May 22, 1934. G. H. NEIL 1,959,961

SWING SPOUT MEASURE

Filed March 11, 1932

Fig. 2

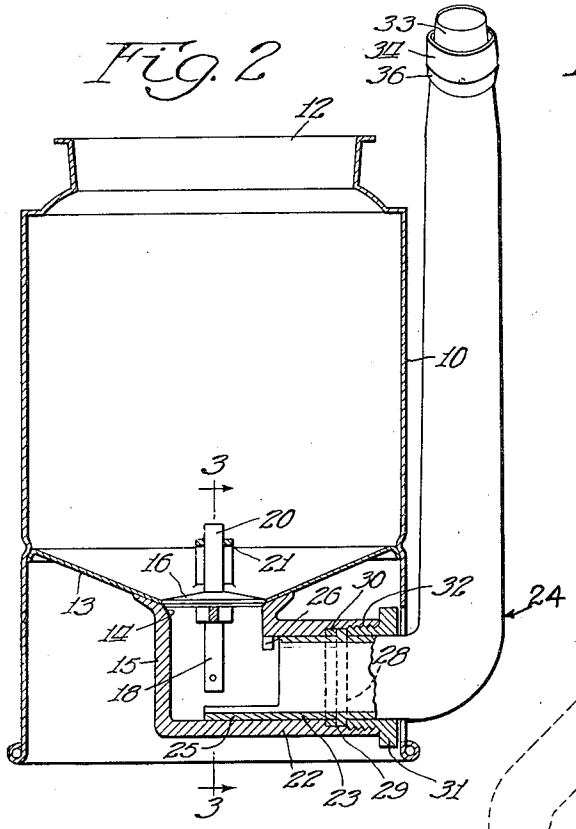


Fig. 1

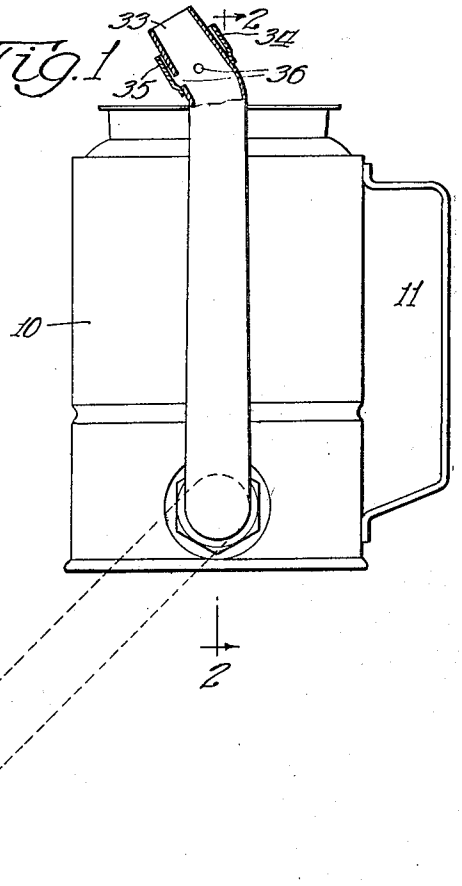
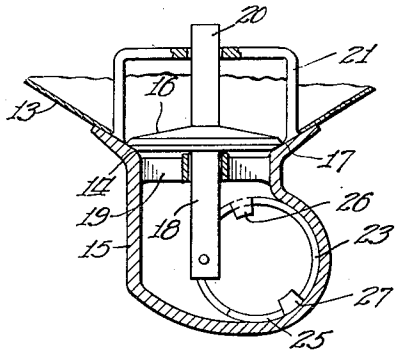


Fig. 3



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UNITED STATES PATENT OFFICE

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SWING SPOUT MEASURE

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Application March 11, 1932, Serial No. 598,137

9 Claims. (Cl. 221—26)

The invention relates to measures such as are employed at gasoline and oil stations for dispensing oil and introducing same to the crank case of an automobile engine.

