L. GERHARDT.

POURING SPOUT.

APPLICATION FILED MAR. 8, 1915.

1,174,312. Patented Mar. 7, 1916.

Fig. 3.

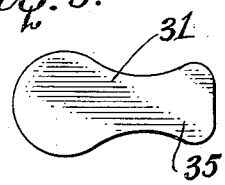


Fig. 4.

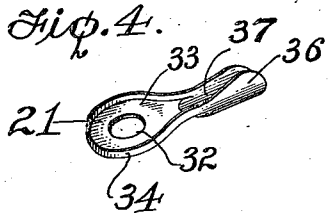


Fig. 5.

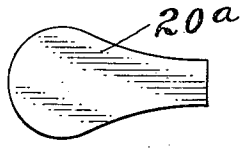


Fig. 6

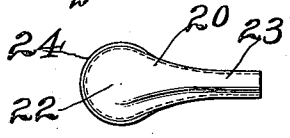


Fig. 7

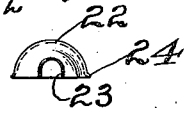


Fig. 8.

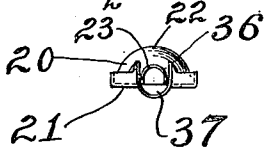


Fig. 11.

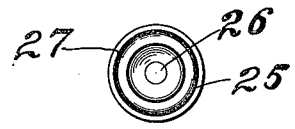


Fig. 12.

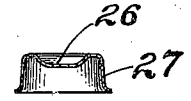


Fig. 13.

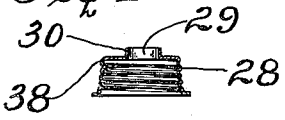


Fig. 14.

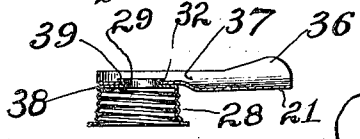


Fig. 15

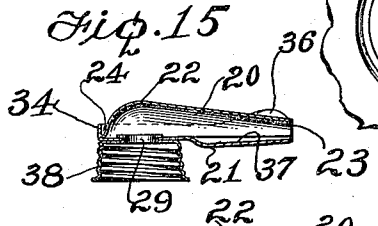


Fig. 1

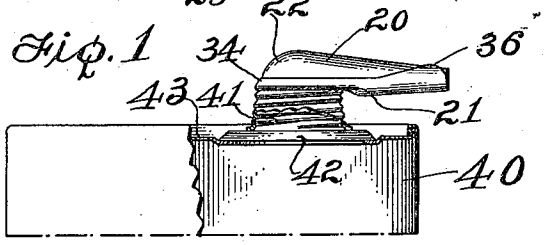


Fig. 10

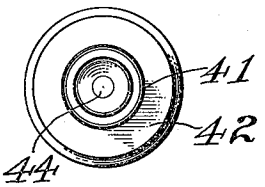


Fig. 9

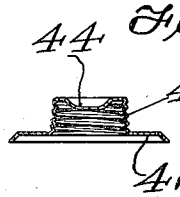
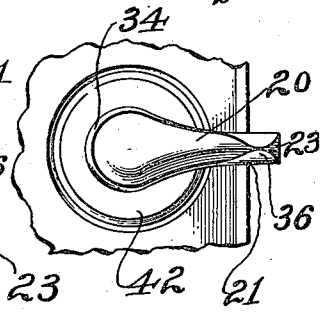


Fig. 2.



Witnesses:

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F. D. Ammen

Inventor

Leonard Gerhardt,

By his Attorneys

Meyers, Cushman & Rea

UNITED STATES PATENT OFFICE.

LEONARD GERHARDT, OF ARLINGTON, MARYLAND, ASSIGNOR TO TIN DECORATING COMPANY OF BALTIMORE, OF BALTIMORE, MARYLAND, A CORPORATION OF NEW JERSEY.

POURING-SPOUT.

1,174,312. Specification of Letters Patent. Patented Mar. 7, 1916.

Application filed March 8, 1915. Serial No. 12,862.

To all whom it may concern:

Be it known that I, LEONARD GERHARDT, a citizen of the United States, residing at Arlington, in the county of Baltimore and State of Maryland, have invented new and useful Improvements in Pouring-Spouts, of which the following is a specification.

