Wm. E. Wood's impt in

101341 Stoves for fire-places & Furnaces.

PATENTED MAR 29 1870

Fig. 1.

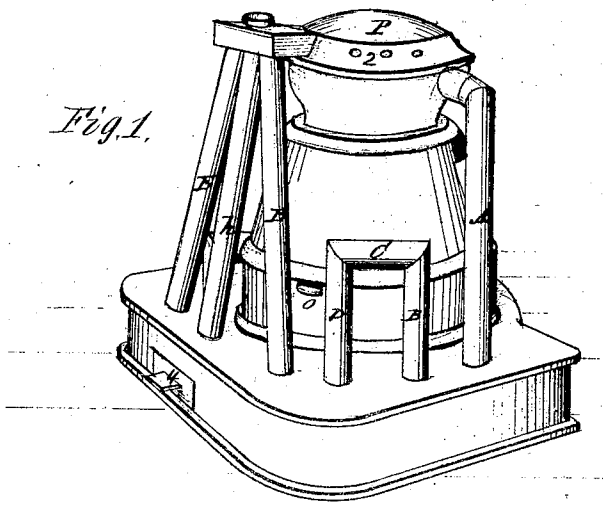


Fig. 2.

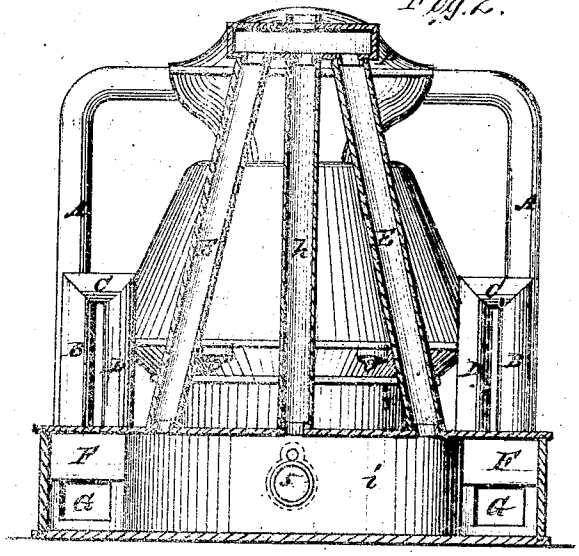
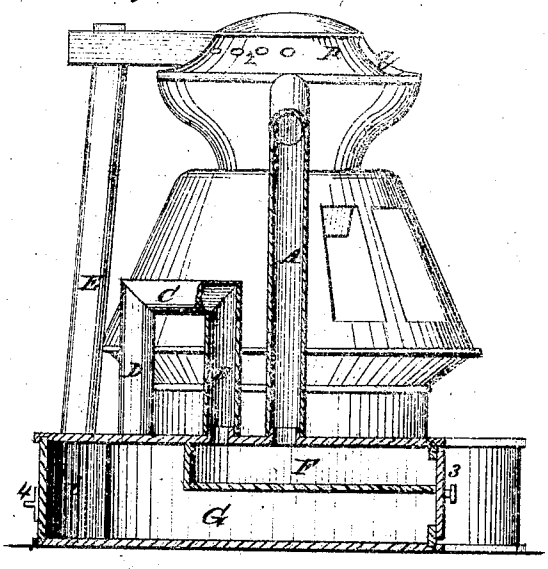


Fig. 3.



Witnesses:

C. C. Wheeler

Alva Hubbard

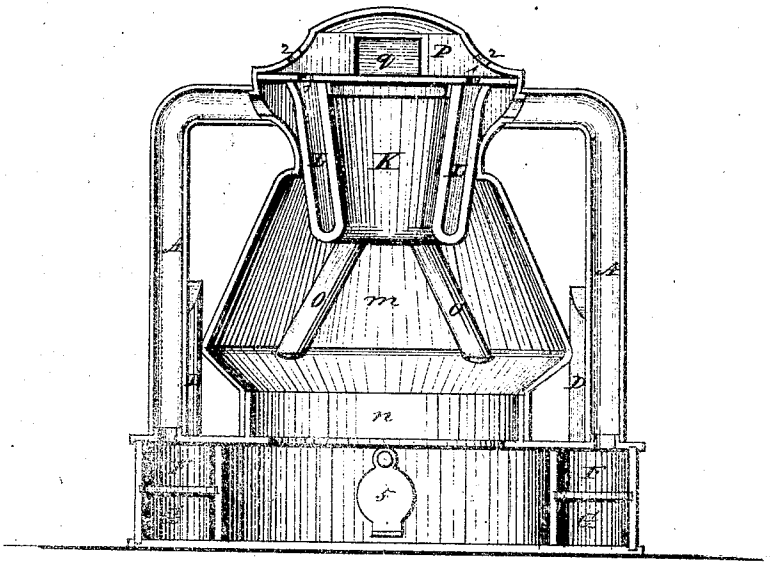
Inventor:

Wm E Wood

101341

Wm E. Wood's improvement in Stoves for fire-places & Furnaces.

