H. HALBERT.

Cooking Stove.

No. 6,479. Patented May 29, 1849.

Fig. 1

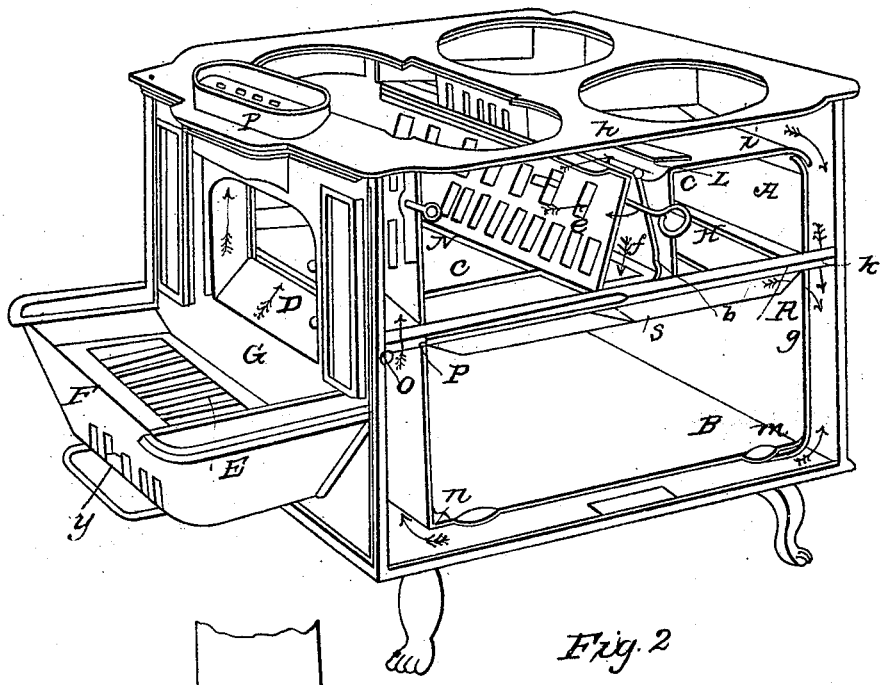
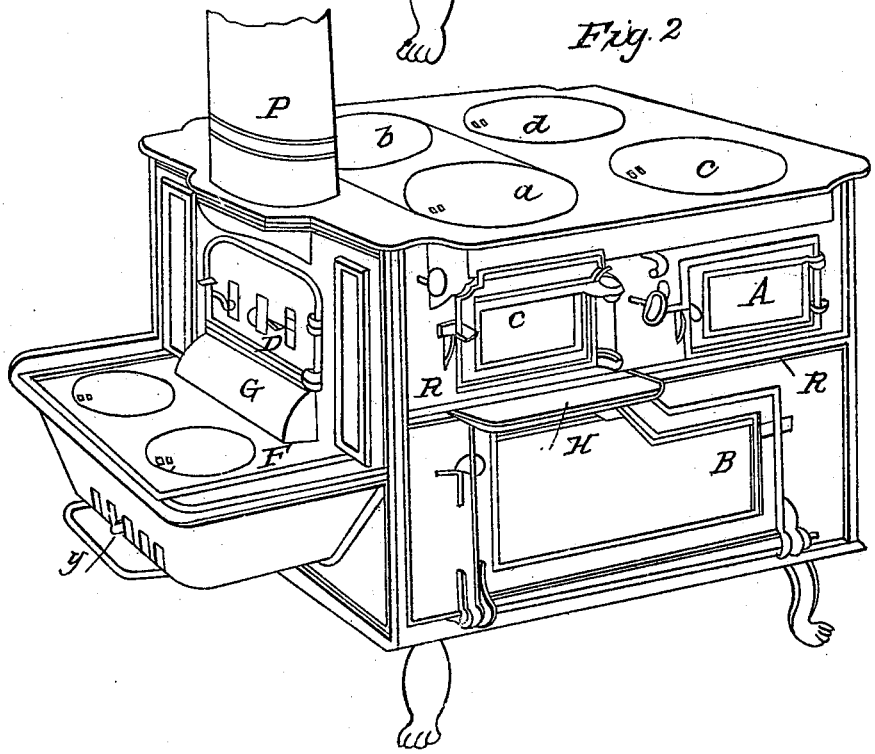


Fig. 2



N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

HORACE HALBERT, OF UTICA, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 6,479, dated May 29, 1849.

To all whom it may concern:

Be it known that I, HORACE HALBERT, of the city of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Cooking-Stoves; and I do hereby declare that the following is a full and exact description.

