Sept. 24, 1935. A. A. SCHULTE 2,015,291

CLOSURE AND HANGER

Filed Aug. 4, 1933

Fig. 1.

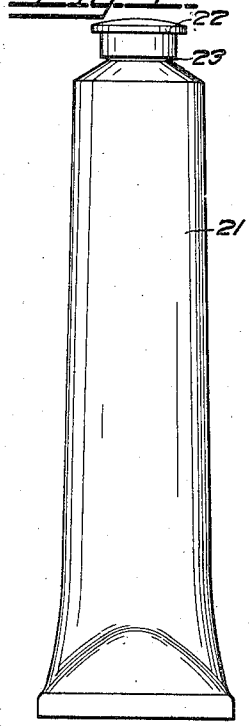


Fig. 2.

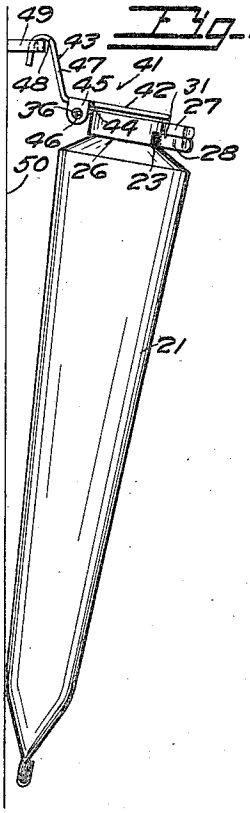


Fig. 3.

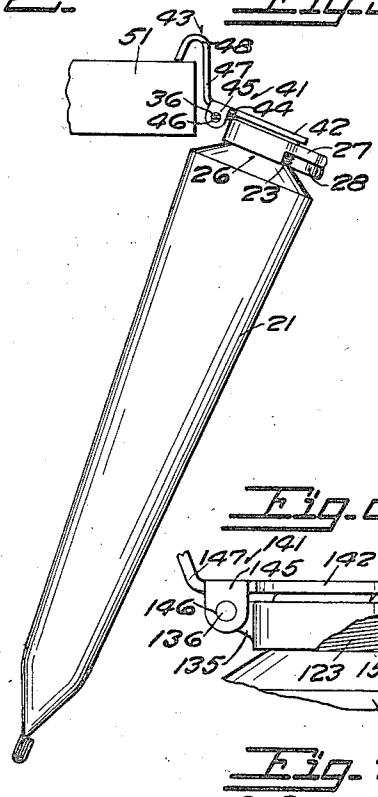


Fig. 8.

Fig. 6.

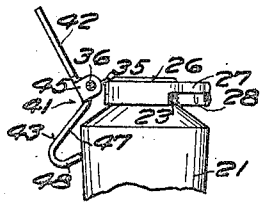


Fig. 4.

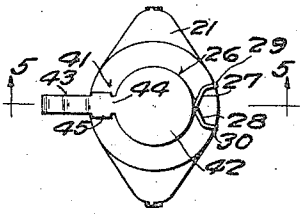


Fig. 9.

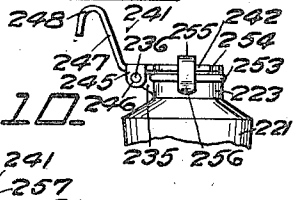


Fig. 10.

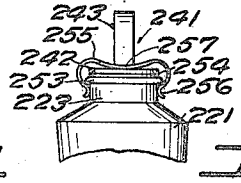


Fig. 7.

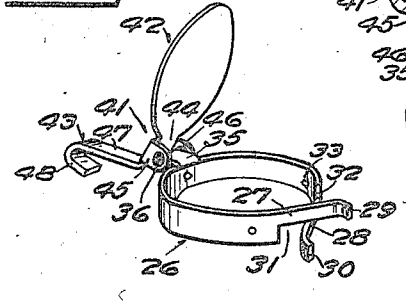


Fig. 5.

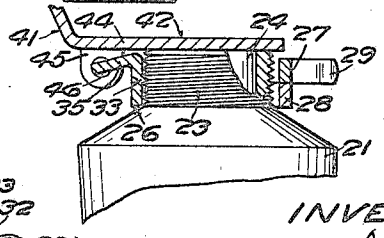
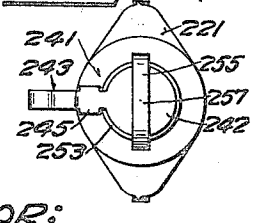


Fig. 11.



