L. L. JONES.

FUNNEL.

APPLICATION FILED MAR. 17, 1916.

1,313,386. Patented Aug. 19, 1919.

Fig. 1.

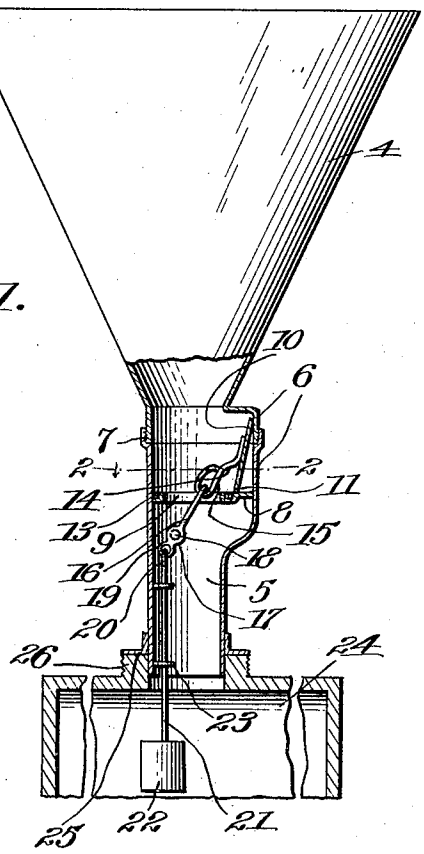


Fig. 3.

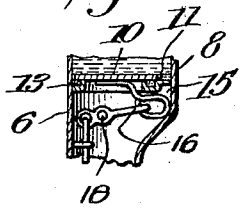
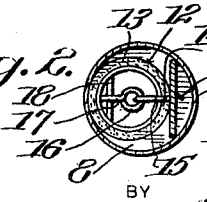


Fig. 2.



WITNESSES

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FUNNEL.

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To all whom it may concern:

Be it known that I, LLEWELYN L. JONES, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Funnels, of which the following is a specification.

My invention relates to a funnel.

The principal object is to provide an improved and more satisfactory article of this nature which will automatically close to prevent the flow of liquid therethrough or overflow upon the filling of a tank or other receptacle.

A very important object is the provision of a construction wherein the closure member may be so disposed when in an open position, as not to be in the path of flow of the liquid.

Another object is to provide the article in separable sections in order to facilitate the insertion of the closure means as well as the cleaning and repair of the article and its different parts.

A further object is to provide a seat for the closure member having a channel to mount a gasket to coöperate with the closure member in order to provide a substantially liquid-tight joint.

With the above and additional objects in view, and such as will hereinafter appear from the following description taken in connection with the accompanying drawings, the invention has been embodied in one preferred form as illustrated in said drawings, wherein:—

Figure 1 is a view partly in elevation and partly in section showing my improved funnel associated with a gasolene tank;

Fig. 2 is a cross sectional view on the line 2—2 of Fig. 1, and

Fig. 3 is a fragmentary vertical sectional view showing the closure member in closed position.

Referring specifically to the drawings, the improved funnel essentially comprises sections 4 and 5, respectively being the usual flared receiving section and the spout section. Each section is provided with an enlarged portion 6 separably connected by means of screw threads at 7.

Within the enlarged portion 6 of the spout section 5, a plate 8 is disposed, and preferably fastened to the enlarged portion as by means of soldering it at its outer edge. This plate 8 is provided with a relatively large opening 9 in alinement with the outlet of the spout 5 and the outlet opening or flared portion 4. Said opening 9 may be closed by a closure disk 10 pivoted to the plate for vertical movement as at 11. Due to the enlargement of the portion 6, as is seen in Figs. 1 and 2, the closure member 10 when in open position is out of the path of flow of the liquid. In order to form a better joint when the member 10 is in closed position, a groove 12 is provided in plate 8 and therein is disposed an annular gasket 13 of rubber or similar material. The closure as seen in Fig. 3 engages this material and as a result a substantially liquid tight joint is provided.

A crank arm 14 is connected to the closure member at 10, being of any suitable construction, and extending through the opening 9 and terminating in an enlarged eyelet 15. Said eyelet 15 is engaged by an enlarged eyelet 16 of a lever 17 pivoted on a pin 18 extending diametrically of and fastened to the spout 5. The lever 17 also is provided with an eyelet 19 and to the eyelet 19, an eyelet 20 is loosely connected. Said eyelet 20 forms part of a rod 21 which mounts a float 22 at its lower end. Guide eyelets 23 may be provided interiorly of the spout 5 to insure proper positioning and traveling of the rod 21.

It is clear that the funnel is capable of use generally. However, in the drawing I have shown it in connection with a gasolene tank 24. When thus used, preferably an annular collar or rest 25 is fastened on the exterior of spout 5 above its lower edge in order to rest on the boss 26 of the tank.

The closing member and its actuating mechanism are for the most part preferably secured in position when the parts or sections 4 and 5 are detached. Through the detachability of these sections, any of the parts may be readily inspected, repaired or replaced.

In use, while the gasolene or other liquid is being poured through the funnel, the closure member 10 is opened and disposed out of the path of flow of the liquid and at an inclination to the vertical and resting against the interior of portions 6 of section 4. The liquid being poured through the funnel gradually rises in the tank 24 until it contacts with the lower face of the float 22 and as it continues to rise, accordingly, raises the float, rod 21, tilts lever 17 and

shifts the crank 14 and closure member 10 to the opposite side of the vertical whence it falls into engagement with the gasket 13 forming a substantially liquid tight joint therewith in order to hold the liquid remaining in the funnel above the closure member as seen in Fig. 3. As a result, only a predetermined quantity of liquid is supplied to the receptacle and overflowing in the process of pouring is avoided.

Since merely the preferred embodiment has been illustrated and described, it is to be understood that changes in the details of construction may be resorted to provided they fall within the spirit and scope of the appended claim.

I claim:

In combination with a funnel comprising separable upper and lower sections, said sections being enlarged at their junction so as to provide a substantially off-set portion, a plate positioned within the enlarged portion provided with an opening, an annular groove surrounding said opening having a gasket secured therein, a closure disk pivotally connected to the said plate and adapted to be disposed within the offset portion when in a vertical position to avoid the flow of liquid passing through the funnel, and to engage the gasket when in a closed position to provide a water tight valve, and operating means positioned within the spout of the funnel below the closure disk, operable through the movement of the liquid.

In testimony whereof I affix my signature in presence of two witnesses.

LLEWELYN L. JONES.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."