

(No Model.)

H. FOCHT.
SIPHON.

No. 565,729.

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Fig. 1.

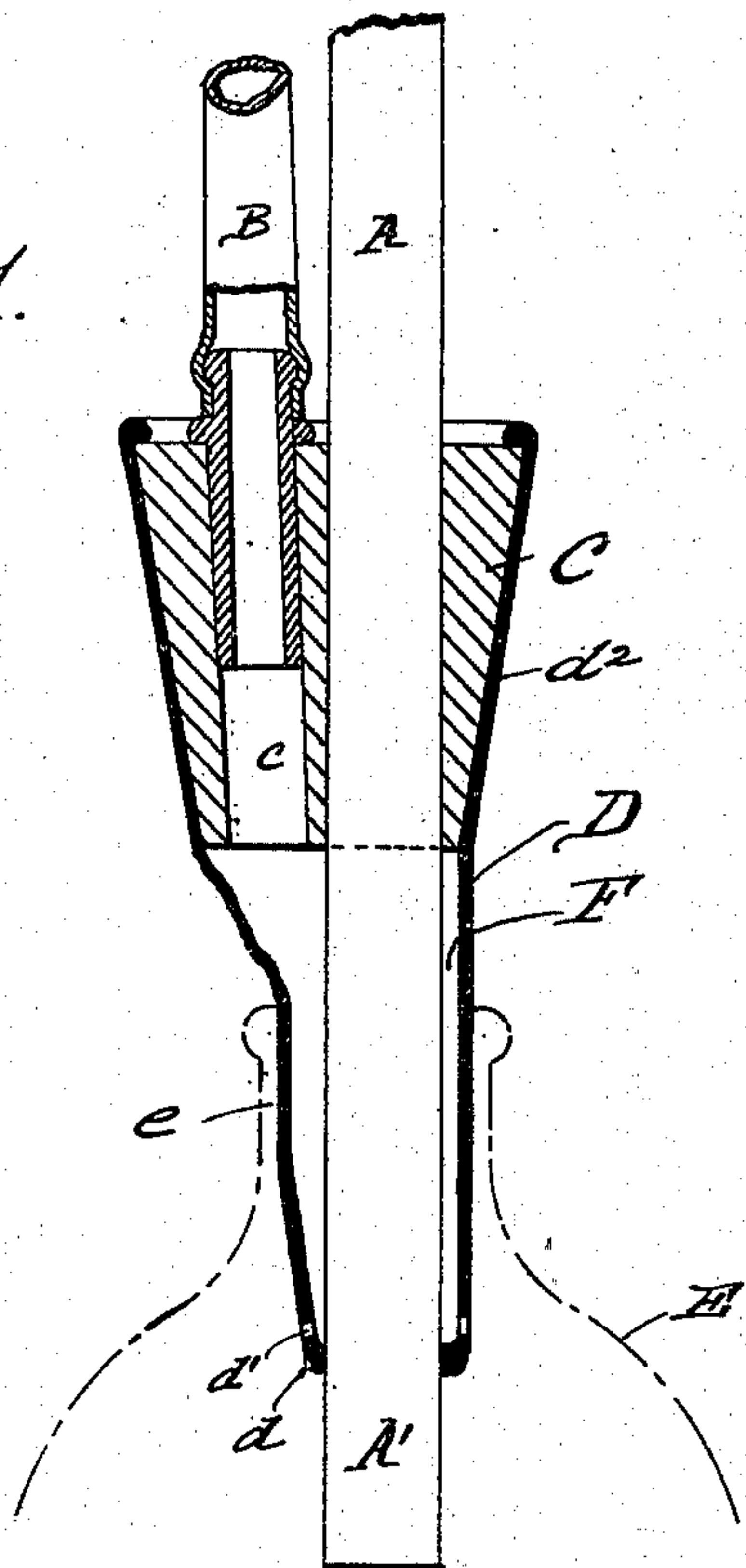


Fig. 2.

