

(No Model.)

2 Sheets—Sheet 1.

V. D. URSO.
HEATING DRUM.

No. 383,381.

Patented May 22, 1888.

Fig. 1.

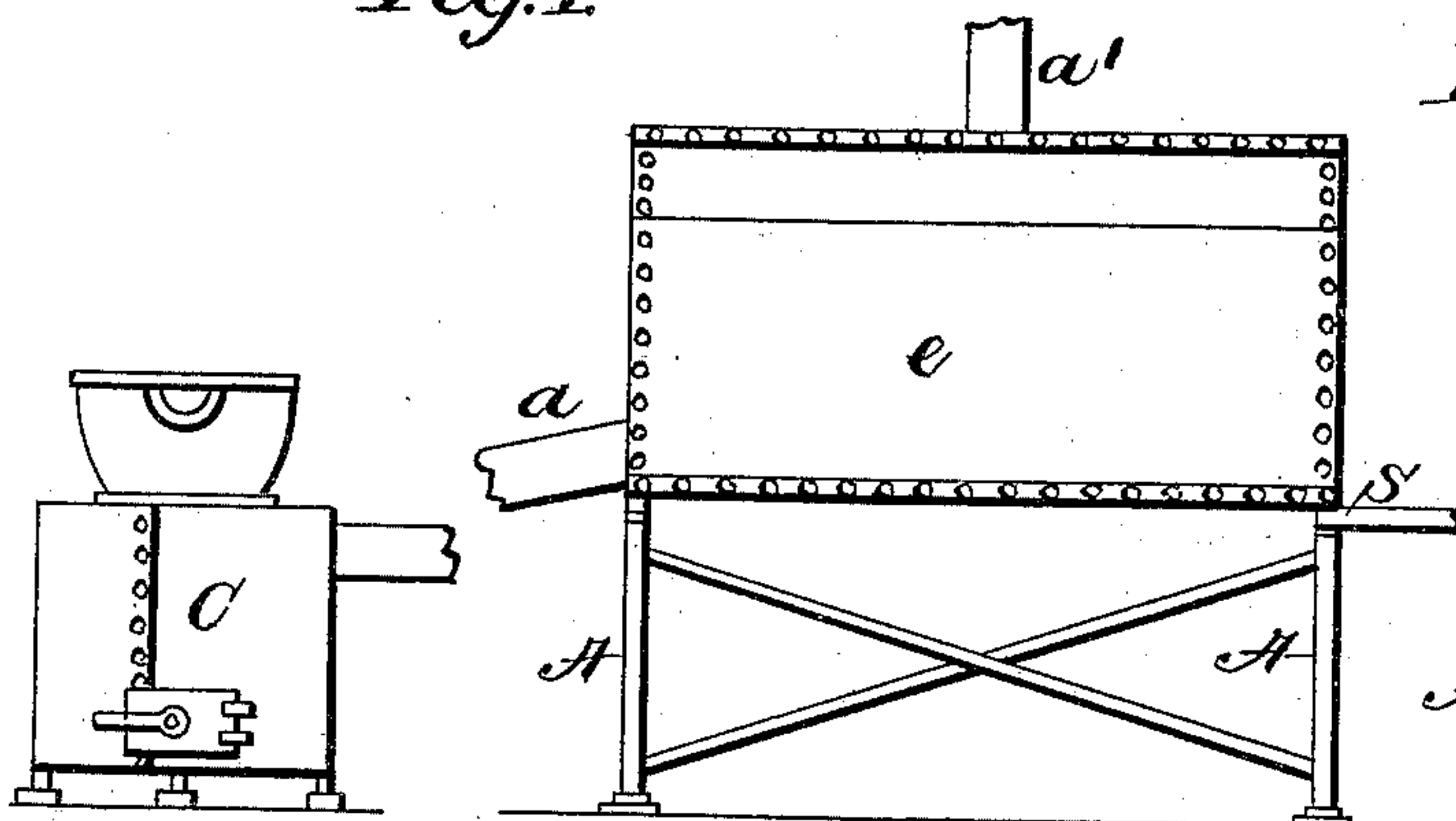


Fig. 2.

