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RECEPTACLE CLOSURE

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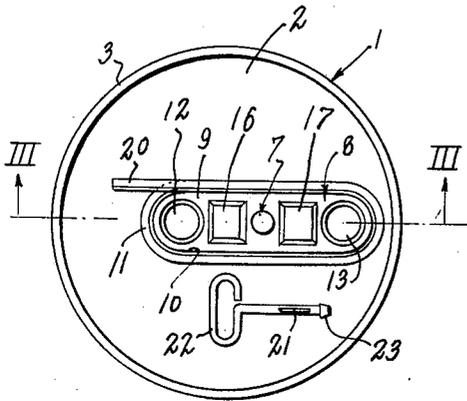


Fig. 1.

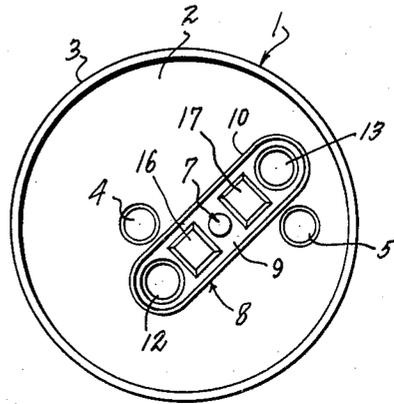
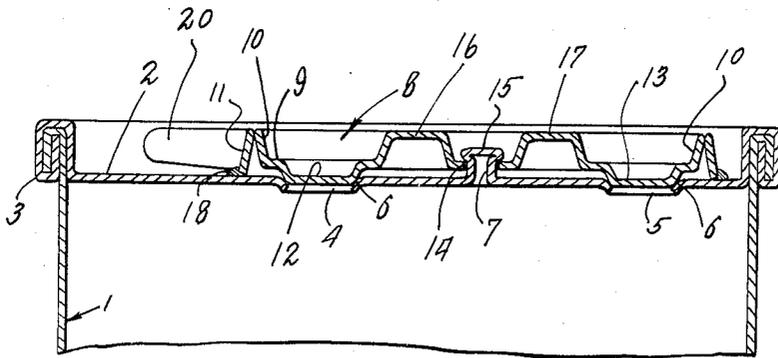


Fig. 2.

Fig. 3.



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# UNITED STATES PATENT OFFICE

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## RECEPTACLE CLOSURE

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4 Claims. (Cl. 220—33)

My invention relates to receptacle closures and has particular reference to a can or similar receptacle having a top adapted to be sealed upon the receptacle, but having openings there-through by which the contents of the can may be poured out of the can, and by which air may enter the can with mechanism for closing the openings except when the device is in actual pouring use.

In certain types of cans or receptacles, such as those used for evaporated milk, it is the common practice to punch a pair of spaced apart holes in the top of the can, one of which is usually near the rim of the can-top and through which liquid from the interior of the can may readily pour out, the other hole being spaced either at the opposite side of the can or any other spaced relation to the first opening and in order to admit air into the receptacle as the contents are poured out. Such prior practice is unsatisfactory for the reason that the holes having once been made in the can top remain open, thereby permitting contamination and spoilage of the remaining contents of the can.

It is an object of my invention to provide a can of the character set forth in which the can top is initially provided with a pair of openings formed therein through which the contents of the can may be poured out and air may enter to replace the original contents and in which such openings are initially closed and sealed by a sealing which, when opened, acts as a movable closure secured to the top of the can and adapted to be moved between one position closing the opening, and another position exposing the openings for use.

Another object of my invention is to provide a can or receptacle of the character set forth in the preceding paragraph wherein a movable member is provided pivoted upon the top of the can and adapted to be moved between two positions to expose the openings and to cover the openings, and in which the movable member is normally or initially sealed to the can-top to prevent accidental displacement thereof or to prevent communication with the interior of the can until the can is placed in actual pouring use.

Another object of the invention is to provide a can or receptacle of the character set forth in the preceding paragraphs wherein the can is initially provided with openings through the top thereof and with an additional closure member pivoted to the can and adapted to move between two positions to expose the openings

and to close the openings, and in which a sealing strip is sealed to the movable member and to the can-top and normally holds the movable member against movement and acts as a seal preventing contamination of the product until the can is placed in use by the consumer at the time the seal strip is broken and removed, freeing the movable member for movement between its two positions.

