

it should be completely discarded, not patched up. We are well aware that there is more or less uncertainty about a new engineering venture, but the results of the investigation will be a guide to the engineers in their future work and they should know positively what the results will be before the undertaking is again attempted.

PEAT FUEL.

The use of peat for fuel purposes is by no means a new question. Years ago it was put on the market in competition with firewood. At that time it was merely cut out of the bog in pieces of suitable size, and these were dried and placed on the market. As a fuel it was satisfactory, but the industry proved unprofitable, and was not carried on for long.

Since that time many persons have tried to manufacture peat fuel, with the object of increasing its fuel value. These investigations have proved successful, but as yet there has been very little development in this country. Several companies have tried to place this fuel on the market, but they have been almost complete failures, largely on account of the prohibitive cost of manufacture. A fuel was produced very much similar to hard coal. It was easy to burn and was of high calorific value. There is no doubt that if the manufacture had been put on a commercial basis, the demand would have given rise to a big industry.

Peat is the decayed matter which comprises many old bogs, viz.: all the dead material that is to be found in a forest swamp; roots, leaves, fibres, moss, etc. It will be readily understood that this matter when dried makes an excellent fuel.

Now that the price of the commoner fuels, coal and wood, has increased considerably, it is highly desirable that a fuel of equal quality and lower price be placed on the market. Peat can be made use of in this connection. It remains for some one to devise a not too costly and easy method of preparing it.

This fuel is being successfully manufactured at a moderate cost in several European countries, notably Holland, Norway, Sweden, Denmark, Finland and Germany. There seems to be no good reason why the immense peat bogs that are spread over Canada, could not be made use of.

At the present time a representative of the Canadian Government is in Europe making a study of the plants in operation, and of the peat industry generally. Upon his return he will act as Government expert on peat, giving assistance to manufacturers when called upon.

The report when published will be a valuable addition to the literature published by the Government. It will be of interest not only to those interested in the peat fuel industry, but to the public generally, particularly to those in parts of the country remote from the various sources of coal supply, since the question of fuel is one that no one in this country can avoid. Even those who would not find it advantageous to use peat would be indirectly benefitted. The industry on a large scale would give employment to many, and money spent for fuel, would be spent at home.

In the West the need of a new fuel is keenly felt. In the winter time it is very often impossible to transport coal over the railways, and the forests are being constantly depleted, with the result that wood for fuel purposes is becoming very scarce. Only last winter was given an example of what the fuel question in the West is, and as that portion of the country becomes more thickly settled the problem will become more vexed.

Some of the finest peat bogs in the world are distributed throughout the Dominion. It is estimated that there are about 37,008 square miles, the average depth of the bogs being from eight to ten feet. It is not unlikely that further investigation will add considerably to this figure.

Careful tests have shown that the heat value of 1.8 tons of peat is equal to one ton of coal, or 2.5 tons of wood.

As well as being useful as a fuel only there are many other uses to which peat may be put. It is now being used in the making of producer gas. At the present time a company is being organized to utilize some of the immense peat bogs of Ireland to supply gas for power and lighting purposes to the city of Dublin. Peat is also being used in the manufacture of alcohol, and it is stated that this can be produced at six cents per gallon. One of its uses from which Canadians will reap much benefit, is in the electric furnace. As in the ordinary blast furnace, a reducing agent is required in the electric furnace, and it has been found that peat makes an excellent reducing agent. In many places in Canada where iron ore is found peat bogs are in close proximity. The installation of a plant to prepare it, would give the electric furnace a constant and unfailing supply of the necessary reducing agent.

If this question is considered as carefully in Canada as it has been elsewhere, in a few years the industry should be a leading one in this country.

EDITORIAL NOTES.

The results of the innovation of twelve gasoline railway motor cars on the Union Pacific will be watched with considerable interest by the engineering public. These cars will be placed upon branch lines, where fast service is not required. They have the advantage of starting and stopping quickly, and the speed attainable, enables the company to give a much more frequent service than would otherwise be possible. The latest type will be a 200 horse-power engine capable of attaining a speed of sixty miles an hour.

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It is pleasing to note that at least one Canadian city is adopting a policy in connection with its engineering department which should be an example to some of the older ones. The City Council of Victoria, B.C., has decided to have all the electric light and telephone wires placed underground before the streets are repaved. Good pavements are more or less expensive, as the tax-payers well know, and if those who have charge of the work in the cities and towns would only look far enough ahead they would avoid the expense of tearing up new pavements for purposes such as that already mentioned, at the same time making it unnecessary to pave streets the second time within a very short while. The people of Victoria are to be congratulated in having a council that is looking after their interests in such a practical manner.

MARKET CONDITIONS.

Montreal, September 5th, 1907.

American pig iron markets are stagnant this week. Sales of moderate quantities have developed at a reduction of 50 cents to \$1 per ton, but whether this a fair indication of general market conditions or not is a question. Demand is very slow and the volume of metal changing hands is very small.

The English markets are steady, with a good demand, for the most part. There has been little change during the