

(No Model.)

2 Sheets—Sheet 1.

W. H. SCOTT.
COOKING RANGE.

No. 267,373.

Patented Nov. 14, 1882.

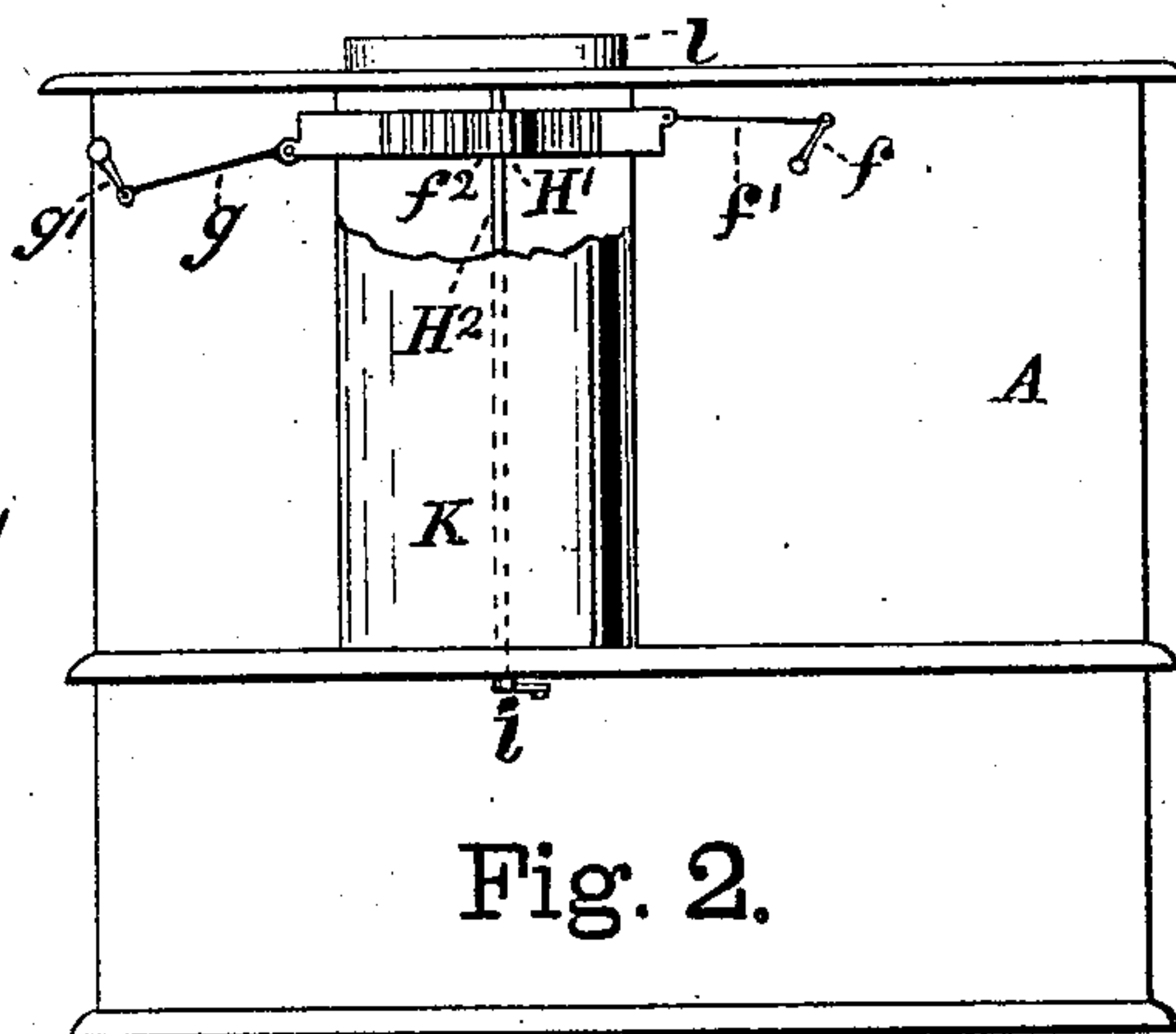
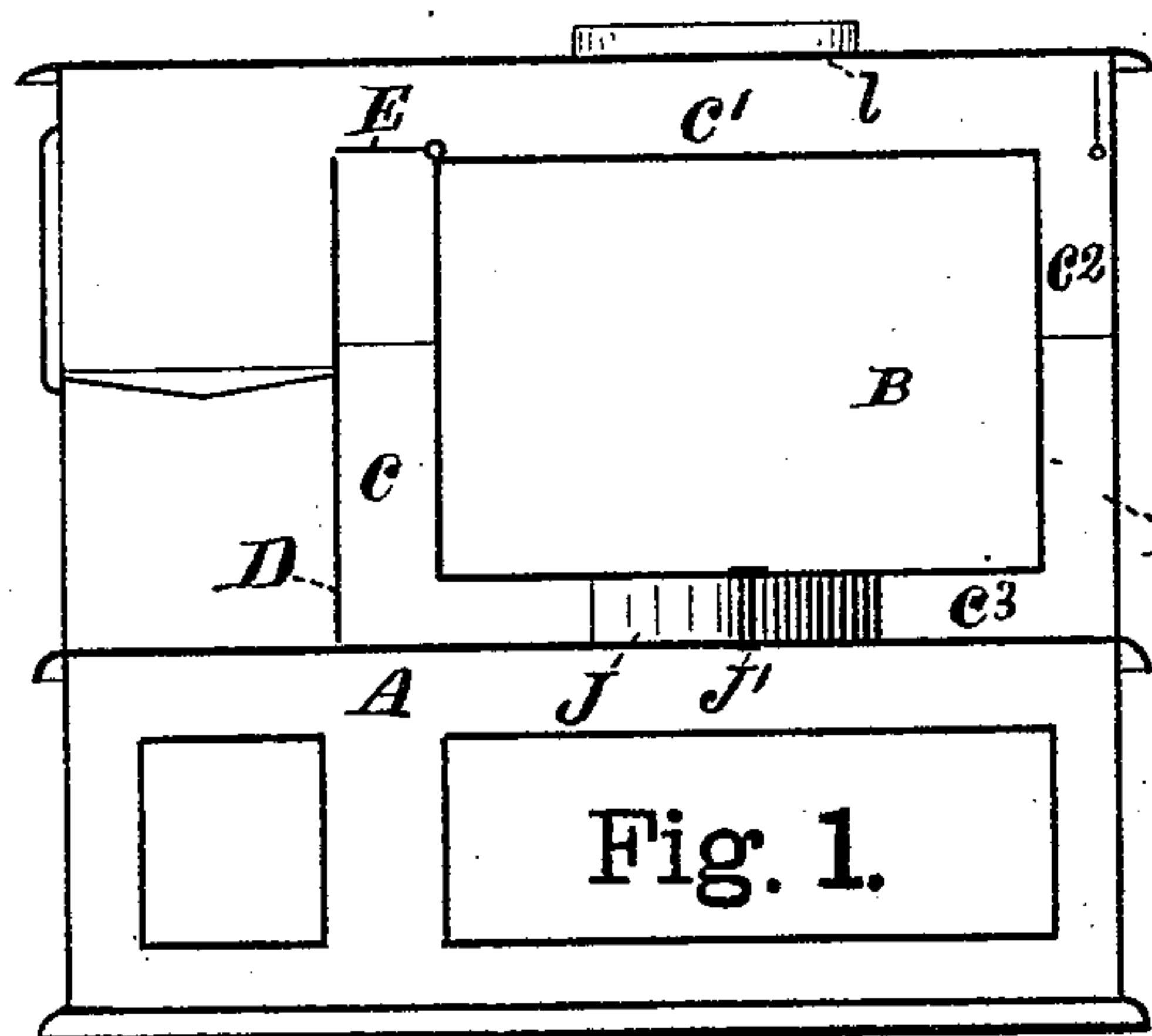


