

No. 670,740.

Patented Mar. 26, 1901.

F. L. SHEPPARD
GAS ATTACHMENT FOR RANGES.

(Application filed Nov. 25, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

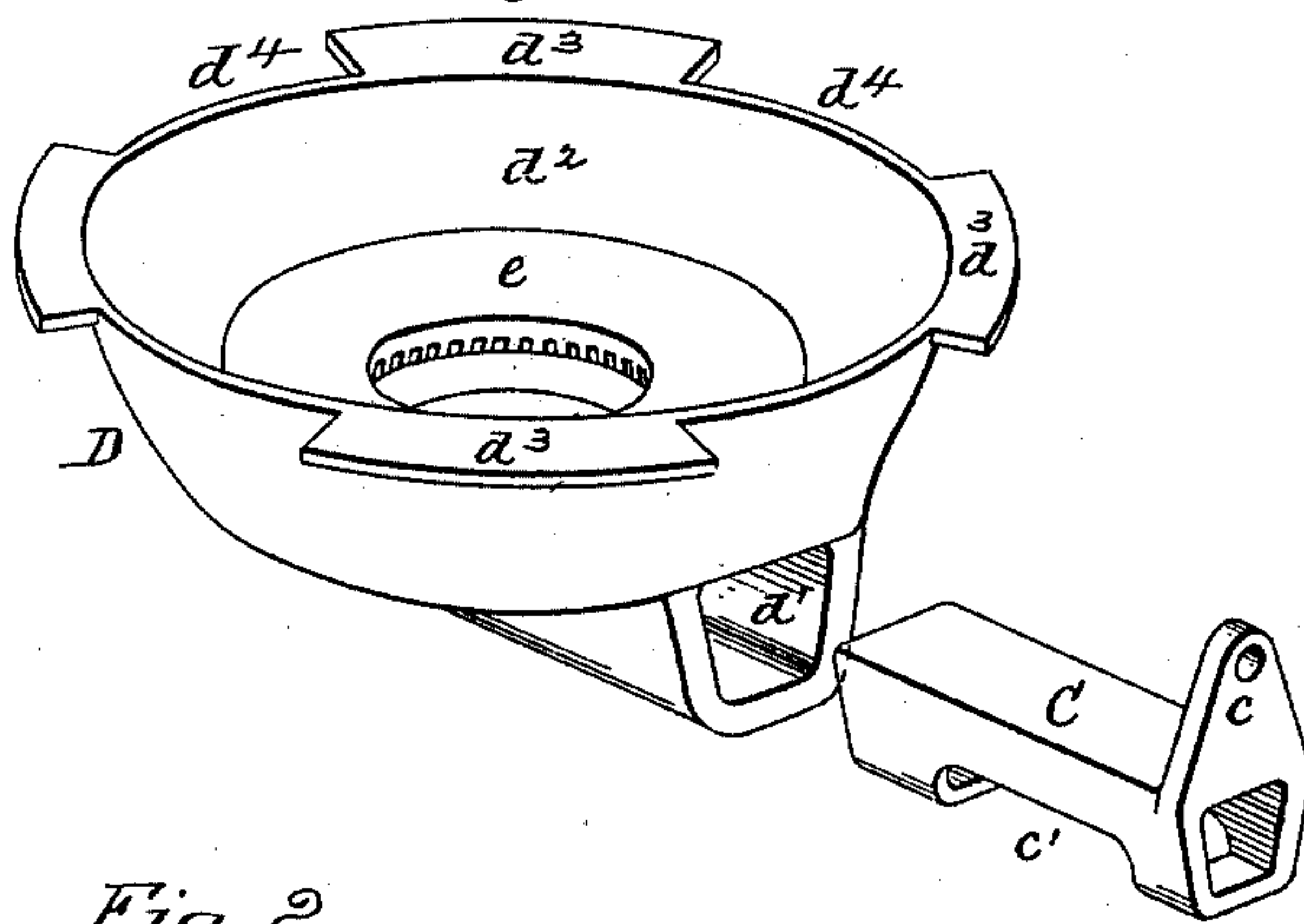


Fig. 2.

