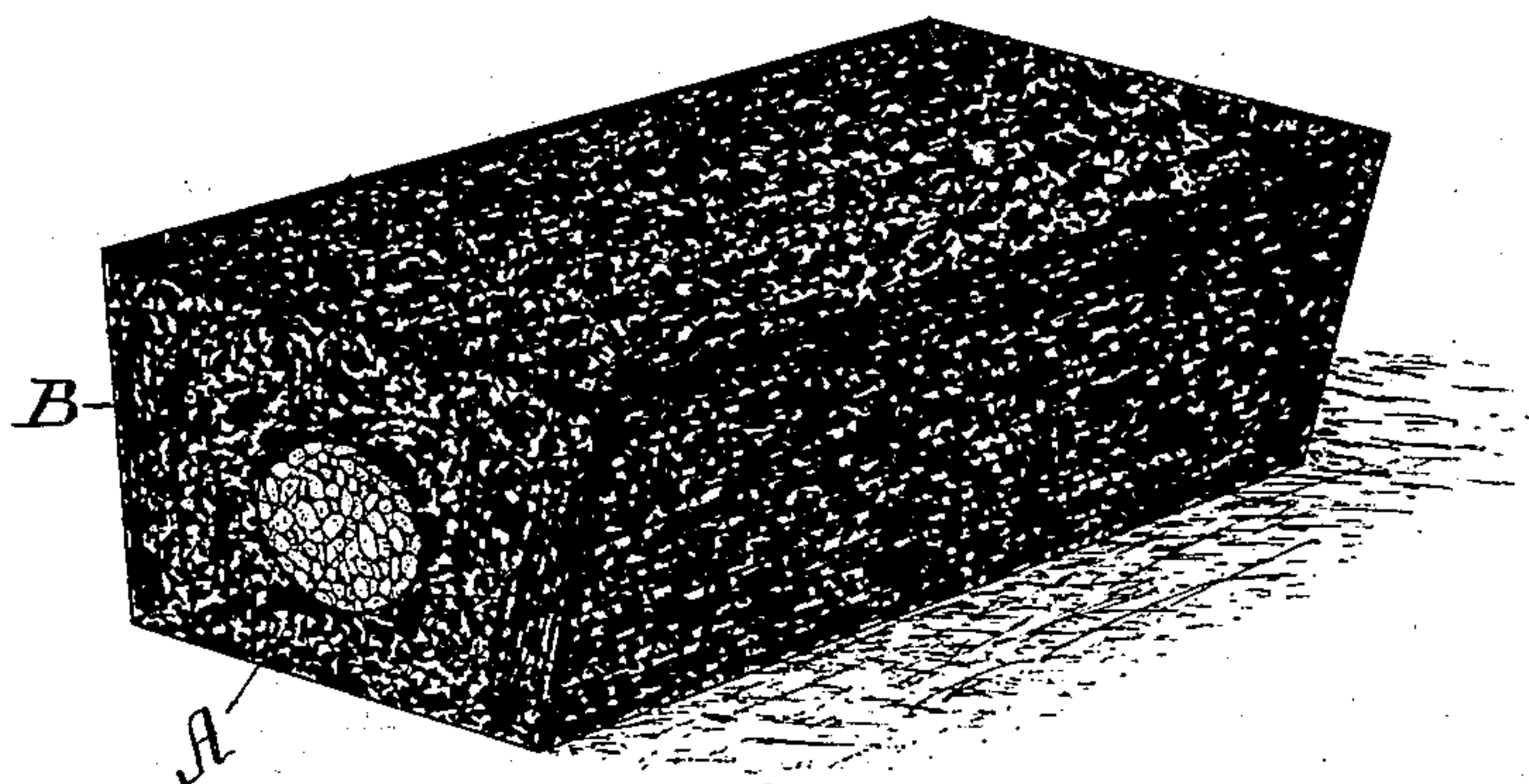


(No Model.)

F. S. DIMON.
ARTIFICIAL FUEL.

No. 345,217.

Patented July 6, 1886.



Witnesses:

C. J. Belt.
O. A. Clark

Inventor.