The invention particularly relates to measures which involve in their construction a spout connected to swing with relation to the receptacle to thereby arrange the spout so that flow through the spout is prevented when in one position and allowed when said spout is arranged in another position.

It is another object of the invention to provide the receptacle with a valve which controls the flow of oil from the receptacle and to provide an operable connection between the spout and valve which controls movement of the valve.

It is another object of the invention to provide means upon said spout for actuating the valve so that upon movement of the spout, the valve will be operated to open and closed positions.

The invention has these and other objects, all of which will be explained and more readily understood when read in conjunction with the accompanying drawing which illustrates one embodiment of which the invention is susceptible, it being obvious that changes and modifications may be resorted to without departing from the spirit of the appended claims forming a part hereof.

In the drawing, Fig. 1 is a side elevation of a receptacle having the invention applied thereto showing the spout in positions preventing and permitting flow of fluid from the receptacle;

Fig. 2 is a section taken on line 2—2 of Fig. 1; and

Fig. 3 is a section taken on line 3—3 of Fig. 2.

The invention contemplates the utilization of a receptacle 10 having a handle 11, the receptacle being open at 12 and closed by the bottom 13. The bottom 13 is arranged a suitable distance from the adjacent edge of the receptacle so that it may be rested on this end. The bottom 13 is provided with an opening 14 with which is associated a housing 15 for housing the valve 16. The valve is movable in a vertical direction relatively to the seat 17 thereof to open and closed positions. The valve 16 has a stem 18 extending through a bridge piece 19 and said valve has a projecting portion 20 which operates in another bridge piece 21 which cooperates with the bridge piece 19 to limit movement of the valve 16 in opposite directions. The housing 15 is provided with a lateral extension 22 and this extension provides means in which the tubular extension generally designated 23 which is part of the spout 24 is rotatably mounted.

This tubular extension 23 is constructed at one end to provide a cam 25, the latter of which is arranged relatively to the stem 18 of the valve so that upon oscillation of the spout to pouring position, the cam 25 engages the stem 18 of the valve and lifts the valve and moves same to open position, permitting fluid to be discharged from said spout and will release the stem 18 permitting the valve to close when said spout is arranged in the vertical position shown in Fig. 1.

Means is provided for limiting the rotative movement of the spout. In the present instance, this means is provided internally of the valve housing 15 and comprises the lugs designated 26 and 27 which are separated from each other to provide a space in which the cam portion 25 may travel into and out of functionally operative relation with the valve stem 18. The lugs providing the limiting means are located in the path of movement of this cam 25 so that the portion will be engaged by the respective lugs 26 and 27 and thereby limit oscillation of the spout.

The portion 23 of the spout is provided with a flange 28, and the extension 22 of the valve housing is recessed as at 29 to receive the flange and to receive a packing ring such as 30 which cooperates with the flange 28 to prevent leakage of oil from the valve housing. A flanged threaded nut 31 is employed, which cooperates with the threaded portion 32 of the element 22 to engage the flange 28 and assist in movably holding the spout relatively to the valve housing.

It is evident that as the spout is rotated from its vertical position to a position at an angle to the vertical, the cam 25 will engage the stem 18 of the valve and cause the valve to be unseated allowing oil or any other commodity contained in the receptacle to flow past the valve into the valve housing and out through the spout. Manifestly, as the spout is again rotated to its vertical position, the cam 25 will release the stem 18 of the valve and allow said valve to seat, in which position said valve is maintained during the period of the filling of the receptacle.

The spout is provided with a means for preventing oil from flowing from the discharge end 33 thereof onto the body portion of the spout, thus allowing the body portion of the spout to be handled without soiling the hands of the user. This means consists of the flanged element 34 which is located adjacent the discharge end of the spout and is spaced from the material

of the spout to provide a pocket 35 into which any oil adhering to the end 33 of the spout may flow and be retained until the spout is again moved to pouring position. The pocket may also be provided with means whereby any oil flowing into the pocket 35 may, instead of being retained in the chamber, be permitted to flow back into the tube forming the spout. To this end, the spout may be provided with one or more apertures 36 which communicate with the pocket 35 which manifestly will allow any oil entering the pocket 35 to flow back into the interior of the spout.

