April 6, 1926. 1,579,762

C. HAMMER

CAPPED CONTAINER AND CAP THEREFOR

Original Filed Feb. 16, 1924

Fig. 1.

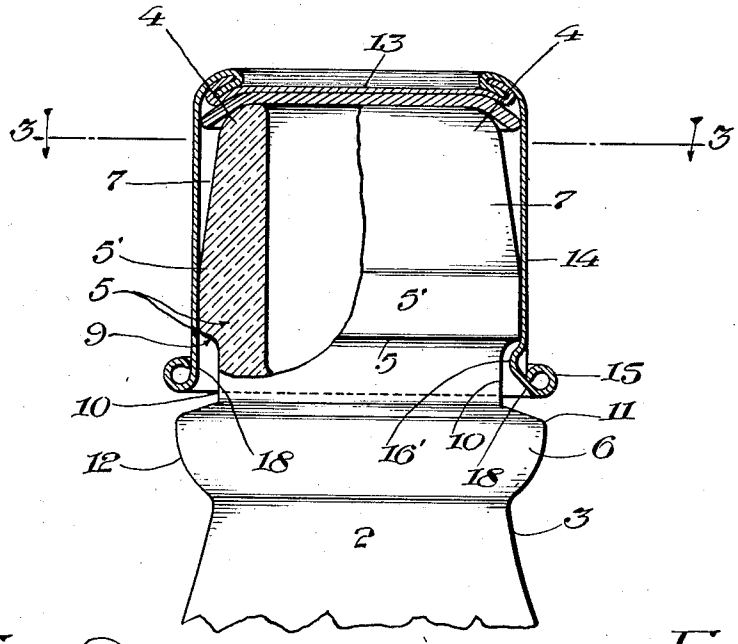


Fig. 2.

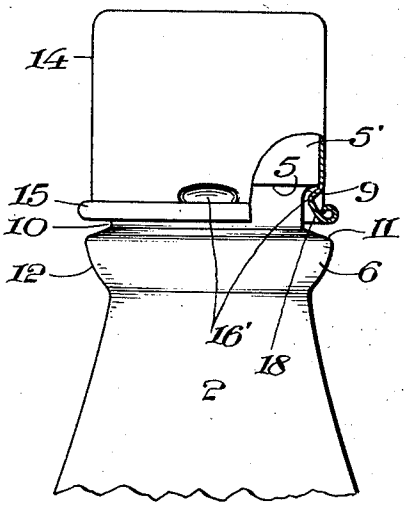
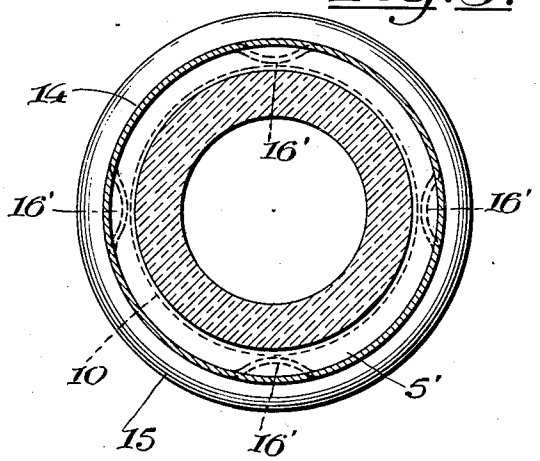


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES HAMMER, OF HOLLIS COURT BOULEVARD, NEW YORK.

CAPPED CONTAINER AND CAP THEREFOR.

Original application filed February 16, 1924, Serial No. 693,174. Divided and this application filed August 14, 1925. Serial No. 50,177.

To all whom it may concern:

Be it known that I, CHARLES HAMMER, a citizen of the United States, residing at Hollis Court Boulevard, in the county of Queens and State of New York, have invented certain new and useful Improvements in Capped Containers and Caps Therefor, of which the following is a specification.

This invention relates to capped containers, such as glass containers, particularly of that variety known as catchup bottles, and to metal caps for sealing the same, the object of the invention being to provide an improved capped glass container and an easily pried off metal cap therefor, in which the cap is applied in the first instance by suitable machinery, and can then be readily pried off by convenient prying-off means, such as a coin, and then can be readily snapped on for re-use, and which can be made of relatively thin sheet metal, and which cap is of simple construction, easily manufactured, inexpensively produced and efficient in use, the present application being a division of my contemporaneously pending application, Serial No. 693,174, filed February 16, 1924.

