

No. 756,517.

PATENTED APR. 5, 1904.

C. MILLER.  
SIPHON.

APPLICATION FILED AUG. 21, 1902.

NO MODEL.

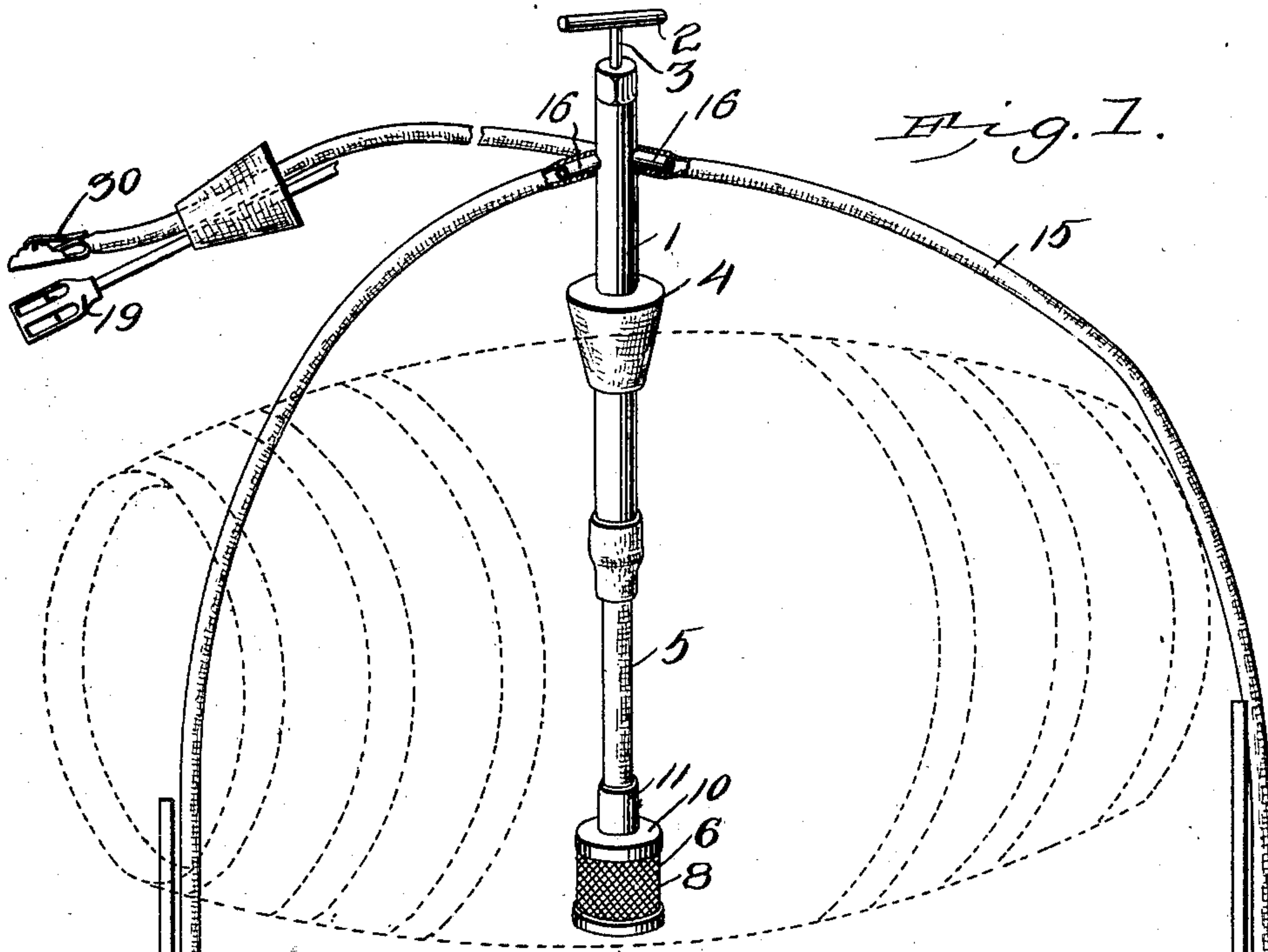


Fig. 1.

