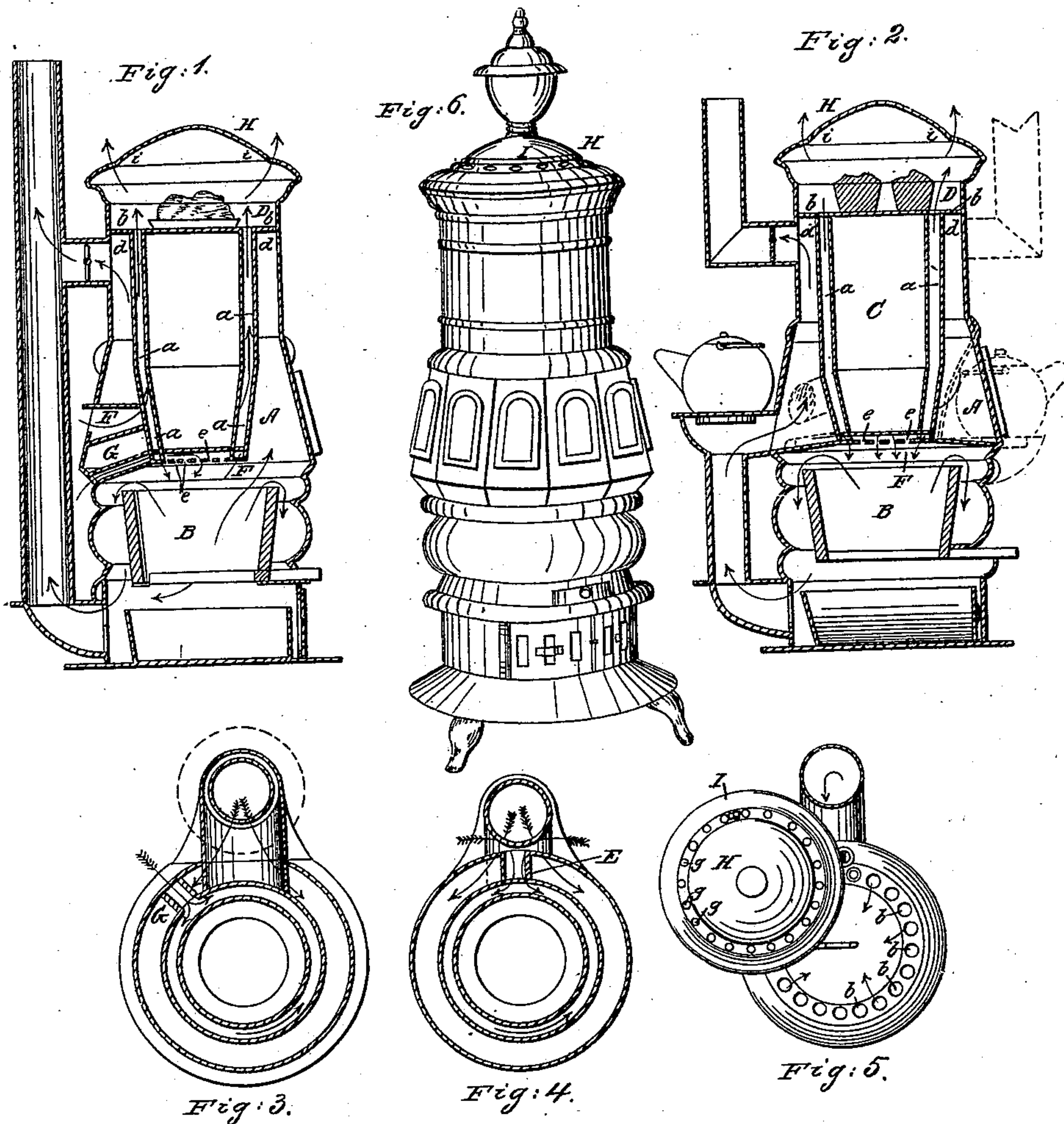


J. C. HENDERSON.
Base Burning Stove.

No. 95,685.

Patented Oct. 12, 1869.



Witnesses:
E. Cowen.
Francis A. Woods

Inventor:
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United States Patent Office.

JOSEPH C. HENDERSON, OF TROY, NEW YORK.

Letters Patent No. 95,685, dated October 12, 1869.

IMPROVEMENT IN BASE-BURNING STOVES.

