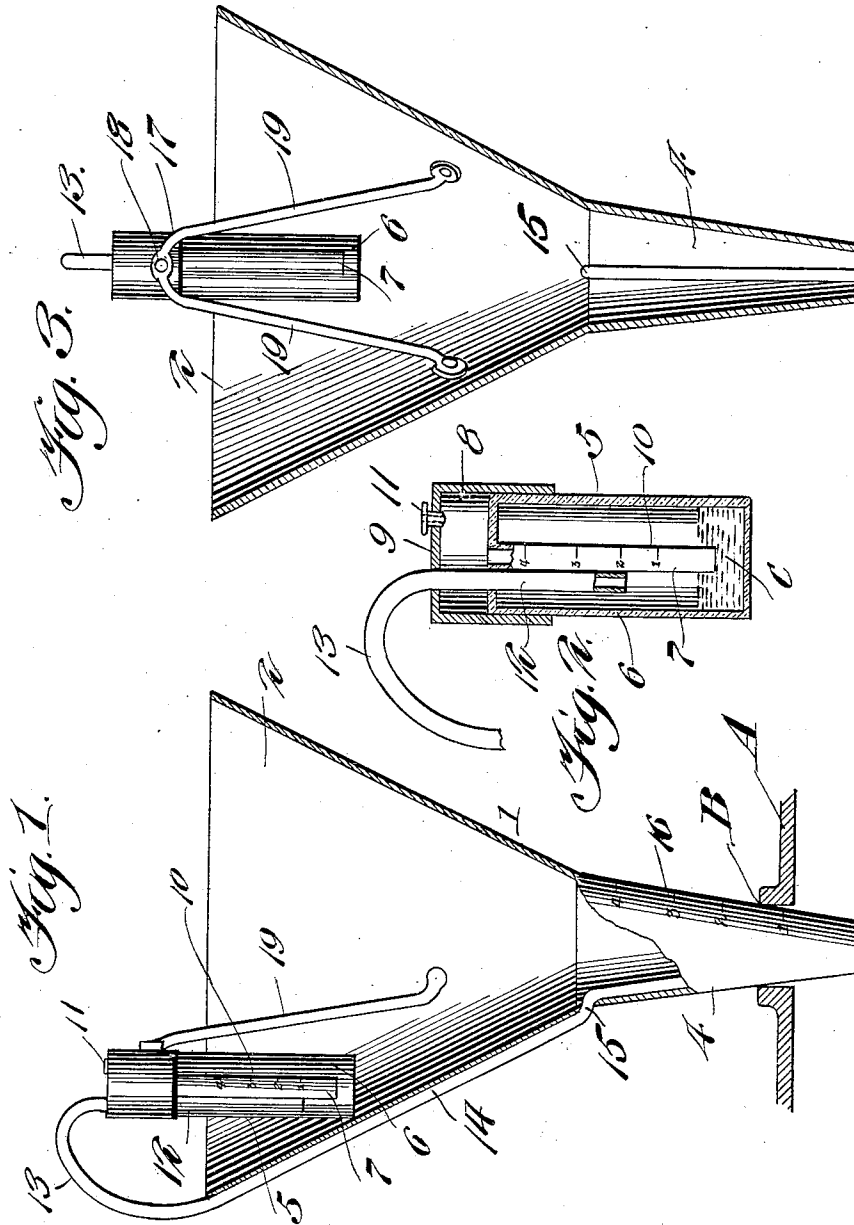


G. A. HANLY.
FUNNEL.

APPLICATION FILED SEPT. 11, 1908.

917,596.

Patented Apr. 6, 1909.



Witnesses

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FUNNEL.

No. 917,596.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed September 11, 1908. Serial No. 452,599.

To all whom it may concern:

Be it known that I, GEORGE A. HANLY, a citizen of the United States, residing at Woodstock, in the county of McHenry and State of Illinois, have invented new and useful Improvements in Funnels, of which the following is a specification.

This invention relates to funnels, and has for an object to provide an indicating funnel adapted to be used in the ordinary filling of cans or the like and to indicate in a novel manner when the can or receptacle is full, thus obviating the usual objectionable overflow as has been common with the use of funnels heretofore.

Other objects and advantages will be apparent as the nature of the invention is better disclosed, and it will be understood that changes within the scope of the claims may be made without departing from the spirit of the invention.

