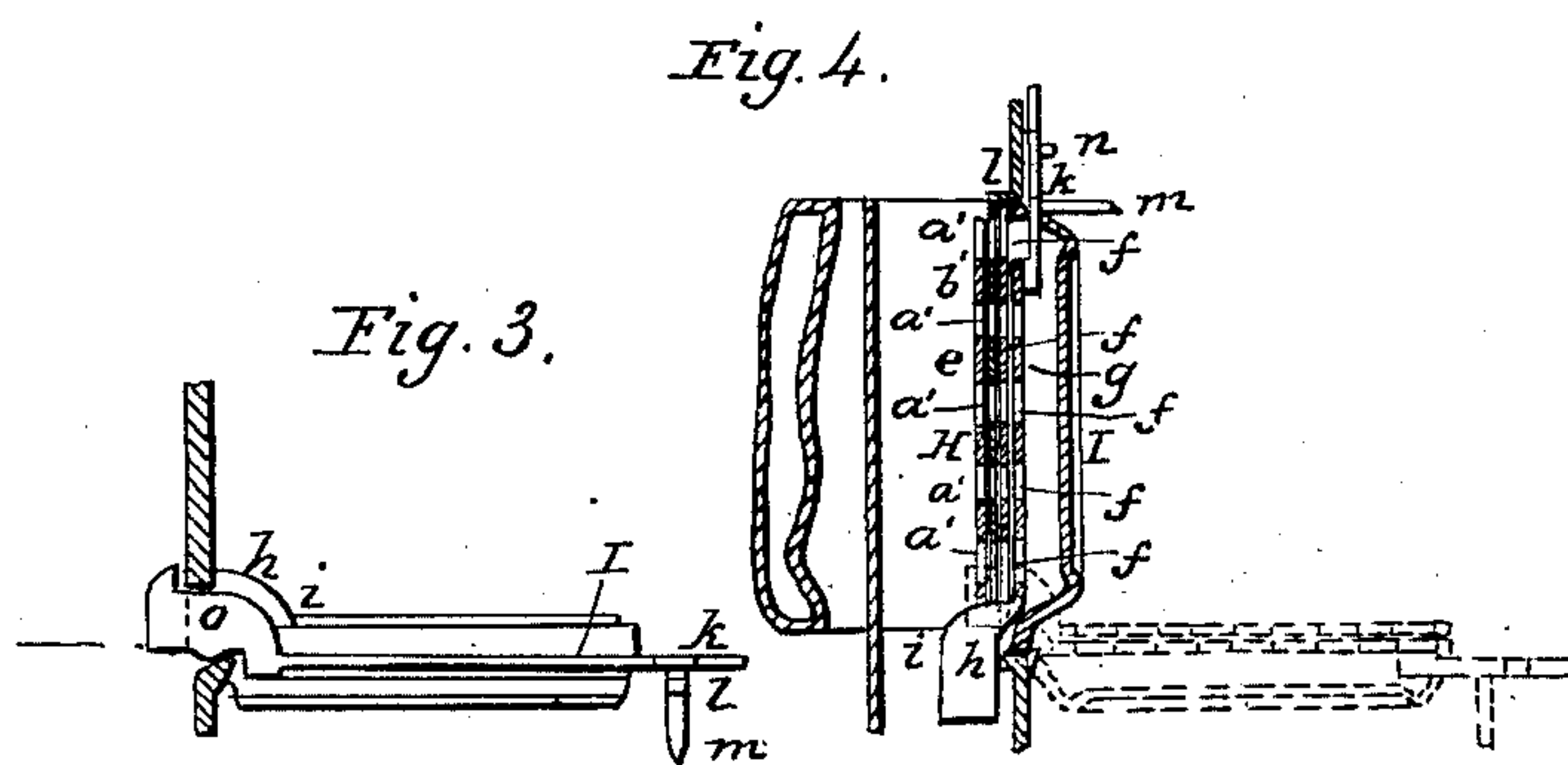
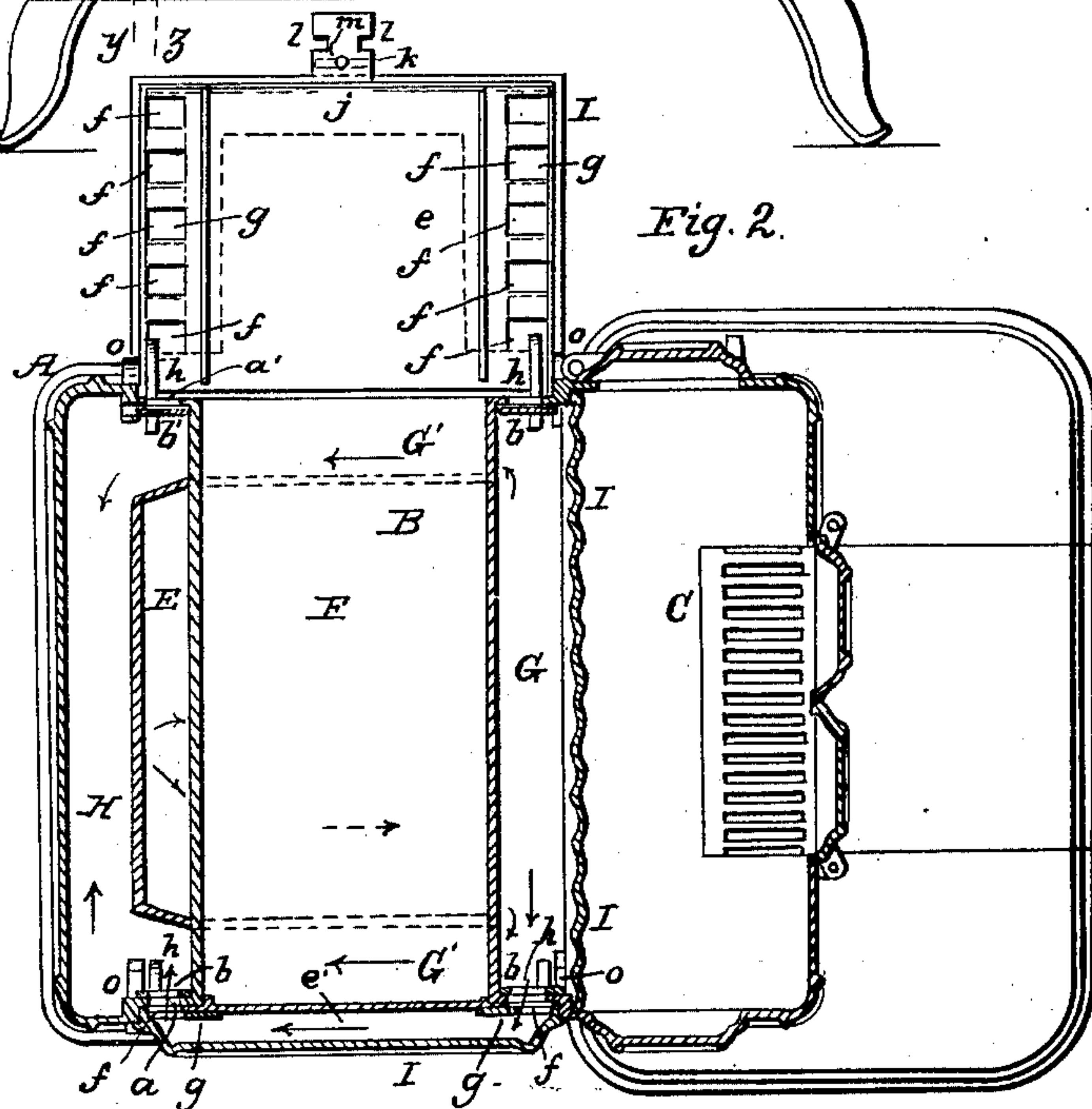