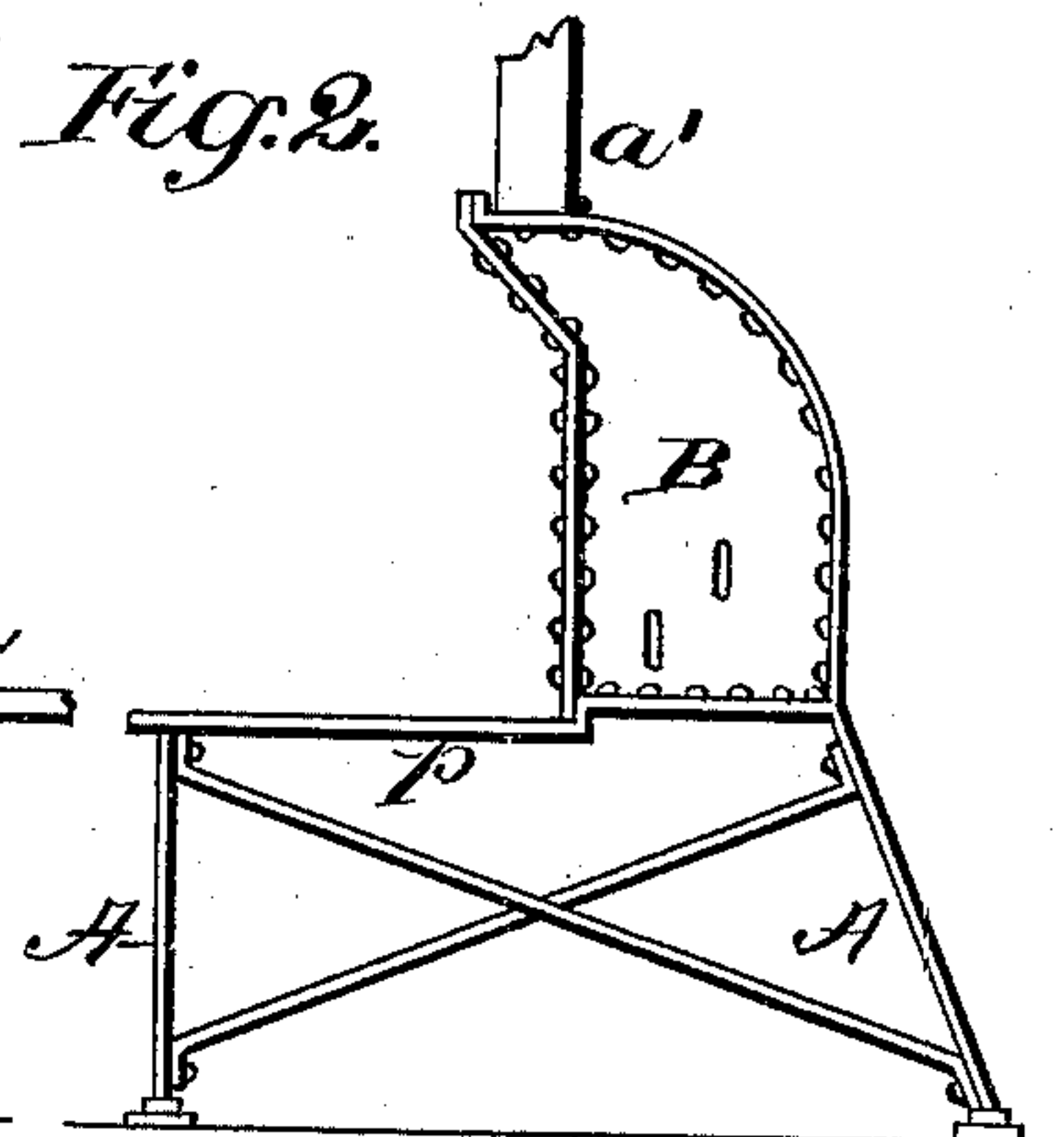


Fig. 3.

