J. B. WILKINSON.

Cooking Stove.

No. 92,920. Patented July 20, 1869.

Fig. 1.

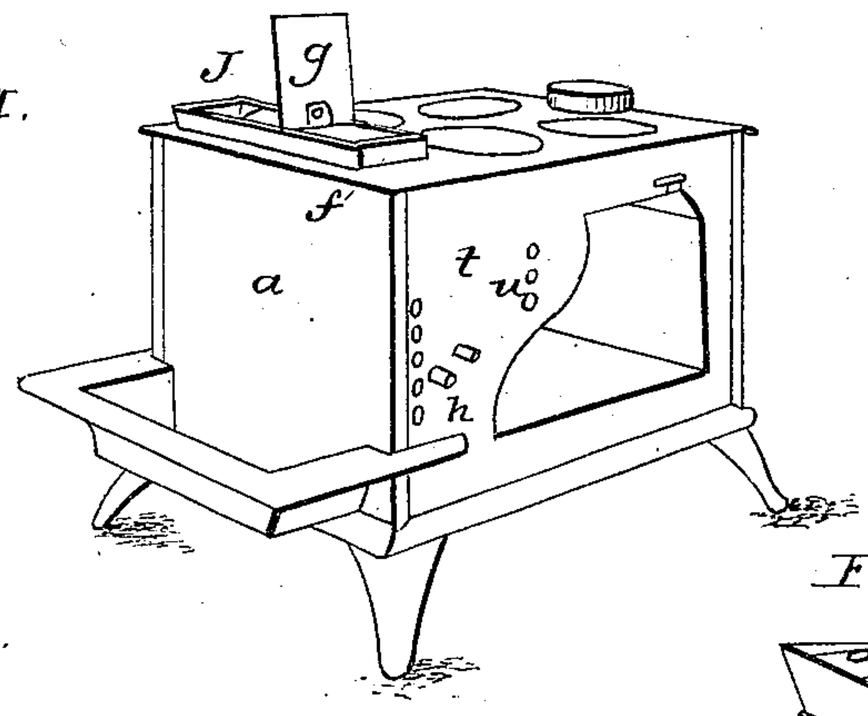


Fig. 2.

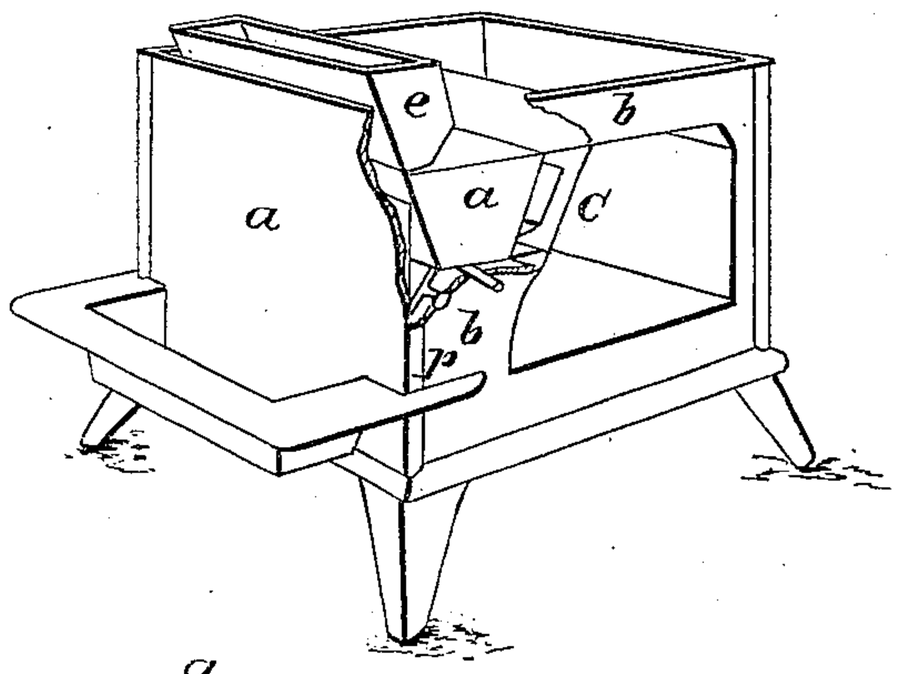


Fig. 3.

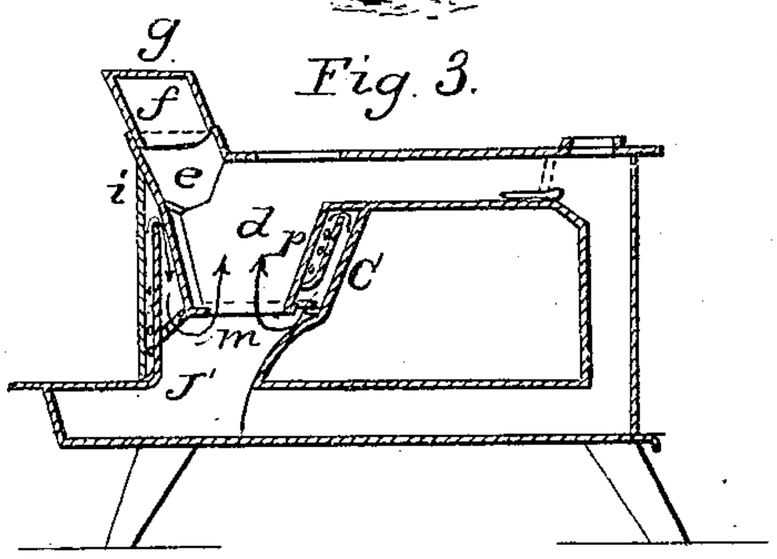


Fig. 6.

