

(Model.)

J. ROBERTS.  
Wash Boiler Fountain.

No. 237,699.

Patented Feb. 15, 1881.

Fig. 1.

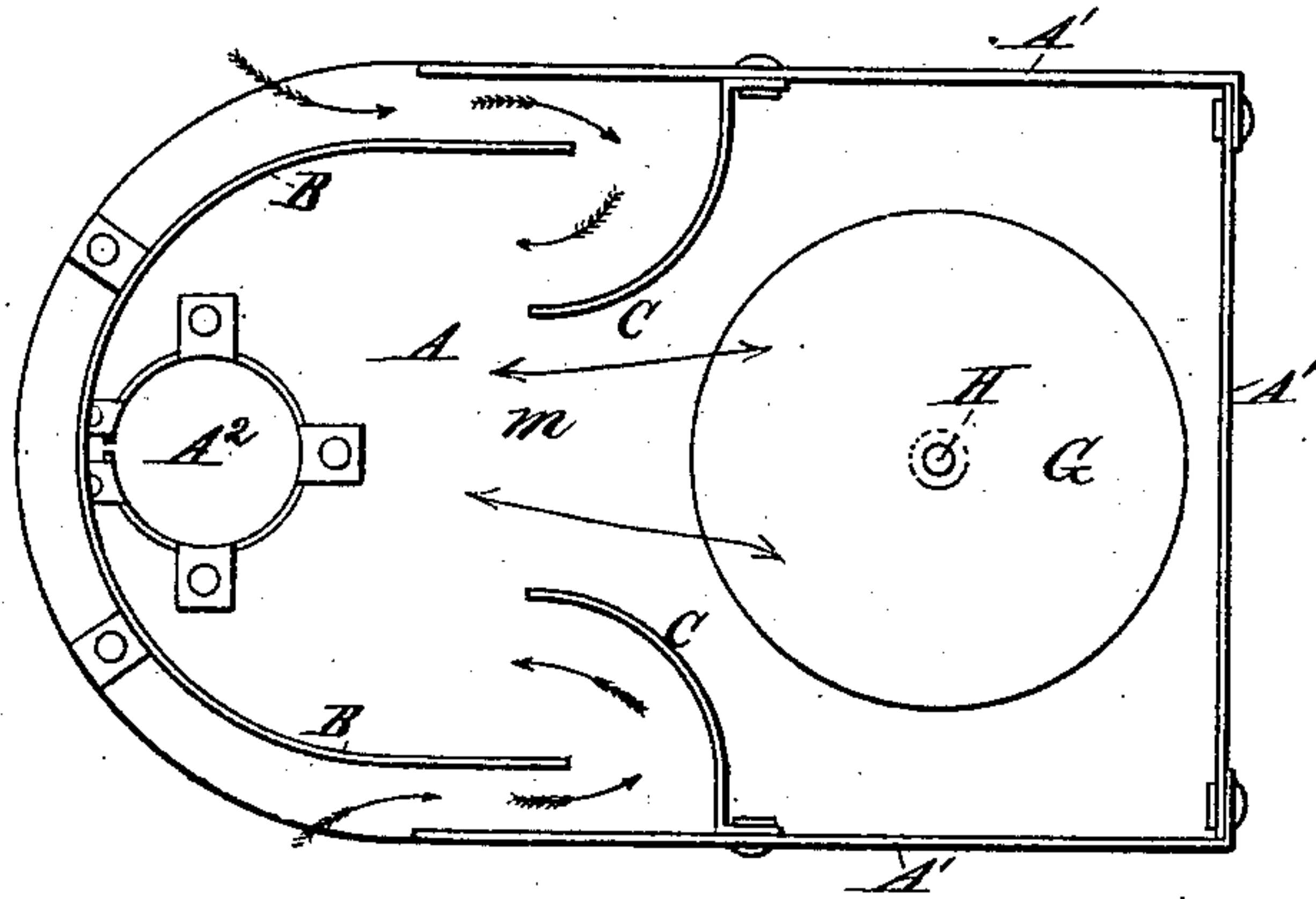


Fig. 2.

