

W. W. HILL.
Cooking Stove.

No. 11,010.

Patented June 6, 1854.

Fig: 1.

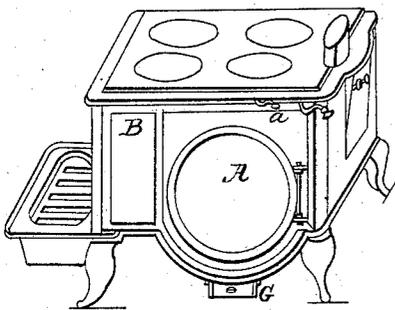


Fig: 2.

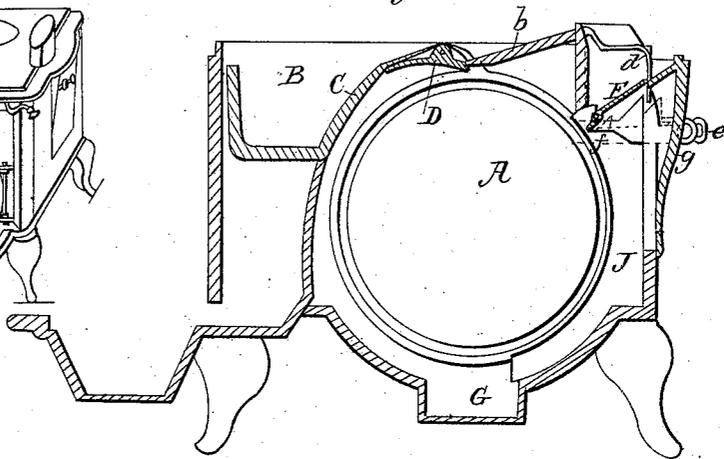


Fig: 3.

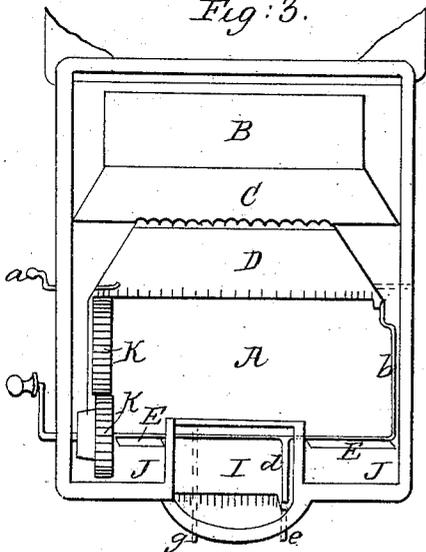
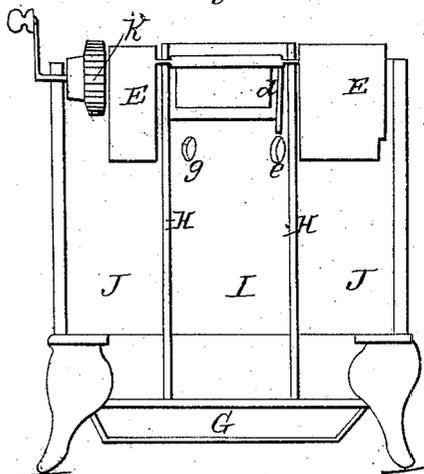


Fig: 4.



UNITED STATES PATENT OFFICE.

WILLIAM W. HILL, OF GREENPORT, NEW YORK.

ARRANGEMENT OF DAMPERS IN ROTARY STOVES.

Specification of Letters Patent No. 11,010, dated June 6, 1854.

To all whom it may concern:

Be it known that I, WILLIAM W. HILL, of Greenport, in the county of Suffolk and State of New York, have invented a new and useful Improvement in Revolving-Oven Cooking-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

In the various revolving oven stoves hitherto in use there has been a radical defect in the arrangement and control of the heat. In this invention I have not only perfected or improved the stove in this respect by the introduction and combined arrangement of dampers with the revolving oven, by which it is as completely under control as where the oven is a fixture, but I also further make it a complete air tight stove whereby a great saving of fuel results, as in those as ordinarily constructed the consumption of fuel goes on, whether in or out of use of the oven, for the want of the dampers. As the utility and superiority of these rolling ovens, are beyond question when continuous baking is conducted as the heating of the plate by bringing it near the fire back is simple and the change to the opposite side of the oven not less so, it has rendered an improvement of them very desirable.

