J. H. PELLETIER.

CAN CLOSING DEVICE.

APPLICATION FILED JULY 2, 1908.

941,533. Patented Nov. 30, 1909.

Fig. 1.

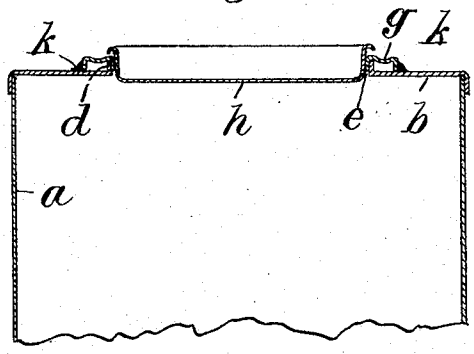


Fig. 2.

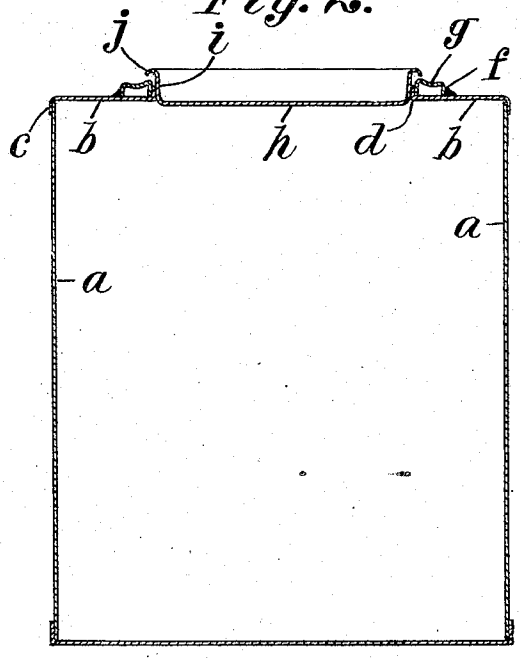


Fig. 3.

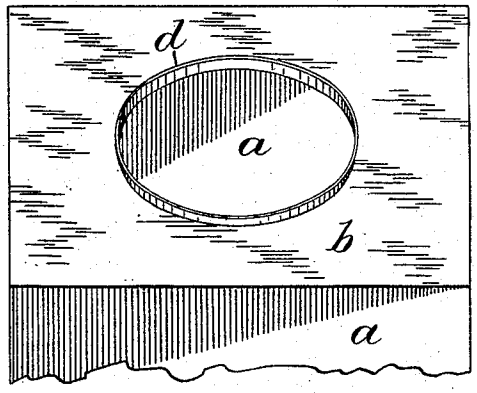


Fig. 4.

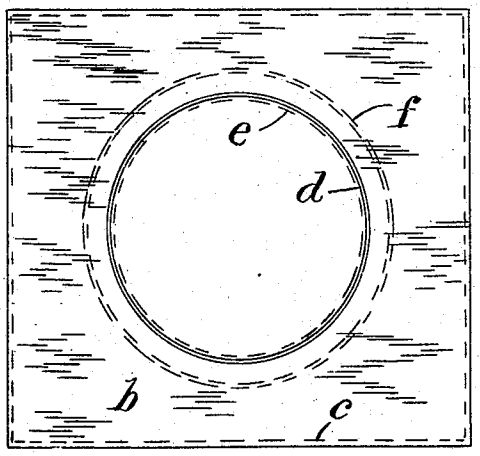


Fig. 5.

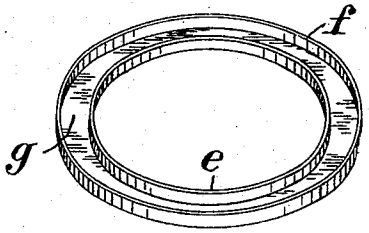


Fig. 6.

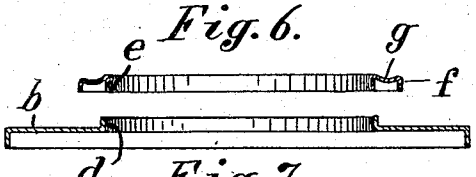
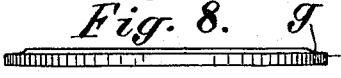


Fig. 7.

Fig. 8.



Witnesses:
L. Lee.
J. W. Greenbaum

Inventor.
Jules H. Pelletier
per Thomas L. Crane, Atty.

UNITED STATES PATENT OFFICE.

JULES H. PELLETIER, OF MASPETH, NEW YORK.

CAN-CLOSING DEVICE.

941,533. Specification of Letters Patent. Patented Nov. 30, 1909.

Application filed July 2, 1908. Serial No. 441,572.

To all whom it may concern:

Be it known that I, JULES H. PELLETIER, a citizen of the United States, residing at Second street, Maspeth, county of Queens, borough of Queens, New York, N. Y., have invented certain new and useful Improvements in Can-Closing Devices, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The can closure in the present invention is intended to utilize the closing cap commonly used, which can be jammed inside a circular neck upon the can and can be removed when necessary by prying up a flange upon the edge of such cap.

The object of the invention is partly to form a can closure adapted, when the can is emptied, to prevent the retention of any of the can's contents within the neck of the can, and this is effected partly by extending the can top in a flat form to the edge of the filling opening. With such a construction, the can top must be made of thick tin to form a thick collar or neck upon the can, or such neck must be reinforced in some economical manner; and the invention consists partly in the special construction for doubling the thickness of the annular flange upon the neck into which the closing cap is forced. This doubling of the annular flange reinforces the neck of the can in the most effective manner and forms a strong seat for the cap while permitting the use of thinner metal for the can top itself than would otherwise be admissible.