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Patented Sept. 24, 1935 2,015,291

UNITED STATES PATENT OFFICE

2,015,291

CLOSURE AND HANGER

Albert A. Schulte, Norwood, Ohio

Application August 4, 1933, Serial No. 683,611

3 Claims. (Cl. 221—60)

My invention relates to closures and hangers for containers, and I have exemplified the same in connection with paste tubes, for instance, for containing tooth paste, shaving cream, and other plastic substances, arranged to be exuded by pressure upon the tubes.

Containers of this nature are used quite frequently and usually when the user is in a hurry. Such containers are now provided with closures, but such closures are in usual practice separate from the containers, are unhandy to manipulate, and are likely to become lost, with the result that the contents are exposed. The use of such separate closures is also time consuming. The placing and storing of the container is also difficult, with the likelihood of its becoming misplaced or lost. I avoid these objections by means of my improved device.

It is the object of my invention to provide a convenient closure and hanger for the container so arranged that the same remains on the container and is conveniently arranged with relation to the container, so that the container is readily opened for instant use, so that the container may be suspended on a suitable hook, nail or ledge, and occupy little space and be within convenient reach, and so that the container may be quickly grasped for use and quickly replaced.

My invention consists in a novel closer and hanger arranged to be attached to the container; further, in a closer and hanger so connected that the weight of the container exerts closing force upon the closer when suspended by the hanger so as to insure secure closing of the container when not in use; and, further, in a hanger of hook form and so related to the container that the hanger may be suspended from a hook or nail and also from a ledge.

My invention consists further in novel means for connecting the closure and hanger to the container; and, further, in novel constructions arrangements and combinations of parts hereinafter more particularly disclosed.

My invention will be further readily understood from the following description and claims and from the drawing, in which latter:

Fig. 1 is a front elevation of a usual paste tube, having a usual closure applied thereto.

Fig. 2 is a side elevation of my improved device, showing the hanger supported on a hook.

Fig. 3 is a side elevation of the same, showing the hanger supported on a ledge.

Fig. 4 is a plan view of my improved device.

Fig. 5 is an axial section of the same, taken on the line 5—5 of Fig. 4, and partly broken away.

Fig. 6 is a side elevation of my improved device, in open relation, and partly broken away.

Fig. 7 is a perspective view of my improved device, in assumed position.

Fig. 8 is a side elevation, partly in section and partly broken away, showing a modification of my improved device in which the attaching member is screwed to the tube.

Fig. 9 is a side elevation of a further modification, partly broken away, showing the pivoted member pivoted directly to the tube.

Fig. 10 is a front elevation of the same, partly broken away; and,

Fig. 11 is a plan view of the same.

A usual paste tube is shown at 21 in Fig. 1, and has a usual threaded cap 22, threaded over a usual threaded neck 23 of the tube to close the mouth 24 of the tube. This is the usual construction now in general use.

Referring to Figs. 2 to 7 inclusive, showing the preferred form of my improved device, there is an attaching member 26 received about the threaded neck 23 of the tube. This attaching member is exemplified as a spring band or ring, made out of spring material, and arranged to closely and firmly clasp about the threaded neck of the tube.

This band is provided with fingers 27, 28, which project from the band and are crossingly arranged, and have bent ends 29, 30, at their outer ends to form engaging lugs arranged to be engaged by the thumb and forefinger of the user for expanding the band or attaching member in order to spread the same to be readily placed over the threaded neck of the tube, the fingers being released when the band or attaching member is so in place, the spring of the metal in the present instance causing clamping engagement between the band or attaching member and the threaded neck when the fingers are so released.

The fingers are preferably only part of the width of the band, being respectively received in recesses 31, 32 in the bands at the sides of the respective fingers. The band may encompass and clamp necks of different diameters.

The band is provided with inward projections 33, which are arranged to engage in the spaces between the threads of the threaded neck for additionally securing the band in place. These projections are in the form of teats pressed in the band.

A pivot lug 35 extends from the band, and has pivots 36 at its respective edges. The band, the fingers, the lug and the pivots are preferably cut and stamped from the same piece of spring sheet metal.

A member 41 is pivoted to the band and by means of the band to the tube. This member has thereon a closer 42 and a hanger 43. The closer and hanger are arranged at an angle with relation to each other, and this member is pivoted between the closer and the hanger to the attaching member for the tube. It is shown provided with a shank 44 between the closer and the hanger. The shank is provided with side flanges 45

respectively provided with pivot holes **46** in which the pivots **36** at the respective sides of the pivot lug **35** of the attaching member are received.

The closer is shown as a disk arranged to close upon the mouth in the neck of the tube so as to protect the contents of the tube and prevent the same from becoming dry or contaminated.

The device thus described comprises only two parts; namely, the attaching member **26** and the member **41**, which are pivotally connected by bending the pivot flanges **45** about the pivot pins **36**.

