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B. F. BEE.
FUNNEL.

APPLICATION FILED MAY 12, 1906.

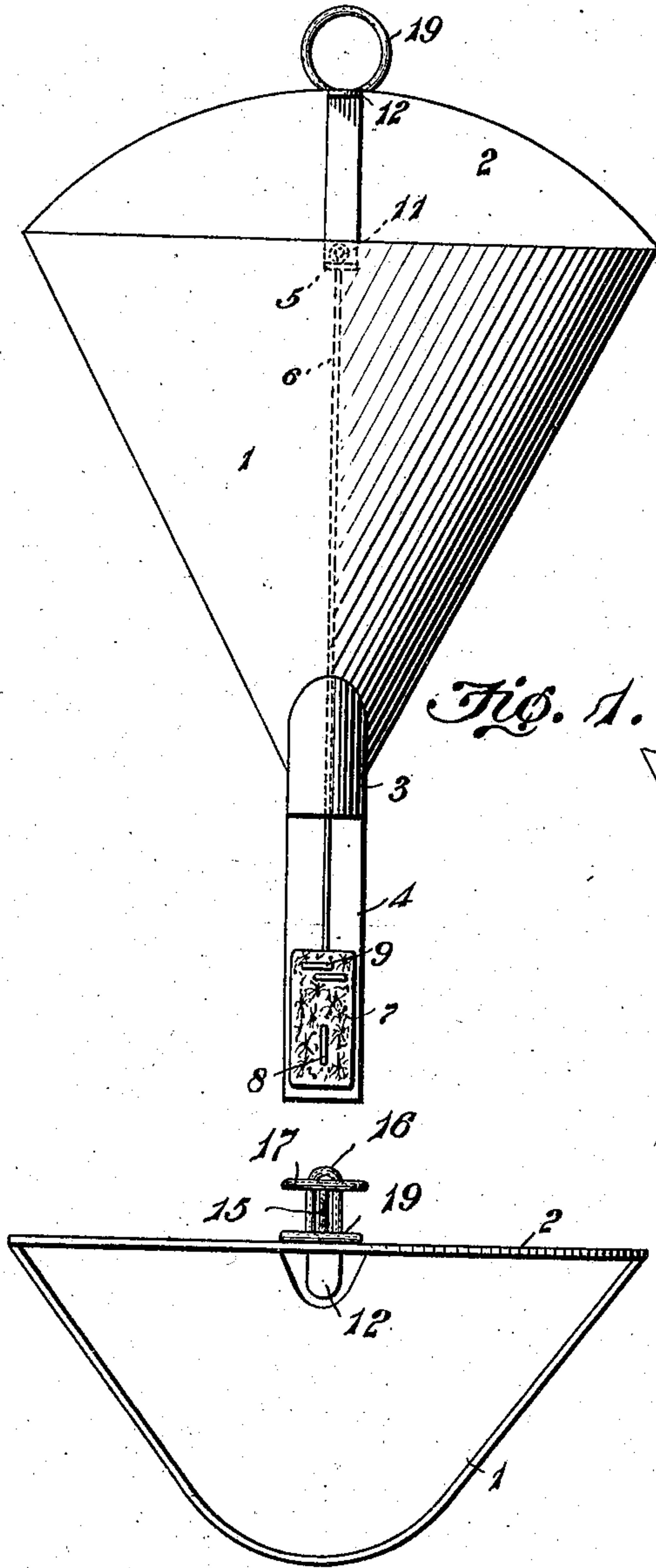


Fig. 3.

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FUNNEL.

No. 881,891.

Specification of Letters Patent.

Patented March 17, 1908.

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To all whom it may concern:

Be it known that I, BENJAMIN F. BEE, a citizen of the United States, residing at Harwich, in the county of Barnstable and State of Massachusetts, have invented a new and useful Funnel, of which the following is a specification.

The invention relates to improvements in funnels.

10 The object of the present invention is to improve the construction of funnels, and to provide a simple, inexpensive and efficient funnel designed for filling metallic kerosene lamps, and adapted to enable the same to be
15 filled without liability of causing an overflow of the oil.

A further object of the invention is to provide a funnel of this character adapted to maintain itself in an upright position on a
20 lamp, and capable of indicating when the font or reservoir is full.

