

NOTES ON PEAT—ITS MANUFACTURE AND USES AS FUEL.

In many parts of the country the process of peat-formation has been for ages, and is even now, going on. Mosses, and, to some extent, other plants usually found in low, swampy localities, grow, die, and accumulate before destructive decomposition takes place. To that incessant operation of nature are due the immense deposits of a substance which may be considered in a certain degree a rudimentary lignite, and perhaps even coal. But little attention has been paid to it in this country until within a very few years. But the abundance of wood and the comparatively low price of coal account for this fact. However, the demand for fuel, which seems to increase in a greater ratio than the usual avenues for procuring it, has, in many localities, drawn attention to the necessity of seeking a substitute or auxiliary to ordinary combustibles. Peat has been utilized for many years in Ireland, Scotland, Belgium, and other European countries, mainly for household purposes. The process of manufacture usually resorted to in such instances, was confined to merely cutting square pieces of the deeper layers and allowing them to dry upon the ground until required for use. Under such a method of treatment, peat is, except in very few cases, light and porous, burns rapidly, emits a good deal of smoke, and cannot withstand the blast of iron-furnaces, or the strong draught of locomotives. Many efforts have been made to increase its density, and thus extend the range of its usefulness. But the difficulty of overcoming the resistance of water, which constitutes from fifty to ninety per cent. of its volume in the natural state, and the cost of the different devices to which inventors have had recourse, in order to deprive the crude peat of that element, have, in numerous instances, presented great obstacles in the way of the attainment of the end in view. Of late years, several contrivances have been adopted, having for their object the cutting or grinding and moulding of peat into bricks of different sizes and forms. These have met with more or less success. In the works of the "Central Peat Fuel and Machine Company, of Connecticut," the several desiderata looked for by those who have studied the subject, seem to have been attained in a very simple and economical manner. The machinery used is free from complication, and yet accomplishes its work in a thorough and rapid manner. The peat is simply dug out of the bog by hand labor, which is considered, after all, as the cheapest in view of its adaptability to local changes and circumstances. It is thrown directly into ordinary dumping-cars, running upon tracks laid in the space already excavated. It is then hoisted by steam-power, and thrown into a large-hopper leading to the machine. This consists of a horizontal cylinder, to the interior surface of which are fastened knives of different shapes. These cut, grind, and reduce to pulp the crude peat, which is then expelled by means of the rotary action of a central drum, to the periphery of which other knives and grinding projections are affixed.

The cylinder or shell is constructed of boiler plate, and is in three sections, which can be quickly and easily taken apart, and again put together. The whole interior portion of the machine can thus be readily inspected. At one end of the cylinder is a wide spout, through which the peat is expelled in the form of pulp, and from which it passes into moulds underneath. These moulds are propelled by means of an endless chain, furnished with catches. One man attends to the feeding of these moulds, which are conveyed to him from the returning car in a trough filled with water. The moulds are simply oblong boxes, with tapering sides and moveable bottoms, furnished with cross projections. They are carried away in cars, running upon wooden rails and drawn by horses, to the drying grounds, which are either an adjacent field or the surface of the bog itself. The moulds are upset upon the grass,

and the peat allowed to dry without any further attention or cost. In the process of drying, the mass breaks into pieces of different sizes and forms—the lines of separation being usually those of the indications made by cross-pieces on the bottom of the moulds. These pieces have, indeed, many of them, almost the hardness and density of bituminous or anthracite coal. The total cost of the manufacture of peat by means of this simple process is found, from actual tests, not to exceed one dollar and fifty cents per ton of peat ready for market; the lowest wages paid to men being two dollars per day. Of course the cost of manufacture will vary with that of labor, which constitutes the largest expense attending it. The works of the above company are proportioned so as to produce one hundred tons of dry peat per day, and including steam-engine, moulds, cars, trucks, etc., cost, we are informed ten thousand dollars. Peat when thus prepared seems to be of a very uniform consistency; constitutes a very convenient, useful, and economical fuel, either for household or manufacturing purposes, for generating steam, and for many metallurgic operations.

It burns with a far reaching flame, almost without smoke. The combustion is kept up in the form of glowing coals, the heat of which can be carried to a great degree of intensity without running the risk of covering the grate-bars with clinkers, or it may be reduced to a very low point without being extinguished. This latter property, it may be remarked in closing, renders it very useful for warming greenhouses, drying lofts, dwellings, etc. Cooking stoves in which this fuel was used have continued in operation for a whole year without the necessity of relighting the fire.—*The Engineering and Mining Journal.*

INSOLVENTS.—The following insolvents are gazetted:—M. T. Rogers, Napanee; John Durham, Montreal; William Kennedy, Ottawa; Edward Welsh, Perth; James Delahay, Walkerton; George Wilson, Napanee; Wm. Snellgrove, Woodstock; R. P. Street, John Peacock, Hamilton; Anathas Cavan, H. Smeaton, C. Corcoran, Quebec; H. Stiehler, Galt; T. McLean, Toronto; H. Tibbit, Ottawa; Widmeyer and Schroder, Ayton.

—The annual meeting of the Port Burwell Harbour Co. will be held at Port Burwell on the 14th inst.

