

July 27, 1937.

W. R. BUXTON
FLEXIBLE RECEPTACLE
Filed Feb. 7, 1935

2,088,286

2 Sheets-Sheet 1

Fig. 1.

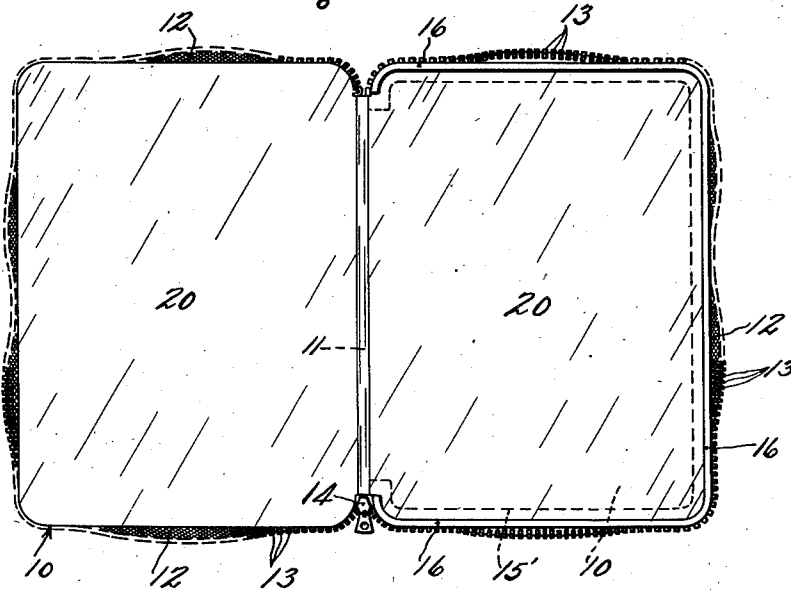
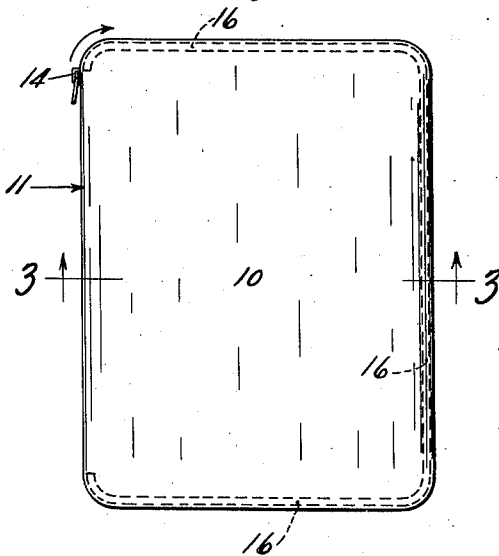


Fig. 2.



INVENTOR
WARNER R. BUXTON
BY *Chapin & Neal*
ATTORNEYS

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2 Sheets-Sheet 2

Fig. 3.

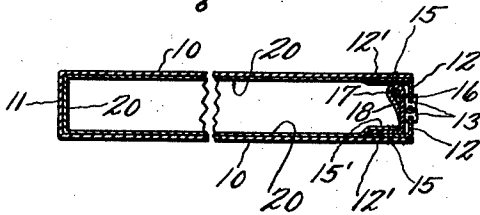


Fig. 4.

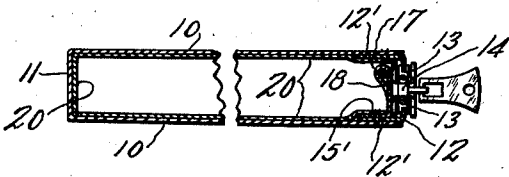


Fig. 5.

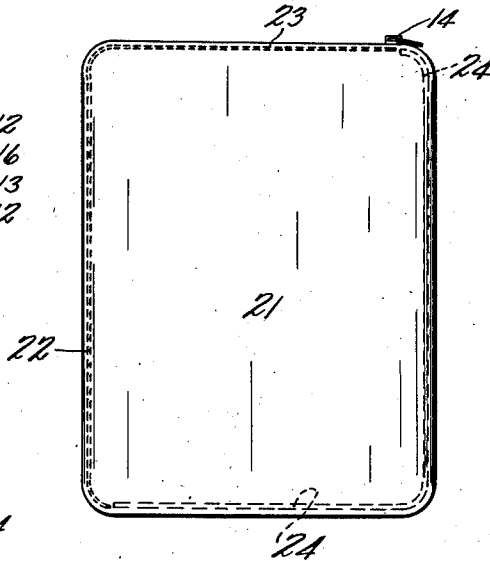


Fig. 6.

