O. BECHER.

METAL BOX TOP.

APPLICATION FILED MAY 8, 1908.

980,743. Patented Jan. 3, 1911.

Fig. 1.

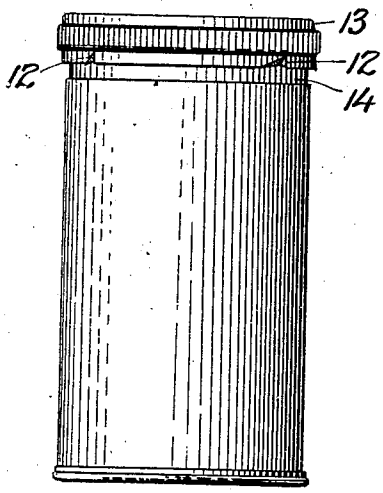


Fig. 2.

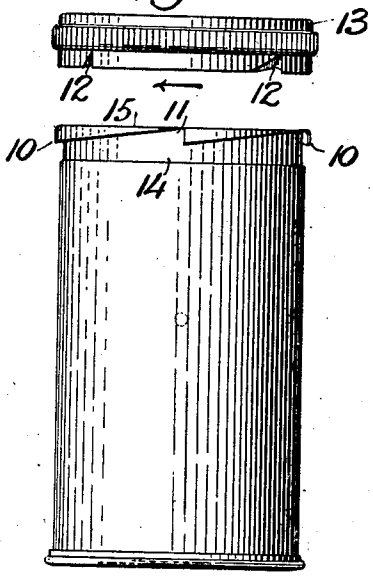


Fig. 3.

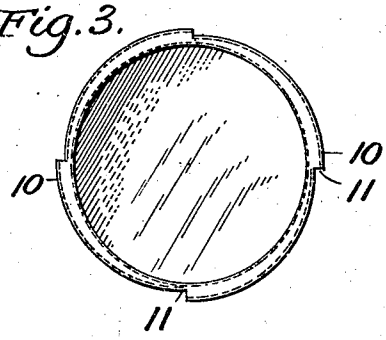


Fig. 4.

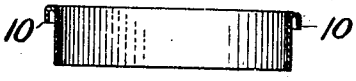


Fig. 5.

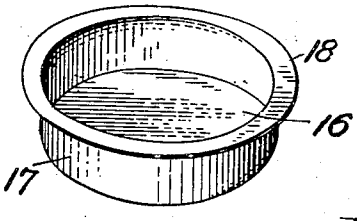


Fig. 6.

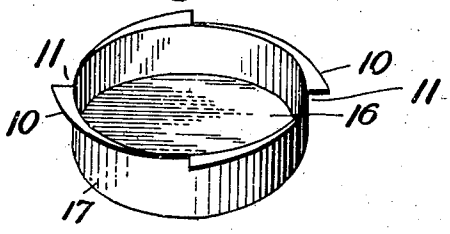


Fig. 7.

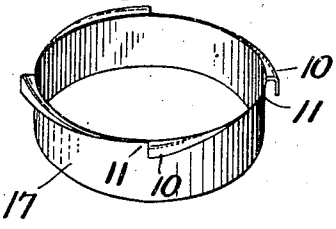


Fig. 8.

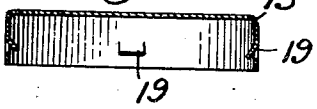
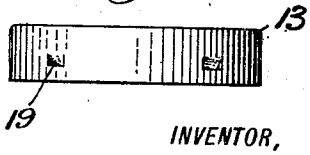


Fig. 9.



WITNESSES

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METAL-BOX TOP.

980,743. Specification of Letters Patent. Patented Jan. 3, 1911.

Application filed May 8, 1908. Serial No. 431,682.

To all whom it may concern:

Be it known that I, OTTO BECHER, a citizen of the United States, residing at Copiague, in the county of Suffolk and State of New York, have invented new and useful Improvements in Metal-Box Tops, of which the following is a specification.

