No. 688,948. Patented Dec. 17, 1901.

J. G. GULICK.

CAN TOP AND CLOSURE.

(Application filed Sept. 10, 1901.)

(No Model.)

Fig. 1.

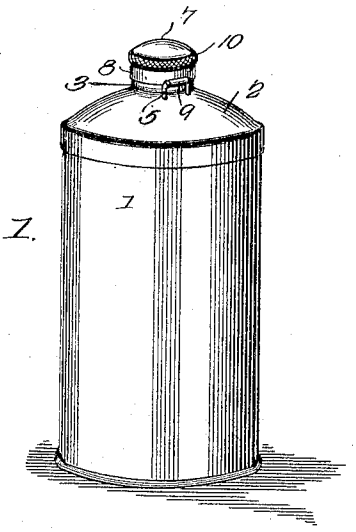


Fig. 2.

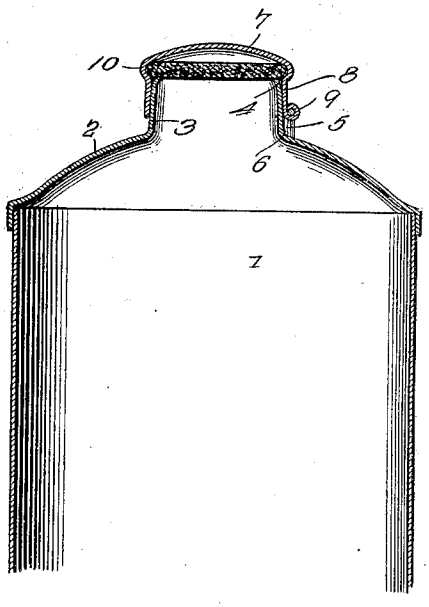
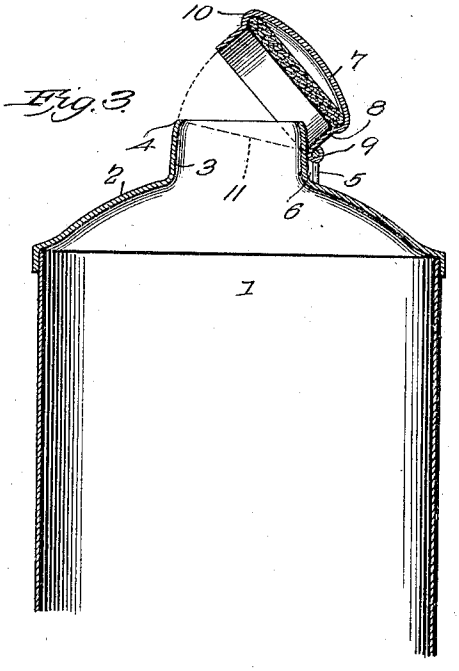


Fig. 3.



Witnesses:
E. C. Stewart.
Chas. S. Hoyer.

Inventor: J. G. Gulick,
by C. A. Snow & Co.
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN G. GULICK, OF BROOKLYN, NEW YORK.

CAN TOP AND CLOSURE.

SPECIFICATION forming part of Letters Patent No. 688,948, dated December 17, 1901.

Application filed September 10, 1901. Serial No. 74,945. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. GULICK, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Can Top and Closure, of which the following is a specification.

This invention relates to can tops and closures which are particularly adaptable to cans or receptacles for holding tooth-powder; and the purpose of the same is to provide simple and effective means for holding a hinged lid in such relation to the collar of a can-top that it may be readily opened and closed with a finger and to set up a locking engagement between the lid and collar when closed of sufficient resistance to prevent the lid from working loose or accidentally opening, and thus preserve the contents of the can or receptacle, and whereby said can or receptacle can be conveniently held in one hand and opened and closed, so that a tooth-brush may be held in the other hand and have the contents of the can deposited thereon without the delay of unscrewing or withdrawing the cap or lid.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a can or receptacle, showing the improved top and closure or lid applied thereto, the closure or lid being shut. Fig. 2 is an enlarged transverse vertical section of the upper portion of the can or receptacle embodying the features of the invention and showing the lid closed. Fig. 3 is a view similar to Fig. 2, showing the lid partially open and the manner of effecting the snap-lock of the lid in relation to the upstanding collar of the top.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates the body of the can or receptacle, which is preferably constructed from sheet metal and may be of any suitable form and capacity. On the body a top 2 is permanently secured and has an inlet and outlet opening at the center, surrounded by an upstanding collar 3. As clearly shown by Figs. 2 and 3, the upper edge 4 of the collar 3 is slightly struck inwardly or formed with an inward-curved bevel, for a purpose which will presently be set forth. The legs of a hinge-staple 5 are secured to the top 2 close to the collar 3 and parallel with the latter, a space 6 being provided between the staple 5 and the adjacent part of the collar. The head portion of the staple 5 stands above the plane of the top 2 and thereto a lid 7 is hinged by means of an extended lip integrally formed with a part of the rim 8 of the said lid or cover and rolled around the head of the staple, as at 9, to thereby provide a hinge-knuckle. The hinge-knuckle of the lid or cover is free to move on the head of the staple, and the rim 8 of said lid or cover is of such diameter as to fit over the collar 3, the depth of the said rim being materially less than the height of the collar. The lid or cover 7 is in the form of a cap and has an upper bead 10, which contacts with the upper edge of the collar 3 when the lid or cover is closed and limits the downward movement of the rim 8 over the said collar. The bead 10 is at such an elevation that when the rim 8 is closed down over the collar 3 the lower edge of said rim throughout its whole circumferential extent will be in a plane coincident with the plane of the lowermost portion of the knuckle 9 and a tight frictional engagement of the rim 8 with the collar 3 will result.