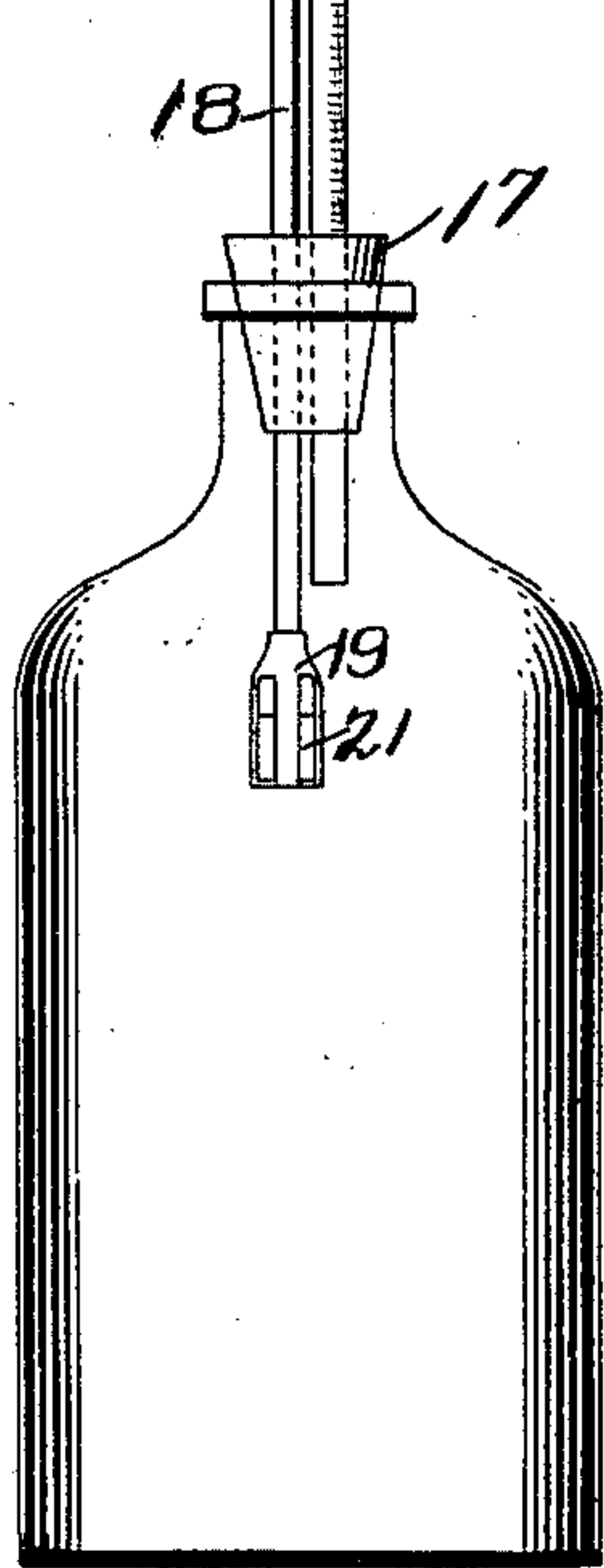


Fig. 3.

