No. 690,576. Patented Jan. 7, 1902.

W. A. HESSE.

FUNNEL ATTACHMENT.

(Application filed Feb. 4, 1901.)

(No Model.)

Fig. 1.

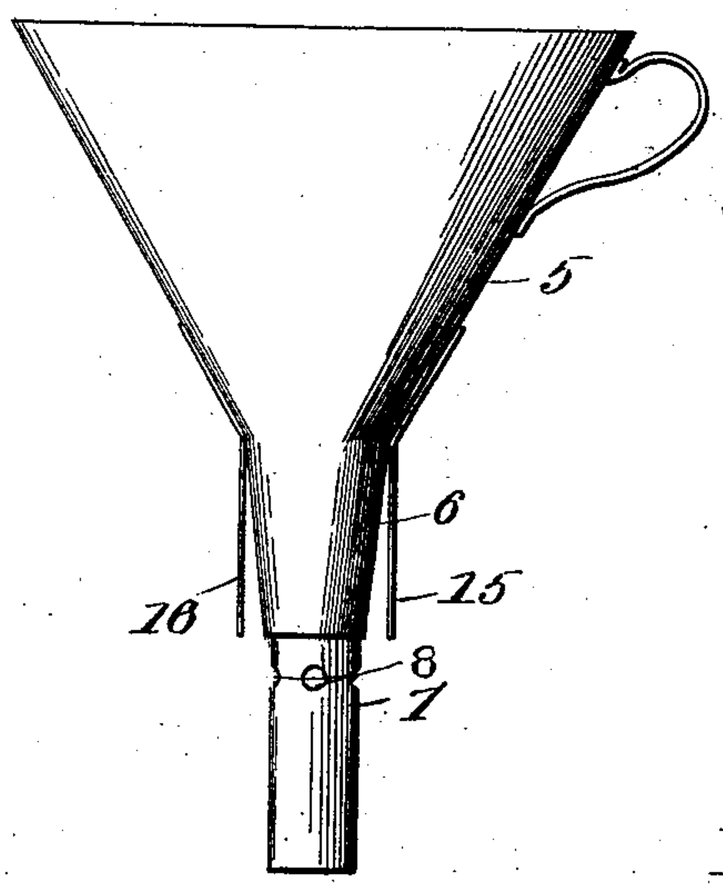


Fig. 2.

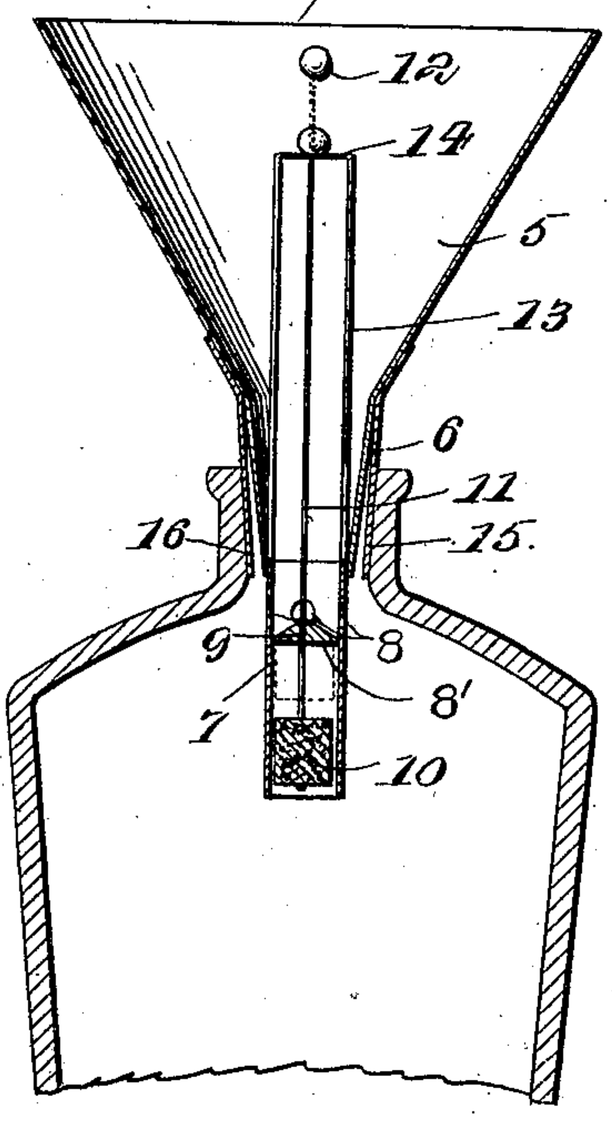


Fig. 3.

