Nov. 25, 1924. 1,516,706

E. BROOKINS

LIQUID MEASURE

Filed June 14, 1919

Fig. 1

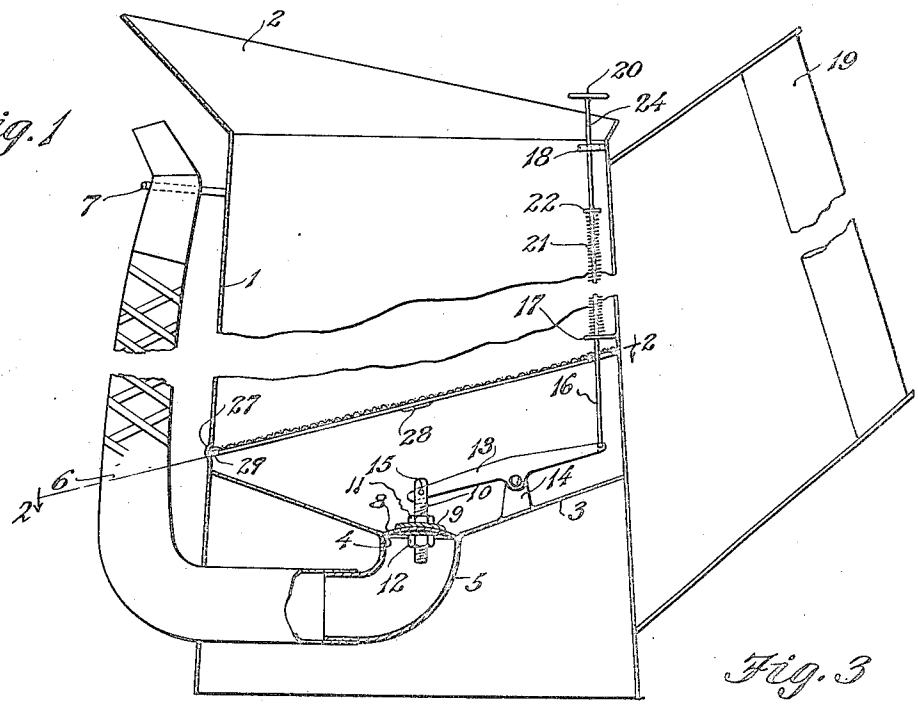


Fig. 3

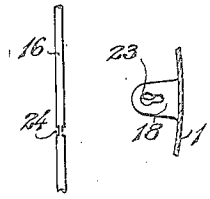
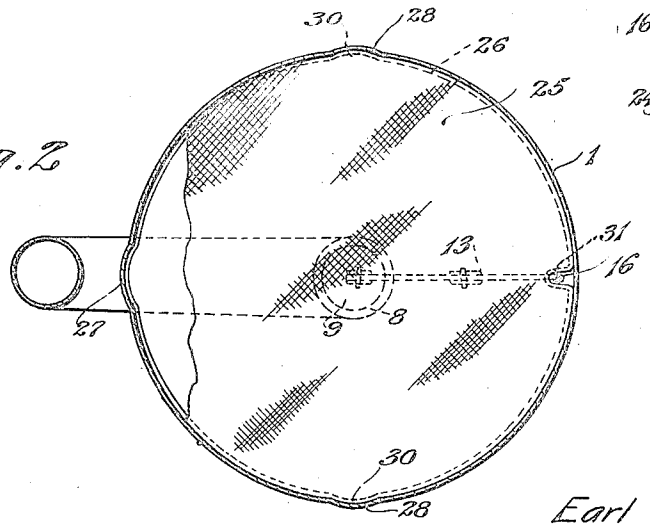


Fig. 2



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UNITED STATES PATENT OFFICE.

EARL BROOKINS, OF DAYTON, OHIO, ASSIGNOR TO THE BROOKINS MANUFACTURING COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO.

LIQUID MEASURE.

Application filed June 14, 1919. Serial No. 304,201.

To all whom it may concern:

Be it known that I, EARL BROOKINS, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Liquid Measures, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a liquid measure, and one object of the invention is to provide a measure having a valve controlled outlet at the bottom, in which the valve can be easily manipulated, which will be of simple durable construction, and which can be produced at a relatively low cost.

A further object of the invention is to provide a measure of this kind with a screen which can be easily removed for cleaning or renewal.

In the accompanying drawings Fig. 1 is a vertical sectional view taken centrally through a measure embodying the invention, partially broken away; Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1; and Fig. 3 is a detail view of the locking device for the operating rod.

In these drawings I have illustrated one embodiment of my invention and have shown the same as applied to a measure in which the main features of construction are of well known type, which has at its upper end a discharge spout through which the contents may be poured, and which is provided at its bottom with a discharge opening communicating with a flexible tube which may be inserted in the filling opening of the receptacle which is to receive the liquid and through which the liquid may be discharged without tilting the measure, this discharge opening being controlled by a valve. Neither the discharge spout at the top of the measure nor the flexible tube are essential to the present invention, but the invention may be embodied in measures of various kinds.