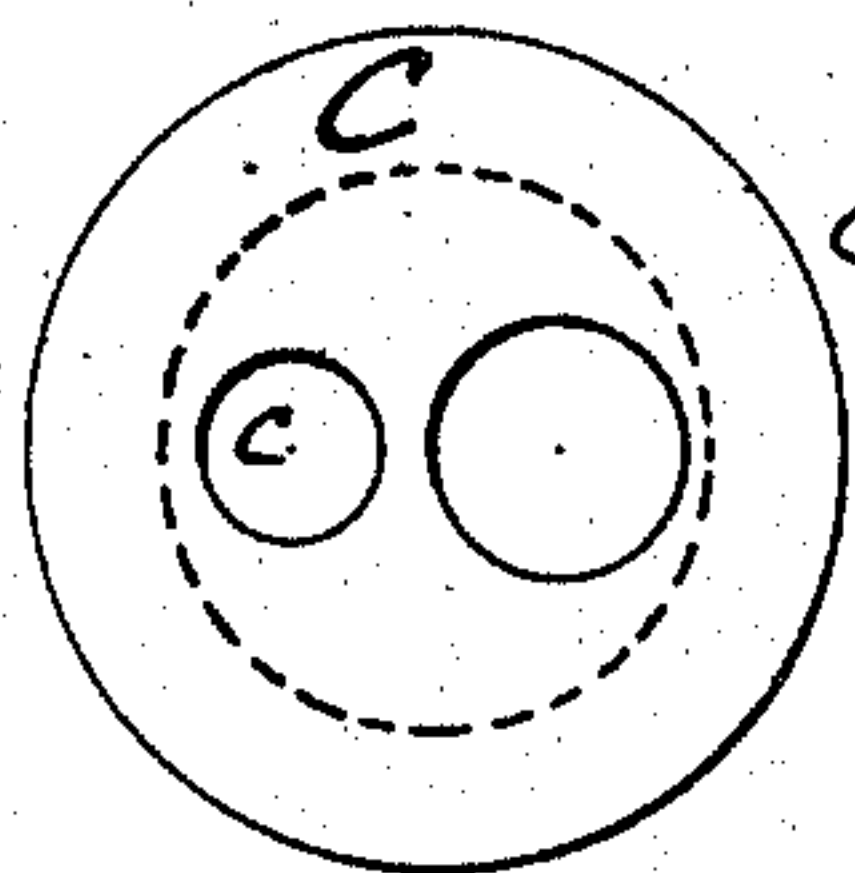
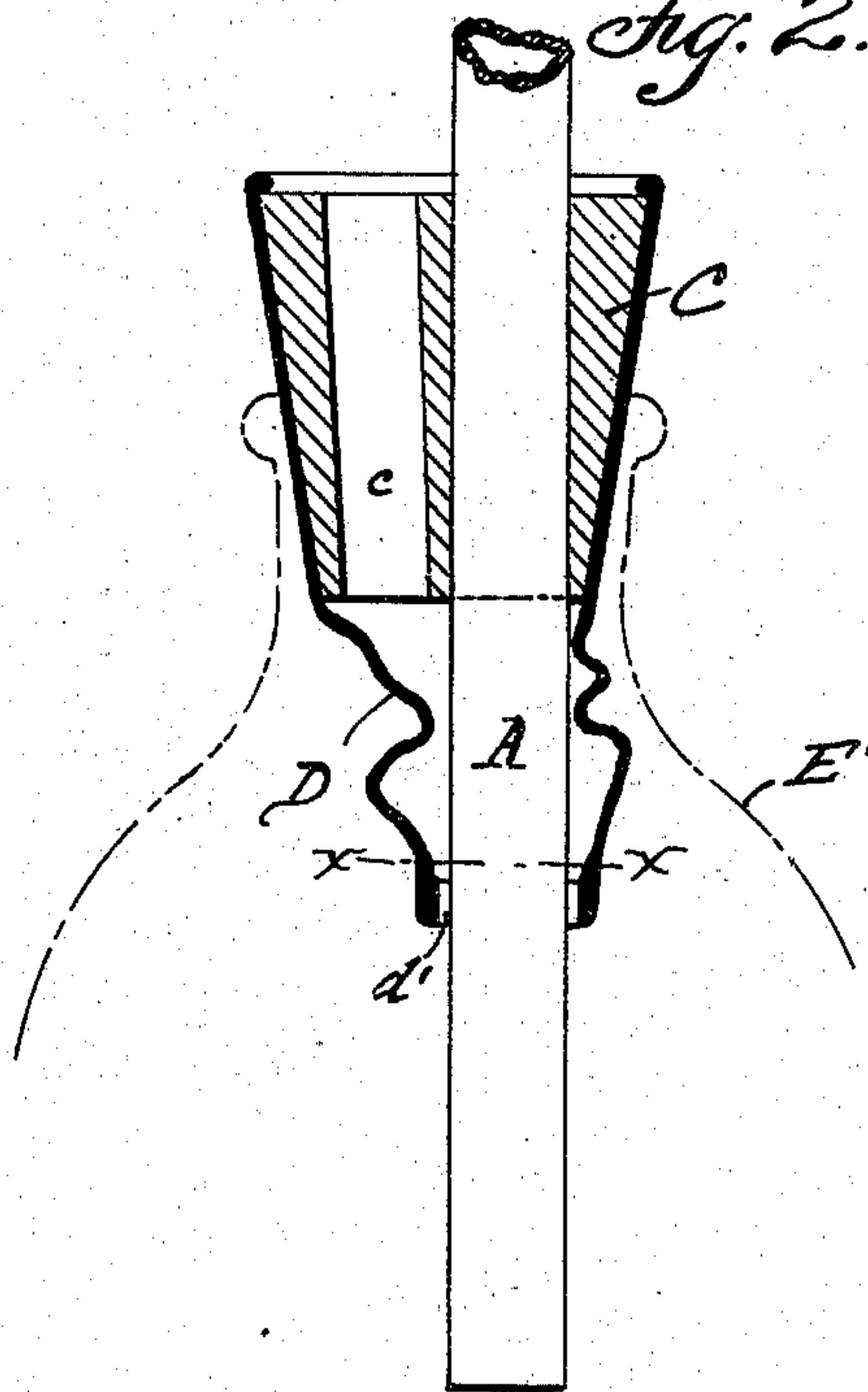