From the foregoing description of the invention, it is evident that a measure is provided having a valve, the latter of which is operable by the spout to move the valve to open same and allow oil to flow from the receptacle through the spout and which will, when the spout is arranged in a more or less vertical position, cause the valve 16 to close so that the receptacle may again be filled.

It is further manifest that means is provided for preventing excess oil from flowing along the exterior of the spout and that this oil may be directed back to the interior thereof and thus maintain the exterior of the spout so that it may be handled without fear of soiling the hands with oil during the dispensing operation.

Having thus described the invention, what I claim as new and desire to cover by Letters Patent is:

1. In a measure, the combination of a vessel having an outlet, a valve controlling said outlet, a spout rotatably connected with said vessel, said spout being rotatable upon a substantially horizontal axis from a substantially vertical position to a position at an angle to the vertical, said valve being movable upon a substantially vertical axis to open and closed positions and means provided upon said spout rotatable upon said horizontal axis engageable with said valve for moving said valve.

2. In a measure, the combination of a vessel having an outlet, a valve controlling said outlet, said valve having a valve head, a spout rotatably connected with said vessel, said spout being rotatable from a substantially vertical position to a position at an angle to the vertical, said spout having means for actuating said valve to unseat said valve head when said spout is moved to said position at an angle to the vertical, said means of said spout allowing said valve head to seat when said spout is arranged in said substantially vertical position, said spout having portions arranged at an angle to each other, and being rotatable upon one of said portions and said last mentioned portion being provided with said means for actuating said valve.

3. In a measure, the combination of a vessel having an outlet, a valve controlling said outlet, said valve having a valve head, a swing spout connected with said vessel, said spout having means provided thereon movable thereby into cooperative relation with said valve to unseat said head.

4. In a measure, the combination of a vessel having an outlet, a valve controlling said outlet, said valve having a valve head, a spout connected with said vessel for movement relatively to said vessel, said spout being movable from a substantially vertical position to a position at an angle to the vertical, said spout having means for moving said valve head, said means being ineffective when said spout is arranged in said substantially vertical position and being engageable with said valve to move said valve head and open said valve upon movement of said spout from said substantially vertical position.

5. In a measure, the combination of a vessel having an outlet, a valve controlling said outlet, said valve having a valve head, a spout rotatably connected with said vessel, said spout having means connected therewith rotatable into and out of functionally operative relation with said valve to open said valve and allow said valve to close.

6. In a measure of the kind described, the combination of a vessel having an outlet and a valve controlling said outlet, said valve being movable upon a substantially vertical axis, to open and closed positions, a swing spout rotatably connected with said receptacle and rotatable upon an axis transverse to the axis of said valve, said spout having means cooperating with said valve controlling the opening and closing movement of said valve upon movement of said spout.

7. In a measure, the combination of a vessel having an outlet, a valve controlling said outlet, a swing spout connected with said vessel, said spout and valve being movable upon relatively transverse axes and said spout having means cooperating with said valve for controlling movement of said valve, said means including a cam.

8. In a measure, the combination of a vessel having an outlet, a valve controlling said outlet, a spout connected with said outlet movable from a substantially vertical position to a position at an angle to the vertical and having means projecting therefrom rotatable into and out of functionally operative relation with an element of said valve to open said valve and control the closing thereof.

9. In a measure, the combination of a vessel having an outlet, a valve controlling said outlet, said valve being movable upon a substantially vertical axis, a spout connected with said outlet movable from a substantially vertical position to a position at an angle to the vertical, said spout being rotatable upon an axis offset with respect to the axis of movement of said valve and having means for actuating said valve.

GEORGE H. NEIL.