

H. N. Gros

Cooking Stove.

N^o 4,044.

Patented May 13, 1845.

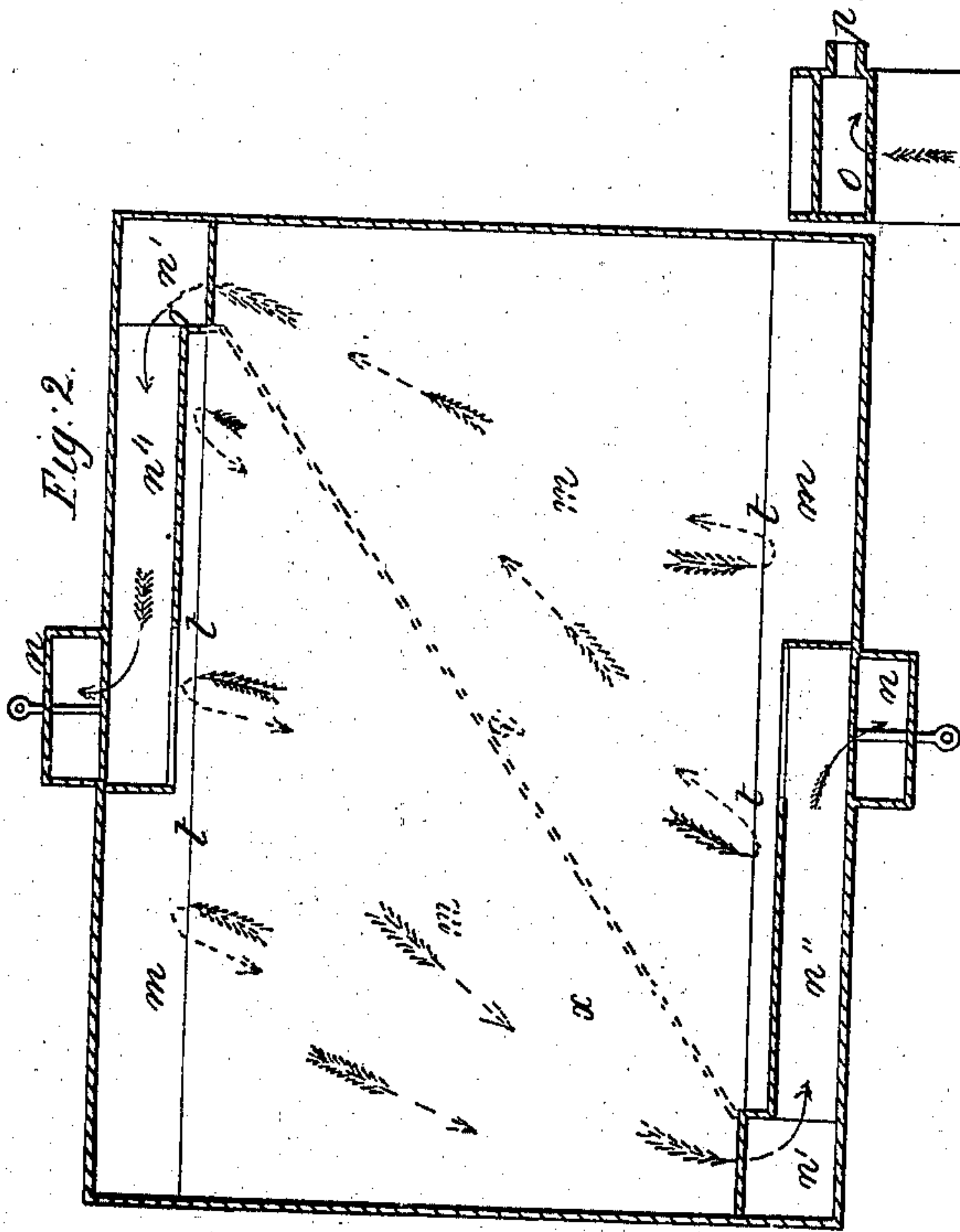
