

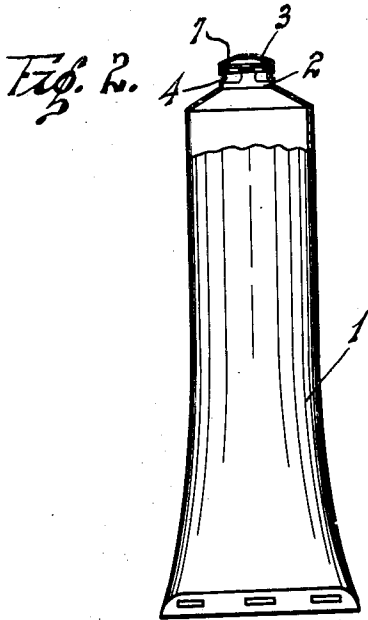
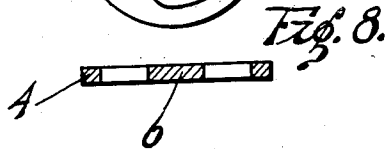
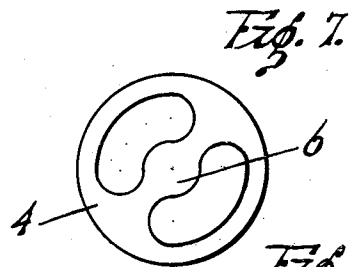
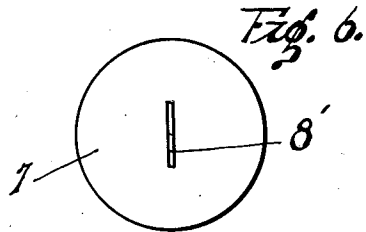
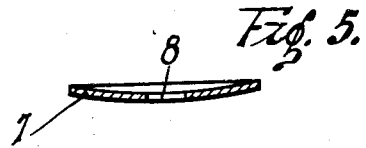
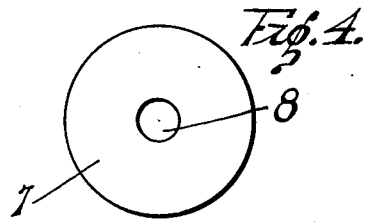
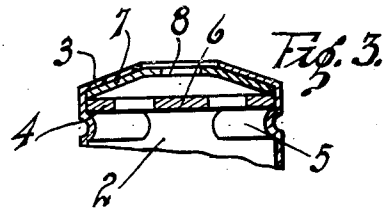
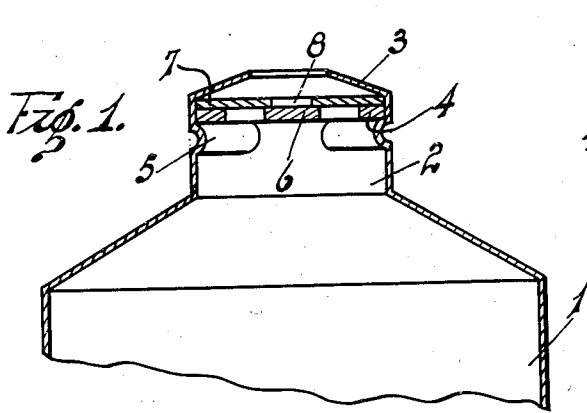
Sept. 4, 1934.

W. E. JACKSON

1,972,344

TUBE CLOSURE

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1,972,344

TUBE CLOSURE

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3 Claims. (Cl. 221-60)

This invention relates to a tube closure particularly applicable to collapsible tubes which contain a paste or a liquid.

5 An object of my invention is to provide a closure which automatically seals the tube when pressure thereon is released.

Another object of my invention is to provide a tube closure which is simple in construction and inexpensive to manufacture.

10 Other objects, advantages and features of invention may appear from the accompanying drawing, the subjoined detailed description and the appended claims.

In the drawing:

15 Figure 1 is an enlarged, fragmentary, sectional view of a tube and with my closure mounted thereon.

Figure 2 is a side elevation of a tube, the upper portion being broken away to show the closure construction.

20 Figure 3 is a fragmentary, transverse, sectional view of my closure in open position.

Figure 4 is a plan view of the closure disc.

Figure 5 is a transverse, sectional view of the same.

25 Figure 6 is a plan view of a closure disc having a slotted opening.

Figure 7 is a plan view of the supporting plate.

30 Figure 8 is a transverse, sectional view of the same.

Referring more particularly to the drawing, the numeral 1 indicates a tube of the collapsible type, at one end of which an outlet neck 2 is provided. An inwardly extending wall or flange 3 is provided on the top of the neck 2, the purpose of which will be further described.

35 An orifice plate 4 is mounted in the neck 2 adjacent the top thereof, and is held in position by suitable means such as an inwardly extending crimp 5 or the like. The plate 4 is formed with a central web 6 which acts to close the outlet from the tube, as will be further described. A flexible disc 7 is mounted above the plate 4 and normally rests thereon, as shown in Figures 1 and 2.

45 A central opening 8 in the disc may be either circular in form, as shown in Figure 4, or slotted as at 8' in Figure 6. The disc is preferably molded in convex form so that it will press tightly against the plate 4 to seal the openings in the plate. The hole 8 rests on the central web 6, thus effectively and entirely closing the tube.

When pressure is applied to the tube the material therein is forced upwardly past the orifice plate 4, and the disc 7 flexes upwardly, as shown in Figure 3, to permit the material to flow out of

the opening 8. The flange or wall 3 limits the upward movement of the disc 7 so that the disc can not be forced out of the neck.

Having described my invention, I claim:

1. A tube closure for collapsible tubes, comprising a neck on the tube, an orifice plate mounted in said neck, a central web on the plate, a flexible disc mounted above said plate and normally resting thereon, said disc having a central opening therein overlying the web on the plate, an inwardly extending flange on said neck, the inner edges of said flange forming a constricted opening for the tube, said flange being above the disc to limit the upward movement thereof.

2. A tube closure for collapsible tubes, comprising a neck rising from the tube, an inwardly extending flange on the top of the neck, the inner edge of said flange forming a constricted opening for the tube, an orifice plate mounted in said neck below the flange, a central web on the plate, a flexible disc positioned above said plate and normally pressed thereon, said disc having a central opening therein, said disc extending over the orifice in the plate, and said opening in the disc normally resting on the central web of the plate.

3. A tube closure for collapsible tubes, comprising a neck rising from the tube, an orifice plate mounted in said neck, a central web on the plate, an inwardly extending crimp in the sides of the neck, said plate resting on the crimp, a flexible disc positioned above said plate and normally pressed thereon, said disc having a central opening therein, an inwardly extending flange integrally formed with said neck, the inner edges of said flange forming a constricted opening for the tube, said flange confining the material ejected from the tube, the outer edges of said disc and orifice plate being held between the crimp and the flange.

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