Fig. 3.

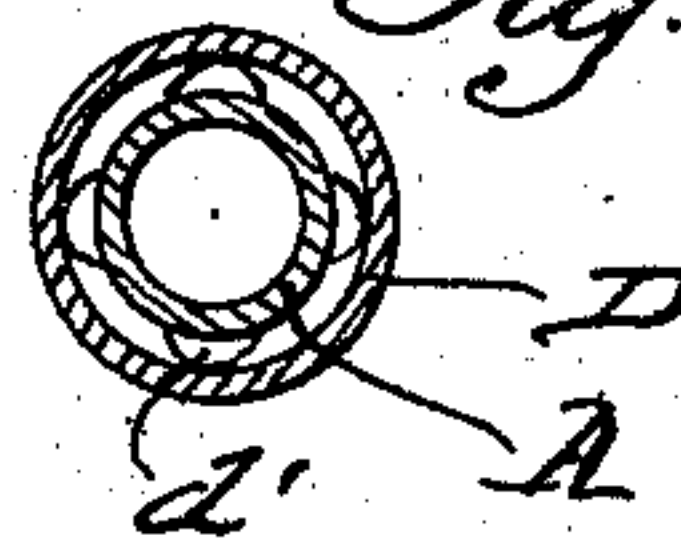


Fig. 4.

