

T. T. LAYNG.
CLOSURE FOR CONTAINERS.
APPLICATION FILED DEC. 9, 1919.

1,361,388.

Patented Dec. 7, 1920.

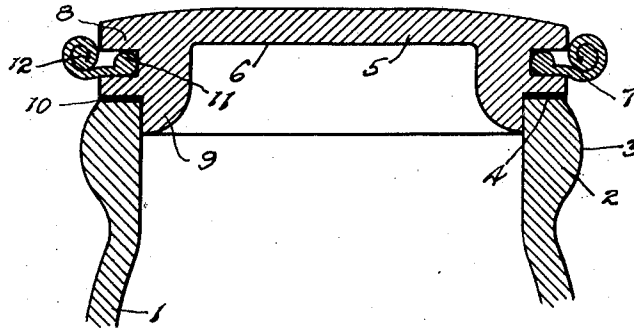


Fig 1

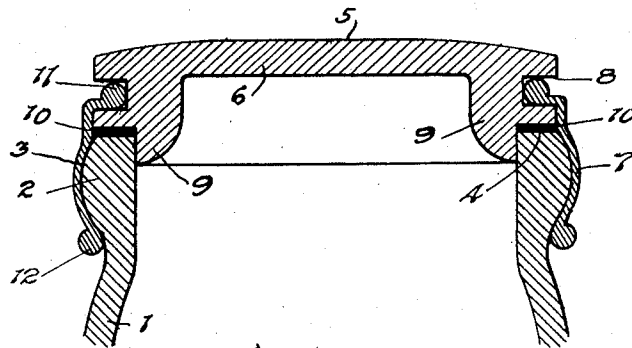


Fig 2

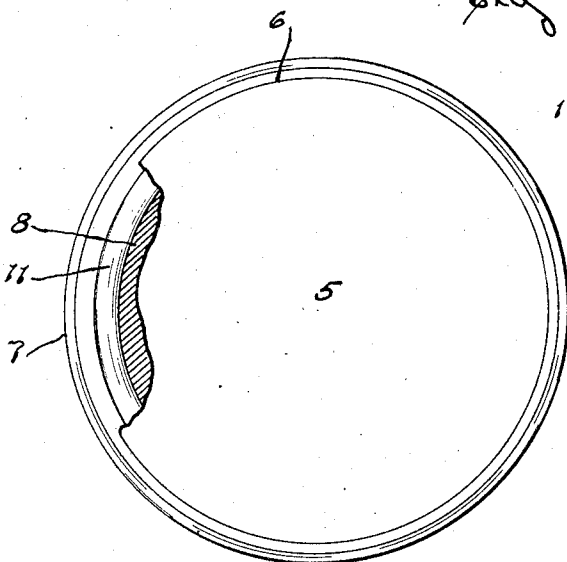


Fig 3

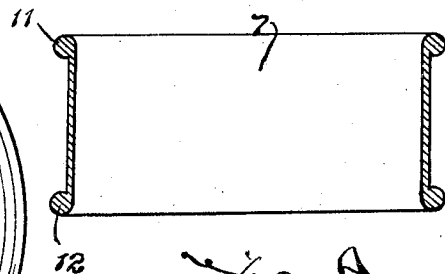


Fig A

INVENTOR
T. T. Layng
By *Substantive Blof.*
ATTYS

UNITED STATES PATENT OFFICE.

TRUMAN T. LAYNG, OF WINNIPEG, MANITOBA, CANADA.

CLOSURE FOR CONTAINERS.

1,361,388.

Specification of Letters Patent.

Patented Dec. 7, 1920.

Application filed December 9, 1919. Serial No. 343,529.

To all whom it may concern:

Be it known that I, TRUMAN T. LAYNG, of the city of Winnipeg, in the Province of Manitoba, Canada, have invented certain new and useful Improvements in Closures for Containers, of which the following is the specification.

The invention relates to improvements in closures for bottles, jars and the like and has for its general object to provide an easily operated self sealing closure designed to be made in all sizes and which when applied forms an air tight seal on all vessels having an outwardly projecting bead or the like at the mouth thereof and the particular object of the present invention is to improve, both from a manufacturing and operating standpoint, the structure of the closure already patented by me and fully set forth and disclosed in United States Patent No. 1,230,178 dated the 19th of June, 1917.

With the above objects in view the invention consists essentially in the arrangement and construction of parts hereinafter more particularly described and later pointed out in the appended claims, reference being had to the accompanying drawing in which:—

Figure 1 is a vertical sectional view of the mouth of a vessel provided with the improved closure and in its unsealed position.

Fig. 2 is a similar view of the same parts showing the closure in its sealed position.

