Oct. 30, 1928. 1,689,279

J. DORMOY

SPRAYING DEVICE

Filed July 9, 1926

Fig. 1.

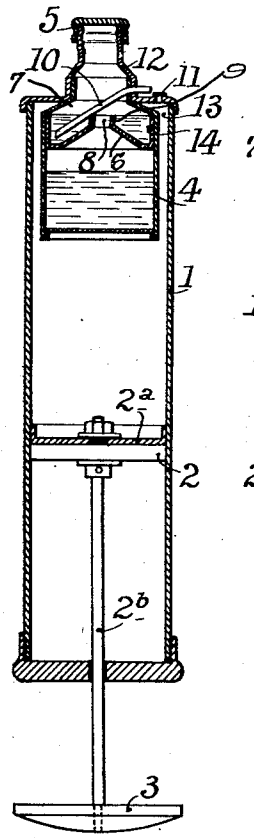


Fig. 3.

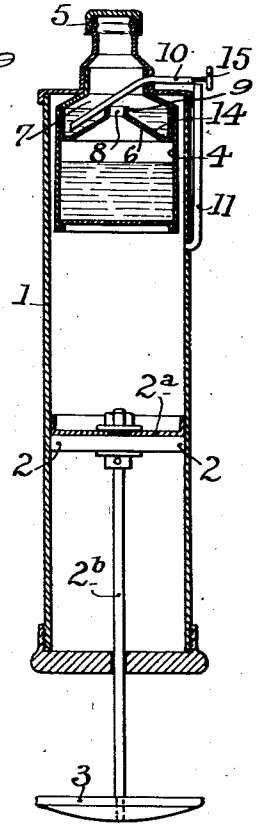
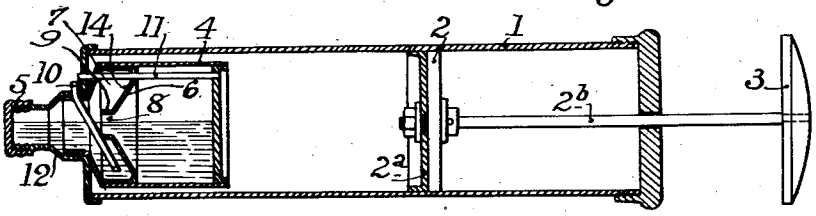


Fig. 2.



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UNITED STATES PATENT OFFICE.

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SPRAYING DEVICE.

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The present invention relates to a spraying device comprising a receptacle for the liquid, and a hand-operated air pump.

The said device, which serves chiefly for cleaning purposes, for the spraying of disinfecting liquids or for like uses, is characterized in that it will operate in all positions, whether upwardly or downwardly inclined, thus affording a ready access to all parts of the objects which are to be cleaned, disinfected or otherwise treated.

For this purpose, the said receptacle is subdivided by suitable partitions and comprises a small chamber communicating with the suction tube; the said chamber is connected with the main chamber of the receptacle by an orifice which is so disposed that it offers an obstacle to the exit of the liquid in all positions of the apparatus, and in this manner the small chamber will always contain enough liquid to supply the sprayer for a certain time.

The appended drawings show by way of example various embodiments of the invention.

Fig. 1 is a lengthwise section of the sprayer.

Figs. 2 and 3 show various modifications analogous to Fig. 1.

1 is the main body of the air pump in which a piston 2 provided with the pressed leather member 2^a is operated, by means of a rod 2^b provided with an operating handle 3. A liquid receptacle, consisting of a can 4^a is placed in line with this pump, so that the apparatus will consist of a single tube and will hence be of a reduced size. The tube 1 is closed at the front by a pressed cap 12 upon which may be screwed a filling plug 5 and to which is secured the can 4^a whose body fits upon the tube 1, but its diameter is somewhat less than the internal diameter of the said tube thus leaving an annular space 13 around the can 4.

The cross partition 6 divides the said tank into two chambers of unequal size.

The partition 6 is pierced at its middle part with an orifice 8 provided with a tube 9 extending into the interior of the chamber 7.

In this manner, irrespectively of the position assumed by the tank 4, the liquid cannot escape from the chamber 7.

The tube 10 traverses the walls of the cap and of the can 4, and terminates at a point adjacent the wall of the said can, in an annular trough 14 which is secured to the said wall. A conduit 11 opens at a point adjacent the other end of the said tube, through which the air from the pump may be discharged.

The can 4 is filled with liquid and the plug 5 put in place. It will then suffice to actuate the pump in order to spray the liquid at the end of the conduit 11.

As shown in Fig. 1, said conduit may simply open into the annular space 13 whereby it may have a very short length, or as shown in Fig. 2 it may traverse the can 4; or as shown in Fig. 3 it may project from the tube 1.

Due to the arrangement of the said trough, the inner end of the tube 10 will always be immersed in the liquid, whether the apparatus be placed horizontally (Fig. 2) or vertically (Figs. 1 and 3) or in any intermediate position.

To prevent all leakage during transportation, a screw plug 15 (Fig. 3) is employed to close the tube 10.

Having thus described my apparatus, what I claim as new therein, and my own invention, is:

In a spraying device, the combination of a hand-operated air pump, a receptacle which is adapted to contain the spraying liquid and is disposed within the said pump, a cap which closes both the pump body and the said receptacle, a filling plug mounted on the said cap, said pump including a conduit affording an atmospheric connection with the interior of the pump, a tube which is immersed in the said receptacle and opens into the atmosphere at a point adjacent the end of said conduit, a partition having the form of an annular trough which is disposed in the said receptacle and divides the latter into two unequal chambers, the inner end of said tube opening at a point within said annular trough, and a removable plug for closing the outer end of said tube when the spraying apparatus is inoperative.

In testimony whereof I have hereunto affixed my signature.

JEAN DORMOY.