This invention relates to receptacles or containers for liquids, and while the invention is applicable to receptacles of all kinds, it is intended particularly to be used as a pouring spout for small receptacles such as cans for kerosene, linseed oil, or other liquids, the receptacles for which may be held in one's hand and decanted in order to pour the liquid therefrom.

A principal object of the invention is to produce a substantially tubular object such as a spout, of a very simple construction and without the employment of any solder.

A further object of the invention is to produce a spout which can be readily attached to a receptacle at the point where the usual screw cap is applied.

Further objects of the invention will appear more fully hereinafter.

The invention consists in the general combination of parts and the features hereinafter described, all of which contribute to produce an efficient spout.

The preferred embodiment of my invention will be particularly described in the following specification, while the broad scope of my invention will be pointed out in the appended claims.

In the drawings Figure 1 is a side elevation in partial section showing the upper part of a receptacle or can with the spout applied thereto. Fig. 2 is a plan showing a portion of the head of the receptacle at which the spout is applied. Fig. 3 is a plan showing a blank from which a portion of the spout is formed. Fig. 4 is a perspective showing this blank formed up into the shape which it has when a coöperating tube section is attached to it to form the complete tube. Fig. 5 is a plan of a blank from which the upper tube section of the spout may be formed. Fig. 6 is a plan showing the preferred form of the tube section constructed from the blank shown in Fig. 5. Fig. 7 is an end view of the tube section shown in Fig. 6. Fig. 8 is an end elevation of the spout when the two tube sections are placed together to form the spout, and showing the condition of the spout before the two sections are manipulated so as to cause them to interlock. Fig. 9 is a vertical section through the nipple to which the spout is attached. Fig. 10 is a plan of the nipple shown in Fig. 9. Fig. 11 is a plan of a cup-shaped blank from which a screw cap is formed and which is attached to the spout. Fig. 12 is a vertical section through the blank shown in Fig. 11. Fig. 13 is a vertical section through the screw cap and showing the same in a condition in which it is prepared to receive and be attached to one of the spout members. Fig. 14 is a view showing one of the spout sections or members attached to the screw cap, and Fig. 15 is a vertical section through the spout with the tube sections placed together and ready to be interlocked so as to prevent their becoming detached from each other.

Referring more particularly to the parts the spout preferably comprises two tube sections 20 and 21, the upper section 20 being elongated and of semi-tubular or crowned form, having an enlarged dome-like end 22 and a reduced nozzle or spout 23 toward which the tube section tapers from the dome end 22. The lower edge of this tube section around the dome end 22 is preferably slightly bent outwardly or swaged, as indicated at 24 in Figs. 7 and 15. The tube section 21 is elongated like the tube section 20, and these two tube sections are constructed so as to interlock with each other to form a spout, the connection between them being effected simply by bending the parts of one of the tube sections about the other tube section. I prefer at the same time to construct the spout so that it can be readily attached to the ordinary threaded nipple of a can or receptacle. In order to accomplish this I prefer to form an inverted cup-like blank 25, (see Figs. 11 and 12) said blank having a depressed or dished head 26 and a substantially cylindrical side wall 27. I then form the side wall with a spun thread 28 and I also punch the dished head 26 in an upward direction so as to form an opening 29 and a flange 30 projecting upwardly around this opening. The tube section 21 is preferably formed from a blank 31 having the general form shown in Fig. 3, and the enlarged portion of this blank is punched to form an opening 32 formed through a substantially

circular plate form body 33, the edge of the body 33 being bent upwardly to form a rim flange 34. The elongated or projecting portion 35 of the blank is bent upwardly at its side edges to form two upwardly extending lobes or lips 36 with a channel or gutter 37 formed therebetween. This partly formed tube section 37, shown in Fig. 4, is then applied to the partly finished screw cap 38, shown in Fig. 13, so that the flange 30 projects upwardly through the opening 32 and this flange is then swaged preferably like an eyelet as indicated at 39 in Fig. 14. The tube section 20 is then placed in position over the tube section 37 with the dome 22 over the opening 29, and the upwardly extending flange 34 is then crimped over the swaged edge 24, preferably as indicated in Figs. 1 and 2. At the same time the upwardly extending lobes or lips 36 are bent over the upper side of the reduced end or neck 23 of the upper tube section 20. On account of the semi-tubular form of the tube section 20 it firmly resists the force exerted in turning in the flange 34 and the lips 36 so that the flange and the lips can be forced very securely against the tube section 20 in such a way that a substantially tight joint is formed. While this joint may not be actually liquid tight it is sufficiently so for the purposes of a spout.