Other objects and advantages will be apparent from a study of the following specifications, read in connection with the accompanying drawing, wherein:

Figure 1 is a plan view of a can top equipped with my movable closure member, illustrating the same prior to the removal of the seal therefrom;

Fig. 2 is a view similar to Fig. 1 but illustrating the position of the closure member after the seal has been removed and the closure member has been moved to expose the pouring and air inlet opening; and

Fig. 3 is a vertical sectional view taken through the can top and my movable closure along the line III—III of Fig. 1.

Referring to the drawing, I have illustrated a can having a side wall structure 1 of any desired shape or configuration, to the upper end of which is secured a top 2 acting as a cover or top structure for the can. The top 2 may be secured to the side wall structure 1 by any of the well known means and methods, such as rolling the upper edge of the side wall structure and the outer edge of the top structure, as indicated at 3.

The top 2 of the can or receptacle is initially stamped with a pair of openings 4 and 5 penetrating therethrough, the material about each of these openings being preferably pressed downwardly during the punching of the holes 4 and 5 to provide an angular seat 6 surrounding the openings 4 and 5. The top 2 is also preferably initially formed with an upstanding boss 7 which may act as a pivot upon which a movable closure member 8 may be pivotally secured to the top.

The movable closure member 8 is preferably stamped from a piece of metal in the shape indicated in Figs. 1 and 3 of the drawing, said movable closure member having a base portion 9 of elongated oval shape, about the periphery of which rises an upstanding vertical flange 10 which is bent outwardly and downwardly upon itself to form a downwardly projecting flange 11 which may be sealed to the top 2 of the can, as

will be understood by those skilled in the art and more fully described hereinafter.

The base portion 9 of the closure member is preferably formed with a pair of depressions 12 and 13 spaced from each other by exactly the same distance as the openings 4 and 5 in the can 2 are spaced from each other, the depressions 12 and 13 forming upon the opposite surface of the base 9 projections having approximately the same size and shape as the seats 6 formed about the openings 4 and 5 in the can top. The base portion 9 is also provided with a central opening 14 adapted to receive the boss 7 so that the upwardly projecting portion of the boss may be flattened or riveted down, as indicated at 15, to hold the movable closure member 8 down upon the can top and yet permit a rotary movement of the movable member 8 relative to the can top.

As indicated particularly in Fig. 3, I prefer that the riveting of the boss 7 should tend to urge the center of the movable closure member 8 downwardly, thus placing a strain upon the closure member tending to tightly seat the depressions 12 in the seats 6 of the openings 4 and 5 to thereby render these openings liquid-tight during the time the openings are closed by the depressions 12 and 13. In order to lend relative rigidity to the movable closure member, I prefer to press the metal thereof lying between the depressions 12 and 13 to the pivot opening 14 slightly upwardly as indicated at 16 and 17, though it will be understood that ribs, fins, or other shapes may be formed upon the metal of the movable closure member in order to lend rigidity thereto.

By referring particularly to Figs. 1 and 3 it will be observed that when the can is initially manufactured the movable closure member 8 is preferably positioned so as to seat the depressions 12 and 13 in the openings 4 and 5 of the can top 2 and the sealing strip or flange 11 has its lower edge abutting against the upper surface of the can top 2, whereby a thin film or beading of solder 18 may be hung around the edge of the sealing strip or flange 11 to insure an air-tight or hermetic seal between the closure member 8 and the can top 2, preventing the ingress of air or any contamination to the interior of the can and to prevent any of the contents of the can from leaking therefrom.

It will be noted particularly by reference to Fig. 3 that back of the junction of the flanges 10 and 11 the metal is scored or grooved, as indicated at 19, weakening the metal at this point so that the sealing strip or flange 11 may be readily torn from the movable closure member 8 without undue distorting of the closure member 8.

To facilitate the stripping off of the sealing flange 11, I prefer to extend the flange 11 at some point about the periphery of the closure member 8, as by a tongue 20 adapted to be engaged in the slot 21 of a key 22 which, in accordance with the common practice, may be provided with the can and preferably soldered or spot-welded to the can as indicated at 23.