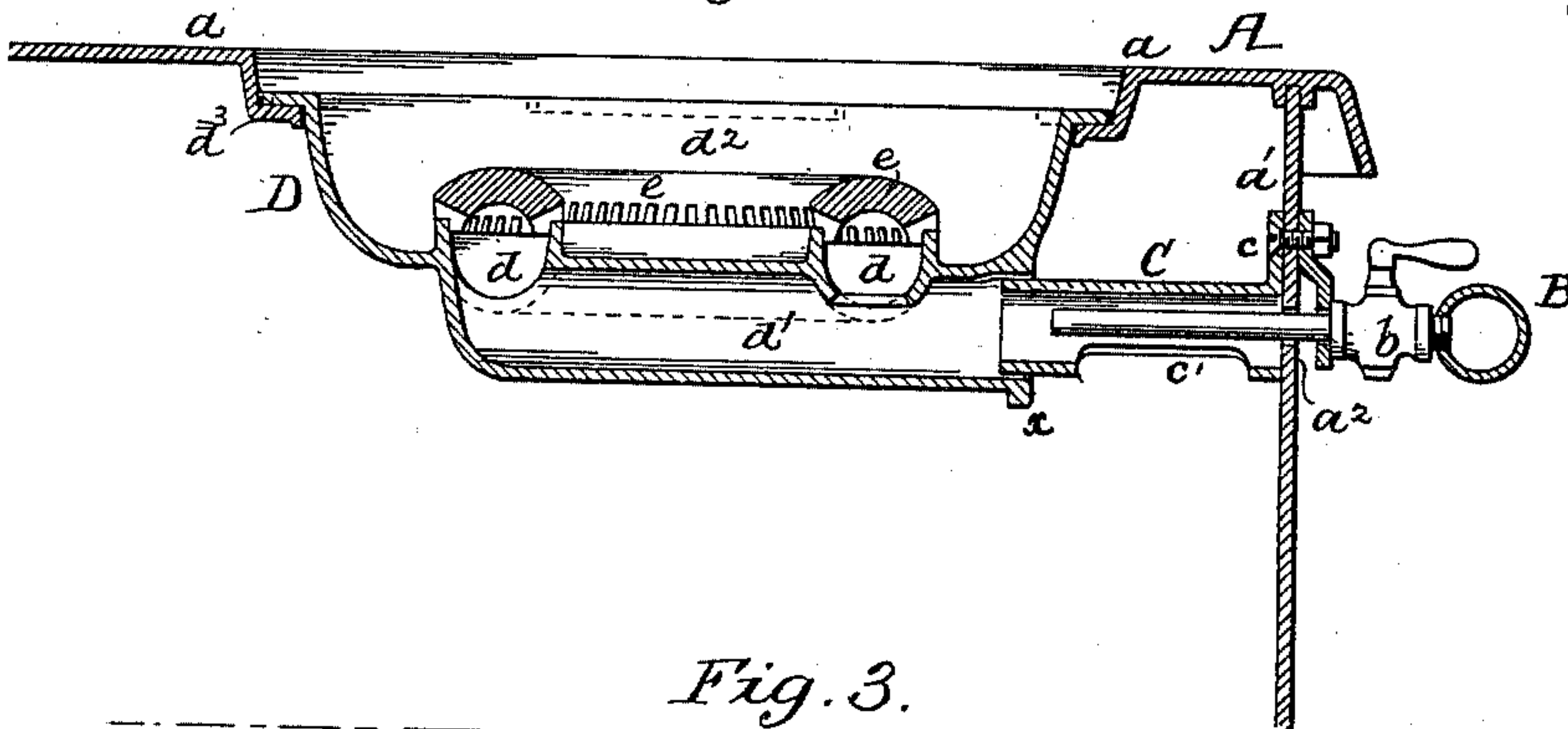
