

P. J. PETERSON.
LIQUID MEASURING DEVICE.
APPLICATION FILED JULY 8, 1908.

919,943.

Patented Apr. 27, 1909.

Fig. 1.

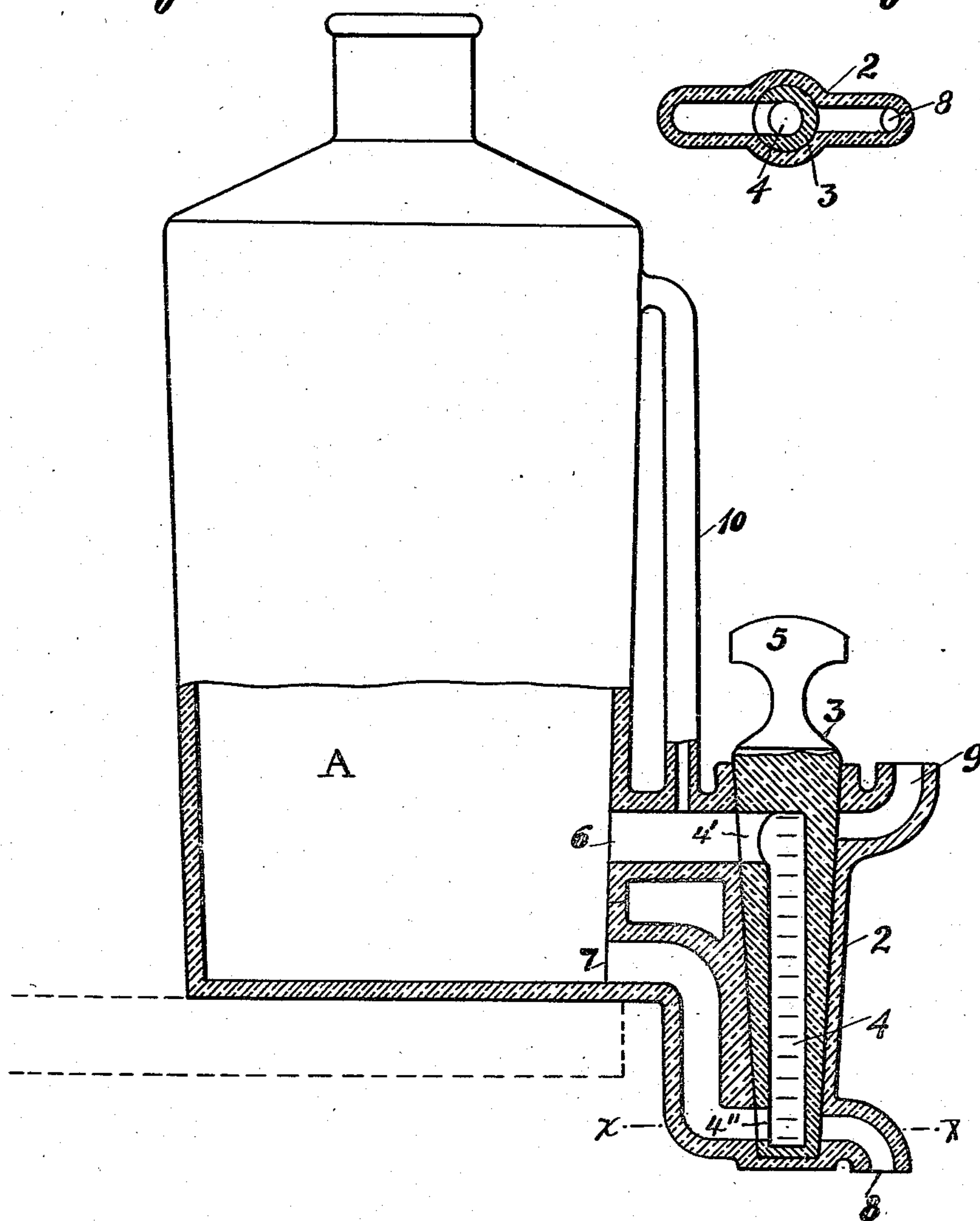
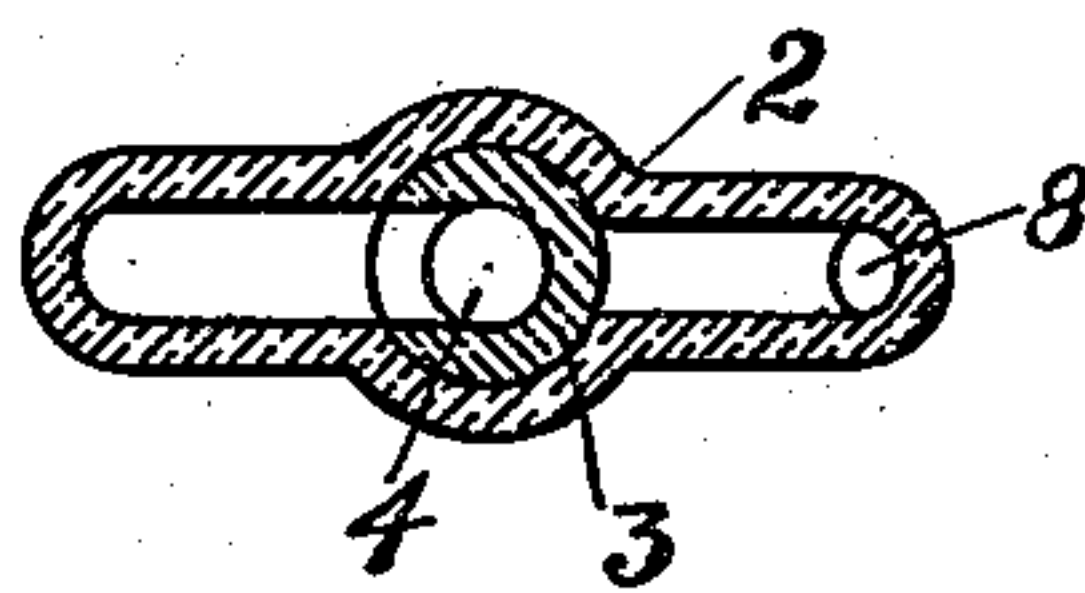