In the drawing, forming a portion of this specification and in which like characters of reference indicate similar parts in the several views,—

Figure 1 is a side view partly in section of the funnel showing its application to a receptacle to be filled. Fig. 2 is an enlarged sectional view through the indicator. Fig. 3 is a detail sectional view through the funnel showing the manner of attaching the indicator thereto.

Referring now more particularly to the drawing, there is shown a funnel 1 of usual construction having the usual conical shape upper portion 2, and, as shown, the said portion has depending therefrom the discharge nozzle 4. An indicator 5 is shown and preferably consists of a cylinder 6 formed from glass or other transparent material provided at its upper end with a depending tube 7. The lower end of the tube 7 is disposed slightly in spaced relation to the bottom of the cylinder 6 for a purpose to be hereinafter described. The cylinder 6 has mounted thereon a cap 8 having a closed top 9 disposed in spaced relation to the top of the cylinder 6. It will thus be seen that the cylinder 6 communicates by way of the tube 7 with the cap 8. The tube 7 is graduated as indicated at 10. The cap 8 is provided with a vent plug 11. A small tube or pipe 12 extends through the cap 8 and into the cylinder 6 and has its lower end disposed above the lower end of the tube 7. The pipe or tube 12 is curved

outwardly from the cap 8 as shown at 13, is directed downwardly at one side of the funnel as indicated at 14, is finally passed through a passage 15 in the nozzle 4 and has its lower end disposed in line with the lower end of the said nozzle. The nozzle 4 is graduated at 16 to correspond with the graduations on the tube 7. A bracket 17 is secured at 18 to the cap 8 and is provided with spaced legs 19 secured at their lower ends to the portion 2 of the funnel.

Upon reference to Fig. 1 of the drawings, wherein is shown a can A, it will be seen that the nozzle 4 is inserted in the filling opening B of the said can and that the $1\frac{1}{2}$ mark upon the said nozzle is on line with the top of the can as clearly shown. After liquid has been placed within the can to the extent that the nozzle 4 is closed by the said liquid, it is obvious that further entrance of liquid will create an air pressure in the tube or pipe 12. The cylinder 6 has a small quantity C of liquid therewithin and normally surrounds a portion of the tube 7. As soon as air from the tube or pipe 12 enters the cylinder 6 air pressure is established therewithin and the liquid C will be forced up into the tube 7. As soon as the liquid rises and aligns with the $1\frac{1}{2}$ mark upon the said tube, it is obvious that the can has been filled, and further discharge of liquid into the funnel would result in an overflow.

Having thus described the invention what is claimed as new, is:—

1. A funnel having a graduated nozzle, a liquid container, an indicator having graduations corresponding with the graduations upon said nozzle, and automatically operated fluid controlled means for causing liquid in said container to rise and cooperate with the indicator when the vessel with which the funnel is used has been filled.

2. A funnel having a liquid container, an indicator, and means operable by the rise of liquid in a vessel with which the funnel is engaged for discharging air upon the surface of liquid in said container to cause the liquid therein to rise and cooperate with the indicator to denote that a vessel is full.

3. A funnel having a graduated nozzle, a liquid container, indicating means, and air conveying means adapted to discharge air upon the surface of liquid within the container incident to the rise of liquid in a vessel with which the funnel is engaged to cause the

liquid in said container to rise and cooperate with the indicating means when the vessel is full.

4. A funnel having a graduated nozzle
5 adapted to be inserted in the filling opening of a vessel, a liquid container carried by the funnel, indicating means within said container, and means for discharging air into
10 said container so that liquid therein will cooperate with the indicator to denote that the vessel with which the funnel is used has been filled.

5. A funnel having a liquid container provided with an air vent passage, a graduated
15 tube carried by the container having its lower end disposed in spaced relation to the bottom of the container and disposed slightly within said container, said funnel having a graduated nozzle corresponding with the
20 graduations upon the tube carried by the container, and an air receiving tube having a

portion disposed in the nozzle of the funnel adapted to receive liquid upon the rise of liquid in a vessel with which the funnel is engaged and discharge air upon the surface of
25 liquid in the container to cause the said liquid to rise and cooperate with the graduations upon the tube.

6. A funnel having a graduated nozzle, a liquid containing cylinder carried by the
30 funnel, a graduated tube adapted to receive liquid from said cylinder, and a pipe carried by the funnel and connected with the said cylinder adapted to receive air and discharge
35 the same upon the surface of the liquid within the cylinder.

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

GEORGE A. HANLY.

Witnesses:

A. FR. TRACY,

W. H. McCORMACK.