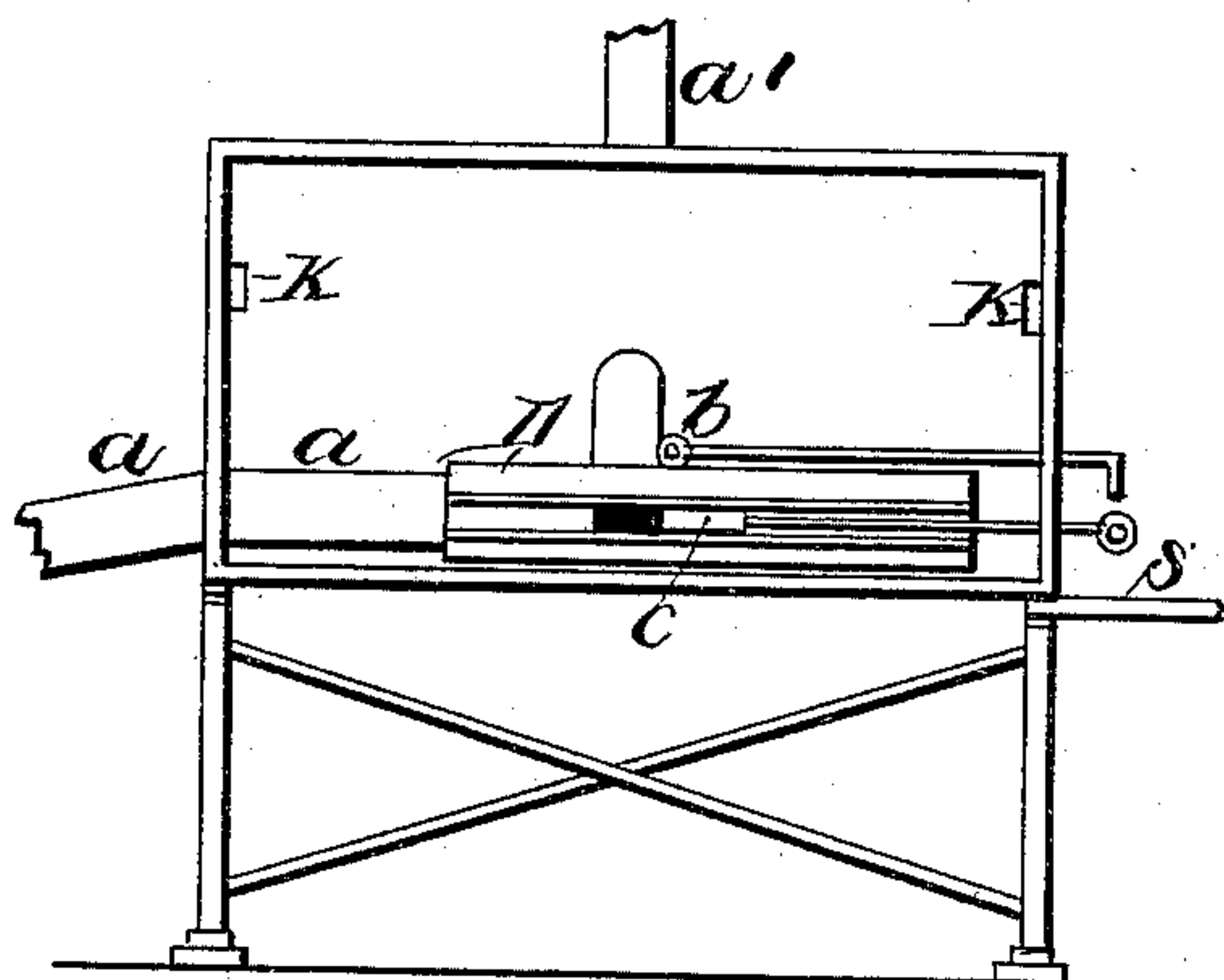


Fig. 4.