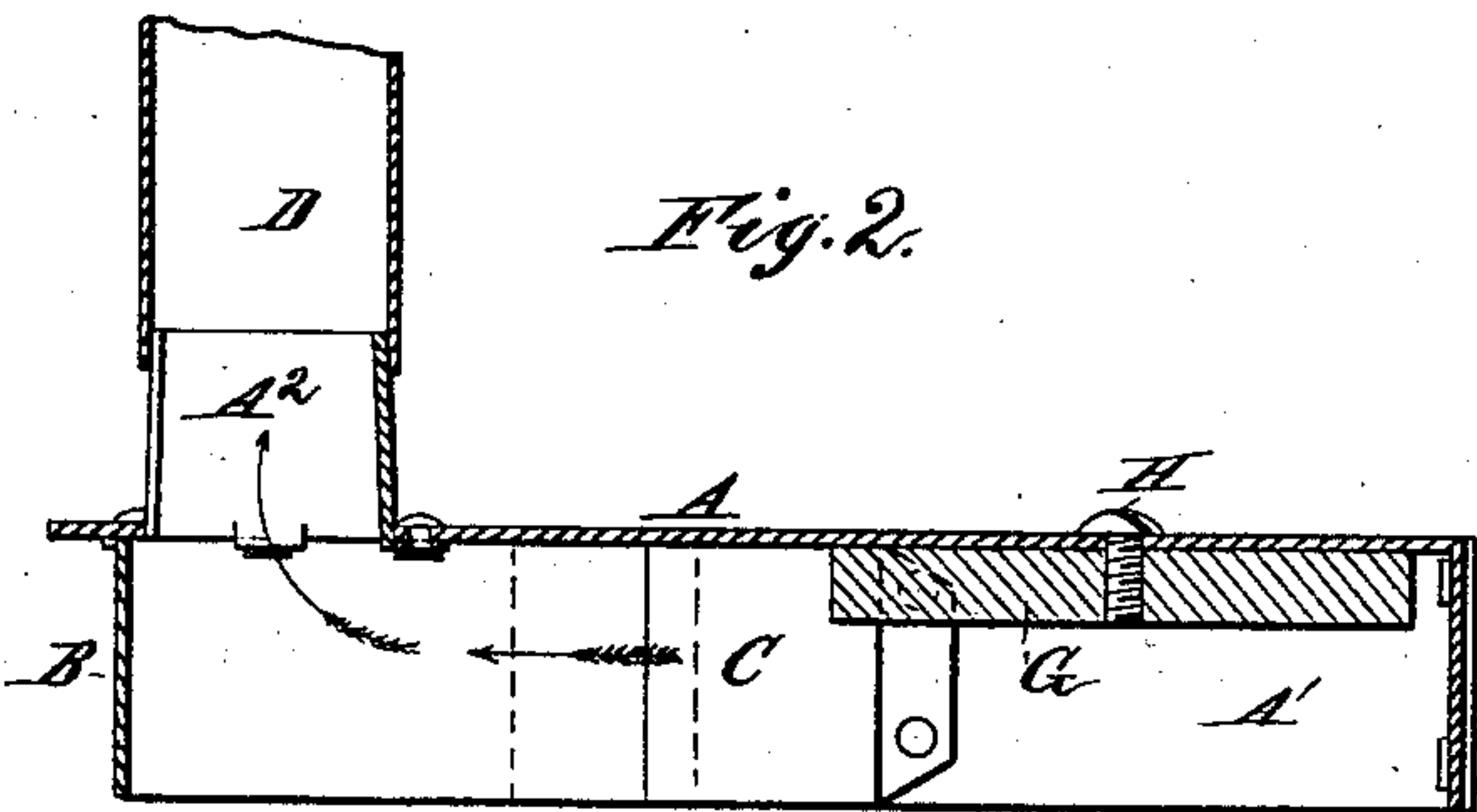


Fig. 4.