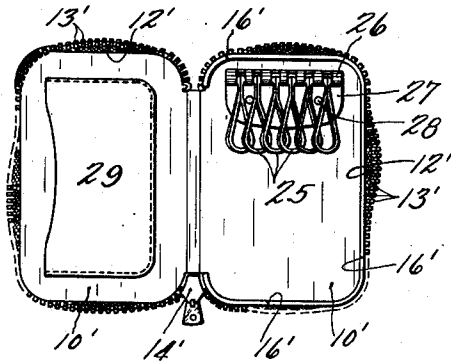
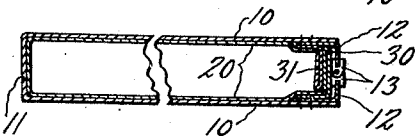


Fig. 7.



INVENTOR
WARNER R. BUXTON
BY *Chapin & Neal*
ATTORNEYS

UNITED STATES PATENT OFFICE

2,088,286

FLEXIBLE RECEPTACLE

Warner R. Buxton, Longmeadow, Mass.

Application February 7, 1935, Serial No. 5,389

1 Claim. (Cl. 150—3)

This invention relates to improvements in flexible receptacles which are provided with closure means of the sliding fastener type. The improvements are especially suitable for portfolios, brief cases, key cases, cigar and cigarette cases and the like.

The invention has for an object the provision, in a flexible receptacle, of a member of flexible and resilient material, mounted alongside and closely adjacent one row of fingers of the fastener and functioning as a trackway for the sliding element of the fastener, guiding it in a substantially predetermined course and materially improving the smoothness of operation of the fastener slide.

According to another feature of the invention, the trackway may emborder two or three sides of the receptacle and thus be arranged in substantially right-angular or U-shaped form with the advantage of stiffening the receptacle both laterally and longitudinally along its margins and assisting in maintaining the shape of the receptacle.

According to another feature of the invention, the trackway member may be made to serve as a limiting stop predetermining the degree to which the two covers or main walls of the receptacle can be brought together and preventing collapse of the receptacle, when empty or only partly filled.

There are many other advantages incident to the use of the structure described in a receptacle of the class above set forth. These advantages and other objects will appear as the detailed description proceeds.

The invention will be disclosed with reference to the accompanying drawings, in which:

Fig. 1 is a small scale view of a brief case embodying the invention, shown open;

Fig. 2 is a view of the brief case closed;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2 and drawn to a larger scale;

Fig. 4 is a sectional view taken similarly to Fig. 3 but showing the brief case partially closed;

Fig. 5 is a view of a modified form of brief case;

Fig. 6 is a view of an open key case embodying the invention; and

Fig. 7 is a view taken similarly to Fig. 3 and showing another modification.

Referring to these drawings; the receptacle includes two principal walls 10 (Fig. 1) which are of leather or other suitable flexible material and are hingedly connected together along at least one side edge (sometimes the connection may extend along two edges) in any suitable way

and along the remaining edges by a so-called "zipper" or sliding fastener. In this case, the connection between the walls 10 consists of an integral side wall 11 which spaces the walls 10, or covers of the receptacle, apart a distance about equal to that by which they would be spaced by the sliding fastener means. Such means include two flexible tapes 12, usually of fabric, and each carrying a series of metallic fastening fingers 13, which are adapted to be engaged and disengaged by moving a slide 14, in the usual and well known way. The tapes 12 are secured one to each cover 10 in any suitable way. As shown in Fig. 3, a part 12' of each tape is laid flat on the inner face of each cover and secured thereto by adhesive and the stitches 15, along the free marginal edges of its cover. The remainder of each tape and the fastener fingers 13 extend more or less at right angles to its cover. By moving the slide 14 in the direction shown by the arrow in Fig. 2, the fastener fingers 13 will be disengaged and the covers 10 made free to be swung open, as shown in Fig. 1, or at least spread apart in the event that the covers are permanently connected along two edges. By moving the slide in the opposite direction, the fingers 13 will be interlocked and the walls held together to enclose the contents of the receptacle.