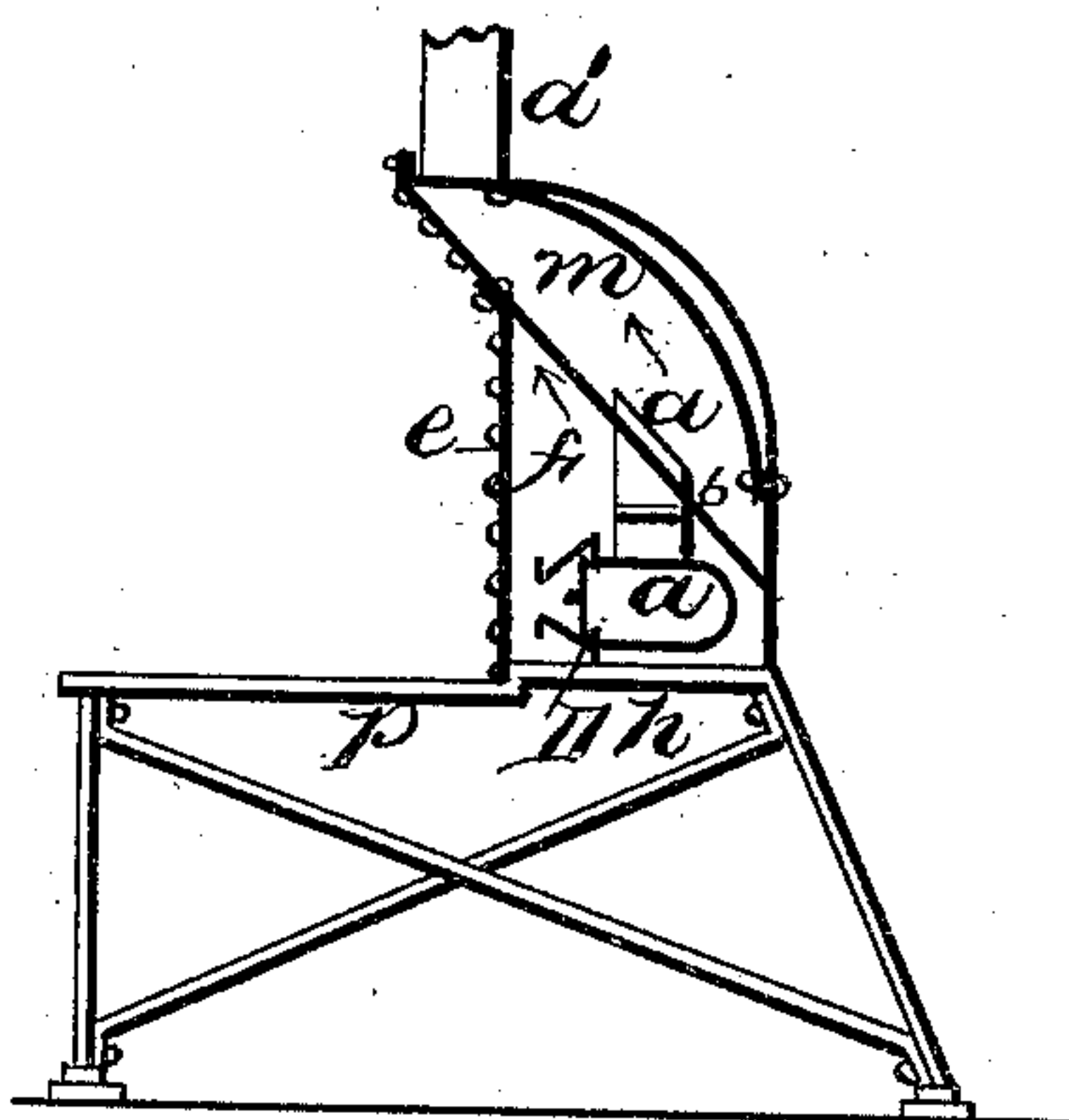


Fig. 5.

