Nov. 4, 1969 L. G. CALLEGARI 3,476,284

SNAP-ON REMOVABLE CAN PLUGS

Filed June 10, 1968

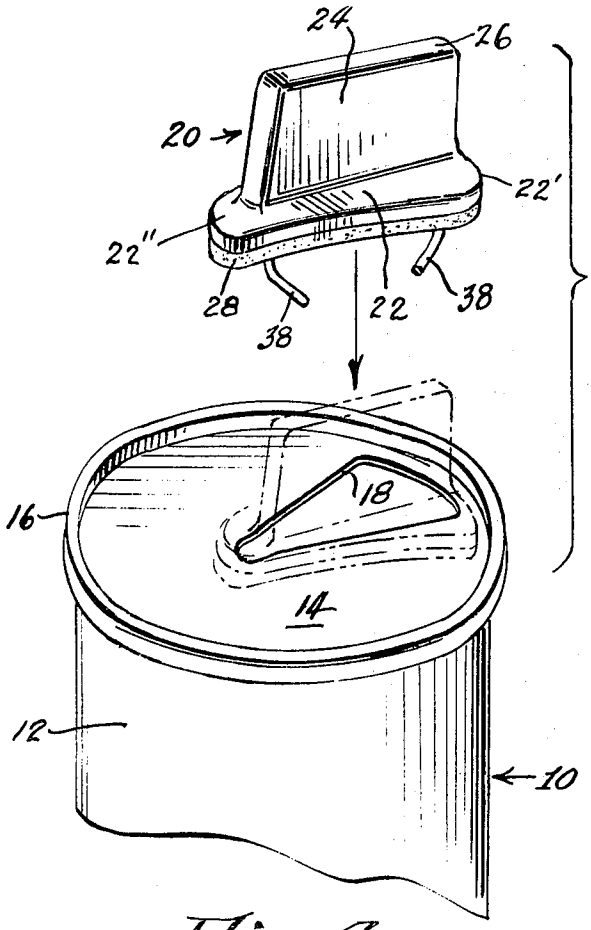


Fig. 1

Fig. 2

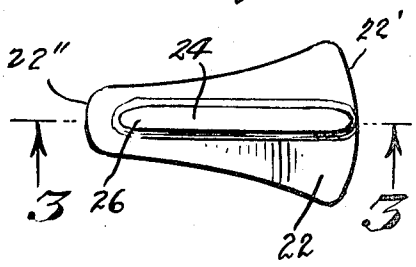


Fig. 4

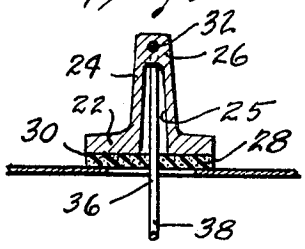


Fig. 3

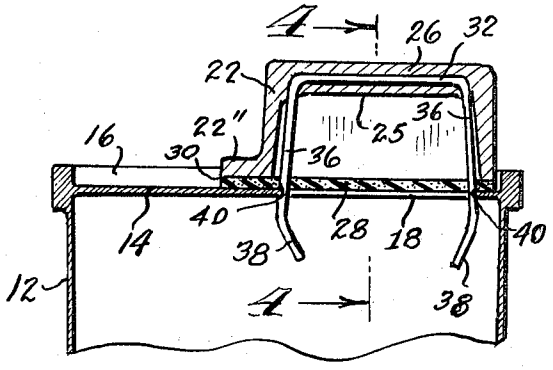
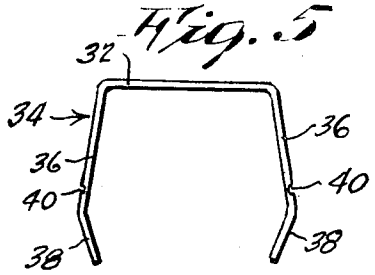


Fig. 5



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SNAP-ON REMOVABLE CAN PLUGS

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U.S. Cl. 220—24 1 Claim

ABSTRACT OF THE DISCLOSURE

A removable sealing plug for sealing the triangular-shaped openings resulting from the pulling of the pull tab opener of the thin metal present day beverage cans. This plug comprises a bottom plate portion and hollow handle portion extending upwardly therefrom. An inverted U-shaped spring fastener has its bight portion rigidly embedded in the top of the handle portion and its legs extending freely downwardly within the hollow opening of the handle and through a sponge rubber sealing member adhered to the undersurface of the bottom plate portion. The terminal ends of the fastener enter the can opening and are notched adjacent to the rubber member to grip the can edges to biasingly hold the plug therein and rubber in sealing engagement along the edge of the opening.

This invention relates to new and useful improvements in removable plugs or closure for can openings and is an improvement over the disclosures in my Letters Patent Nos. 3,019,950, 3,158,279 and 3,221,918.

There is on the market at the present time, a type of can for containing a beverage in which the top of the can has a hinged pull tab tear opener. When the tab is pulled an elongated tapered opening is formed in the top of the can. The present invention is directed to provide a snap-on removable plug or closure which can be used to reseal such an opening in the top of the can.