In the present improvement the cap and the container are provided with cooperating holding means located above the strengthened edge of the cap, and this holding means comprises an annular shoulder on the container and a plurality of inwardly pressed spaced bead formed projections in the skirt of the cap above the lower edge thereof, by means of which in its reuse the cap may be readily snapped on to the container.

In the drawings accompanying and forming a part of this specification, Fig. 1 illustrates a glass container in the form of a catchup bottle with this cap applied thereto in readiness to have a portion of its skirt suitably machine-impressed at intervals, the cap being shown in section; Fig. 2 is a side view of the cap partly broken away applied to the bottle shown in Fig. 1; and Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 1.

Similar characters of reference indicate corresponding parts in the several views.

Before explaining in detail the present improvement and mode of operation thereof, it is desired to have it understood that the invention is not limited to the details of construction and arrangement of parts which are illustrated in the accompanying drawings, since the invention is capable of other embodiments, and that the phraseology which is employed is for the purpose of description and not of limitation.

The glass container is shown as a catchup bottle 2 and comprises a body having a tapering neck 3 provided with a rounded lip or mouth 4, and spaced below and of larger diameter an annular shoulder 5, and spaced below and of still larger diameter a shoulder 6 facing the shoulder 5.

In this form of container the shoulder 5 is formed by an annular band 5′. The shoulder 6 is connected to the shoulder 5 by an inwardly curved portion 9 and a straight portion 10, the shoulder 6 having a relatively flat upper face 11 and tapers toward the neck of the bottle as at 12, from which point the bottle flares toward the body. The improved cap shown comprises a two-piece cap, although in some forms thereof, particularly when the skirt is of less depth, the cap may be made in one piece.

As shown, the top thereof comprises a disk 13 seamed or interlocked with a depending seamed skirt or flange 15, which may have corrugations if desired to assist in the manipulation of the cap as well as to strengthen the skirt of the same.

The depending skirt, which may be of any suitable depth, is in the present instance shown of that depth which is particularly adapted for use as a catchup cap, and therefor the skirt is shown as having a depth usually as great as the diameter of the cap. The lower edge of the skirt is bent upon itself to form a curled, rolled, beaded or stiffened lower edge 15 frequently called in this art a wire edge, although no wire is therein.

Above this rolled or beaded edge 15 the metal of the skirt is inset or inpressed at intervals as at 16′ to form inwardly projecting bead-forming portions underlapping the annular continuous shoulder 5 of the container. This insetting is done in the first instance when the bottle is sealed by a suitable machine whereupon the container is efficiently sealed, and when the cap in the hands of the user is pried off by the use of a suitable coin it may be readily re-used by snapping it on, since these bead formed portions 16′ will be somewhat ironed out or deformed in prying the cap off.

Thus, in this form of cap, the user can more easily pry it off than is possible where the cap has a continuous annular bead holding under a continuous annular shoulder of the container. In other words, as the cap is shown held at four points, although a greater or less number could be used if desired, instead of all around the container shoulder, it can be more quickly released by the use of a coin or other pry-off instrument than is possible where a continuous bead on the cap underlaps a continuous shoulder on the container, and also the cap can be snapped on easier than where the cooperating holding means comprises a continuous shoulder and a continuous bead, since the metal of the cap will give or release at the four points much more quickly and easily than it would where the cap is held by a continuous shoulder and a continuous bead.

The cap, it will be seen, has a comparatively smooth interior free from any threads to become messed up and clogged by the contents of the container, thus providing a highly sanitary and practical cap in which the spaced holding beads are located above the lower strengthened or rolled edge of the cap but adjacent thereto. These spaced holding beads are entirely independent of the rolled edge of the cap and formed from the single thickness of metal of the skirt above and free of the stiffened or rolled edge, so that the inpressing of the skirt to form these beads will not affect such rolled edge. Thus the cap in the present instance has a holding portion formed of spaced inpressed beads located above a continuous out-turned rolled edge, the skirt metal between and joining or connecting the two flaring outward as at 18, whereby a coin or other instrument may be readily inserted and leverage used against the curled edge and lower shoulder 6, which forms the fulcrum for the coin to pry off the cap, so that while the holding beads of the cap and the out-turned curled edge are located in close proximity to each other, whereby one strengthens and reinforces the other, they are nevertheless so spaced from each other by the flaring part 18 that the action of one is not interfered with by the other, and yet both are located at the lower portion of the cap, thus leaving the entire inner surface of the cap from near the lower edge thereof to the top free of any inward holding projections, threads or other means to become filled up and corroded by the bottle contents.