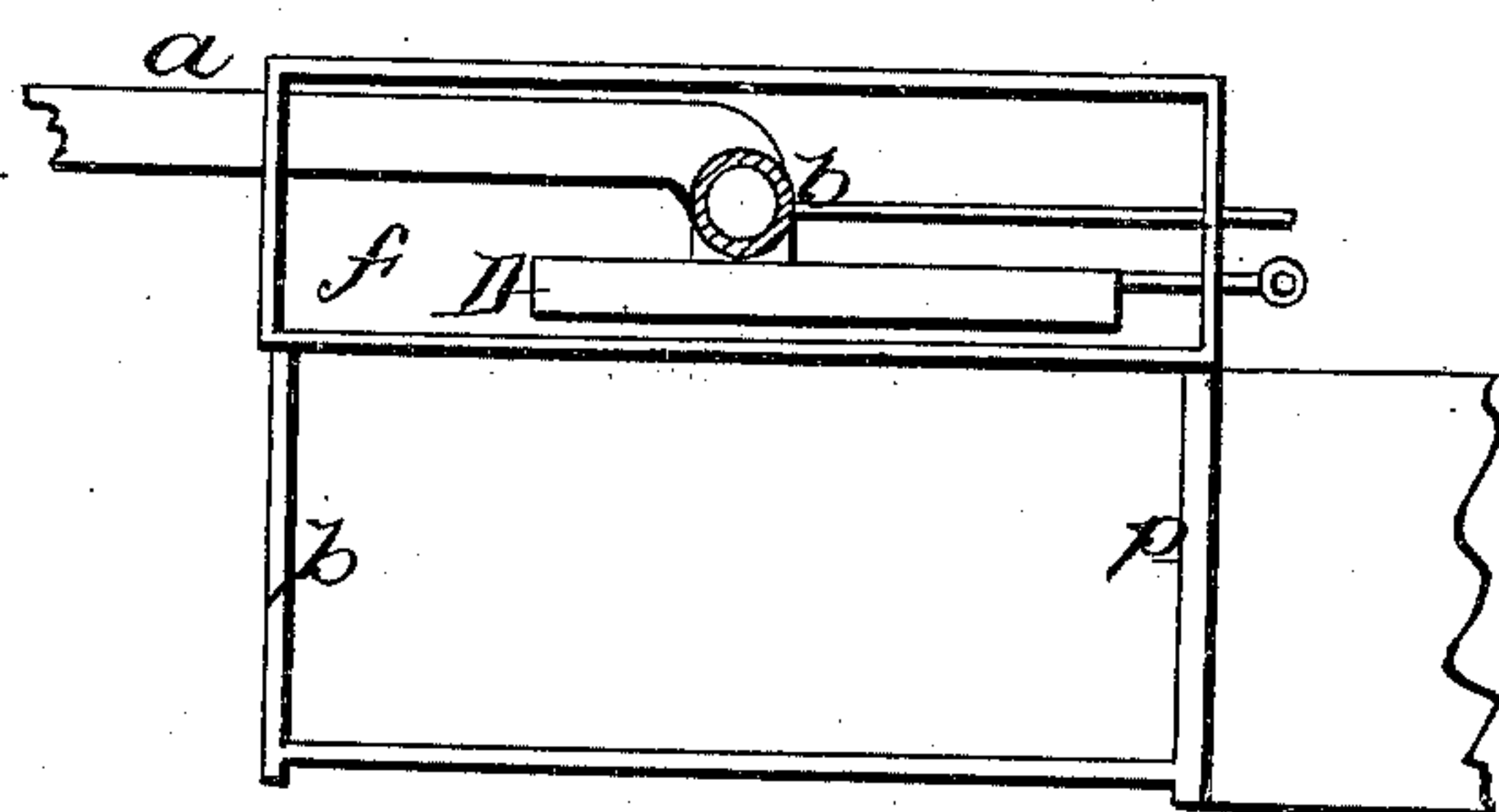
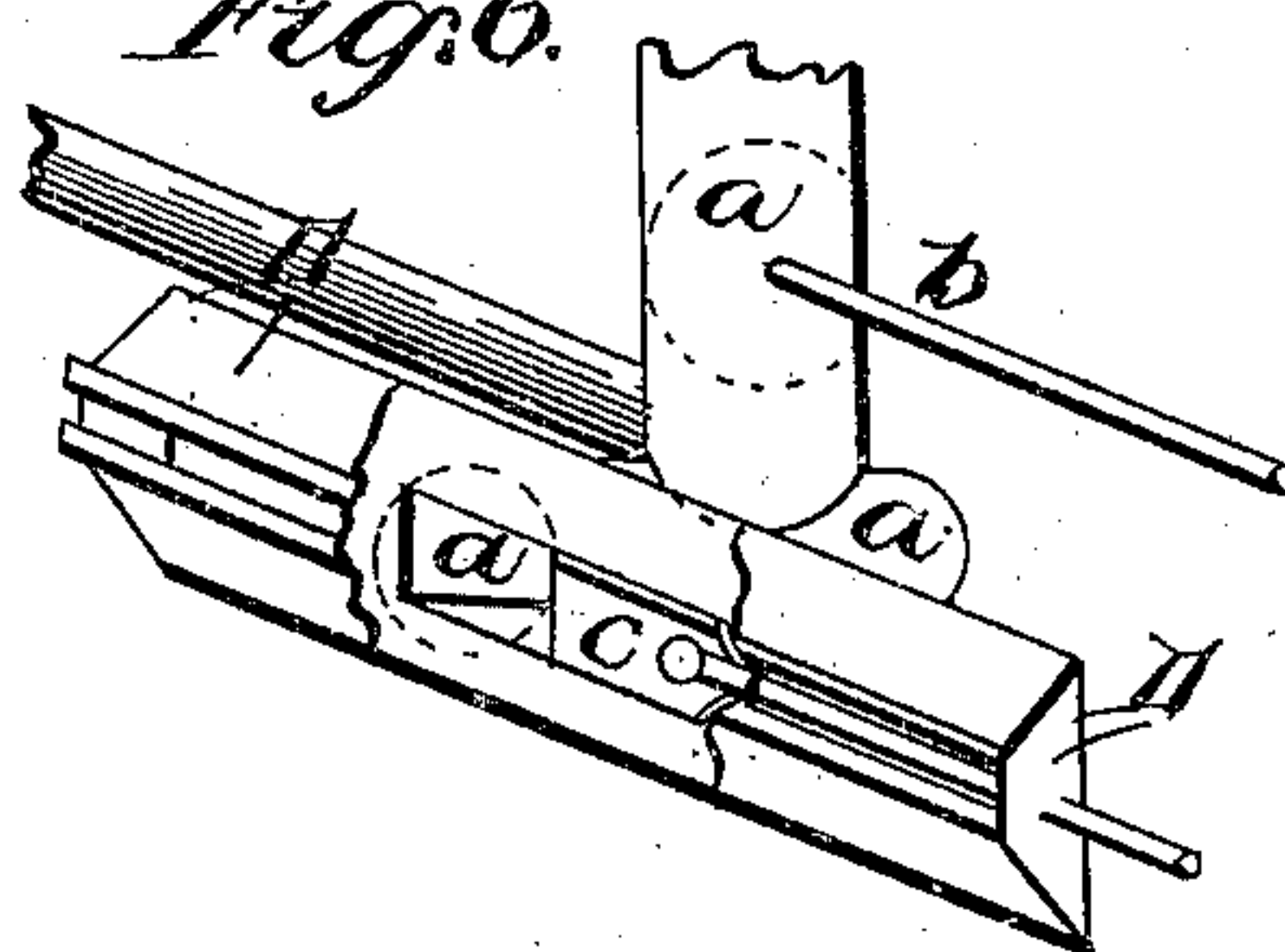