Frank S. Dimon
By Paine, Ladd,
Attys.

UNITED STATES PATENT OFFICE.

FRANK S. DIMON, OF FORT SCOTT, KANSAS, ASSIGNOR OF ONE-HALF TO
BENJAMIN F. HEPLER, OF SAME PLACE.

ARTIFICIAL FUEL.

SPECIFICATION forming part of Letters Patent No. 345,217, dated July 6, 1886.

Application filed March 23, 1886. Serial No. 196,281. (No model.)

To all whom it may concern:

Be it known that I, FRANK S. DIMON, a citizen of the United States, residing at Fort Scott, in the county of Bourbon and State of Kansas, have invented certain new and useful Improvements in Artificial Fuel; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to artificial fuel and fire-kindlers; and it consists in manufacturing an artificial fuel in blocks or lumps with a central core of fibrous material, the former being molded onto and around the latter, as hereinafter fully described and claimed.

The figure in the drawing shows a perspective view of sample of this artificial fuel and fire-kindler manufactured according to my invention.

This fuel can be used as a substitute for fuel as commonly employed, as it will burn readily in any common heating or cooking stove, and does not give off any disagreeable smell while burning. It is specially intended for use in the western States, where fire-wood is scarce and expensive.

In carrying out my invention I first take a bunch of fibrous material—such as cornstalks, hay or straw, sun-flower stalks, or rosin-weed stalks—which bunch is to constitute the core of a block of fuel, tied together, and dipped into hot coal-tar. Any fibrous material may be used; but cornstalks are to be preferred, as being a waste product that is usually raked up off the fields in spring-time and burned as rubbish.

The letter A in the drawing indicates the core of fibrous material. B is a mass of inflammable nature, formed by mixing together one part, by measure, of coal-dust or fine coal, two parts of turf, and a sufficient amount of hot coal-tar to form a solid mass when cold. The proportion of coal-dust and turf can be

varied to suit the varying nature of those materials in different localities. The turf is the common prairie-sod, which can be obtained very cheaply and in large quantities in the western States. This turf or sod is first cut with a turning-plow, and then cut crosswise into blocks of a convenient size for transportation to the factory. The blocks of turf are then chopped fine with spades, chopping-axes, or a chopping-machine, and well mixed with the fine coal. This mixture is placed in pits or large tanks, and hot coal-tar is run in and mixed with it until a mass is formed which is liquid enough to be run into molds. The molds are made of any convenient size or desired form, and the core of cornstalks or other fibrous material is placed in them after being dipped into the hot coal-tar. The mixture of coal, turf, and tar is then poured into the molds so that it surrounds the core of cornstalks on all sides, leaving the ends uncovered. The thickness of the block of fuel surrounding the cornstalks may be varied according to the size of the core. The mixture hardens quickly, and when removed from the blocks is ready for use as fuel. The molds are preferably made rectangular in form and wider at the top than at the bottom to facilitate their removal from the molds.

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

1. An artificial fuel consisting of a central core of fibrous material surrounded by a mixture of coal-dust, turf, and coal-tar, substantially as and in the proportions hereinbefore set forth.

2. An artificial fuel consisting of a central core of fibrous material prepared by dipping it into hot coal-tar, surrounded by a mixture of coal-dust, turf, and coal-tar, substantially as and in the proportions hereinbefore set forth.

3. An artificial fuel consisting of a core of fibrous material prepared by dipping it into hot coal-tar, and a mass consisting of a mixture of coal-dust, chopped turf, and coal-tar, surrounding the sides of the said core, but leaving the ends of it uncovered, substantially

as and in the proportions hereinbefore set forth.

4. An artificial fuel consisting of a core of
5 coal-tar, and a mass consisting of a mixture
of coal-dust, chopped turf, and coal-tar, mold-
ed about the sides of the said core, but leaving
the ends thereof uncovered, substantially as
and in the proportions set forth.

In testimony whereof I affix my signature in 10
presence of two witnesses.

FRANK S. DIMON.

Witnesses:

G. W. BULEN,
J. W. HARRIS.