

J. C. PARKER.
 INDICATOR FOR FUNNELS.
 APPLICATION FILED APR. 21, 1910.

994,272.

Patented June 6, 1911.

Fig. 2.

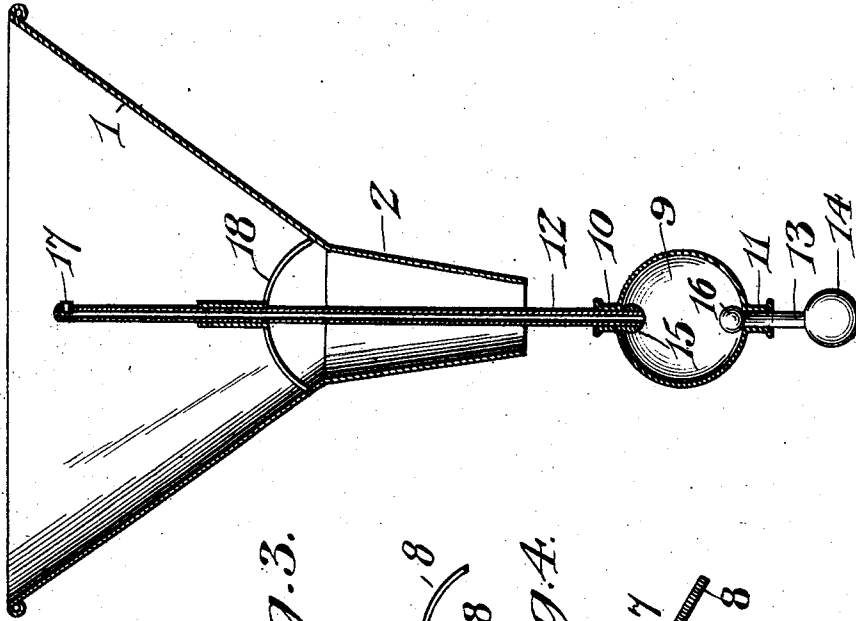


Fig. 3.

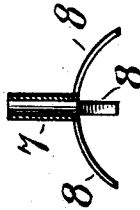


Fig. 4.

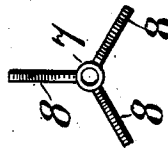
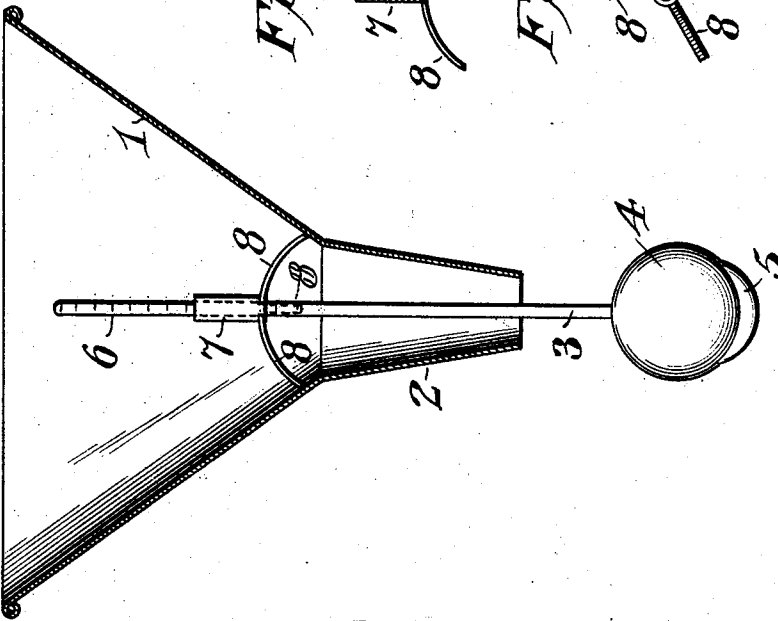


Fig. 1.



James C. Parker, Inventor

Witnesses
 Jas. F. McLaughlin
 R. W. Bishop

By

E. G. Siggers
 Attorney

UNITED STATES PATENT OFFICE.

JAMES C. PARKER, OF WOODSTON, KANSAS.

INDICATOR FOR FUNNELS.

994,272.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed April 21, 1910. Serial No. 556,791.

