April 23, 1957 D. J. BROUGHTON 2,789,614

FLAP FASTENER

Filed June 14, 1955

FIG. 1.

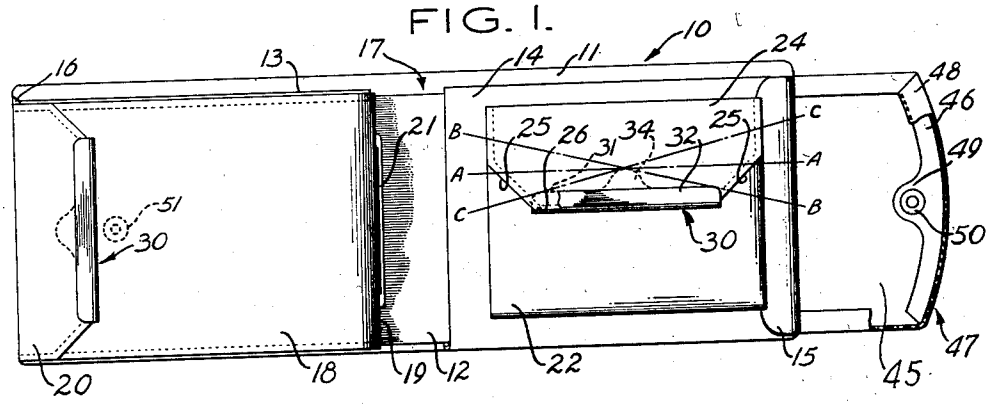


FIG. 2.

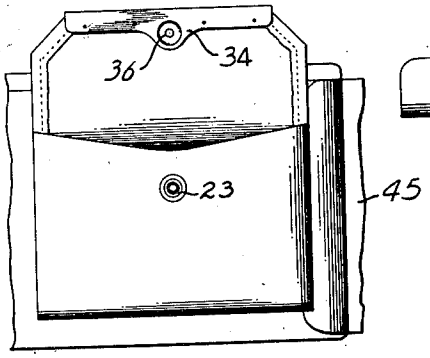


FIG. 3.

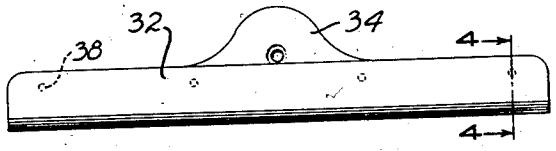


FIG. 4.

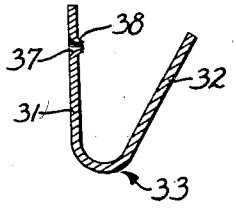


FIG. 5.

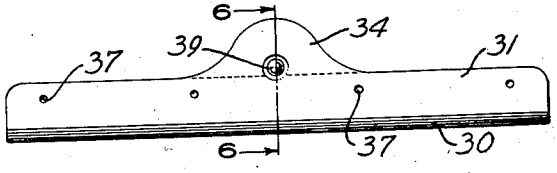


FIG. 7.

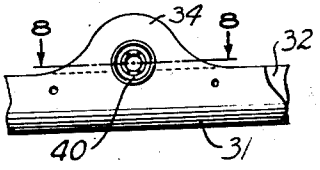


FIG. 6.

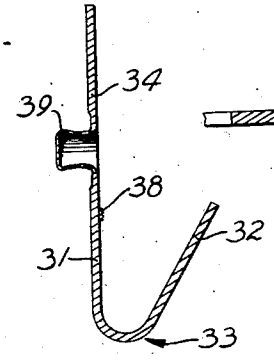
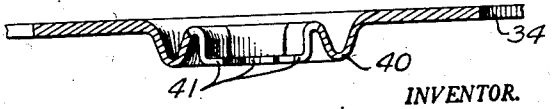


FIG. 8.



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FLAP FASTENER

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4 Claims. (Cl. 150—42)

This invention relates to flap closures and their fasteners, more particularly to fasteners for the closure flaps of flexible receptacles such as purses, key cases, card and pass cases, billfolds and the like, and still more particularly to that element of a post and socket type fastener which is carried by the closure flap of such articles.

It is one object of the invention to provide a flap closure combination including a fastener which will facilitate the opening and closing of the closure flap. A further object is to provide a flap and fastener combination which controls the bending of the flap and protects the flap against damage in the repeated manipulation of the closure and which adds rather than detracts from the appearance of the article to which it is applied.

Other and further objects will be made apparent in the disclosure of the accompanying drawing and in the following specification and claims.

