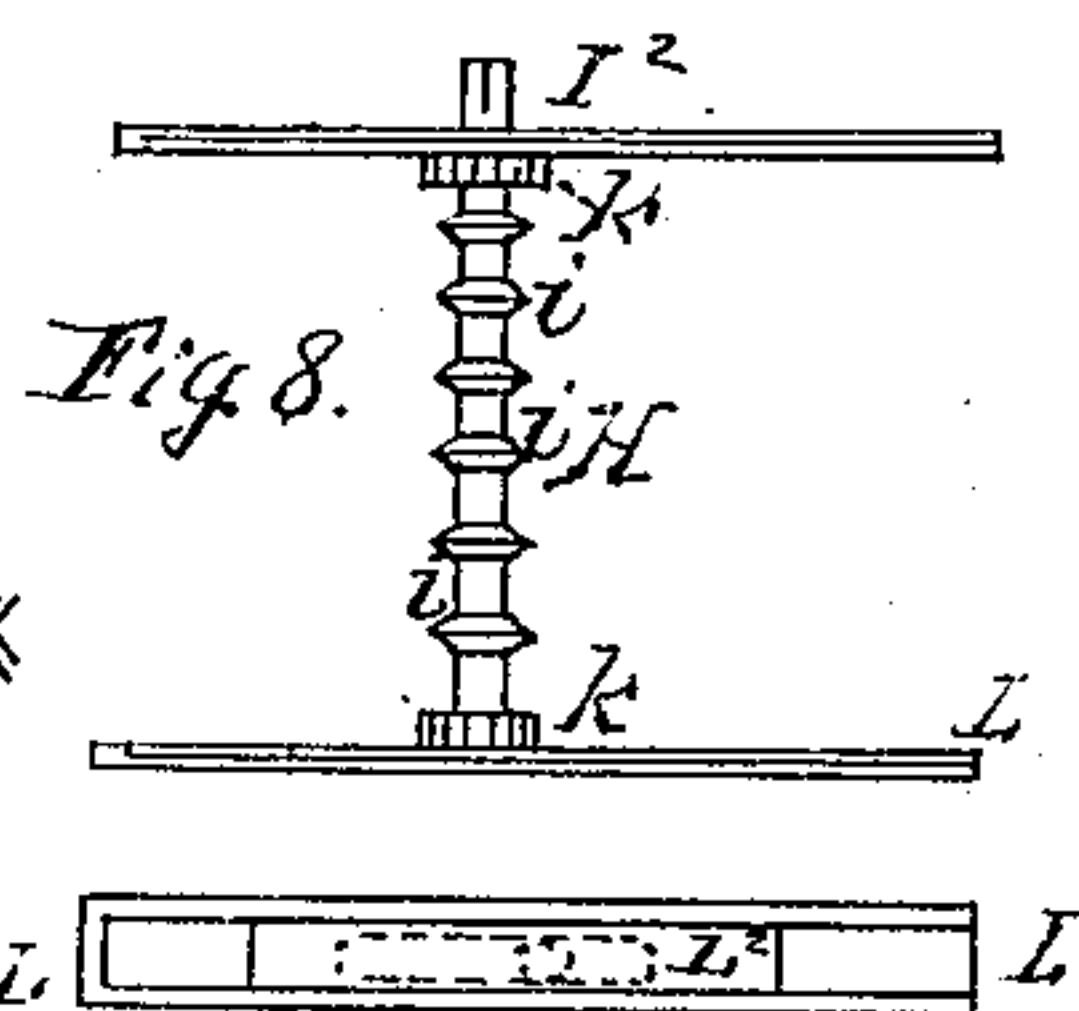
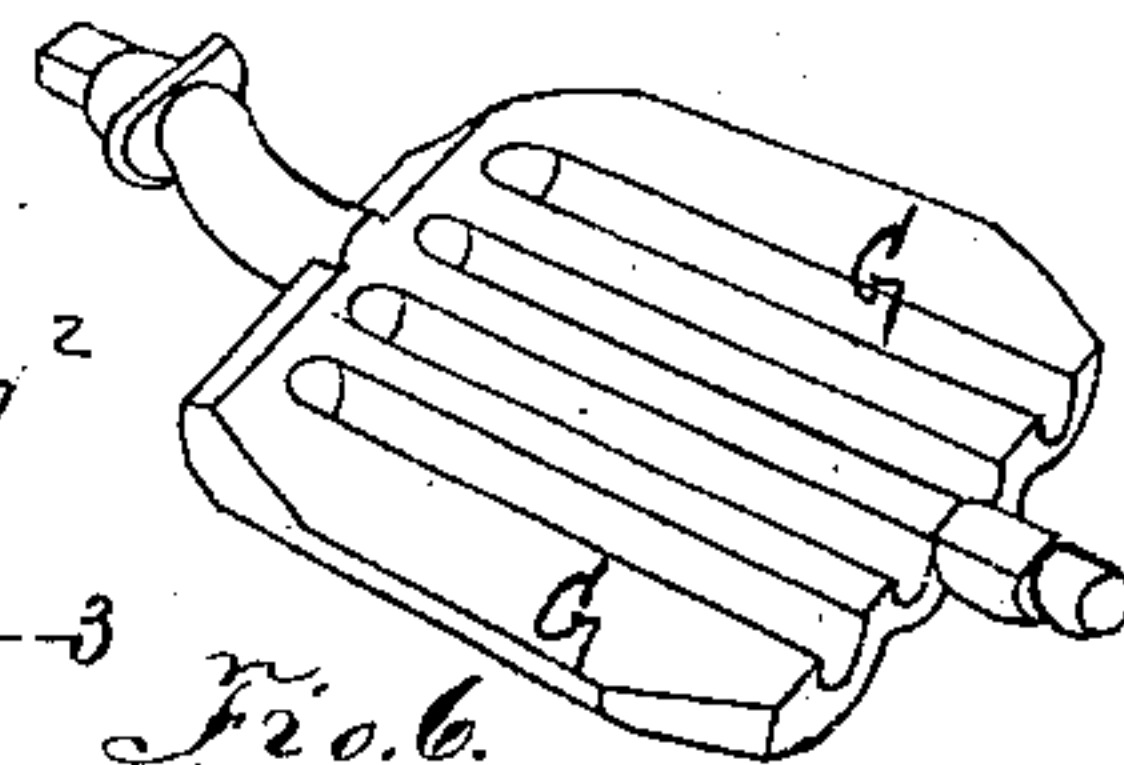