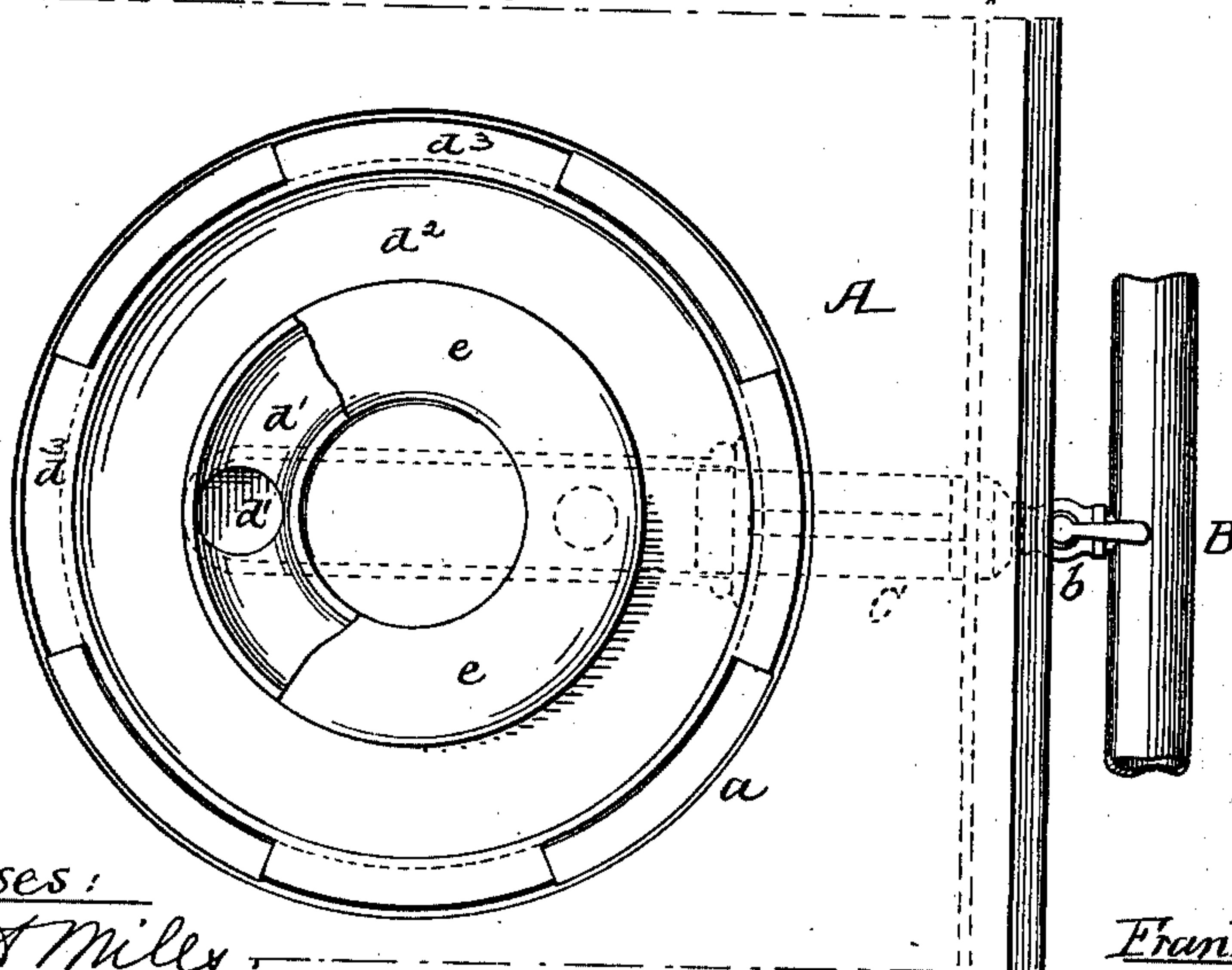