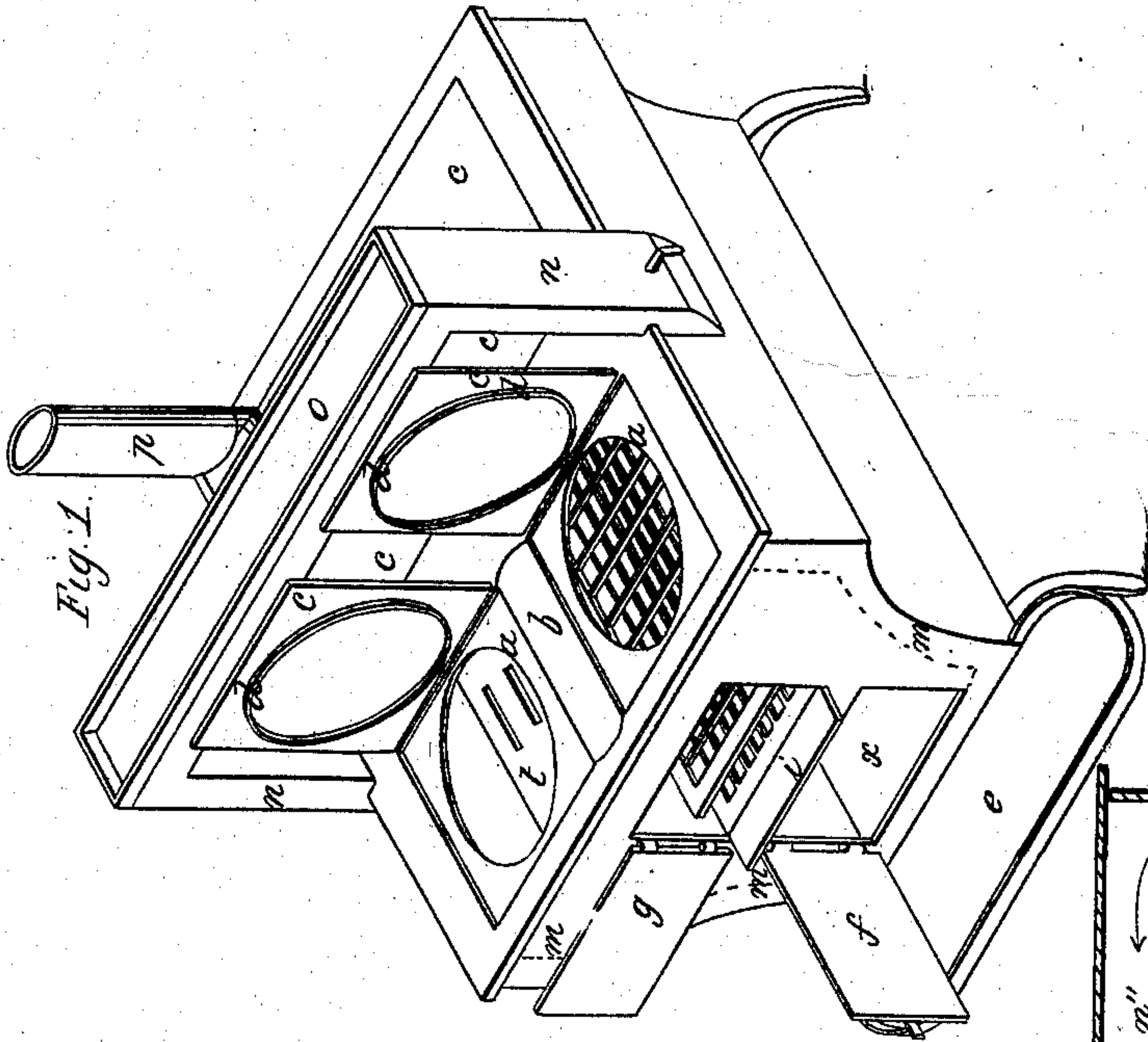
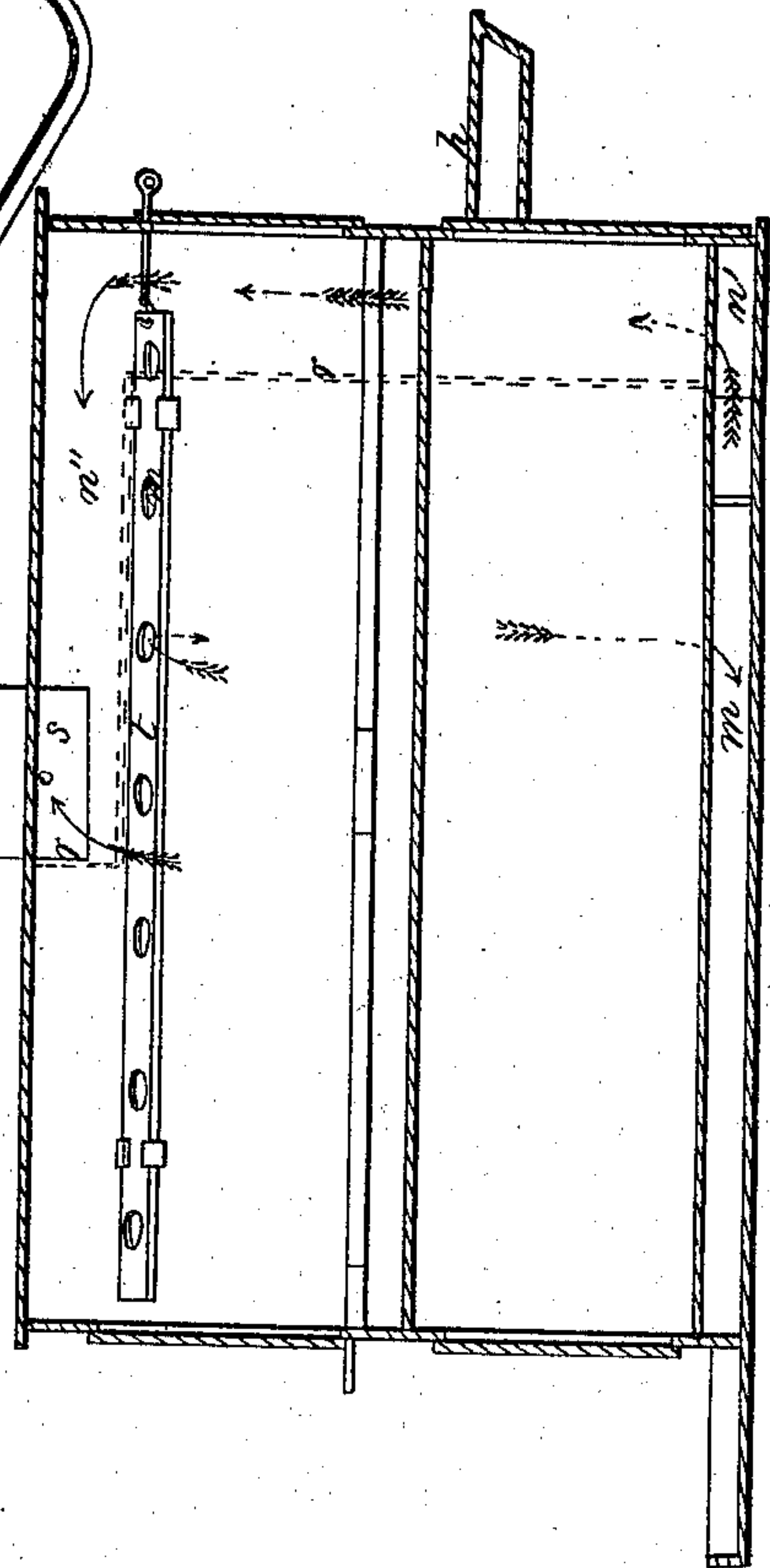


