

A. DICKEY.
Magazine Stove.

No. 109,396.

Patented Nov. 22, 1870.

Fig. 1

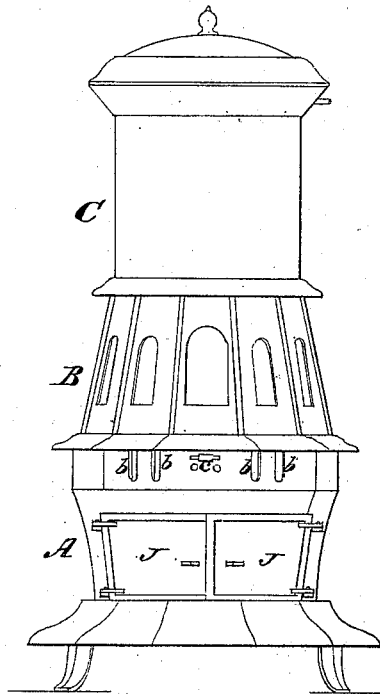


Fig. 2

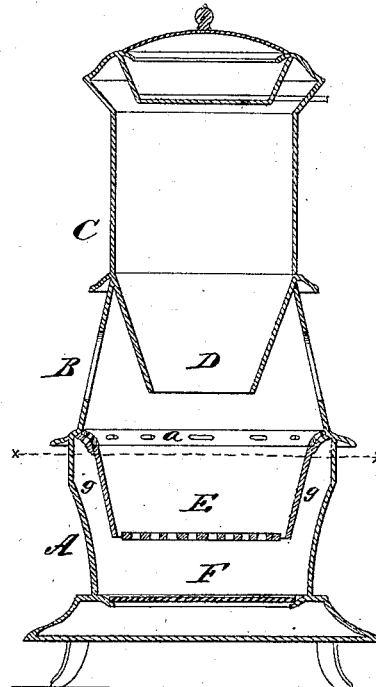
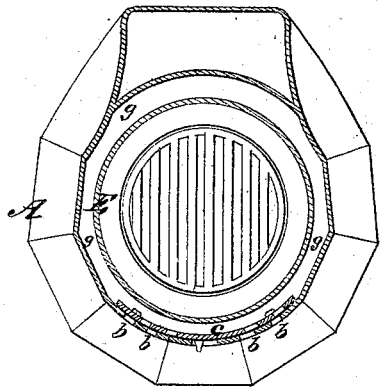


Fig. 3



Witnesses
R. S. Campbell
J. N. Campbell

Inventor
Andrew Dickey
by
Marion Benrich Lawrence,

United States Patent Office.

ANDREW DICKEY, OF ALBANY, NEW YORK, ASSIGNOR TO JOHN S. PERRY
(TRUSTEE AND EXECUTOR,) ANDREW DICKEY AND NATHAN B. PERRY.

Letters Patent No. 109,396, dated November 22, 1870.

IMPROVEMENT IN HEATING-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, ANDREW DICKEY, of Albany, in the county of Albany and State of New York, have invented a new and useful Improvement in Stoves for Heating Purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a front view of the improved stove.

Figure 2 is a vertical section taken centrally through the stove.

Figure 3 is a section through the stove, taken in the horizontal plane indicated by dotted lines *x x* in figure 2.

Similar letters of reference indicate corresponding parts in the several figures.

This invention is confined to that class of stoves known as parlor-heaters, wherein a fire-pot with close sides is suspended beneath a fuel-supply reservoir, and is surrounded by a space for the circulation of air, and wherein illuminating windows are used, and also an annular register is applied on top of the flange of said fire-pot.

The nature of my invention consists in the introduction of air into the annular chamber surrounding the suspended fire-pot, from a point which is above the ash-pit doors, and near the upper edge of the said fire-pot; said air being caused to impinge directly against the outer side of the fire-pot, to circulate entirely around the same, and to enter it at its lower end, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand and carry it into effect.

In the accompanying drawing—

A represents the ash-pit section of the stove, upon which is the illuminating section B, and upon this latter is the top cylindrical section C.

Within the ash-pit section is suspended the fire-pot E, surrounding which is a space, *g*, for the circulation of air.

The fire-pot has closed sides, so that all the air which enters it must pass in through its grated bottom.

Beneath the fire-pot the base of the stove is hollow, and, by means of flues, communicates with the fire-chamber above the fire-pot, and also with an escape-pipe at the back of the stove.

These flues are not shown in the drawing, as they are old and well known in this class of stoves, and form no part of my invention.

On top of the flange of the fire-pot an annular perforated register, *a*, is applied, which, with holes through the said flange, is used for regulating the draught by admitting more or less air from the annular space *g* into the combustion-chamber above the incandescent fuel therein.

Above the fire-pot, and suspended in the combustion-chamber, is the lower downwardly-tapering portion D of the fuel-supply magazine.

Through the front side of the ash-pit section A an opening is made for affording access to the ash-pit, which opening is provided with tightly-fitting doors J J.

Above these doors, and just below the flange surrounding the upper end of the fire-pot E, perforations *b b* are made through the ash-pit wall, and provided with a damper-slide, *c*, for admitting more or less air through these perforations.

It will be seen from the above description that the air which enters the stove to supply the combustion passes through perforations *b b* near the top of the fire-pot, which, having close sides, will compel the air, after circulating around in space *g*, to descend into the ash-pit, and then rise through the grate. I thereby supply the fire with highly-heated air, and obtain complete combustion, with little or no refuse coal or slag. I also protect the close sides of the fire-pot from rapidly burning out by keeping air in contact with its sides.

I am aware that heaters differing in their general construction and arrangement of parts from the one herein described, have been provided with open or grated suspended fire-pots, with air-inlets through their ash-pits, arranged near the points of suspension of said pots, and I do not claim such as my invention.

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

1. The arrangement of the air-inlets *b b* as near as possible to the upper edge of the ash-pit section, above doors J J, in combination with a closed-sided fire-pot, which is suspended within the ash-pit, and surrounded by a space, *g*, substantially as described.

2. The air-inlets *b b*, the annular air-circulating space *g*, the suspended fire-pot E, and the registering *a*, arranged and combined as described.

ANDREW DICKEY.

Witnesses:

JOHN A. ZWEERES,
JOHN E. GALLUP.