No. 631,099. Patented Aug. 15, 1899.

O. TREIBEL & A. C. NIER.

INDICATING FUNNEL.

(Application filed Jan. 28, 1899.)

(No Model.)

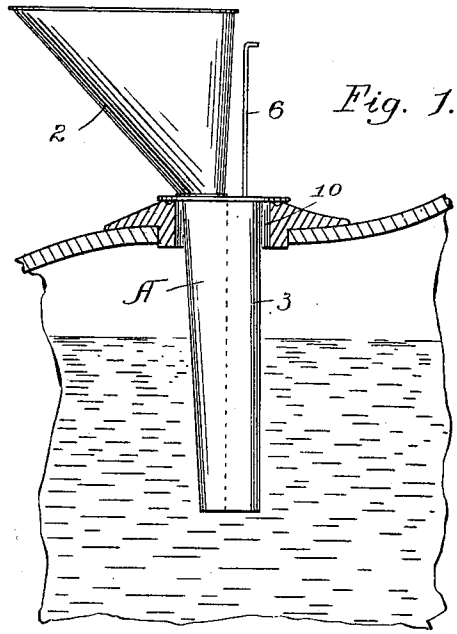


Fig. 1.

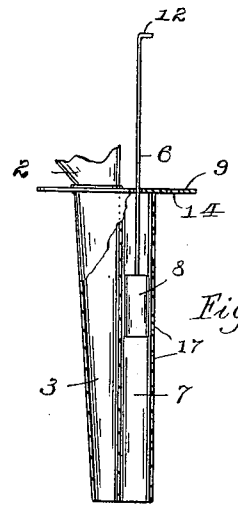


Fig. 3.

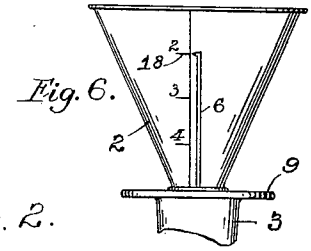


Fig. 6.

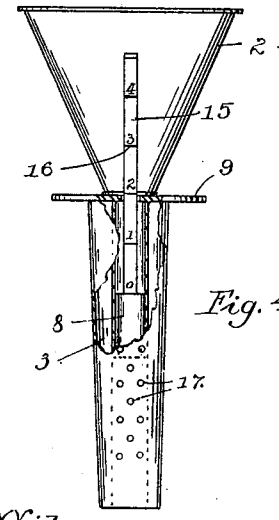


Fig. 4.

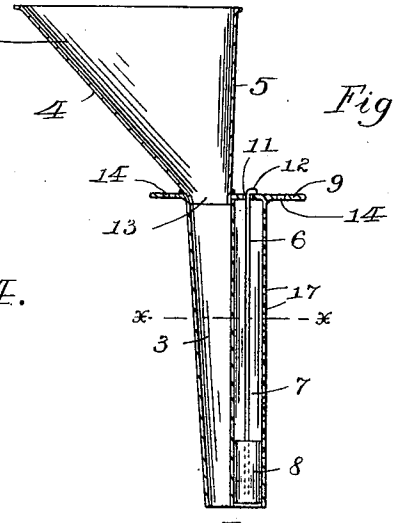


Fig. 2.

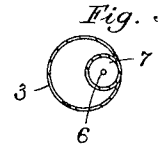


Fig. 5.

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UNITED STATES PATENT OFFICE.

OTTO TREIBEL AND AUGUST C. NIER, OF ST. PAUL, MINNESOTA.

INDICATING-FUNNEL.

SPECIFICATION forming part of Letters Patent No. 631,099, dated August 15, 1899.

Application filed January 28, 1899. Serial No. 703,656. (No model.)

To all whom it may concern:

Be it known that we, OTTO TREIBEL and AUGUST C. NIER, citizens of the United States of America, and residents of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Indicating-Funnels, of which the following is a specification.

Our invention relates to improvements in funnels for use in filling vessels with oil or other liquid and having an indicating device attached thereto, so as to indicate when the vessel contains the desired amount of the liquid.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of our improved funnel shown in position for filling a lamp, which is shown in detail cross-section. Fig. 2 is a vertical cross-section of our improved funnel. Fig. 3 is a detail cross-section of the funnel, showing the float in position indicating the amount of liquid in the vessel. Fig. 4 is a front elevation of our improved funnel. Fig. 5 is a cross-section taken on the line X X, and Fig. 6 is an alternate construction showing a detail view of the receiver having an indicating-scale marked upon the face.

In the drawings, let A represent our improved funnel, which consists of a receiver 2, mounted upon the spout or tubular portion 3 and fastened thereto by soldering or other suitable means. The receiver is preferably formed with the rearwardly-extending flange portion 4 and the upwardly-extending face 5, which is placed upon the spout 3, so as to allow the rod 6 to work freely up and down and indicate when the vessel is being filled.

Obviously a funnel of the ordinary conical form may be used, in which case the indicating-rod shows inside the receiver.

The spout is provided with an inner tube 7, in which the float 8, to which the rod 6 is connected, slides freely. The spout and inner tube may be formed with a single piece of sheet metal or other suitable material. The upper end of the spout 3 is formed with the flange 9, so as to rest upon the lamp when the spout is inserted through the opening 10 thereof, and is provided with the opening 11, through which the rod 6 passes and is adapted to freely move; also, with an air-vent produced by perforations 14 or by fluting or corrugating the flange, which allows the air in the vessel to escape when being filled. The upper end of the rod 6 is formed with the bend or flange 12, which holds the float when in normal position in the tube. The opening 13 of the receiver 2 communicates with the spout 3, so that when the funnel is placed in position on the lamp or other vessel the liquid poured into the receiver passes through the spout into the vessel, and as the vessel fills to a level with the float, which is constructed of cork or other suitable material, causes the float and its rod 6 to rise, owing to the greater specific gravity of the liquid, thereby indicating how close the surface of the liquid is to the top of the lamp. The accuracy with which the indicator responds is increased by perforating the spout and inner tube, as shown at 17, thus facilitating the egress of the air and the ingress of the liquid about the float.

The indicator-rod 6 is preferably flat in form, as shown in Fig. 4, and has marked on the face 15 the indicating-scale 16, by which the amount of liquid in the vessel can be gaged. The scale 18 may be placed upon the face 5 of the receiver.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. An indicating-funnel, consisting of a receiver, a perforated, corrugated or fluted flange, to rest upon the vessel to be filled, and a spout containing an inner tube, through which a float attached to an indicating-rod slides.

2. A funnel provided with an air-tube within the spout; a movable float and indicating-rod within and guided by said tube, and apertures or air-vents as described; whereby as liquid is poured through the funnel into the vessel to be filled the float will rise upon the surface of the liquid in such vessel and the rod will indicate to the eye the distance between the liquid and the top of such vessel.

3. An indicating-funnel, consisting of a receiver 2; a spout 3 and tube 7 formed with a single piece of sheet metal or other suitable material; a flange 9 fixed at the intersection

of said receiver and spout, having perforations 14, for the escape of air from the vessel; and a float 8 attached to an indicating-rod 6 which is adapted to slide in said tube, said rod having a bend or flange 12 and a scale 16, all for the purposes described.

In testimony whereof we affix our signatures, in presence of two witnesses, this 17th day of January, 1899.

OTTO TREIBEL.
AUGUST C. NIER.

Witnesses:
JOHN E. STRYKER,
L. E. WICKMAN.