R. W. BELSON.

Cooking Stove.

No. 23,749. Patented April 26, 1859.

Fig. 2.

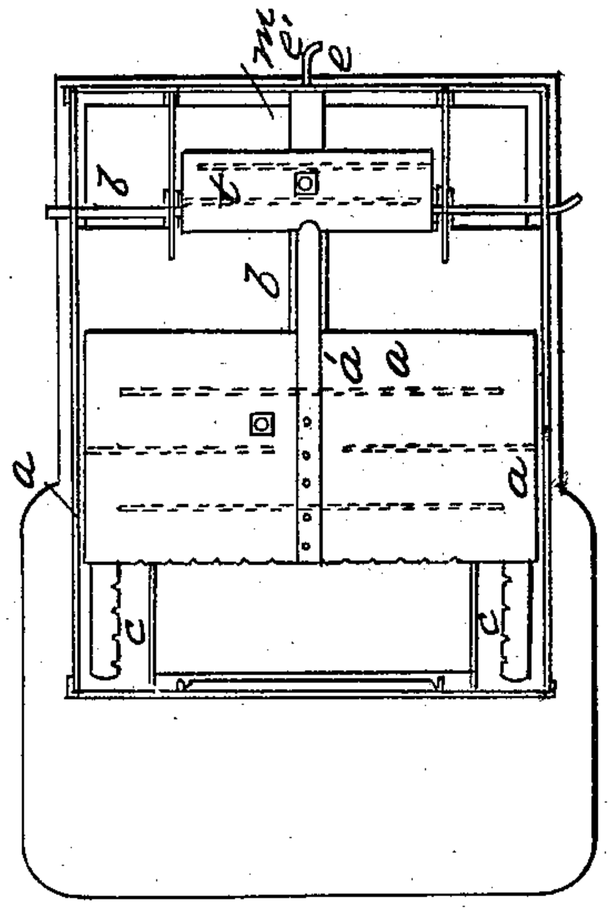
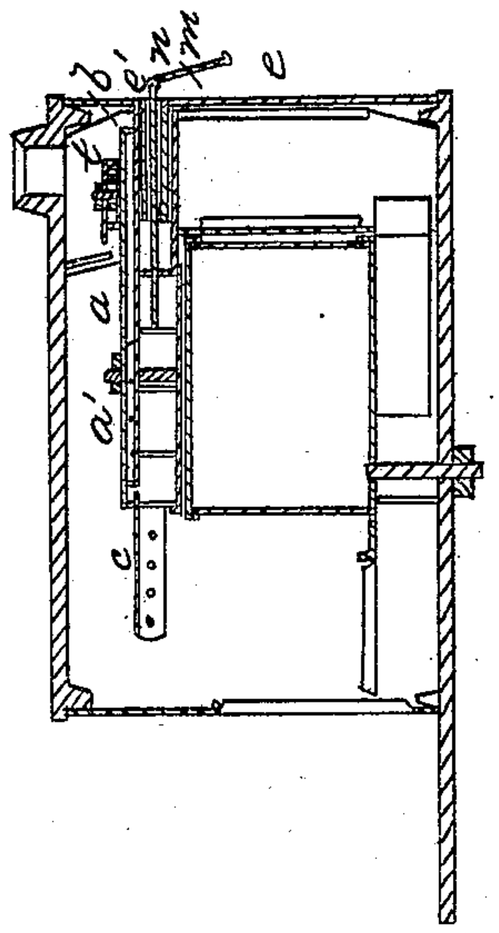


Fig. 1.



Witnesses:
Henry Fisher
Jacob Lovell

Inventor:
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UNITED STATES PATENT OFFICE.

R. W. BELSON, OF PHILADELPHIA, PENNSYLVANIA.

STOVE.

Specification of Letters Patent No. 23,749, dated April 26, 1859.

To all whom it may concern:

Be it known that I, R. W. BELSON, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented an Improvement in Gas-Consuming Cooking-Stoves, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, of which—

Figure 1 is a vertical middle section from back to front of the stove, Fig. 2, a top view of the air heater, the top plate of the stove being removed.

My improvement consists in certain improvements in gas consuming cooking stoves described and represented as follows:

Over the oven I place a hollow box or chamber *a* of rectangular form and provided with two hollow projecting arms *c*, *c*. This chamber and the arms are designed to receive and heat the air prior to its introduction among the gaseous products of combustion, to cause their complete consumption. The air is admitted to the chamber and thence to the arms by the pipe *b*, which extends to within a short distance of the back plate *e*, of the stove. Connected with the stove back and in communication with the air without by aperture *e'* is a short pipe *m* over which the pipe *b*, slides in the back and forth motions of the chamber *a*. This chamber is moved back and forth by means of the rod *n* connected with it and passing through the center of the air pipes *b* and *m*. The arms *c* are perforated with numerous small holes also the front edge of the chamber *a* and there are perforations also on each side of a tubular ridge *a'* on the top of chamber *a*.

In order to facilitate the draft especially when the draft is prolonged and obstructed by closing the damper *t*, I make this damper hollow and one part *s* of its axis hollow, and the air being introduced through the hollow axis and the damper, becomes rarefied and rising directly into the chimney pipe increases the draft of the stove.

The chamber *a* is adjusted more or less over the fire as required by the state of the fire and while it is very efficacious as a gas consumer it acts to intercept intense heat from the top plate of the oven and thereby equalize baking and cooking therein. One of the distinguishing features of this improvement is, that the heater can be placed directly over the fire and can be withdrawn entirely from over the fire when necessary which is not the case where movable air heaters are made merely to approximate to or recede from the fire or to revolve over the fire.

What I claim as my improvement in gas consuming cooking stoves is—

1. The arrangement of the air heater *a*, sliding over the oven top and connected with the air passage *b* in the manner and for the purposes set forth.

2. I claim making the damper *t* and its shaft hollow in the manner and for the purposes set forth.

R. W. BELSON.

Witnesses:
HENRY FISHER,
JACOB KNOELL.