Fig. 3.



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2 Sheets—Sheet 2.

Fig. 4.

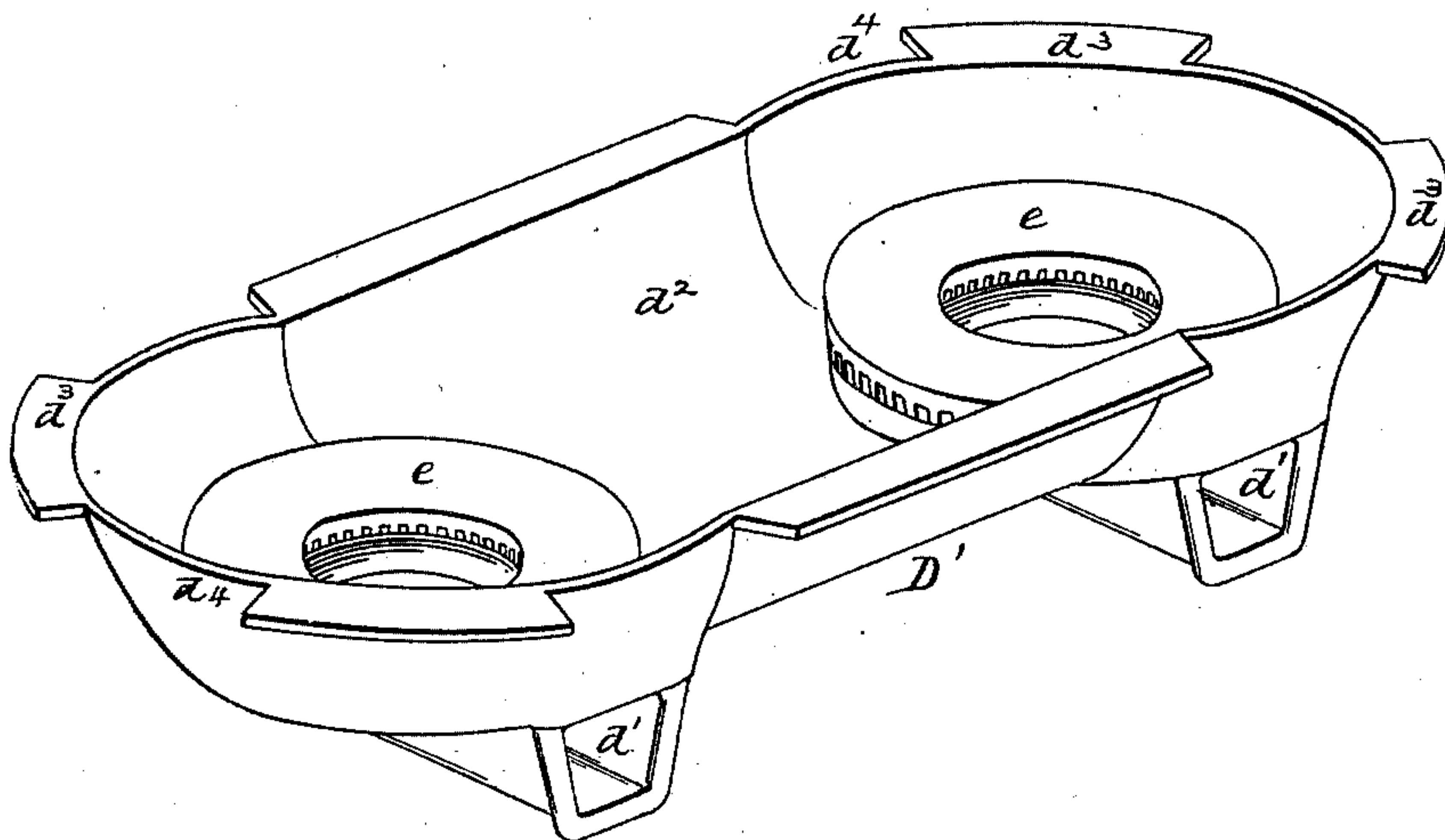


Fig. 6.