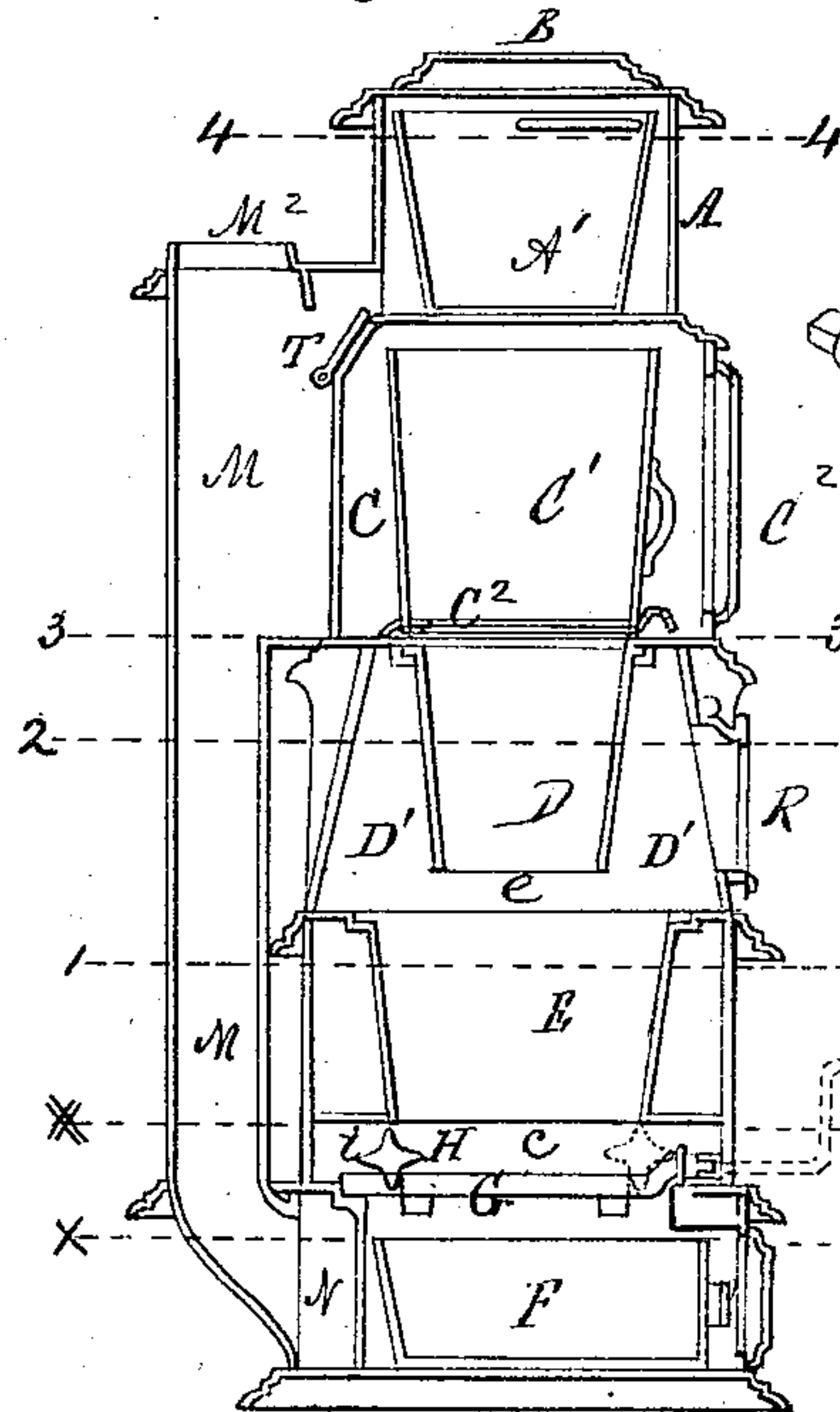
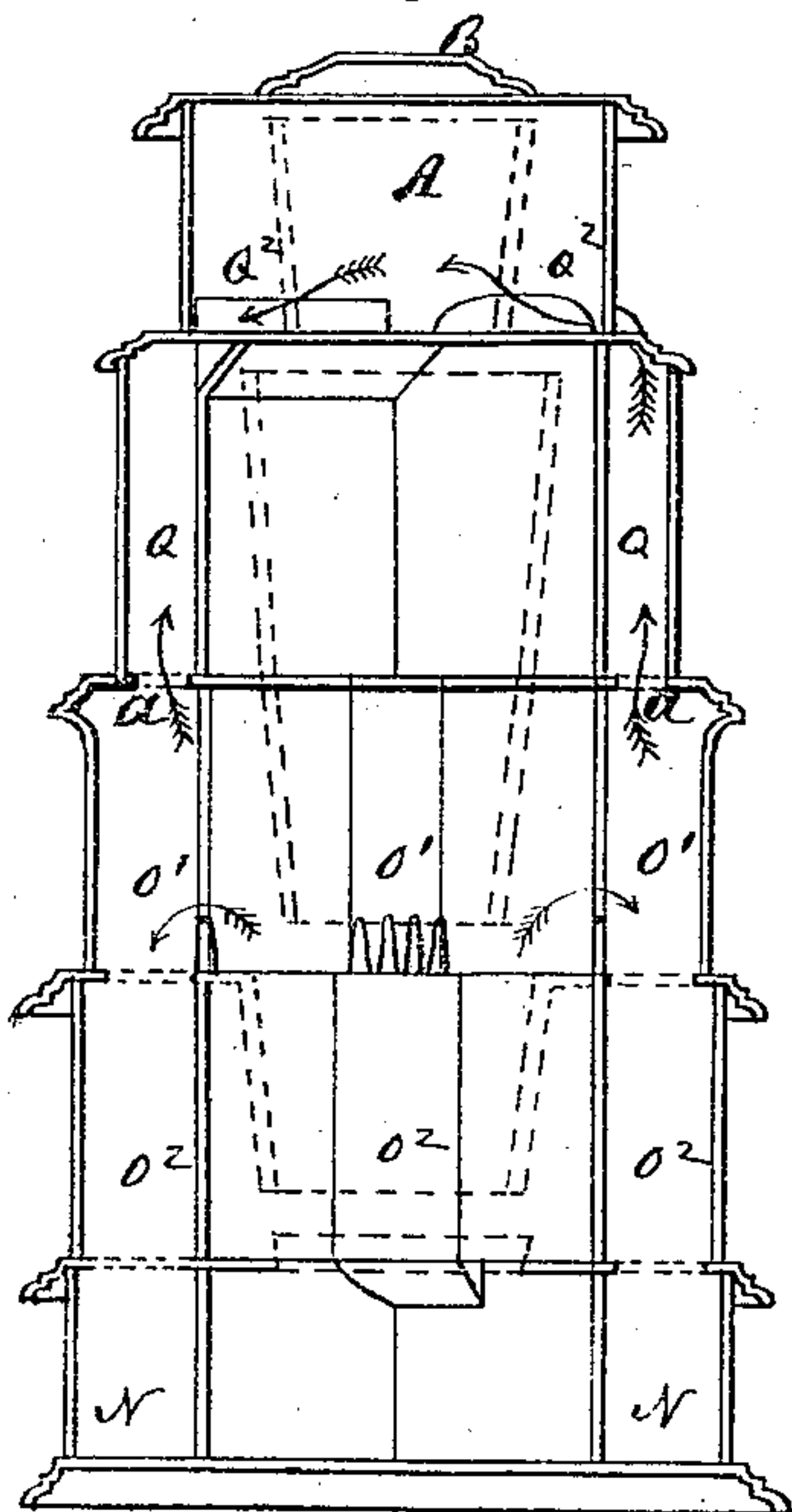
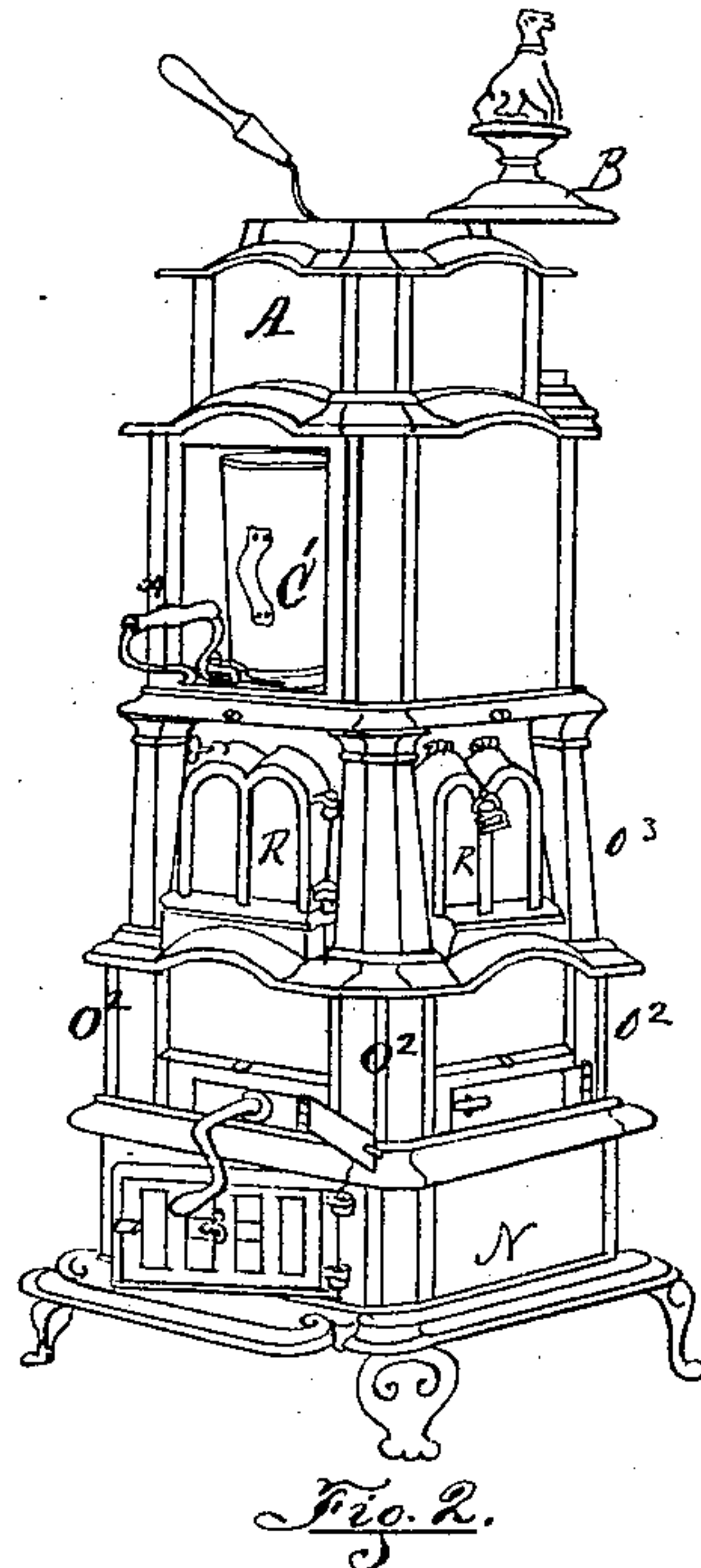