Fig. 6.



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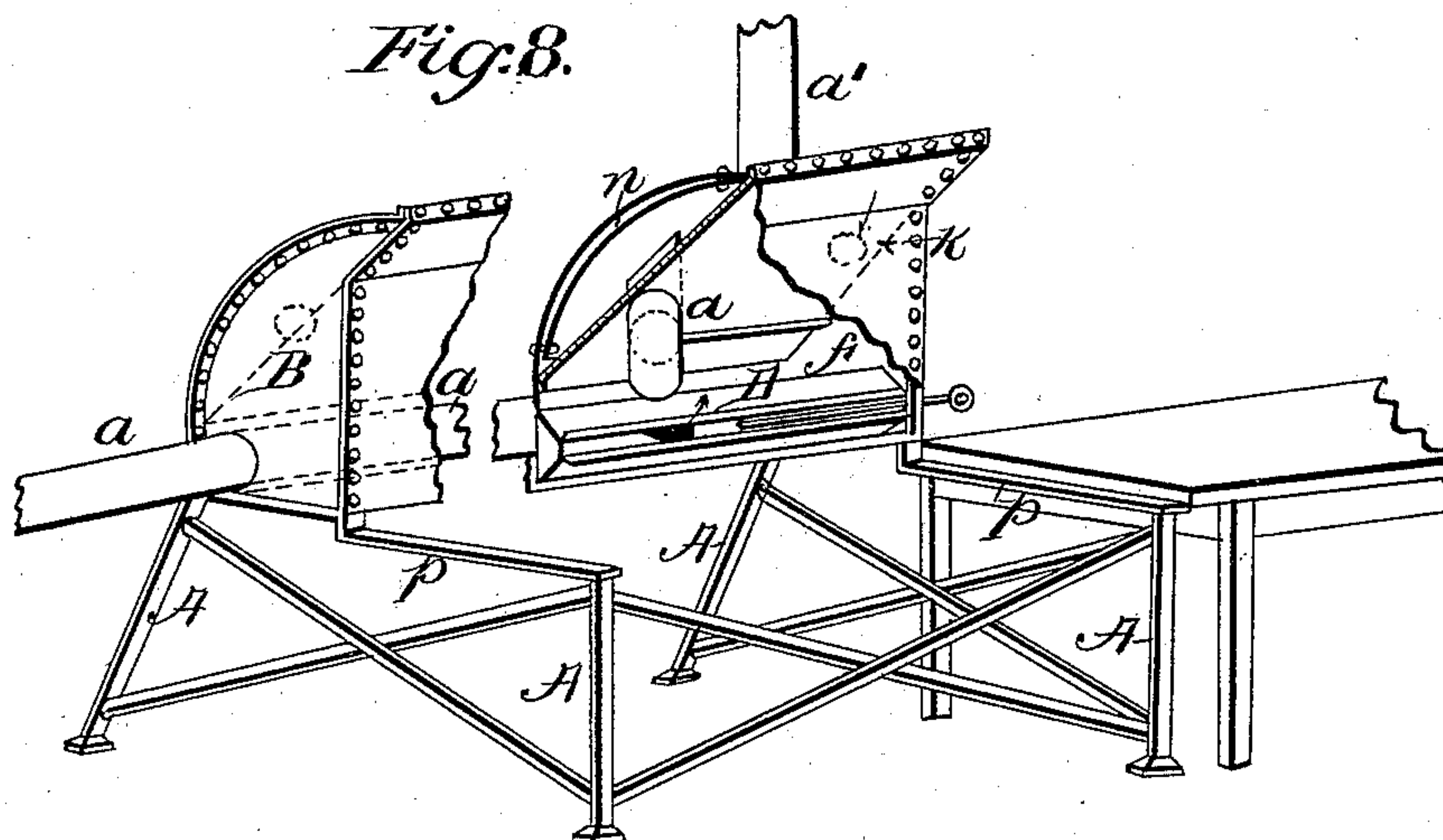