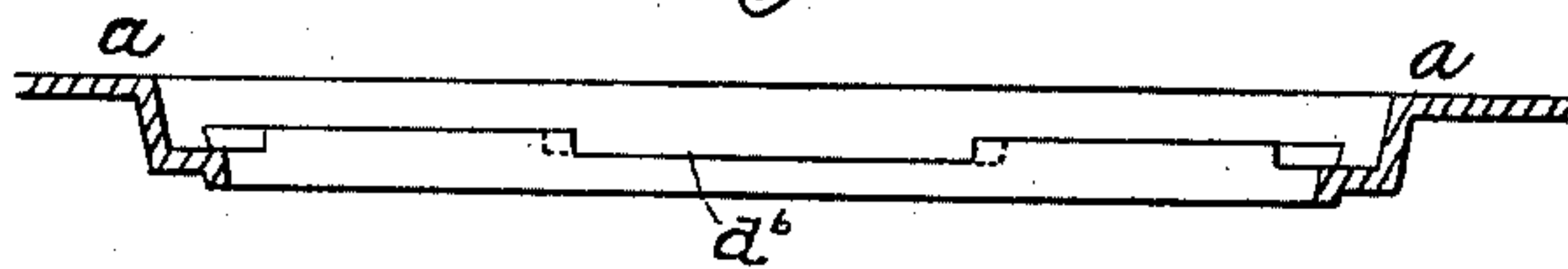
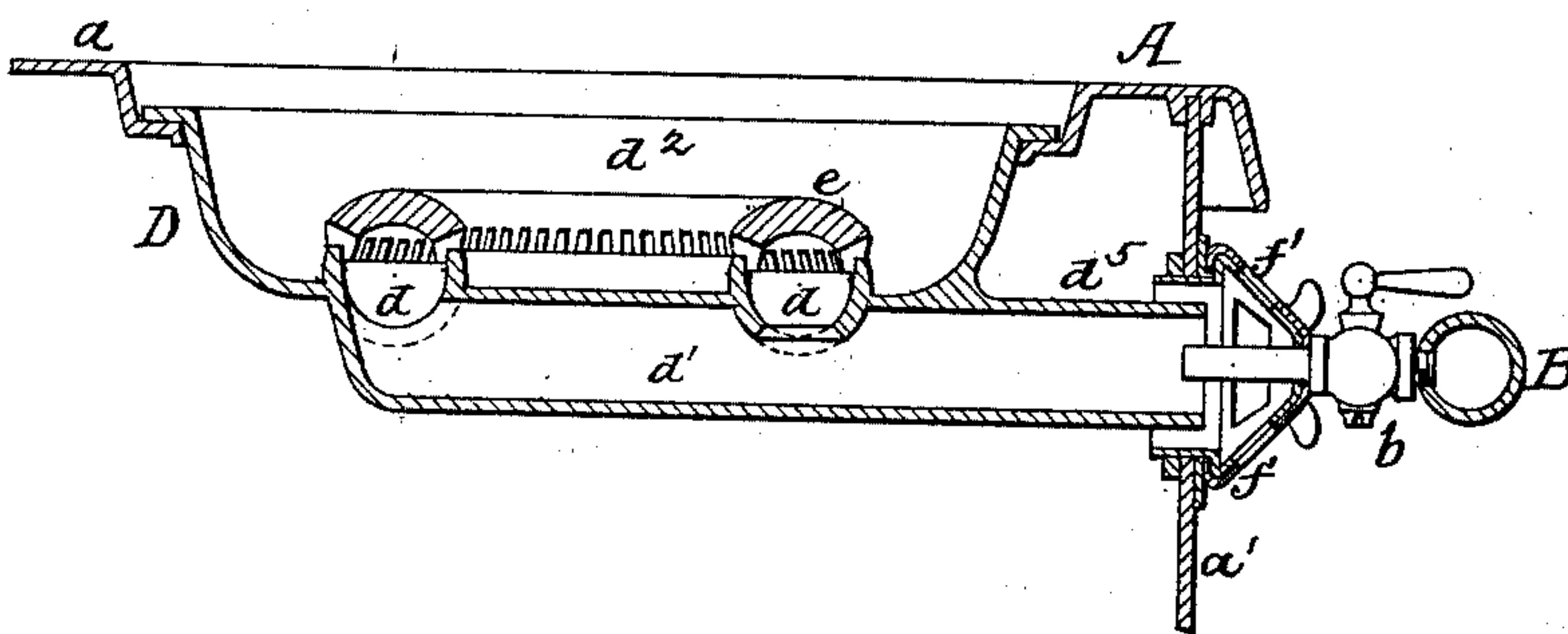


Fig. 5.