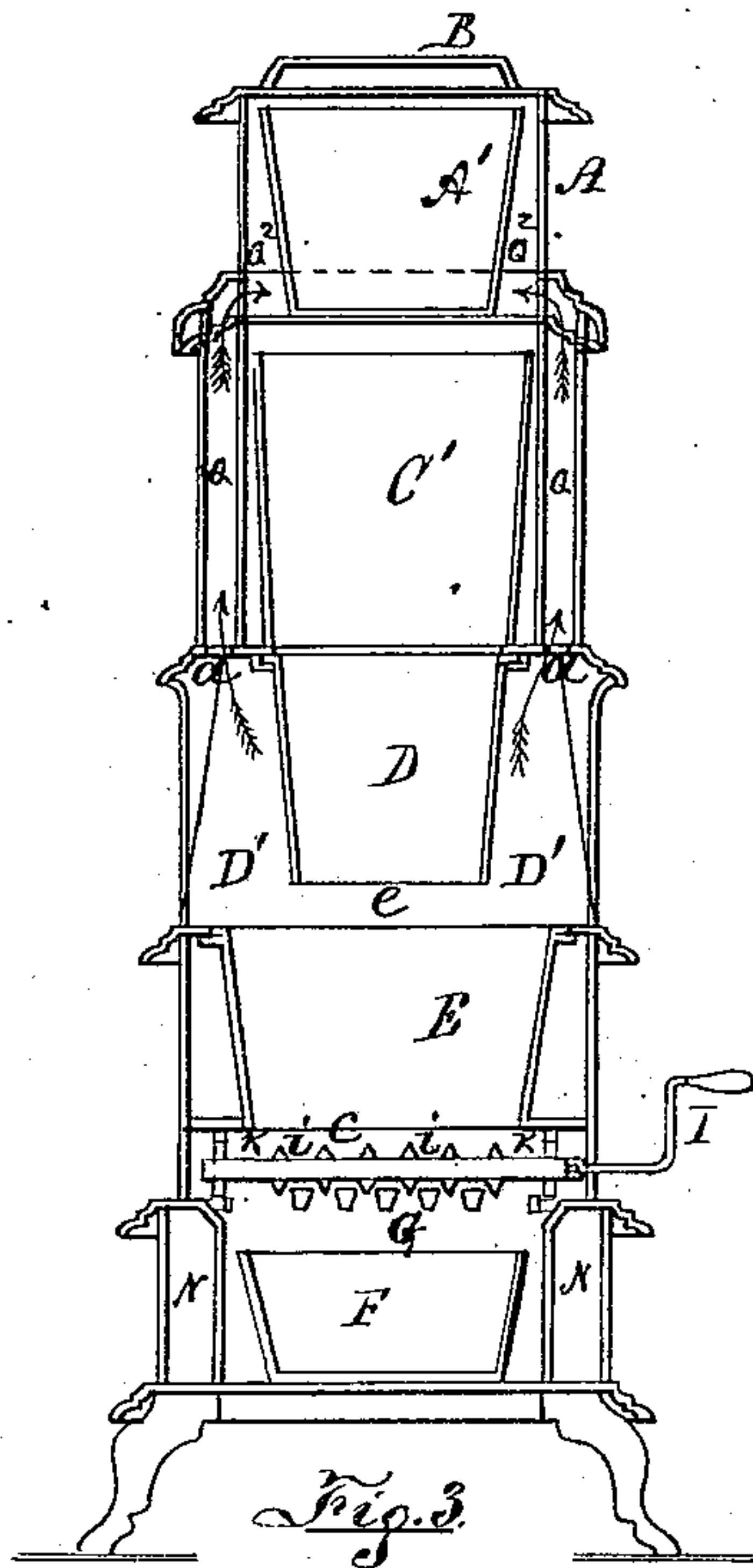
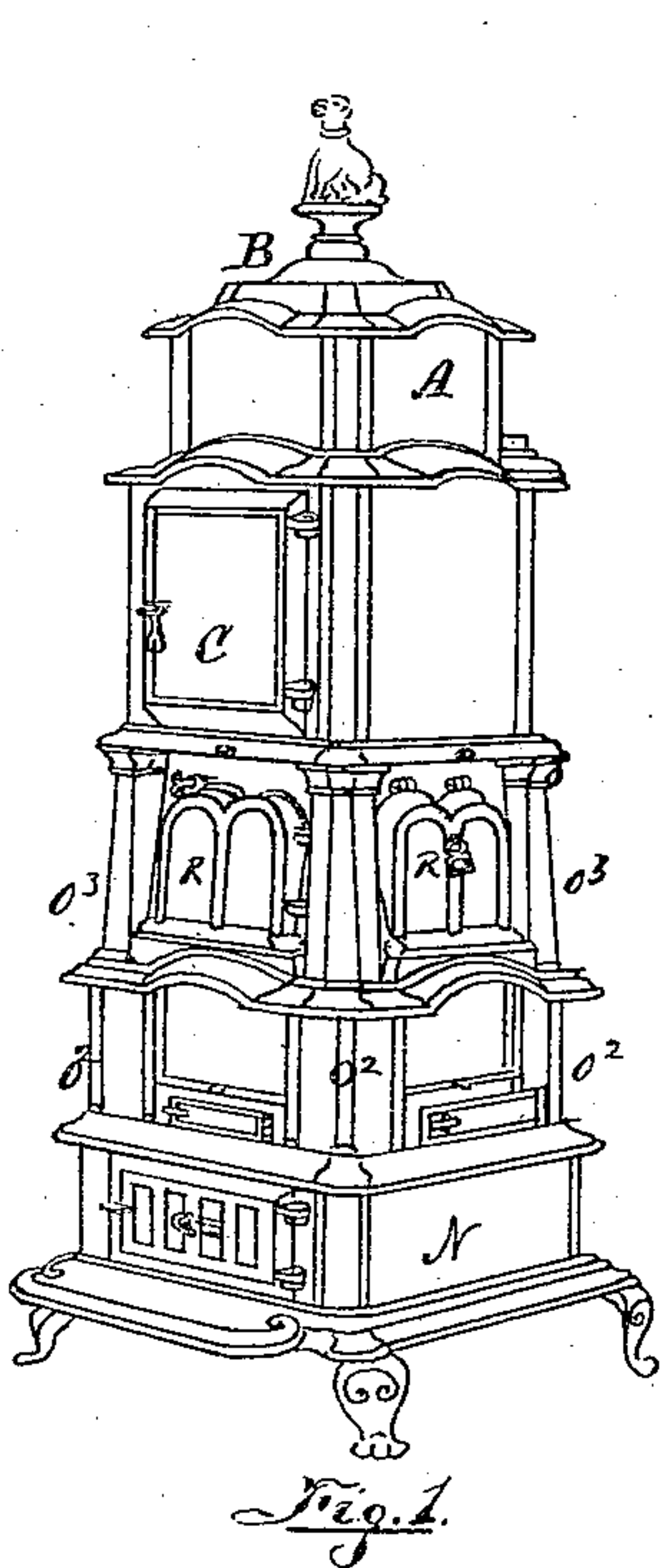


