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W. R. BUXTON

1,896,573

LOOSE LEAF BINDER

Filed March 15, 1930

Fig. 1.

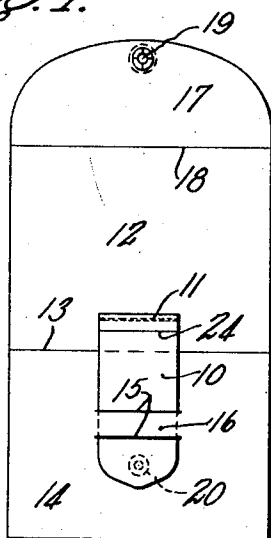


Fig. 2.

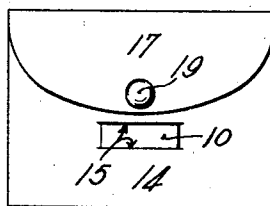


Fig. 5.

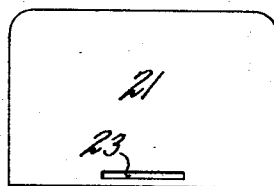


Fig. 3.

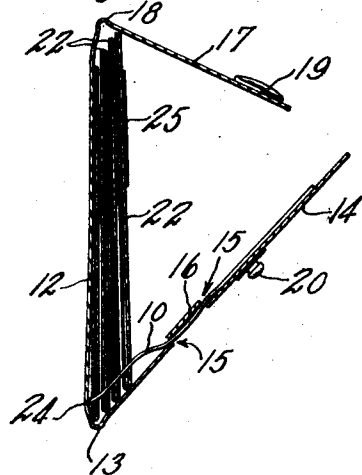


Fig. 4.

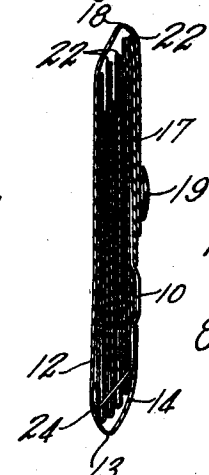


Fig. 6.

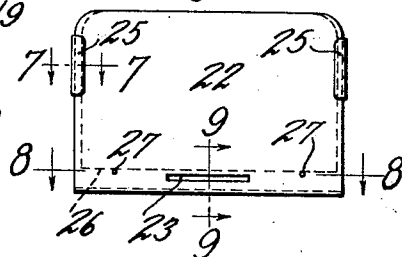


Fig. 7.

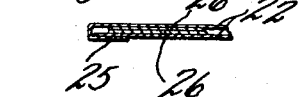


Fig. 8.



Fig. 9.



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LOOSE LEAF BINDER

Application filed March 15, 1930. Serial No. 436,081.

This invention relates to improvements in loose leaf binders.

The invention, while capable of other uses, is particularly suited for use in connection with small books, as for example, note books, card cases and the like, such as are adapted to be carried in the pocket. It can likewise be employed to advantage in connection with pocket books designed for carrying membership cards, passes, and the like. A pocket book, for any of these purposes, should be flexible and as thin and compact as possible.

The ordinary loose leaf binder is a relatively heavy, bulky metal affair and therefore is not particularly adapted for the present purposes. A book, using the ordinary loose leaf binder, is substantially as thick at the hinged edge when empty as when filled with leaves.

The present invention makes use of a binder constructed of flexible material, such as leather or the like for example, combined with flexible book covers in such a way as to avoid bulkiness at the hinged end of the book. The book is expansible or contractible to meet individual needs. It will accommodate a single leaf, a few leaves, or a considerable number of leaves, as desired. Characteristics of the binder are that its thickness is substantially in direct proportion to the number of leaves bound and that the thickness at the bound edge is substantially no greater than at any other point, irrespective of the number of leaves. As a result, the flexible loose leaf pocket book will be very thin if only a few leaves are carried and, as it is loaded up with leaves, its thickness will increase in proportion to the load and for any given load the thickness of the book will be approximately uniform throughout. At least, there will be no bunching of the leaves at the hinged edge of the book and no extra thickness there.

The invention also has for an object to provide envelopes, or folders, preferably of transparent material, which can be carried in the book, loose leaf fashion, and which are adapted to contain membership cards, passes and the like. Frequently, one needs to carry

only one or two such cards and those not needed can readily be removed from the book, leaving the latter in very thin, substantially flat and compact form.

Another object of the invention is to provide a specially constructed envelope or folder for the purpose just described.