The design and nature of my improvement is to furnish a front draft to the stove directly opposite to the side of the wood to be kindled, while at the same time by a peculiar arrangement of the valves and flues, a useful distribution of the heat is obtained by one revolution of the heated air throughout the stove.

Figure 1 of the annexed drawings represents the stove with the front side plates taken off so as to show the interior construction. Fig. 2 shows the elevation of the stove complete as put up for use.

There are two ovens A and B (Figs. 1 and 2.) The fire place is in front of the oven A, the door of which is seen at C (Fig. 2,) and there is also a front door to the fire place at D, (Figs. 1 and 2.) There are four boiler holes *a*, *b*, *c*, *d*, (Fig. 2.) The pipe stands on the front end of the stove as seen at P. There is a small attachment stove F, (Figs. 1 and 2,) in which a separate fire may be made, with a movable grate E, (Fig. 1,) on which the fuel is laid, and a flue, or throat G (Figs. 1 and 2,) under the front door for the passage of the smoke into the main fire place, from whence it passes into the pipe, or funnel P. The side plates consist of two parts; the upper containing the doors of the oven A, and the fire place C, (Fig. 2,) and the lower, the doors of the oven B. In the interior there are three transverse plates *a*, *b*, *c* (Fig. 1.) *c* forms the side plate of the oven A; *b* is a guard plate to protect the oven from too great heat, and *a*, is the back of the fire place C. The two latter plates are about three inches apart at the bottom, and inclining toward each other, they rest against and support each other at the top. The space between these two plates, admits the passage of heat and smoke from the fire place C, through the apertures seen in the back of the plate, from whence it passes according to the course of the arrows *e*, *f*, *g*, through a passage between the bottom of the oven A, and the top of the oven B, into the flue passing down at the back end of both these ovens. There is also another passage for the heat over the oven A, as indicated by the arrows *h*, *i*, *k*. Both of these currents meet at *g*, and from thence pass together round the oven B, as indicated by the arrows *m*, *n*, *o;* and thence through passages formed on each side of the front door D, between the plate forming the front of the fire place, and the outer or door plate. The smoke passes into the funnel P. The passage of the heat above and below the oven A is governed by valves, the hands of which are seen at H and L. By the use of these valves, the whole heat is made to pass above or below this oven, or opening them both, the current may be divided, as may be desired. Or by closing them both it is made to pass from the fire place directly into the pipe P. This is permitted through apertures in the front plate of the fire place C, to which a valve N is affixed by which this passage is opened, or closed at pleasure.

In order to form the passage from *f* to *g*, under the oven A the plate which forms the bottom of the fire place C, and the top of the oven B, for that part of it extending from the point of the arrow *f* to the passage in the rear of the two ovens is sunk to the depth of about two inches, leaving a space of that depth between the bottom of the oven A, and the top of the oven B. Yet the side edges of this plate are not depressed, but maintain a uniform straight line, and rest on the upper edge of the lower side plate, holding that firmly to its place. This passage for the heat under the oven A pervades the whole area of the oven bottom. It is here hid from view from *f* to *k*, by the rising of the edge of the center plate as before described, but is indicated by the faint arrows *s* and *t*. This complex shape of the center plate is pretty clearly shown in the drawing at *s*, *t*. The edge resting on the lower side plate is shown by the line R, R, at the junction of the two side plates (Fig. 2). The hearth H (Fig. 2,) is attached to, and cast with this plate.

It will be seen by an inspection of the drawing (Fig. 1,) that the heat passes quite around both the ovens, with the exception of the space under the fire place C, and that this is done by one revolution—passing from front to rear, around the ovens to the front again.

By closing the valves H and L (Fig. 1,) and opening that at N, the course of the

heat is shut off from the rear part of the stove, and made to pass from the main fire place, directly into the funnel P.

If less heat is desired, the fire in the fire place C is omitted, and a fire is kindled in the small attachment stove F, in front, and the valves being disposed as last described, the heat passes through the flue, or throat G, into the fire place C, and thence immediately into the pipe or funnel P, leaving the main body of the stove, unwarmed. Or if much heat is wanted, fire may be kindled at the same time in both these fire places. This small attachment stove in front, is cast separate and is fastened to the front of the main stove, by a bolt and screw at each side and at the bottom, holding it firmly to its place. It has a movable plate at the top with two boiler holes, and the elevation G, (Fig. 2,) cast upon it. A simple draft *y*, with a slide valve constructed in front, and a small hearth as shown in the figure.

What I claim as my invention and desire to secure by Letters Patents is—

The dropping of the flue *s*, *t*, below the level of the hearth plate, in combination with the two ovens arranged in the manner herein set forth and described.

HORACE HALBERT.

Witnesses:

WM. BAKER,

R. H. SHEARMAN.