Another object of the invention is to provide a clamping device, which will yieldably engage the font or reservoir of a lamp at the
25 filling orifice and which will not interfere with the use of the funnel on any lamp.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully
30 described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the
35 scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing: Figure 1 is an elevation of a funnel constructed in accordance with
40 this invention. Fig. 2 is a central vertical sectional view of the same. Fig. 3 is a plan view. Fig. 4 is a horizontal sectional view on the line 4—4 of Fig. 2. Fig. 5 is a rear elevation of the lower portion of the funnel.

45 Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates the bowl of the funnel, which is designed particularly for filling lamps, and in order to prevent the funnel from coming in contact with the burner of the lamp, a semi-conical bowl is provided. The bowl consists of a semi-conical front and a tapering
50 back, united at its side edges to the side

edges of the the semi-conical front. The 55 funnel, which is provided at the bottom of the bowl with a semi-cylindrical extension 3, has a flat spout 4, which is oblong in cross section, as clearly illustrated in Fig. 4 of the drawing, and which is adapted to provide a free passage for the oil, so that there
60 will be no liability of the funnel running over when oil is poured into it from an ordinary oil can.

The back 2 of the funnel is preferably extended above the front edges of the sides and front, as clearly shown in Figs. 1 and 2 of the drawing, and it has mounted on it a guide 5, which receives an indicating stem 6 of a float 7. The float 7 is constructed of cork, or
70 other suitable material, has a flat rear or inner vertical face, and its front or outer face is rounded, as clearly shown in Fig. 4 of the drawing. In practice the float will be immersed in the oil within the font or reservoir
75 of a lamp, and its upper end will be on a level with the surface of the liquid, the gage being taken from the upper end of the float and not from the bottom of the same. The stem is partially embedded or seated in the
80 rear face of the float to enable the latter to be arranged close to the contiguous flat face of the spout, and the lower end 8 of the stem is passed through the lower portion of the float, and is extended upward on the outer face of
85 the same, and the terminal is embedded in the float. The lower end of the stem forms a loop, which embraces the cork without liability of splitting the same. The stem is secured to the upper portion of the float by
90 means of a wire staple 9, which embraces the stem, as clearly shown in Fig. 4 of the drawing. The sides or legs of the staple pierce the float, and the terminals thereof are bent in opposite directions and partially embed-
95 ded in the outer face of the float.

The lower portion of the stem is arranged adjacent to the front wall of the spout and it enters the bottom of the bowl through a perforation 10 of the lower end of the substantially semi-cylindrical extension 3. The upper end of the stem is coiled to form a head 11, which moves between the guide 5 and a stop 12. The guide consists of a horizontal projecting lip or flange, which is provided with a perforation through which the
100 indicating stem passes. The guide forms a lower stop for limiting the downward move-

ment of the stem, and it is located below the upper edge of the bowl of the funnel, while the upper stop is located above the said upper edge. The stop consists of a horizontal projecting lip or flange, located above the guide 5 and arranged to be engaged by the head 11 of the stem. The stop and the guide are preferably formed of a narrow strip of sheet metal, secured to the back, and having its terminals bent outward at right angles, as clearly shown in Fig. 2 of the drawing. The float normally hangs near the lower end of the spout, as clearly shown in Figs. 1 and 2 of the drawing, and as the spout is introduced into the reservoir or font through the filling orifice, the oil as it rises in the said font or reservoir, will cause the float to move upward, which upward movement will be indicated by the upper end of the stem.

20 In order to enable the funnel to maintain itself in an upright position in the filling orifice of the lamp, it is provided at the back with a yieldable inclined or angularly disposed clamping device 13, consisting of a piece of spring wire, or other suitable resilient material, which is secured at its lower end portion 14 by solder, or other suitable means, to the lower portion of the spout at the rear wall thereof. The lower attachment portion 30 14 of the wire is preferably of a length substantially equal to that of the float, and the wire diverges upwardly from the spout at a point in line with the upper end of the float, when the latter is in its lowermost position, as illustrated in Fig. 2 of the drawing. By this arrangement the clamping device will not interfere with the insertion of the float through the filling orifice into the font or reservoir of the same. The engaging portion 40 of the clamping wire is provided with a plurality of seats located at different distances from the spout and consisting of crimps or bends 15, forming upper and lower shoulders for engaging the edge of the font or reservoir at the filling orifice thereof whereby the clamping device is effectually prevented from accidentally slipping in its engagement with the lamp. The inclined or angularly disposed engaging portion of the clamping device forms a yieldable wedge and is adapted to engage the filling orifice of a lamp at a point directly opposite the extension 3 of the bowl of the lamp. The extension 3 of the bowl presents a rounded or convex outer face, which conforms generally to the configuration of one side of the filling orifice of the lamp, and the clamping device 13 engages the lamp at the opposite side of the orifice, whereby the funnel is positively maintained 60 in an upright position on the lamp.

