brown by the underlying vegetable matter. Men of experience on the subject profess to be able to tell pretty closely the quality of the subjacent deposit by the nature of the vegetable growth on top. Small tamarac trees with plenty of small berries, blueberries, &c., and a flower resembling a rhododendron denote a high quality of peat. Small birch trees, on the other hand, and flags, bulrushes, and long wild grass, tell of an inferior quality.

The deposit at St. Hubert has been worked for some five or siz years by the Canada Peat Fuel Co. The works were originally established by Mr. Hodges, one of the Engineers of the

Victoria Bridge. The machinery used in the Excavation and preparation of the peat was also invented by Mr. Hodges. Three of these huge machines are at work at St. Hubert. Each consists of a scow about eighty feet long, containing a twenty horse power engine, and floating in a canal twenty feet wide and from three and a half to six and a half feet deep. Our illustration on page 338, is a very faithful representation of one of these machines. The machine excavates the canal for itself by means of two immense augers which project from the front of the scow and cut their way into the turf. These augers are about eighteen inches long but of a diameter of ten feet each, and they work side by side. As they cut into the soft wet turf they throw it behind them on to a revolving band of bucket. These buckets convey it to the hinder part of the scow and drop it into a cylinder. In this cylinder it is mashed into pulp by revolving hook-shaped knives and then propelled ferward by revolving vanes into what is called the distributor. This is a hollow cylinder, eighty feet long, projecting at right angles from the side of the scow. In its centre, and throughout its length revolves a shaft on which are auger-shaped va es. These latter propel the mashed up pulp along the distributor, from which it falls through holes at distances of twenty feet apart, and from the end, upon the surface of the bog which has previously been prepared for its reception. Here it is spread out to a width of from 100 to 120 feet and a depth of eight or ten inches by men armed with scrapers, and by horses which drag through the pulp a board fastened by a rope at each end to the whipple-tree, (see illustration). The peat is now suffered to dry until a cut made on its surface will remain open, when it is scored across by two men who drag to and fro a revolving drum, whose circumference is furaished with circular knives about four inches broad, and distant from each other about seven or eight inches. As soon as the sun and wind have dried it so that it may be handled it is cut up with sharp spades into bricks eight inches long and carried off by boys and stacked on ladders and laths, when the drying process is more rapidly completed.

This is the complete process, and the average time required to turn out saleable peat is five weeks. The Company, however intends soon to add to each machine a compressor which will deprive the pulp of a very large proportion of its moisture. From this compressor it will pass through rollers and be turned out in a continuous band about eight by ten inches. This strap of peat will pass under a cutter, be divided into bricks and carried off on an endless canvas band from which it will be picked up and stacked by boys. By this improvement saleable peat will be turned ont in fourteen days and the working season prolonged about three weeks or a month. The working staff of each scow consists of sixteen men, the fuel for the engine of such peat as is not good enough to send to market. The scow advances about 300 feet per day, which, at three feet to the ton gives a daily make of 100 tons of peat. The cost of manufacture is about \$2 per ion and the profit varies from about \$3 to \$5 per ton. The total amount turned out by the Company at St. Hubert and at St. Bridgit, where they have another machine at work is about 18,000 or 20,000 tons per annum. This peat varies in its quality like coal and wood, but all of it has been and is successfully used in locomotives and for domestic purposes Some of the peat first turned out was much grumbled at on account of the quantity of ashes which remained after cousumption, some indignant consumers estimating the product of ashes at from a ton and a quarter to a ton and a half per ton of peat consumed, ignoring the fact that ex nihilo nihil fit. On the other hand much of that now produced leaves scarcely any