

S. PIERCE.
Cooking Stove.

No. 7,775.

Patented Nov. 12, 1850.

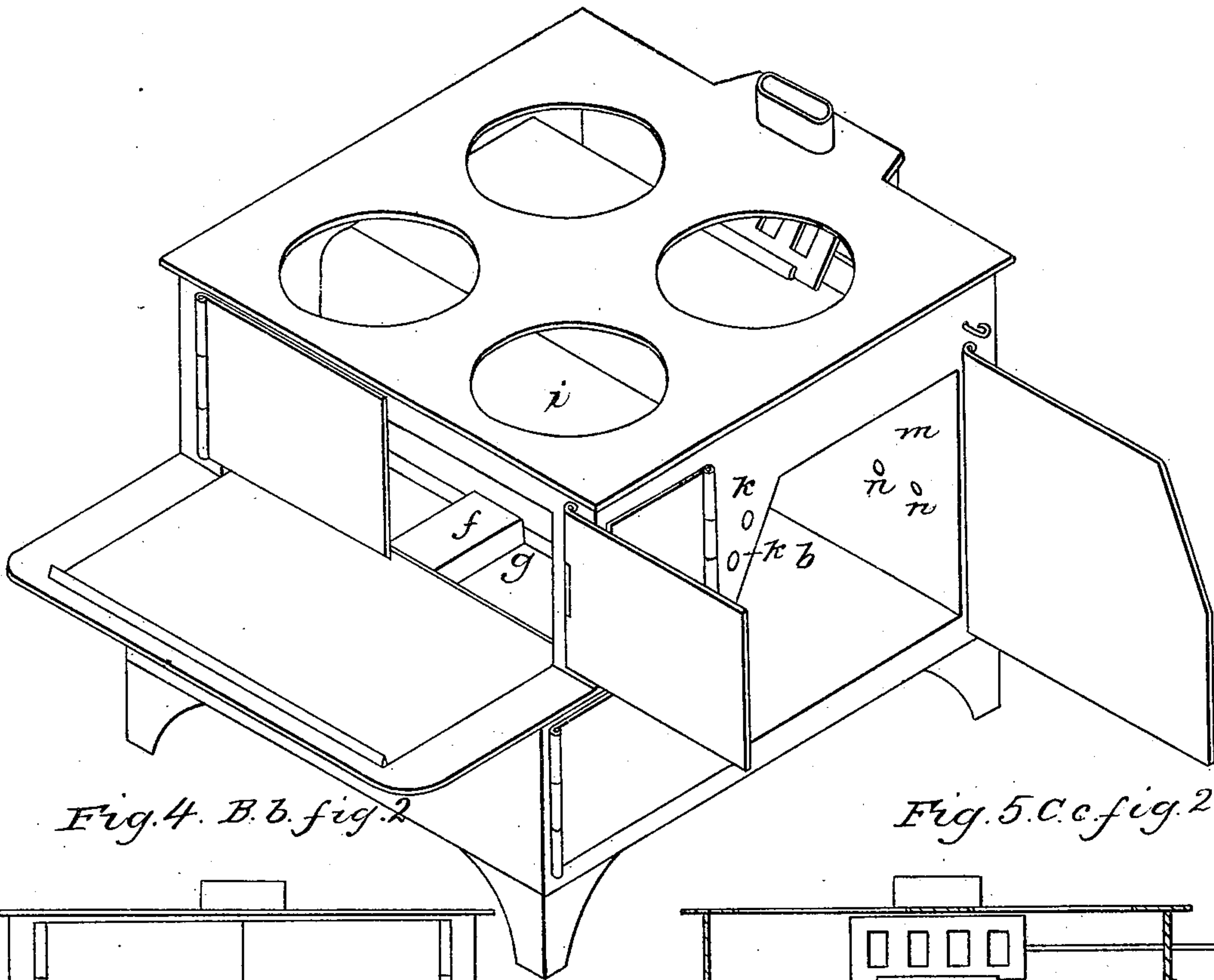