In the accompanying drawing,

Fig. 1 is an elevational view of a combined billfold, pass case and purse in which the several closure flaps are provided with snap fasteners each embodying the invention, parts being broken away;

Fig. 2 is a fragmentary view similar to Fig. 1 showing the flap of the coin purse opened;

Fig. 3 is a front elevational view of the fastener element apart from the flap and on a larger scale;

Fig. 4 is a sectional view substantially on line 4—4 of Fig. 3, with the fastener walls separated;

Fig. 5 is a view similar to Fig. 3 but showing the rear of the element;

Fig. 6 is a sectional view similar to Fig. 4 substantially on line 6—6 of Fig. 5;

Fig. 7 is a fragmentary view similar to Fig. 5 but showing an alternative arrangement; and

Fig. 8 is a section substantially on line 8—8 of Fig. 7.

The closure flaps of purses, pass cases, billfolds and similar receptacles are commonly provided with one element of a snap fastener of the post and socket type, the other member being carried by the wall of the receptacle which is overlapped by the flap. In usual practice the member which is carried by the flap is constructed with a cap-like decorative head and is inserted through a punched opening in the flap inwardly of the edges thereof, portions being expanded or upset rivet fashion to hold the element in place, the head appearing as a button on the outer face of the flap. With such arrangement the other member is similarly secured rivet fashion in an opening in the receptacle wall in position to be engaged by the socket when the receptacle is closed.

This prior art construction has proved unsatisfactory with closure flaps of substantial width in that there is a tendency for the free edge portions of the flaps to become "dog-earred" or rolled back adjacent the edge of the flap and this tendency is increased by the necessary manipulation of the flap in releasing the fastener in which the edge of the flap outwardly of the fastener is locally rolled back by the thumb and grasped to pull the fastener elements apart, or alternatively the thumb is inserted beneath

the flap remote from the fastener to secure a greater purchase with a similar result and an increased tendency to distort and permanently wrinkle the material of the flap.

It has been proposed to reenforce the edges of the flap with metal but such reenforcement causes the flap to bend sharply along the edge of the reenforcement result in a sharp creasing of the flap destructive of the surface finish of the flap and further causing local distortion of the flap around the fastener.

These objections are substantially eliminated by the present invention and the neat appearance and useful life of the receptacle prolonged.

Referring to the drawings, a billfold, purse and pass case combination is generally indicated at 10. The billfold is shown as comprising a rear wall 11 and a front wall formed by a bridging member 12 having its ends slidably or otherwise connected to spaced panel members 13 and 14, the latter being formed as folded up extensions from the lower edge of the rear wall and forming a bill compartment 17, the ends of which are closed by flaps 15 and 16, all in a well known manner.

Panel 13 carries a pass case shown as comprising a cover member 18 hinged as by a fold 19 to the inner end of panel 13, a closure flap 20 hinged to the opposite end of the panel 13 and overlapping cover member 18, and means 21 for hingedly securing the usual pass card envelopes, not shown, in the pass case. Panel 14 is shown carrying a purse comprising a front wall 22 having its side and bottom edges secured to panel 14 in any suitable manner to form an upwardly opening compartment for coins and the like, and a closure flap 24 secured to the panel 14 to overlap the purse wall 22 and close the entrance to the purse, the flaps being releasably held in purse closing position by a two piece snap fastener, one element 23 of which is carried by the purse wall 22.

The flaps 20 and 24 are shown each provided with a closure fastener arrangement indicated at 30 embodying the invention and described in detail with reference to purse closure flap 24.

The purse closure flap 24 is shown as of a width substantially equal to the length of the purse opening and is shown as having a long straight edge portion 26, comprising a major portion of the grasping edge of the flap, and short portions 25 converging to a juncture with the ends of the straight portion 26. The portion of the flap adjacent edge 26 is engaged between the walls of an elongated channel member 30 having inner and outer walls 31 and 32 of a length substantially equal to the length of edge 26 of the flap, walls 31 and 32 of the channel member being integrally joined together by a bend or fold 33. The channel member is formed of relatively stiff metal, or its equivalent, and is formed with a relatively narrow extension 34 extending from wall portion 31 midway of the length thereof, or at least sufficiently remote from the channel ends to afford the leverage later referred to. Preferably and as best shown in Fig. 6 a post member 39 comprising the second element of the snap fastener is struck outwardly therefrom. Also struck from wall 31 in a direction opposite to post 39 are a plurality of prongs 38 preferably formed by the raw toothed edges of metal formed from the metal displaced by piercing small openings 37 in the wall. The diameter of the openings 37 in general controls the length of the prongs which preferably are of a length to extend well into the material of the flap but not completely through it so as not to limit the smooth clamping of the flap edge by the channel walls when the latter are bent into tight engagement therewith with extension 34 extending beneath the flap in contact with but free of the undersurface of the flap. The number of prongs provided will depend upon the length of the channel re-

quired but should be sufficient in number to firmly anchor the channel to the flap and cooperate with the clamping action of the channel walls in resisting displacement of the channel.