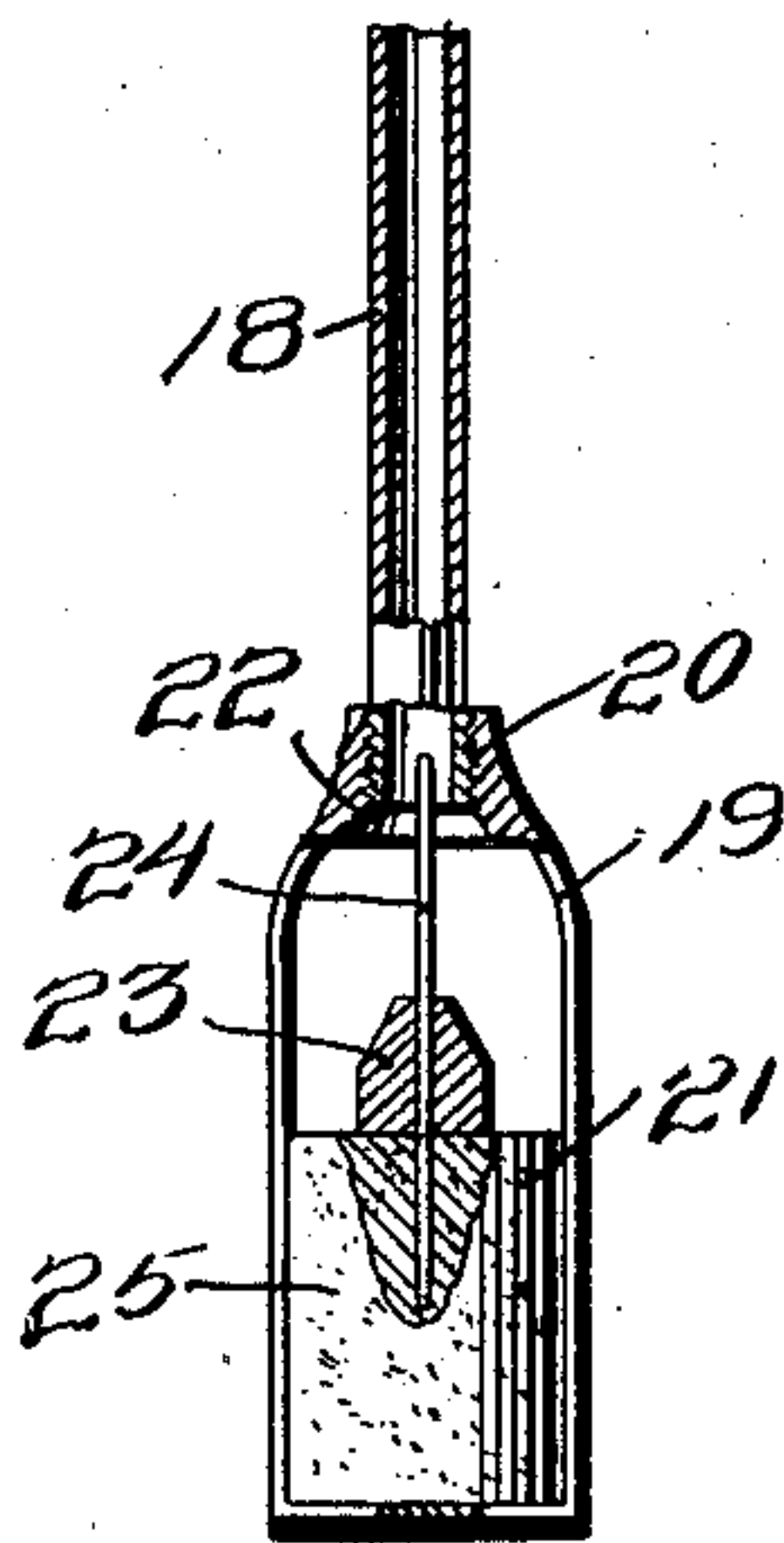
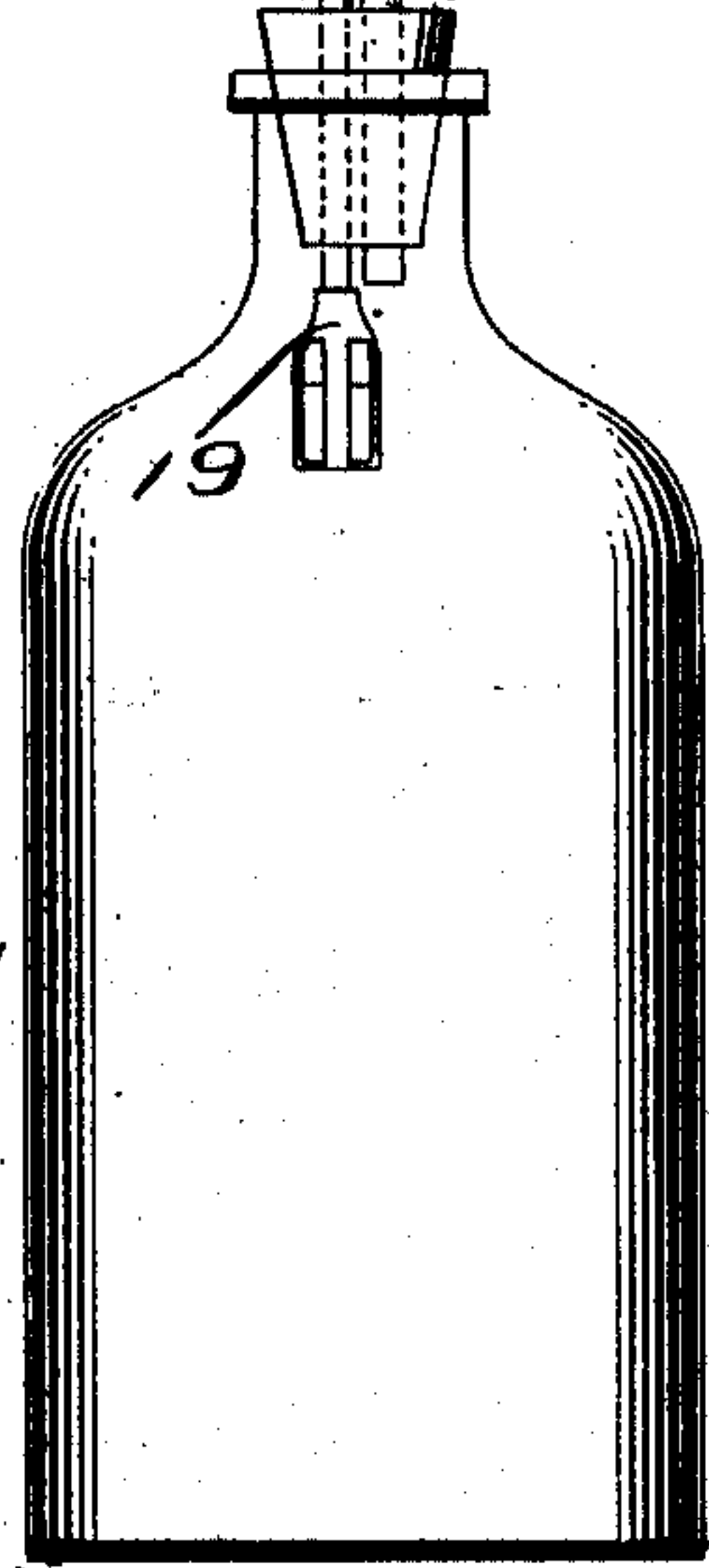