Fig. 3.

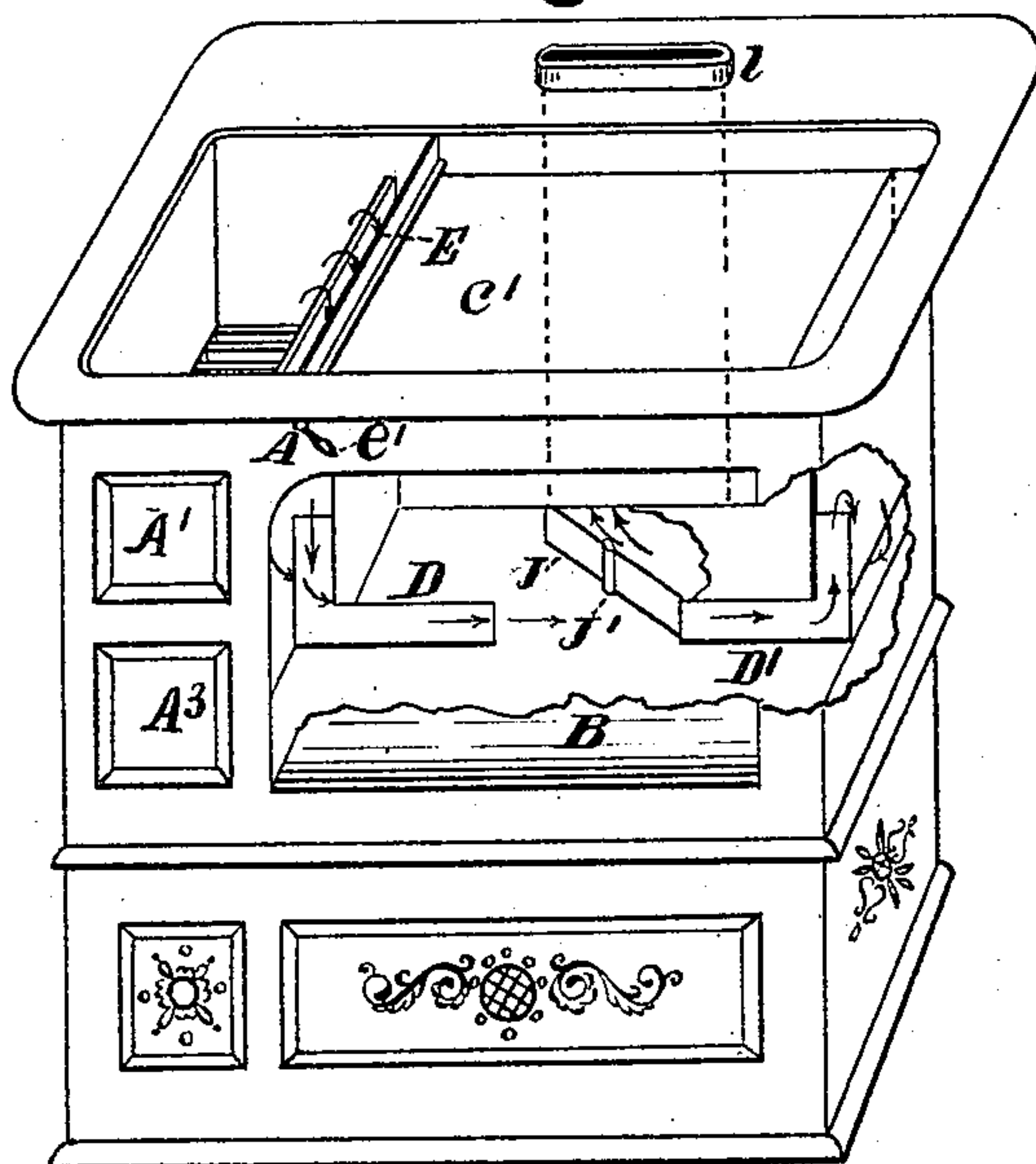


Fig. 4.