The improvement of this invention consists in mounting a rather stiff but nevertheless flexible member 16 on one of the walls or covers 10 in upstanding relation. Such member lies adjacent to one of the tapes 12, parallels the course of the tape and is substantially coextensive in length therewith. It is substantially stiffer than the tape and stiff enough to be self sustaining and retain its upstanding relationship with the cover. At the same time, it is yieldable and can flex when required so that it doesn't detract from the flexible nature of the receptacle. The member 16, as shown herein, is made of leather or the like and is fastened like the tape 12 to its cover. That is a portion 15' of the member 16 is inturned and bent at right angles thereto to lie flat against the inner face of the cover 10 and such portion is secured to the latter in any suitable way. To add stiffness to the member, it may in its upstanding portion be made of two plies, and if necessary, reenforced by a member such as 17 placed between the plies. As shown in Fig. 3, the member 16 is a strip doubled over around a reenforcing cord 17 and its inner ply is skived as at 18, and secured adhesively or otherwise to the outer ply. The height of member 16 is preferably about equal to that of wall 11.

Still, some of the advantages of the invention can be secured if member 16 is made just high enough so that its outer edge projects just beyond the outer extremities of the adjacent series of fastener fingers 13.

The flexible receptacle is usually provided with a suitable lining 20, secured as by adhesive to the inner face of the covers 10 and wall 11. This lining overlies and conceals the margins 12' of the tapes 12 and margin 15' of member 16.

The invention is disclosed in connection with a brief case in Figs. 1, 2, 3, and 4. It can obviously be used in many other types of receptacles, having flexible walls held together by a sliding fastener. Two examples of such other types are shown in Figs. 5 and 6. In Fig. 5, the receptacle comprises two covers 21 permanently fastened together along the edges 22 and 23 and having the remaining edges held together by the sliding fastener. The member 24, shown in dotted lines, corresponds to the member 16 and parallels the course of the sliding fastener along the two edges which are not permanently secured. In Fig. 6, the receptacle is a key case, constructed in the same way as the receptacle of Figs. 1 to 4 but on a smaller scale. Parts in Fig. 6 which correspond with parts in Figs. 1 to 4 have been designated by the same reference numerals primed. In Fig. 6, a series of key holders 25 are pivotally mounted in a slotted tubular support 26, fixed to a metal plate 27 riveted as at 28 to one cover 10. The other cover may have secured thereto along three sides a leather piece 29, forming a pocket for cards, or automobile license and registration papers.

In some cases, it may be desirable to provide both covers 10 with members similar to the member 16. In Fig. 7, one cover 10 carries a member 30 which is mounted and functions in the same way as the member 16. The other cover 10 carries a similar member 31 which is mounted like the member 30 but preferably spaced from its tape 12 a slightly greater distance, so that when the receptacle is closed, the member 31 lies just inside the member 30. The member 31 serves like the member 30 to retain articles out of the way of the fastener fingers. In addition, when the covers close, the member 31 backs up the member 30 and reinforces the latter, affording added stiffness to the trackway, which may be desirable in the larger receptacles such as portfolios and brief cases.

The member 16 provides a track for the slide 14 to ride upon. It is set so close to the tapes that the latter are pushed outwardly from it by the slide so that a bearing of the slide on the member is insured. In Fig. 4, it will be seen that the inner face of the slide rides on the outer face of member 16. Since the tapes 12 are necessarily very flexible, they do not hold their fingers 13 in true upstanding relation with respect to the cover to which they are secured nor in an orderly row closely aligned with the edges of the cover. As will be seen from Fig. 1, the tapes 12 can bow outwardly away from the edge of the cover and they can, and frequently do, especially in the larger receptacles, assume a wavy formation. The slide 14, of course, finally pulls the rows of fingers and their tapes into line but the operation is not smooth and often is not at all easy. The slide tends to stick because there is nothing to direct its course except the tapes 12 which are usually distorted or in wavy formation. The slide rides up over bumps formed by outwardly bulging portions and down into valleys between

the bumps and necessarily the action is rough. At some places it pulls easily and at others hard. Frequently, it sticks. The member 16, however, definitely improves the smoothness of operation of the slide and makes it much easier. A definite guide for the slide is provided. Not an inflexible one but one which has materially greater stiffness than the tapes 12 and one that has the quality of resiliency that is entirely lacking in the tapes. If the tapes are pushed outwardly or inwardly, they remain in the positions to which they have been moved. They have no springiness tending to restore them to a normal position. The member 16 has this resilient quality and tends to retain its position of parallelism with the edges of the cover. Hence it provides a definite guide for the slide 14.