It will be understood that to obtain the benefit of a hinged cap, lid, or cover in relation to a collar, and to have the collar of such vertical extent as to be effective and facilitate delivery of the contents of the body in quantities as desired without waste or causing the bulk of the contents of the body to press too forcibly against the material delivered from the collar, the rim 8 must be of less width than the height of the collar, so that the lid or cover may be closed over the collar or thrown back in open position in relation to the latter without material resistance, yet to have sufficient frictional binding or pressure between the rim and collar when the lid or collar is closed to effect a tight closure and prevent deterioration of the contents of the body 1 by evaporation or absorption. The collar 3 is more or less resilient, and when the lid or collar is closed down-

wardly thereover more or less compression of the collar will take place, in view of the fact that the lid or cover moves in relation to the collar in an arc of a circle, which is also always constant by reason of the invariable or positive position of the hinge connection for said lid or cover. The rim 8 also slightly yields, and when closed over the collar 3 the lower edge portion of the rim diametrically opposite to the hinged portion of said rim will strike on the adjacent upper edge portion of the collar 3, slightly inward from the plane of the adjacent outer surface of said collar, and will then assume the diagonal position indicated by the dotted line 11 in Fig. 3, and a continued pressure on the lid or cover will cause the portion of the rim 8 diametrically opposite to the hinged portion thereof to snap over the adjacent portion of the said collar. By elevating the staple 5, as set forth, and proportioning and disposing the rim 8 and collar 3, as described, advantage is taken of the fact that the diagonal of the collar 3 is slightly greater than its horizontal or transverse diameter, and the rim 8 is thus slightly caught, as before indicated, and in view of the yielding or resilient nature of the collar 3 a snap-lock ensues and a frictional binding is set up which will prevent the lid or cover from accidentally working loose or opening when not desired.

From the foregoing it will be observed that only sufficient bind between the rim 8 and collar 3 is desired to hold the lid or cover closed and perform the function of preventing injury to the contents of the body 1 by exposure, so that the body can be held in one hand and the thumb of said hand employed in quickly opening the lid or cover to sprinkle or deposit a portion of the contents of the body on a brush held in the other hand and permit the said lid or cover to be subsequently closed without the delay incident to the manipulation of a screw-cap, ordinary stopper, or a slidable tube, and with the further advantage that the closing device for the cap will always be in attached relation thereto. Owing to the resiliency of the collar 3 wear on the rim 8 will be reduced to a minimum and the efficiency of the lid or cover will not become impaired by continual use. The operation taking place in closing the lid or cover heretofore set forth is also facilitated by forming the upper edge of the collar 3 with the slight inwardly-curved bevel 4, as the said bevel will cause the upper edge portion of the collar to have an inward movement, as distinguished from and contrary to the outward movement of the said edge if it were perfectly straight. Moreover, the said beveled edge provides for easy movement of the lower edge of the rim 8 thereover with less wear on the upper portion of the collar.

Having thus described the invention, what is claimed as new is—

The combination with a containing body or receptacle, of a top having an upstanding resilient collar surrounding an opening therein, a hinge-staple secured to the top and projecting above the latter in a plane parallel to and at a distance from the outer surface of the collar, and a cap having a rim with a portion thereof movably attached to the staple and adapted to be closed over the said collar, the rim of the cap always being held in a positive position in relation to the collar, the diameter of the rim being slightly greater than the upper edge portion of the collar but the diagonal width of the collar starting from the location of the hinge attachment of the cap to the point opposite on said collar where the rim of the cap engages being slightly greater than the diameter of the collar and the rim of the cap to cause the latter to snap over the said collar.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN G. GULICK.

Witnesses:
ROSALIE E. EDWARDS,
GUSTAVUS S. SMITH.