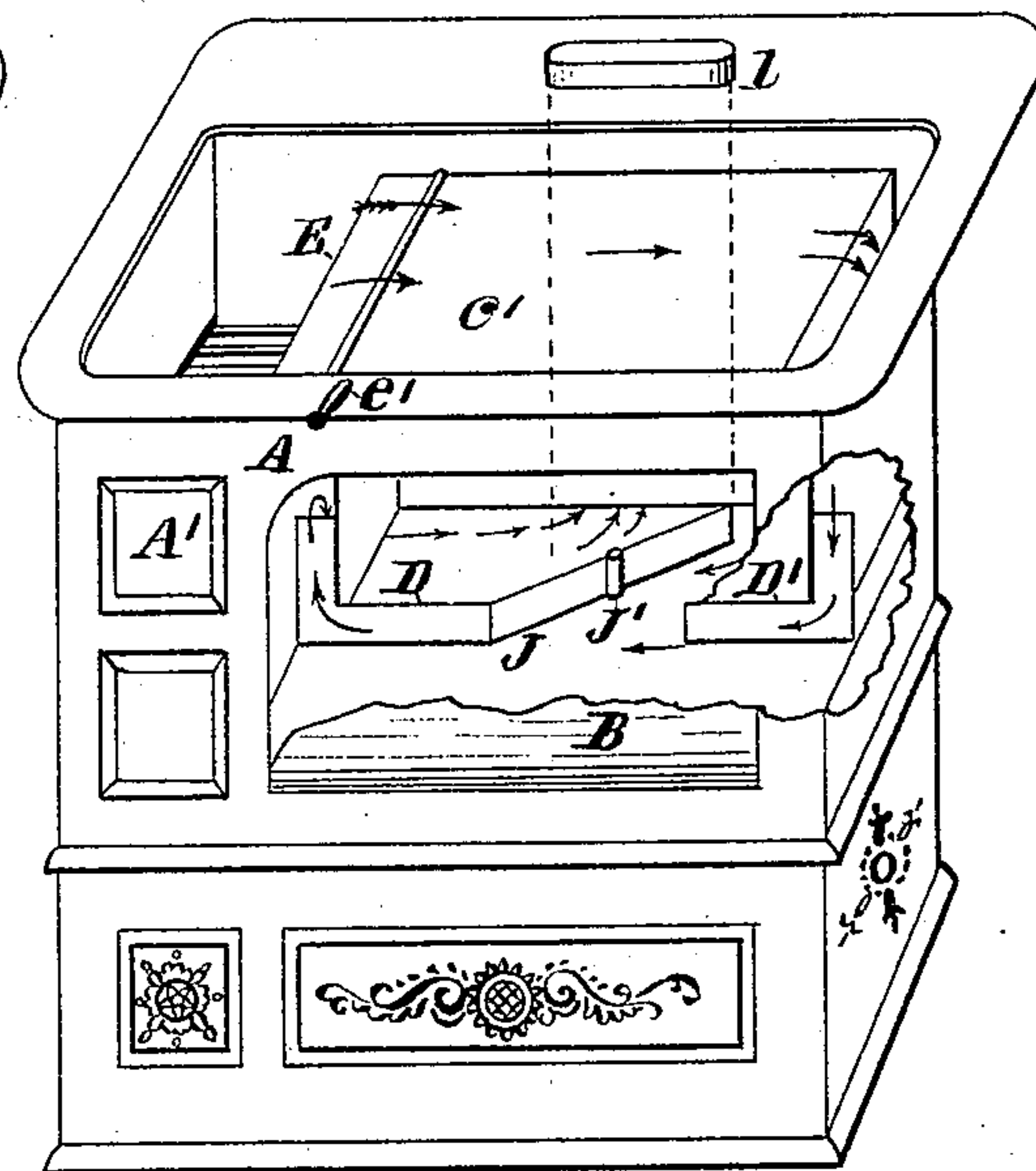