Fig. 2.



WITNESSES

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Witness

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LIQUID-MEASURING DEVICE.

No. 919,943.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed July 8, 1908. Serial No. 442,551.

To all whom it may concern:

Be it known that I, PETER J. PETERSON, citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Liquid-Measuring Devices, of which the following is a specification.

My invention relates to a device which is especially designed for accurately and simultaneously measuring liquids and transferring liquids from a receptacle or holder-to a receiver.

It consists in the combination and arrangement of parts, and details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a part elevation and part sectional view of a liquid measuring device embodying my invention. Fig. 2 is a transverse section through line X—X of Fig. 1.

It is the object of my invention to provide a convenient and accurate measuring device and draw-off attachment for bottles or other receptacles, so that the amounts drawn therefrom can be accurately known.

As shown in the drawings, A represents a bottle or receptacle of any suitable character, say of glass or other transparent material having an extension formed upon one side and near the bottom, as shown at 2. This extension has a vertically formed, slightly tapering chamber closed at the bottom, and the top open and adapted to receive a plug 3, the interior of which plug has a graduated chamber 4; and the top of the plug may be provided with any suitable handle or thumb-piece 5 by which it can be turned. Through the extension 2 are made two passages, the upper passage 6 connecting the lower part of the receptacle A with the upper part of the chamber 4 of the plug, and the lower passage 7 so formed as to connect with the lower part of the chamber 4.