To all whom it may concern:

Be it known that I, JAMES C. PARKER, a citizen of the United States, residing at Woodston, in the county of Rooks and State of Kansas, have invented a new and useful Indicator for Funnels, of which the following is a specification.

The object of this invention is to provide an attachment adapted for use in connection with any funnel, whereby positive indication will be given of the filling of the bottle or other vessel to which the funnel is applied.

A further object of the invention is to provide a device of the character stated, which will be inexpensive in construction and may be readily fitted to the funnel when it is desired to use the same.

A still further object of the invention is to provide a device of the character set forth which can be easily adjusted so as to be applied to vessels having necks or openings of various sizes and to announce the reaching of any desired level by the liquid within the reservoir or vessel being filled.

All these objects, and such other objects as will hereinafter incidentally appear, are attained by the use of the device illustrated in the accompanying drawings, and the invention consists in certain novel features of the same which will be first fully described and then more particularly pointed out in the claims.

In the drawings, Figure 1 is a sectional view of a funnel showing my improved indicator in elevation in position therein. Fig. 2 is a sectional view of a differently constructed indicator applied to a funnel. Fig. 3 is a detail sectional view of the adjustable support. Fig. 4 is a plan view of said support.

The funnel may be of any desired size or construction and consists, essentially, of a body or cup 1 and a neck or spout 2 depending therefrom. My indicator comprises essentially a stem 3 and a float 4 at the lower end of the said stem, the said float being provided on its under side with a small weight 5 which should be sufficient to hold the indicator in its proper position within the funnel without affecting the buoyancy of the float. The upper portion of the stem may be provided with a series of gradua-

tions 6, if so desired, and upon the stem I fit a sleeve 7 having arms 8 radiating from its lower end and adapted to engage the inner walls of the funnel and thereby support the indicator in position therein, as clearly shown. The sleeve 7, constituting the main body of the support, should be of such diameter as to frictionally engage the stem so as to firmly hold the same but also permit adjustment of the support along the stem according to the circumstances under which the device is being used.

In assembling the parts, the stem 3 is inserted through the lower end of the spout or neck 2 and the sleeve 7 is then engaged over the stem through the upper wider end of the funnel, as will be readily understood. The support having been adjusted to the proper point of the stem, the arms 8 will bear upon the inner faces of the body 1, as clearly shown in the drawings, and thereby support the indicator within the funnel when the funnel is inserted through the opening of a bottle or other vessel.

It will be readily seen, from the foregoing description, that I have provided a very simple and inexpensive device by which the overflowing of a reservoir or other vessel will be prevented, owing to the giving of a positive signal that the fluid has reached the proper level within the vessel. The funnel is inserted through the filling opening and the float 4 will, of course, extend into the vessel to be filled. The liquid is then poured through the funnel in the usual manner, and when it reaches the float, will lift the same so that the arms 8 will be carried upward from the body of the funnel and the indicator, then being free of the funnel, will rattle against the sides of the same and consequently notify the person using the funnel that the pouring action should cease. Should the bottle or other vessel being filled have a long neck, the support, consisting of the sleeve 7 and the arms 8 will be set nearer the upper end of the stem than if the bottle neck were very short. The support will then, of course, permit the float to drop to a greater distance below the end of the spout or neck 2 and will then, of course, be more quickly reached by the liquid entering the vessel. The graduations 6 on the stem will facilitate this adjustment of the support as

they may be of such a character as will correspond to various thicknesses of the tops of reservoirs or the lengths of various bottle necks so that the adaptation of the device to
5 various conditions may be quickly effected.

The float 4 may be of any desired character and will, preferably, be formed of a hollow ball of aluminum or some similar substance, and the stem 3 may be a tube of
10 any material or may be a small wire. The support may be formed in any desired or convenient manner, and a very cheap construction will be to slit one end of a sheet metal blank, then roll the unslitted end of
15 the blank into a tube, and then bend the tongues, formed by slitting the blank, outward from the tube so as to form the supporting arms. The arms will preferably be curved outward and downward, as shown
20 in the drawings, in order to get a more direct engagement with the walls of the funnel and reduce the liability of the arms to bend.

