(Specimens.)

E. J. DUNBAR.

FIRE KINDLER.

No. 301,809.

Patented July 8, 1884.

Fig.1.

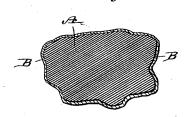


Fig. 2.



WITNESSES:

lo Sedgwick

INVENTOR:

ВУ

Munn

ATTORNEYS.

## UNITED STATES PATENT OFFICE.

EUGENE J. DUNBAR, OF ROMULUS, MICH., ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE DUNBAR FUEL COMPANY, OF TOLEDO, OHIO.

## FIRE-KINDLER.

SPECIFICATION forming part of Letters Patent No. 301,809, dated July 8, 1884.

. Application filed November 20, 1883. (Specimens.)

To all whom it may concern:

Be it known that I, EUGENE J. DUNBAR, of Romulus, in the county of Wayne and State of Michigan, have invented a new and Improved 5 Fire-Kindler, of which the following is a full, clear, and exact description.

This invention relates to improvements in that class of fire-kindlers which are composed of pieces of coal coated with a solution of resin and turpentine and then rolled in coal-dust or sawdust or powdered charcoal; and the invention consists in coating pieces of coal with resin or pitch to form a clean, non-sticking, and inflammable surface.

5 Reference is to be had to the accompanying drawings, forming part of this specification, in which pieces of my improved fire-kindler are shown in section in Figure 1 and in face view in Fig. 2

Pieces A of charcoal, hard or soft coal, or coke are dipped in molten resin, pitch, or a mixture of the same, or in any other combustible material adapted to form a hard combustible coating, B, on the charcoal, coke, &c. 25 The pieces of charcoal, coke, &c., are then removed and dried, and thus are provided with the hardened combustible coating. The pieces are then packed in suitable packages, and are then ready for the market. If a fire is to be so kindled, the fire-kindler is ignited by means of a match or otherwise, and is immediately enveloped in flames, as the coating burns

rapidly and ignites the coal, &c. When the combustible coating is consumed, it leaves live coal, which immediately ignites the fuel, such as coal, coke, wood, &c. The kindler is clean and does not soil the hands, clothes, buckets, &c., and can be handled very easily. The pieces of coal, coke, &c., can have various sizes.

Heretofore pieces of coal have been coated with a sticky composition composed of turpentine and rosin, after which a coating of coal-dust, powdered charcoal, or sawdust was applied to prevent the pieces from sticking 45 together. Without the coating of coal or sawdust or charcoal, the sticky material used would adhere to the fingers of the user and the pieces would adhere together. My kindler is much cheaper than that referred to, as by dispensing 50 with the dust-coating material labor is saved and a much cleaner and more salable article is produced.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—55

A coal or carbon fire-kindling made with an exterior film of hard, smooth, resinous matter that incloses the coal or carbon and prevents soiling, but is readily inflammable.

EUGENE J. DUNBAR.

Witnesses:

A. P. Young, R. C. Johnson.