L. C. E. CARRÉ.

Apparatus for Economizing Fuel.

No. 166,846. Patented Aug. 17, 1875.

Fig. 1

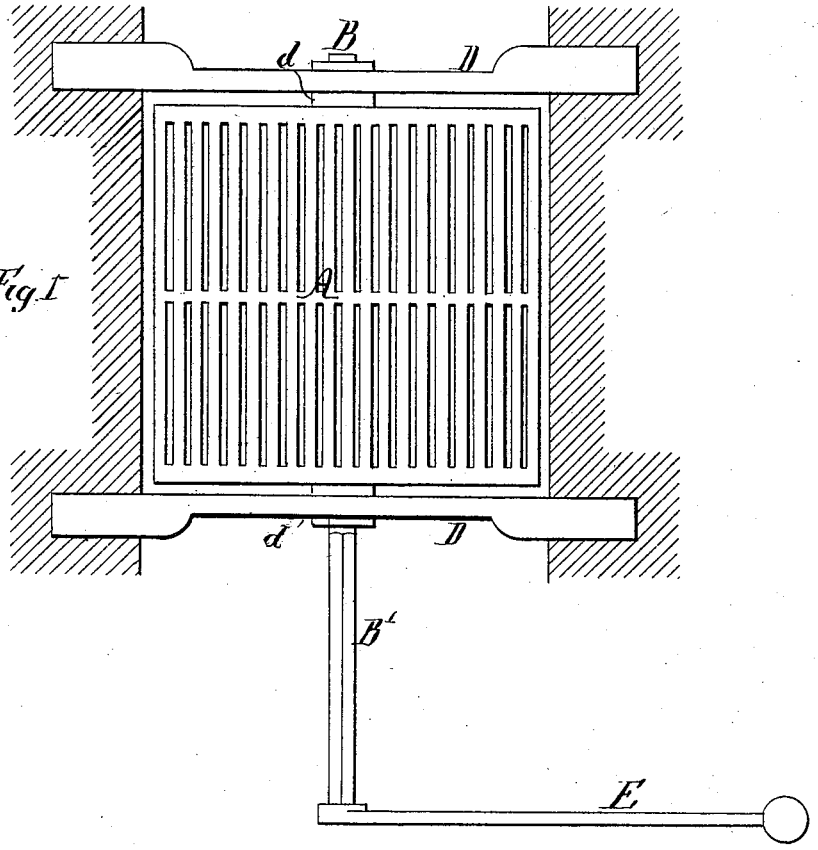
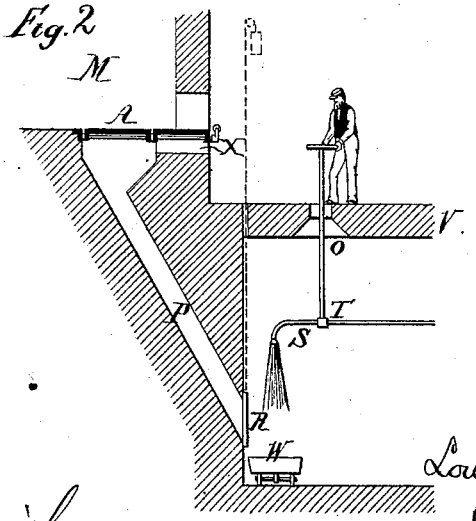


Fig. 2



Witnesses,
Harry Smith
Hubert Howson

Louis C. E. Carre
by his Attorneys,
Howson & Howson

UNITED STATES PATENT OFFICE.

LOUIS CHARLES ERNEST CARRÉ, OF ORLEANS, FRANCE.

IMPROVEMENT IN APPARATUS FOR ECONOMIZING FUEL.

Specification forming part of Letters Patent No. **166,846**, dated August 17, 1875; application filed June 11, 1875.

To all whom it may concern:

Be it known that I, LOUIS CHARLES ERNEST CARRÉ, manufacturer, of Orleans, Loiret, France, have invented an Apparatus for Economizing Fuel, of which the following is a specification:

The object of my invention is to so construct a fire-place or furnace in which bituminous coal is burned as to facilitate the withdrawal of the latter, and prevent its further combustion after it attains the condition of coke; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view of a tilting grate in a furnace or fire-place, and Fig. 2 a sectional view of the same applied to a limekiln.

The grate A is pivoted to the transverse bars D through the medium of the axle B, which is attached to the under side of the grate, the ends of the bars D being built into the brick-work of the furnace. The extension B′ of this axle B has, at its outer end, the weighted lever E, by operating which the grate may be tilted. Washers *d*, interposed between each end of the grate and its corresponding bar D, prevent frictional contact between the same. In Fig. 2, M is the fire-place of a limekiln, in which the tilting grate A is arranged, as shown, and P is an inclined chute leading from beneath the fire-place to the opening closed by the door R, which may be operated in any suitable manner. Immediately below the termination of this chute is a truck, W, for receiving the discharged coke. A pipe, S, for water, to be turned on or off by means of the cock T, terminates directly above this truck W. The usual ash-hole X below the grate permits the necessary draft for the fuel. When the bituminous coal, the heat or flame of which has been utilized in the furnace M, has reached the condition of coke, the grate A is tilted by means of the handle E, when the newly-formed coke will fall down the chute P and into the truck W, the door R being open. Water is then turned onto the coke in the truck from the pipe S, and the combustion of the coke ceases. The steam arising from this action of the water on the coke passes off through the opening O in the roof V of the cellar or other apartment containing the truck. The coke can be afterward used as fuel with very useful effect.

I claim as my invention—

The combination of the tilting grate A and chute P with the water-pipe S, arranged above the receptacle into which the coke is discharged, substantially as described.

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

LOUIS CHARLES ERNEST CARRÉ.

Witnesses:

EMILE RICHARD,

EDMOND THIBAULT.