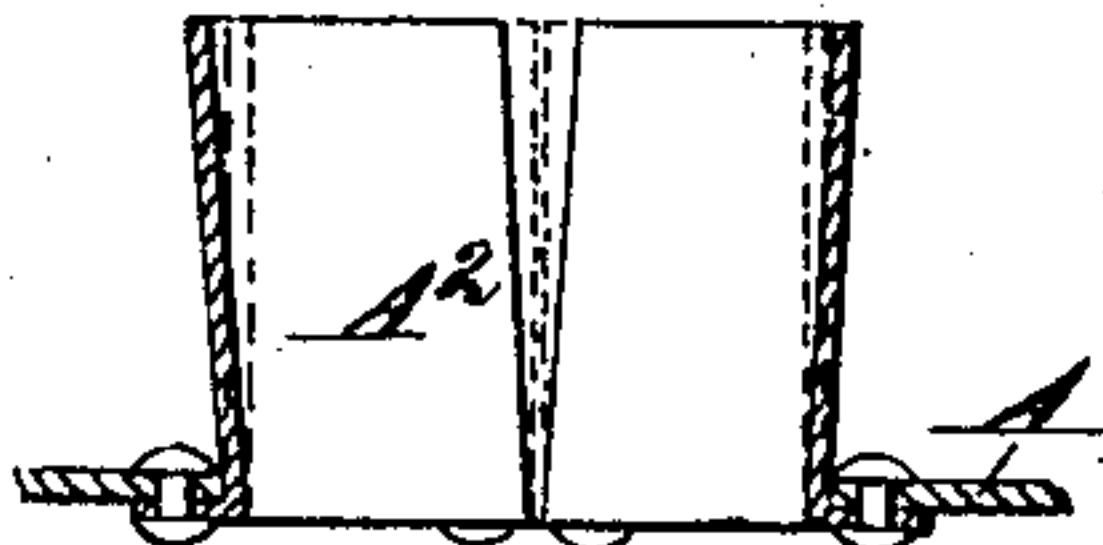


Fig. 5.

