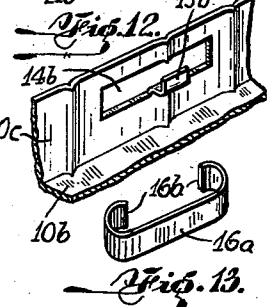
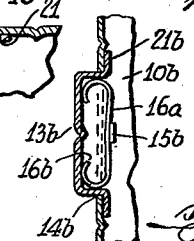
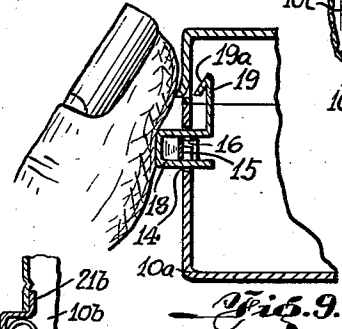
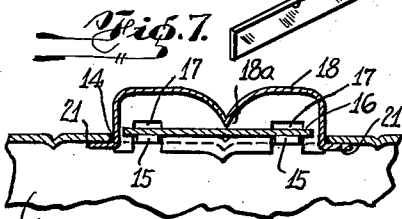
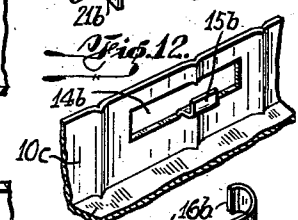
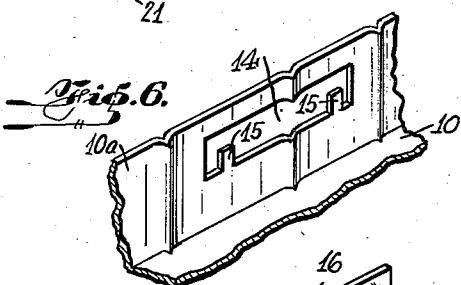
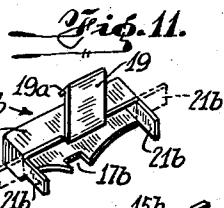
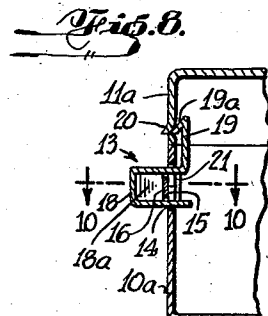
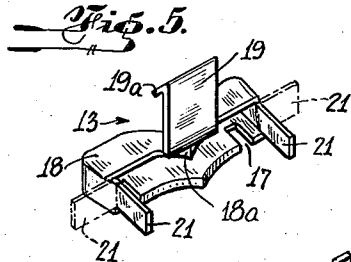
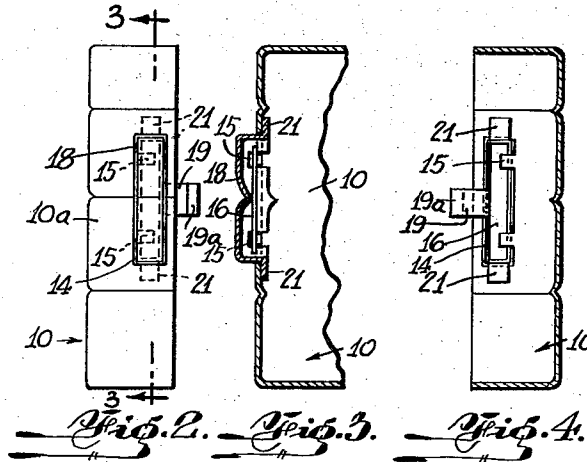
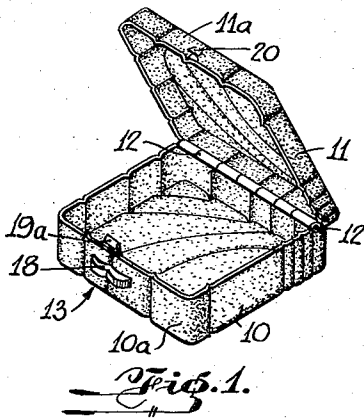


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CLOSURE FASTENER

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The present invention relates to a closure fastener for containers designed to hold cosmetics or accessories or other small articles and adapted for handbag, purse or pocket use.

