L. E. EDMUNDS.

FUNNEL.

APPLICATION FILED APR. 12, 1909.

930,165.

Patented Aug. 3, 1909.

Fig. 1.

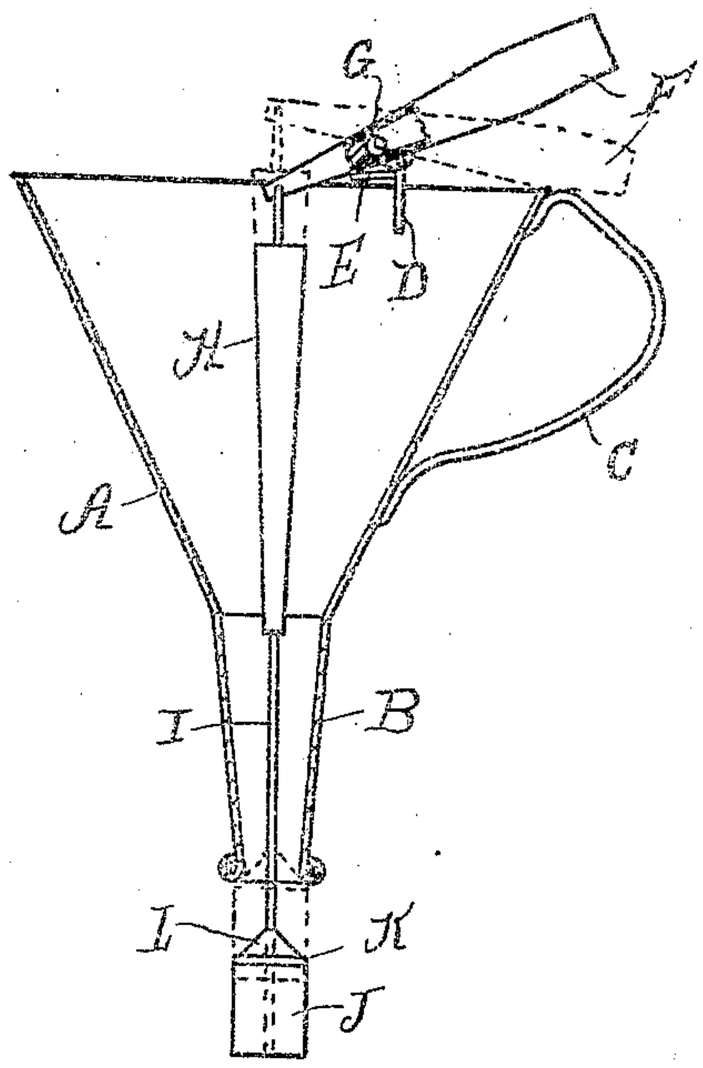
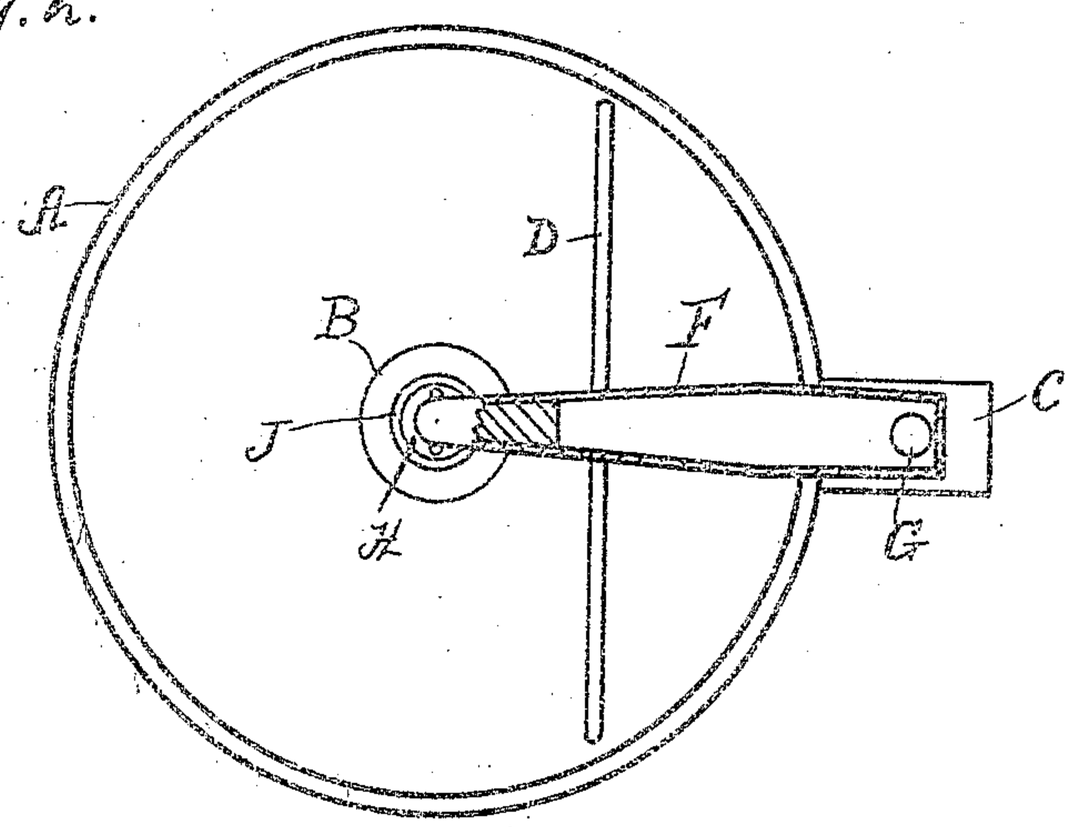


Fig. 2.