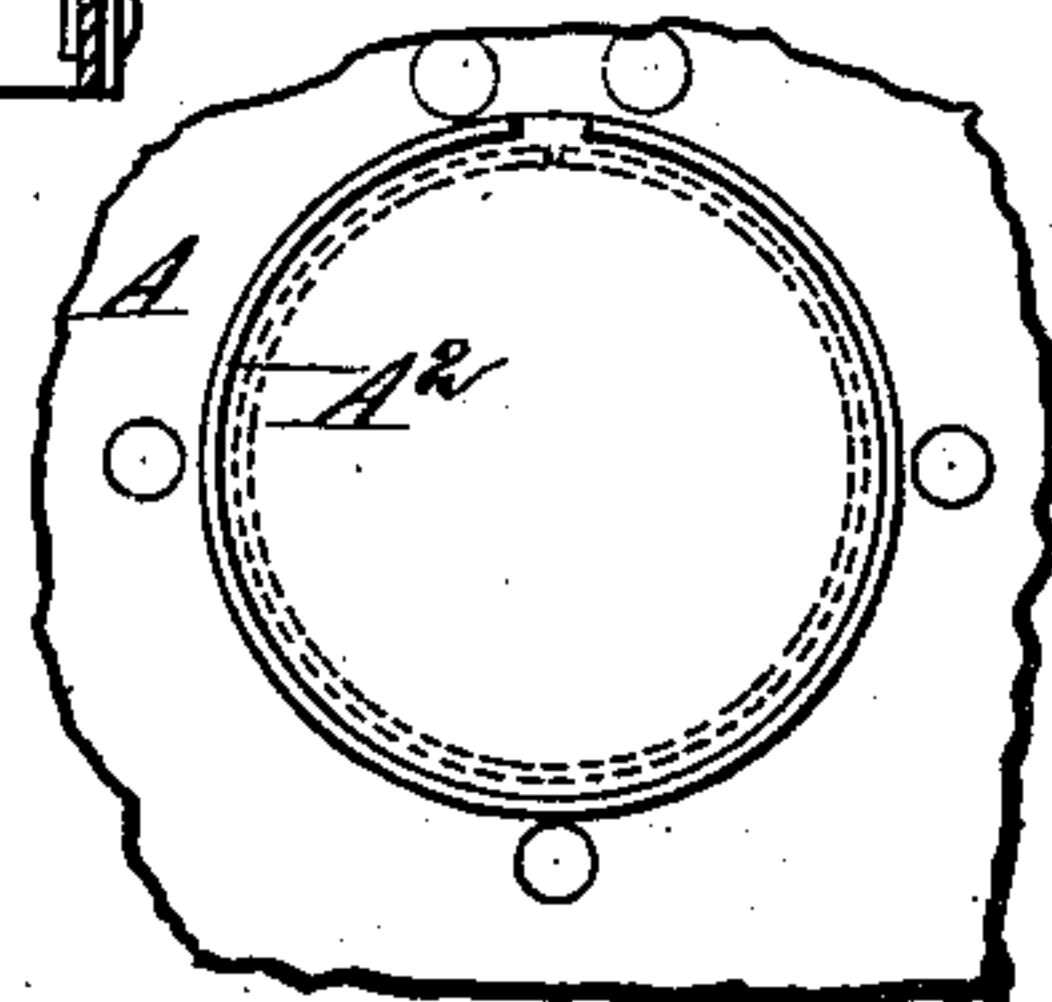
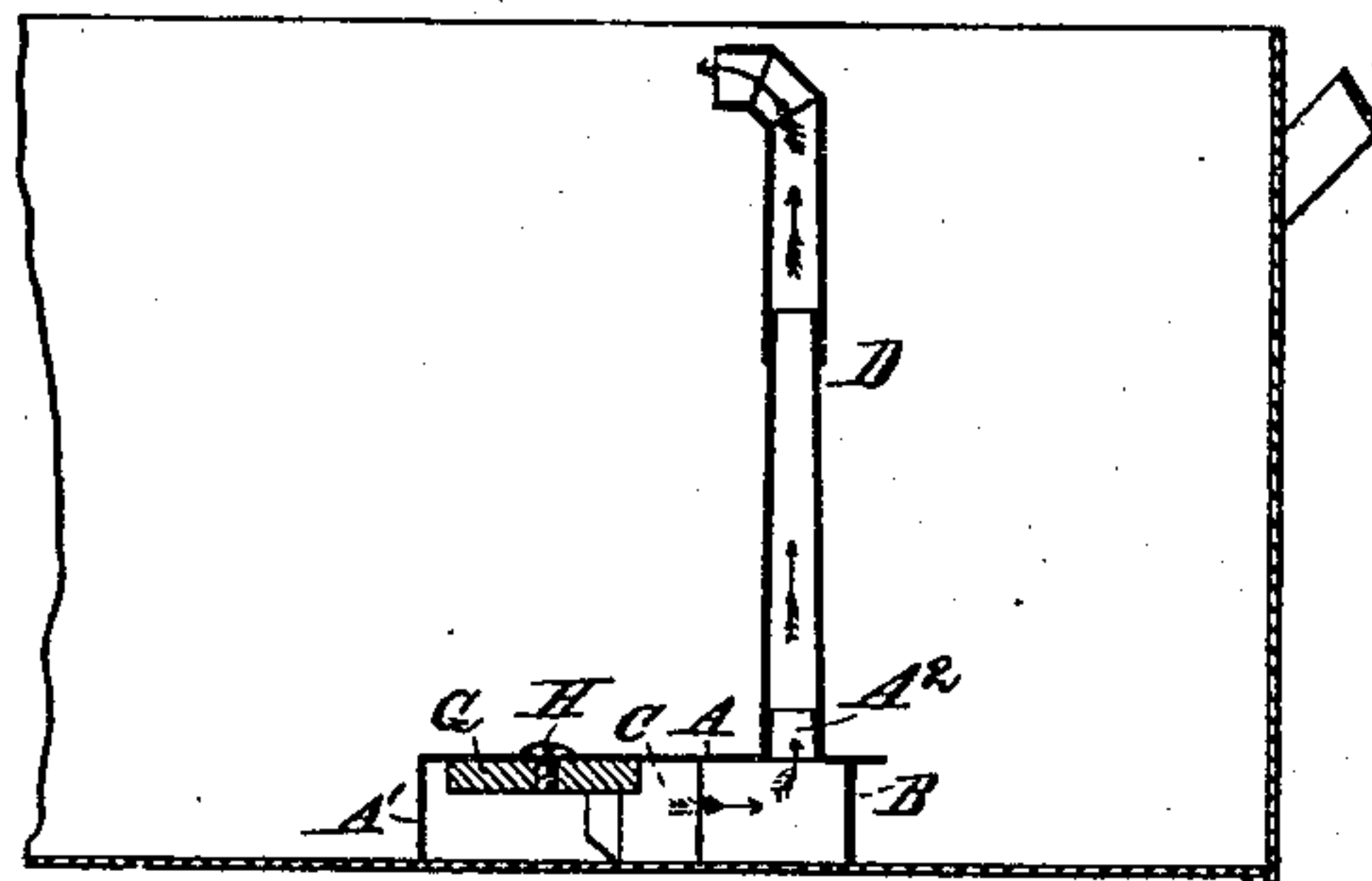


Fig. 3.



WITNESSES—

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# UNITED STATES PATENT OFFICE.

JAMES ROBERTS, OF NEW YORK, N. Y.

## WASH-BOILER FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 237,699, dated February 15, 1881.

Application filed April 1, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, JAMES ROBERTS, of New York city, in the State of New York, a citizen of the United States, have invented certain new and useful Improvements relating to Wash-Boiler Fountains, sometimes called "Traps," of which the following is a specification.

