W. RESOR.

Stove.

No. 32,081. Patented April 16, 1861.

Fig. 2.

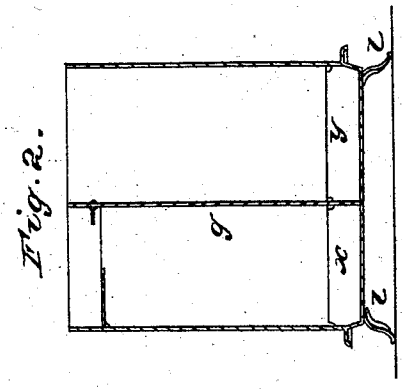


Fig. 1.

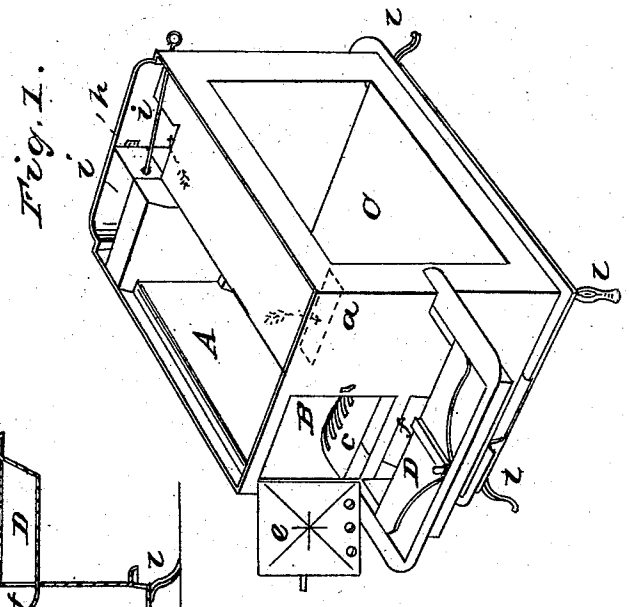
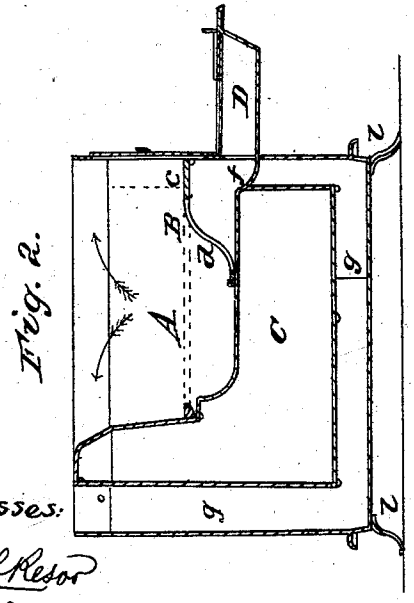


Fig. 2.



Witnesses:

Jacob Resor

A. Rockwood

Inventor:

Wm. Resor

UNITED STATES PATENT OFFICE.

WILLIAM RESOR, OF CINCINNATI, OHIO.

COOKING-STOVE.

Specification of Letters Patent No. 32,081, dated April 16, 1861.

To all whom it may concern:

Be it known that I, WILLIAM RESOR, of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Cooking-Stoves; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and letters of reference marked thereon, which form part of this specification, reference likewise being had to the Letters Patent for improvement in cooking-stoves, granted to Nicholas S. Vedder, of Troy, New York, on the 6th day of March, 1860, and numbered 27,398.

My invention refers to, and is an improvement upon the stove patented by the above named N. S. Vedder; and consists of certain additions to the fire-box, for the purpose of promoting the combustion centrally therein, and thus causing a more equal distribution of the heat above and around the oven or roasting chamber, as will hereinafter be more particularly set forth.

In the accompanying drawings: Figure 1. is a perspective view of my improved stove, the top plate being removed for convenience of showing the flues etc.; and the oven being represented without a door. Fig. 2. is a vertical longitudinal section through the fire-box. Fig. 3. is a vertical transverse section through the rear flues behind the oven.

Like letters of reference designate like parts in all the drawings.

In the fire box of the stove patented by N. S. Vedder in Letters No. 27,398, above referred to; a grate, or set of fire-bars runs along the entire length, from the door to the back for the wood or other fuel to rest on, and inasmuch as the flues running from the top of oven, descend both in front of the oven (as at *a*, in drawing hereunto annexed) and at the rear, (as at *b*,) the tendency is for the air to enter the grate bars, at the front end of fire-box, and cause therein a more rapid combustion at that part than at the part more remote from the front opening: the air thus admitted, together with the heated products of combustion thus formed are found to take the more direct and shorter route, and to descend almost entirely by the front flue, thus heating the oven unequally, and imperfectly. When however the fuel has not been filled in close up to the bars in front, cold air is admitted which goes down the front flue, and thus cools, instead of heating, the oven on that side; the same effect is produced after the fuel in front is entirely or nearly consumed.

By employing a close hearth, with either a curved or a horizontal grate B, Figs. 1 and 2, I propose to obviate the difficulty and evil above set forth; by preventing the access of atmospheric air in front end of fire-box A, and directing it into the same, at or about the center: thus, not only will the whole fuel be equally well supplied with oxygen, and the undue admission of cold air prevented, but also the heated currents will be caused to divide over the top plate of oven, and descend about equally down both the front and back flues *a*, and *b;* and in consequence, vessels placed over the oven, and the oven or roasting chamber C, itself, will be more equably heated. The hearth plate and fire-grate B, which constitutes my whole improvement is solid or close at the front part *c*, then it may curve downward, or extend horizontally, into bars at *d:* the drawing shows it both horizontal and curved, but in different colored inks. The hearth plate and bars B, are movable, as in other stoves.

The remainder of the stove I shall merely describe generally, and enumerate the parts, designating each part by a separate letter: the arrows show the course of the heated currents.

A, is the fire-box; B, the hearth plate and fire-grate; C, is the oven, or roasting chamber; D, the ash pan, provided with dampers, etc., as in ordinary stoves; *e* is the door of fire-box, and *f*, the opening by which air enters to the flue. At the rear of oven, the flue space is divided vertically by a partition Z, which is prolonged under the oven about two-thirds of its length. *h*, is a damper; and *i*, a handle operating the same from the outside. *a* is the front flue; *b*, the rear descending flue, *x*, *y*, the two flues beneath, and *z* the ascending rear flue, leading into the pipe or chimney. *l*, *l*, *l*, *l*, are the feet.

The ash pan, damper, flues, etc., differ in no essential manner from those of the stove patented by Vedder aforementioned, and hence I shall not describe them further; but shall proceed to state what I claim herein as new, and what I desire by Letters Patent to secure.

I claim,—

In combination with the fire-box A, and vertical flues *a*, and *b*, arranged with reference to the oven C, as herein described,

whereby the heated currents are divided over the oven and conducted separately around the same in the manner set forth, extending a close hearth plate from the front end of the fire-box into the same, to a point near the center thereof—whereby the air for combustion is supplied at or near the center of the fire-box, and the heat is caused to be distributed more equally above and around the front and rear end of the oven; substantially as set forth.

WM. RESOR.

Witnesses:
J. B. ELLIOTT,
GEO. PYBURN.