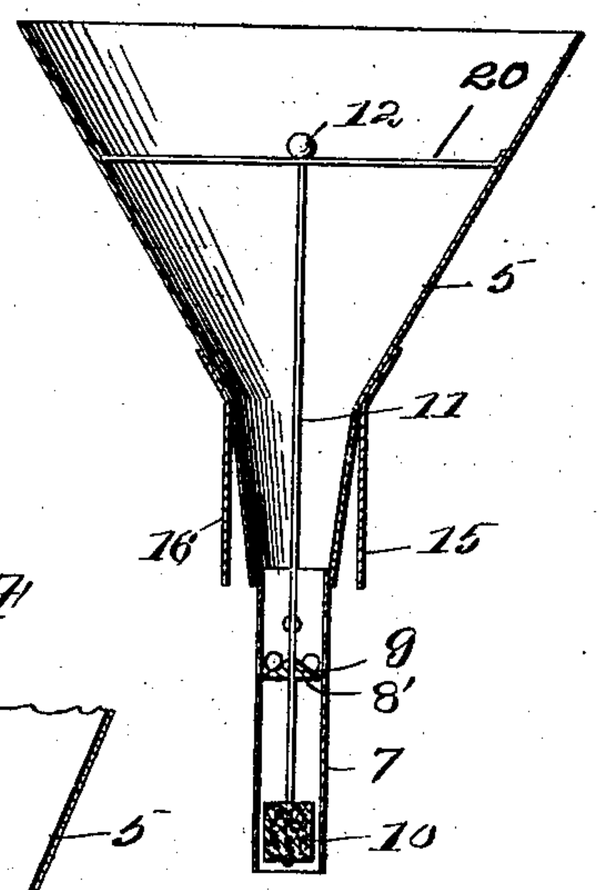
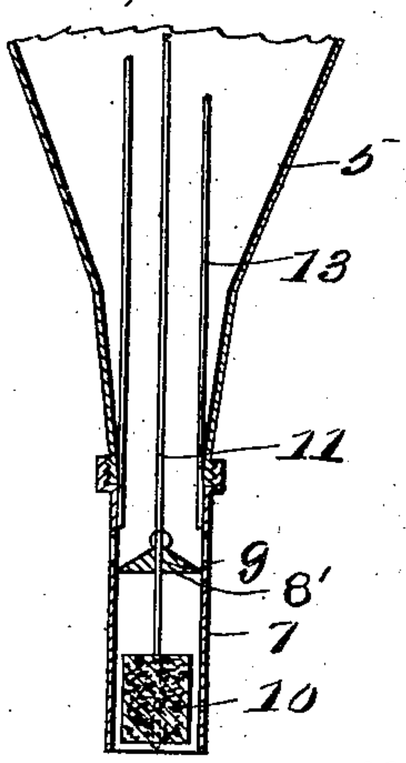


Fig. 4.



Witnesses
E. A. Ryan.
H. E. Clarke

Inventor
By W. A. Hesse.
Thompson & Thompson
Attorneys

UNITED STATES PATENT OFFICE.

WALTER A. HESSE, OF ALAMEDA, CALIFORNIA.

FUNNEL ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 690,576, dated January 7, 1902.

Application filed February 4, 1901. Serial No. 45,968. (No model.)

