

the same carriage. It is accounted superior to all other existing machines of the kind because of its greater capacity per man per day and consequently lower cost of production.

The Anrep machine is built in two sizes, the larger producing from 40 to 60 tons finished fuel per 10 hours with 28 workmen, and requiring 38 horse power. It costs \$1,900 exclusive of power plant. The smaller type is built in light and heavy styles, the former turning out 20 tons peat fuel per 10 hours with 13 men, and consuming 19 horse power. It is sold for \$830, exclusive of power plant. The stronger machine produces from 25 to 30 tons of finished fuel per 10 hours, employing 15 men and using 25 horse power, its price being \$1,200, exclusive of power plant.

Another machine has recently been put on the market by the Abjorn Andersson's Mechanical Works Company of Svedela, Sweden, and a number are now in use. Several sizes are made, ranging in capacity from 20 to 40 tons finished peat per day. The machines proper cost from \$215 to \$675.

In Germany most of the peat-milling machines are made by R. Dolberg of Rostock and A. Heinen of Oldenburg. They are similar in construction, and resemble the Swedish machines already described. Much hand labor is required in their operation, but they are able to produce $1\frac{1}{2}$ to 2 tons peat fuel per man per day.

With wages ranging from 95 cents to \$1.20, or averaging say \$1.00 per day, at some of the large Swedish peat works machine peat is made at a total cost of \$1.35 per ton, though this figure may vary appreciably one way or the other depending on the condition of the bog which affects the cost of labor alone to the extent of from 56 to 80 cents per ton.

Machine peat contracts very much in drying, the volume of the dried peat often being not more than one-sixth that of the original block. Thus the bricks acquire a very compact consistency, bearing a close resemblance to lignite both in appearance and density. In specific gravity it often surpasses water, but commonly weighs from 30 to 40 lb. per cubic foot. It will stand ordinary handling in being moved from place to place, is less hygroscopic than cut peat, and may easily be stored without absorbing moisture. In some places in Germany and Denmark the practice is to thatch the peat stacks to keep out the rain.

"Cut" and "machine" peat in their various methods of preparation almost exhaust the forms in which peat fuel is used in Europe, comparatively little pressed or briquetted peat being manufactured as yet. Of recent years, however, the briquetting of fuels has assumed large proportions, especially in Germany, where in 1901 the output of briquetted fuel was 1,643,416 tons. Of this quantity about half was used by the railways and one-third in factories and industrial works, the remainder being about equally divided in use between dwelling-houses and steamships. The principal substances used in making these briquettes are coal screenings or waste, and lignite, but peat is now also employed. In the case of peat an attempt is made to carbonize it by heat and compression during the process of manufacture in order to give it greater fuel value. Briquetted fuels sold in 1901 at an average price of $13\frac{1}{2}$ marks (\$3.13) per ton wholesale.

In face of the general acceptability of machine peat, and the firmly established position of its manufacture in Europe, there is not the same inducement there to apply briquetting processes to peat as to other crude fuels which cannot be solidified or reduced in bulk in any other way. The peat briquettes are produced in presses of the open-tube type, similar to those hereinafter described, the pressure required being about 11 tons per square inch, a very solid block with smooth, polished surface being the result. Cut peat air-dried down to 30 or 40 per cent. water is first pulverized, then artificially dried in a pan-drying apparatus heated with live or exhaust steam, until not more than 12 per cent. moisture remains. The briquettes are oval in cross-section, instead of circular like those made in Ontario. Four