By means of the present improvement, I am able to provide a thin sheet metal cap which can be readily made without the use of threads or other similar holding means, and in which the lower edge of the cap can be strengthened by means of a rolled or curled portion, which makes the cap sanitary and free of the disadvantages present in a raw or free edge cap, while the rolled edge so strengthens or stiffens the lower edge of the cap that a coin may be used to engage this lower strengthened edge to pry off the cap without mutilation or destruction of the edge, although the cap may be made of thin metal.

The inpressed holding beads of the cap skirt are so located that the inpressing thereof to secure it to the bottle will not be interfered with by the reinforced lower edge or be mutilated by any implement used to pry off the cap. Moreover, the metal above the curled edge can be inpressed more readily than is possible with the rolled edge, which, because of its stiffened formation, resists such inward pressure and also resists the prying off of the cap. Consequently, the present cap can be more readily removed by the use of a coin as the inpressed holding bead portions yield more quickly than is possible where the holding portions are of continuous form on both cap and container.

Most catchup caps heretofore devised have usually been provided with threads requiring the glass neck of the bottle to be similarly formed and there are certain disadvantages in such constructions other than those already pointed out, among which are the expense of forming the caps with threads as well as the bottle, and the time required to turn the cap on and off, all of which are material factors in the manufacture and quick handling of devices of this kind. Aside from this, the ordinary threaded catchup cap required a separate sealing medium for the bottle usually in the form of a separate cap or cork, which the present improved cap does away with, thus enabling this cap to not only take the place of two but to be made at much less expense, to be more easily handled and more quickly applied, as well as removed, and also more efficiently used.

Thus I have provided an improved cap comprising a top and a depending skirt having a curled or rolled lower edge thus materially simplifying and reducing the cost of manufacture thereof. The cap is merely placed on the bottle and by a suitable machine the metal below the rolled edge is inset at intervals below the shoulder of the container, whereby the cap is efficiently held on to the bottle. Subsequently the user of the sealed package can, by the use of a coin, pry off the cap, and when it is desired to reseal the bottle, the cap can be readily snapped on, so that I have provided a very inexpensive, easily handled and applied catchup cap.

It is to be understood that by describing in detail herein any particular form, structure or arrangement, it is not intended to limit the invention beyond the terms of the several

claims or the requirements of the prior art.

Having thus explained the nature of my said invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the modes of its use, I claim:

1. The combination of a container provided with a continuous annular holding shoulder, and a re-usable metal pry-off cap comprising a top and a depending skirt having in proximity to its lower edge a plurality of annularly spaced inpressed holding bead formed portions widely spaced apart to engage the under wall of said annular shoulder and machine inpressed thereunder subsequent to the first application of the cap to the container and so deformed by the prying off of the cap that the cap may be thereafter re-used and snapped on by hand.

2. The combination of a glass container provided with a continuous annular holding shoulder, and a re-usable metal pry-off cap comprising a top and a depending skirt having a stiffened lower edge and adjoining the same thereabove a plurality of annularly spaced inpressed holding bead formed portions widely spaced apart cooperating with the shoulder of the container, the prying off of the cap serving to deform or iron out such bead formed portions whereby the cap may be readily re-used and snapped on.

3. The combination of a container provided with a continuous annular holding shoulder, and a re-usable metal pry-off cap comprising a top and a depending skirt having a strengthened or beaded lower edge and adjoining the same thereabove a plurality of annularly and widely spaced inpressed holding bead formed portions, so deformed by the prying off of the cap that the cap may be thereafter re-used and snapped on, the metal of the skirt between said beads joining the same and flaring outward and spaced from the container thereby to permit the insertion of a coin between the beaded lower edge and the container to pry off the cap.

4. The combination of a container provided with a continuous annular holding shoulder, and a re-usable metal pry-off cap comprising a top and a depending skirt having a stiffened or beaded lower edge and adjoining the same thereabove a plurality of annularly and widely spaced bead formed holding portions engaging under the annular shoulder of the container and machine inpressed thereunder subsequent to the first application of the cap to the container, whereby on the prying off of the cap the bead formed portions of the skirt are deformed thereby to enable the cap to be subsequently snapped on by hand, the metal of the skirt between said beads connecting the same and flaring outward to space the same from the container to permit the insertion of a coin between said beaded lower edge and the container to pry off the cap.

Signed at 1822 Park Row Building, New York city, New York, this 23rd day of July, 1925.

CHARLES HAMMER.