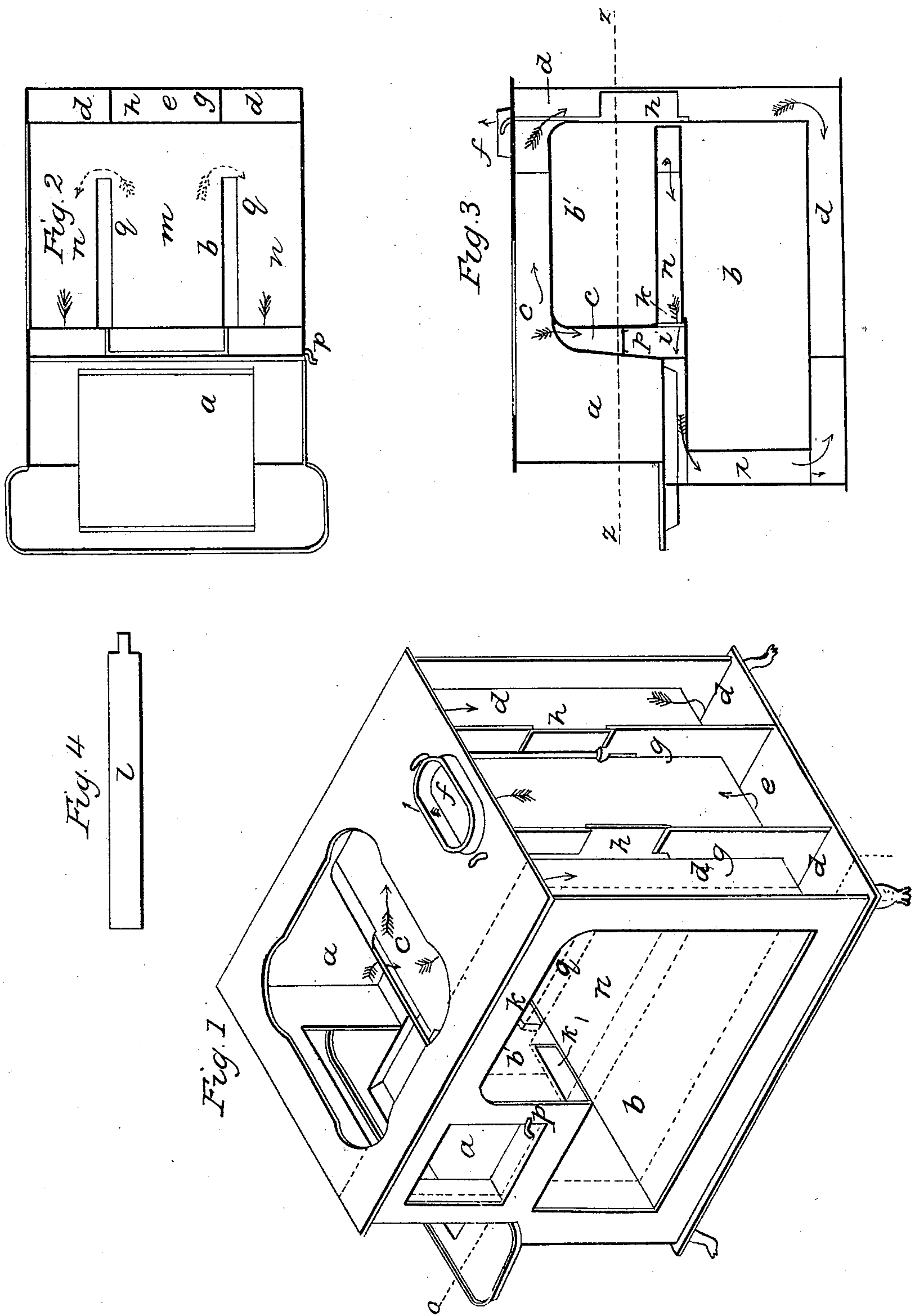


H. L. SHEPERD.  
Cooking Stove.

No. 7,607.

Patented Aug. 27, 1850.





# UNITED STATES PATENT OFFICE.

HENRY L. SHEPERD, OF DAYTON, OHIO.

## ARRANGEMENT OF DAMPERS IN COOKING-STOVES.

Specification of Letters Patent No. 7,607, dated August 27, 1850.

*To all whom it may concern:*

Be it known that I, HENRY L. SHEPERD, of Dayton, in the county of Montgomery and State of Ohio, have invented certain Improvements in Cooking-Stoves, and that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, of which—

Figure 1 is a perspective view; Fig. 2, a horizontal section through 3, 3; Fig. 3, a vertical section through *o*, *o*, and Fig. 4 the slide valve *l*.

My improvement is for the purpose of more effectually distributing the heat over the surface of the oven, and through its interior, especially when a division is introduced horizontally therein. For this purpose I divide my draft and arrange my flues as about to be described; by which arrangement I keep up an active draft and direct the heat in all directions with equal facility.

The exterior of my stove is nearly cubical. In the front upper quarter the fire box (*a*) is situated and the oven (*b*, *b'*) occupies the other three quarters (as shown in the sectional elevation Fig. 3) minus the spaces required for the flues. The direction of the draft from the fire is divided at (*c*) one portion passing directly back under the boilers (which are placed in openings in the top as in ordinary cooking stoves) and thence down behind the oven at each corner in a flue (*d*) under the bottom to near the front end of the stove, and then turn back through a center flue (*e*) that extends up the back to the exit pipe at (*f*); the three above named flues are formed by the two division plates (*g*) that extend from the top of the stove down the back flue and under the bottom nearly to the front plate of the stove, leaving only space enough to connect the outside flues with the center one at that point. The center flue is shut off from the direct draft by two dampers (*h*) one placed in each of the vertical portions of the partitions (*g*); these dampers are vertical and it will be seen from their position that when it is desired to carry off the draft directly to the exit pipe it is not concentrated to the center of the stove, but is made to spread, as it does when diving till it turns down the back, and

then it enters the center flue. This I deem of great importance and the effect is produced by the peculiar position of the valves which is novel.

A portion of the draft only passes in the course above described, but another portion enters an opening at the point (*c*) and descends between the front of the oven and the fire chamber, (and from thence by two side flues (*i*) passes under the hearth at each side of the ash pit,) and over the front of the oven to the front part of the stove, whence it descends down to the under back flue at the bottom and joins the first named current to the exit pipe. Near the angle at the lower back corner of the fire chamber there are three openings (*k*) from the oven into the flue between the fire and the oven; these openings when the oven is all in one compartment are closed by a valve (*l*); but there is a casting that fits into the oven at this point dividing it into two (as shown in Fig. 1 by the red lines) and in Fig. 2, where it is shown to consist of three horizontal flues (*m*, *n*, *n*). When in place, this flue receives the heat through its center (*m*) and it passes back through the side flues (*n*, *n*) and then takes the course before described.

To turn the draft into the center flue there are two dampers (*p*) on one axis, that close the direct passage from (*c*) into the side flues (*i*). There are openings (*q*) between the flues in the oven to equalize the heat therein. When this arrangement is in full effect every part of the oven bakes alike, and a most perfect result is produced.

It will be seen that when the casting (*m*, *n*, *n*) Fig. 2 is removed, the two ovens are connected into one of large size, and the opening (*k*) being closed by the valve (*l*) and the dampers (*p*) opened, the draft passes from (*c*) to (*i*) without interruption.

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

The vertical dampers (*h*) placed below the top of the oven in the division partition (*g*) substantially as hereinbefore described.

HENRY L. SHEPERD.

Witnesses:

EDWARD EVERETT,  
WM. GREENOUGH.