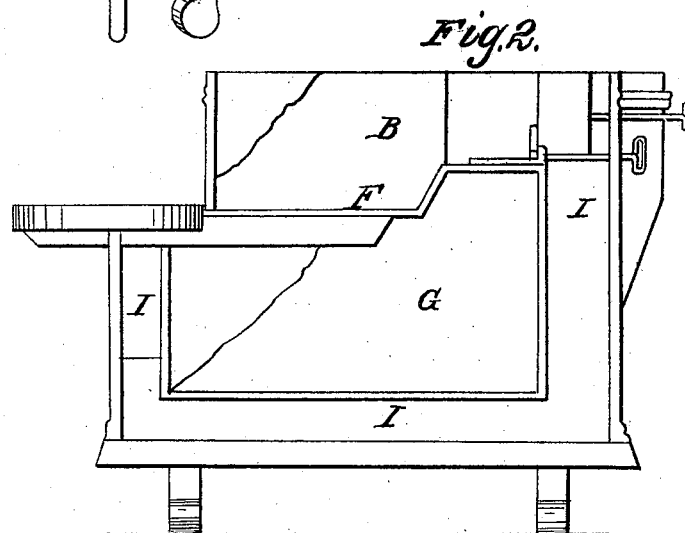
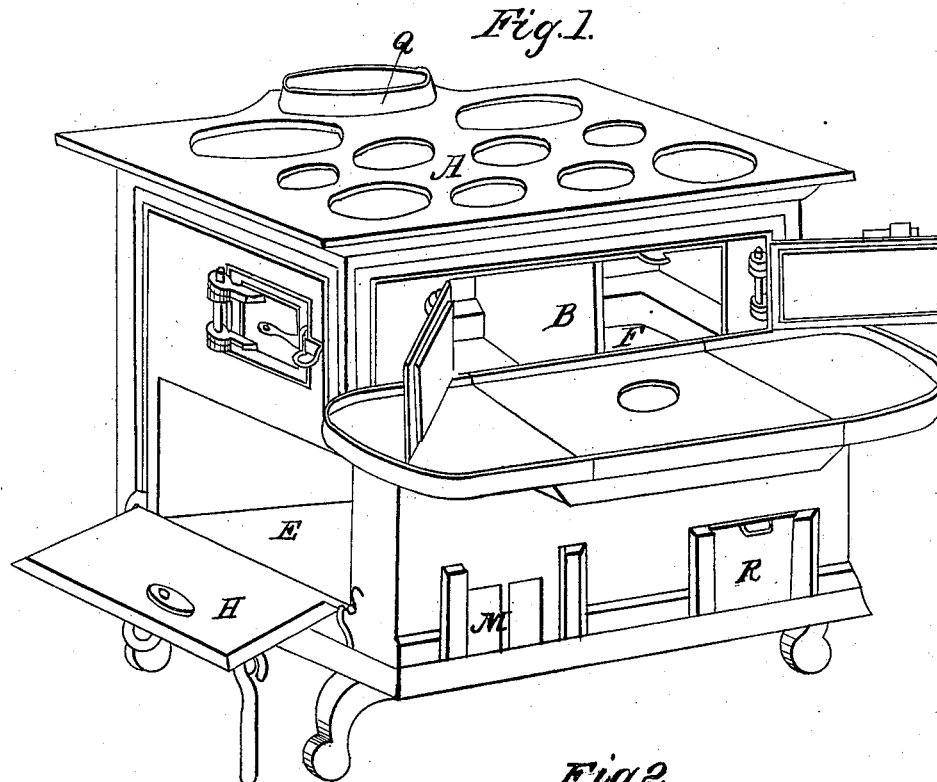


C. GUILDS.
Cooking Stove.

No. 1,646.

Patented June 20, 1840.



C. GUILDS.
Cooking Stove.

No. 1,646.

Patented June 20, 1840.

Fig. 3.

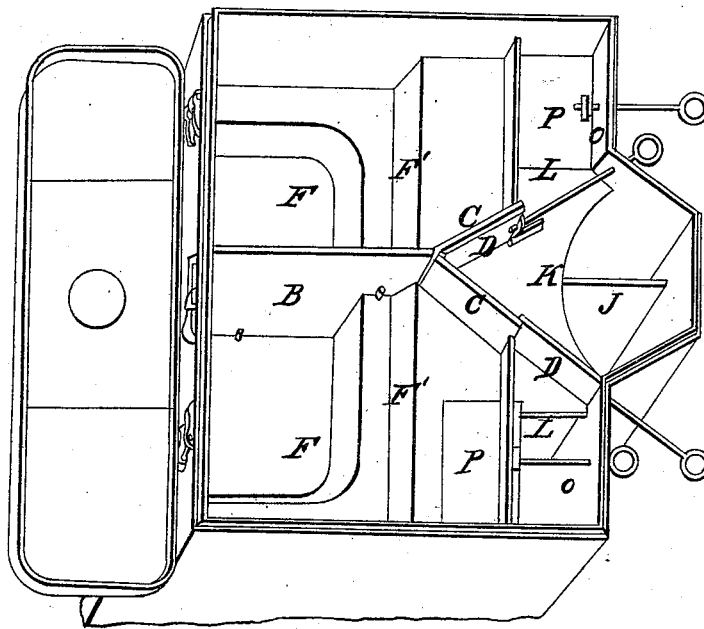
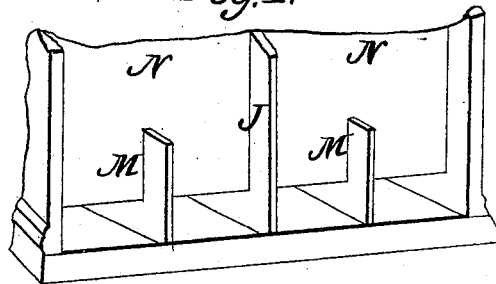


Fig. 4.



