

(No Model.)

W. B. DONATHEN.  
LIQUID MEASURER AND EXTRACTOR.

No. 494,467.

Patented Mar. 28, 1893.

Fig. 1.

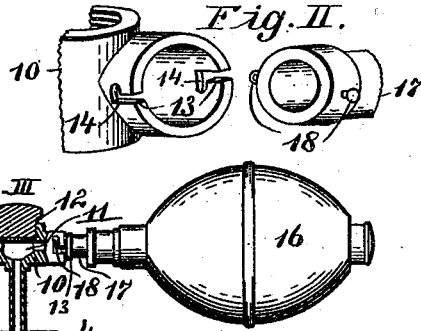
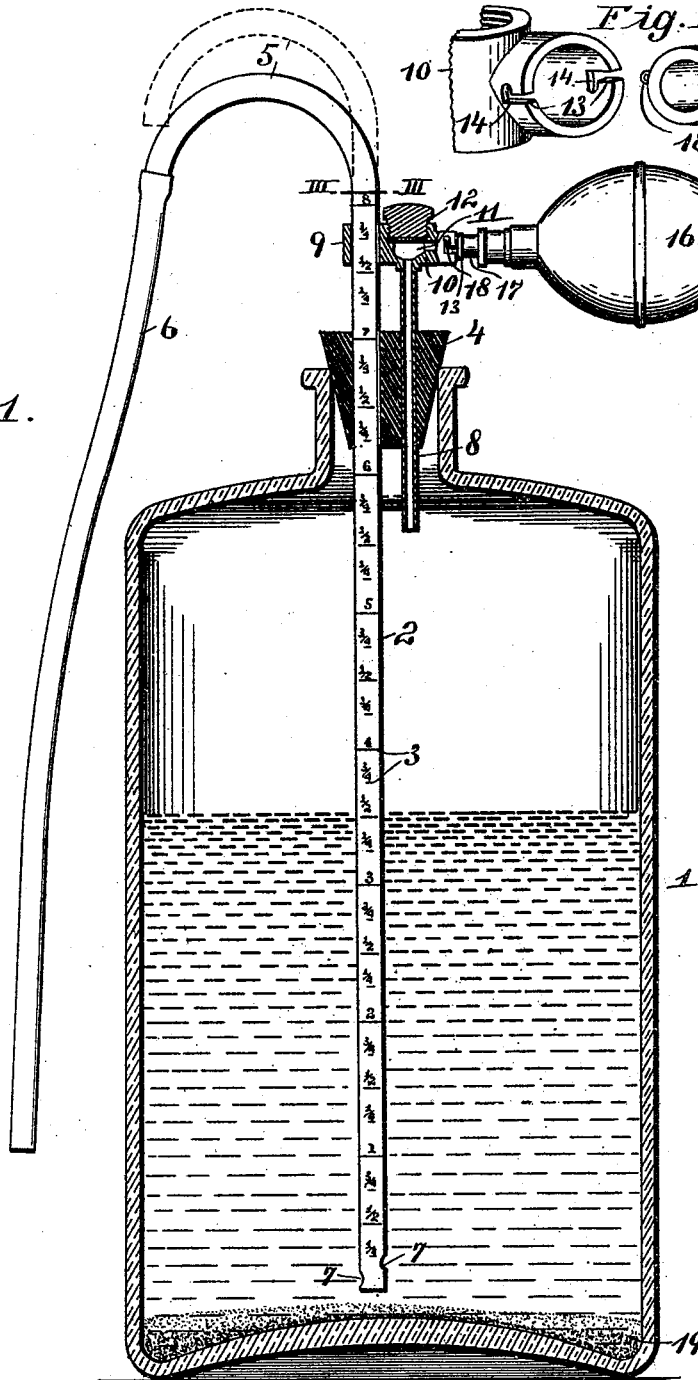
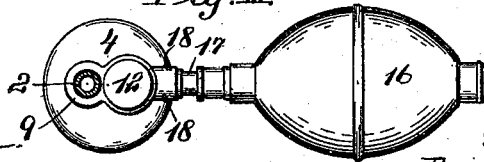


Fig. III.