The doubling of the metal at the neck of the can is effected by means of an auxiliary collar with a cylindrical flange adapted to fit tightly either inside or outside of the neck-flange, and the periphery of the collar soldered to the outer side of the can top. The can top itself is thus formed with a simple projecting neck-flange with the plate of the can top extended to such flange, and the reinforcing collar is so made as to furnish an annular seat for the tool with which the cap is pried loose from the neck when opening the can.

Where dye stuffs or liquids having any tinge of color are packed in such cans, it is often desirable to empty the can and refill it with stuff of some other color, and if any of the material in the can is retained around the neck it prevents such refilling of the can by its contamination of the contents.

Sometimes the can top has been made with a plain aperture and no neck-flange, and a collar like that shown herein has been soldered upon the top of the can to form the annular neck to receive the cap. Such a construction furnishes a strong neck to retain the cap and a firm support for the tool to open the can, but as only the outer flange of the collar can be soldered to the can top the contents of the can do gain access to the interior of the collar from which they cannot be cleaned, and this prevents the refilling of the can with a different substance.

In the present invention, the neck is projected outwardly from the can top and the reinforcing flange upon the collar, whether fitted to such neck upon either the inner or outer side, wholly prevents the contents of the can from gaining access to the interior of the collar, while it serves to double the thickness of the neck-flange and thus permits a thinner tin to be used in the can top.

The invention will be understood by reference to the annexed drawing, in which—

Figure 1 shows the upper part of the can in section with the improvement applied thereto in its preferred form; Fig. 2 shows a can in section with a slightly modified arrangement of the reinforcing collar; Fig. 3 shows the can top in perspective; Fig. 4 is a plan of the can top showing the neck-flange thereon and dotted lines showing the relation thereto of the flanges of the reinforcing collar; Fig. 5 is a perspective view of the reinforcing collar from the under side; Fig. 6 is a cross section of the reinforcing collar; Fig. 7 a cross section of the can top; and Fig. 8 an edge view of the reinforcing collar.

a designates the body of the can, *b* the flat top having downwardly turned flanges *c* fitted to the body *a*, and *d* is a cylindrical neck-flange turned upwardly or outwardly upon the can top, and having the cylindrical inner flange *e* of the reinforcing collar fitted tightly thereto. Such fitting together of the flanges *d* and *e* doubles the thickness at the neck of the can and permits the can top *b* to be made of lighter metal than would otherwise be admissible.

f designates the outer flange of the reinforcing collar and *g* an annular portion connecting the flanges *e* and *f* and forming the seat for the tool to lift the cap *h*, which cap is shown formed with slightly tapering sides *i* and marginal lifting flange *j*. The outer flange *f* of the reinforcing collar is shown

in Fig. 1, secured to the outer side of the can top by solder *k*. The slight taper of the sides of the cap enables it to crowd tightly into the cylindrical neck-flange.

In Figs. 1, 4, 6 and 7, the inner reinforcing flange *e* is shown suited to fit inside the neck-flange *d*, and thus form the bearing seat for the edge of the cap.

In Fig. 2, the reinforcing flange *e* is shown fitted tightly to the outer side of the neck-flange *d*, the edge of the cap being fitted to the inner side of the neck-flange, which is prevented, by the reinforcing collar, from straining or yielding outwardly when the cap is jammed therein.

Either of the constructions thus suffices to hold the cap firmly and prevent any accidental loosening or displacement of the same. It is obvious that the can may be completely emptied and the neck readily cleaned, as there is no space around the neck in which dye stuff or other material may adhere, and there is no access from the interior of the can to the interior of the collar, to prevent the entrance of dye stuff and the subsequent leakage of the same into the can if refilled.

My construction thus performs the double function of excluding the contents from the reinforcing collar, and doubling the thickness of the neck-flange at the precise point where the tapering cap or stopper is forced into it, and where the taper of the cap tends to strain the flange of the neck if it is deficient in strength.

I do not claim the formation of the neck upon a separate collar secured to the top of the can, as that is old; and there is no object in such a construction where it is necessary to extend the flat plate of the can top directly to the neck of the can, as in my construction.

Having thus set forth the nature of the invention what is claimed herein is:

1. The combination, with a can having a top-plate *b* permanently secured upon the can and provided with a neck having a cylindrical flange *d* projecting outwardly from such top with the flat plate of the top extended to such flange, of a reinforcing collar having a cylindrical flange *e* fitted tightly into contact with the cylindrical flange *d*, thus doubling its thickness, with the periphery of the reinforcing collar soldered to the top of the can, and a taper-closing cap adapted to crowd within the reinforced neck and having a lifting flange *j* to lift the cap from the neck.

2. The combination, with a can having a top-plate *b* permanently secured upon the can and provided with a neck having a cylindrical flange *d* projecting outwardly from such top with the flat plate of the top extended to such flange, of a reinforcing collar having an annular seat *g* with the cylindrical flange *e* fitted tightly into contact with the cylindrical flange *d* thus doubling its thickness, and having the flange *f* upon its periphery soldered to the can top, and the cap *h* having smooth tapering sides *i* to crowd within the neck and a lifting flange *j* to lift the cap from the neck.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JULES H. PELLETIER.

Witnesses:
L. Lee,
Thomas S. Crane.