Jan. 8, 1957 R. A. VALVANO 2,776,778

CLOSURE FOR CAN OPENING

Filed Jan. 24, 1955

FIG. 1.

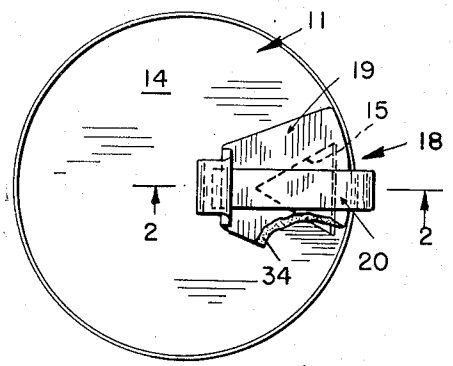


FIG. 2.

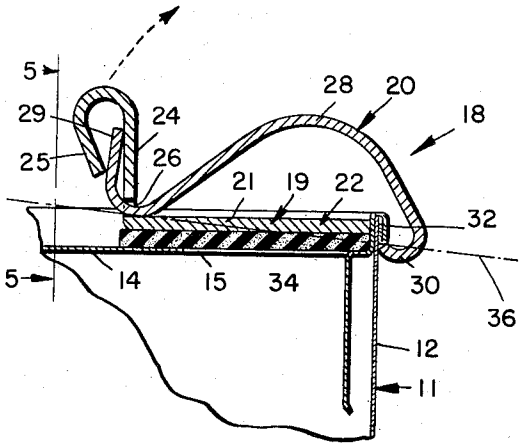


FIG. 3.

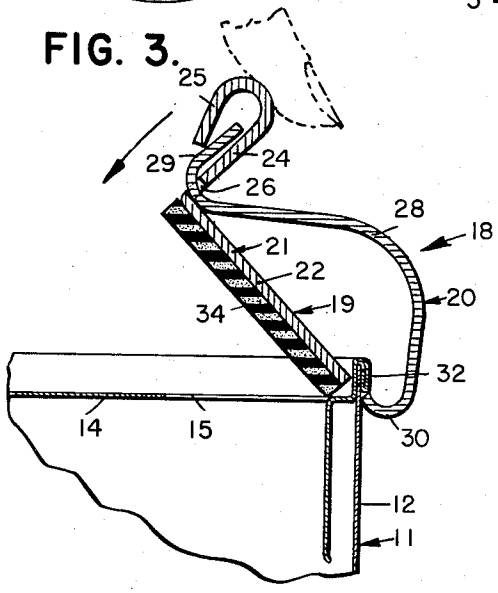


FIG. 4.

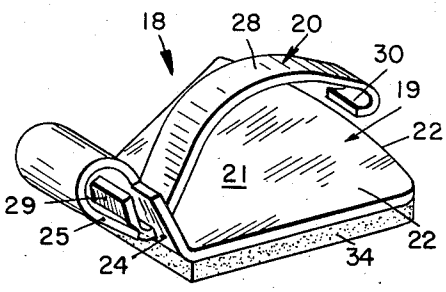
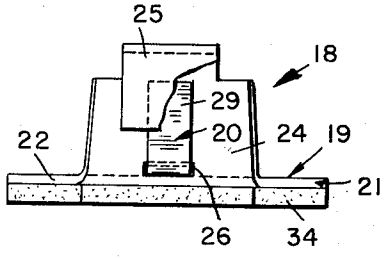


FIG. 5.



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United States Patent Office 2,776,778 Patented Jan. 8, 1957

2,776,778

CLOSURE FOR CAN OPENING

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Application January 24, 1955, Serial No. 483,722

3 Claims. (Cl. 220—24)

This invention has to do with closures for containers, particularly closures which can be applied to and removed from a can, such as the common can in which canned goods are sold, for the purpose of closing and sealing an opening in the end wall thereof.

At present many liquids are sold in cans. In the case of liquids such as fruit and vegetable juices and beer and soft drinks, it often happens that only part of the contents are used at the time the can is opened. This creates a problem of how to properly seal the can, because it is customary to open such cans by piercing with an instrument which leaves a substantially triangularly shaped hole in the end of the can.

