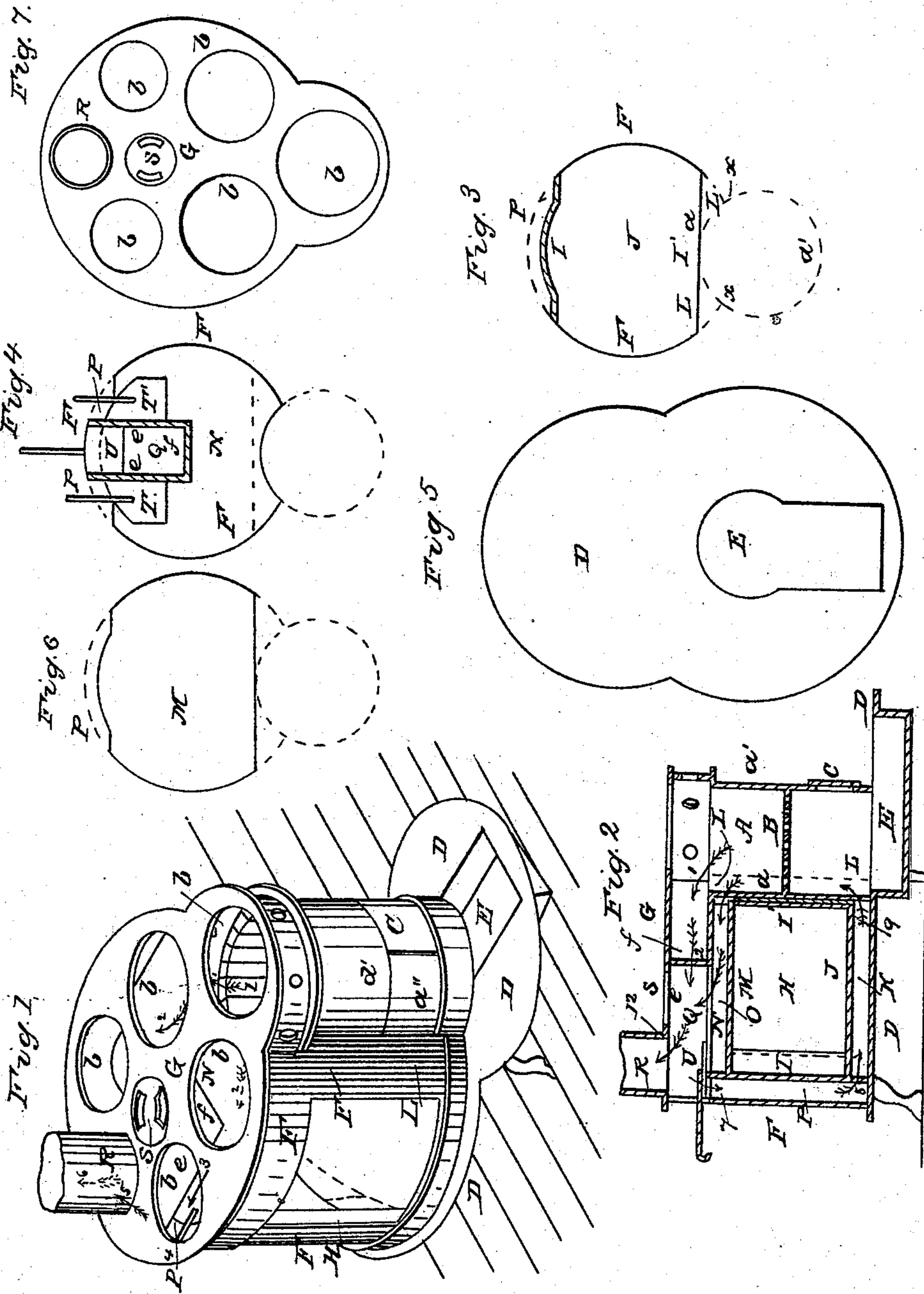


T. KING.
Cooking Stove.

No. 17,100.

Patented April 21, 1857.



UNITED STATES PATENT OFFICE.

THOMAS KING, OF WEST FARMS, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 17,100, dated April 21, 1857.

