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F. J. OBECK

2,696,935

CONTAINER CONSTRUCTION AND CLOSURE THEREFOR

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Fig. 1.

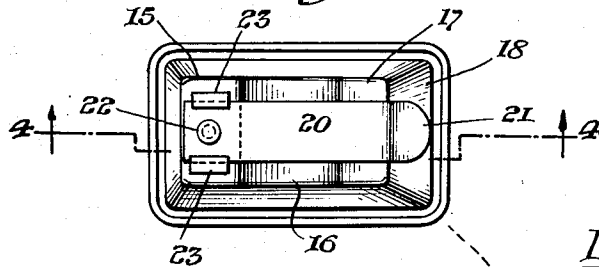


Fig. 2.

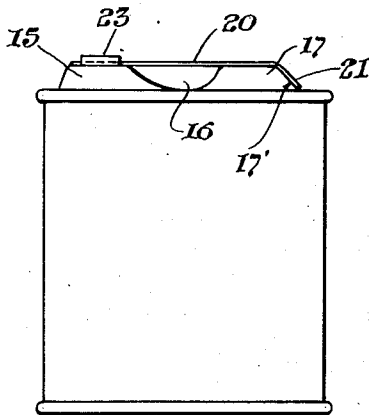


Fig. 4.

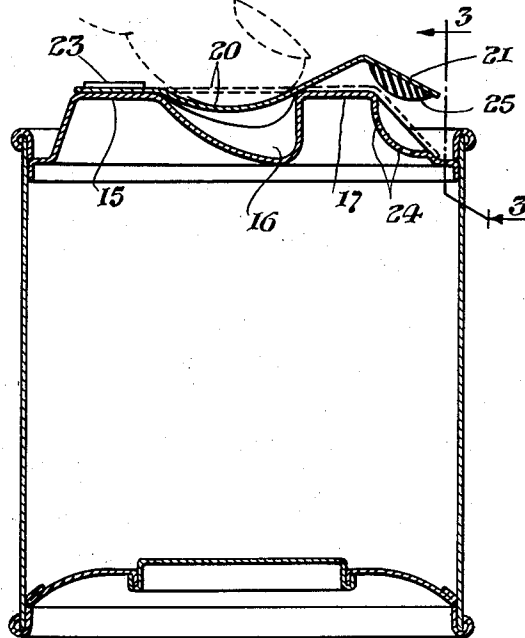


Fig. 5.

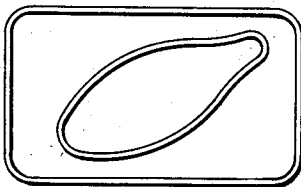
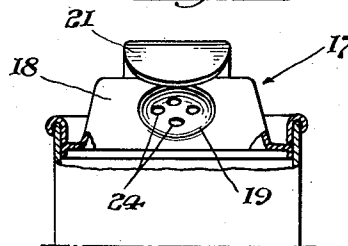


Fig. 6.

Fig. 3.



Inventor.
Ferdinand J. Obbeck
by His Attorneys,
Hovson and Hovson.

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CONTAINER CONSTRUCTION AND CLOSURE THEREFOR

Ferdinand J. Obeck, Haddonfield Township, Camden County, N. J., assignor to R. T. French Company, Rochester, N. Y., a corporation of Delaware

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6 Claims. (Cl. 222—498)

This invention relates to containers. The invention is useful in containers generally but it is more particularly adapted for containers for ground, granulated, pulverized or like materials which are commonly shaken from the container from one or more orifices or perforations.

Heretofore many types of containers have been provided with means to close or cover orifices or a series of perforations usually in their top surfaces which would enable the contents of the container to be dispensed or shaken out when a sliding panel or the like uncovers the orifice or perforations. Most commonly these closures have required positive movement by finger or thumb to close the container. It is desirable in many circumstances that the container automatically reclose as soon as the dispensing of the desired amount of contents has been completed. It is desirable that whatever the form of closure employed, the cans should be adaptable for stacking to facilitate their storage and shipping of them.

Therefore, it is an object of my invention to provide a closure for a container which is operable by light finger pressure to open the container permitting dispensing of its contents and which is automatically closable on release of such pressure.

Another object of my invention is to provide a self-sealing closure for containers of the aforementioned type which may be constructed economically and is adaptable to containers of usual form.

Another object of my invention is to provide a closure for containers which may be opened by light finger pressure to any desired extent. A related object is to provide a closure of the aforementioned sort which will open with a snap action upon the application of finger pressure. A further and also related object is to provide a closure of the aforementioned sort which will reclose with a snap action automatically on removal of such finger pressure.

Other objects and advantages of the invention will become apparent as it is described in connection with the accompanying drawing.

In the drawing:

Fig. 1 is a top plan view of a closure embodying the invention;

Fig. 2 is a side elevation view of the invention;

Fig. 3 is a transverse section view taken along line 5—5 of Fig. 4;

Fig. 4 is a longitudinal section view taken along line 4—4 of Fig. 1;

Fig. 5 is a bottom plan view of the container illustrated in Figs. 1 and 2.

Fig. 6 is a cross section view of the flexible strip on a larger scale than the other figures.