In operation the can, with the closure member sealed in place by the sealing strip 11, will be furnished to the manufacturer of the product to be contained in the can and after the contents have been placed in the can the top will be secured to the wall structure 1 of the can by any of the well-known methods of sealing metal or similar cans or receptacles. When the

can with its contents are sold to the consumer, the consumer will strip off the sealing flange or strip 11 by employing the key 22 to engage the tongue 20 and then wind up the flange or sealing strip 11 upon the key, thus breaking the seal between the closure member 8 and the can top 2.

The can is now ready for pouring service and it will be noted that the upstanding flange 10 constitutes an effective finger-grip by which the closure member 8 may be engaged by the hand and moved about its pivot 7 to the position shown in Fig. 2, exposing the openings 4 and 5, allowing the contents of the can to be poured from the opening 5 and allowing air to enter the can to replace the outgoing contents. After the pouring service the openings 4 and 5 may be effectively closed to prevent undue contamination of the contents by merely swinging the movable closure member 8 upon its pivot back to the position in which the depressions 12 and 13 seat respectively in the seats 6 of the openings 4 and 5, the resilience provided by the structure of the closure member 8 and the tension exerted by the pivot boss 7 acting to hold the depressions 12 and 13 accurately in the seats 6.

It will be understood by those skilled in the art that I have provided a pouring can which is provided with pouring and air inlet openings and in which a movable closure member is adapted to effectively close the openings except at such time as the can is actually in pouring use and in which the can, with its contents, goes to the consumer in hermetically sealed condition.

While I have shown and described the preferred embodiment of my invention, it is to be understood that I do not wish to be limited to any of the details of construction shown herein, except as defined in the appended claims.

I claim:

1. In a receptacle having a top, a pair of openings in the top through which the contents of the receptacle may be poured and through which air to replace the outgoing contents may enter the receptacle, a movable closure pivoted to said top and having an area adapted to extend over both of said openings, a removable sealing strip connected to the periphery of said closure member and scored to be removable as a tear strip, the strip extending in sealing relation between said closure member and said receptacle top, and a bed of solder-like material hermetically sealing the edge of said strip to the top of said receptacle and adapted to be torn therefrom on removal of said strip as a tear strip.

2. In a receptacle having a top, a pair of openings in the top through which the contents of the receptacle may be poured and through which air to replace the outgoing contents may enter the receptacle, a movable closure pivoted to said top and having an area adapted to extend over both of said openings, the periphery of said closure member being formed as an upstanding flange adapted to form a finger grip by which said closure member may move upon its pivot, a sealing strip extending from the periphery of said closure member to the receptacle top and provided with a tearing score at the periphery of said closure member, and a bed of solder-like material hermetically sealing said tear strip to the receptacle top.

3. In a receptacle having a top, a pair of openings in the top through which the contents of the receptacle may be poured and through which air to replace the outgoing contents may enter

5 the receptacle, a movable closure pivoted to said  
top and having an area adapted to extend over  
both of said openings, the periphery of said  
closure member being formed as a double flange,  
the inner flange extending upwardly to form a  
finger grip by which the closure may be moved  
about its pivot to the outer flange extending  
downwardly from the inner flange into sealing  
relation with the surface of the top of said  
10 receptacle, the middle of said closure member  
being scored at the junction of said inner and  
outer flanges, whereby said outer flange forms a  
removable sealing strip by which the outer flange  
may be removed, freeing the said movable closure  
15 member for movement about its pivot.

4. In a receptacle having a top, a pair of openings in the top through which the contents of the receptacle may be poured and through which air to replace the outgoing contents may enter

the receptacle, a movable closure member pivotally secured to the top of the receptacle and having means thereon for covering said openings, said closure member being movable about its pivot from a position exposing said openings to a position closing said openings, a removable sealing strip connected to the periphery of said closure, and a bed of solder-like material hermetically sealing the edge of said strip to the top of said receptacle and adapted to be torn therefrom on removal of said strip as a tear strip, said receptacle top having an upstanding boss formed thereon and said closure member having a pivot opening extending therethrough adapted to receive said boss, whereby riveting of said boss within said pivot opening form a pivotal interconnection between said closure member and said receptacle top.

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