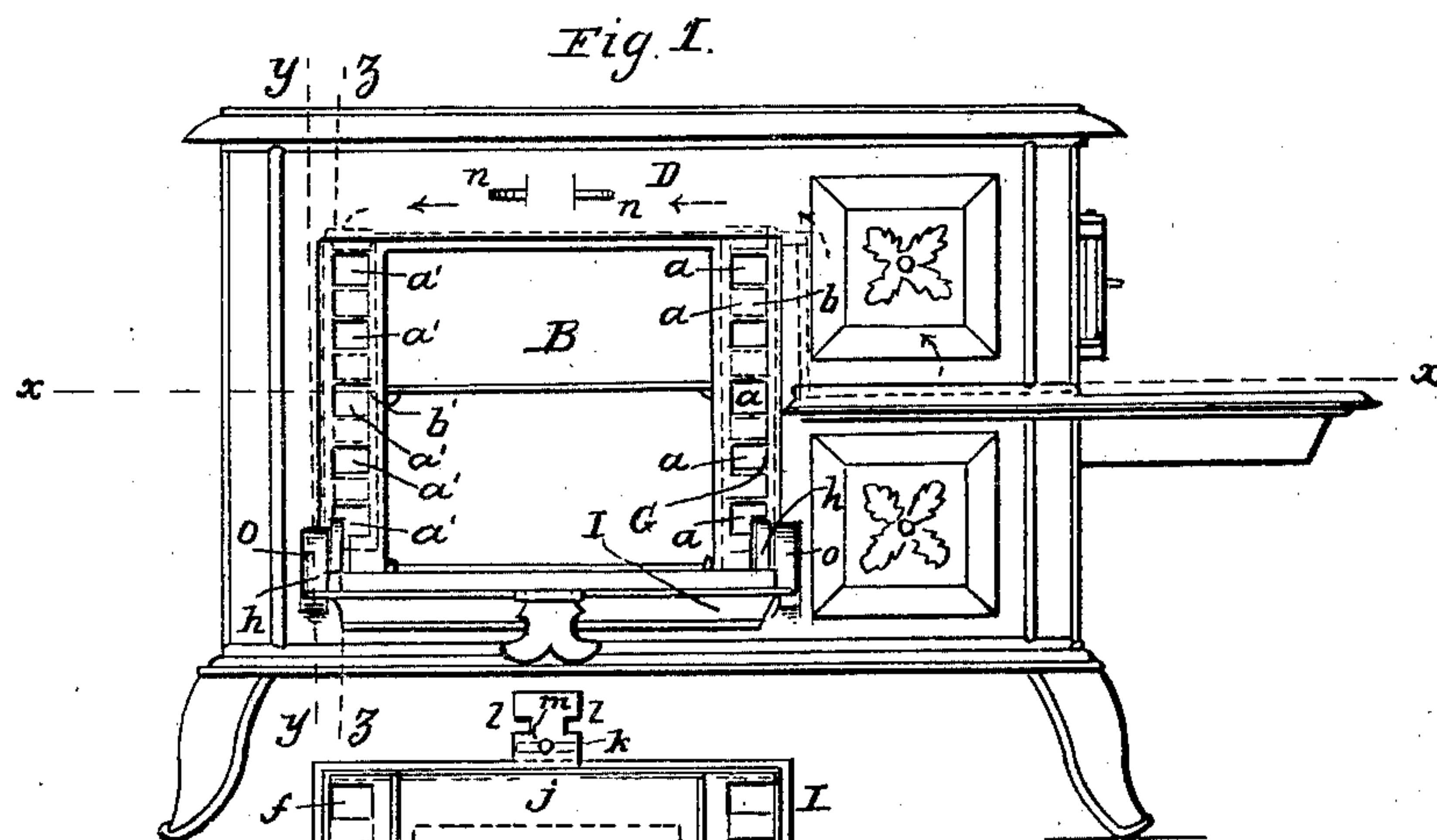