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UNITED STATES PATENT OFFICE.

FRANKLIN L. SHEPPARD, OF PHILADELPHIA, PENNSYLVANIA.

GAS ATTACHMENT FOR RANGES.

SPECIFICATION forming part of Letters Patent No. 670,740, dated March 26, 1901.

Application filed November 25, 1898. Serial No. 697,419. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN L. SHEPPARD, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Gas Attachments for Ranges, of which the following is a specification.

My invention relates to certain improvements in gas-burning attachments for cooking-stoves.

The object of my invention is to construct the attachment in such a manner that the draft of the ordinary cooking-stove will not affect the burning of the gas attachment; and a further object is to make the device detachable, so that the gas-heater can be entirely removed.

In the accompanying drawings, Figure 1 is a perspective view of my improved gas attachment for cooking-stoves. Fig. 2 is a sectional view showing a portion of the stove with the gas attachment in position. Fig. 3 is a plan view, partly in section, of Fig. 2. Fig. 4 is a perspective view showing a double attachment with two burners. Fig. 5 is a view of a modification; and Fig. 6 is a sectional view of the top plate of the stove, illustrating one of the details of my invention.

A is the body of the stove, having the top plate a and a side plate a' .

B is the main gas-supply pipe, mounted on one side of the range or stove, and this pipe has a valved extension b , which passes through an opening a^2 in the side plate a' .

Adapted to one of the holes in the top plate a is a cup-shaped frame D, having a circular groove d therein, and above this groove is a detachable cover-ring e , notched in the present instance at each side, so as to form gas-passages for the escape of gas. The grooved portion d and the cap-ring e form the annular gas-passage. This passage is connected to the mixing-passage d' , which terminates at x , Fig. 2. The end of the passage d' is of such a size that it will extend around the end of the tube C, attached at c to the side plate a' of the range. An air-inlet opening c' in the tube allows air to enter the tube and become thoroughly mixed with the gas in the passage d' . The frame D is dished to such an extent that the gas-ring will be a sufficient distance

below the top of the range that a vessel placed on the range will be properly heated.

It will be noticed that the walls of the frame D are solid and form a partition, so that the heating-chamber d^2 does not communicate with the interior of the range, consequently the ordinary draft of the flue will not affect in any way the flame of the gas-burner.

It will be seen that the frame D can be readily removed from the range by simply lifting it out, the construction being such that it can be readily detached from the tube C as it is removed.

I preferably notch the flange d^3 of the frame at d^4 and form recesses d^6 in the inner depending rim of the top plate to receive the flange-sections d^3 , so that the ordinary covers may be placed over the openings in the top plate of the stove without interfering with the apparatus, although it will be understood that a plain flange may be used on the frame D, as shown in Fig. 5, by lowering the inner depending rim of the top plate.

In Fig. 5 I have shown a modification in which the air to be mixed with the gas is taken principally from the outside of the range instead of the inside, as shown in Fig. 2. The tube d' has an extension d^5 , which enters an opening in the plate a' , and in this opening is secured a damper f , having an annular slide f' , which can be turned so as to admit more or less air into the tube d^5 . The valved extension b of the gas-pipe extends a short distance into the tube d^5 , as shown. By this arrangement the amount of air and gas can be regulated as desired.

In Fig. 4 I have shown a frame D', formed with two independent burners and connections. This frame is of such a size as to fit the two openings in the top plate of the stove when the two circular cover-plates and division-plate are removed. This double frame can be detached in the same manner as the single frame shown in Fig. 1.

