

CHAPTER III.

MANUFACTURE OF AIR DRIED PEAT FUEL.

The main problem in the manufacture of peat fuel is, as has already been stated, the removal of the water in an economical manner. A fully satisfactory solution of this problem has not yet been reached, as the methods* so far employed on a larger scale depend on weather conditions for the drying of the wet peat. The season during which a peat bog can be worked is, therefore, comparatively short and varies from 90 to 115 days. This makes the labour question at least in some localities a difficult one. Great improvements have, however, been made in the methods used and new machinery and labour-saving appliances invented, which considerably decrease the number of men required, increase the production and deliver a peat fuel of better quality. The manufacture of peat fuel, where conditions are favourable, is, therefore, even now an undertaking which, if properly conducted, will leave a reasonable profit.

Numerous methods have been tried, involving the expenditure of large amounts of money, in attempts to remove the water by mechanical appliances or other artificial means, but most of these methods have failed entirely and proved unsatisfactory from an economical standpoint. No attempt will be made to describe all the methods tried or those which from time to time have been advertised as having solved the peat question; only those which at present are used to any extent or are of special promise or interest will be dealt with.

A drained and settled peat bog still contains from 85 to 90% moisture and on account of the peculiar nature of peat in its natural state the content of moisture cannot even in strong presses under enormous pressure be brought down to less than 60 to 70%, which has been demonstrated time and again. The cost of this process with the methods so far used in Europe is prohibitive, the production too small and the contents of moisture still left too high to allow a final drying by artificial heat.

Air dried peat fuel contains, on an average, 25% moisture; the peat manufactured during the early part of the summer, when drying conditions generally are more favourable, sometimes contains considerably less or from 15% and upwards, and that manufactured later sometimes a little more. This fuel as compared with coal is very bulky and, under ordinary conditions, does not stand heavy transportation charges. The bog should, therefore, be located comparatively close to a sufficient market. If, on the other hand

* The wet carbonizing process invented by Dr. M. Ekenberg and later described, is independent of weather conditions, but at present no commercial plant is in operation.