The upper end of the wire of the clamping device is arranged in an approximately horizontal guide 16 and is coiled above the same to form a circular loop or ring 17, which is 65 adapted to receive the finger, and which is

arranged in a plane substantially parallel with that of the flat rear wall of the funnel. The approximately U-shaped guide 16 is provided with laterally extending lugs or portions 18, which are soldered, or otherwise secured to the exterior or rear wall of the funnel. The clamping device, which is short, is located substantially above the float so as not to interfere with the introducing of the same into the font or reservoir of a lamp, and it is not of sufficient length to contact with a globe or chimney, or otherwise interfere with the use of the funnel on any ordinary lamp. The clamping device is adapted to be compressed while introducing the spout of the funnel into the filling orifice of a lamp, and when it is released, it will automatically engage the lamp and clamp the funnel in the same.

The funnel is provided with a hinged ring 19, secured to the rear face of the back at the upper edge thereof, and adapted to enable the funnel to be hung upon a nail or similar supporting device.

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

1. A funnel having a spout provided with a yieldable clamping member fixed at its lower end to the spout and extending upwardly therefrom at an inclination and provided with a series of seats at different distances from the spout to fit orifices of different sizes.

2. A funnel having a spout provided with a yieldable clamping member fixed at its lower end to the spout and cooperating with the same to form a downwardly tapering wedge, said member being provided with a series of seats at different distances from the spout to fit orifices of different sizes, and means or guiding the clamping member.

3. A funnel having a spout, an inclined clamping device secured at its lower end to the spout and arranged at an angle to the same, a substantially U-shaped guide mounted on the funnel and receiving the upper free portion of the clamping device, said device being provided with a series of seats located at different distances from the spout to fit orifices of different sizes.

4. A funnel provided with an inclined clamping device located at and secured to the spout and provided along its length with crimps or bends forming upper and lower shoulders to engage above or below the edge of a font or reservoir.

5. A funnel comprising a bowl, a depending flat spout, a short substantially semi-cylindrical extension depending from the bowl to the upper end of the spout and connecting said parts and presenting an exteriorly arranged rounded or convex face to fit within and steady the funnel at one side of the orifice of a lamp, and a vertically dis- 130

posed yielding clamping device mounted on the funnel and arranged to engage the opposite side of the said orifice.

5 6. A funnel comprising a bowl having a semi-conical front wall and provided with a flat tapering back, a flat spout connected with the funnel, a short semi-cylindrical extension depending from the bottom of the funnel and located at the upper end of the
10 spout and provided in its bottom with an opening, and a float slidable on the spout beneath the semi-cylindrical extension and having a stem passing through the bottom thereof.

15 7. A funnel comprising a bowl having a semi-conical front wall and provided with a flat tapering back, a flat spout connected with the funnel, a semi-cylindrical extension depending from the bottom of the funnel
20 and located at the upper end of the spout and provided in its bottom with an opening, a float slidable on the spout beneath the semi-cylindrical extension and having a stem

passing through the bottom opening thereof, and a clamping device mounted at the opposite side of the spout. 25

8. A funnel comprising a bowl, a depending spout, a short semi-cylindrical extension depending from the bowl at the upper end of the spout and connecting said parts, a
30 float slidable on the spout beneath the semi-cylindrical extension and having a stem passing through the bottom thereof and extending into the bowl, and upper and lower stops projecting from the back of the bowl
35 and located above and below the upper edge of the latter and arranged to be engaged by the stem for limiting the upward and downward movements thereof.

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

BENJAMIN F. BEE.

Witnesses:

HENRY MAREAN,
JOHN D. BRUNNER.