—The Patent law of last session came into force on the 1st July inst.; also the act passed by the Ontario Legislature, last session, providing for the registration of births, marriages and deaths.

—It has been ordered that the manufacture in Canada of benzine, and other light products of petroleum, which will not stand the prescribed fire-test of 115 degrees of Fahrenheit be authorized.

Commercial.

Toronto Market.

PRODUCE.—*Wheat.*—Receipts, 4,665 bush.; stock in store on the 5th inst., 42,799. Owing to an advance in the English market, prices here have tended upward, and though there is scarcely enough business reported to establish prices, an advance of a few cents may be quoted. Car-loads of Spring sold at 95c. to \$1, and Fall at \$1 to \$1.02 f.o.b. Though the weather has been too wet the accounts received respecting the crops in Ontario are uniformly favorable. The certainty of a large yield of wheat over the greater portion of this continent is now established almost beyond doubt. The markets fluctuate with every change in the weather in Europe, so that the course of prices for the next month or so is as uncertain as the movements of the clouds. *Oats.*—Receipts, 600 bush.; in store on the 5th, 5,500 bush. There are scant supplies in market but prices keep steady at 53 to 54c., with very little doing. *Barley.*—No receipts; market nominal. *Peas.*—No receipts; in store on the 5th, 5,800 bush. Lots are held at 80 to 82c., without buyers. *Corn.*—Two cars sold at 65c. on the track.

FLOUR.—Receipts, 3,080 bbls.; in store about 5,000 bbls. The market is firm and more active, and closed at an advance of 20c. on last week's prices. Several lots of No. 1 Superfine sold at from \$4.30 to \$4.55. A lot of 400 bbls. Extra sold at \$4.45 at Weston and 100 bbls. at the same price here. Fancy, nominal. *Oatmeal.*—Nothing doing except in small lots, at \$5.75 to \$6. *Cornmeal.*—Small lots are worth \$3.50 to \$3.75.

PROVISIONS.—*Butter.*—Is arriving more freely, and is taken on speculation at 13 to 14c. There is no shipping movement of consequence, as the weather is too warm, but a small lot has been sent forward to New York, by way of experiment. The crop is generally understood to be large. *Cheese.*—Stocks are accumulating pretty fast, holders seem more inclined to realize, but owing to the high prices paid for the May product they do not care to sell at the figures named by shippers; it is selling in small lots at 13½ to 14c. *Pork.*—The last of the stock was cleared out to supply the gangs at work on the government road, above Lake Superior, so that there is now no stock in market, the last sales were made at our quotations. *Cut-meats.*—There is a light stock of bacon in market, rough 12½c; cumb. cut 13c; shoulders 11½c; hams, canvassed, are selling more freely at 15 to 16c. and there is a fair supply in market. *Eggs.*—are scarce and worth our quotations. *Lard.*—There is but a small demand owing to the decline in butter, holders are firm and stock light, selling at 16 to 17c.

WOOL.—The market is again a little easier at 31c. Some of the leading dealers report their receipts in excess of last year.

HIDES.—Dull and unchanged as quoted.

FREIGHTS.—Rates for grain to Kingston and Oswego, remain unaltered, at 2c gold, and 3c greenbacks, respectively. There is less demand than at the date of our last weekly report. Rates by steamers also remain unchanged at 20c. for flour to Montreal, and 6c for grain. The rate of grain from Kingston to Montreal is 4c and tolls. There is not as much freight offering as was the case last week; but the steamers are still kept pretty busy. Rates for lumber are still \$1.50 per M., greenbacks, but some parties predict a rise; for coal \$1.30 is paid.

The steamer *Her Majesty*, is expected to sail on her next trip on the 14th prox. Her cargo is already completed.

The Grand Trunk rates to Liverpool are:—Flour 4s. stg. per bbl.; wheat 8s. 6d. stg., per quarter; and boxed meats 55s. per ton.

The following are the Grand Trunk Railway Company's summer rates from Toronto to the undermentioned stations, which came into force on the 19th ult.:—Flour to all Stations from Belleville to Lynn, inclusive 25c; grain, per 100 lbs., 13c; flour to Prescott, 30c; grain 15c; flour to all stations between Island Pond and Portland, inclusive, 75c; grain, 38c; flour to Boston, 80c, gold; grain 40c; flour to Halifax, 90c; flour to St. John, 85c.

Halifax Market.

BREADSTUFFS.—June 29th.—We have to report an active speculative feeling for flour during the past week. Reports of improvement abroad, reduced stocks here, and uncertainty as to the result of injury to *Her Majesty*, created an exciting feeling and speculative demand. Sales at \$6 for Supers. were reported; but the demand has been supplied, to a large extent by State Extras; and as buyers are unwilling to operate at the advanced rates, the demand has subsided, and stocks are quite equal to requirements. Extras and Fancy are dull, at improved rates. No. 2 is in request, with light stocks. We quote White Wheat Extra (fall) \$6.25; Fancy, \$6; Superfine, @ \$5.75; No. 2, \$5.

Imports from January 1st to June 29th, 1868, and 1869:

	Bbls. Flour.	Bbls. Cornmeal.
1869	74842	15945
1868	91227	28755