Feb. 11, 1930. F. WESTERBECK 1,746,807

CAN

Filed July 2, 1926

FIG. I.

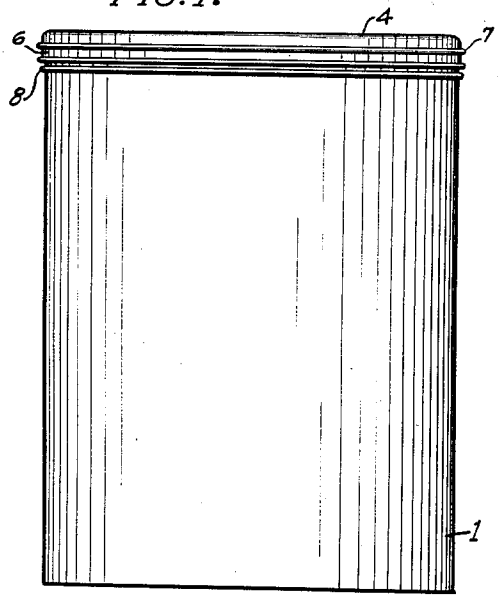


FIG. III

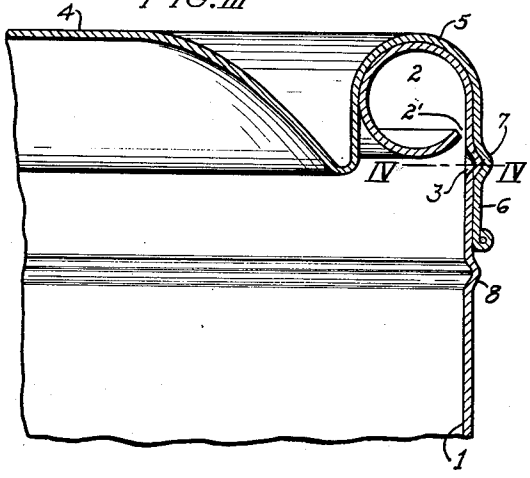


FIG. II.

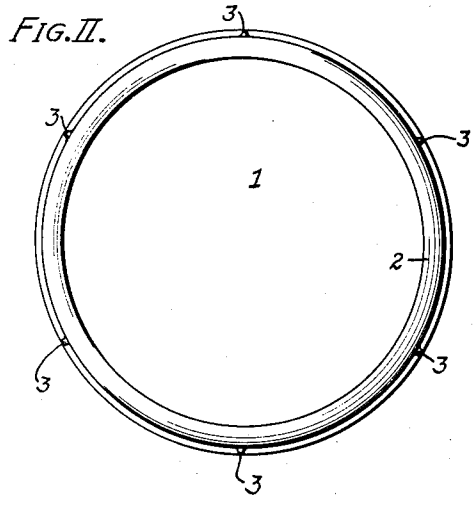


FIG. V.

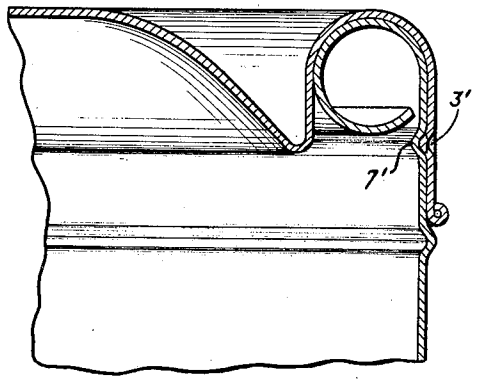
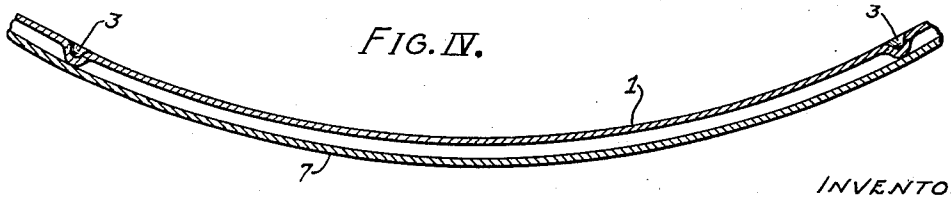


FIG. IV.