Referring to the drawing, the invention may be applied to any form or shape of container made of any suitable material, thin sheet metal being mentioned merely as one of the most common. As illustrated, the invention is applied to a common form of container of generally rectangular shape, such as is often used for finely ground, pulverized or granulated materials, i. e. spices, condiments and the like. Since the side walls of the container are or may be formed conventionally, no further or detailed description thereof need be given.

The top of the container may be stamped as a single piece from sheet metal or formed by molding or otherwise from any suitable material with two spaced flat-topped humps or elevations 15 and 17 pressed upwardly from the plane of the margins of the top when the top is stamped out, or thereafter. Between the humps is a

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valley or depression 16. Bridging the valley, a strip 20 of metal is secured at one end on top of one hump 15 by a rivet 22, or by spot welding, or in any suitable way. In order to more firmly secure this stationary end of the strip 20 and to prevent it from rotating, lugs 23 may be struck up from the top surface of the hump 15 and bent towards each other over opposite edges of the strip 20 adjacent said end. The other end of the strip 20 extends over and lies upon the top of the other hump 17 and has its extremity 21 bent down at an oblique angle toward the side wall of the container so as to lie flat upon a similarly sloping end surface 17' of the hump 17.

In order that the strip 20 may be caused to have its angularly bent end 21 snapped away from the sloping surface of the hump 17, the strip is arched laterally so as to be of curved cross-section at least throughout the extent of the portion that bridges the valley. Conveniently, the strip may be cut or severed from a roll or long length of such strip material which can be purchased in quantity on the market. Thus, when a person's finger is pressed upon the portion of the strip bridging the valley to depress the strip and laterally flatten it at that point, the change in the strip from curved to flattened form at the point of depression will cause it suddenly to snap from the dotted line to the full line position of Fig. 4. Such action causes the movement of the inclined end 21 of the strip 20 to move away from the sloping surface 17' of the hump 17.

In the sloping surface 17' of the hump 17, there is formed a spherical depression 19 in which are perforations 24 to permit the dispensing of material from within the container when the perforations are uncovered. In order that the perforations may be sealed when covered, when the strip is in normal or dotted line position, a spherical lobe 25 is secured upon the under surface of the inclined end 21 of the strip 20 when positioned and is of such size and form as to fit snugly within the spherical depression 19 in the sloping side of the hump 17.

The spherical lobe or closure element 25 may be made of any suitable material and secured by riveting or staking or caused to adhere to the end of the metallic strip 21 by solder or by a strong adhesive or by welding to the underside of the strip in any suitable fashion; or alternatively the end 21 of the strip may be stamped or pressed to form a hollow protuberance in lieu of the solid lobe shown.

Although the strip 20 is described as being of metal, it may be made of other stiff resilient material. Metal, however, in thin sheet form is particularly suitable because of its durability and reliability and because its flexibility is not likely to be affected by changing atmospheric or temperature conditions as may commonly be encountered in the use of the invention.

For convenience in manufacturing, an arcuate strip of metal which can be purchased in lengths or spools is preferred because of its availability. It is within the scope of the invention however to employ a strip of which only a portion is arched and which will when finger pressure is applied cause the bent end 21 of the strip to snap away from the depression 19 in which the perforations are located.

The bottom wall of the container may be formed according to conventional practice and preferably will be indented to such an extent as may be necessary to permit stacking of one container upon another. Also, the bottom wall of the container may have an opening formed therein closed by a conventional closure to permit the insertion of a spoon to take out a large amount of the contents of the can when such may be desired.

Many modifications within the scope of the invention will occur to those skilled in the art. Therefore I do not limit it to the specific embodiment illustrated and described.

What I claim is:

1. A dispensing container having adjoining walls providing an enclosure, one of said walls having a perforated area, a flexible strip element that is substantially straight for most of its length and is mounted on said wall and has one end covering said perforated area, said

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element being transversely arched and supported along the straight portion of its length at two spaced points on said wall to enable bending in response to pressure at a mid-portion between said points causing said one end to move pivotally and uncover said perforated area with a quick motion.

2. A dispensing device as defined in claim 1, wherein said two spaced points of support are provided by spaced elevated portions in said wall, and wherein said strip is secured at its opposite end to one of said elevated portions and adapted to uncover said perforated area when pressed at a point between said elevated portions.

3. A dispensing device having walls forming a closed container with a perforated area in one wall, an elongated flexible spring element having one end free and comprising a closure portion covering said perforated area, said element being mounted on and secured to said device at its opposite end, means providing a depression in said wall beneath a straight portion of and between the ends of said element, the edge of said depression nearest the free end of said element acting as a fixed fulcrum point when said element is pressed at a point which is over said depression and is spaced from the closure portion, thereby causing the free end of said

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element to move out from and to uncover said perforated area.

4. A dispensing device as defined in claim 3 in which the closure element is an elongated strip of spring material laterally arched through at least a portion of its length over said depression whereby the closure portion covering said perforated area is caused to snap away to uncover said area in response to pressure at said point.

5. A dispensing device as defined in claim 4, wherein said perforated area is concave and wherein means is provided on the movable end of said strip to seat in said concavity and cover said perforated area.

6. A dispensing device as defined in claim 1, wherein said perforated area is concave and wherein means is provided on the movable end of said strip to seat in said concavity and cover said perforated area.

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