Fig. 3.



UNITED STATES PATENT OFFICE.

HENRY N. GROS, OF PALATINE BRIDGE, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 4,044, dated May 13, 1845.

To all whom it may concern:

Be it known that I, H. N. GROS, of Palatine Bridge, in the county of Montgomery and State of New York, have invented a new and Improved Air-Tight Cooking-Stove; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which represents, in—

Figure 1, an isometrical view. Fig. 2, is a sectional plan showing the arrangement of the flues. Fig. 3, vertical section showing arrangement of flues.

The nature of my invention consists in the more equable distribution of heat around the oven and in the arrangement of valves therefor.

The construction of my stove is as follows: It is of a square form on the top having four boiler holes (*a*) of a circular form with a movable plate (*b*) between them so as to convert them into two or four boiler holes in the usual way; around these holes there are square recesses into which fit square covers (*c*) that are hinged on one side so as to turn up when a boiler is to be inserted and when down in place they are even with the top of the stove, the under side of these covers have a circular flanch (*d*) on their under side which fits the boiler hole and also serves to strengthen the cover. The sides run down straight a short span below the top and are thence curved inward in a concave form to the bottom thus making the lower part of the stove narrower than the top, or they may be straight to enlarge the oven, the front and back plates stand vertical and have two openings for doors one above the other in each on the front there is a hearth (*e*) on a level with the bottom of the stove, the lower doors (*f*) open into the oven which is situated under the fire and the upper one (*g*) opens into the fire chamber. On the upper edge of the back oven door there is a hearth (*h*) cast which serves for the fire chamber on that side on the opposite side there is a drawer (*i*) that slides in under the door (*g*) to the lower part of the fire chamber this has a grate in it and is susceptible of being drawn partly out to serve for the purposes of cooking; it, as well as the hearth (*h*) may be furnished with a sliding plate containing a

boiler hole in it or one plate may be used for both. The flue space (*m*) of this stove extends all around the two sides and under the oven following the curves thereof see the dotted lines in Fig. 1, from the center of each side at top two flues or pipes (*n*) rise vertically which are joined by a horizontal pipe (*o*) over the stove; from the center of this a pipe (*p*) extends to the chimney. In the flue (*m*) under the oven there is a division plate (*q*) that runs diagonally across nearly from one end to the other, this is represented by dotted lines in Fig. 2; from each end of the above named division plate there is another (*r*) extending up parallel with the end plates see Fig. 3, so as to form the flue (*n'*) between the side plate of the stove. At the top of this flue there is a horizontal flue (*n''*) that connects it with flue (*n*) at which point there is an opening directly into the fire chamber (see Fig. 3, *s*) which can be closed by the damper (*s*) this when open makes a direct communication with the pipes (*n*) from the fire chamber; a little below this point there is in the side plates a row of holes closed by a damper (*t*) when these are open and the damper (*s*) closed, the products of combustion descend through them under the stove and go down on one side, being drawn, after they pass under the bottom of the oven (*x*) to one end (*n'*) see Fig. 2 and thence up on the opposite side to the pipe (*n'*) there situated; and those on the other side after descending pass to the opposite end being guided as before named by the division plate (*q*) this gives an equable heat to all parts of the oven and also affords sufficient heat at all times to the boilers. The arrows in the drawing show the course of the draft.

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

The combination of flues as herein described passing down on each side nearly the whole width of the stove and contracting under the bottom and upon the opposite side in the manner and for the purpose above set forth.

HENRY N. GROS.

Witnesses:

HENRY LOUCKS,
JOHN HEES.