A principal object of the present invention is to provide a removable plug or rubber seal for an opening in the end of a can that is readily applied and can be easily removed.

It is another object of the present invention to provide a plug of this type with easily flexed prongs that assume a fastening position upon insertion of the plug into the opening to secure the plug in place within the can opening.

Another object of the invention is to provide a removable sealing plug of this type with a handle by which the plug may be readily manipulated.

A further object of the invention is to provide a removable plug of this type that is adapted to be repeatedly used, and which is simple and rugged in construction and inexpensive to manufacture.

Brief description of the views of the drawing

FIGURE 1 is a disassembled perspective view of a punctured can top with the removable plug embodying the invention in position preparatory to plugging the opening in the top, the plug being shown in operative position in dash lines.

FIG. 2 is a top plan view of the plug.

FIG. 3 is a vertical sectional view taken on the line 3—3 of FIG. 2 showing the plug in sealing position in the top of the can.

FIG. 4 is a vertical sectional view taken on line 4—4 of FIG. 3, and

FIG. 5 is a side elevational view of the U-shaped metal spring fastening device separated from the plug handle.

Detailed description of the drawing

Referring now in detail to the various views of the drawing, in FIG. 1, a tin can **10**, such as used for soft drinks, is illustrated having a side wall **12** and a top wall

14 and a bead **16** around the periphery of the top wall securing the same to the side wall. The top wall **14** has had the hinged pull tab tear opener separated therefrom to provide a substantially triangular-shaped opening **18** therein through which contents of the open can are poured.

In accordance with the present invention, a removable plug or closure **20** is provided for closing and sealing the triangular-shaped opening **18** in the can. This plug or closure comprises a substantially flat iron or triangular-shaped plate-like body portion **22** with a narrow opening and in plan, approximately three quarters of an inch wide at the wide end and tapering to a three eighths of an inch at the small end, and one eighth of an inch thick but may be of any desired dimensions appropriate to the size of the opening and so as to overlap all sides thereof.

An integral handle extension portion **24** is formed on the body extending centrally and perpendicularly to one surface thereof to constitute a handle therefor. The handle runs upwardly about three quarters of an inch and generally throughout its length and exterior is less than one quarter of an inch wide. The handle runs flush from the rear end **22'** of the plate portion **22** to a point short of and near to the small end **22''** thereof. The interior of the handle is hollow as indicated at **25** with a closed wall **26** at the top as viewed in FIGS. 1, 3 and 4, to provide lightness in weight but particularly to provide room to allow for a long spring arm to work as will be later apparent from this description.

A resilient sponge rubber pad **28** commensurate in size and shape to the body portion **22** is fastened to the flat surface of the body preferably by adhesive **30**. This rubber pad closes the opening **25** in the handle portion **24**. The pad is approximately one eighth of an inch thick but may be of any desired thickness or consistency in material.

In accordance with the invention, the closed wall **26** of the handle **24** is molded around a bight portion **32** of an inverted U-shaped spring wire metal fastening device **34**, opposed spring leg portions **36, 36** of the device freely extending through the handle portion at its ends and through the pad **28** and outwardly below the pad. The leg portions **36, 36** terminate at their outer ends in bent terminal ends **38, 38** pointing toward each other. The leg portions are recessed adjacent the juncture thereof with the bent terminal ends **38, 38** as indicated at **40**, the recesses opening away from the bent terminals to receive the can opening end edges.

In use, the improved plug is adapted to seal the triangular-shaped opening **18** resulting from the pulling of a tab and weakened tear material from a beverage can **10**, the apical end of the opening **18** being located at the middle of the can top wall **14**. The plug **20** is grasped by the handle **26** and the terminal ends **38, 38** and side legs or prongs **36, 36** are inserted together in the opening **18** on one leg through the wide end of the opening **18** and then the body of the plug moved longitudinally along the opening toward the apical end thereof, the end edge walls of the opening **18** snapping into and engaging the recesses **40** of the legs **36, 36**, the end edge wall of the opening **18** during this operation forcing the side legs toward each other holding the plug in operative position with sponge rubber squeezed onto the surrounding edge of the opening as shown in FIG. 3 and the spring of the legs preventing radial outward withdrawal of the plug.

What is claimed is:

1. A plug for sealing an opening in the top end wall of a beverage can, said plug comprising a rigid plate-like body portion having a central narrow opening, an upstanding hollow handle portion integral with the body, the interior of the handle portion communicating with the

opening in the plate body portion, a resilient pad secured to the undersurface of the plate body portion over the opening therein, and an inverted U-shaped spring fastener rigidly supported in the top of the handle portion by its bight portion, the side legs of said fastening device extending freely through the opening in the body and through the pad to the outside of the latter, and adapted to biasingly engage the edge of the opening to releasably hold the plug in place over the can opening, the handle portion being plate-like in configuration with a closure wall along one long edge thereof, said closure wall enveloping the bight portion of said fastening device, the side legs of the fastening device tapering slightly away from each other and terminating in end portions bent toward each other,

said side legs having recesses positioned adjacent to the juncture between the side legs and bent end portions and to the resilient pad.

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GEORGE T. HALL, Primary Examiner

U.S. Cl. X.R.

220—55