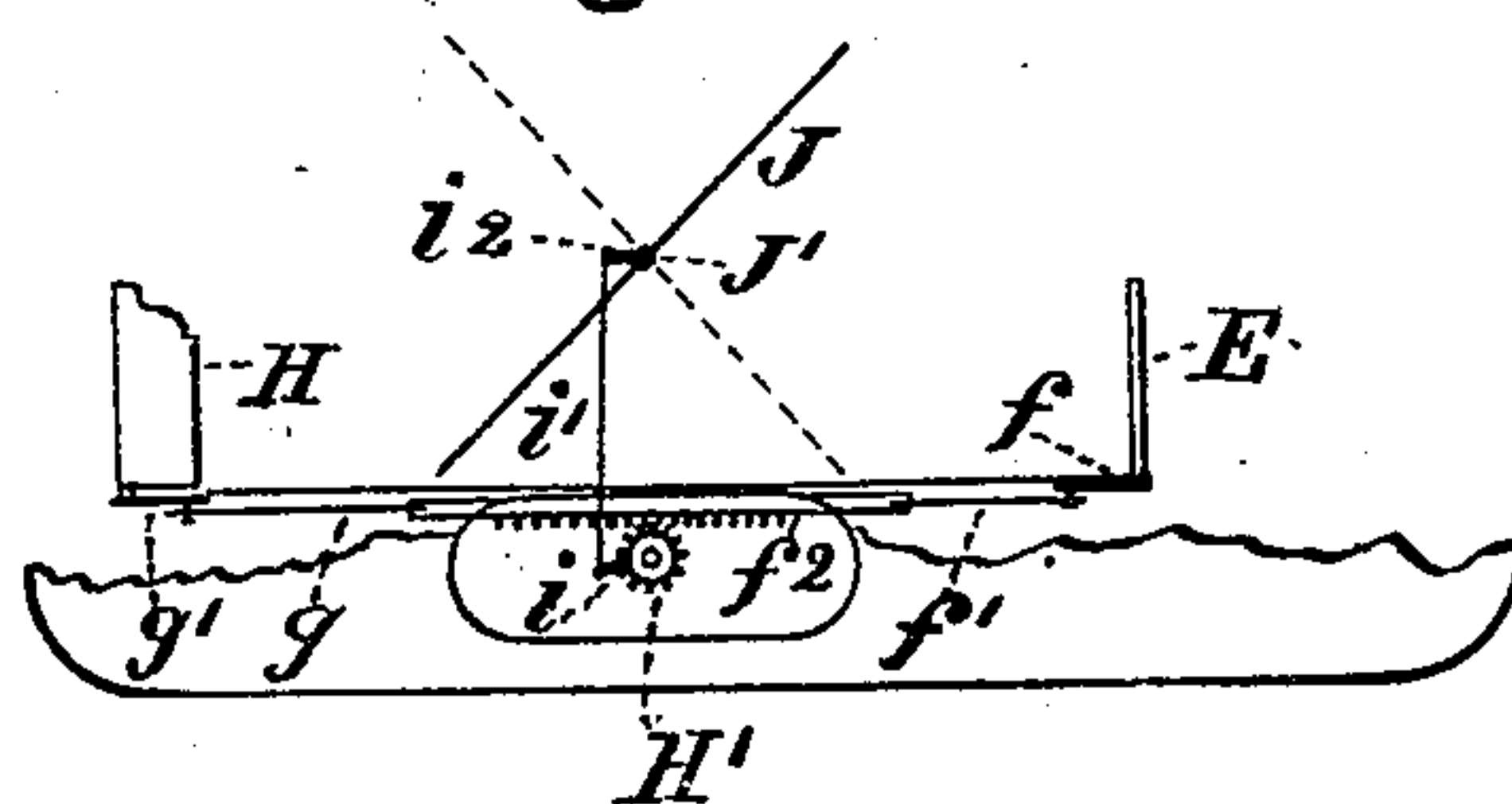