An object of my invention is to provide a simple, novel, and improved closure for covering and sealing an opening in the can end wall, particularly the type of opening described above.

Another object is to provide a novel closure of the type indicated which is easy to operate in that it can be readily applied to the can to close and seal an opening in the can end wall and also readily removed and reused whenever desired. In this connection it is an object to provide such a device which springs into place under slight hand pressure and firmly sealingly engages the area about the opening in the can.

A further object is to provide a device of the type indicated which is of simple construction and can be economically manufactured for sale at low cost.

These and other objects will be apparent from the drawing and the following description.

Fig. 1 is a plan view of a can showing a device embodying the invention thereon;

Fig. 2 is an enlarged sectional view on line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 2 but showing the closure device being applied;

Fig. 4 is a perspective view of the closure device; and

Fig. 5 is an elevational view of the closure on line 5—5 of Fig. 2.

More particularly describing the invention, **11** generally indicates a conventional can which has a cylindrical outer wall **12**. **14** designates an end wall of the can which is shown provided with an opening **15** of triangular shape such as is made by an instrument commonly used for opening cans containing a liquid.

Numeral **18** generally indicates the device of the invention, which comprises generally a body **19** and an arched spring **20**. The body includes a plate **21** which may be made of substantially rigid metal, having a flat main portion **22** shaped as best shown in Fig. 1. At its outer edge **22'** the main portion is curved convexly to a radius substantially the same as that of the can with which it is to be used. At its opposite end the plate has an upturned or upstanding portion **24** and a return end portion **25**. As best shown in Figs. 2 and 3 the portion

25 extends inwardly toward the portion **24** but is somewhat shorter. Portion **24** is provided with a slot-like aperture **26** for receiving the end of the spring **20**. The spring may be made of metal and is generally S shaped. It has a main arch portion **28** which overlies the main portion **22** of the plate. The spring has a hooked end portion **29** at one end and the end of this is received between the parts **24** and **25**, the spring passing through the aperture **26**. The spring is thus mounted for limited pivotal movement at one end upon the remainder of the device. At its free end the spring terminates in a hooked end portion **30** to provide means for engagement under the external rim **32** of the can **11**.

In order to make an effective seal for the opening in the can, I prefer to provide a pad or layer of material **34** on the under surface of the plate and while this is preferably resilient and therefore may consist of a sheet of sponge rubber cemented to the main portion **22** of the plate, I contemplate that other yieldable materials may be used, and it is not necessary that they be resilient.

In use, the device is first positioned on the can as shown in Fig. 3. In this position end **30** of the spring engages under the rim **32** of the can while the outer end or edge **22'** of the body engages the inside of the can. The device is then sprung into place by depressing the return bend connecting parts **24** and **25** as shown in Fig. 3, to pivot the body and move the parts into the position of Fig. 2. In this latter position it will be apparent that the outer end of the plate **22** is slightly over center or above a line **36** passing through the pivotal point of the spring and the outer end of the spring where it hooks under the rim of the can so that the device is securely clamped in place until removed by upward pivotal movement applied to the device in a direction opposite to the applied force shown in Fig. 3.

Although I have illustrated and described a preferred form of my invention, I contemplate that various changes and modifications can be made therein without departing from the invention, the scope of which is indicated by the following claims.

I claim:

1. A closure for an opening in the end wall of a can having an external rim adjacent the end wall, comprising a stiff plate having a flat main portion and an upwardly extending end portion at an abrupt angle to the plane of the main portion, said end portion having an opening adjacent the main portion and being bent back upon itself on its outer side to a point adjacent but spaced from the opening, an arched spring of flat stock overlying the main portion of said plate, said spring having a first hooked end extending through the opening in said end portion of said plate and between the two parts of the end portion where it is bent back upon itself, said spring having a second and oppositely hooked end for engagement with the rim of the can, and a yieldable layer of material secured to the under side of the main portion of said plate.

2. A closure as set forth in claim 1 in which said yieldable layer of material is resilient.

3. A closure as set forth in claim 1 in which the end edge of said plate opposite to said upwardly extending end portion is convexly curved.

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