It may sometimes be found desirable to
25 employ the indicator in connection with reservoirs or other vessels in which the filling opening is of very small diameter, and, in order to admit the float through the said opening in such cases, a collapsible float,
30 indicated at 9 in Fig. 2, may be employed. This float will preferably be formed of rubber in the form of a sphere which may be readily inflated and deflated and provided at diametrically-opposite points with nip-
35 ples 10 and 11 adapted to engage over the lower end of the tubular stem 12 and the stem 13 of a weight 14, as shown. The tubular stem 12 will be provided at its lower end with an enlarged head or bead 15 to
40 prevent the slipping of the rubber sphere from the stem, and the stem or shank 13 of the weight will, likewise, be provided with an enlargement 16 at its upper end for the same purpose. The stem 12 of the indica-
45 tor, in this form of the device, will be provided with a suitable opening at its upper end adapted to be closed by a plug 17 so that the float may be readily inflated and deflated, as will be understood. In
50 using this form of the device, the float will, of course, be inserted through the filling opening of the reservoir or the vessel in a deflated condition, and after the funnel has been brought to the proper position, air
55 will be forced through the tubular stem 12 so as to inflate the float, and this inflated condition will be maintained by inserting the plug 17 in the upper end of the stem. When the vessel has been filled and it is de-
60 sired to remove the funnel, it is necessary merely to remove the plug 17 to deflate the float. In this form of the device, the support 18, similar in all respects to the support shown in Fig. 1, will, of course, be
65 mounted upon the stem of the indicator.

My device is, obviously, simple in its construction and operation and may be used in connection with any style of funnel and upon any form of vessel, although it will be found particularly advantageous when fill-
70 ing the gasoline reservoirs of motor vehicles or of oil stoves.

The advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which
75 the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that
80 the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what
85 I claim as new, and desire to secure by Letters Patent, is:—

1. An indicator for funnels consisting of a float, a stem rising from the said float and adapted to pass through the spout of a fun-
90 nel, and a support on the said stem adapted to engage the walls of the funnel when the float is down, said support being carried away from the walls of the funnel when the float rises.
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2. An indicator for funnels consisting of a float, a stem rising therefrom and adapted to pass through the spout of the funnel, and a support frictionally engaging the said
100 stem and adapted to bear against the walls of the funnel.

3. An indicator for funnels consisting of a float, a stem rising therefrom and adapted to pass through the spout of the funnel, and a support adjustably mounted upon the
105 stem and adapted to engage the walls of the funnel.

4. An indicator for funnels comprising a float, a stem rising from the float, a sleeve fitted around the stem, and arms extending
110 from the lower end of the sleeve and adapted to engage the walls of the funnel.

5. An indicator for funnels consisting of a collapsible float, a hollow stem attached to and in communication with the float at
115 its lower end, said stem being passed up through the spout of the funnel, and means mounted upon the stem above the float and detachable from the stem for supporting the latter in a substantially vertical position
120 within the funnel.

6. An indicator for funnels consisting of a collapsible float, a stem rising therefrom and adapted to pass through the spout of the funnel, and a support frictionally en-
125 gaging the said stem and adapted to bear against the walls of the funnel.

7. An indicator for funnels consisting of a collapsible float, a stem rising therefrom and adapted to pass through the spout of
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the funnel, and a support adjustably mounted upon the stem and adapted to engage the walls of the funnel.

5 8. An indicator for funnels comprising a collapsible float, a stem rising from the float, a sleeve fitted around the stem, and arms extending from the lower end of the sleeve and adapted to engage the walls of the funnel.

10 9. An indicator for funnels consisting of a collapsible float, a hollow stem attached to and in communication with the float at its lower end, said stem being passed up through the spout of the funnel, and means
15 for supporting the said stem in a substantially vertical position within the funnel, said float being provided with a supplemental weight attached thereto.

10. An indicator for funnels comprising

a tubular stem having an opening at its upper end, and an enlargement at its lower end, an inflatable body provided with a nipple adapted to engage the lower end of the tube above the enlargement thereon, and
20 also provided with a diametrically-opposite nipple, a weight provided with a shank adapted to be engaged by said last-mentioned nipple and having an enlarged end to retain the said nipple in its engagement, and
25 a closure for the opening at the upper end of the tubular stem. 30

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES C. PARKER.

Witnesses:

WILLIAM T. CLUNEY,
WILLIAM T. ADAMS.

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