Fig. 3 is a plan view of the seal and closure, a part being broken away to expose construction.

Fig. 4 is a vertical sectional view through the skirt detached from the disk.

In the drawing like characters of reference indicate corresponding parts in the several figures.

1 indicates the neck of a bottle, jar or other container having an exterior bead 2 at the mouth thereof, the bead presenting preferably an outwardly bulging face 3 which terminates at the upper end in a flat seat 4. 5 is the closure which comprises a cap 6 and a skirt 7 carried by the cap. The cap can be made of a relatively hard but more or less yielding rubber or paper board rendered water proof by paraffin wax or of other suitable non-corrosive water proof material and the skirt is made of a soft quite flexible rubber. The cap is designed to seat on the end of the bottle and is provided with a circumscribing channel or groove 8 and with a downwardly extending annular flange

9 on the underside, the flange being designed to enter the mouth of a bottle when the closure is in place. Preferably a rubber gasket or washer 10 is placed on the seat 4 prior to putting the cap in place. The external diameter of the cap is less than the external diameter of the bottle neck at the bead so that when the skirt is passed over the bead it is caused to expand as later disclosed. The skirt when detached from the cap is in the nature of an open ended cylinder (see Fig. 4) having the ends strengthened by beads 11 and 12 and its diameter is somewhat less than the diameter of the cap so that it has to be expanded to be attached to the cap.

In actual practice the closure is assembled by first expanding one of the beads of the skirt to allow it to span the cap and then afterward freeing the bead and permitting it to contract and take its place in the groove 8 in the manner best shown in Fig. 1.

When the closure is to be used the free edge of the skirt is first rolled up to take a position as shown approximately in Fig. 1 and the cap is applied on the bottle neck. The skirt is then rolled down over the bulging bead 2 of the bottle and as it goes down it gradually expands hugging the bead 2 tightly and acting not only to hold the parts together but to effect a strong down pull on the cap and make it seat firmly on the gasket, thereby providing an air tight joint.

The final closed position is shown in Fig. 2 where it will be observed that the upper bead of the skirt is in the groove 8, the lower bead of the skirt is lying beneath the bulged part of the bead 2 and the body of the skirt is expanded over the intervening parts. It effects not only a tightly sealed joint but also a closed joint as the skirt overlies the joint at the gasket between the cap and the end of the bottle neck.

From the above disclosure it will be obvious that this structure is much more simple than that disclosed in my prior patent as the arrangement provides a down pull on the cap and also allows of the easy substitution of a new skirt for the cap at any time such is required, it being obvious that the skirt will wear out and become useless much quicker than the cap 5.

Further, there are only two parts to the closure which when made can be very quickly put together, which feature is important not only from a manufacturing

standpoint but from a commercial standpoint.

What I claim as my invention is:—

1. A closure for containers comprising a
5 one-piece cap presenting a circumscribing
groove and a normally rolled up expansible
and contractible skirt having one end lying
within the groove.
2. A closure for containers comprising a
10 one-piece cap presenting a circumscribing
groove and a normally rolled up expansible
and contractible skirt having one end lying
in the groove and placed therein by forcibly
expanding said end and then permitting it to
15 contract in position within the groove.
3. A closure for containers comprising a
circular cap provided with a circumscribing
groove and a normally rolled up flexible rub-
ber skirt having the ends thereof beaded and
20 one end expanded and fitting tightly within
the groove and thereby attaching the skirt
to the cap.
4. A closure for containers comprising a
circular cap provided with a circumscribing
25 groove and on the underside with a down-
wardly extending annular flange and a soft
rubber skirt having the ends thereof beaded
and one end forcibly expanded within the

groove to connect the skirt detachably to the cap.

5. A closure for containers comprising a
circular one-piece cap provided with a cir-
cumscribing groove and an expansible and
contractible skirt having one end expanded
and seated in the groove.

6. The combination with the neck of a bot-
tle provided at the mouth end with an out-
wardly bulging bead, of a closure for the bot-
tle comprising a cap of less diameter than
the bead and provided with a circumscribing
40 groove and a normally rolled up rubber skirt
having beaded ends with one end expanded
into the groove of the cap, said closure being
adapted to be attached to the bottle neck by
rolling the skirt downwardly over the neck
45 bead, thereby effecting a down pull on the
cap, the sealing of the joint between the bot-
tle neck and the cap by the skirt and the
tight embracing of the neck by the skirt.

Signed at Winnipeg, this 25 day of Octo- 50
ber, 1919.

TRUMAN T. LAYNG.

In the presence of—

G. S. ROXBURGH,
K. B. WAKEFIELD.