As shown in Figs. 7 and 8 the fastener member formed on the extension 34 may be the socket member as indicated at 40, the socket being formed by a plurality of spaced spring tongues 41 struck from the metal of extension 34 and adjacent portion of wall 31. As will be understood, in the form of Figs. 7 and 8 the receptacle wall will be overlapped by the closure flap and will be provided with a conventional post member engageable by the socket 40 to releasably secure the receptacle closed.

In disengaging the fastener member to swing flap 24 to the open position of Fig. 2, when the edge of the flap is engaged by the thumb to disengage the fastener elements there is no tendency to curl, crease or locally distort the edge of the flap, the channel walls including extension 34 acting as a rigid second class lever system assisting in the disengagement of the members, this leverage being effective when the opening pressure is applied at any point on the channel to assist in disengaging the fastener elements and to confine the bending of the flap to a free fold of substantial radius entirely across the flap along line A—A of Fig. 1 if the opening force is applied to channel 30 in line with extension 34 in which case the leverage is along the extension or along lines B—B or C—C of Fig. 1 if the opening force is applied to the channel at one side or the other of the extension, in which case the leverage is along both the channel and its extension with fulcrums at the ends of the extension and that end of the channel brought into engagement with the purse wall. The relative narrowness of the extension 34, its freedom from surface connection to the flap and the remoteness of its end from the ends of channel 30 leaves the material of the flap inwardly of the channel free to flex in a natural fold of substantial curvature.

Further, the channel and extension 34 maintains the flap flat when in closed position resisting any tendency of the flap to curl or be wrinkled or creased in use of the receptacle thus preventing the flap from becoming "dog-earred" or curled and in general preserving the neat appearance and prolonging the useful life of the receptacle.

In practice the channel will be formed of polished, plated or enameled metal, thereby giving an enhanced and characteristic appearance to the receptacle.

It will be understood that various structural modifications may be made in the application of the invention, for example, as shown in the application of the invention to flap 45 which closes the billfold, the channel member may be replaced by a flat bar member 46, secured to the inner face of the flap along the long grasping edge 47 of the flap as by cementing it within a turned over edge extension 48 of the flap. Bar member 46 is formed with an extension 49 corresponding in function to extension 34. A fastener element 50 corresponding with either element 39 or 40 may be integrally formed adjacent the extremity of extension 49 to cooperate with a mating fastener element, indicated in dotted lines at 51, on the rear wall of the billfold.

It will be understood that the invention is not limited to the specific forms of receptacles illustratively shown in the drawing and may be used with equal advantage with various constructed receptacles including key cases, vanities, cigarette cases, small evening bags, clutch bags and the like.

What is claimed is:

1. In a receptacle such as purses, key cases, pass cases, billfolds and the like having an opening, a flap closing said opening and substantially equal in width to the length of said opening and foldable into overlapping relation with a wall of the receptacle to close the opening, a two element post and socket snap fastener for releasably holding the flap in said overlapping relation, one element of said fastener being carried by said wall inwardly of the grasping edge of the flap when said flap is in overlapping relation with said wall, a substantially rigid bar member secured to and extending along a major part of the grasping edge of the flap and having an integral extension extending beneath the flap in contact with the undersurface thereof and extending across and beyond the said fastener element carried by said wall when the flap is in closed position, the second element of said snap fastener being carried by said extension inwardly of but adjacent the free end thereof and remote from the ends and outer edge of the bar member and positioned at the load point of a second class lever system formed by the bar and said extension to confine the bending of the flap to a substantially free fold of substantial radius extending from one side of the flap to the other.

2. In a receptacle such as purses, key cases, pass cases, billfolds and the like having an opening, a flap closing said opening and substantially equal in width to the length of said opening and foldable into overlapping relation with a wall of the receptacle to close the opening, a two element post and socket snap fastener for releasably holding the flap in said overlapping relation, one element of said fastener being carried by said wall inwardly of the grasping edge of the flap when said flap is in overlapping relation with said wall, the major portion of said edge being straight, a metal channel bar member, coextensive in length with said straight edge portion, the opposite walls of said channel member overlapping opposite sides of the flap adjacent said edge, the inner and outer walls of the channel being bent into gripping engagement with the flap, the inner wall of said member having an integral extension extending beneath the flap in contact with but free from the undersurface of the flap and extending across and beyond the said fastener element carried by said wall when the flap is in closed position, the second element of said snap fastener being carried by said extension inwardly of but adjacent the free end thereof and remote from the ends and free edges of the channel member and positioned at the load point of a second class lever system formed by the channel and said extension to confine the bending of the flap to a substantially free fold of substantial radius extending from one side of the flap to the other.

3. The combination recited in claim 2 in which the fastener element carried by the extension is integrally formed from the metal of the extension.

4. The combination recited in claim 2 in which the inner wall of the channel member is provided with prongs engaging in the material of the flap, said prongs comprising the raw edges of inwardly pierced openings.

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