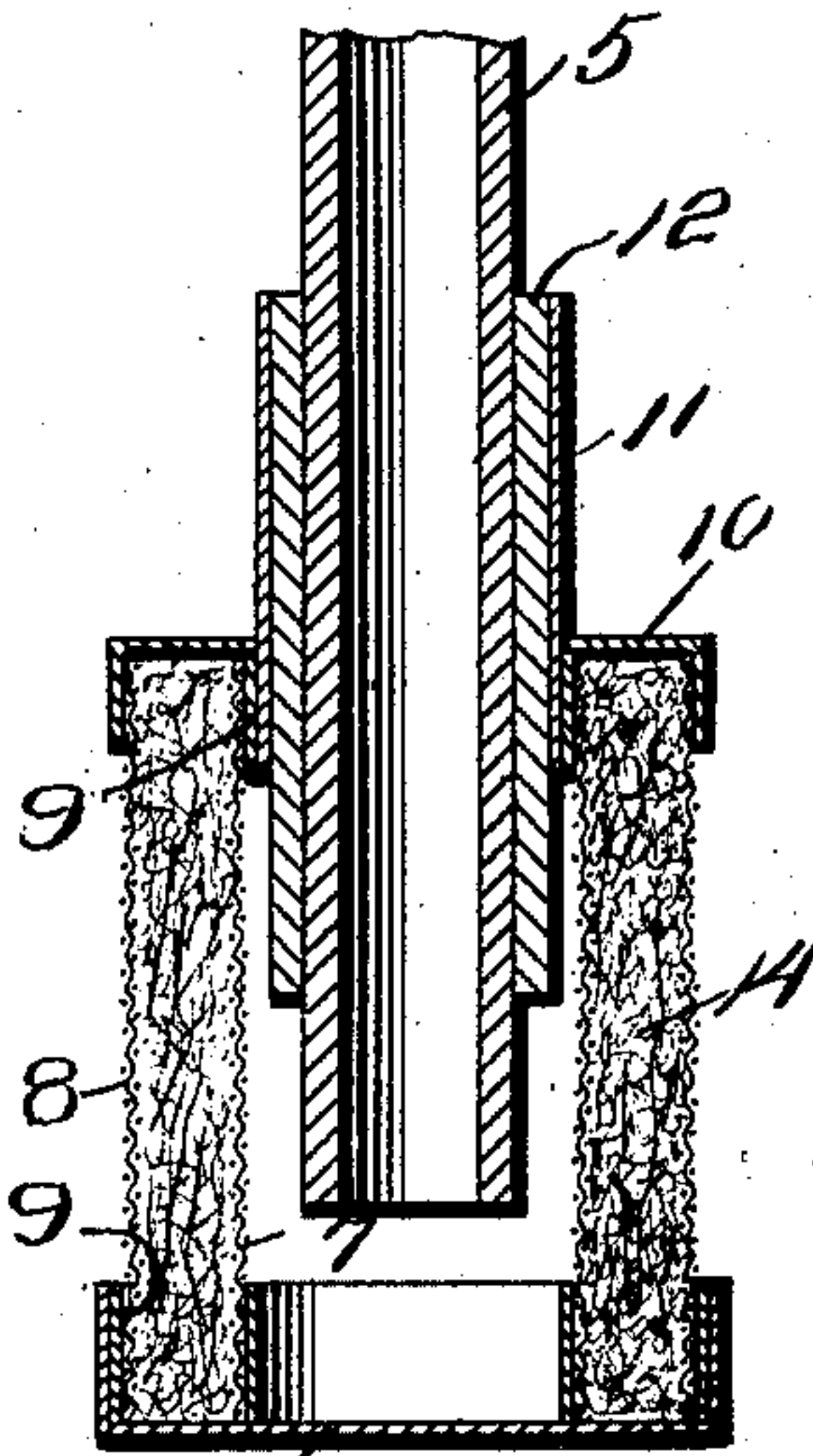