A spout constructed as described can be very readily produced in a very economical way, and by reason of the screw cap 39 it can be readily attached to the ordinary screw nipple found on oil cans. The spout is preferably not held rigidly by the swaging at 29, so that it is swiveled at this point. On this account the spout can be readily swung inwardly when it is not in use so that it will not project beyond the side of the can. In practice, however, I prefer to provide the receptacle or can indicated at 40 with a screw nipple 41 which is formed integral with a base plate 42 which is soldered, or otherwise attached to the head 43 of the receptacle. This threaded nipple 41 has a depressed head 44 which forms a permanent closure for the can until it is desired to consume the contents of the can, and when it is desired to use the contents of the can this depressed head 44 is punctured by means of any sharp instrument, such as a nail, and the screw cap 38 with the spout attached thereto is screwed onto the thread of the nipple 41.

The tube section 20 is most conveniently formed from a blank 20^a of the general form shown in Fig. 5. The full receptacle may be sold with the spout in place on the threaded nipple with printed instructions to unscrew the spout, puncture the head of the nipple and then replace the spout.

It is understood that the embodiment of the invention described herein is only one of the many forms or embodiments the invention may take, and I do not wish to be limited in the practice of the invention nor in my claims to the particular embodiment set forth.

What I claim is:

1. A receptacle spout including a plate-like base section provided with a marginal flange terminating in a pair of upturned lips, said base section having a cap-receiving opening therein, and a top section mounted on the base section and fastened thereto by the marginal flange of the base section.

2. A receptacle spout comprising an elongated base section having a plate-like portion provided with a central opening, the edge of such plate-like portion having an upstanding flange, said base section also having a pair of upstanding lips, and a top section mounted on the base section and secured thereto by means of the upstanding flange of the base section, and the upstanding lips.

3. A receptacle spout comprising an elongated base section having a pair of spaced upstanding lips, and an elongated top section mounted on and connected with the base section and having a reduced nozzle portion lying between and held in position by the lips of the base section.

4. A receptacle spout comprising an elongated base section having an enlarged plate-like portion provided with a cap-receiving opening and a reduced extension projecting from the plate-like portion, and a top section mounted on the base section and including a dome portion adapted to overlie the cap-receiving opening of the base section and a reduced nozzle portion extending above the reduced extension of the base portion and means for connecting the two sections together.

5. A receptacle spout comprising a spout section having an opening therein adapted to loosely receive a tubular cap member, a second spout section mounted on the first mentioned spout section and forming a fluid duct in conjunction therewith, said second spout section having a dome-like portion adapted to overlie the spout-receiving opening of the first mentioned spout section, and means carried by one of said spout sections for engaging and retaining the other spout section.

6. In a receptacle spout, a base section having an opening therein adapted to have a tubular cap pass loosely therethrough and whereby said base section may turn upon the cap, a top section mounted on the base section forming a fluid duct in conjunction therewith, and a vertical flange carried by one of said sections and engaging with the other section to secure the two sections together.

7. In a receptacle spout, a base section having an opening therein adapted to re-

ceive a tubular cap, whereby said base section may turn upon the cap, a top section mounted upon the base section and having a dome-like portion overlying the cap-receiving opening of the base section, and an upwardly and inwardly extending flange carried by the base section and adapted to retain the top section in position on the base section.

8. A receptacle spout including a base portion provided with an upstanding marginal flange 34 and having an opening 32 therein for connection with a fluid conducting cap, and a hood having a dome portion adapted to overlie the cap-receiving opening of the base portion, the marginal edge 24 of the dome portion being bent outwardly and closely embracing the marginal flange 34 of the base portion.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LEONARD GERHARDT.

Witnesses:
M. H. JAMES,
JASPER M. BERRY, Jr.