UNITED STATES PATENT OFFICE.

CHARLES GUILD, OF CINCINNATI, OHIO.

MODE OF ARRANGING THE FLUES AND GOVERNING THE DRAFT IN COOKING-STOVES.

Specification of Letters Patent No. 1,646, dated June 20, 1840.

To all whom it may concern:

Be it known that I, CHARLES GUILD, of the city of Cincinnati, in the State of Ohio, have invented certain Improvements in the
5 Manner of Constructing Stoves for Cooking; and I do hereby declare that the following is a full and exact description thereof.

Figure 1, in the accompanying drawing, is a perspective view of my stove. Fig. 2
10 a side view, the side plate being removed, to show the interior. Fig. 3, a top view, the top plate being removed for the same purpose. Fig. 4 a view of the front, below the
15 hearth, with the front plate removed.

In each of these figures like parts are designated by the same letters of reference.

The principal improvement made by me consists in the manner in which I have arranged the flues, and the dampers for governing and directing the draft around the
20 oven, and under the boilers.

In Fig. 1, A, is the top plate of the fire chambers, which I divide into two compartments by means of a movable division plate B, extending from front to back, which is
25 shown in Fig. 2, also, as broken off, at B, and more distinctly in Fig. 3. When the division plate B, is removed, a single fire chamber is thereby obtained. At the rear end of the division plate B, there is a partition in form of a V, as shown at C, C,
30 Fig. 3, at the ends of which are two openings, which may be closed at pleasure, by means of the sliding valves, or shutters D, D, thus governing the communication between the fire chamber, or chambers, and the escape flue. The ovens E, E,
35 are immediately under the plate F, F, forming the bottom of the fire chamber; a partition plate G, extending from front to back divides the oven space into two; a falling door H, on each side of the stove incloses these ovens.

The flues which surround the ovens are constructed in the following manner: There is a flue space extending the whole width of the stove, at the back of, under, and in front of the oven, as at I, I, I, Fig. 2; and this
40 space I divide into four flues, by partitions extending from the outer plates of the stove to the oven plates. The center partition is shown at J, and this extends down from a level with the plate K, forming the valve
45 seat, passes under the oven, and up the front

flue space, to the under side of the plate F, F, forming a perfect partition around these three sides. L, L, are the upper edges of two other partition plates, which, in like
50 manner, extend down the flue space at the back of, and under the oven, and up in front to the height of a few inches above the lower oven plate, as shown at M, M, Fig. 4; the front flue is thus actually divided into
55 two distinct spaces only, by the middle partition J, leaving two heated air chambers N, N, in front of each of the ovens. The two openings O, O, forming the upper ends of the two lateral flues, are furnished with
60 two sliding valves, or shutters, P, P, by means of which either or both, of those openings may be closed at pleasure. For the purpose of throwing the flame and heat of the burning fire more directly up against
65 the boilers, or other cooking utensils, I make an offset or rise in the plate F, as at F', which thus contracts the flue space leading to the escape pipe or flue Q. The sunk hearth, with its sliding cover, and other devices which are in ordinary use, although
70 shown in the drawing, it is not necessary to describe.

R, is a sliding shutter, closing an opening for cleaning out the lower flues, a similar shutter being removed, and showing the
75 partition M, Fig. 1.

By means of the foregoing arrangement of the valves, flues, fire chamber, and ovens, I am enabled to use one half only of my
80 stove at any time, and to direct and govern the heat as I may think proper; or when the whole is used I can regulate the heat of the two ovens, so that one of them may be more highly heated than the other. A very
85 important result of this arrangement is the rendering the temperature of the front plate of the oven nearly or quite equal to that of the back plate, it having been found, in
90 practice, that the spaces N, N, forming a part of the front flues, where the direction of the current of heated air is changed, operate as reservoirs of heat, and produce this
95 desirable result.

Having thus fully described the manner in which I construct and arrange the
100 respective parts of my stove, what I claim therein, as constituting my invention and improvement, is—

The manner in which I have combined and arranged the three partitions dividing
110

the flue space into four compartments, excepting at the front, where the two lateral partitions terminate, in the manner, and for the purpose set forth; and I also claim,
5 in combination with the partitions so arranged the employment of the dampers D, and P, operating substantially as described.

I do not claim either of these parts separately or individually, but only in combination as above.

CHARLES GUILD.

Witnesses:

EBENEZER HARRISON,
SAMUEL W. COSWIN.