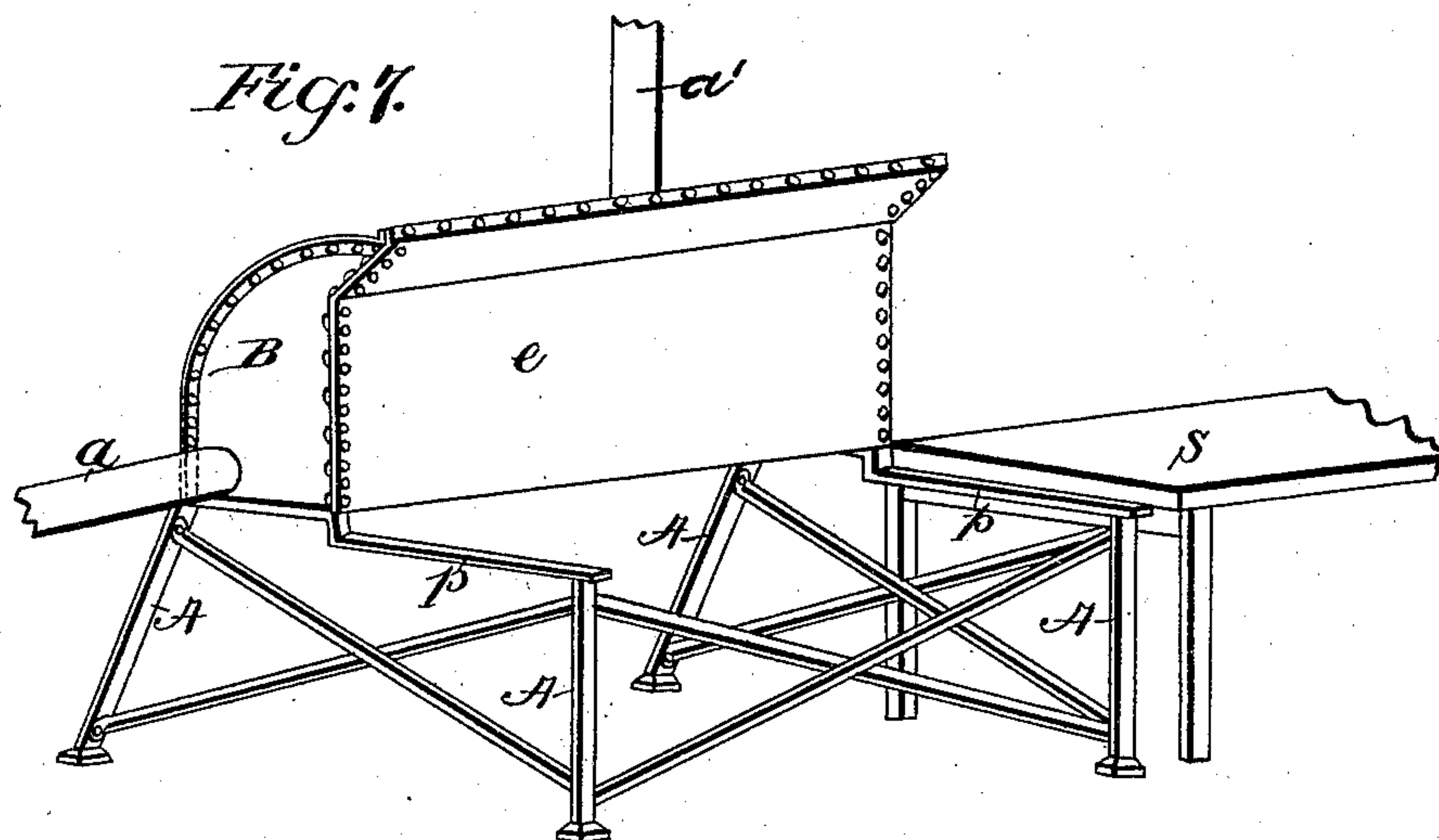
(No Model.)

2 Sheets—Sheet 2.

V. D. URSO.
HEATING DRUM.

No. 383,381.