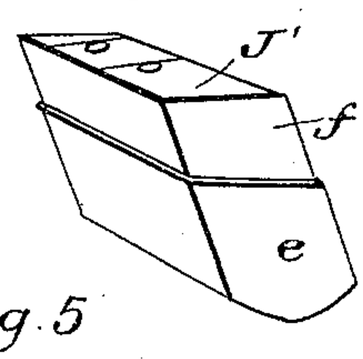


Fig. 5

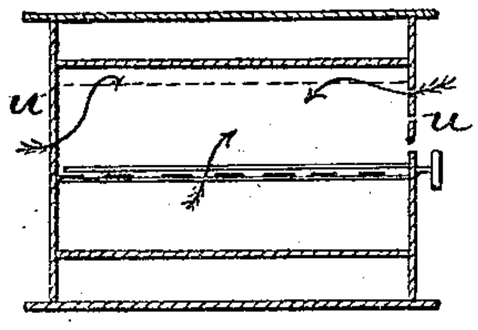


Fig. 4.

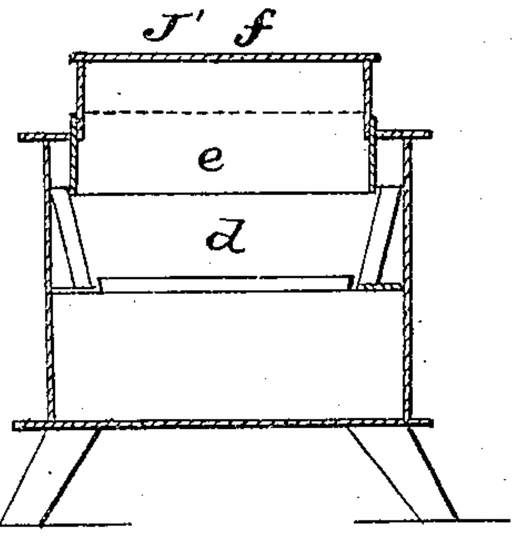
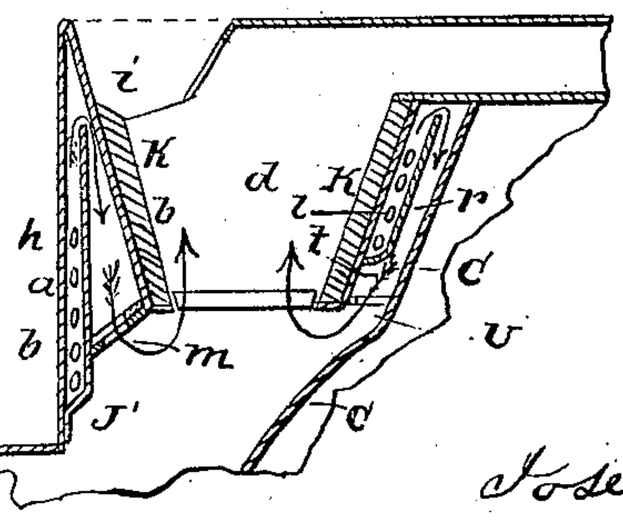


Fig. 7.



Witnesses:

Wm. B. Hardy

John E. Rook

Inventor:

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United States Patent Office.

JOSEPH B. WILKINSON, OF TROY, NEW YORK.

Letters Patent No. 92,920, *dated July* 20, 1869.

COOKING-STOVE.

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 B. WILKINSON, of the city of Troy, in the county of Rensselaer, and State of New York, have invented a new and useful Improvement in Cook-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 represents a perspective view of a stove.

Figure 2 represents a perspective view similar, with one corner taken out.

Figure 3 represents a longitudinal vertical section.

Figure 4 represents a transverse vertical section through the front of the fire-pot, &c.

Figure 5 represents a transverse vertical section through the chamber back of the fire-pot.

Figure 6 represents a perspective view of the self-feed arrangement.

Figure 7 represents a section of the fire-pot, enlarged.

Like letters refer to like or corresponding parts.

Arrows show the direction of the air-currents.

The nature of my invention consists in the employment and construction of a receptacle for fuel as a self-feed, situated above the fire-pot or chamber of combustion, the said receptacle or self-feeder being made in two parts, the upper made so as to slide into the lower or shut up telescopically, so that when fully supplied with fuel it will be of sufficient size, and as its contents diminish, the upper part will gradually slide downward, so that when empty the cover will come level or nearly level with the top of the stove.

