Oct. 24, 1933. L. L. MYERS 1,931,802

NECK SEALING MEANS FOR COLLAPSIBLE TUBES

Filed Jan. 27, 1932

FIG. 1

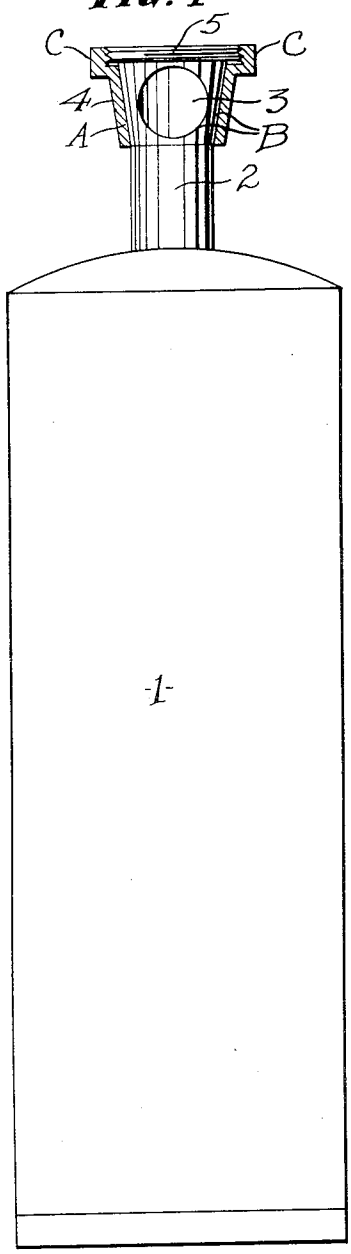


FIG. 2

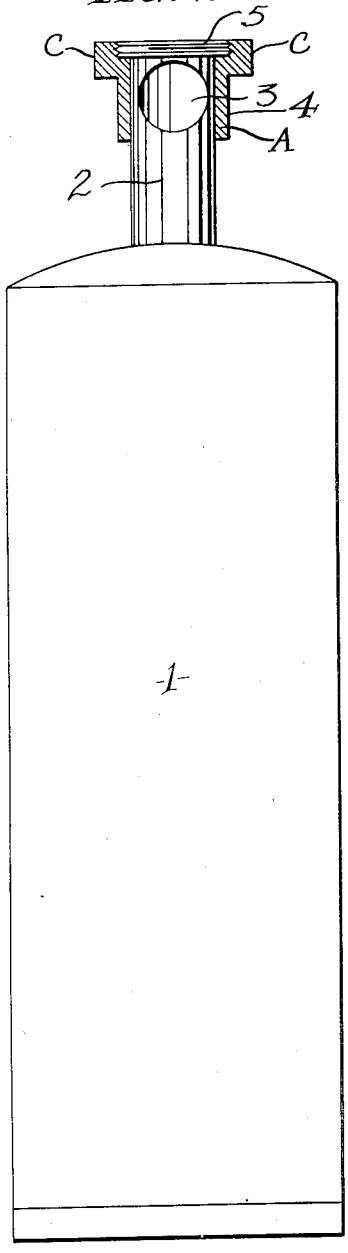
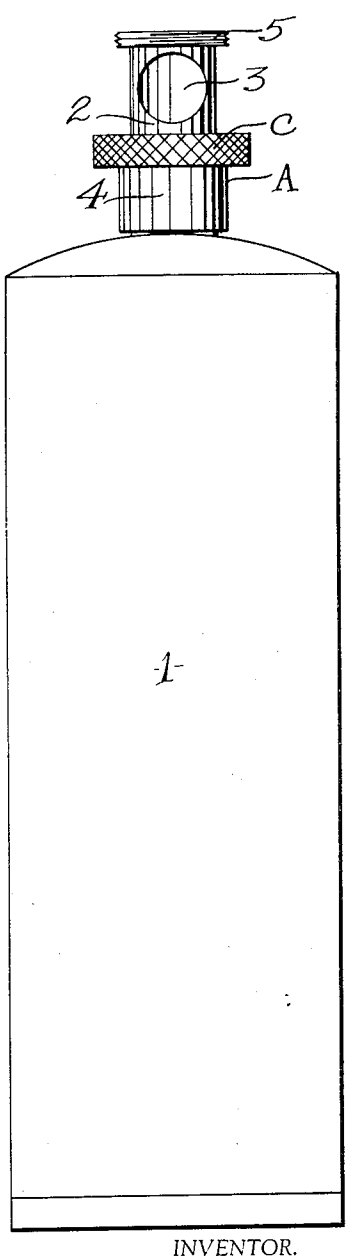


FIG. 3



INVENTOR.