Fig. 4.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CAMILLUS MILLER, OF SUNFLOWER, PENNSYLVANIA.

## SIPHON.

SPECIFICATION forming part of Letters Patent No. 756,517, dated April 5, 1904.

Application filed August 21, 1902. Serial No. 120,547. (No model.)

*To all whom it may concern:*

Be it known that I, CAMILLUS MILLER, a citizen of the United States, residing at Sunflower, in the county of Beaver and State of Pennsylvania, have invented a new and useful Siphon, of which the following is a specification.

This invention relates to siphons such as are used for drawing liquors of various kinds from casks or other receptacles; and it has for its object to provide a device of this class which shall be especially applicable to bottling the liquids thus drawn.

With this end in view my invention consists in an improved construction and arrangement of parts whereby the siphon is provided with a number of discharge-tubes, each having means for connecting it with the neck of a bottle or other receptacle.

The invention further consists in the combination, with each discharge-tube, of an air-tube and a floating valve for closing the same, thereby preventing overflow, while not interfering with the filling of the bottles or receptacles to any desired point, which may be regulated by properly adjusting the air-tubes.

The invention further consists in the combination, with my improved siphon, of a filter of suitable construction to prevent the entrance into the siphon of foreign substances which might interfere with its successful operation.

The invention further consists in the improved construction and arrangement of the detailed parts of the device, which will be hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of my improved siphon, showing the same in position for operation, several of its discharge-tubes being connected with bottles to be filled and one such discharge-tube being closed by a clamp, such as is used when the tube is temporarily out of use. Fig. 2 is a sectional view of the filter and the tube upon which it is mounted. Fig. 3 is a side view, partly in section, showing one of the valves used in connection with my invention.

Corresponding parts in the several figures

are indicated by like characters of reference.

1 designates the barrel of a pump, which is of ordinary construction and the purpose of which is simply to start the flow in the siphon of which the said pump-barrel forms a part.

2 is the pump-handle, and 3 the piston-rod, of which only the upper end appears in the drawings.

4 designates a bung or stopper, which is mounted slidingly upon the pump-barrel and which serves to engage the bung-hole of a cask from which the liquid is to be drawn, the said bung being made tapering, as shown, and constructed, preferably, of rubber in order to insure durability, as well as to enable a tight joint to be made.

