

UNITED STATES PATENT OFFICE.

ADELAIDE M. THOMAS, OF DALLAS, TEXAS.

ARTIFICIAL FUEL.

SPECIFICATION forming part of Letters Patent No. 765,444, dated July 19, 1904.

Application filed May 6, 1904. Serial No. 206,778. (No specimens.)

To all whom it may concern:

Be it known that I, ADELAIDE M. THOMAS, a citizen of the United States, residing at the city of Dallas, in the county of Dallas and State of Texas, have invented a new and useful Composition of Matter for Artificial Fuel, of which the following is a specification.

The basis of my artificial fuel consists of pulverized coals in which the change from woody fiber and vegetable substance has not progressed as far as is to be found to be the case in the harder coal.

The kind of coal which I find most useful for making my fuel is that known as "lignite," or other coal possessing similar qualities as lignite are equally or nearly equally useful. This coal is pulverized and is then ready for compounding. To cement this together into coherent masses or briquets of suitable size, I mix it with a suitable binder and treat or form it in a briqueting-machine of approved type after it has been heated and while it is still warm. The basis of the binder which I employ and its principal ingredient is glucose or treacle. To this I find it useful to add other ingredients in smaller quantities, such as asphaltum. To provide this fuel with an ingredient which enables the briquet to retain its form during ignition and to prevent the mass from becoming soft and plastic and running together like ordinary soft coal, I employ a mineral known as "soapstone" or similar material, and preferably I employ the kind known as "steatite," which is an aluminium silicate. This should be pulverized and thoroughly mingled with the other ingredients named and sodium bicarbonate, which, combined with the glucose

or treacle, readily unites in heating and aids, in connection with the other ingredients, in solidifying the mass when cold and preventing fermentation, abrasion, or disintegration of the briquets during handling.

The formula given below is the one which I prefer to use in the manufacture of my product; but it is to be fully understood that it is capable of variation as to proportion, number, and character of the ingredients.

Formula: Lignite, seventy-five per cent.; glucose or treacle, ten per cent.; asphaltum, eight per cent.; steatite, six and three-fourths per cent.; sodium bicarbonate, one-fourth per cent. These proportions are by weight.

What I claim is—

1. An artificial fuel consisting of pulverized coal, glucose or treacle, asphaltum and steatite, substantially as described.

2. An artificial fuel consisting of pulverized coal, glucose or treacle, asphaltum, steatite and sodium bicarbonate, substantially as described.

3. An artificial fuel consisting of pulverized lignite, glucose or treacle, asphaltum and steatite substantially as described.

4. An artificial fuel consisting of pulverized lignite, glucose or treacle, asphaltum, steatite and sodium bicarbonate, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADELAIDE M. THOMAS.

Witnesses:

J. E. THOMAS,
C. B. HOLLARN.