Lawrence L. Myers

BY U. G. Charles

ATTORNEY.

Patented Oct. 24, 1933 1,931,802

UNITED STATES PATENT OFFICE

1,931,802

NECK SEALING MEANS FOR COLLAPSIBLE TUBES

Lawrence L. Myers, Wichita, Kans.

Application January 27, 1932. Serial No. 589,153

2 Claims. (Cl. 221—60)

My invention relates to improvements in a neck sealing means for collapsible tubes.

The object of my invention is to provide a sealing means permanently carried by the neck of the tube and adapted to open and close the neck aperture.

A further object of my invention is to provide a tube neck aperture closing means that is liquid tight and tends to seat more perfectly by frictional engagement naturally imposed thereon.

A still further object of my invention is to provide a tube neck sealing means inexpensive and efficient in operation and means to avoid the loss thereof by retaining the same against removal from the neck.

These and other objects will hereinafter be more fully explained, reference being had to the accompanying drawing forming a part of this specification, and in which like characters will apply to like parts in the different views.

Referring to the drawing:

Fig. 1 is a side view of the tube partly in section for convenience of illustration.

Fig. 2 is a similar view to Fig. 1 disclosing a modified form of the neck and collar.

Fig. 3 is a side view of Fig. 2 showing the collar disengaged from the aperture.

The disclosure of my invention consists of certain novel arrangements applied to and in conjunction with a tube 1 commonly made of thin sheet lead as a container and by compressing the walls thereof, the contents are discharged from the aperture arranged at one end thereof. The device ordinarily employed is a cap threadedly engaging on the outer end of a neck integral with the tube and thru which the contents will flow when the cap is removed and often misplaced.

To overcome such an occurrence, I have arranged a tubular neck element 2 having an aperture 3 in the side thereof thru which paste or the like will eject when the collar 4 is moved downward from engagement therewith as shown in Fig. 3, and when the desired quantity is discharged, the collar is moved outward to engagement with a threaded flange 5 positioned on the outer end of the neck as closing means therefor functioning as a head, and on which the said collar is threadedly engaged as a tight closing means for the aperture as the flange portion A is arranged with a smooth turning fit on the neck.

In Fig. 1 the outer extremity of the neck portion is shown conical in form as at B and the interior of the outer end portion of the collar is arranged to conform thereto for a snug fit when the said collar threadedly engages with the flange.

The conical form is preferred for tubes containing liquid as the collar will fit snugly over the aperture by forcing the threaded engagement of the collar with the flange. The enlarged portion being knurled, as at C, is convenient for frictional engagement of the thumb and finger to turn the collar in either direction.

A similar arrangement is shown in Fig. 2.

It is now clearly shown how the aperture closing means cannot be removed from the neck thus avoiding the possibility of misplacing the same and furthermore, a positive seal is accomplished.

While I have shown and described my invention applied to collapsible tubes, I do not wish to be confined to such alone as other styles of containers may be employed, and in which case the aperture and collar arrangement will be modified, and such other modifications may be employed as lie within the scope of the appended claims.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a neck sealing means for collapsible tubes of the class described comprising a container and an apertured neck connected to the container, the aperture being thru the side and in close proximity to the outer end thereof, a flanged head to close the outer end of the neck, the flange portion outwardly extending and being threaded peripherally, a collar to slidably engage on the neck as closing means for the aperture, the outer end of the collar extending and being threaded to engage on the flange of the head as closing means for the aperture.

2. In a neck sealing means of the class described comprising a collapsible container and a neck connected thereto, the outer end portion of the neck diverging outward conically and having an aperture thru the wall of the conical portion, the exterior of the neck being smooth, a flanged head to close the outer end of the neck, the flange portion outwardly extending and being threaded peripherally, a frusto-conical collar having a smooth interior and adapted to slide on the neck fitting snugly on the conical portion thereof to tightly close the aperture, the outer end of the collar extending and being threaded to engage on the threaded flange of the head as closing means for the aperture.

LAWRENCE L. MYERS.