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THE PEAT BOGS OF CANADA—CAN THEY
BE UTILIZED?

The gradual exhaustion of the coal beds of Britain, and the timber forests of America, and especially of Canada, has for some time past challenged the attention of manufacturers and scientific men, and indeed of the general public. Under such circumstances, it is no wonder that anxious enquiries should be made, and experiments instituted, with a view to utilizing other kinds of fuel for domestic, manufacturing, railway and marine purposes. As applicable to all these uses, peat appears to have a strong claim; while for all but domestic purposes, petroleum and shale oils have many zealous advocates.

Selections from time to time found in our pages, from British and American journals, will have kept our readers pretty well informed of the efforts made to discover new sources of these fuels, and to bring both kinds into use, in as economical a form as coal and wood, for the various purposes to which these have heretofore been applied.

Geologists tell us, with the utmost confidence as to the correctness of their conclusions, that coal will not be found in Canada; and experience forces upon us a conviction of the fact that timber is not only becoming a dear article for building and manufacturing purposes, but very scarce and costly for fuel in all our frontier towns; hence arises a necessity for discovering some economical mode of utilizing our extensive stores of peat, so as to be enabled to apply it for domestic uses, for steam-fuel or for smelting our various iron, copper, or other native ores.

In Sir Wm. Logan's Geological Report, the principal known sources of peat are named, the most western of which is in Sheffield, County of Addington—the next county west of Kingston. We have no doubt, however, that extensive beds will be found in the western section of Upper Canada; one source at least, in Welland, having been already discussed in the public press.

The peat deposit in the township of Sheffield, is described in the Report as of three or four hundred acres in extent—the average depth about four feet,

and its quality very superior. Deposits are also found in the rear of the Seigniories of Vaudruel and Rigaud, L. C.; and in Caledonia, Roxburgh, Osnabruck and Finch; in Clarence, Cumberland and Gloucester—in the latter extending over some 5,000 acres, and in depth generally from eight to fifteen feet, while in some parts bottom has not been found at twenty-five feet. This tract is but three miles from the Ottawa, and therefore quite accessible. In the township of Nepean and Goulborn, near the village of Richmond, are three large peat beds, of from 1,000 to 3,000 acres each. It is also found in Beckwith, and about 3,000 acres in Westmeath. The township of Huntley has about 2,500 acres, from eight to fifteen feet in depth. On the north side of the Ottawa, at Grenville, and at Harrington, are several small areas of peat, of superior quality. Deposits are also found at Mille Isles and Ste. Anne; and at St. Sulpice, a peat bog covers an area of 1,100 acres, of from two to fifteen feet in depth. In the Seigniories of Lavaltrie and Lanoraye, are two bogs with an area of about eighteen square miles, and of an average depth—so far as ascertained—of about eleven feet.

In the fief of St. Etienne, the Seigniories of Champlain, De Léry and Lacolle, Longueuil, Ste. Marie de Monnoir, Riviere Ouelle and Ile Verte, the townships of Duquesne and Macpes, and the parish of St. Dominique, are found extensive peat beds, some of them of superficies of from 4,000 to 6,000 acres each. The most extensive beds, however, are found on the Island of Anticosti, being upwards of eighty miles in length and two in breadth; or a superficies of over one hundred and sixty square miles, and from three to ten feet in depth. There are also many smaller bogs on the Island, of from 100 to 1,000 acres in extent.

Knapp's Technology thus describes the formation of peat:—"When the soil of a district assumes the form of a flat basin of greater or smaller dimensions, so that the water which collects can not freely flow off, but stagnates for a length of time (form a moor), which is not of uncommon occurrence in the temperate zones, and is favored by the tardy evaporation, then water plants of all kinds, sedges, rushes, reeds, algæ, mosses, even shrubby plants, as willows, &c., avail themselves of the propitious situation, and quickly form a thick covering of vegetation. With the change of season these die and fall to the ground, making room for a second crop in the following spring. This goes on from year to year until the hollow bog is completely filled up, although in a very loose manner. The remains of the plants immersed in water quickly undergo decay; they lose their original solidity with the simultaneous evo-