Fig. 4. B.b. fig. 2

Fig. 5. C.c. fig. 2

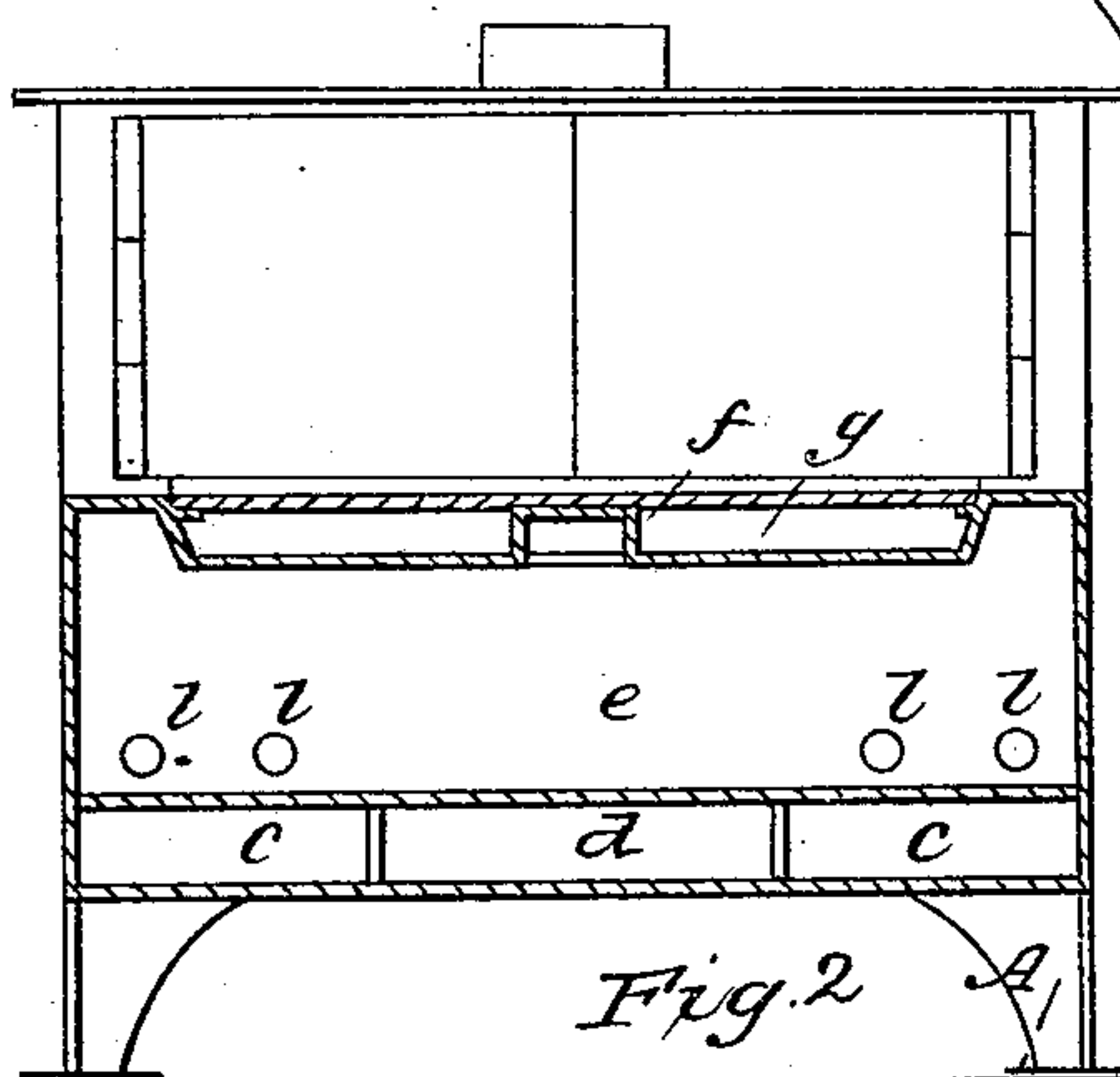


