WILLIAM M. JONES.

Improvement in Base-Burning Stoves.

No. 114,947. Patented May 16, 1871.

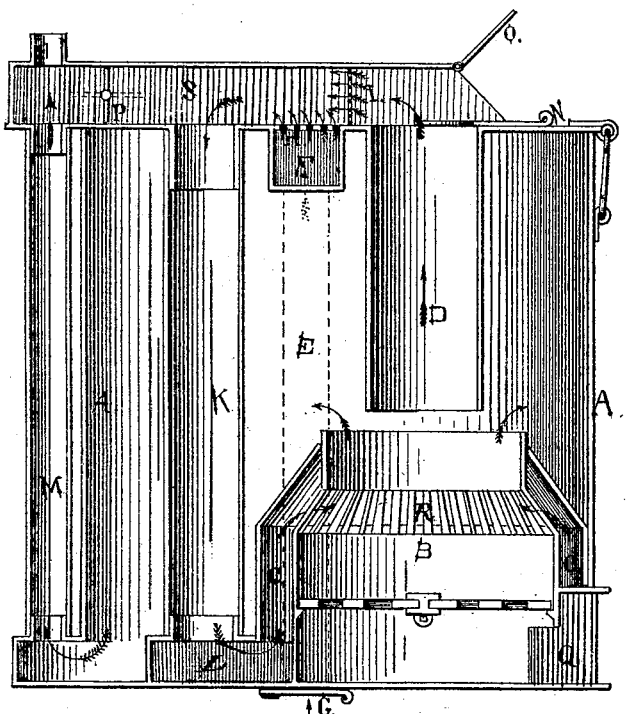

FIG. 1.

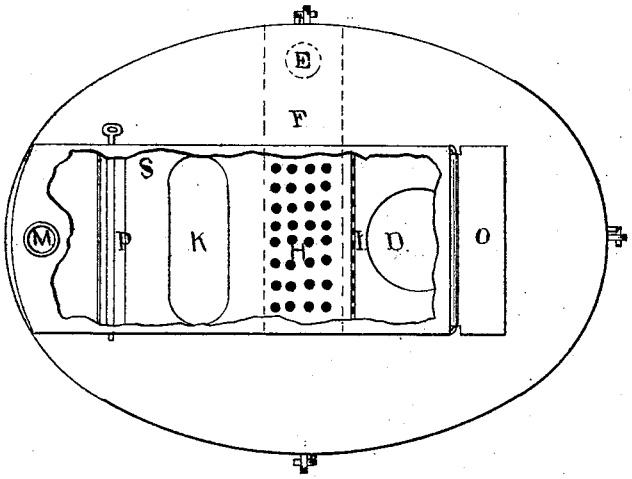

FIG. 2.

Witnesses.

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WILLIAM M. JONES, OF HORICON, WISCONSIN.

Letters Patent No. 114,947, dated May 16, 1871.

IMPROVEMENT IN BASE-BURNING STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

I, WILLIAM M. JONES, of Horicon, in the county of Dodge, in the State of Wisconsin, have invented certain Improvements in the Method of Combustion, of which the following is a specification.

Nature and Object of the Invention.

My invention is for the purpose of collecting the escaping gases from fuel and returning them to the fire-pot, and thus increase the combustion; and in order to more fully show the manner in which I do this I submit the drawing of the mode of accomplishing this object, in which the gases are collected at the top of the magazine and mixed with air and returned to the burning fuel through openings in the fire-pot, and thus increase the heat.

Description of the Drawing forming part of this Specification.

Figure 1 is a sectional view of my invention.

Figure 2, a top view with a portion of it removed.

General Description.

A is the outside shell of my invention.

B, the fire-pot, with narrow openings around its inside, near the top, with a passage-way, C, around it for the gases to pass to the fire, formed by an outside shell closed at the top of the fire-pot, and with a grate at the bottom of the pot.

D, the magazine through which the fuel is supplied.

E, an air-pipe, shown in dotted lines, from the bottom of the shell A to the chamber F, across the top of the shell A.

G, a damper, at the bottom of pipe E, for the purpose of regulating the supply of air.

H, small holes perforated in the top of chamber F to divide the air into fine jets.

I, a gauze partition across chamber S to divide the gases as they come from the fuel, so that they shall the more readily unite with the air that passes through perforations H.

K, passage-way for the gases down to chamber L and into passage-way C.

M, smoke or gas and nitrogen-pipe leading away from the shell A.

N, damper or cover to the magazine to regulate the draught.

O, door to chamber S, and through which coal is fed to the magazine.

P, damper in chamber S, to be opened to carry the gases to the chimney when it is not desired to consume them.

Q, ash-pit, opening for direct draught to the bottom of the fire-pot, and out of which to remove the ashes.

R, openings around the fire-pot for the gases to pass to the fire and be consumed.

S, chamber on top of shell A.

The operation of this invention is that coal is fed into the fire-pot B through the magazine D, and the magazine is filled full or partly full, and the door O is shut down, and fire put to the coal in the fire-pot.

The draught-door Q may be left open to give draught, and as the coal or other fuel in the fire-pot burns the gases and smoke will rise above the fire-pot and pass to the inside of the shell A, around the outside of the magazine, and around the passage K to the pipe M, and out through the same to the chimney, the whole of the shell A being open for the smoke to pass, except the magazine D and passage K.

As soon as the fire gets well under way the damper G is opened and the air passes into pipe E and out through the perforations H, and mingles with the gases that arise from the fuel in the magazine D, and passing down through passage K into passage-way C, and out through the narrow openings R to the fire, the damper P being closed, and thus the gases, mixed with the atmosphere, supply oxygen to the fuel in the fire-pot.

The ash-pit door Q may be closed and the draught be supplied entirely through the damper G and pipe E. The damper N may be closed more or less over the top of the magazine to regulate the supply of gas from the fuel.

Claims.

1. The fire-pot B, passage C, passage K, chamber L, openings R, and chamber S, for the supply of gas to the fuel, substantially as described.

2. Magazine D, perforations H, gauze partition I, passage K, chamber L, passage C, chamber S, and openings R, substantially as described.

Witnesses:
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