July 14, 1936. J. LICKWAR 2,047,693

COLLAPSIBLE TUBE CLOSURE

Filed Feb. 13, 1936

Fig. 1.

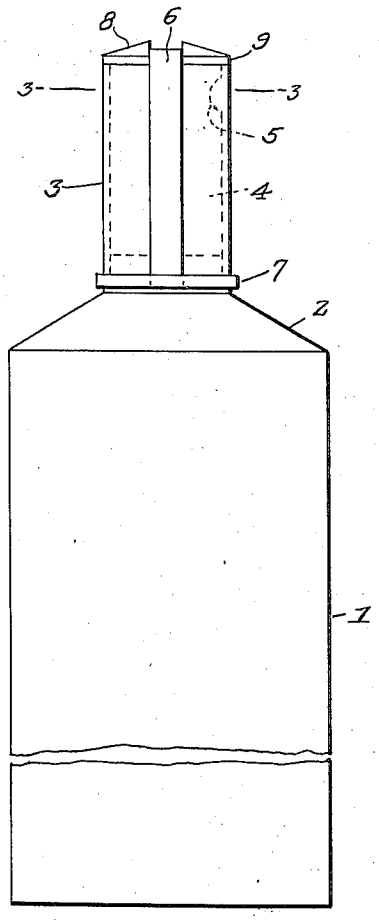
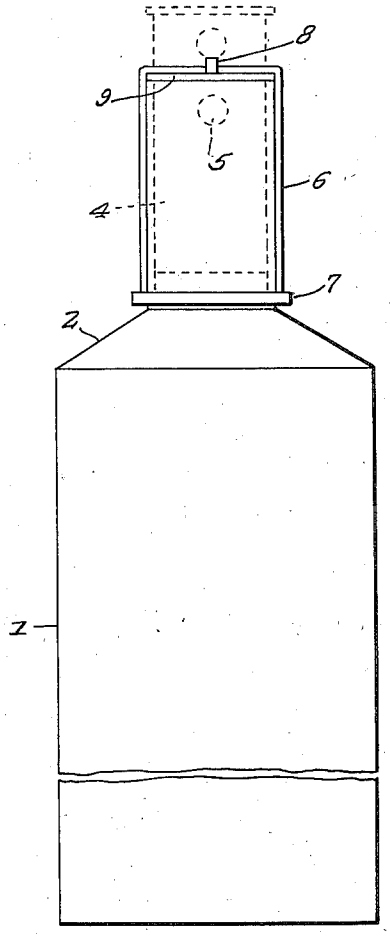


Fig. 2.



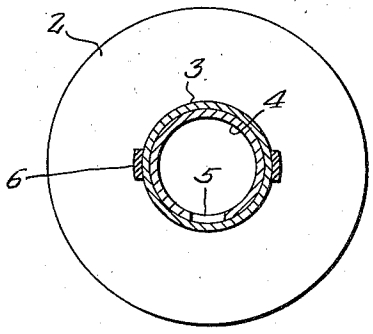


Fig. 3.

Inventor

Jerry Lickwar,

By Clarence A. O'Brien and Hyman Berman Attorneys

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COLLAPSIBLE TUBE CLOSURE

Jerry Lickwar, Warren, Ohio

Application February 13, 1936, Serial No. 63,790

1 Claim. (Cl. 221—60)

The present invention relates to new and useful improvements in collapsible tube closures and has for its primary object to provide, in a manner as hereinafter set forth, a device of this character which will open under pressure when the tube is squeezed and which will automatically close when the squeezing ceases.

Other objects of the invention are to provide a closure of the aforementioned character which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact, attractive in appearance and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing wherein like characters of reference designate corresponding parts throughout the several views, and wherein:—

Figure 1 is a view in side elevation of the invention.

Figure 2 is a view in front elevation of the device.

Figure 3 is a view in horizontal section, taken substantially on the line 3—3 of Figure 1.

Referring now to the drawing in detail, it will be seen that the reference numeral 1 designates a collapsible tube which is provided with a shoulder 2. Projecting from the shoulder 2 is a neck 3 which is open at its free end.

Slidably mounted in the neck 3 is a closure 4 having a discharge port 5 therein. The closure 4 is in the form of a cylinder which is closed at its outer end, as at 9, the end wall 9 projecting beyond said cylinder in a manner to form a flange which is adapted to seat on the free end of the neck 3.

The reference numeral 6 designates a resilient rubber strip which is mounted longitudinally on the neck 3, and which has its end portions secured on diametrically opposite sides of said neck by a band 7. The rubber strip 6 extends across the end wall 9 of the closure 4 between a pair of spaced lugs 8 on said end wall.

It will thus be seen that the rubber strip 6 yieldingly secures the closure 4 in retracted position, in which position the port 5 is closed by the neck 3 and the flange provided by the projecting marginal portion of the end wall 9 is engaged on the free end of said neck 3. When the tube 1 is squeezed in the usual manner the pressure of the contents of said tube forces the closure 4 outwardly against the tension of the resilient rubber strip 6 until the port 5 clears the outer end of the neck 3, thus permitting the discharge of the desired quantity of material from the tube. When squeezing of the tube 1 ceases the rubber strip 6 immediately returns the closure 4 to closed position.

It is believed that the many advantages of a collapsible tube closure constructed in accordance with the present invention will be readily understood, and although a preferred embodiment of the device is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:—

In a collapsible tube including a neck open at its free end, a closure comprising a substantially cylindrical portion slidable in the neck, said cylindrical portion having a discharge port therein adapted to be closed by the neck when the closure is in retracted position, said closure comprising an end wall projecting beyond the cylindrical portion for providing a flange engageable on the free end of the neck, spaced lugs on said end wall, a resilient rubber strip mounted longitudinally on the neck and extending across the end wall between the lugs, and a band securing the end portions of the rubber strip to the neck on diametrically opposite sides of said neck, said rubber strip constituting means for yieldingly securing the closure in retracted position.

JERRY LICKWAR.