Fig. 2

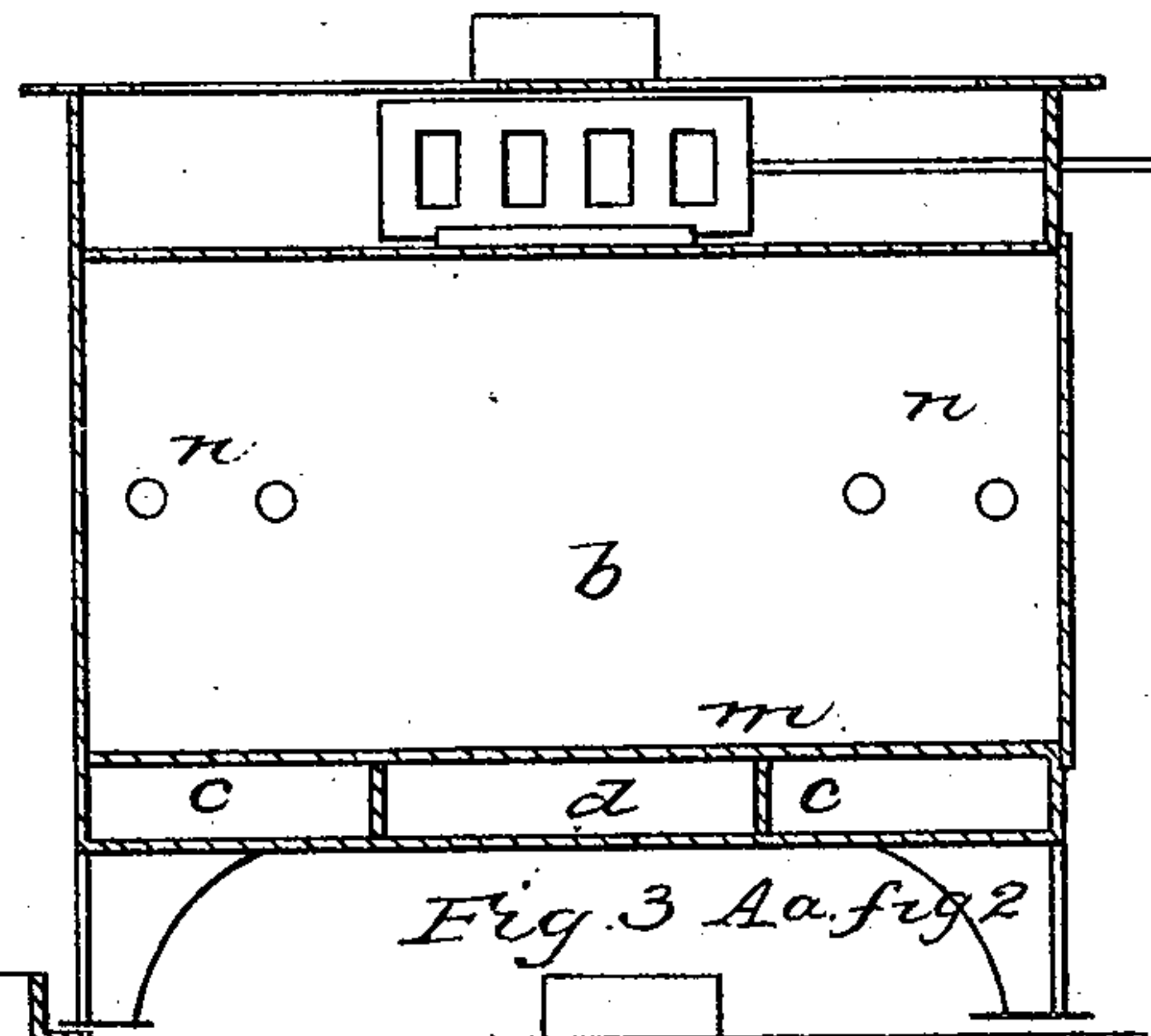
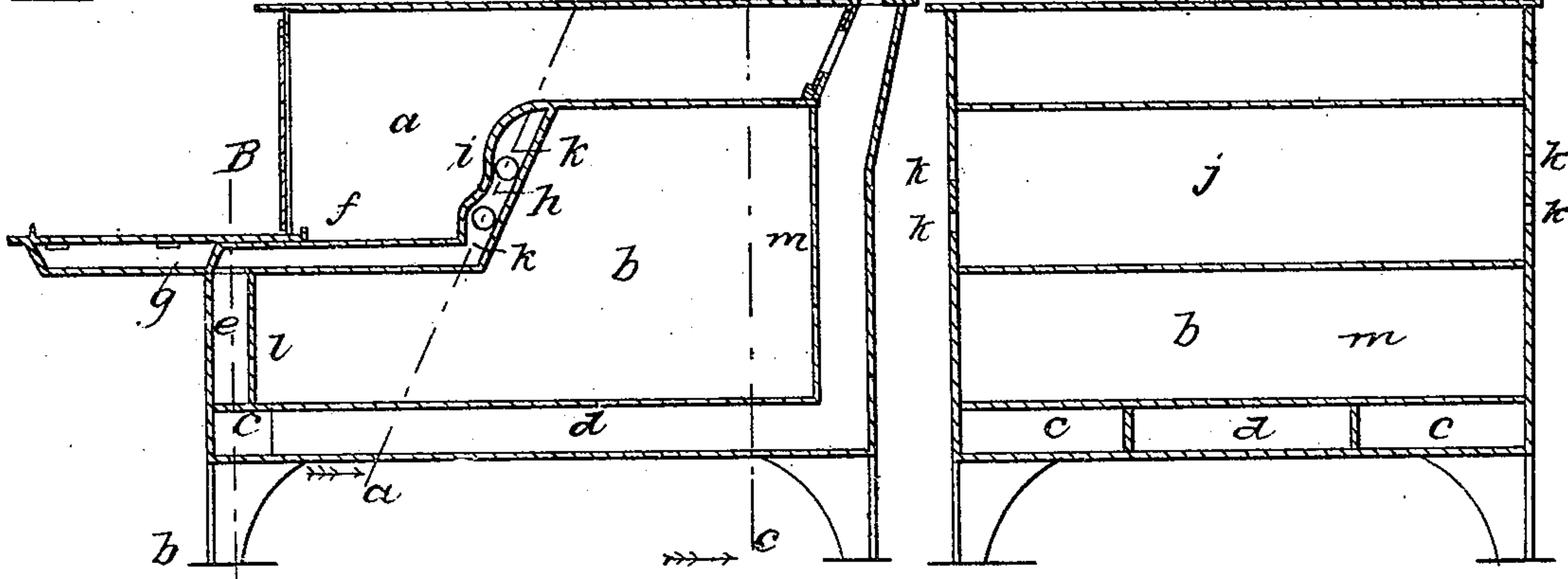