To enable others skilled in the art to construct and use my improvement I will proceed to describe its construction and operation, referring to the drawings, of which—

Figure 1, is a perspective view of the stove with the top on. Fig. 2, a longitudinal cross section exhibiting the diving flue damper closed, and the central ascending flue damper also closed. Fig. 3, a top view the top plate removed. Fig. 4 is a cross section (at right angles to Fig. 2) exhibiting the side and central flues and dampers.

In the several figures A represents the oven, which is formed of a single plate or several constituting an open cylinder; it revolves in suitable grooves formed on the side plates in methods well known; B is the fire chamber and C the fire back thereof; D the damper closing the diving flue, controlled by a handle *a* passing through the side of the stove affixed to one of the journals, and also operate on by a lever *b*, connected with the dampers of the ascending

side flue dampers E E; F the damper on the central descending flue when down, and serving also as a damper in closing the direct draft into the smoke pipe; G is the dust pan, under the oven rendered necessary by the quantity of fire dust or ashes drawn over the flues, and usually choking the drafts of other stoves (in this they are readily removed by drawing the pan); H H are partitions or plates dividing the space between the oven and back plate into three upright flues, viz I, the central and J, J, side flues; K K pinion and wheel on the oven by which they are commonly moved or rotated by a handle passing through the side plate. *d*, is a right angled lever attached to the pivot bar of dampers E, E, the bent end entering the notched slide *e*, at the back of the stove; *f* is a stub on the pivot edge of damper F, also entering another notched slide *g*, beside the slide *e*, (which is the near one) being drawn out causes the notch therein to carry with it the end of the right angle lever *d* and this throwing downward the lever *b*, closes the diving flue damper D by raising the front edge thereof up to the top of the fire back *c*, this operation also opens the side flues J, J, by withdrawing from contact of the oven plate, the lower ends of the dampers E E; now draw out the other slide *g*, and cause the damper F to rise and close the direct draft into the smoke or escape pipe and the consequence will be, that the heat and smoke will pass over the top of the oven, then down the side flues J, J, and enter the ash box G and ascend the central flue I and escape into the smoke pipe, while at the same time the heat of the fire back *c* will heat the oven plate behind it.

Should it be required to throw all the heat and smoke behind the fire back, by which the gases may be consumed, let the damper F remain up as seen in dotted line Fig. 2, and push in the slide *e* which will close the lower ends of E E against the oven plate, and permit the damper D to open by its own weight, and then the heat will pass between the fire back and oven, or down the diving flue, and ascend the center flue I and escape. The damper F is only to be let down as seen in Fig. 2, when the fire is first made and a direct draft of the smoke and escape into the smoke pipe, under other circumstances it remains up or closed.

When used as an air tight, the side dampers E, E, are in contact with the oven and close these flues J, J; the flue F is up; and by means of a small handle on the journal of the damper D (which is released by the lever *b*) this damper may be raised in contact with the edge of the fire back C and thus close all circulation and constitute it an air tight revolving oven air tight stove.

The object and method of revolving the oven needs but little explanation, but I will add that on commencing the baking, give the oven a half turn and thus bring the hot part of the plate to the oposite side of the oven than that of the fire back and consequently the cold part of the oven plate behind the fire back; and when cool change

again in this way the oven may be always in baking order or heat.

Having described the nature of my improvement what I claim as my invention and desire to secure by Letters Patent is—

The combination and arrangement of the dampers with a revolving or rolling oven as set forth in the foregoing specification and accompanying drawings.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

WILLIAM W. HILL.

Witnesses:

JOHN L. SMITH,
JOHN F. CLARK.