WITNESSES:

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FUNNEL.

No. 930,165. Specification of Letters Patent. Patented Aug. 3, 1909.

Application filed April 12, 1909. Serial No. 489,291.

To all whom it may concern:

Be it known that I, LEVI E. EDMUNDS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Funnels, of which the following is a specification.

My invention relates to a new and useful improvement in funnels, and has for its object to provide an exceedingly simple and effective device of this character whereby the discharge thereof may be automatically closed when the receptacle being filled has reached a certain height, thereby overcoming the possibility of over filling said receptacle.

A further object of my invention is to provide a device of this character in which a float is employed to close the discharge of the funnel and also employing an auxiliary float which will assist the main float in closing should the funnel have a considerable amount of liquid therein when the receptacle being filled is full.

By the use of my invention a receptacle may be filled without spilling any of the liquid although the inside of said receptacle cannot be seen, so that the device is especially adapted for use with cans and opaque bottles, barrels and the like.

A still further object of my invention is to provide a lever handle, the inner end of which is connected with the floats, said handle being provided with a shifting weight so that when the discharge of the funnel is closed it will remain closed until acted upon by some outside force such as a touch of the finger.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a longitudinal sectional view of a funnel showing my improvement applied thereto, the dotted lines showing the position of the floats and handle when the discharge is closed, and Fig. 2, an enlarged plan view thereof, the handle being shown in section.

In carrying out my invention as here embodied, A represents a funnel provided with a discharge B and having a handle C so that the funnel may be readily held or carried from place to place. In proximity to the top of the funnel is secured the bracket D having an extension E formed therewith which will be hereinafter described. The upper portion of the bracket D extends above the top of the funnel and has pivoted thereto the hollow lever handle F, in which is placed the shifting weight G which is preferably a lead ball. To the inner end of the handle is attached the conical auxiliary float H which will be entirely within the body of the funnel when the discharge is closed. Fastened to the lower end of the float H is a wire I, to the lower end of which is attached the hollow float J, on the upper end of which is placed the washer K adapted to form a perfect closure with the discharge B. On top of this washer K is mounted a conical guide, L, so that the float J will be brought to its seat with the discharge of the funnel, thus overcoming the possibility of there being an open space between the float and the discharge when the float is resting against said discharge.

The gist of the invention is to provide a funnel with a float which will automatically close the discharge of said funnel when the receptacle receiving the liquid from the funnel is filled.

In practice the discharge may be closed, at which time the lever handle F will be in the position shown by dotted lines in Fig. 1, at which time the weight G will be in the outer end thereof and will hold the float in contact with the discharge against the weight of the liquid within the funnel.

To fill the receptacle the funnel is placed therein and the handle tipped upward with the finger, at which time the weight will roll toward the inner end of said handle, then the liquid will flow from the funnel into the receptacle, and when the liquid in the receptacle has reached the float J it will cause it to move upward until it rests against the discharge of the funnel, closing the same, and this movement will cause the weight G to shift to the outer end of the handle allowing the funnel to be removed without the possibility of spilling the liquid. Should the receptacle receiving the liquid become

filled before the major portion of the liquid had been removed from the funnel, the liquid in the receptacle will start the float J upward and the liquid in the funnel will cause the auxiliary float H to move upward thus assisting the float J until the lever handle had been moved to the position which would cause the weight G to shift to the outer end of the handle.

Of course I do not wish to be limited to the exact details of construction here shown as these may be varied within certain limits without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful, is—

1. In combination with a funnel, a float adapted to close the discharge of the funnel, a washer attached to the upper end of said float, a conical guide mounted on the top of the washer for guiding the float to its seat, and an auxiliary float connected to the first named float for assisting the said first named float in taking its seat.

2. In combination with a funnel, a float adapted to close the discharge of the funnel, a washer attached to the upper end of said float, a conical guide mounted on the top of the washer for guiding the float to its seat, a conical shaped auxiliary float, and a wire for attaching the lower end of said auxiliary float to the first named float.

3. In combination with a funnel, a float adapted to close the discharge of the funnel, a washer attached to the upper end of said float, a conical guide mounted on the top of the washer for guiding the float to its seat, a conical shaped auxiliary float, a wire for attaching the lower end of said auxiliary float to the first named float, and a pivoted lever handle, to the inner end of which is attached the auxiliary float, as shown and described.

4. In combination with a funnel, a float adapted to close the discharge of the funnel, a washer attached to the upper end of said float, a conical guide mounted on the top of the washer for guiding the float to its seat, a conical shaped auxiliary float, a wire for attaching the lower end of said auxiliary float to the first named float, a bracket secured to the top of the funnel, an extension formed with said bracket, and a lever handle pivoted to said bracket, the auxiliary float being attached to the inner end of said handle, for the purpose set forth.

5. In combination with a funnel, a float adapted to close the discharge of the funnel, a washer attached to the upper end of said float, a conical guide mounted on the top of the washer for guiding the float to its seat, a conical shaped auxiliary float, a wire for attaching the lower end of said auxiliary float to the first named float, a bracket secured to the top of the funnel, an extension formed with said bracket, a hollow lever handle pivoted to said bracket, the auxiliary float being attached to the inner end of said handle, and a shifting weight within said handle.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

LEVI E. EDMUNDS.

Witnesses:
ADA M. EDMUNDS,
C. RIDGWAY BRIGGS.