I claim as my invention—

1. The combination in a cooking stove or range, of a top plate having an opening therein and having a deep flange surrounding said opening and extending below the level of the plate, a partition-frame adapted to said opening and carrying a gas-burner, the latter be-

ing arranged below the level of the top plate, said frame having a flange adapted to rest on the flange of the top plate whereby a substantially air-tight partition is formed between the gas-chamber and the interior of the range so that the draft will not affect the action of the burner, and a gas-pipe secured to the stove below the top plate and leading to but not connected to the gas-burner, substantially as described.

2. The combination in a cooking stove or range, of a top plate having an opening therein and having a deep flange surrounding said opening and extending below the level of said plate, a cupped frame having a mixing-chamber, a loose plate above the same having gas-passages forming a burner, said burner being located wholly within the cupped frame, and a gas-pipe communicating with said mixing-chamber and suitably connected to the stove below the top plate, said frame having a flange resting on the flange of the opening in the top plate and having an opening for the reception of the gas-pipe, the connection between said pipe and the frame being such that the draft of the stove will not affect the action of the burner, substantially as described.

3. The combination in a cooking stove or range, of a top plate having an opening therein and having a deep flange surrounding said opening and extending below the level of said plate, a detachable cupped frame having a flange adapted to rest on the flange of the opening in the top plate and forming a partition between the interior of the stove and the gas-chamber, said frame having a mixing-chamber therein, and a loose plate having gas-passages forming a burner mounted in the detachable cupped frame above the mixing-chamber, said burner being located wholly within said frame with means arranged below the top plate of the stove for supplying gas to said burner, substantially as described.

4. The combination in a cooking stove or range, of a top plate having an opening therein with a flange below the level of said plate, a flanged frame adapted to said opening having a capped passage therein forming the gas-burner, a passage communicating with said burner and forming the mixing-chamber, a gas-pipe secured to the stove below the top plate, and a fixed tube mounted on the range and surrounding said gas-pipe, said passage being open at one end and adapted to receive the end of the tube surrounding the gas-pipe, substantially as described.

5. The combination in a cooking stove or range having top and side plates, of a detachable dished frame having a gas-burner and a tube communicating therewith adapted to an

opening in the top plate, said frame forming a partition between the gas-chamber and the interior of the range, a valved gas-pipe extending through an opening in the side plate, and a tube attached to said side plate on the interior of the stove and having an opening for the passage of air, said tube surrounding the end of the gas-pipe and adapted to enter the passage communicating with the gas-burner, substantially as described.

6. The combination with a cooking stove or range having a top plate with an opening therein provided with a notched flange arranged below the level of said plate, of a burner attachment consisting of a dished frame having a flange provided with projections adapted to the notches in the flange of the top-plate opening and carrying a burner, a passage communicating therewith, a tubular extension secured to the stove and adapted to enter the burner-passage, and a fixed gas-pipe adapted to said tubular extension, substantially as described.

7. The combination in a cooking stove or range, of a top plate having an opening therein and having a deep flange surrounding said opening and extending below the level of said plate, a detachable cupped frame carrying a gas-burner comprising a loose plate with gas-passages therein located above a mixing-chamber, the whole arranged entirely within the cupped frame, said frame having a flange adapted to rest on the flange of the top plate, and a gas-pipe secured to the stove below the top plate of the same and leading to the mixing-chamber of the frame, substantially as described.

8. The combination in a cooking stove or range, of a top plate having an opening therein with a deep flange below the level of said plate, a frame carrying a gas-burner comprising a loose plate with gas-passages therein with a mixing-chamber arranged below the same, said frame having a flange adapted to rest on the flange of the top plate, a gas-pipe secured to the stove below the top plate and leading to the mixing-chamber of the frame, a tube having an air-inlet surrounding said pipe and also communicating with said mixing-chamber, said burner-frame being detachable from the top plate of the stove, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANKLIN L. SHEPPARD.

Witnesses:

HENRY HOWSON,
JOS. H. KLEIN.