Sept. 6, 1966 S. T. SHEARS 3,270,386

ADJUSTABLE FASTENER

Filed Oct. 3, 1963

Fig. 1.

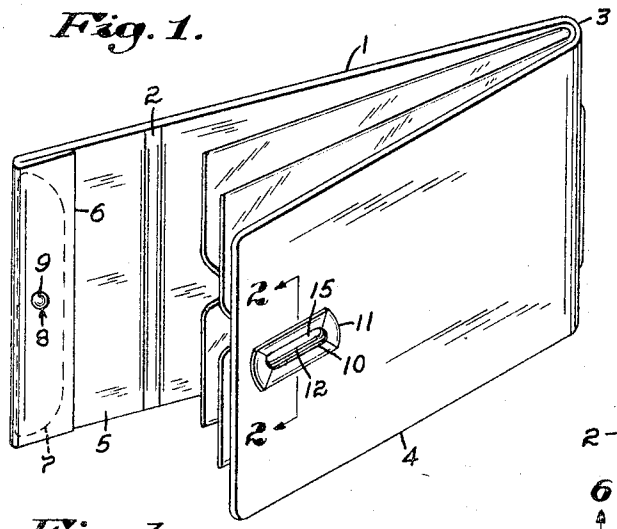


Fig. 2.

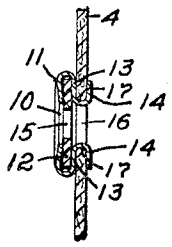


Fig. 5.

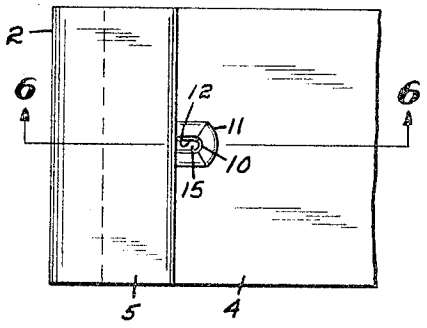


Fig. 3.

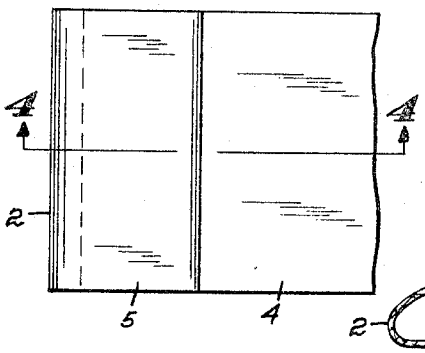


Fig. 6.

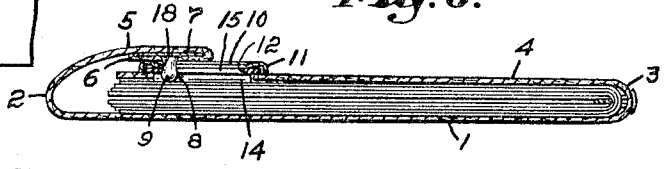


Fig. 4.



Fig. 7.

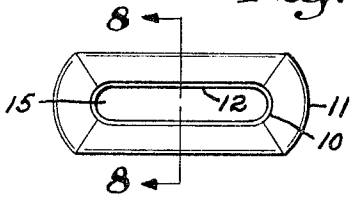
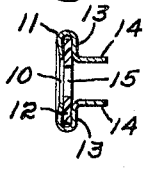


Fig. 8.



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ADJUSTABLE FASTENER

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3 Claims. (Cl. 24—217)

This invention relates generally to improved fastening means for a wallet, pass case, purse and like articles wherein an adjustable closure is desired.

Heretofore in the art various means for securing the aforementioned articles have been employed. Such means would include (a) fasteners which do not in themselves provide for any expansion of the article whatsoever; (b) articles having a plurality of spaced, aligned snap fastener members which do provide for subsequent expansion of the article but are considerably more expensive to manufacture as compared with the present invention; (c) a strap (or straps) embodying one of the fastener elements which does provide for subsequent expansion but tends to fray and crack when subjected to increased stress and is somewhat unsightly as compared with the means employed in the invention herein disclosed; (d) fasteners of the class illustrated in Patent No. 3,029,854, dated June 27, 1960, which provide for expansion, in that one of the fastener members can be manually adjusted, but are by comparison more expensive to manufacture and do not retain the strength or holding power in the fastening possessed by the instant invention.

Thus a specific object of the invention is to provide an attractive, inexpensive fastening means, for articles of the class mentioned above, having an automatic adjustability feature and possessing holding power which is generally better than that of fasteners heretofore employed in similar applications.

The invention will be more clearly understood from the following detailed description when read in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of a pass case with fillers and fastener attached thereto;

FIG. 2 is a section taken on line 2—2 of FIG. 1;

FIG. 3 is a top plan view of a portion of the pass case in its minimum capacity condition;

FIG. 4 is a section of the pass case showing the cover complete and the fillers in full taken on line 4—4 of FIG. 3;

FIG. 5 is a top plan view of a portion of the pass case in an expanded capacity condition;

FIG. 6 is a section of the pass case showing the cover complete and the fillers in full taken on line 6—6 of FIG. 5;

FIG. 7 is a top plan view of the stud receiving fastener element prior to attachment to the pass case; and

FIG. 8 is a section taken on line 8—8 of FIG. 7.

In the drawings the invention is depicted in conjunction with a pass case as a convenient form of disclosure.

The case has a main body portion 1 bent back on itself to form hinges at 2 and 3 and flaps 4 and 5 the latter being the shorter of the two.

A portion of flap 4 is shown to have been further bent on itself to form a fold 6.