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UNITED STATES PATENT OFFICE

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CAN

Application filed July 2, 1926. Serial No. 120,051.

This invention relates to cans, the object being to provide a simple, efficient and inexpensive means for detachably securing a closure to a can. More specifically stated, an object is to produce a can having a simple projection adapted to snap into a simple recess to detachably lock the closure. The can hereafter described has yieldable portions allowing the projection to snap into and pass out of the recess.

With the foregoing and other objects in view, the invention comprises the novel construction, combination and arrangement of parts hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown the preferred embodiment of the invention. However, it is to be understood that the invention comprehends changes, variations and modifications which come within the scope of the claim hereunto appended.

Fig. I is a side elevation of a lard can embodying the features of this invention.

Fig. II is a top view of the can with the closure removed to show a series of projections around the periphery of the can body.

Fig. III is an enlarged fragmentary vertical section showing a marginal portion of the closure applied to the can body.

Fig. IV is a fragmentary horizontal section showing two of the projections extending from a yieldable can body and located within a recess formed by a bead on the closure.

Fig. V is a view similar to Fig. III showing a reversed arrangement wherein a projection on the closure cooperates with a bead on the can body.

Figs. I to IV, inclusive, illustrate a sheet metal can body 1 having its upper edge curled as shown at 2 so as to form frictional closure seats at the inside, outside and top of the can body. The upper marginal portion of the can body is punched, or pressed, to form a series of separated projections 3 which extend outwardly from the outer face of said margin.

The sheet metal closure 4 has a recess in its bottom face conforming to and closely fitting the upper half of the curl 2, as shown at 5 in Fig. III. The closure is also provided with a depending marginal flange 6 surrounding and contacting with the outer face of the can body. An annular bead 7 (Figs. I, III and IV) is formed on this flange to provide an annular recess in the inner face of the flange, and the rigid projections 3 extend into this annular recess.

The terminal edge of the curl 2 may be separated from the body portion of the can as shown at 2′ in Fig. III. The can body may be provided with a bead 8 immediately below the closure flange.

The upper portion of the can body is circular, and the closure seat forms a uniform continuation of this upper portion. Therefore, the metal below the seat will freely yield with the seat, and the latter can be easily bent to a non-circular shape, and after the bending force is released the body will again assume the circular form. The same is true of the closure flange 6. Therefore, when the closure is properly forced onto the can body, the separated projections 3 will snap into the recess formed by the annular bead 7 to detachably secure the closure.

It is, of course, an advantage to have the projections 3 rather widely separated from each other to provide for the bending which occurs when the yieldable closure is forced onto the yieldable margin of the can body. In actual practice it is most convenient to first locate one or two of the projections in the bead 7, and to then apply a downward pressure progressively around the outer margin of the closure, so as to successively force the other projections into the bead. The yieldable closure and can body can be easily bent in response to the operation of forcing one projection into the bead, and the entire closure is flexible enough to permit the distortion which occurs in successively engaging the projections 3 with the bead 7. In removing the closure, it is likewise convenient to release the projections one at a time.

The projections 3 are preferably tapered, or approximately conical with rounded outer ends, to provide inclined friction faces that will more readily receive the closure flange 6.

Fig. V illustrates a form wherein the bead 7′ is formed in the can body to receive pro-

jections 3′ in the closure. Otherwise this view corresponds to Fig. III.

I claim:

A sheet metal can comprising a can body having a flexible upper portion and provided with a curled closure seat around the top margin of said flexible upper portion, said flexible closure seat being a uniform continuation of the portions of the can body below the flexible seat and the terminal edge of said curled closure seat being separated from said can body so that the metal below said seat will freely yield to permit bending of said seat, and a flexible closure having a recess in its bottom face conforming to and closely fitting the upper half of said curled closure seat and a flexible depending flange with an inner face fitted to the outer face of said flexible closure seat, one of said faces being provided with an annular recess and the other face having a series of separated projections extending into said recess, and the entire closure being so flexible that it can be freely distorted by hand to successively insert said projections, one at a time, while said closure seat and said yielding portions of the can body below the seat are bent to non-circular shapes.

In testimony that I claim the foregoing I hereunto affix my signature.

FREDERICK WESTERBECK.