**D. E. PARIS.**  
**Heating-Stoves.**

No. 153,602.

Patented July 28, 1874.



Witnesses.

*George V. Gibson*  
*H. S. Durnall*

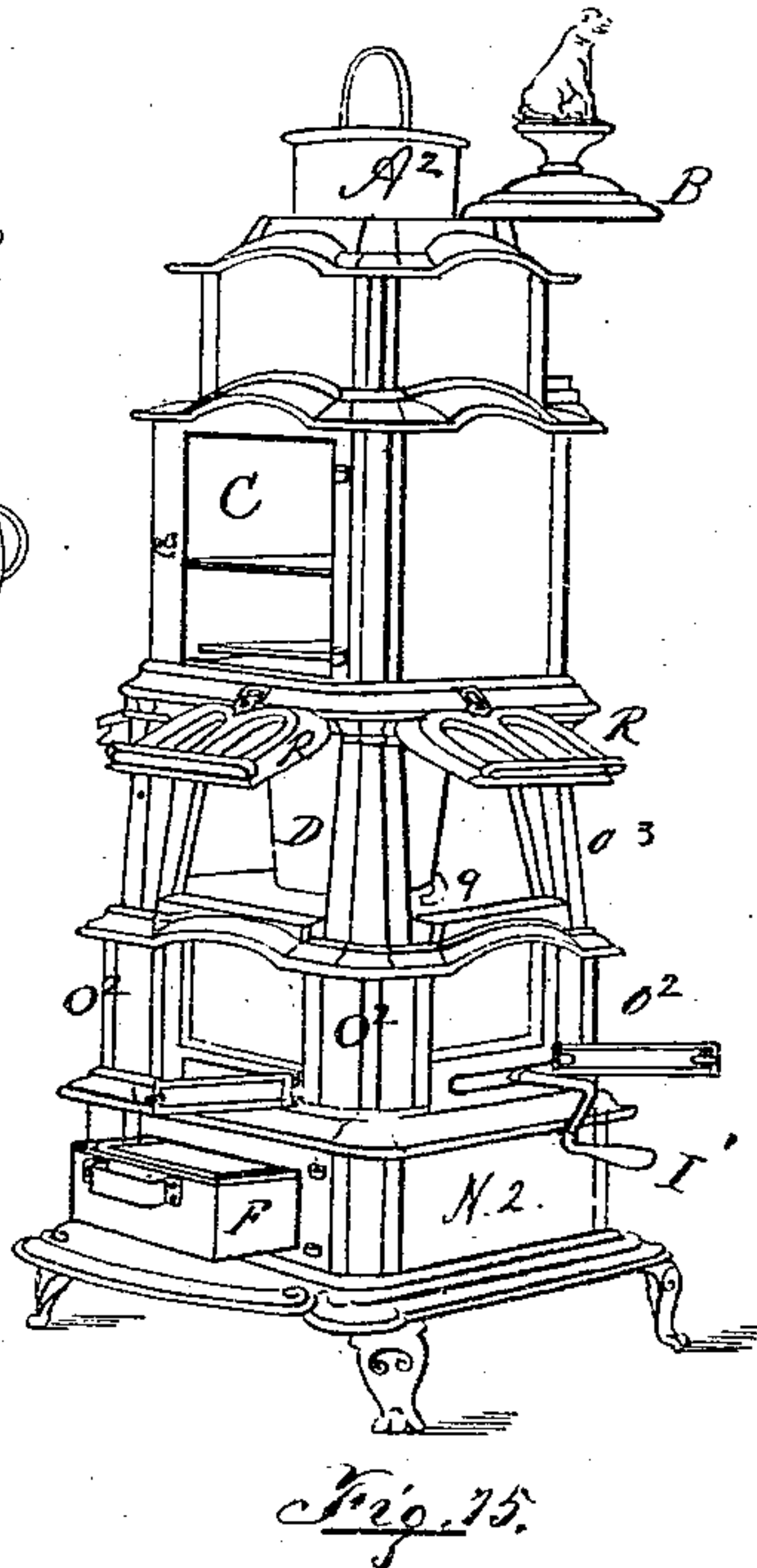
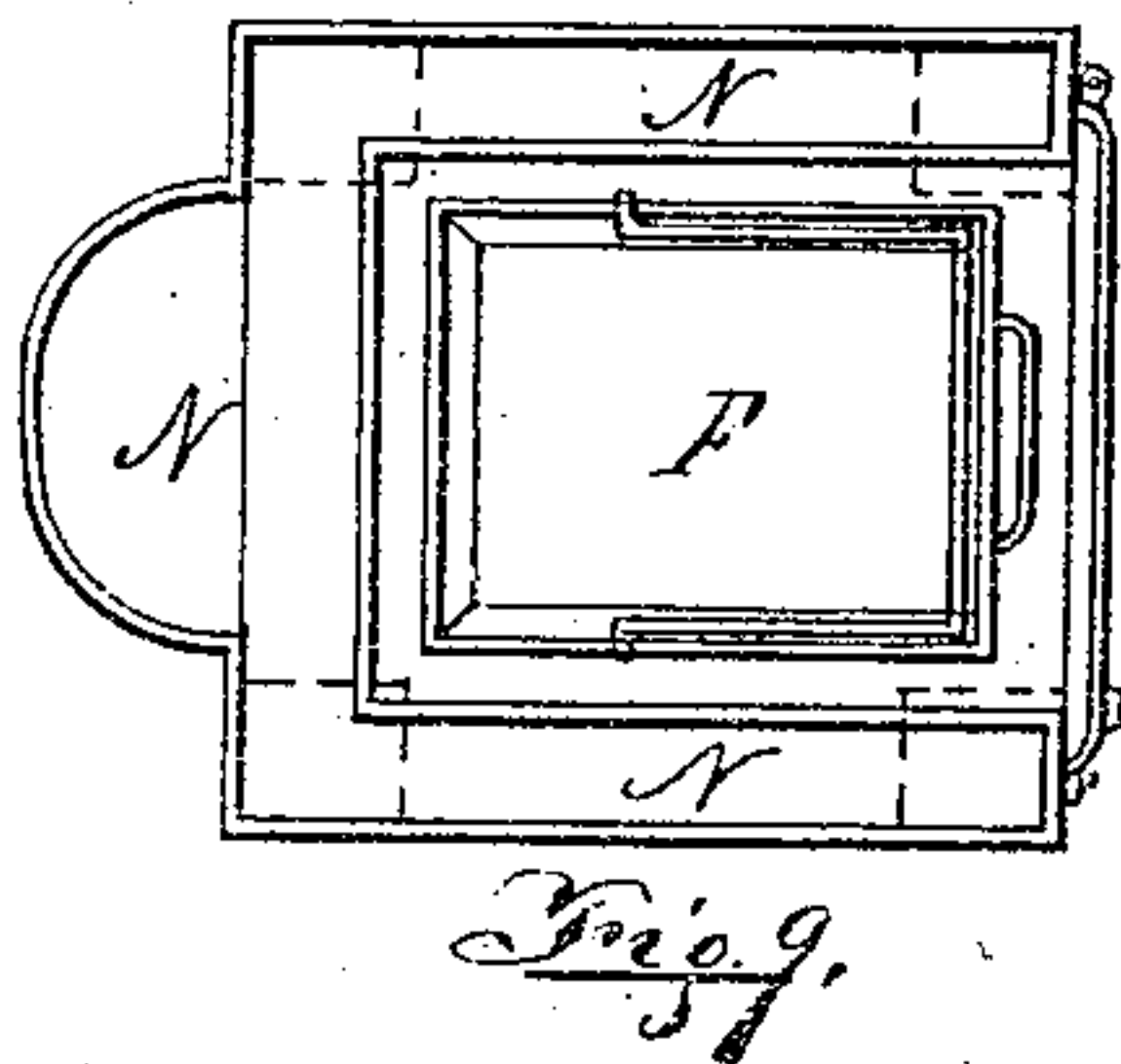
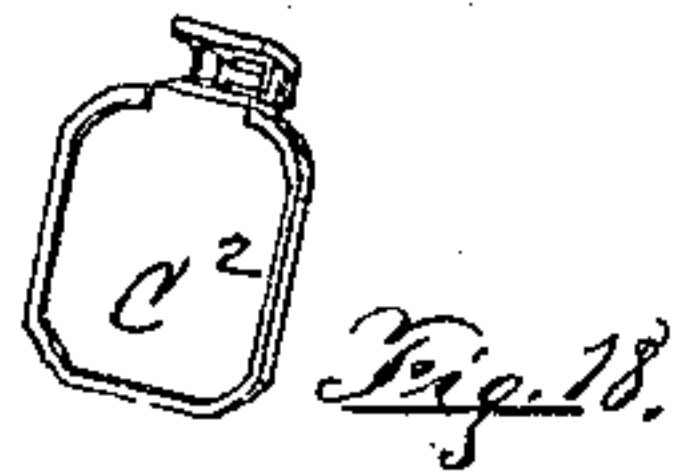