As generally manufactured and assembled, considerable difficulty and inconvenience are encountered in applying closure fasteners to containers. This involves riveting a spring element on the inner side of the front wall of one of the hinged portions of the container and the assembling of a solid or hollow push button and other parts on the other side thereof. The smaller the container the smaller are the fastener parts and the slower and more difficult the above operations become.

One of the objects of the present invention is to simplify and speed up the applying of the fastener parts to the container.

Another object of the invention is to produce a closure with a closure fastener requiring no riveting, welding, soldering or other similar operations.

A further object of the invention resides in assembling a spring in a hollow push button and then simply and easily applying the same to a container wall and securing the parts in place merely by bending over lugs provided for that purpose, the container wall being previously suitably provided with an opening and a stop member to prevent excessive movement of the parts.

A still further object of the invention resides in a hinged container for the hereindescribed and other purposes in which an easily operable catch is employed to hold the parts in closed position, which catch can be released by a light pressure upon a slightly projecting push button.

Other objects lie in the details of structure and the combinations and subcombinations of features hereafter described and claimed.

In the accompanying drawing wherein I have illustrated a preferred embodiment of the invention:

Fig. 1 is a perspective view of a container provided with a closure fastener constructed in accordance with the present invention.

Fig. 2 is an elevational view of the front edge of the portion of the container which is provided with the fastener.

Fig. 3 is a sectional view taken along line 3—3 of Fig. 2.

Fig. 4 is a sectional view taken at 90° to that of Fig. 3 and looking at the fastener from the interior of the container.

Fig. 5 is a perspective view of the hollow push button forming a part of the fastener.

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Fig. 6 is a perspective view of a fragment of the container with which the fastener is associated, and showing part of the front wall thereof.

Fig. 7 is a perspective view of a fastener spring per se, Figs. 5, 6, and 7 in effect constituting an exploded view of the closure fastener construction.

Fig. 8 is a fragmentary sectional view through the container and fastener and showing the container in closed and latched condition.

Fig. 9 is a fragmentary sectional view showing the operation of the fastener when pressure is applied to the push button thereof to open the container.

Fig. 10 is a fragmentary sectional view through the front wall and push button showing the parts of Figs. 5, 6, and 7 in assembled relation.

Figs. 11, 12 and 13 are perspective views showing details of a modification of the corresponding parts shown in Figs. 5, 6, and 7.

Fig. 14 is a fragmentary sectional view through the front wall of the container and push button, and showing the parts of Figs. 11, 12 and 13, in assembled relation.

The container comprises a bottom portion 10, a top portion 11 hinged thereto at 12 and a fastener structure 13 mounted in the front wall 10a of the bottom portion 10 opposite the hinged rear wall thereof. The particular size, shape and character of portions 10 and 11 may vary considerably as will be obvious. The hinging of the top and bottom portions may be carried out in any suitable or known manner per se forming no part of this invention.

The wall 10a of bottom portion 10 is cut out to form the window 14 (Fig. 6) and the lower edge of such opening is provided near each end thereof with a lug 15 which extends vertically upwardly to form abutments for the ends of leaf spring 16 and an interlock with recesses 17 of push button 18 which is of box-like nature (see Fig. 5) without a back wall. Above and opposite recesses 17 is a latch element consisting of a vertical extension 19 (Figs. 8-9) and an angular lip 19a which latter is adapted to engage the keeper 20 in the inner surface of the wall 11a of top portion 11, such being best formed by slightly depressing wall 11a on the inner surface thereof. Push button 18 is also provided with a pair of ears 21 which are initially in the position shown in full lines in Fig. 5 and which are subsequently bent into the broken line positions shown in Fig. 5, after those ears have been inserted through aperture 14 in wall 10a.

