

# The Coming Fuel of the Age.

Few departments of inventive effort have been more fruitful in failure than those which have been directed to utilizing the vast deposits of peat which exist so generally in the country. Large sums of money have been lost in experiments, which have only resulted in convincing the projector that he had been following a meritorious purpose, but at great pecuniary loss. The extent and richness of these deposits has justified great efforts to utilize them, and this fact has stimulated exertion.

As is usually the case, success comes in the end. For fifteen or twenty years, Mr. Franklin Dodge has been experimenting in this direction, and finally, his labors have been successful. His machine is a triumph over the natural obstacles which have been so long in the way of success, and to-day he is working it with the most gratifying results.

The process is quite simple, and approves itself as soon as it is witnessed. There is no complex machinery required. A 30 horse power engine furnishes ample power, while a mill for grinding the peat, and pumps and hose for forcing and conducting it to the beds for drying, are all that is required.

While this process is simple, the results are astonishing. It is estimated that this machine will grind and deliver per hour these beds an amount of peat which, when dry, will weigh

And all this is performed by twenty-five men. It is estimated that the daily product will reach 100 tons, and that this may be done without confusion, and with little

It will be remarked that this result reduces the netal of the peat when prepared for use to a very small figure; small, as to be almost incredible.

The weight of this peat, when thoroughly dry—and the drying is done wholly by natural process—is the same as anthracite coal. It leaves little ashes in burning, and makes a clean, beautiful flame. It is an admirable fuel for producing quick heat, and is most desirable for making steam, whether in locomotive or stationary engines. It is so clean in combustion as to be suited for cooking purposes and for the parlor. It is entirely void of smell, and may be burned in close stoves or in grates.

The first successful attempt in the condensation of peat must produce a great revolution in human economy, as it cannot fail to reduce the price of fuel, and will soon place those localities where wood is scarce, and coal remote and high, in a way to utilize those beds of peat which have for ages been subjects of questionable utility.

The utilizing of the vast fields of material in this country will save from fifty to sixty per cent. to every consumer of coal. This country pays about five millions of dollars annually to American coal companies, all of which can be saved by developing our heretofore almost worthless peat beds.

We take it for granted that the people have no need to inquire what it is good for, because the adaptability of condensed air-dried Peat to all domestic purposes for which coal and wood are used, has been demonstrated during the past few years in many different localities. In saying this we do not intend to convey the idea that peat fuel is to drive coal and wood out of the market, but we do say

that it is capable of furnishing a cheap and convenient substitute for either, and adding immensely to the natural resources of the Dominion. If we wish to be a manufacturing people, cheap steam power is one of the most important elements of the growth and prosperity of our industrial communities. To feed the iron horse, our forests have been cut away to such an extent that the price of wood, notwithstanding our large importations of coal, has doubled during the last twelve years. And coal can only be supplied to the towns in the interior, at a cost for freight which so enhances its price as to make its use a burdensome tax upon all who rely upon steam power to drive their machinery. Now it so happens that there is scarcely a manufacturing community in the Dominion where Peat of good quality is not found in the immediate neighborhood, sufficient to supply the wants of the people for many years. In some localities, centuries would not exhaust the supply, and this too, of a fuel which is especially adapted for the production of steam power, either in stationary or locomotive engines as we shall be pleased to show.

The following statement, from the "London Mechanic Magazine," affords testimony in confirmation of these facts:

"The locomotive superintendents of three railways in Ireland, made a trial of condensed peat, on the Belfast and Northern Counties Railway, to test its fitness for locomotives. During a trip of twenty-seven miles there was an amount of steam, though the fire door was continually open and the damper down for the greater part of the distance. The pressure at starting was 10.5 lbs. The commencement of the trip was up an incline of one in eighty, four miles long, with double curves. While ascending this incline, the pressure rose to 110 lbs., and afterwards to 120 lbs., with the fire door open. The speed was forty miles per hour. While running there was no smoke, and little at the stations. The fire-box was examined at the end of the trip, and no clinker was found, and the smoke-box was free from cinders and dust—a proof that the fuel had stood the blast well; and it is the recorded opinion of the experimenters that the peat was, in every respect, well suited for locomotives."

The process is simplicity itself. The peat is shoveled upon an endless belt, (similar to a straw carrier to a threshing machine) which conveys the peat to the mouth of the machine, and is ground into pulp. This pulp, water and all, is conveyed by force pump through a hose, upon a spot of ground leveled for the purpose. The peat settles to the bottom, forming a sediment, (say) six inches in thickness, while the water is drained away. After laying a few days, the sediment is cut into strips with a cutting rake, and when it is sufficiently stiff, so that it may be handled, it is taken up and put into cribs, (similar to the farmer's corn crib) and there it remains until dry enough for use. This process being so SIMPLE, that the entire cost, for producing this fuel, ready for use, is only sixty-five cents a ton. Further particulars, as to the cost of the machine, or the right to use it, apply to

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