As before stated the plug is hollow to provide an interior graduated chamber, the upper portion of which connects through a passage 4' with the upper passage 6 in the extension 2. Through one side of the lower portion of the plug and connecting with the lower part of the graduated chamber, is another passage 4'' which connects with the lower passage 7 in the extension 2 whereby when the plug is turned in one direction the passages 4' and 4'' register with the aforesaid passages 6 and 7 in the extension.

Upon the exterior portion of the chamber 2 are made the discharge passage 8 at the lower part, and an air inlet passage 9 at the upper part. These passages coincide with the horizontal plane of the passages 6 and 7 where they open into the vertical chamber in which the plug 3 is turnable; and when the plug is turned so that the openings in its side coincide with the passages 6 and 7, liquid will flow from the receptacle A into the graduated chamber 4 to any desired extent. The tendency of the liquid will be to pass in through the lower passage 7, and air which may be within the chamber 4 will be forced out through the upper passage 6. I have found it preferable, however, to make a supplemental pipe or passage in the form of a by-pass 10, the upper end of which opens into the upper part of the receptacle A, and the lower end communicates directly with the passage 6 so that as the liquid flows through the passage 7 into the lower part of the chamber 4, the air in the chamber will be forced out through the passage 6 and the by-pass 10 into the upper part of the bottle, without passing through the liquid in the bottle, as will be the case if the by-pass is not present.

When the desired quantity of liquid has been received into the chamber 4, the plug 3 is turned so that it stands at right angles with its former position, and the openings in the plug are cut off from the passages 6 and 7. When it is desired to withdraw the liquid from the chamber in the plug, the plug is turned another quarter revolution, which brings the openings in its side into register with the passages 8 and 9. The liquid can then flow out through the passage 8, and air will be freely admitted through the passage 9 to take the place of the escaping liquid.

The whole device forms a convenient, permanent attachment for receptacles containing easily vaporized, corrosive or other liquids which it is desirable to have measured and transferred with accuracy.

By having a plurality of plugs with chambers of different sizes and with different graduations, the single apparatus may be adapted to many uses.

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

1. The combination with a liquid receptacle, of an extension formed integral therewith, said extension having a vertical cham-

ber, a hollow plug turnable in said chamber and having passages leading through its side at the upper and lower portions, said extension having passages adapted to register with the passages in the plug and having other passages into register with which the passages in the plug may be turned for the discharge of the liquid contents, said extension being made of transparent material and said plug having graduations which are observable through the material of said extension.

2. The combination with a liquid receptacle, of a transparent extension formed integral therewith, said extension having a vertical chamber, a hollow plug turnable in said chamber and having passages leading through its side at the upper and lower portions, said plug having graduations which are capable of being seen through the material of said extension said extension having passages adapted to register with the passages in the plug and having other passages into register with which the passages in the plug may be turned for the discharge of the liquid contents, and air conducting means extending from the upper passage of said extension to the upper portion of the receptacle.

3. The combination with a bottle or receptacle, of an integral extension of transparent material having a vertical chamber closed at the bottom, a hollow graduated plug fitting and turnable in said chamber,

said plug having openings into the top and bottom of the graduated space, said receptacle having a passage leading from the lower portion and registering with the lower opening of the plug, a pipe forming a by-pass passage connecting the upper part of the bottle with the upper opening of the plug, said extension having a discharge passage on the opposite side from the inlet passage, and having, also, an air inlet passage corresponding with the discharge and adapted to register with the upper opening of the plug.

4. In an apparatus of the character described, a bottle or receptacle having a vertically chambered extension rigid therewith, said extension being formed of transparent material and having passages connecting the upper and lower part of the chamber with the interior of the receptacle, a hollow plug forming a graduated chamber and having openings in the upper and lower part adapted to register with the passages in the receptacle, said extension having discharge and air inlet passages with which the plug may be turned to register.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

PETER J. PETERSON.

Witnesses:

CHARLES EDELMAN,
WM. E. EASTMAN.