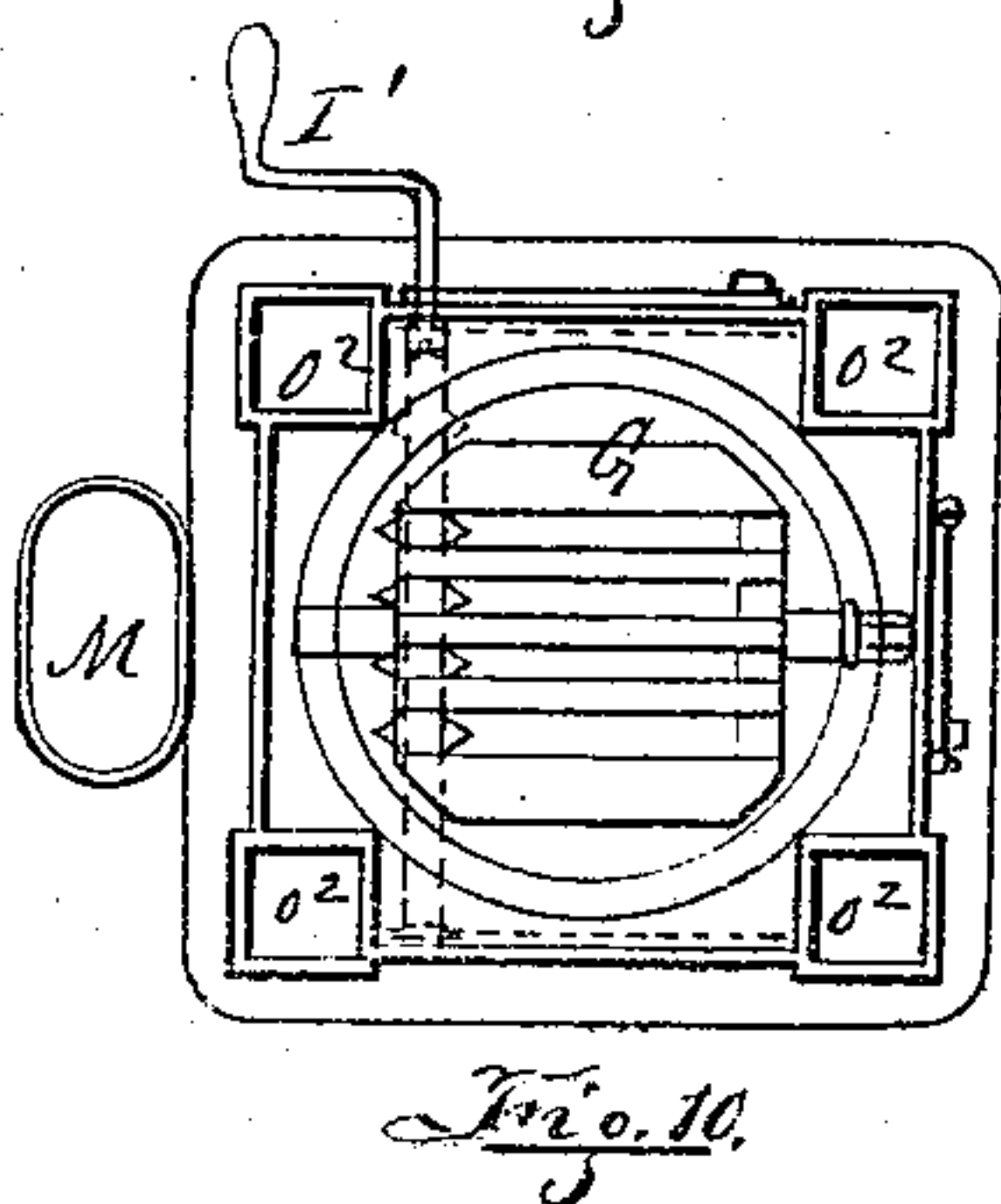
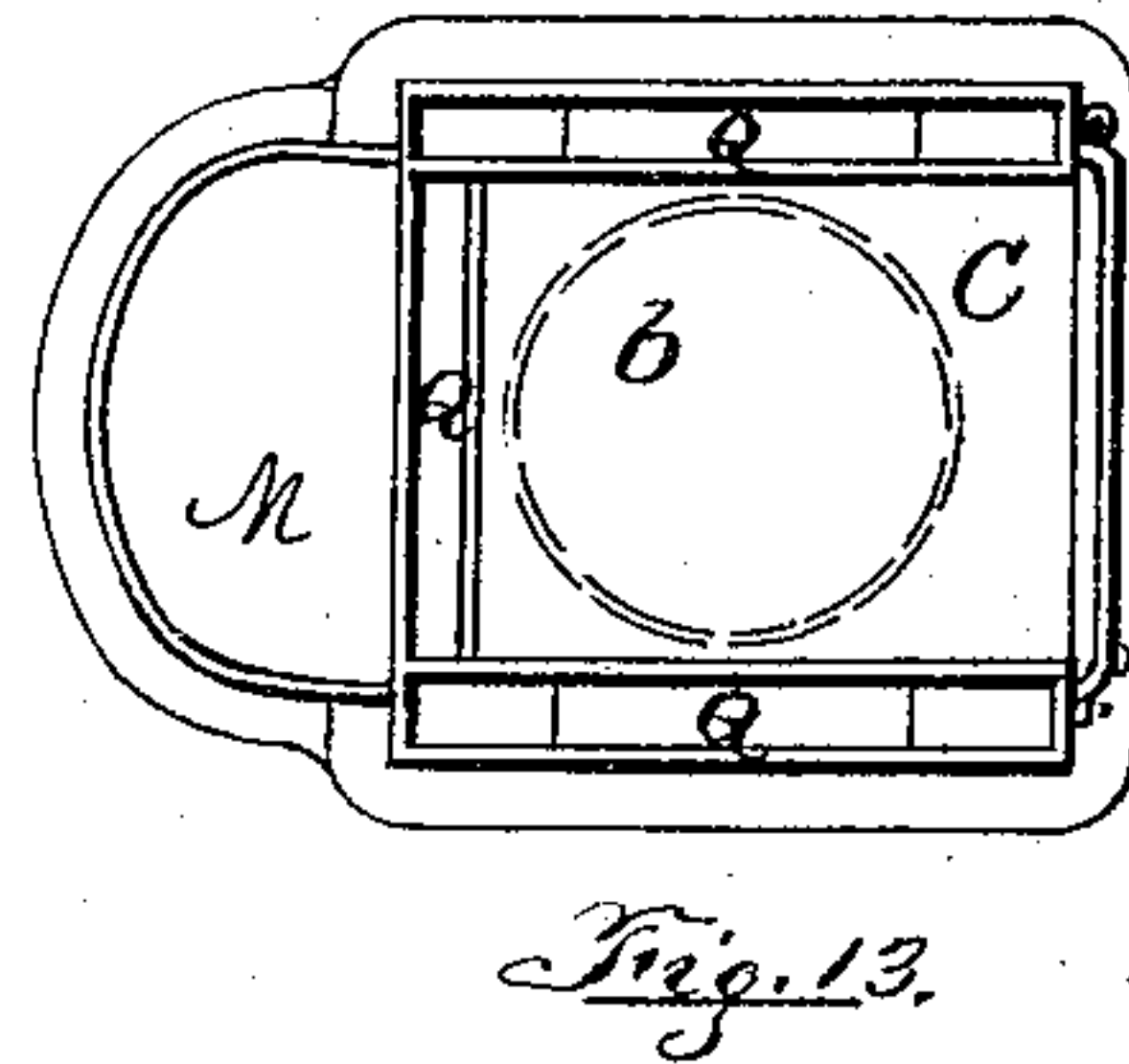