J. HACKETT.
Cooking Stove.

No. 17,371.

Patented May 26, 1857.



UNITED STATES PATENT OFFICE.

JOSEPH HACKETT, OF LOUISVILLE, KENTUCKY.

COOKING-STOVE.

Specification of Letters Patent No. 17,371, dated May 26, 1857.

To all whom it may concern:

Be it known that I, JOSEPH HACKETT, of Louisville, in the county of Jefferson and State of Kentucky, 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 of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side view of a cooking-stove, with my improvement applied to it. The door of the oven nearest the eye being open. Fig. 2 is a horizontal section of the same; (x) (x) Fig. 1, showing the plane of section. Fig. 3 is a vertical section of one side of the stove at its back part; (y) (y) Fig. 1, showing the plane of section. Fig. 4 is a vertical section of the dampers at one side of the flue at the back of the oven.

Similar letters of reference indicate corresponding parts in each of the several figures.

The nature of my invention consists in the employment, in combination with the dampers of the oven and door, of a rising and falling catch bar which has a turning knob, which is so arranged that in turning it shall rise over an inclined plane or stationary stop on the door; whereby the same catch bars which fasten the doors serve for closing the dampers, both of doors and oven, entirely, even while the door is shut, and thus preventing the heat passing through the doors, and when thus operated leaves the door free to be opened. The knob of the catch bar also serves as a means whereby to close the dampers to a greater or less degree, while the door is closed, and answers for retaining them in any desired position, owing to its coming in contact with the stationary inclined plane or stop on the door. It is essential to have the dampers in the oven and doors, capable of being closed in warm weather, without the necessity of having the door thrown open or down in the way. It is also essential to have the same bar which fastens the door operate the dampers, as a matter of convenience, and it is still more essential to have said bar capable of rising and furnished with a knob which may be turned, and in turning comes in contact with a stationary inclined plane or stop on the door, in order that the quantity of heat admitted to the door may be regulated as desired.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a cook-stove, of the usual construction and form.

B, is the oven.

C, is the fire-chamber.