The invention relates to a class of washing-machines known as "wash-boiler fountains," and will be understood from the following specification and claims.

I have devised a construction which is peculiarly effective and simple. It is economically made of thin non-corrosive metal, and weighted with an additional mass of cheaper metal secured to the washer in the heating-chamber. This weight serves the functions of anchoring the washer at any point on the bottom of the boiler where the heat may be the greatest, and retaining and giving off an amount of heat which will increase and equalize the temperature of the water as it is thrown from the bottom of the boiler to the internal surface of the washer, thereby causing greater expansion and a more rapid circulation of the water through every part of the boiler.

The accompanying drawings form a part of this specification, and represent my device.

Figure 1 is a view of the bottom or lower side of my improved washer. Fig. 2 is a central vertical section of the same. Fig. 3 is a smaller sectional view, showing the device applied in a wash-boiler. Figs. 4 and 5 are detail views of the collar or coupling.

Similar letters of reference indicate like parts in all the figures.

A is the top, made oblong, as usual. I have made the fountain end rounded and the other square, as viewed in the plan. It may also be made round, or oblong with rounded ends.

A' is an extended rim or deep lip, extending a large part of the way round, but with a liberal opening at the fountain end to admit water under the washer.

B is a shield, curved as shown, standing the whole height of the body A A', and half inclosing the orifice *m*, through which the water boils up into the collar A<sup>2</sup>, and thence through the tube D, to be poured out, in the ordinary manner, at the top.

A<sup>2</sup> is the expansible collar, having a joint entirely open from top to bottom and lugs at the lower end, which fasten it to the washer in a way to throw the top open and cause it to expand inside of the tube and hold the same firmly upon the washer. To effect this a lug must be formed on each side of the open joint, at the lower end of the collar, and fastened securely to the washer, so as to close the joint at this point and throw it open at the top. One or more other lugs may aid to hold the collar and washer together.

A heavy weight, G, having an extended area, but less depth than the sides A', is mounted flatwise under the body A, near the end farthest from the ascending passage D. It is confined by a screw or rivet, H.

C C are curved deflectors mounted within the structure, and so placed as to receive the entering currents of water and deflect them, as indicated by short arrows. There is a liberal space, *m*, between the ends of the deflectors C C.

For shipment, the weight G may be removed by removing the screw or rivet H, and a quantity of them shipped together, while the light thin metal structure may be shipped by itself.

The tubes D are made in two lengths, and should altogether be long enough to discharge the water at a considerable elevation above the surface of the water in the boiler.

Modifications may be made. I can extend the sides A' farther along, so as to approach each other on the curved end of the washer; but I prefer to leave them as shown.

The deflectors C extend the full depth of the sides A', or there may be a considerable space above or below or at both places.

By making the weight G in a separate piece from the body, with provisions for attaching it firmly in the interior of the case above the bottom, I am able to make it of a cheap material, as lead, which will perform its functions very effectively without coming in contact with the clothes.

My improved fountain, being much smaller than the bottom of the boiler in which it may be placed, as is plainly shown in Fig. 3, may be moved to different places in the boiler, wherever the heat may be greatest or the efficacy of the washer most needed, and will al-



ways be firmly anchored by the weight. The weight G, being a solid mass of metal, will become intensely heated, and will retain and give off this heat in such a way as to equalize  
5 and increase the temperature of the water in the washer, and this will necessarily increase the expansion and cause a more rapid circulation of the water through every part of the boiler, and at the expense of much less heat  
10 from the fire below, as the heated weight gives off a great amount from above.

Having thus described my invention, I desire to claim—

1. In a wash-boiler fountain, the combination of the deflectors C, one on either side,  
15 with a semicircular shield, B, partially encircling them, and with the casing and tube, substantially as set forth.

2. In combination with the washer formed  
20 of thin non-corrosive metal, the detachable

weight G, formed of cheaper metal, and the fastening device H, arranged to serve as and for the purposes herein set forth.

3. In a washer, substantially as described, the combination, with the main body or casing, of the collar A<sup>2</sup>, having an open joint its  
25 entire length, and provided with lugs at the lower end on each side of the joint fastened to the top of the washer, drawing the joint together at this point and throwing it open at  
30 the top, adapted to serve with the movable tube D, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand at New York city, New York, this  
25 25th day of March, 1880, in the presence of two subscribing witnesses. 35

JAS. ROBERTS.

Witnesses:

THOMAS D. STETSON,  
CHARLES C. STETSON.