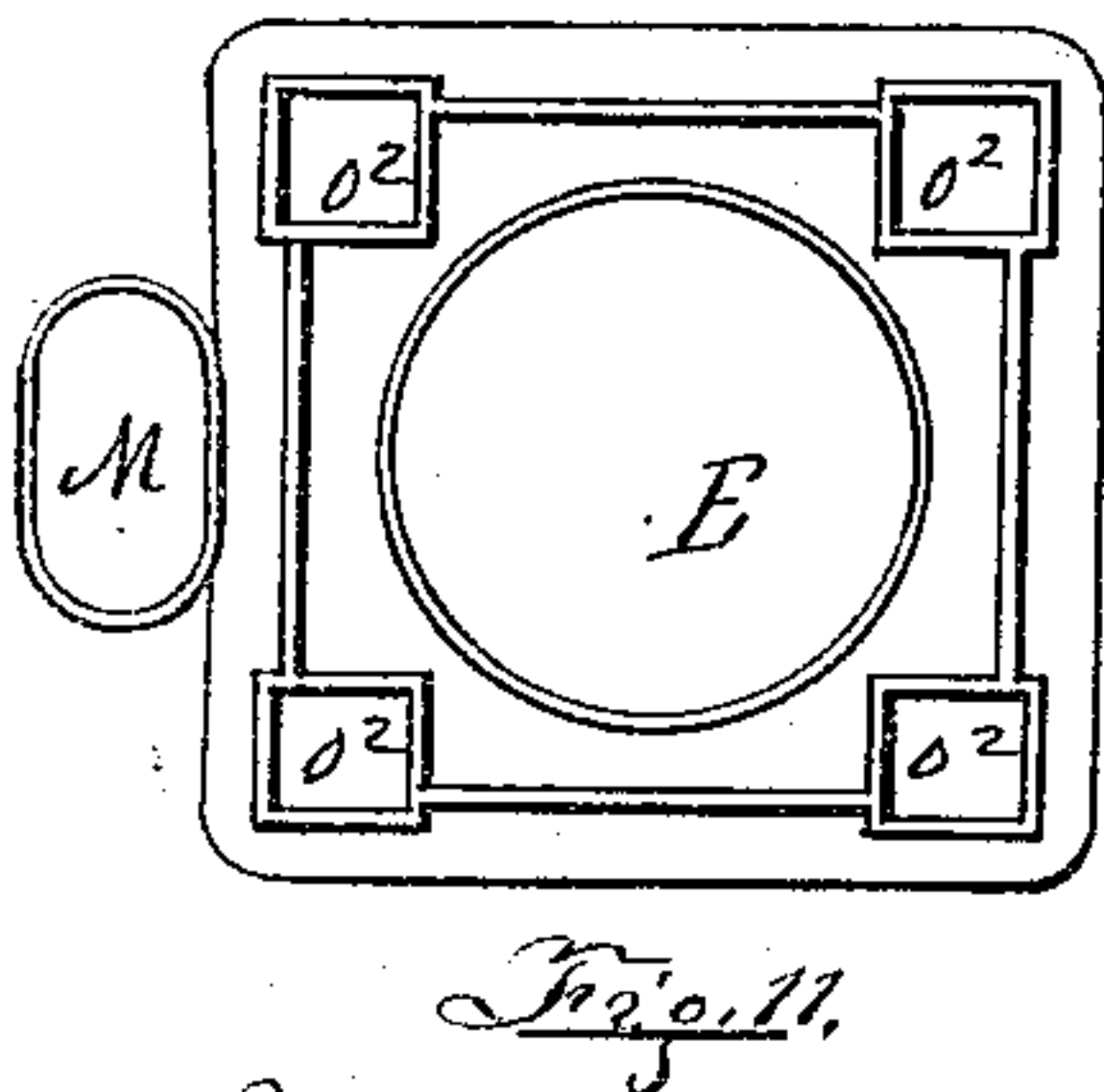
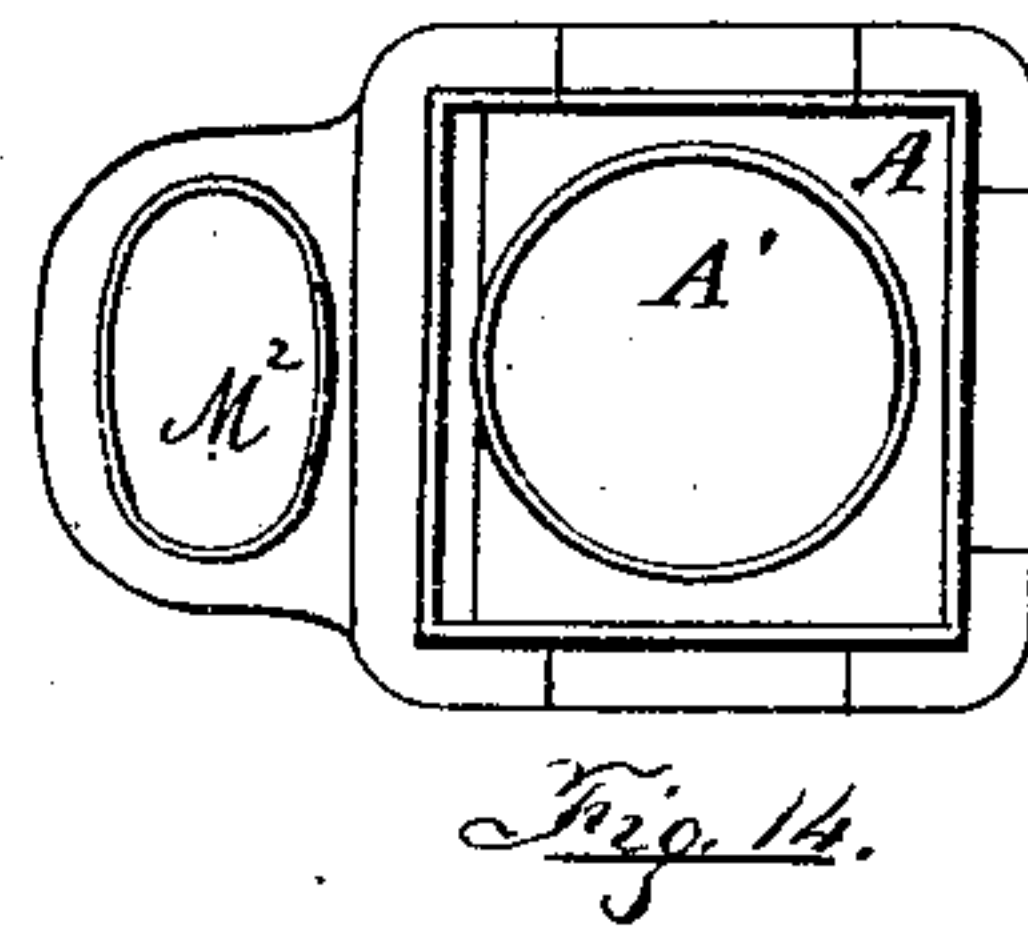
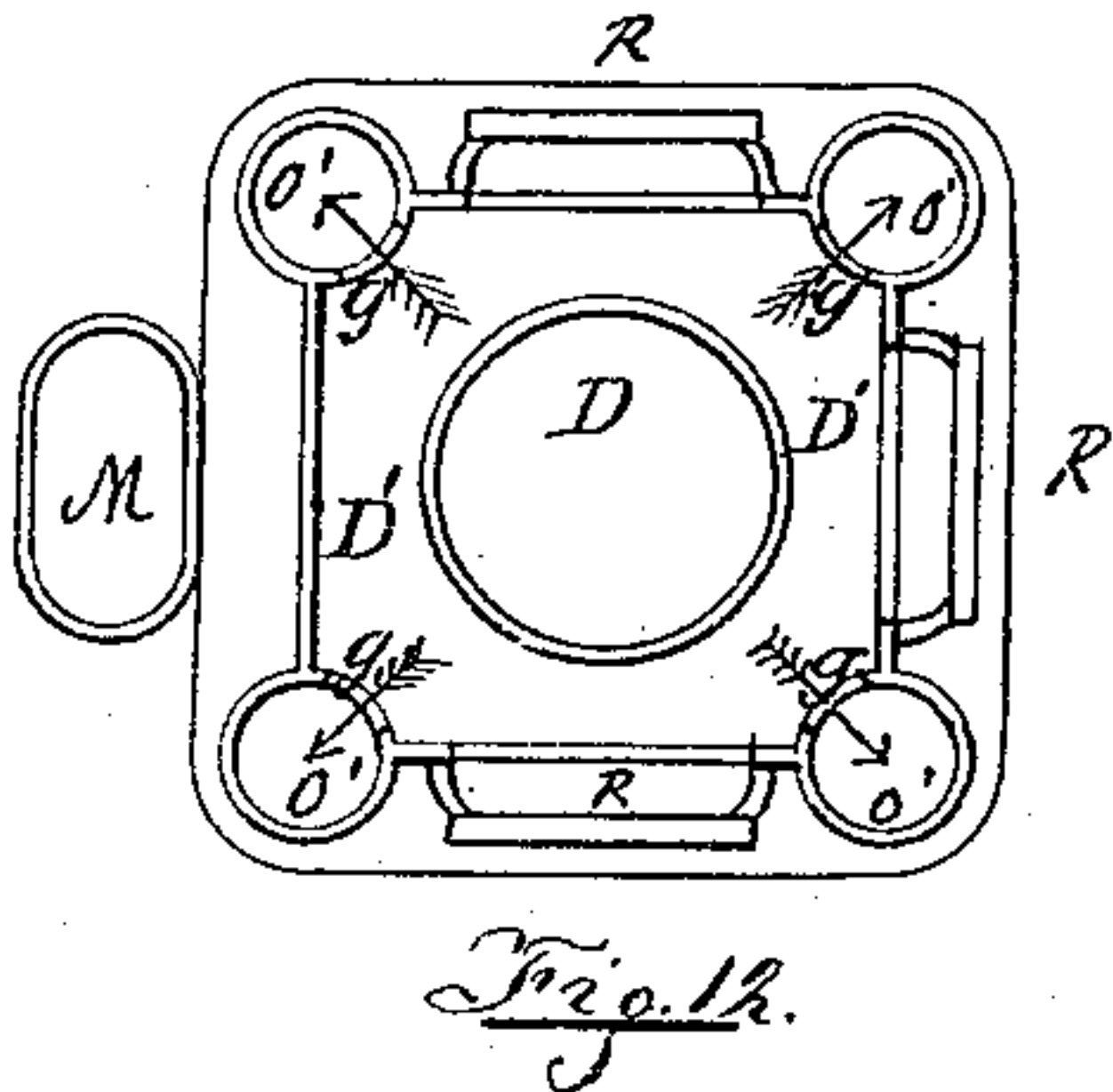
Inventor.