D, is the flue, which leads from the fire-chamber, over the top of the oven B, and communicates with a vertical flue E, at the back of the oven; the lower end of the flue E communicating with a flue F, underneath the oven, at its center; the central flue F communicating with a flue G, between the fire-chamber and oven, and with two return flues G' G', which communicate with a vertical flue H, at the back of the vertical flue E. This arrangement of flues is common to the generality of cooking-stoves.

The sides of the stove, at each end or side of the flue G, have rectangular openings (a) made through them; and perforated plates (b) are placed at the inner sides of the stove, over the openings (a). The plates (b) are dampers, and they work up and down; the sides or ends of the flue G, being open when the perforations or openings in the plates (b) register with the recesses (a). Rectangular openings (a') are made through the sides of the stove, at each end or side of the vertical flue H, and perforated plates or dampers (b') are placed at the inner sides of the stove, over the openings (a').

I, I, represent the doors of the oven, one at each end. These doors are hollow, and the inner plates (e) of the doors, near each ends, leave openings (f), of rectangular form, made through them, and dampers (g) are placed at the inner sides of the plates (e); the dampers (g) being constructed precisely similar to the dampers (b) (b').

To the lower ends of the plates or dampers (g) projections (h) are attached, one to each damper. These projections are curved at their outer surface or edge, as shown at (i) in Figs. 3 and 4, and they are fitted below the dampers (b) (b') in the flues H; said dampers resting or bearing upon the edges (i) of the projections (h). The upper or outer ends of the dampers (g) (g), of each door, are connected by a cross-plate (j), and a bar (k) is connected to the center of the cross plate (j); said bar (k) working through an opening in the upper part of the door, and having a recess or notch (l) made in each side. To the bar (k) of each door a

turn knob (*m*) is attached, by which the bars may be raised and lowered, and also the dampers (*g*) (*g*), the bars and dampers being raised by merely turning the knob, the edges of which raise the bar in consequence of said edges bearing upon the top of the oven-door. The bars (*k*) may be raised, however, by simply pushing upward the knob (*m*). The bars (*k*) serve as catches, and secure the doors in a closed state; the bars catching between lugs (*m*) at the sides of the stoves. When the bars (*k*) are raised so that they may pass out from between the lugs (*n*), the dampers (*b*) (*b'*) are raised, and consequently the openings (*a*) (*a'*) are closed.

The lower ends of the doors, I, I, have projections (*o*) (*o*), on them, one at each side; and these projections are fitted in recesses in the sides of the stove; the said projections (*o*) (*o*) serving as joints or fulcrum-bearings, on which the oven-doors I, swing.

As the dampers (*b*) (*b'*) rest upon the projections (*h*) that is, on their curved edges (*i*) it follows as a matter of course that the dampers (*b*) (*b'*) will close the openings (*a*) (*a'*) in the ends or sides of the flues, H, G, when the doors I I, are opened, because the curved edges (*i*) of the projections (*h*), on the dampers (*g*), when the doors, I I, are depressed or opened, will raise the dampers (*b*) (*d*); for the same reason the dampers (*b*) (*d*) will descend by their own gravity when the doors I I are closed, and the openings (*a*) (*a'*) will be uncovered, and the flues G H, will communicate with the hollow doors, which, in fact, form parts of flues, and cause the sides of the oven to be in contact with a heating surface.

I am aware that the draft of the fire-chambers of stoves has been made to pass through the doors of ovens for the purpose of subjecting all the sides of the ovens to a heating

surface; but stoves thus arranged have not been adopted for the reason that no provision was made for the closing of the ends or sides of the flues, which were consequently exposed by the opening of the oven-doors; the gases, smoke and other products of combustion escaping into the apartment. By my improvement it will be seen that the dampers of the flues are closed by the opening of the doors; and as the movement of the dampers is automatic, no special care is required to manage the stove as the dampers are operated by the opening and closing of the doors.

The dampers (*g*), of the doors, are important, because they exclude the air when the doors are open, and therefore prevent the chambers within the doors from being cooled. They may be dispensed with; but I prefer to have them in all cases.

In consequence of having the oven entirely surrounded by flues, the oven will be evenly heated. Much fuel will be saved as the oven will not be cooled, as is now the case, by the admission of air around the doors.

I do not claim an oven with flues leading to flues in the door. Neither do I claim operating the dampers by the opening and closing of the door, but

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

The employment, in combination with the dampers of the oven and doors, of a rising and falling catch bar which has a turning knob, which is so arranged that in turning it shall rise over an inclined plane or stationary stop on the door substantially as and for the purposes herein set forth.

JOSEPH HACKETT.

Witnesses:

WILLIAM PYNE,
JAMES HARRISON.