Aside from its guiding function, the member 16 has many other advantages. It aids materially in maintaining the shape of the receptacle by stiffening it along its marginal edges. Where as shown, the member 16 parallels two or more sides of the receptacle, its effectiveness as a stiffening means is materially increased because it tends to avoid bending of the covers both laterally and longitudinally along the edges. The member 16 also indicates the limits of area within which articles should be placed on the cover of the receptacle so as not to project into the path of the sliding fastener. It also, if made as high as wall 11, indicates the depth capacity of the receptacle. If an article placed on cover 10 projects above member 16, the user knows that the receptacle will be bulged and distorted when closed. So, if the user wants the receptacle to retain its normal shape, he places on the cover only articles which do not project above the member 16 and keeps them all within the area marked off by the fence-like member 16. When the receptacle is empty or only partly filled, the member 16 prevents the collapse which would otherwise occur of the receptacle. Except for the member 16, the covers 10 could move more closely together along the three sides having the tapes 12 secured thereto. The member 16 thus maintains the shape of the receptacle even when empty.

The member 16 has another important function. Naturally it acts like a wall and tends to prevent articles from sliding outwardly into a position between the rows of fingers 13 and into the path of the slide 14. But if an article does accidentally project beyond the confines of the fence-like member 16, it is held by the member in an elevated position above one row of fingers 13. Thus, it cannot ordinarily be caught between the two sets of fingers as they interlock. If the article is not flabby and possesses sufficient stiffness so that its projecting part cannot droop onto the lower row of fingers 13, it will be pushed out of the way when the fastener slide 14 is moved into engagement with it. The slide 14 will slide the article along the top edge of member 16 and in many cases the article will be turned as it is moved along so that it will drop back into the receptacle. Thin metal articles and papers will act in this way, for example. In case the article, when pushed along by the slide 14, does not become so turned or positioned as to drop back into the area bounded by member 16, the worst that can happen is that it will be pushed along by the slide until it abuts wall 11. Then the user will have to extricate it in order to fully close the receptacle. But there will be no wedging of the article between the two sets of fingers 13 nor

any injury caused to the fingers. An article, when once caught between the fingers, is difficult to extract and usually it cannot be done without injury to the article and sometimes injury to the fingers 13. Thus, it is important to avoid as far as possible, the chance for articles to become caught between the rows of fingers 13. The member 16 effects this result as to all articles usually carried in a brief case, because such articles have the degree of stiffness above set forth.

With special reference to the key case, the member 16 serves to limit the outward swinging movement of the key holders and prevents them from engaging and wearing the fingers 13. The key holders are usually made of tempered steel and the fingers 13 of brass. Repeated engagements of these parts will eventually cause wear of the fingers, particularly when the key holder is at the same time turned about its own axis, which is possible since the key holders are mounted to swivel as well as swing in support 27.

The invention thus provides an extremely useful improvement, capable of use in any flexible receptacles having closures of the sliding fastener type and characterized by facilitating and improving the action of the sliding fastener as well as by protective and other incidental features.

What I claim is:

A flexible receptacle, comprising, a pair of matching flat cover walls of leather or the like permanently connected together along one por-

tion of their margins and mounted one above the other in parallel relation when the receptacle is in closed position, a series of fastener fingers mounted on each wall along the remaining portion of its margin, said last-named portion extending in a plurality of angularly related courses from one end to the other of the first portion, a sliding element cooperating with said rows of fingers and operable when moved in one direction to cause them to engage and when moved in an opposite direction to cause them to disengage, and a relatively stiff but not inflexible member having a right angular cross sectional shape with two legs disposed at right angles, said member bent to extend along said angularly related courses of one wall and having one leg parallel with and secured to the inner face thereof, the other leg of said member projecting at right angles from its wall beyond the free ends of the fastener fingers carried thereby and located inside said fingers but near enough thereto to be engaged by and form a track for said sliding element, said last named leg serving as a fence to keep the contents of the receptacle out of the path of the sliding element and as a stop to be engaged by the other wall and maintain a minimum spacing between said walls and as a stiffener acting by its angular cross sectional shape and its angular related courses to maintain said walls in substantially their normal flat form and preserve the shape of the receptacle even when empty.

WARNER R. BUXTON.