The lower end of the pump-barrel has suitably connected therewith a flexible tube 5, at the lower end of which is mounted the filter or strainer 6. The latter is composed of an annular casing of wire-netting, the said casing being composed of inner and outer walls 7 and 8, connected at their upper and lower ends with annular bands 9. At the upper end these bands are permanently connected with a cap 10, having an upwardly-extending flange 11, by means of which it may be connected with the lower end of the flexible tubing 5. In Fig. 2 of the drawings a tubular reducing-section 12 has been shown as interposed between the flange 11 and the tube 5. The annular casing composing the filter is closed at its lower end by a detachable catch 13, and the annular space between the walls of said casing is to be packed with suitable straining or filtering material 14, such as cotton or the like. It will be observed that by this construction a large straining or filtering surface is formed. It will further be seen that there is absolutely no obstruction to the entrance of the liquid into the lower end of the flexible tubing 5, the space between the latter and the inner wall of the annular casing being increased by the use of the reducing-section 12, as will clearly appear by reference to Fig. 2 of the drawings.

Suitably connected with the pump-barrel, near the upper end of the latter, are a series of discharge-tubes 15, of which any desired number may be used. In the drawings the pump-barrel has been shown as provided with



a series of laterally-extending discharge-tubes 16, upon which the flexible tubes 15 are held by frictional contact therewith. The discharge end of each of the tubes 15 is fitted to slide vertically through a suitable opening or perforation in a tapering stopper 17, made, preferably, of rubber and adapted to fit in the neck of the bottle or receptacle to be filled. Fitted in each of the stoppers 17 to slide in the same vertically is an air-tube 18, which may be made of metal, hard rubber, or other suitable material and which carries at its lower end a cage 19, connected therewith by screw-threads 20 and containing a floating valve 21, adapted to engage the seat 22, formed in the upper end of the valve-cage at the juncture of the same with the air-tube. The construction of the floating valve 21 embodies the valve proper, 23, which is made, preferably, of rubber and which is connected by a vertical pin 24 with a float 25, which may be constructed of cork, light wood, or any other suitable material. The pin 24, which connects the valve with the float, is extended upwardly into the lower end of the air-tube, thus forming a guide the action of which will be to prevent the valve from being tilted, thus insuring the certainty of its being brought into engagement with the seat when the device is in operation.

It is obvious that the construction of the floating valve might be changed or modified without detracting from its utility. Thus, for instance, a hollow float might be employed or other means than the guide-pin might be employed for connecting the valve with the float. Again, the valve and float might be made integral with each other, as well as with the pin 24, if so desired. I prefer, however, the construction herein shown on account of its simplicity, inexpensiveness, and certainty of operation.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation of my invention and its advantages will be readily understood. To start the siphon in operation, the pump-barrel 1 is connected with the cask or vessel from which liquid is to be drawn by means of the bung 4. The flexible inlet-tube 5 may obviously be made of any desired length sufficient to permit the filter to rest upon the bottom of the cask. The stoppers 17 at the discharge ends of the flexible discharge-tube 15 are adjusted in the necks of the bottles or vessels to be filled, and the air-tubes 18 are adjusted in said

stoppers to regulate the point to which it is desired to fill such bottles, the inlet of liquid through the tubes 15 being obviously checked when the outlet of air is closed by the floating valves. The flow in the siphon is now started by means of the pump, and the liquid will run into the bottles or receptacles until the same have been filled to the desired point, when the exit of air being prevented by the closure of the floating valves the liquid will cease to flow. The discharge-tubes may now be shifted from the filled receptacles to empty ones by compressing the said tubes between the thumb and finger while the transfer is being made. It is obvious that by the proper use of this device overflow is made absolutely impossible, thus avoiding waste, as well as the absolute necessity of constant and close attention.

If it shall not be desired to use all of the discharge-tubes, one or more of them may be temporarily closed by adjusting upon the discharge ends of the same ordinary compressing-clamps, such as are shown at 30. It is obvious that the use of such clamps upon one or more of the tubes will not interfere with the operation of the remainder of the device.

While I have in the foregoing described the preferred construction of my invention, I desire it to be understood that I do not limit myself as to the details of the same, but consider myself entitled to any modifications which may be resorted to without departing from the spirit of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In a siphon, the combination of a pump-barrel, flexible discharge-tubes connected therewith, a flexible inlet-tube at the lower end of the pump-barrel, a strainer mounted at the lower end of said inlet-tube and consisting of an annular chamber a cap covering said chamber having an interior annular flange, and a reducing-tube interposed between said flange and the flexible inlet-tube, substantially as set forth.

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

CAMILLUS MILLER.

Witnesses:

SAML. WEBSTER,  
ANDREW TANNER.