A thin metal plate 7, presenting a stud 8 generally centrally at one of its surfaces, is secured beneath the fold 6 by cementing the fold to the underside of flap 5, as shown in FIGS. 1 and 4. The stud 8 which protrudes through an aperture in the fold 6 has a head portion 9 and a narrower neck portion 18 as best shown in FIGS. 4 and 6.

The two member stud receiving elements which along with stud 8 makes up the fastener is best shown in FIGS. 2, 7, and 8. It is comprised of a rigid stud receiving member which has an elongated, generally oblong slot 10 centrally located in its base 11 and a stud engaging member 12 formed from a yieldable resilient material, for example, nylon.

The stud engaging member 12 is located beneath the base portion 11 of the rigid stud receiving member and is held in assembly therewith by the outer lateral edges 13 of the rigid member which are bent under the base 11 of the rigid member and thence continue in a reverse bend to form legs 14 as best shown in FIG. 8.

The stud engaging member 12 likewise has an elongated slot 15 centrally located therein which is in alignment with the slot 10 in the rigid member. However, the dimensions of the slot 15 in the yieldable stud engaging member 12 are slightly less than those of slot 10 in the rigid member. This results in portions of the resilient member overlying portions of the opening in the rigid member described by slot 10.

As best shown in FIG. 2, the stud receiving element is located adjacent an opening 16 cut in flap 4 of the pass case and secured to the lateral walls 17 of the opening 16 by bending the legs 14 (FIG. 8) of the rigid stud receiving member away from each other and back on themselves and, in effect, compressing the material of the walls 17 between the U-shaped runners thus formed.

The stud 8 is so formed that the width of its head section 9 is substantially greater than the width of the slot 15 in the resilient stud engaging member 12 and the width of its neck portion 18 is the same as that of the slot 15. Thus when the stud 8 is engaged with the stud receiving element the head section freely passes through the slot 10 in the rigid member 11 while the material of the resilient member 12 yields to allow passage of the head section 9 through slot 15 and thence returns to its normal position thereby completing the snap engagement of the fastener members. In this position the user may slide the stud 8 throughout the length of the slot 15 in the stud engaging member 12 by applying force sufficient to overcome the friction between the neck portion 18 of the stud and the stud engaging member 12.

FIGS. 3, 4, 5, and 6 depict the functional advantages gained through utilization of the invention. FIGS. 3 and 4 show the pass case with a minimal number of fillers inserted therein, consequently, the fastener members are engaged at what might be termed the minimum capacity condition. In this condition as shown in FIG. 3 the flap 5 completely conceals the stud receiving element.

FIGS. 5 and 6 depict what might be termed the maximum capacity condition wherein the user has added several additional fillers to the pass case. Thus the fastener members are engaged at the extremity of the slot 15 nearest to the end of flap 4.

Obviously the fastener members might also be engaged at any intermediate position as dictated by the desired capacity of the case. This expansion, or in the alternative contraction, of the case is in a sense automatic since the user need not reposition any of the fastener elements but only snap them together at the point of natural coincidence which in turn is contingent upon the number of fillers inserted in the case. In other words, as one places additional material in the case the fasteners are engaged at the natural closure position of the flaps 4 and 5.

It would also be well to point out at this time that the holding power of the snap fastener elements, disclosed by the invention, while engaged is considerable. Such that to unsnap the fastener elements it is necessary to apply force to the stud member 8 at a relatively large acute angle i.e. greater than 45° with respect to the stud receiving members. A force applied at some lesser

angle will generally cause the fastener members to slide horizontally one with respect to the other rather than disengage. Holding power of similar magnitude generally has not been a salient feature of adjustable fastening means heretofore employed in the art and is noticeably lacking in the device illustrated in the reference Patent No. 3,029,854.

Further since the holding power in the fastening is directly related to the flexibility of the stud engaging member said holding power may be controlled by the extent to which the material of the resilient stud engaging member **12** overlies the slot **10** in the rigid stud receiving member. In other words as more of the stud engaging member **12** is exposed the more flexible it becomes, thus requiring a lesser force to disengage the fastener elements.

With reference to the foregoing description it is to be understood that what has been disclosed therein represents only a single embodiment of the invention, for example several variations might employ bendable prongs to fasten the stud receiving element to an article or a resilient, yieldable stud member in connection with a rigid stud engaging member, or a one-piece resilient stud receiving member, and is to be construed as illustrative rather than restrictive or limiting in nature and that the invention is best described by the following claims.

I claim:

1. A means for securing two overlapping panels in releasable, slidable relationship relative to each other comprising, in combination, a first panel having a snap fastener stud secured thereto and a second panel having a snap fastener socket secured adjacent an opening therein, said socket member being of generally oblong shape and including a metal housing having a generally flat base portion with upper and lower surfaces, side walls and end walls turned downwardly from said upper surface to provide a shallow recess adjacent said under surface, a resilient plastic insert conforming in size and shape to said recess overlying the entire under surface of said base, a pair of opposed, U-shaped runners formed as an extension of the side walls of said housing, portions of which overlie a substantial area of said insert to maintain the latter in said recess and other portions of

which are secured to said second panel along edges defining said opening, and a pair of generally aligned oblong slots formed in and extending over a major portion of said base and said insert, said stud being seated in said slots in snap engagement with said insert and being freely movable along the length of said slots to allow for relative sliding adjustment of said panels.

2. A means for fastening two overlapping panels according to claim **1** wherein the stud member is presented at the underside of a thin, rigid plate attached to the first of said panels by a fold in said panel, said plate being of substantially the same length and width as the fold and providing increased rigidity over the area of said panel described by said fold, said fold having an aperture allowing for protrusion of said stud beyond said fold.

3. A means for fastening two overlapping panels according to claim **1** wherein said upper surface of the base of said socket is partially inwardly dished to facilitate insertion of said stud into said socket.

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