To all whom it may concern:

Be it known that I, THOMAS KING, of West Farms, in the county of Westchester and State of New York, have invented a new and useful Improvement in Cooking-Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction, and operation; reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my stove. Fig. 2 is a side sectional elevation of the same. Figs. 3, 4, 5, 6, and 7, are plan views of the several horizontal plates.

Similar letters of reference indicate the same parts.

(*a, a'*) is a cylinder the interior of which A, constitutes the fire pot, B being the grate upon which the fire rests. C, the usual door for admitting air below the grate; door C, is circular and slides laterally in suitable grooves upon the outside of the cylinder (*a'*). D, bottom plate of the stove having a depression or box E, in front which is the ash chamber: The bottom of cylinder *a, a'*, rests upon the bottom plate D, F, circular side plates of stove. G, top plate, having the usual openings *b*, for the reception of cooking vessels.

D, F, G, and (*a'*) are the exterior plates of the stove.

H, is the oven chamber. H' oven doors; the latter are circular and slide between ledges or grooves upon the exterior of plate F.

I, I', are the end plates of the oven; their lower ends rest upon the bottom plate D.

J, is the bottom plate of oven and extends horizontally from plate I, to plate I', a flue space K, being left between the plate J, and D, (see Fig. 2). The lower ends of plates I, I', are, respectively, made narrower below the bottom plate J, so as to leave space for the products of combustion to enter and leave the flue K.

The end plate of the oven I' extends horizontally between the side plates F, F as seen in Fig. 3. One side of the cylinder (*a*,) abuts against plate I', and by the continuation of the plates F, F, to *x, x*, against the cylinder (*a*,) two vertical flues L, L, are

formed, which communicate at their bottoms with flue K, (see Fig. 3).

M is the top plate or roof of the oven and almost midway between plates M, and G, is an intermediate plate N, one end of which rests upon the top of plate I, and the other end upon the top of cylinder (*a*,). A flue space O, is left between plates M and N, which communicates at one end with the flues L, L.

P is a flue space which is between plates I, F. The lower end of flue P, communicates with flue K.

Q, is an oblong box located between plates G and N, and resting upon N. (*e, e*,) are the sides of box Q and (*f*,) the front end. The back end is formed by the plate F, against which the sides (*e, e*,) abut; (see Fig. 4.) The top plate G, rests upon the upper ends of plates F and *a, a'*, and also rests upon and forms the top of box Q. The bottom of box Q, is open so that there is a communication between box Q, and flues O, P. The exit flue R, communicates with box Q. A register opening S, through the top plate G, allows admission of cold air into box Q.

T, T', and U are dampers.

The operation is as follows:—When the dampers T, T', U, are open, the products of combustion rise from the fire pot A, in direction of arrow 1, pass between plates G, N, along the sides (*e*,) of box Q, (as indicated by arrows 2, 3,) under the edges of the sides (*e*,) and up through box Q, (as per arrows 4, 5, 6,) into the escape flue R. (See Fig. 1.) When damper U, is closed (as in Figs. 2 and 4) the opening between the bottom of box Q, and flue P, is cut off, and the products of combustion, therefore, instead of passing under the edges of the sides (*e*,) of box Q, pass down (as per arrow 7) into flue P, (see Fig. 2) thence into flue K, where they spread and divide, rising through flues L into flue O, thence into box Q, escaping through flue R, as per arrows 8, 9, 10, 11, 12.

If it is desirable to throw all the heat upon one side of the space between plates G, N, one of the dampers T, T' is closed and all the products of combustion will pass along upon that side of box Q, where the damper is open.

The draft of the stove may at all times

be actually regulated by means of the register S. When this is opened the draft and combustion will be slow owing to the abundant entrance of cold air.

5 I do not claim broadly the surrounding of the oven in stoves with hot air flues. Nor do I claim as new the regulation of the draft of stoves by the admission of cold air into the escape flue although I consider
10 that my improvement is more perfect in these respects than other stoves.

What I claim as new and desire to secure by Letters Patent is—

The arrangement and combination of the box Q, register or pot hole S, and flues 15 O, P, K, and L, L, all constructed and operating as herein set forth.

THOMAS KING.

Witnesses:

MATTHIAS P. COONS,
LORENZO POTTER.