Fig. 5.



Witnesses.

J. M. Mann,
J. M. Caldwell.

Inventor.

William H. Scott,
By James Sangster
Att'y

(No Model.)

2 Sheets—Sheet 2.

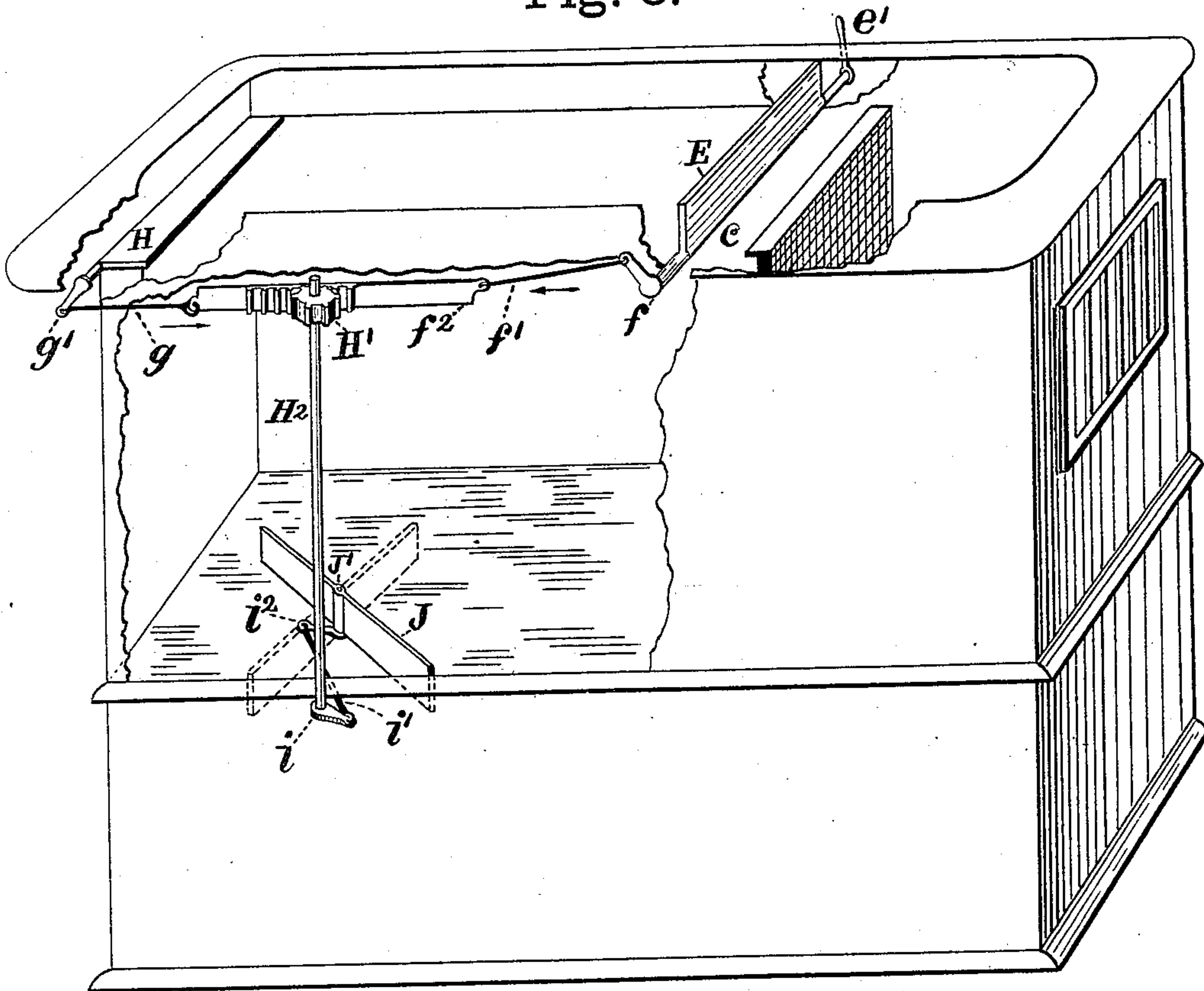
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Fig. 6.



Witnesses.

J. M. Braun
J. M. Caldwell.

Inventor.

William H. Scott.
By James Sangster
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM H. SCOTT, OF FREDONIA, NEW YORK.

COOKING-RANGE.

SPECIFICATION forming part of Letters Patent No. 267,373, dated November 14, 1882.

Application filed August 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY SCOTT, a citizen of the United States, residing in Fredonia, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Cooking-Ranges, of which the following is a specification.

This invention relates to certain new and useful improvements in cooking-ranges, in which the oven is insulated from the fire-box and a flue formed completely around it, and having a combination of connected dampers capable of being all operated from one point, whereby the products of combustion may be conducted in either of two directions, all of which will be fully and clearly hereinafter described and shown by reference to the drawings, in which—

Figure 1 is a vertical longitudinal section through the range. Fig. 2 represents a back view of the range having a portion of the pipe-flue broken away, so as to show the mechanism for operating the dampers. Fig. 3 is a perspective view, partly in section, having the dampers arranged so that the products of combustion are conducted down a front flue and around the oven. Fig. 4 is a similar view, showing the dampers arranged so the products of combustion may be conducted over the oven and around the same. Fig. 5 is a detached top view of the mechanism for operating the dampers; and Fig. 6 is a perspective view of the back part of the range, showing portions broken away, so as to expose all the dampers and their connected mechanism for operating them simultaneously.