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

To all whom it may concern :

Be it known that I, JOSEPH C. HENDERSON, of the city of Troy, in the county of Rensselaer, and State of New York, have invented a new and useful Improvement in Magazine-Stoves; and I further declare that the following is a full, clear, and exact description of my said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figures 1 and 2 are perpendicular sections of my improved stove;

Figure 3 is a horizontal section, showing the manner in which the air is introduced to the annular chamber or ring at the bottom of the magazine;

Figure 4 is also a horizontal section, showing the mode of introducing the air in the space between the double walls of the magazine;

Figure 5 is a representation of the interior of the oven placed at the top of the stove; and

Figure 6 is a perspective view of the exterior of said stove.

My invention relates to that species of magazine-stoves having the supply-cylinder or magazine suspended over the fire-pot, and not continuous; and

It consists in constructing the supply-cylinder in such a manner as to supply air from the exterior to the surface of the fire, to promote combustion, and also to supply heated air to an oven placed at the top of the stove, or to the room, as may be desired.

It also consists in forming the top of the stove into an oven, wholly disconnected from the combustion-chamber or flues of said stove, and to which heated air from said supply-cylinder is admitted, substantially as described.

It also consists in the employment of a damper in the cover of said oven, by means of which the heated air can be confined to the oven, for the purpose of baking, or allowed to escape into and warm the atmosphere of the room.

To enable others skilled in the art to which it relates, to make and use my said invention, I will proceed to describe the construction and operation thereof, which are as follows:

Supply-cylinders or magazines constructed with double walls, enclosing an air-chamber between them, are not new. Such a construction has been employed both for the purpose of supplying air to the fire, and for supplying heated air to the atmosphere of the room. But my cylinder is so constructed that it effects both these results in the same stove, heated air being supplied to the fire, and also to the room, or, if desired, to the oven at the top of the stove.

A is the combustion-chamber, B, the fire-pot, and C, the magazine or supply-cylinder of a common self-feeding stove.

I construct the cylinder C with double walls, so that between said walls there is a space, constituting the air-chamber *a a*.

At the top of this air-chamber are apertures *b b*, opening into the oven D.

The air is supplied to this chamber *a a* by means of the air-flue or passage E, connecting with the exterior atmosphere.

At the bottom of the suspended cylinder C, I construct an annular tube or chamber, F, surrounding the bottom of said cylinder, and firmly attached thereto, and communicating with the air on the outside of the stove by means of the said flue or passage G.

This annular tube or air-chamber is perforated at the bottom with small holes *e e*, through which the air passes directly to the surface of the fire.

Between the top of the supply-cylinder C and the exterior of the stove, I place a circular plate, *d d*, thus forming in the top of said stove the oven D, completely separated from the combustion-chamber and flues of said stove.

In the bottom of said oven are the apertures *b b*, leading into the hot-air chamber *a a*, as hereinbefore stated.

This oven is closed by the cover H, forming the top of the stove.

In said cover H are the small apertures *g g*, closed by the damper I, when desirable.

The operation of my said invention is as follows:

After the fire is kindled, and the annular tube or chamber F becomes heated, the exterior air will pass, through the flue G, to said chamber, and, passing, through the small apertures *e e*, to the surface of the fire, will greatly aid in promoting the complete combustion of the fuel and of the gases evolved therefrom.

As the cylinder C becomes heated, the air will enter the air-chamber *a a*, formed by the double walls of said cylinder, and, after being thoroughly heated, will escape, through the apertures *b b*, into the oven D.

When it is desired to use said oven for baking, the apertures *g g*, in the cover H, are closed by the damper I, and the heated air from the chamber *a a* will be retained in the oven. As it becomes cooled, it will be displaced by the more highly-heated air from the said chamber *a a*. Thus a current of hot air through said oven will be established, thoroughly ventilating the oven, and causing it to bake with facility.

When the oven is not in use, the damper I is opened, and the hot air, passing through the apertures *g g*, is diffused throughout the room, thus adding greatly to the heating-properties of the stove.

What I claim as new, and desire to secure by Letters Patent, is—

1. The supply-cylinder or magazine C, constructed

with double walls, enclosing the air-chamber *a a*, with the apertures *b b*, the perforated annular tube or air-chamber *F*, and the air-flues *E* and *G*, all arranged and combined substantially as hereinbefore specified.

2. The oven *D*, in combination with the cylinder *C*, air-chamber *a a*, and air-flue or passage *E*, substantially as and for the purposes hereinbefore described and specified.

3. The said oven *D*, cylinder *C*, air-chamber *a a*,

cover *H*, apertures *g g*, and damper *I*, all arranged and combined substantially as hereinbefore specified and set forth.

In witness whereof, I have hereunto set my hand, this 8th day of March, 1869.

J. C. HENDERSON.

Witnesses:

E. COWEN,
FRANCIS A. WOODS.