Fig. 4.



Witnesses:

C. C. Wheeler

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Inventor:

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United States Patent Office.

WILLIAM E. WOOD, OF BALTIMORE, MARYLAND.

Letters Patent No. 101,341, *dated March* 29, 1870.

BASE BURNING FIRE-PLACE-STOVE.

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

I, WILLIAM E. WOOD, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain Improvements in Stoves, of which the following is a specification.

Nature and Objects of the Invention.

The first part of my invention relates to the combination with a stove for a fire-place or hot-air furnace, of a series of communicating downward and upward-draught flues, and clean-out chambers beneath them, in such a manner that a duplication of the usual down and up draught between the fire-chamber of the stove and the escape-flue of the chimney is afforded in both sides of the body of the stove; the object of this part of my invention being to afford increased heat-radiating surfaces in the down and up draught-flues of such stove, with facility for removing the dust and ashes which are deposited by the flues.

The second part of my invention relates to the combination with the magazine fuel-cylinder above the fire-pot, and a hot-air receiving and distributing chamber above the said fuel-cylinder, of an air-heating space surrounding the magazine fuel-cylinder, and communicating at its lower end with fresh-air-supplying tubes, and at its upper end with the air-receiving and distributing chamber above it, in such a manner that a steady current of air will enter the said air-heating space around the magazine fuel-cylinder, become heated therein, and eventually discharged through perforations in the hot-air receiving and distributing chamber above.

Description of the Accompanying Drawings.

Figure 1 is a perspective view showing the back and one side of the stove.

Figure 2 is a vertical section of fig. 1, through the back flues.

Figure 3 is a vertical section of fig. 1, through the side flues, and clean-out chambers of one side of the stove.

Figure 4 is a vertical central section parallel with the front of the stove.

General Description.

A, B, C, D, and E are the series of communicating downward and upward-draught flues at each side of the stove; and

F and G the clean-out chambers beneath A, B, C, and D.

h the usual direct-draught flue; and

i its clean-out chamber below it.

K is the magazine or fuel-cylinder; and

L, its surrounding air-heating space, both of which are suspended together within the fire-chamber *m* above the incandescent fuel in the fire-cylinder *n*.

o o are the fresh-air tubes which, passing through fire-chamber *m*, communicate with the external air, and the air-heating space L of the magazine or fuel-cylinder K.

P is the hot-air receiving and distributing chamber which communicates through a series of holes 1–1, with the said air-heating space L, and allows the said hot-air to escape through a series of holes 2–2 in the top of the chamber P.

The fuel is introduced through a feed-tunnel, *q*, which passes through the chamber P.

The clean-out chambers F and G are separate and distinct from each other, and are fitted with a removable door, 3, in front, which allows ready access to their interior for removing ashes and dust.

The flue A at each side of the stove conducts the hot products of combustion from the upper end of the chamber *m*, down into the space F, from which they are conducted upward through the flue B, and along the flue C into the flue D, which conducts them down into the space G and *i* to the upward flues E and *h*, through which they reach the escape or chimney-flue.

Access for removing the ashes and dust from the space *i* is afforded by the stopper 4, (see fig. 1,) while an opening to the direct-draught flue *h* to allow the ashes to enter the same while the fire is being raked, is afforded by a valve, 5, which is operated in front through the ash-box.

It will now be understood, without further description, that, by means of the communicating down and up flues A B C D E, and the separate clean-out chambers F and G, an increase of heat-radiating surface will be produced with ready access in front for removing the falling dust and ashes therefrom, and that a larger amount of heated air will be supplied to the room through the distributing-chamber P, by means of the air-heating chamber L, from the same amount of fuel consumed.

Claim.

I claim as my invention—

1. The combination with the stove for a fire-place or hot-air furnace, of the series of downward and upward-draught flues A B C D E, and clean-out chambers F and G, substantially as and for the purpose hereinbefore set forth.

2. The combination with the magazine fuel-cylinder K, of the air-heating chamber L, the fresh-air supplying tubes *o o*, and the hot-air receiving and distributing chamber P, substantially as and for the purpose hereinbefore set forth.

Witnesses:
C. A. WHEELER,
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