Fig. 3



UNITED STATES PATENT OFFICE.

SAML. PIERCE, OF TROY, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 7,775, dated November 12, 1850.

To all whom it may concern:

Be it known that I, SAMUEL PIERCE, of Troy, in the county of Rensselaer and State of New York, have invented a certain useful Improvement in Cooking-Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 a longitudinal vertical section, and Figs. 3, 4, and 5 cross sections taken at the lines A, a, B, b, and C, c, of Fig. 2.

The same letters indicate like parts in all the figures.

My improvement is on that class of stoves which have an enlarged oven extending under the fire hearth or bottom and the object of my invention is to heat the front part of said oven without the necessity of causing the products of combustion to pass to or around the front oven plate, and to this end

My invention consists in heating the front end of the said oven with hot air, by causing air to enter a heating chamber back of the fire back and then to pass along a flue or flues in the hearth to the front end of the extended oven and thence through the oven escaping into the back fire flues of the stove through holes in the back oven plates, the exhausting action of the draft in the fire flues inducing the required current of heated air as above indicated. In this way I am enabled to produce by a single device the double effect of heating the front end of an extended oven and at the same time to keep up a circulation of heated air in and through the oven.

In the accompanying drawings (a) represents the fire chamber and (b) the oven which extends behind the fire back and under the fire hearth. The top, back and bottom of the oven are heated by fire flues arranged in the manner of the well known Hoxie and Hathaway stoves.

The direct and return bottom fire flues (c, c, d) extend to the front end of the oven.

In front of the oven there is a chamber (e) closed all around except an aperture at top and in or near the middle which communicates with a horizontal central flue (f) in the hearth (g) which at its rear end communicates with the hot air chamber (h) between the fire back (i) and oven plates (j). The side plates of the stove are pro-

vided with holes (k) in the usual manner to admit cold air from the room into the said hot air chamber (h). In passing through this chamber the air is highly heated and in that heated state passes along the flue (f) in the hearth and thence into the chamber (e) in front of the oven in which chamber it circulates to heat the front plate of the oven and then escapes into the oven through holes (l, l) near the sides. The back oven plate (m) is also provided with holes (n n) leading to the fire flues at the back of the oven, the draft in which has the effect to exhaust the oven and thus to induce the current of heated air above described.

It will be obvious from the above that the oven may be more or less extended under the fire hearth, and may be carried under the apron in front of the fire chamber if desired. And it will also be obvious that instead of making holes in the front plate of the extended part of the oven, for the passage of the heated air into the oven, the lower part of the said front plate may be dispensed with, or in fact the whole of the said plate may be dispensed with and the heated air discharged directly into the front end of the oven, in which case however it will be necessary to distribute the air by having more than one flue.

I do not wish to limit myself to the special arrangement herein described for admitting the cold air to the heating chamber behind the fire back nor to the use of a single and central flue for the passage of the heated air to the chamber in front of the oven as more than one flue may be used for that purpose in any other position, although I prefer the single central flue as above described.

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

The method of heating the front end of the extended part of the oven in combination with and receiving the heated air from the hot air chamber behind the fire back and causing it to pass through the oven and out into the fire flues in the manner substantially as described and for the double purpose of heating the front end of the oven and passing a current of heated air through the oven, substantially as specified.

SAMUEL PIERCE.

Witnesses:

C. W. M. KELLER,
CHAS. T. BROWNE.