Dec. 18, 1923. 1,478,140

M. P. ORR

BOTTLE SEALING DEVICE

Filed May 4, 1922

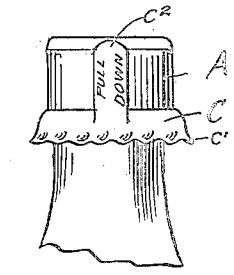


Fig. 1.

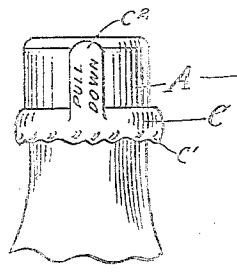


Fig. 2.

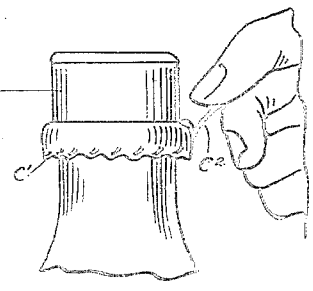


Fig. 3.

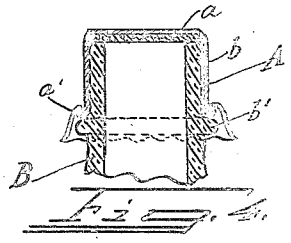


Fig. 4.

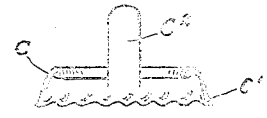


Fig. 5.

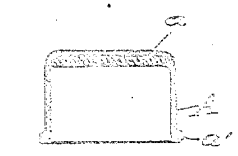


Fig. 7.

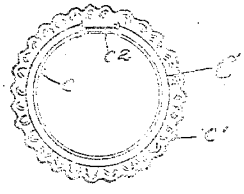


Fig. 8.

INVENTOR:

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Patented Dec. 18, 1923. 1,478,140

UNITED STATES PATENT OFFICE.

MARK P. ORR, OF NORWOOD, OHIO, ASSIGNOR TO THE SECURITY METAL PRODUCTS COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

BOTTLE-SEALING DEVICE.

Application filed May 4, 1922. Serial No. 558,361.

To all whom it may concern:

Be it known that I, MARK P. ORR, a citizen of the United States, residing at Norwood, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Bottle-Sealing Devices, of which the following is a specification.

My invention relates to bottle closures and is particularly adapted for use on bottles to hold catsup, chili sauce, or the like. Obviously, it would readily be adapted for use on the tops of jars if said jars were provided with a suitable ring for the gripping skirt of the sealing element.

One object of my invention is to provide a thimble cap which may be used after the seal is broken, so long as the contents of the bottle are in use, and means for hermetically sealing this thimble cap into position for the initial closure. Any one familiar with the use of tomato catsup bottles in restaurants, lunch counters, or residences, will realize the advantage of having a thimble cap that may be used so long as the contents of the bottle are in use to protect the bottle from dust, flies, etc. and to keep the package of neat appearance during such use. Such a temporary closure will also prevent the contents of the bottle from drying out.

A further object of my invention is to provide a removable temporary closure that has no sharp or rough edges to cut the fingers. This is very important as the thimble cap must be handled by many persons besides the one who removes the initial seal, and such persons are apt to be careless because of ignorance.

A further object of my invention is in effecting such initial sealing, to use such sealing means as may be readily removed by hand without the aid of utensils.

Sealing elements of the so-called crown cap type have been in common use for many years but cannot be used to close the bottle top after they have once been removed. These crown caps have the points of their depending flanges crimped under the bead on the container. They are popular in spite of this limitation of use and the fact that a special tool is required to remove the crown from the bottle.

In the particular embodiment of my invention selected for illustration, I have, therefore, shown a so-called crown sealing element of annular form for securing the thimble element to the bottle, and have provided this crown sealing element for effecting the initial seal with a pull-down strip so that it may be readily torn off without the use of any tool.

Figure 1 is the complete device on the bottle top ready to have the sealing element pressed into position;

Fig. 2 is the same, but with the sealing element pressed into sealing position;

Fig. 3 is the same as Fig. 2 but with the pull-down strip in process of being torn off, so as to break the seal;

Fig. 4 is a vertical axial section thru the bottle top, thimble element, and sealing element, before the latter is pressed into sealing position;

Fig. 5 is an under-plan view of the sealing element;

Fig. 6 a detail, is a fragment of the sealing element in elevation, seen from the inside, and

Fig. 7 a detail, is a vertical axial section of the thimble cap.

Referring now to the drawings, B is an ordinary glass catsup bottle, the top edge of which is designated as b. A protruding ring b^1 is situated underneath the crown sealing element C, when in lowered position for sealing.

A thimble-shaped metal cap A, having a cork a seated in the inside of the crown against the top, is so placed over the top of the bottle that the edge b comes in contact with the cork a and hermetically seals the container, until the initial seal has been broken; and makes a neat and convenient temporary closure thereafter.

At the lower or open end of the thimble cap A is an outwardly extending clamping bead a^1. The inner flange c of the annular crown sealing element C rests upon the bead a^1 and forms a clamp. The crown sealing element C when forced downwardly into sealing position clamps the thimble cap A tightly to the bottle top by the engagement of the gripping skirt c^1 with the ring b^1 when this gripping skirt c^1 is pressed into position to form the initial seal. (See Figs. 2 and 3).

The crown sealing element C is provided with the pull down strip c^2 by which the ini-

tial seal can be broken without the aid of tools, by simply pulling the strip c^2 towards the base of the bottle.

I do not wish to be restricted to the precise form of the top shown, but conceive as within the scope of my invention any sealing top readable upon the claims which will finally be allowed on this application.

I claim as my invention and desire to secure by Letters Patent of the United States:—

1. A bottle closure having a thimble element adapted to seat down loosely over the bottle top, and separate unbroken removable crown cap sealing means having a gripping skirt and means engageable with the wall of said thimble for holding said thimble element rigidly in sealing position.

2. A bottle closure having a thimble element adapted to seat down loosely over the bottle top, an outwardly turned bead on the vertical wall of said thimble element, and separate unbroken crown cap sealing means for holding said thimble element rigidly in sealing position, said crown cap having a pull string.

3. A bottle closure consisting of a replaceable thimble element adapted to seat down loosely over the bottle top, a cork adapted to be compressed between the top edge of the bottle and the inside of the top of the thimble element, an exterior bead on said thimble element, an unbroken annular crown cap sealing element having an inner flange adapted to contact with said bead and securely seat the crown cap element upon the same, a skirt on said crown cap adapted to be bent inwardly so as to seat upon and under a ring on the container to be closed, and a strip integral with said crown cap sealing element adapted to tear thru and break the ring when said strip is pulled off.

4. In combination with a thimble shaped element adapted to seat over the mouth of a bottle, an annular crown cap member for securing said thimble shaped element to said bottle, and means integral with said annular member and disposed substantially at right angles thereto for releasing said securing element.

5. In combination with a thimble shaped element adapted to seat over the mouth of a bottle, an annular crown cap sealing element comprising an annular skirt portion and an integral tear off strip portion disposed substantially at right angles to said skirt portion, said tear-off strip portion adapted to be torn by a downward pull, thereby breaking open the sealing element.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MARK P. ORR.

Witnesses:
A. Austin Curtice,
Carl Phares.