C. S. HUMPHREY.

BOX OPENING DEVICE.

APPLICATION FILED MAY 29, 1919.

1,334,245.

Patented Mar. 16, 1920.

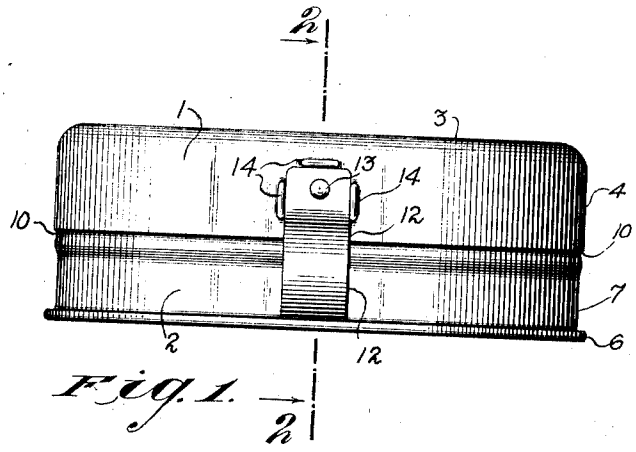


Fig. 1.

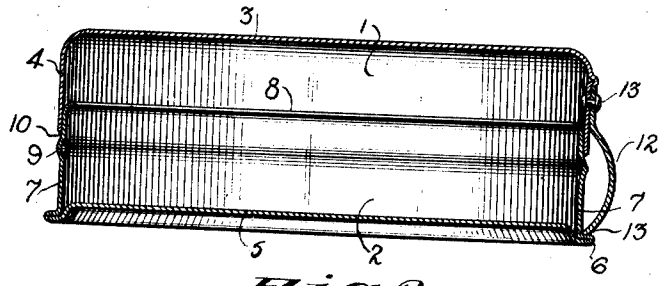


Fig. 2.

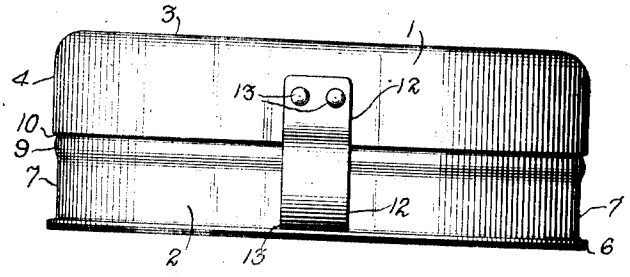


Fig. 3.

WITNESSES

H. C. Hobig

E. B. Gale.

INVENTOR

GLEN S. HUMPHREY

BY Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

CLEN S. HUMPHREY, OF BROOKLYN, NEW YORK.

BOX-OPENING DEVICE.

1,334,245. Specification of Letters Patent. Patented Mar. 16, 1920.

Application filed May 29, 1919. Serial No. 300,512.

To all whom it may concern:

Be it known that I, CLEN S. HUMPHREY, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Box-Opening Device, of which the following is a full, clear, and exact description.

This invention relates generally to a new and improved airtight box, and more specifically to a means therefor by which the parts may be separated.

It is not broadly new to provide a means for conveniently removing a cover from the body of a box, but in constructions heretofore used it has necessitated the repositioning of the removing means in order to afford a free path for replacing the cover on the body of the box.

One of the objects of this invention is to provide a construction which will overcome the above objection.

A further object of this invention is to provide in an airtight box a simple and inexpensive means whereby the cover may be readily separated from the body of a box without necessitating the use of any hinged or moving pivoted parts, or the use of any prying means therefor.

A further object of this invention is to provide in a box a means for removing a cover from the body, which may be readily applied to the ordinary airtight box having a bead on one of the members.

Still a further object of this invention is to provide in an airtight box a construction by which the parts may be given a relative longitudinal movement by pressing laterally against a resilient member carried by one of the parts.

Still a further object of this invention is to provide a device for removing the cover of a box which, after the cover has been separated, automatically springs back to a position which facilitates the application of the cover to the body of the box.

The above objects are accomplished by providing a resilient member carried by one member of the box and engaging a bead or projection on the other member of the box, the resilient member being so formed and arranged that by the application of a lateral force thereto a relative longitudinal movement of the cover and body is obtained, after which the resilient member immediately assumes its original form and position.

Other objects and advantages will be apparent from the following description and accompanying drawings in which similar characters of reference designate like parts in the several views.