To all whom it may concern:

Be it known that I, WALTER A. HESSE, a citizen of the United States, residing at Alameda, in the county of Alameda, State of California, have invented certain new and useful Improvements in Funnel Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to funnels; and it has for its object to provide a device of this nature which will be simple, durable, and cheap of construction and which will be operable to indicate visually when a vessel is filled, further objects of the invention relating to the device as an article of manufacture and to structural features that facilitate its manufacture, as more clearly set forth in the following specification.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is an elevation showing the complete funnel. Fig. 2 is a central vertical section showing the indicator in normal position and illustrating the position of the funnel in a vessel being filled, the indicating position of the indicator or signal being shown in dotted lines. Fig. 3 is a central section of a different form of funnel-body. Fig. 4 is a central section showing a form of the invention in which the extension is detachably secured.

Referring now to the drawings, the funnel consists of a downwardly-tapered body portion 5 of usual form and having the usual tubular spout 6. Disposed in the lower end of the spout 6 and held therein by soldering or otherwise is a cylindrical tubular extension 7, which extends some distance below the lower end of the spout. This extension 7 has its upper portion provided with perforations 8, while the lower portion is imperforate, as shown, and within the extension and just below the perforated portion thereof is fixed an upwardly-directed conical partition 8′, having a central perforation 9, this partition being disposed to receive the stream of liquid from the funnel-spout and direct or deflect it laterally through the perforations in the extension.

The partition 8′ forms a guard for a float 10, which is slidably disposed in the lower imperforate portion of the extension below the partition, and attached to this float and extending upwardly therefrom is a rod 11, which is continued upwardly through the perforation 9 in the partition 8′ and thence through the funnel-spout into the body of the funnel, the upper end thereof terminating in a ring or eye 12.

A guide for the rod 11 is provided, and consists of a wire or metal strip 13, bent into U shape, and the ends of the legs of which are soldered to the inner face of the extension 7, at the upper end thereof, previous to application of said extension to the funnel-spout. This guide projects upwardly through the funnel-spout and into the body thereof, and in the web portion 14 of the guide is an opening in which is slidably received the rod 11.

In the use of the funnel the spout, with its extension, is passed into the vessel to be filled, and the liquid is poured in the usual manner and falling upon the partition passes outwardly through the perforations of the spout extension to fill the vessel. When the level of liquid in the vessel has reached the float, the float is raised and the eye at the upper end thereof moved upwardly from the web of the guide and indicates that the vessel is filled.

To prevent wabbling of the funnel in the filling of the vessel, spring-fingers 15 and 16 are attached to the body of the funnel at diametrically opposite points thereof, and these fingers extend downwardly and slightly convergingly to enter the filling-opening of the vessel and engage the sides thereof, and by forcing the funnel down the fingers will be compressed to a degree to cause them to hold the funnel securely.

Instead of the specific guide-frame above described a transverse strip, such as shown in Fig. 3 at 20, may be used, and for filling bottles a longer extension 7 may be used in order that the float may lie at the base of the neck.

If preferred, instead of permanently attaching the extension to the funnel-spout the

lower end of the spout may be threaded, as shown in Fig. 4, and the extension may be correspondingly threaded for engagement therewith, and thus different lengths of extensions may be used in connection with the same funnel interchangeably.

The extension consisting of a U-shaped guide and the cylinder containing the float, with its rod 11, may be manufactured separately and placed on the market independent of the rest of the mechanism. They should of course be made in sizes corresponding to the funnels now in general use.

What is claimed is—

The combination with a funnel having a threaded spout to receive different extensions interchangeably, of an extension having an enlarged upper threaded end for engagement over the threaded end of the spout, a U-shaped guide having its ends attached to the inner walls of the extension and adapted to lie in the spout and the body of the funnel when the extension is in place, said extension having perforations in its upper portion, a conical deflecting-partition below the perforations, a float slidably disposed in the extension below the partition, and a signal-rod attached to the float and passed upwardly through the partition and guide.

In testimony whereof I hereunto sign my name, in the presence of two subscribing witnesses, on the 8th day of January, 1901.

WALTER A. HESSE.

Witnesses:

J. E. FISCHER,

J. AP. WILLIAMS.