Witnesses:

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To all whom it may concern:

Be it known that I, HARRY FOCHT, a citizen of the United States, residing at Reading, county of Berks, State of Pennsylvania, have
5 invented certain Improvements in Siphons, of which the following is a specification.

My invention relates to that class of siphons which are especially adapted for filling bottles from a reservoir, and more particularly
10 to improved means for attaching the siphon to various sizes and forms of bottles, and regulating the heights to which the same are automatically filled.

Figure 1 is a sectional elevation showing a
15 siphon provided with my improvement attached to a bottle having a mouth smaller than the stopper proper. Fig. 2 is a similar view showing the same applied to a bottle of larger size and indicating how the depth to
20 which the bottle is filled may be regulated. Fig. 3 shows the main stopper in cross-section, and Fig. 4 shows the stopper extension in cross-section on line *xx* of Fig. 1.

A represents the liquid-tube, and B the air-
25 tube, of a well-known form of siphon, both of which are extended in practice sufficiently to connect with the reservoir of liquid from which the bottle E is to be filled. The stopper C, as shown, is adjustably strung upon
30 the liquid-tube A, the lower end A' of which extends downward into the bottle to any desired extent.

The air-tube B is connected to an opening *c* of the stopper running parallel with that
35 through which the liquid-tube passes. This arrangement necessitates a stopper of considerable size, as indicated in Fig. 3. In using the device as heretofore made the stopper C must enter the mouth *e* of a bottle, which is
40 then filled from the connected reservoir in the usual manner by first exhausting air from the bottle by suction exerted through the tube B until the liquid-tube is filled by the atmospheric pressure on the reservoir, and then al-
45 lowing it to flow into the bottle until automatically stopped by the closure of the outlet *c* in the stopper.

The main purpose of my improvement is to provide for conveniently filling bottles hav-
50 ing smaller or different-shaped necks than the stopper C is adapted to enter, and, second, to permit regulation of the depth to which the bottle is automatically filled. To accomplish this, I provide a stopper extension D,
55 preferably formed separately of rubber tub-

ing, the lower end *d* of which is small enough to engage the fluid-tube A, while the enlarged upper end *d*² may be tightly stretched over the stopper C, so as to form practically a part
60 of the latter. An annular air-chamber F is thus formed between the liquid-tube A and the wall of the stopper extension which communicates through the opening *c* with the air-tube B and is provided at or near its lower
65 end with an opening *d'* for the exit of air from the bottle E.

In using the siphon with my improvement attached it will be seen that it may be applied to a bottle having a mouth *e* of any size somewhat larger than the tube A', the stop-
70 per extension D being entered more or less until it is tight in the mouth of the bottle, as indicated in Fig. 1, and the device operating as usual, the flow into the bottle being
75 stopped as soon as the liquid rises to the height of the air-exit *d'*. The height in the bottle at which this exit is closed may be regulated by moving the small end *d* of the stopper extension nearer to or farther away
80 from the main stopper C, as desired, as indicated in Fig. 2.

The area of the annular air-chamber F will be equal to that of the opening *c* in the stopper C, though the latter be very little larger than the exterior diameter of the liquid-tube
85 A, as shown in Figs. 3 and 4, thus permitting the siphon to be attached to a very small-neck bottle without interfering at all with its operation. This, in connection with the ad-
90 vantage of easily regulating the point at which the flow of liquid is cut off, renders my improvement very useful, especially in view of its easy application to the ordinary construction of siphons, as described.

What I claim is—

The combination with the air and liquid
95 tubes, and the stopper with separate passages for said tubes, of a tubular extension of said stopper inclosing the extended liquid-tube and forming an annular air-chamber around
100 the same said tubular extension being independently adjustable upon the projecting liquid-tube to regulate the point of cut off substantially as set forth.

In testimony whereof I affix my signature
105 in presence of two witnesses.

HARRY FOCHT.

Witnesses:

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