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Spring 16 is previously placed in position in push button 18 against vertical wall 18a prior to bending ears 21 from full to dotted line position. Leaf spring 16 normally urges push button 18 in an outwardly direction and when the container is in closed condition, lip 19a is hooked over keeper 20 in wall 11a with sufficient force to keep the container closed. A slight inward pressure upon push button 18 against spring 16 causes the spring to flex, storing up energy in the spring and causing lip 19a to move out of engagement with keeper 20 (see Fig. 9). The container can then be opened. Portion 11 is snapped shut by a simple closing action. The construction and arrangement is such that although only a very slight pressure is needed against push button 18 for unlatching purposes, the latching structure securely holds the container tightly closed.

In the modification shown in Figs. 11 to 14, the lower edge of the opening 14b is provided centrally thereof with a lug 15b which extends horizontally rearwardly and then vertically upwardly to form an abutment for the mid-portion of the spring 16a and an interlock with recess 17b of push button 18b which is of hollow, box-like formation similar to that shown in the preferred form. Above and opposite recess 17b is the latch element 19 which has an angular lip 19a adapted to engage the keeper 20 in the inner surface of the wall 11a of the top portion of the box. As in the preferred form, push button 18b is provided with a pair of ears 21b which, after the push button has been assembled with the wall 10a of the box, may be bent into the full line position shown in Fig. 14. The spring 16a is shaped, as shown in Fig. 13, with reentrantly curved ends 16b which nicely space the spring in the hollow push button portion 18b. In assembling, the spring is placed in position in push button 18b prior to bending the ears 21b from full to dotted line position (Fig. 11). In this modification, as the push button 18b is pressed, it will be yieldingly resisted by the spring 16a which, because of the abutment 15b, will flex at its mid-portion and store energy until the button is released, at which time, the spring will project the push button to its initial position and with it push the detent or hooked tongue 19a into locking engagement with its keeper.

Various other modifications may be resorted to without departing from the spirit or principle thereof. The container is composed preferably of metal but may be made of plastic or other suitable material and in either plain or ornamented style. While cosmetics, accessories and small articles have been especially referred to, it is to be understood that the container is adapted for use with other objects whether of a cosmetic nature or not and for various small articles or materials of all sorts. The invention is rather than that defined by the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A closure fastener comprising in combination, a container and closure therefor hinged to said container and having a latch keeper, the front wall of said container having an opening therethrough, an upstanding lug from the bottom wall of said opening, a hollow box-like push button slidable in said opening, a latch bolt car-

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ried by said pushbutton on the inside of said container, a spring enclosed within said push button and having a part contacting the front wall of said push button and another part abutting against said lug whereby to urge the pushbutton outwardly and the latch bolt in engagement with the keeper on the closure, and ears integral with the pushbutton and extendible through said opening in the front wall and bendable to contact the inner surface of the front wall of the container and thus to limit its outer movement.

2. A container having hingedly connected top and bottom sections, the bottom section having an opening through the front wall thereof, a lug extending upwardly from the lower edge of said opening, a fastener associated with said bottom section and cooperating with the top section for releasably engaging the sections, said fastener including a box-like push button extending through and slidable within said opening, ears on said push button oppositely bent to lie along the inside surface of the front wall of said bottom section at each end of the opening to limit the outward movement of said push button, a latch tongue rising from the rearward upper edge of said push button, a leaf spring mounted within said push button with part of said spring bearing against the outer side of said lug and other parts of said spring bearing against the inner side of the front wall of said push button.

3. A container having hingedly connected top and bottom sections, the bottom section having an opening through the front wall thereof, a pair of spaced apart lugs extending upwardly from the lower edge of said opening, one near each end thereof, a fastener associated with said bottom section and cooperating with the top section for releasably engaging the sections, said fastener including a box-like push button extending through and slidable within said opening, ears on said push button oppositely bent to lie along the inside surface of the front wall of said bottom section at each end of the opening to limit the outward movement of said push button, the front wall of said push button having a part extending rearwardly to constitute an internal abutment, a latch tongue rising from the rearward upper edge of said push button, a leaf spring mounted within said push button, with the central portion of said spring against said abutment and the ends of said spring bearing against the outer sides of said lugs.

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