

No. 732,979.

Patented July 7, 1903.

UNITED STATES PATENT OFFICE.

MARY FRANCES WARD, OF PROVIDENCE, RHODE ISLAND.

ARTIFICIAL FUEL.

SPECIFICATION forming part of Letters Patent No. 732,979, dated July 7, 1903.

Application filed April 20, 1903. Serial No. 153,555. (No specimens.)

To all whom it may concern:

Be it known that I, MARY FRANCES WARD, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Artificial Fuel, of which the following is a specification.

This invention relates to a new and useful composition of matter designed to be used as an artificial fuel in substantially the same manner as anthracite coal is used at the present time; and the invention consists in the various ingredients hereinafter named and combined in the proportions set forth.

In the manufacture of my fuel I employ coal-ashes obtained from burned coal, dry sawdust, sand, paraffin-wax or candle-stock, and sodium nitrate. These various ingredients are combined in the following proportions, namely: In a composition containing one hundred parts I employ fifty parts of powdered coal-ashes, twelve parts of dry sawdust, six parts of sand, thirty-one parts of paraffin-wax or candle-stock, and one part of sodium nitrate. These ingredients are all mixed together and are subjected to heat of a sufficient degree and for a sufficient length of time to thoroughly incorporate the various

ingredients. The mass is then pressed into molds and converted into blocks, spheres, or cylinders, as desired. The pressed molded forms are then subjected to sudden cooling temperature for the purpose of producing a hard solid mass. These blocks of artificial fuel burn slowly, producing a good heat and very little smoke. They ignite easily and burn to a fine ash.

It will thus be seen that I provide a cheap, simple, and efficient form of artificial fuel.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An artificial fuel composed of coal-ashes, sawdust, sand, paraffin-wax and sodium nitrate.
2. An artificial fuel consisting of a mixture of coal-ashes fifty parts, sawdust twelve parts, sand six parts, paraffin-wax thirty-one parts, sodium nitrate one part, said ingredients being heated and thoroughly mixed, then molded and cooled, substantially as set forth.

MARY FRANCES WARD.

Witnesses:

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