

June 7, 1927.

1,631,951

B. A. McANSH.

COLLAPSIBLE SPOUT

Filed Sept. 26, 1923

Fig. 1.

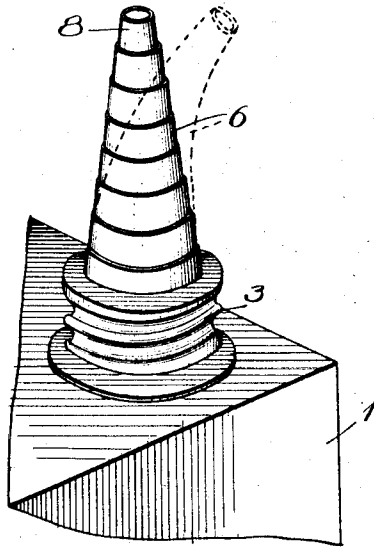


Fig. 2.

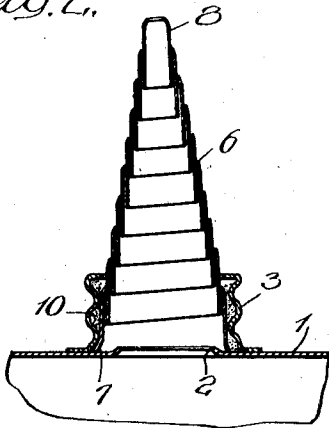


Fig. 3.

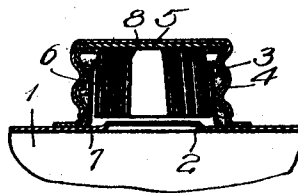


Fig. 4.

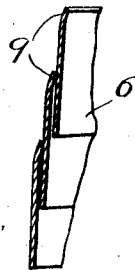


Fig. 5.

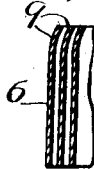
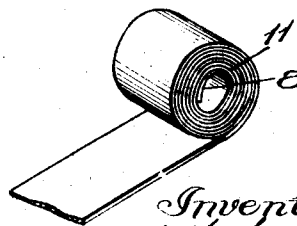


Fig. 6.



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UNITED STATES PATENT OFFICE.

BYRON A. McANSH, OF CHICAGO, ILLINOIS.

COLLAPSIBLE SPOUT.

Application filed September 26, 1923. Serial No. 664,925.

My device relates to improvements in a collapsible spout, and relates particularly to a spout which may be used for pouring liquids from cans or other suitable receptacles.

5 The invention has among its objects the production of a device of the kind described which will be extremely convenient, simple, compact, durable, reliable, satisfactory and efficient for use wherever found applicable.

10 My invention further relates to a spout which may be formed so as to be either permanently or detachably connected at the discharge opening of a can or receptacle, and so constructed that it may be collapsed to occupy but little space and be concealed when not in operative or pouring position, and will automatically extend itself and permit a certain degree of flexibility when in operative position.

20 Many other objects and advantages of the construction herein shown and described will be obvious to those skilled in the art from the disclosure herein given.

To this end, my invention consists in the 25 novel construction, arrangement and combination of parts herein shown and described, and more particularly pointed out in the claims.

In the drawings, wherein like reference 30 characters indicate like or corresponding parts,

Fig. 1 is a perspective view showing a portion of a can with the improved spout in operative position thereon;

35 Fig. 2 is a vertical section through the same;

Fig. 3 is a section showing the spout in its collapsed position, with the discharge opening capped;

40 Fig. 4 is a sectional detail of the spout in its extended position;

Fig. 5 is a similar detail showing the collapsed position; and

45 Fig. 6 is a perspective view showing one of the steps in forming the spout.

In the drawings, wherein I have illustrated the preferred embodiment of my invention, 1 indicates a can or other receptacle from which liquid is to be poured, and 2 indicates the discharge opening through one wall thereof. A flanged member 3 is arranged at the discharge opening 2 and the same may be threaded if desired so as to

cooperate with a cap 4 for closing the opening. A washer 5 may be arranged within 55 the cap 4 for more effectively sealing the opening.

It is quite often desirable to have a spout portion attached to the can in order to deliver the contents to the point desired without any danger of spilling the same. 60 6 indicates such a spout, the same being adapted to cooperate with the discharge opening of the can in order to guide the flow of liquid therefrom. This spout is collapsible as shown in Fig. 3, and when in its extended or operative position, as shown in Fig. 2, it projects beyond the discharge opening and the flange of the can for the required distance. The spout may be collapsed to the 70 position shown in Fig. 3, so as to extend entirely within the flanged member 3 and passage of liquid through the spout is effectively sealed by the cap 4.

The spout is formed of a strip of substantially flat metal having the required amount of resiliency and flexibility, said strip of metal being rolled or coiled, as indicated at 11 in Fig. 6, and one edge of the strip may be bent or crimped inwardly of the coil, as indicated at 9, so as to more effectively seal the convolutions of the coil when the spout is in its extended position. In order to form a tapered spiral spout which may be either collapsed under coil pressure, as shown in 85 Fig. 3, or which will automatically elongate to its operative position, as shown in Figs. 1 and 2, the coil may be pulled axially, as by pulling the end 8 while holding the large end. 90

Frictional engagement alone may be sufficient for holding the large end of the spout in place within the opening 2, or if desired, this end may be soldered to the flange 3, as indicated at 10. Further, the lower edge of the large end of the spout may be slightly flared, as indicated at 7. 95

Thus it is seen that I have provided a collapsible spout made of a flat strip of metal spirally coiled and having a sufficient degree 100 of flexibility, as indicated in dotted lines in Fig. 1. The spout may be either permanently connected to the can, as by soldering as shown, or, in case it is desired to use the spout for temporary use, the soldering may 105 be dispensed with and the spout may be in-

serted in place merely by coiling it to reduce its diameter at the large end, then inserting it into the pouring opening and permitting it to expand radially by reason of its own tension.

There will be no danger of the spout accidentally dropping either out of or into the can, or being pulled entirely out of the can.

Having thus described my invention it is obvious that various immaterial modifications may be made in the same without departing from the spirit of my invention; hence I do not wish to be understood as limiting myself to the exact form, construction, arrangement and combination of parts herein shown and described, or uses mentioned.

What I claim as new and desire to secure by Letters Patent is:

1. A collapsible spout formed of a substantially flat strip spirally wound into a coil with the upper edge of each convolution adapted to frictionally engage the outer wall of the adjacent convolution, and the walls of said convolutions being maintained in spaced relation through such engagement.

2. A collapsible liquid tight spout made of

a substantially flat strip of metal spirally wound into a coil, the top edge of said strip being bent inwardly whereby said spout when extended is flexible laterally.

3. A collapsible spout made of a substantially flat strip of metal wound into a coil and bent inwardly along one edge of said strip, and means for securing one end of said spout within a can opening.

4. A collapsible tubular spout of gradually tapering cross section when extended, and constructed of a single strip of substantially flat metal bent along one edge and spirally wound whereby the wall of said spout is liquid tight when the spout is extended.

5. A spout made of a strip of flat metal coiled to form a resilient, longitudinally collapsible spiral tubular member, tapering in diameter from end to end, the top edge of said strip bent inwardly to closely engage the surface of the adjacent coil when extended, and means for securing the large end of said spout within a suitable opening.

In testimony whereof, I have hereunto signed my name.

BYRON A. McANSH.