It also consists of the employment of a chamber situated between the fire-pot and the front of the stove, having a division-plate running up from the bottom to a suitable distance from the top, so that air may be admitted through apertures in the front or jambs of the stove, to the space between the said division-plate and the said plate or plates of the stove, and then rising, may pass over the top of the said division-plate, and down again around under the bottom edge of the fire-pot to the fire, the said air being used for draught.

It also consists of a chamber situated between the fire-pot or chamber of combustion and the front plate of the oven of a cooking-stove, the said chamber having a division-plate running up from the bottom to a suitable height within said chamber, so that air may be admitted through apertures in the jambs or side plates of the stove to the space between said division-plate and the said fire-pot, and there warmed, and from thence passing up and over the upper edge of said division-plate, down again to the bottom of the fire-pot, leaves the heating-chamber through suitable apertures provided with proper dampers for regulating, and is then admitted to the fire as draught.

To enable others skilled in the art to which my invention refers, to make and use the same, I will proceed to describe its construction and operation, which are as follows:

a represents the front plate of the stove.

b represents the side plates or jambs.

c represents the front oven-plate of the stove.

d represents the fire-pot or chamber of combustion.

My stove in general is constructed as usual, and the invention and improvements herein described may be applied to any ordinary cooking-stove.

e represents the lower part of the "self-feed," which is simply a boxing cast open, top and bottom, and which I place over the fire-pot or chamber of combustion. Next I construct a boxing similar, as shown at *f*, just small enough to slide readily into the boxing *e*.

The boxing *f* is open at the bottom, and at the top is provided with a suitable cover or covers, hinged so as to open conveniently. (Covers shown at *g*.) This boxing forms the upper part of the self-feed.

When full of fuel it is drawn upward, as shown at figs. 3, 4, and 6, and as the fuel passes downward into the fire, the boxing *f* follows, so that when empty it is shut up, as shown in fig. 1, and in that position takes up but little room.

Next I construct a plate running across the whole width of the stove, shown at *h*, with a chamber between it and the front stove-plate *a*.

The chamber or space is marked *i*, and is closed at the bottom by a bent piece of the plate *h*, and shown at *j*. This piece may be a separate piece, if necessary.

The plate *h* runs up to very nearly the top of the fire-pot, (or to any suitable height,) and is not closed at the top, space enough being left for the passage of air between the plate *h* and the front wall or plate of the fire-pot or fire-pot lining, marked *k*.

There is also a chamber or space marked *l*, and which may be closed at the bottom, as shown at *m*, fig. 7, and provided with suitable apertures for the passage of air, regulated by a damper or dampers, if necessary, or it may be left open, as shown in figs. 2, 3, and 4.

In the jambs of the stove *b*, I have apertures provided, (as many as may be necessary,) as shown at *n*, and through these apertures I admit air to the chamber or space *i*, and from this up over the top of the plate *h* to the chamber or space *l*, down through the same, and around under the front edge of the fire-pot upward to the fire, the air in its passage becoming heated, and this air I use for draught to the fire.

Next, back of the back plate of the fire-pot or fire-pot lining, marked *p*, and between it and the front plate of the oven *c*, I construct another chamber, divided into two parts, marked respectively *q* and *r*, by the plate marked *s*.

This plate is so constructed that sufficient space is left at the top for the passage of air from one chamber to the other, and is closed at the bottom to prevent the passage of air, as shown at *t*.

The chamber *q* is connected with the outer atmosphere by apertures through the jambs of the stove, as shown at *u*, and the chamber *r* is closed at the bottom by a plate having apertures, as shown at *v*, and provided with a damper, as shown.

The operation of this divided chamber is as follows:

Air is admitted to the chamber *q* through the apertures *u*, and there heated; from thence it passes over the top of the plate *s* into the chamber *r*, assisting in warming the oven of the stove, and from thence it passes through the apertures in the plate *v* around under the back edge of the fire-pot upward to the fire, and applied as draught to the fire.

Having thus described the construction and operation of my said invention,

What I claim, and desire to secure by Letters Patent of the United States of America, is—

1. The employment of a self-feed, made in two parts so as to close up telescopically, constructed and located substantially as described and set forth.

2. A front plate of a cooking-stove, having a portion removed at the top to permit a self-feed to pass through and in combination therewith, in manner and for the purpose as described and set forth.

3. The employment of the chambers *i* and *l*, divided by the division-plate *h*, with the apertures *n* and dampered apertures *m*, constructed substantially in manner and for the purpose as described and set forth.

4. The employment of the chambers *q* and *r*, divided by the division-plate *s*, with the apertures *u*; and dampered apertures *v*, constructed and located in manner and for the purpose substantially as described and set forth.

In testimony whereof, I have, on this 10th day of June, 1869, hereto affixed my name, in the presence of two witnesses, to wit:

JOSEPH B. WILKINSON.

Witnesses:

WM. B. HARDY,

JOHN E. ROOT.