

L. E. CLOW.
Cooking-Stoves.

No. 145,276.

Patented Dec. 9, 1873.

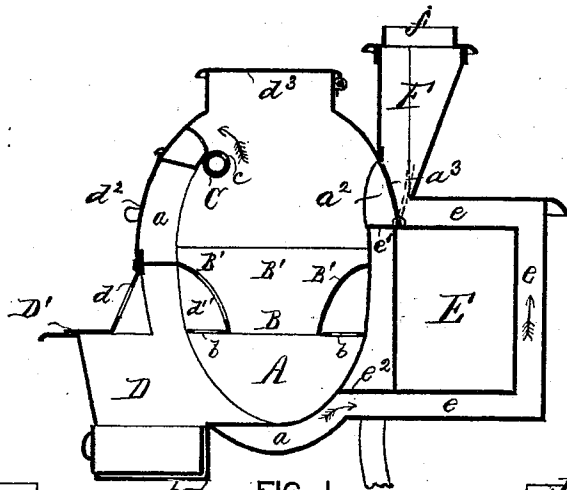


FIG. 1.

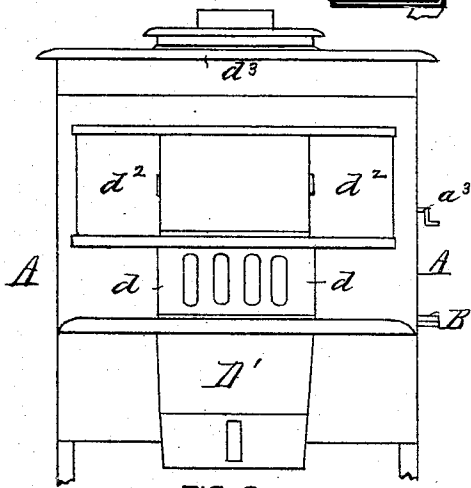


FIG. 2.

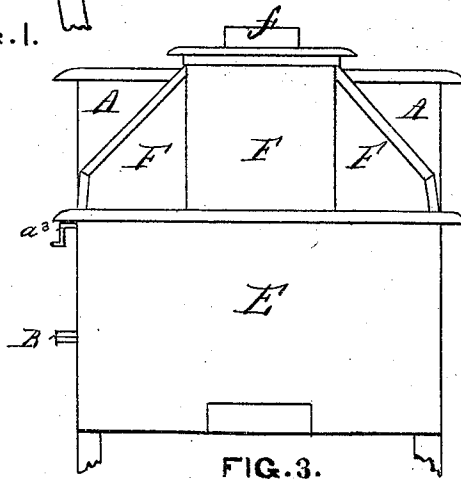


FIG. 3.

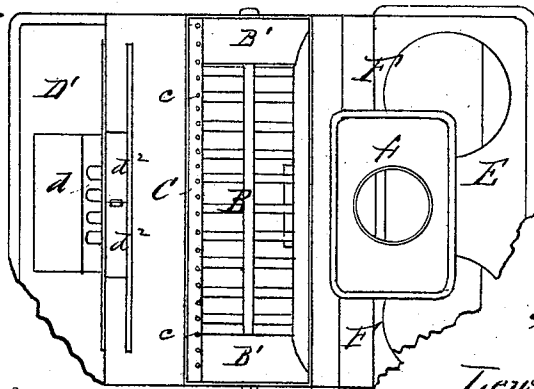


FIG. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

LEWIS E. CLOW, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. 145,276, dated December 9, 1873; application filed May 29, 1873.

To all whom it may concern:

Be it known that I, LEWIS E. CLOW, of St. Louis, Missouri, have invented an Improved Combination-Stove, of which the following is a specification:

This invention is a parlor-stove, which is also adapted for cooking purposes, and in which either coal or wood may be used. Its novelty consists in the construction and arrangement of its various parts, as will be fully described hereinafter.

Of the drawing, Figure 1 is a longitudinal sectional elevation; Fig. 2, a front elevation. Fig. 3 is a rear elevation; Fig. 4, a top plan, with part of corners broken away.

A represents an ordinary parlor wood-stove, having the usual front, bottom, and back lining to form the return-flue *a*. The chamber or flue *a* corresponds to the outline of the stove A, surrounding the front, bottom, and back portions of the same. B, Fig. 4, is a rotary grate. In line with grate B, I provide the fire-place with surrounding side and end bearing-plates *b*, which support the surrounding side and end linings B'. (See Figs. 1 and 4.) The linings B' can be made detachable, to admit of their removal when the stove A is used for wood only, if desired, although with linings B' either wood or coal may be used. I also provide the stove A, near the top of its flue *a*, with a cold-air duct or pipe, C. The pipe C extends from side to side, and has perforations *c*. (See Figs. 1 and 4.) By means of the pipe C, a more perfect utilization and combustion of heated gases is obtained before the same pass into or through the flue *a*. D is an ash-pit with ash-box. D' is the hearth communicating with ash-pit. The draft is obtained through a hearth-plate, *d*, properly formed to close the open tops of the hearth D', as well as the vertical opening in front of the stove A, (see Figs. 1, 2, and 4,) and also through the side or front lining B', which, for this purpose, has one or more openings, *d*'. (See Fig. 1.) *d*², Figs. 1, 2, and 4, are sliding doors.

The top of the stove is hinged, and may be thrown back for the removal of the linings B', charging the fire with large wood, or other purposes.

*a*² represents the direct flue, which is controlled by the two-way damper *a*³. When this damper is open, the gases pass directly

into flue F, and from thence into the chimney. When the damper is closed, the heated gases, &c., must then pass through circuit-flue *a*, and out of same.

To give the stove A a further combined character, the back of the same, as shown in Fig. 1, has attached thereto a cooking-stove, consisting of the oven E, and surrounding the same the flue *e*, which is but a continuation of the flue *a* of the parlor-stove, that of the flue *a* being closed by plates *e*¹ and *e*². The circuit thus formed will be as indicated with arrows—that is, if damper *a*³ is closed, as shown in Fig. 1. The top plate of the oven has the usual pot-holes. F is an extension-flue, which extends from side to side of the stove, Figs. 3 and 4, and so as to communicate with the entire width of flue *e*. Said extension F is formed so as to meet and make proper connection by a cap with stove-pipe and chimney.

The flue, it will be observed, is constructed below, so as not to interfere with the pot-holes of the part E, and expanded above, to give a large surface for the radiation of heat.

The flues *a* and *e* are readily cleaned by openings left in the side and rear of stove.

I am aware of the patent No. 87,688, and do not, broadly, claim carrying a flue above the upper surface of the stove; but

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The stove described, having the central portion A, with fire-box B and flue *a*, extending about the front and bottom of the part A, and also bottom, rear, side, and top of oven E, the two-way damper *a*³, and the extension-flue F, constructed and arranged as described, for the purpose set forth.

2. The flue F, extending above the top plate of part E, and constructed with a contracted portion below, for the purpose of leaving space for the pot-holes, and a gradually-expanding top above, to give increased surface for the radiation of heat, in combination with the flues *e* *a*² and two-way damper *a*³, as described.

In testimony of said invention I have hereunto set my hand.

LEWIS E. CLOW.

Witnesses:

WILLIAM W. HERTHEL,
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