The hanger comprises a shank **47** and a hook **48**. The hook may be received about a suitable hook **49** extending from a suitable support, as a wall, exemplified by the line **50**, or about a suitable nail, screw, or other hang-up device. The outer end of the hook may also form a support upon a suitable ledge **51**, as exemplified in Fig. 3.

The closer and hanger member **41** is preferably cut and formed out of sheet metal, the side flanges **45** thereof being bent about the pivots of the attaching member.

When the hanger is supported, the tube is suspended therefrom, and the weight of the tube, together with the pivotal connection of the hanger therewith, causes the closer and mouth of the tube to approach each other for closing the mouth and maintaining the tube in closed relation throughout the time that it is thus supported.

If it is desired to use a portion of the contents of the tube, the tube is readily grasped and the closer swung back, as by using the hanger as a handle for exposing the contents of the tube through its mouth, as exemplified in Figs. 6 and 7. More or less of the contents may be used, as is usual in the use of tooth paste, shaving cream and the like, the closer readily returned to closing position, and the tube readily returned to its hanging position, for insuring maintenance of the closed position of the tube.

I have in Fig. 8 shown a modification of my improved device, in which the attaching member is shown as a threaded ring **126**, having an inner threaded periphery **152**, forming connection with a threaded neck **123**, of the tube **121**. This threaded ring has a lug **135** extending therefrom, to which the closer and hanger member is pivoted on pivots **136** extending from the respective sides of the lug. Similar parts in this figure are indicated by similar reference numerals raised to the series **100**.

I have in Figs. 9, 10 and 11 exemplified a further modification in which the combined closer and hanger member is pivoted direct to the tube. Similar parts in these figures are designated by similar reference numerals raised to the series **200**.

In this modification, the neck **223** is shown unthreaded, but is provided with a flange **253**. A pivot lug **235** extends from the neck **223**, the combined closer and hanger member being pivoted to this lug by having the lug provided with laterally projecting pivots **236** on which said member is pivoted. The side flanges **245** of the member **241** are pressed about the pivot lugs for connecting the closer and hanger member with the tube.

A gasket **254** is attached to the closer and is located between the closer and the neck of the tube for aiding in sealing the tube. This gasket may be of cork or other soft and preferably resilient material for maintaining the contents of the tube sealed after packaging thereof and during storage and shipment.

The closer may be held closed and sealed during such storage and shipment by means of a clip **255**, exemplified as a spring metal clip having fingers **256** received under the flange **253** and a contact portion **257**, shown as an inward bend of the clip, which bears upon the closer, the closer being clamped between the fingers **256** bearing upon the tube and the contact portion **257** bearing upon the closure. When the tube is sold, the user discards the clip.

The closer and hanger is then used in the manner hereinbefore described.

My improved device forms a convenient and sanitary closure and hanger for a container, is readily and cheaply made and provides convenient means for readily closing the container, for readily opening the container for use, and for readily supporting the container within a small space, with the assurance that the container remains closed and is readily accessible for use when desired.

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

1. A closure and hanger for a container having a threaded neck and a mouth, said closure and hanger including a part arranged to be received about the neck and having fastening means coacting with the threads of the neck, and a member having pivotal connection with said part and including a closer for the mouth and a hanger for said container in angular relation to each other, with said pivotal connection in the angle between said closer and said hanger, and so arranged that said hanger extends above the mouth when said part is received about the neck, said hanger arranged to suspend the container with closing force exerted upon said closer toward said mouth by the weight of the container.

2. A closure and hanger for a container having a threaded neck and a mouth, a spring clamp having protruding manipulating fingers arranged to extend beyond the neck for enlarging said clamp for reception about the threaded neck, a member including a closer for the mouth and a hanger for suspending the container, said closer and hanger in angular relation to each other, and pivotal connecting means between said member and said clamp in the angle between said closer and said hanger, said hanger normally extending lengthwise of the container and arranged to exert closing pressure on said closer when the container is so suspended.

3. In combination, in a closure and hanger for a container having a mouth, a member having pivot connection with said container, the pivotal axis of said member being at one side of the longitudinal axis of said container and extending at substantial right angles to said longitudinal axis, said member having a closer for the mouth at one side of said pivotal axis and a hanger at the other side of said pivotal axis, said member being of bell-crank lever form and with said hanger having connection with said closer to move said closer toward said mouth by swinging movement of said hanger on said container toward said longitudinal axis, and said hanger provided with an attaching hook whereby to suspend said hanger and exert gravity pressure between said closer and said mouth.

ALBERT A. SCHULTE.