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# UNITED STATES PATENT OFFICE.

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## LIQUID MEASURER AND EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 494,467, dated March 28, 1893.

Application filed November 3, 1892. Serial No. 450,844. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. DONATHEN, of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in a Combined Liquid Measuring and Extracting Device, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in a device for extracting liquid from a vessel, means for setting the device to descend to any required distance within the vessel, and means whereby the liquid can be siphoned back into the vessel; and my invention consists in certain features of novelty hereinafter described and pointed out in the claims.

Figure I, represents a vertical section of a bottle or jar showing my improved extracting device placed therein. Fig. II, is an enlarged detail view of the coupling by which the bulb is connected with the air tube. Fig. III, is a horizontal section taken on line III, III, Fig. I.

Referring to the drawings: 1, represents a bottle or jar, 2 a tube being graduated into inches and fractions thereof, as shown at 3. The tube 2, extends through a tapering cork 4, preferably made of rubber, said cork being made tapering in order to fit various sized bottles, jars or other vessels, and formed of rubber or other yielding material, so that the frictional contact with the tube 2, will hold the cork and tube in close relation with each other at the point at which they are set. The upper end of the tube 2, is provided with a goose-neck 5, to which may be attached a rubber hose 6. At the lower end of the tube 2, are openings 7, for the passage of liquid.

8, represents an air tube extending through the cork 4, having its lower end preferably extending some distance below said cork, and having its upper end connected with the tube 2, by a combination collar and T, the collar 9, passing over the tube 2, and sliding thereon. The T 10, which is connected with the collar is provided with a chamber 11, with which the upper end of the tube 8, connects, the chamber 11, being closed on its upper side normally by a screw plug 12, which may be detached at will, the purpose of which will be

described later on. The upper end of the T 10, is provided with horizontal slots 13, and vertical slots 14.

16, represents an air bulb for pumping air into the air tube 4, the tube 17, of said bulb having pins 18, thereon, said pins registering in the slots 13, 14 of the T, in order to connect the bulb with the T and hold the same in position by turning said pins into the vertical slots after they have been forced to the rear end of the horizontal slots.

The operation is as follows: The tube 2, being graduated, can be moved in the cork 4, so as to set said tube at any desired point to measure the space and liquid within the vessel and also to permit of the tube being set a short distance from the bottom of the vessel in order to avoid contact with the sediment at the bottom of the vessel, as for instance, is shown at 19. The cork, being formed of a yielding substance, will hold the tube at any point desired, and the collar 9, of the T, will allow the tube to be forced through the same, and at the same time form a brace for the support of the tube 2, the bulb and the air tube 8. By pressing the bulb 16, air is forced into the chamber 11, and down through the tube 8, forcing the liquid up through the tube 2. Where it is desired to convey the liquid some distance the hose 6, may be used; but where it is desired to fill a small vessel or bottle, the hose 6, may be dispensed with, the upper end of the tube being formed into a goose-neck to afford a convenient passage into any vessel or bottle held beneath the same.

It is frequently desired to re-convey liquid back into the vessel after the same is discharged by means of siphoning. All that is necessary to do in my device when I desire to reconvey the liquid back into the vessel from which it has been discharged is to remove the plug 12, to permit the air to escape and allow the tube 2, which acts as a siphon to draw the liquid back into the vessel.

I claim as my invention—

1. The combination of a graduated tube having suitable top and bottom openings; a tapering cork through which said tube extends; a goose neck on the upper end of said tube; an air tube extending through said cork parallel to the first mentioned tube; a T having a chamber; a collar connected with said

T, said collar surrounding the liquid discharge tube; a plug for closing the chamber in said T, and a bulb connected with said T; substantially as described and for the purpose set forth.

5 2. The combination of a liquid discharge tube having suitable top and bottom openings; a tapering cork formed of yielding substances through which said tube extends; an  
10 air tube extending through said cork; a combined T and collar; said collar surrounding

the discharge tube; a chamber in said T a plug for closing said chamber; a bulb having a tube at its inner end provided with pins; and horizontal and vertical slots in said T, with which  
15 said pins engage; substantially as and for the purpose set forth.

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Witnesses:

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