*Daniel E. Paris*

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George H. Gibson  
H. S. Durnall

Inventor.  
Daniel E. Paris



# UNITED STATES PATENT OFFICE.

DANIEL E. PARIS, OF TROY, NEW YORK.

## IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. 153,602, dated July 28, 1874; application filed May 15, 1874.

*To all whom it may concern:*

Be it known that I, DANIEL E. PARIS, of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Heating-Stove, of which the following is a specification:

My invention relates to that class of stoves known as parlor-stoves; and the special features of my invention consist of a combination in which the magazine, the oven, and the surmounting cooking-chamber occupy central positions in the stove, and in which the top chamber has free communication with the oven-flues; also, in combining with the magazine a removable fuel-holding section to form an extension of said magazine when the stove is used as a heater; and in the combination of a rotating traversing rake or cleaner with the fire-pot and the grate, within a space between which the said rake operates, so as to clean and keep free the lower end of the fire-pot and the grate by the horizontal traversing action of the rake at the base of the fire-pot from one side thereof to the other.

In the accompanying drawings, Figure 1 represents a view in perspective of a combined parlor-cook embodying my invention. Fig. 2 is a similar view, showing the oven-door open to expose the fuel-hod, as an extension of the magazine. Fig. 3 is a vertical section of the same. Fig. 4 is a similar section taken through one set of the ascending and descending flues. Fig. 5 represents a similar section of the stove from front to back. Figs. 6 and 7 represent views of the grate and its shaker; Fig. 8, top and side views of the roller for cleaning the grate and lower part of the fire-pot of ashes and clinkers; Fig. 9, a horizontal section above the ash-pan and flues surrounding it at the dotted line *x x* of Fig. 5. Fig. 10 represents a similar section taken above the grate at the line *x x* of Fig. 5. Fig. 11 represents a similar section taken through the fire-pot at the line 1 1 of Fig. 5. Fig. 12 represents a similar section through the magazine at the line 2 2 of Fig. 5; Fig. 13, a similar view through the oven at the line 3 3 of Fig. 5; Fig. 14, a similar section taken through the top chamber at the line 4 4 of Fig. 5; Fig. 15, a view in perspective of the stove, showing the interior when arranged for baking; Fig. 16, a view

in perspective of the removable feeder or hod, which forms the magazine-extension; Fig. 17, a similar view of the same, representing the slide in its bottom; and Fig. 18 represents the slide for the hod.

The configuration of the stove is something similar to a Chinese tower or pagoda—that is to say, tower upon tower, diminishing in area as they approach the top, flanked by hollow continuous bastion-flues, built in with the towers at the four corners—giving a symmetrical contour, well adapted for a combined parlor-cook. The fire-pot *E* is arranged between the magazine *D* and the ash-pan *F*, and the latter is surrounded on three sides by a base-flue, Fig. 9, which communicates with the exit-flue *M* at the rear, and four corner flues, *O*<sup>2</sup>, surrounding the fire-pot. The fire-pot opens into a space, *D'*, which surrounds the magazine, and the inner sides of the four corner flues *o'*, Fig. 12, have openings *F* into the fire-pot chamber, and form descending flues therefrom, as shown in Figs. 4 and 12. The fire-pot and magazine have such relation to each other as to leave a space, *e*, between them, so that both open into the surrounding space *D'*, and from which ascending flues *Q* start by openings *a*, Fig. 4, at the top of the magazine, and which ascending flues surround the three sides of an oven, *C*, located above the magazine. The flues *Q* from the oven enter a top chamber, *A*, Fig. 3, at the four sides, and there form a junction with the exit-pipe *M*, as shown in Fig. 5. This top chamber has an opening fitted with a swinging cover, *B*, and the top of the oven forms the bottom of the said top chamber. Closed vessels *A*<sup>1</sup> may be put within this chamber *A*, and the cover *B* turned on, as in Fig. 3, or vessels *A*<sup>2</sup> may be suspended within said chamber by a collar-flange, as in Fig. 15. By this arrangement an open chamber is provided above the oven, heated directly by the ascending flues. The junction of the exit-flues *M* and the top chamber *A* is provided with a damper, *T*, Fig. 5, by which to close such communication when desired, to turn the heat down under the fire-pot when the stove is to be used as a heater, and opened when the oven is to be used.

The top of the magazine *D* opens into the oven *C*, and a cover, *b*, Fig. 13, closes this



opening, to cut off the communication with the magazine when using the oven for cooking, as in Fig. 15, with a short magazine.

As a heater, it is desirable to have a long magazine, and for this purpose the magazine is made to open into the oven to receive a removable feeder, C<sup>1</sup>, which forms a section or continuation of the magazine when in place, as in Figs. 3 and 5. This removable feeder is provided with a removable slide, C<sup>2</sup>, at the bottom, fitted into ways so that it can be drawn out to let the coal out into the magazine.

The feeder serves, in effect, as a coal-hod, adapted to form the upper section of the magazine within the oven-space, while its removal and occupying its place with the cover *b* leaves the oven intact for cooking. Each section or tower of the stove is heated uniformly, and the fire-pot chamber is provided with mica windows, by which to illuminate the room and control the draft of the stove. There is a space, *c*, between the lower edge of the fire-pot E and the grate G, and within this space *c* the ashes and clinkers collect. To clear the grate of these, and to keep the lower end of the fire-pot free, I combine therewith a cleaning-roller, H, Figs. 3, 5, and 8, provided with a series of collars, *i*, which fit between the grate-bars, and arranged to traverse the grate in contact, or nearly so, with the bottom of the fire-pot, and, raking the fire between the two, cut through the clinkers, and force them with the ashes through the grate. The collars *i* may form circular cutters or raking-points, as shown in Fig. 5. The raking movement of the armed roller H is effected by cog-pinions *k*, Fig. 8, on the ends of the roller, matching with cogged racks L on each side of the grate, and fixed in any suitable way on the sides of the stove. For this purpose the end I<sup>2</sup> of the roller projects through an opening in the side of the stove to receive a crank, I, the turning of which carries the roller H back and forth in a manner to rake the fire not only upon the grate, but within the fire-pot, and cut and pulverize the clinkers upon the grate, so that they fall through the openings thereof. The grate may be mounted upon pivots in any suitable manner that will allow it to have a rocking movement without interfering with the action of the raking-roller; and for this purpose one of the journals of the grate projects through an opening in the side of the stove at right angles to that of the traversing armed roller.

The arms *i* of the roller, fitting in between the bars of the grate, hold the former in place, so that it can be driven back and forth through the incandescent coals and cinders at the lower end of the fire-box, and free it and the grate more thoroughly than could be effected by the shaking of the grate alone. The spaces between the bars continue to the edge of the rear side of the grate, as shown in Fig. 6, to allow the roller to pass off the grate, so that the latter may be rocked and dumped when required.

I claim as my invention—

1. The combination in a stove of a magazine and an oven with the cooking-chamber at the top, the latter having free communication with the corner and oven flues, and located centrally with the magazine and oven, substantially as described.

2. The combination of the oven-flues, opening directly into the fire-pot chamber, with the open corner flues *o' g*, communicating with the oven and the base-flues, substantially as described.

3. In combination with the magazine proper, depending from the bottom of the oven or chamber C, the removable fuel-holding extension, provided with a detachable bottom, substantially as and for the purpose set forth.

4. The combination of the raking-roller H with the fire-pot and the grate, whereby the bed of cinders and ashes may be raked to clean and free both the fire-pot and the grate.

5. The combination, with an open space, *c*, between the fire-pot and the grate, of an armed roller arranged to be thrust back and forth in said space from one side of the fire-pot and grate to the other, substantially as described, for the purpose specified.

6. The combination of a raking-roller, having the relation described with the fire-pot and grate, with the cog-pinion *k* and the racks L in the sides of the stove, whereby the said roller is held in place between the fire-pot and grate, and caused to revolve with its projections within the fire-pot and the grate-openings, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of April, 1874.

DANL. E. PARIS.

Witnesses:

JAMES L. NORRIS,  
ALBERT H. NORRIS.