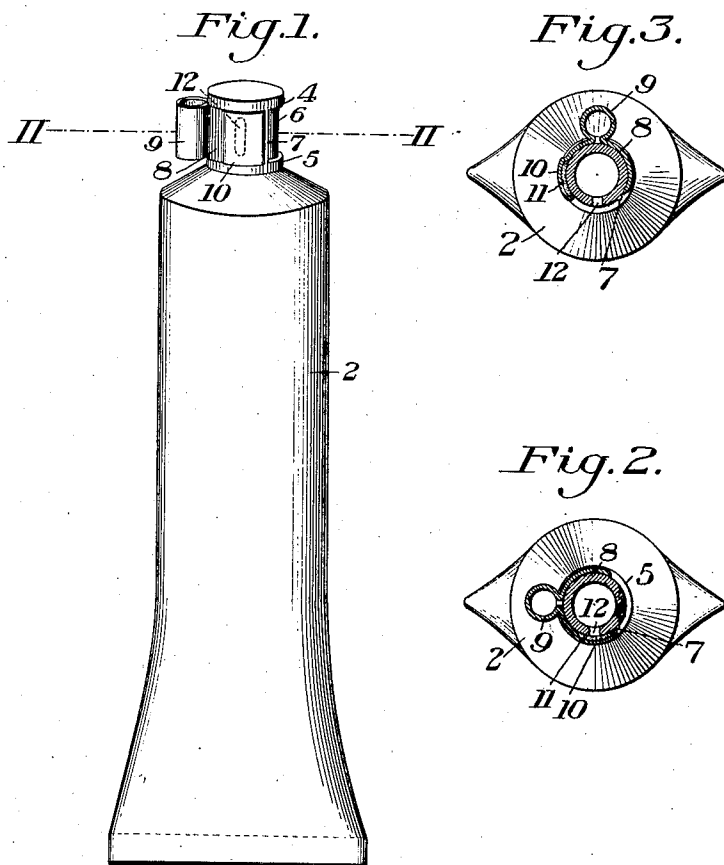


J. M. JOHNSON.
 COLLAPSIBLE TUBE.
 APPLICATION FILED APR. 26, 1912.

1,056,795.

Patented Mar. 25, 1913.



WITNESSES

R. A. Balderson
W. Farnsworth

INVENTOR

James M. Johnson
by Darius Dymes & Samuel
his Attys

UNITED STATES PATENT OFFICE.

JAMES M. JOHNSON, OF NEW BRIGHTON, PENNSYLVANIA.

COLLAPSIBLE TUBE.

1,056,795.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed April 26, 1912. Serial No. 693,370.

To all whom it may concern:

Be it known that I, JAMES M. JOHNSON, a resident of New Brighton, in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Collapsible Tubes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a tube with one form of my improved device attached. Fig. 2 is a sectional view on the line II—II, showing the device in its open position, and Fig. 3 is a similar view showing the device closed.

My invention relates to the class of collapsible tubes for feeding viscous or pasty materials by compressing the body of the tubes. Heretofore openings in the nozzles or necks of tubes have been closed by means of collars or caps, which were provided with openings which were brought into register with the openings in the nozzles or necks when it was desired to eject some of the material from the tube. Closures of this character have numerous disadvantages, as the collars or sleeves are very liable to be so tight that it is almost impossible to rotate them in order to bring the openings in register with each other, or that they rotate so freely that the opening through the nozzle will not be sealed, thereby leaving the contents of the tube at the opening exposed to the action of the atmosphere. Another great disadvantage arose from the fact that the opening through the collar or ring was always filled with material which was left from the last time the device was used and which could not be removed from said opening excepting by the use of a sharp instrument which would be adaptable to scrape the paste out of the opening.

One of the objects of my invention is to provide a sealing device which can readily be rotated about the neck of the nozzle, and which will always seal the opening when the device is in sealing position.

A further object of my invention is to provide a device of this character from which all of the ejected material can readily be wiped from the neck of the nozzle and thereby provide a sanitary device.

The precise nature of my invention will be best understood by reference to the accompanying drawings, which will now be

described, it being premised, however, that various changes may be made in the details of construction and general arrangement of the parts, without departing from the spirit and scope of my invention as defined in the appended claims.

In the drawings, the numeral 2 designates the body of the tube which may be of any well known construction, and which is provided with a neck or nozzle at its upper end. This neck or nozzle is provided with a bead 4 around the upper edge thereof and a bead 5 at its lower portion, and 6 is a groove between the beads 4 and 5.

7 designates a vertical bead or stop which I have shown as extending from the bead 4 to the bead 5. Rotatably mounted between the beads 4 and 5 is a spring clip 8 having a handle 9 which is formed by bending the body of the material upon itself. This clip is also provided with a recess 10 in which is seated a pliable sealing pad 11 of cork or any other well known material which is adapted for sealing an opening. As can be seen by reference to the accompanying drawings, the clip 8 extends from the bead 4 to the bead 5 and surrounds a little more than one-half of the neck or nozzle of the tube.

12 designates a longitudinal opening through the side of the nozzle which is arranged to be closed by means of the clip 8 when it is moved into the position shown in Fig. 2, and which is opened to permit the material to be ejected when moved into the position shown in Fig. 3. The vertical rib 7 is arranged to provide a stop for the clip 8 when moved to either its closed or its open position, as can readily be seen by reference to Figs. 2 and 3, respectively.

It will readily be understood by those familiar with the art that the clip member may have various shaped handles, and may be applied in any manner, and also that the stop may be varied in many ways.

The advantages of my invention result from the provision of a closure for a side opening of a nozzle which is arranged to be held in proper position in relation to the nozzle by means of the spring action of the clip. In this connection, it is desired to call attention to the peculiarly effective action of said clip. The handle portion 9, being looped, as shown, constitutes, in effect, a spring member, and as it extends to one side of the neck or nozzle, it provides

comparatively long side arms. Consequently, the portions of these arms that embrace or clasp the neck or nozzle, have a comparatively long radius of action, or in
5 other words, the axis on which they may be said to swing toward each other, is located at a distance from one side of the neck or nozzle. The result is important, inasmuch as the entire inner surfaces of the
10 neck-engaging portions are thus yieldingly pressed against the neck or nozzle, and the pressure of the packing is evenly distributed over its entire surface.

I claim:

15 1. A receptacle having a nozzle portion provided with a lateral discharge opening, and a closure for said opening comprising a clip rotatably mounted on the nozzle and having opposite side portions spaced apart
20 and extending around a portion only of the nozzle portion, said clip having a portion between its ends bent outwardly to form a spring member that yieldingly holds the

said side portions with a distributed even pressure against the nozzle portion, and said
25 spring member also acting as a handle for the closure.

2. A receptacle having a nozzle formed with a lateral discharge opening and a closure for said opening, said closure com-
30 prising a clip or sleeve member rotatably mounted on the nozzle and embracing a portion thereof, one end portion of said member being outwardly offset at its free
end portion to form a recess, and a sealing
35 pad seated in said recess, the central portion of said member being bent to form a spring loop which also serves as a handle for the closure.

In testimony whereof, I have hereunto set
40 my hand.

JAMES M. JOHNSON.

Witnesses:

G. M. VIERS,

H. M. CORWIN.