This invention relates to box tops, and more especially to the caps for metal cans; and its object is to provide the can and top with such means as will afford ready application of the top to the can and instant release of the top from the can for its removal, and at the same time to secure an air-tight or water tight closure, as will be more fully explained in the following specification, set forth in the claims and illustrated in the drawings, where:

Figure 1 is a side elevation of a can or tin box illustrating the invention. Fig. 2 is a similar view showing the cap removed. Fig. 3 is a plan view of the locking means at the top of the can. Fig. 4 is a sectional view of same. Figs. 5, 6 and 7 illustrate the process of making the locking means. Figs. 8 and 9 show a modified construction of the top.

In the construction of this can or box the upper edge of the open end is provided with overhanging cam faces 10 which may be of any desired number; for convenience of illustration four are shown. At the upper faces of the cams the diameter of the edge is decreased as at 11 to allow the lugs 12 which are formed on the top 13 to pass down the reduced portion 14 of the top edge so that they may come in the path of the cam faces. When thus disposed on the upper end of the box, the top is loosely fitted but by turning the same in the direction of the arrow in Fig. 2 the lugs are brought into engagement with the inclined surfaces of the cams and the top is forced downward bringing its under side into close engagement with the upper edge 15 of the box. In order to make a thoroughly tight closure a washer or disk of paper or cork may be inserted in the top so as to be forced down upon the edge of the box and form an air-tight packing.

In the manufacture of this improved top and closure the box is made in the ordinary manner of a band or sheet of metal seamed along its length and having a bottom. Within the upper open end of the box is secured a ring 17 carrying the cam faces 10 above described and the construction of this ring with its cam faces is best shown in Figs. 5, 6 and 7. From a disk of sheet metal is struck with one operation the form shown in Fig. 5 the main portion 16 of the disk remaining in its original condition and having the sides or ring 17 rising therefrom; with the same operation the flange 18 is also formed and the blank in this condition is ready for the next operation. In Fig. 6 is shown the next operation where it will be seen that from the flange 18 is cut the cam faces 10 although they remain in their horizontal position. The third and last operation results in the condition shown in Fig. 7 where the bottom 16 has been cut out and the cam faces have been given their vertical position and this part of the box is given the form of a ring whose outer diameter is about equal to the inside of the box it is to accompany and it is fitted within the upper end of the box and soldered therein.

Figs. 8 and 9 show a top with lugs 19 stamped or cut about half way up its sides and which are to engage the cam faces 10. This top, in consequence of the short distance of the lugs from the top surface, is adapted to be used without a closure disk or with a thin one.

It will be obvious that when the top or lid is mounted upon the box or can and turned thereon to have its lugs brought into engagement with the inclined surfaces of the cam, the said wall of the said top or lid will lie substantially flush with the side wall of the said can or box.

It is obvious that I do not confine myself to the exact shape or number of the cam faces shown but it is desirable that the lugs shall equal them.

What I claim as new and desire to secure by Letters Patent is:

1. The combination with a can body and lid, of a neck for said can body, comprising a ring formed as an entirety from a single piece of sheet metal, said ring being cut into at its upper edge to provide a plurality of circumferentially arranged laterally bent flanges relative to said ring, said flanges being down-turned exteriorly of said ring concentrically with respect thereto and having lower inclined cam edges whereby on engaging the lid with the neck, it will be secured upon the can.

2. A metal can or receptacle having a neck portion with cuts therein at its upper edge and bent to provide out-turned spaced cam flanges at the free edge of said neck, each flange having a horizontally disposed body portion, and a depending portion having a lower inclined edge, said flanges being arranged exteriorly of the can substantially flush with the outer side wall thereof, and a cap adapted to inclose wholly the said neck, said cap being provided with indented tongues to engage the inclined edges of the flanges.

In testimony whereof I affix my signature in presence of two witnesses.

OTTO BECHER.

Witnesses:
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F. D. DIMAN.