Patented May 22. 1888.



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UNITED STATES PATENT OFFICE.

VINCENT D. URSO, OF EVANSVILLE, INDIANA.

HEATING-DRUM.

SPECIFICATION forming part of Letters Patent No. 383,381, dated May 22, 1888.

Application filed March 17, 1887. Serial No. 231,330. (No model.)

To all whom it may concern:

Be it known that I, VINCENT D. URSO, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Heating-Drums for Spinning Candy; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to a heater which utilizes the heat of the products of combustion, and in which these products of combustion are obtained by connecting the heater with the ordinary escape-flue of a furnace, stove, or other suitable source of heat, by means of which I intercept the products of combustion on their passage from the fire and detain them long enough to give the desired heat without in any manner interfering with the draft, and it is especially adapted for use in spinning candy.

In the accompanying drawings, in which corresponding parts are designated by similar letters, Figure 1 represents a front elevation of the heater, together with the furnace. Fig. 2 represents an end elevation. Fig. 3 is a front view with the front of the drum broken away to show the interior thereof. Fig. 4 is an end view with the end of the drum broken away to show the interior thereof. Fig. 5 is a plan view with the top of the drum broken away just above the damper *b*. Fig. 6 represents a part of the pipe *a* with the dampers *b* and *c* and hot-air distributor *D* removed from the lower chamber, *f*. Fig. 7 represents a perspective view of the heater, and Fig. 8 represents a perspective view of the heater with a part of the front of the drum broken away to show the interior thereof.

A represents the legs and necessary framework for the support of a drum, *B*, which incloses a V-shaped distributor, *D*, the said distributor being connected with the escape-flue *a*, which connection is adapted to be broken by the damper *c*. The distributor has also a slotted opening extending the entire length of the apex thereof, thus causing the products of

combustion to strike the entire length of the heating-plate *e*, which stands immediately in front of it, and which forms the face of the drum *B*. A plate having perforations *K K* divides the interior of the drum into two chambers—the upper chamber, *m*, and the lower chamber, *f*. The pipe *a* is continued through the plate and terminates within the upper chamber, while an exit-pipe, *a'*, starts from the top of the said chamber and carries the products of combustion to the chimney or discharges them into the atmosphere, as may be desired. The pipe *a* is provided at a suitable point with a damper, *b*, by means of which the flow of the products of combustion into the upper chamber through the pipe *a* may be prevented without interfering with the flow of the products of combustion through the distributor *D*.

The back and top of the upper chamber, *m*, are preferably provided with a heavy metallic plate, *n*, to prevent the rapid destruction of these parts by means of the heated products of combustion, which would otherwise strike upon them after passing through the perforations *K K* and pipe *a*.

By means of this invention the temperature may be easily and readily regulated by causing a greater or less portion of the products of combustion to strike against the plate *e*, thus heating it to a greater or less degree and causing the radiation therefrom to correspondingly vary.

This invention is especially adapted to be used in the manufacture of candy. In order to "spin" candy, the mass or "batch" must be kept at a certain temperature. This has been done heretofore by placing the mass on a "spinning-board" and laying the board before an open-grate fire. This open fire gives off ashes, sparks, &c., besides acting chemically upon the soft mass, charring the board and exposing it as well as the whole building to fire.

In case my invention is to be used in place of the open-grate fire I attach to the frame *A* a working-table, *S*, and arms *p*, adapted to receive and hold the spinning-board in front of the plate *e*.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a heater, the combination of a slotted

V-shaped distributor, an escape-flue of a furnace in connection therewith, a damper adapted to break the said connection, a lower chamber inclosing the said parts, and an upper chamber separated therefrom by a perforated plate and connected with the said escape-flue, substantially as and for the purpose described.

2. In a heater, the combination of a slotted V-shaped distributor, an escape-flue of a furnace in connection therewith, a damper adapted to break the said connection, a lower chamber inclosing the said parts, an upper chamber separated therefrom by a perforated plate and connected with the said escape-flue, and a damper, *b*, adapted to close the said flue, substantially as and for the purpose described.

3. In a heater, the combination of a slotted

V-shaped distributor, an escape-flue of a furnace in connection therewith, a damper adapted to break the said connection, the said damper and distributor contained in a lower chamber, an upper chamber separated therefrom by a perforated plate and connected with the said escape-flue, and a heating-plate in front of the said distributor, forming a part of the casing or drum inclosing the said parts, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

VINCENT D. URSO.

Witnesses:

P. D. WILLIAMSON,
CONRAD ENLES.