In the embodiment here shown the measure comprises a receptacle 1 having a discharge spout 2 at the upper end and having a bottom wall 3 spaced some distance above the lower edge of the side wall of the receptacle. This bottom wall 3 is here shown as a partition or diaphragm, and is provided with a discharge opening 4. Preferably the discharge opening is arranged centrally of the diaphragm and the latter is cone shaped so that the contents of the receptacle will drain to the central opening. Secured to the lower surface of the diaphragm or bottom wall is a discharge spout 5 which in the present construction is in the form of an elbow and has connected therewith a flexible tube 6, which, when not in use, may be held upright by means of a hook 7 secured to the receptacle near the upper end thereof. The discharge opening 4 is controlled by a valve which is here shown as comprising a leather disk 8 reinforced by a washer 9 and mounted on a valve stem 10 to which it is secured by means of nuts 11 and 12 threaded onto the valve stem. Suitable means are provided for actuating this valve and as here shown the valve stem is connected at its upper end with a lever 13 which is pivotally mounted on a supporting bracket 14 carried by the diaphragm 3. The connection between the lever and the valve stem may be of any suitable character, but as here shown the upper end of the valve stem is bifurcated to receive the end of the lever, and a pivot pin 15 extends through the end of the valve stem and the lever. An operating rod 16 is pivotally connected with the opposite end of the lever 13 and extends upwardly through guide brackets or lugs 17 and 18 and projects above the upper end of the receptacle adjacent to a handle 19 which is secured to the receptacle. The upper end of the rod is provided with a head or button 20 which may be engaged by the thumb of the hand which grasps the handle 19 and the rod manipulated to actuate valve 8. The operating rod is held normally in its uppermost position, in which position the valve is closed, by a spring 21 which is confined between the lug 17 and a stop or disk 22 rigidly secured to the rod. I have provided means for retaining the rod in its lowermost position, to hold the valve in its open position, and in the present construction the opening in the guide bracket 18 is provided with an offset portion or recess 23 of less diameter than the rod 16, and the rod 16 is provided with a portion having a reduced diameter which permits it to enter the recess 23. This reduced portion of the rod is shown at 24 as provided by cutting notches in the opposite sides of the rod and these notches are so arranged that the reduced portion of the rod will be brought

into alignment with the recess in the lug 18 when the valve has been moved to its fully open position. With the reduced portion of the rod in this position a slight pressure on the upper end of the rod will cause the reduced portion thereof to enter the recess and the rod is thereby held against upward movement until it is released from the lug. The construction of the valve and the arrangement of the operating devices therefore are very simple and of such a character that the valve can be easily manipulated by the hand of the operator which grasps handle 19.

It is desirable that a measure of this kind be provided with a screen to separate impurities from the liquid which is being measured, and in the present construction I have provided such a screen and have shown the same as mounted above and independently of the valve and its operating mechanism. Further I have so mounted the screen that it can be easily removed for cleaning or renewal. As here shown, the screen is substantially circular in shape and comprises a disk of foraminous material, such as wire mesh. This disk is preferably mounted on a suitable frame, which, as shown at 26, is formed of wire, and the receptacle is provided with suitable means for supporting the screen above the diaphragm 3. In that form of the device here illustrated the side walls of the receptacle have formed therein recesses 27 and 28, the recess 27 being opposite to the operating rod 16 and the recesses 28 being formed in the side walls substantially midway between recess 27 and the operating rod. The supporting frame has outwardly extending portions or lugs 29 and 30 adapted to enter recesses 27 and 28, respectively. That edge of the frame adjacent to the operating rod 16 has a recess 31, which may be formed by bending the wire, and which embraces the operating rod. The recesses 27 and 28 are so aranged that the screen will be supported in an inclined position with its rear edge resting against the rear wall of the receptacle. To insert the screen in the receptacle, the lug 29 is inserted in the recess 27 and the opposite edge of the screen moved downward until it engages the rear wall of the receptacle. This causes the laterally extending lugs or projections 30 to spring into the respective recesses 28, thereby securing the screen in its proper position and preventing its accidental displacement. To remove the screen it is only necessary to apply upward pressure thereon to force the lugs 30 out of the recesses 28. It will be noted that the screen is supported independently of the diaphragm 3 and of the valve.

Further it will be noted that the screen is of simple construction and can be provided at a low cost. Moreover by making the screen independent of the other parts of the device it can be omitted entirely, should this be desirable at any time.

While I have shown and described one embodiment of my invention, I wish it to be understood that I do not desire to be limited to the details thereof, as various modifications may occur to a person skilled in the art.

Having now fully described my invention, that which I claim as new and desire to secure by Letters Patent is:

1. In a device of the character described, a receptacle provided with a handle and having a tapered bottom spaced from the lower edge thereof, said bottom having a discharge opening at the lowest point thereof, a flexible discharge spout connected with said discharge opening and extending laterally beyond the wall of said receptacle, a screen removably mounted on the side walls of said receptacle above said bottom, a valve to close said discharge opening, a lever pivotally mounted on said bottom and connected with said valve, and an actuating rod operatively connected with said lever, extending upwardly through said screen and along the side wall of said receptacle, and provided with a thumb piece adjacent to said handle.

2. In a device of the character described, a receptacle provided with a handle and having a tapered bottom spaced from the lower edge thereof, said lower edge forming a support for the receptacle and said bottom having a discharge opening at the lowest point thereof, a flexible discharge spout connected with said discharge opening and extending laterally beyond the wall of said receptacle, an inwardly opening valve to close said discharge opening, a lever pivotally mounted between its ends directly on said bottom, having one end operatively connected with and forming the sole support for said valve, and having its other end arranged adjacent to the wall of said receptacle, an actuating rod slidably mounted in said receptacle adjacent to the wall thereof, connected at its lower end with the outer end of said lever and having its upper end arranged near the upper edge of said receptacle and provided with a thumb piece adjacent to said handle.

In testimony whereof, I affix my signature hereto.

EARL BROOKINS.