

(No Model.)

J. BUJAC.

GRATE FOR BURNING COAL DUST.

No. 346,086.

Patented July 27, 1886.

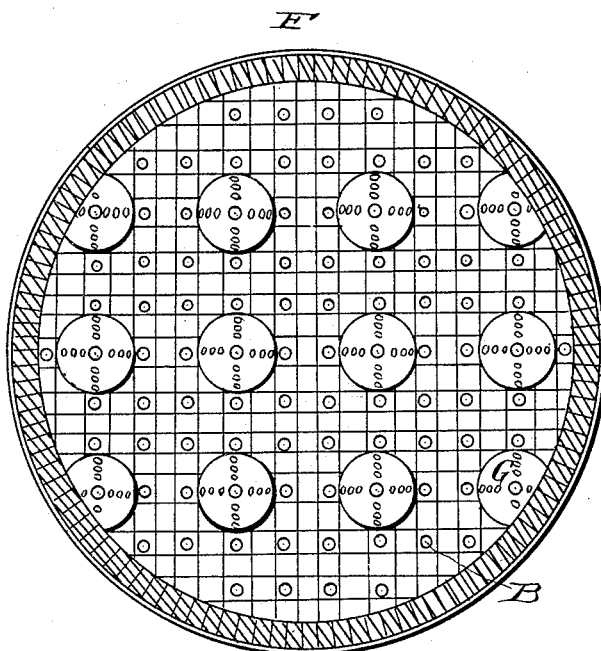


Fig. 1

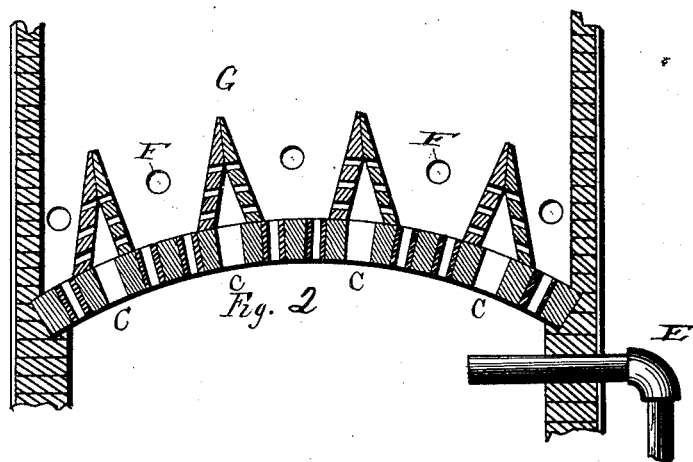


Fig. 2

Witnesses
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JAMES BUJAC, OF CATONSVILLE, MARYLAND.

GRATE FOR BURNING COAL-DUST.

SPECIFICATION forming part of Letters Patent No. 346,086, dated July 27, 1886.

Application filed July 21, 1885. Serial No. 172,932. (No model.)

To all whom it may concern:

Be it known that I, JAMES BUJAC, a citizen of the United States, residing at Catonsville, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Grates for Burning Coal-Dust; 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.

The object of this grate is to burn coal-slack—that is, the dust or fine particles separated by screening or other means from merchantable coal.

Figure 1 represents a plan view of a floor of brick or other refractory substance, which is perforated with vents or holes B, through which atmospheric air is admitted to the fire-box or furnace in contact with the fuel. C are openings in the floor or grate, which are covered with conical-shaped caps G, which are made of brick or other refractory substances, and of sufficient height to admit of a proper depth of fuel, as may be needed. The conical caps G are perforated to admit of the passage of atmospheric air into or in contact with the fuel or fire.

Fig. 2 is a vertical section of the same, showing the manner of construction. E is the pipe from the blast, by which atmospheric air, gas, or vapor is propelled into the ash-pit for supplying atmospheric oxygen. F F F, &c., are

stoke-holes sufficiently large to admit of a rod or poker into the furnace or fire-box for purpose of stoking or agitating the fuel. These stoke-holes are fitted with the proper means for closing them when not in use.

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

1. An arched floor, hearth, or grate for furnaces, made of brick or other refractory substances perforated with vents, and having located upon it a series of conical caps or coverings, for the purpose of dividing the mass of fuel on the hearth into small bodies, and perforated with vent-holes in a horizontal direction, each cap having a communication with the ash-pit to permit the passage of atmospheric air, gas, or vapor from the pit into the interior of the cap, to be distributed into the surrounding mass of fuel through the vents in the side of the conical cap, all substantially as and for the purpose described.

2. A furnace constructed, substantially as described, with conical caps arranged serially upon the floor, and having a series of holes around the base of the boiler to admit a bar for stirring and lifting the fuel, substantially as described.

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Witnesses:

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