Figure 1 is an elevation view of a box with the invention applied thereto.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a view showing a modification of the invention.

In Figs. 1 and 2 of the drawings showing a preferred form of the invention, an airtight box is shown comprising a cover 1 and a body 2, the cover having a circular disk-like top 3 and a downwardly etxending side 4 extending therearound. The cover 1 is preferably made of one piece of stamped sheet metal and is formed with a rounded corner at the upper edge of the side 4. The body 2 is also preferably made of one piece of stamped sheet metal and comprises a raised bottom 5, an annular flange or bead 6 extending therearound, and the upwardly extending side 7 having the upper edge 8 thereof preferably turned inward to facilitate the positioning of the side 4 of the cover 1 thereover.

Another outwardly-turned bead 9 is formed around the body 2 in the side 7 below the upper edge thereof, said bead 9 functioning as a stop to position the lower edge 10 of the side 4 of the cover 1. The bead 6 projects out from the side 7 of the body 2.

As a means of obtaining a relative longitudinal movement of the cover 1 and body 2 to separate them, there is provided a resilient member 12, one end of which is secured preferably to the side 4 of the cover 1 by a suitable rivet connection 13 or other means, there being provided raised beads 14 adjacent the end of the member 12 to hold it against turning when secured at only one point, the other end 13 of said member 12 engaging the bead 6 of the body 1, and the part intermediate of the ends of the resilient member 12 being spaced from the side 7 a sufficient distance so that when a force is applied thereto, there will be a tendency to straighten said member 12, thus separating the cover 1 and the body 2 by causing a relative longitudinal movement therebetween. As soon as the parts have been sep-

arated the resilient member 12 will resume its original form so that when the cover is again applied to the body 2, there will be no projecting parts obstructing the path of the cover.

It is understood that I am not limited to the form of the bent member 12 or the method of securing one end thereof to one of the parts of the box.

There is shown in Fig. 3 a modified form in which there is a plurality of rivet connections 13, this eliminating the necessity for the use of the raised beads 14.

Various changes and modifications may be made without departing from the spirit and scope of this invention.

Having thus described the invention, what I claim as new is:

1. In a box, comprising a cover and body portions having a bead thereon, a member having one end thereof secured to the side of one of said parts, the other end thereof being normally in engagement with said bead, said member having a portion thereof spaced from the side of the box so that when a force is applied thereto, the relative longitudinal movement of the cover and body portions will be obtained.

2. In a box, comprising a cover and a body portion having a bead thereon, a means carried by the cover of the box for separating the cover from the body portion of the box, said means including a resilient member having one end thereof fixed on the side of the cover and held against rotation thereon, the other end of said member normally engaging said bead, said resilient member being normally spaced from the side of the box intermediate the ends thereof so that when a force is applied thereto, said resilient member will tend to straighten, thus causing relative longitudinal movement between the cover and body of the box to separate said parts.

3. In an airtight box, comprising a body portion, having a projection thereon, and a cover, a means carried by the cover for removing the cover from the body of the box, said means including a resilient member having one end thereof secured to the side of the cover and a means to prevent rotation of said member thereon, the other end of said member being normally in engagement with said projection, said member being normally spaced from the box between the point of engagement with said projection and the point of connection with the cover so that if a pressure is applied to said member, said member will tend to straighten and cause the separation of one side of the cover and the body of the box.

4. In a box, comprising a cover and a body portion, a means carried by said cover and held against rotation thereon for separating one side of said cover and body portion of the box, said means including a resilient member having one end thereof secured to the side of the cover and the other end thereof in engagement with a projection on said body portion, a portion of said resilient member being normally spaced from the box so that as a pressure is applied thereto, the cover and body of the box will be separated, the said resilient member being so formed that after the cover and body have been separated, said resilient member will assume its previous form and will offer no obstruction when the cover is again applied to the body of the box.

5. In a box, comprising a cover and a body having a bead thereon, a bent spring member having one end thereof fixed on the side of the cover and held against rotation thereon, the other end of said member normally engaging the bead of said body portion.

6. In a box, comprising a body part and a cover therefor, a resilient member having one end thereof secured to the side of the cover and the other end thereof being normally in engagement with the bead, said resilient member being bent intermediate the ends thereof so that if a pressure is applied thereto, one side of the cover and body will be separated, after which the resilient member will assume its previous bent form.

CLEN S. HUMPHREY.