A represents the range; A', the door to the fire-chamber, which is made in the usual way.

In the drawings, the covers and top of the range are left off; but as they are constructed in the usual way a description of them here is not necessary.

B is the oven.

C C' C² C³ represent a flue entirely surrounding it.

D D' are two vertical plates, each set in a line with each other and opposite each other, so as to divide the flue at the points in which they are placed.

E is a damper, operated by a handle, e'. This damper E is connected, by means of an arm, f, on its opposite end, a connecting-rod, f',

rack f², connecting-rod g, and arm g', to the damper H. (See Figs. 1 and 5.) By turning the handle e', and consequently the damper E, both of the dampers E and H are moved simultaneously. When one is moved up the other is moved down, or vice versa.

H' represents a pinion arranged to gear into the rack f², and securely fastened to a vertical shaft, H², which is set in suitable bearings, so as to be kept in position and allowed to turn easily. At the foot of the shaft H² is an arm, i, which is connected, by a connecting-rod, i', and arm i², to a vertically-pivoted dividing-damper, J, arranged below the oven in that portion of the flue marked c³. It is kept in place by the pivot J', whereby the damper J is moved simultaneously with the rest of the dampers, so that all are operated at once by moving the handle e' of the damper E. It will now be seen that by moving the damper E up, so as to close the upper portion, C', of the flue around the oven, as shown in Fig. 3, the products of combustion will pass down the vertical portion C between the oven and the fire-box on each side of the plate D, and in the direction of the arrows, along one side of the dividing-damper J, and up one side of the plate D' and down on the other side, and from thence under the oven on the other side of damper J, and up through the passage K (shown in Fig. 2) to the pipe. By this means the heat is shut off from the greatest portion of the griddle-surface or stove-top, thereby saving a large amount of heat from radiation, and insuring a quick-acting oven. This construction is also of great advantage in summer. By moving the damper E down so as to open the portion C' of the flue around the oven, as shown in Fig. 4, the products of combustion will pass up over the top of the oven, down the back of the same on each side of the plate D', under the oven, on one side of the dividing-damper J, along and up on one side of the plate D, and from thence down on the other side, then under the oven on the other side of the dividing-damper J, and then up through the passage K, leading to the pipe. Whether the flues are used in either direction they conduct the heat to every part and corner of the oven. There is a gradual tapering down of the flue from the fire-box to the exit-pipe.

The mechanism is very simple and not ex-

posed to view, and is not liable to get out of repair, and all the dampers are moved simultaneously by operating one, as before mentioned.

I claim as my invention—

- 5 1. A cooking-range having a flue, C C³ C², provided with the vertical dividing-plates D D', in combination with the dividing-damper J, arranged below the oven, and its operating mechanism, substantially as specified.
- 10 2. In a cooking-range, the combination of the oven B and the flues C C' C² C³ with the dampers E H J and their operating mechanism, substantially as specified.
- 15 3. The damper E and its arms *e' f*, connecting-rod *f'*, rack *f*², connecting-rod *g*, arm *g'*, and damper H, in combination with the pinion H', its supporting vertical shaft and arm *i*, connecting-rod *i'*, arm *J'*, and dividing-damper J, whereby all the dampers may be moved
20 or operated simultaneously by the handle *e'*, for the purposes described.

4. A cooking-range in which the flue C C' C² C³ surrounds and separates the oven en-

tirely from the fire-box, and is provided with the plates D D', in combination with a series 25 of simultaneously-acting dampers, E H J, and their operating mechanism, substantially as described.

5. A cooking-range in which the flue C C' C² C³ surrounds and separates the fire-box 30 from the oven, in combination with the dividing-plates D D', and a suitable means for changing the direction of the products of combustion, for the purposes described.

6. A cooking-range having a flue, C C' C² C³, in combination with the dampers E and J 35 and their operating mechanism, substantially as specified.

7. The flue C C' C² C³, in combination with the damper J, and a suitable means, substan- 40 tially as specified, for changing the direction of the heat around the oven.

WILLIAM H. SCOTT.

Witnesses:

JAMES SANGSTER,
J. M. CALDWELL.