

**Magazine Stove.**

Patented Apr. 4, 1871.



Witnesses:

Inventor:

# UNITED STATES PATENT OFFICE

JASPER VAN WORMER, OF ALBANY, NEW YORK, ASSIGNOR TO HIMSELF  
AND MICHAEL MCGARVEY, OF SAME PLACE.

## IMPROVEMENT IN BASE-BURNING STOVES.

Specification forming part of Letters Patent No. 113,473, dated April 4, 1871.

*To all whom it may concern :*

Be it known that I, JASPER VAN WORMER, of the city and county of Albany, in the State of New York, have invented certain Improvements in Base-Burning Stoves; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical section, and Fig. 2 a horizontal section taken in a line immediately over the oven.

This invention relates to that class of base-burning stoves which is provided with an oven; and consists in the peculiar construction and arrangement of the oven and feeder or coal-magazine, as hereinafter described, whereby the heated air is caused to circulate more thoroughly around the oven, and the latter is, at the same time, adapted to the heating of a kettle or other culinary vessel.

The invention is applicable to almost any variety of base-burning heaters, but especially to the stove patented by Van Wormer and McGarvey May 1, 1866, No. 54,447, and March 10, 1868, No. 75,491, and November 10, 1868, No. 84,024, the form and general construction of which are clearly shown in the drawing hereto annexed, in which—

A represents the ash-chamber; B, the grate; C, the walls of the fire-pot; D, the walls of the magazine; H, the cover on the top of the stove; I, the hot-air passage for the products of combustion, leading up on each side of the oven, over its top, and down its rear side; b, the direct-draft flue; b', the damper therein; K, the downward-draft flue; K', the escape-flue, and L the register flue-plate, all these parts being constructed substantially the same as heretofore.

In connection with these parts I now employ an oven, O, arranged in the upper part of the stove, directly over the center of the fire-chamber, with a door, d, opening in front, and a pot-hole, G, and cover at or near the center of its floor; the feeder E inclining from the top of the magazine forward against the front wall of the stove, so as to leave a clear space around and beneath the hole G, terminating at the lower edge of the door d in an opening in the oven-floor, which is pro-

vided with a lid or cover, F, that, when closed, constitutes a part of the floor, and, when open, admits the fuel, which is introduced through the open oven-door. This arrangement exposes almost the entire bottom of the oven to the direct action of the heat radiated from the fire-chamber, and brings the products of combustion and currents of heated air, on their way to the smoke-flue, into contact with the bottom, sides, top, and rear of the oven, heating it thoroughly and uniformly to a degree not heretofore attained in this class of stoves. It also removes the upper end of the coal-receptacles from the center of the stove, leaving a clear space in which the bottom of a large kettle or other vessel may protrude to a considerable distance through the iron supporting-plate, and receives the full effect of the heat on all sides without coming in contact with the magazine or feeder.

The magazine and the inclined extension thereof, or feeder, are surrounded by the heated air and products of combustion, except at a small portion of the front side of the feeder, where it touches the wall of the stove.

The construction herein described therefore combines the advantages of a central magazine feeding directly into the center of the fire-pot and isolated from the walls of the stove, so as to render it luminous on all sides; an inclined feeder, receiving the fuel in the most convenient manner at the side of the stove, and discharging the same, not into the side of the magazine, but into its upper extremity; an oven so placed that all sides thereof, except the front, are in direct contact with the currents of heated air and the products of combustion on their way to the escape-flue; and a pot-hole so arranged that the bottom of the vessel placed therein will be directly over the center of the combustion-chamber, and yet not in contact with the magazine or feeder; and it will be observed that all these advantages are obtained, not by sacrificing the simplicity and beauty of the stove, but in a construction which is a model of simplicity and neatness, which adds little to the cost of the stove, and which does not render it necessary for me to violate, in the slightest degree, the principles of construction set forth

in our former patents above referred to, under which several varieties of stoves are now in extensive public use.

I am aware that ovens have heretofore been used in connection with base-burning stoves, and also that a magazine with its upper end inclined to the front or rear of a stove, for the purpose of feeding at a side door, is not new. I do not therefore claim, broadly, these elements of construction; but

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

1. In connection with a central magazine, D, and an oven, O, directly above it, a feeder, E, inclined from the top of the magazine to the side of the stove, so as to expose nearly the whole bottom of the oven, substantially as described.

2. In a base-burning stove having a central

magazine, D, and an inclined feeder, E, the arrangement of the oven O, the chamber H' above it, the passages at the sides of the oven leading from the fire-chamber to the chamber H' above the oven, and the space at the rear of the oven leading to the exit-flue b, substantially as and for the purposes set forth.

3. The arrangement of the pot-hole G with relation to the oven, the feeder, and the magazine D, substantially as described.

4. The arrangement of the oven O, door d, feeder E, and lid F, in connection with a base-burning stove, substantially as described, and for the purposes specified.

JASPER VAN WORMER.

Witnesses:

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