Other objects of the invention will appear as the detailed description proceeds and will be particularly pointed out in the appended claims.

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

Fig. 1 is a small scale view of the binder when fully opened and without any leaves bound therein;

Fig. 2 is a small scale view of the binder when closed;

Figs. 3 and 4 are full size sectional elevational views showing the application of the invention to a pocket book for carrying membership card containers,—the book being shown partly open in Fig. 3 and fully closed in Fig. 4;

Fig. 5 is a small scale view illustrative of a leaf suitable for binding in the book shown in Figs. 3 and 4 or of a membership card for use in the card containers shown in Figs. 3 and 4;

Fig. 6 is a small scale elevational view of a preferred form of card container; and

Figs. 7, 8 and 9 are enlarged fragmentary sectional views taken on the lines 7—7, 8—8 and 9—9, respectively of Fig. 6.

Referring to this drawing; the binder consists of a flexible member 10, herein shown in the form of a thin strap of leather or the like, which is suitably fixed, as by stitching 11 to one cover 12 near the hinge line 13, and slidably engaged with the other cover 14. The covers are preferably of leather or like flexible material. As shown, the cover 14 is provided with two parallel slits 15, forming a strap 16, and the binder strap 10 is passed through both slits 15 and lightly held between strap 16 and cover 14 in a manner which will be clearly obvious from Fig. 3.

If desired, a flap 17 may be provided, as an extension of one cover, as 12, and foldable

along line 18 into overlapping relation with cover 14. Snap fastener elements 19 and 20 may be provided on flaps 17 and cover 14, respectively, to hold them together. The flap and fastener elements are not an essential part of the loose leaf binder invention although they are many times desired as a practical matter.

The leaves, which are to be bound in place by strap 10 between the covers 12 and 14, may take any form desired. They may be for example, sheets of note paper or plain cards such as shown at 21 in Fig. 5. They may also consist of pocket forming members, such as the folders or envelopes 22 shown in Fig. 6. In any event, the leaves, whatever their particular form, are provided with suitable openings, through which the binder element may be passed. As shown, each leaf has a rectangular slot 23 with its long edges disposed parallel with the long edges of the leaf. The wide strap 10, when engaged in slots 23, tends to maintain the leaves with their long edges in parallel relation with the line of fold 13.

A particularly important point is the location of the anchorage of strap 10 on cover 12 with respect to the fold line 13 and the strap 16. The portion of the strap 10, which is fastened to the cover, is marked off from the remainder of the strap by a well defined crease, or line of scoring 24, about which the strap bends as a definite and predetermined hinge line. This hinge line should be located above the hinge line 13 of the covers a distance slightly greater than the distance from the bottom edge of the leaf to the top edge of its slot 23. The hinge line 24 should be a substantial distance below the lowest one of the slits 15. By so doing, the strap 10 is given an upward slant. When several leaves are placed on strap 10 between the covers and the covers closed, the leaf which lies against cover 12 will remain in its original position but each succeeding leaf will be moved upwardly a short distance beyond the leaf immediately in back of it. The leaves thus are moved into stepped relation and project one beyond the other in much the same fashion as clapboards or shingles. This prevents bunching of the bound edges of the leaves and an increase in thickness at the bound edge of the book.

Where the book is intended for carrying membership cards, the leaves take the form of open topped envelopes or other suitable containers for such cards. A preferred form of container is shown at 22 in Figs. 6 to 9. It is made up out of a strip of celluloid or similar flexible and transparent material. This strip is doubled over along its median line to form a folder much like those used in filing systems. The front and back walls of this folder are preferably held together along their end edges and desirably by the

means shown, which consists of ears 25 formed integrally with one wall and turned over and against the other wall. This construction enables one to separate the two walls when necessary and at all other times prevents the cards from sliding endwise out of their containers. It is the plan to place two cards 26 back to back, as shown in Fig. 7, in each container 22 so that one card will be visible through the front wall and the other through the back wall. Sometimes these cards are thick and the ears 25, being springy, will yield outwardly enough to accommodate such cards. These containers are thus extensible within reasonable limits to take care of cards of varying thickness. Stops are preferably provided, as by pressing out projections 27 from one wall of the container toward the other. These stops, or any equivalent means used for the purpose, are so located as to prevent the card from sliding down in its container far enough to block off the slot 23. As an alternative, the cards might be slotted, as are the leaves 21, and the strap passed through the cards as well as the walls of the container. While this renders the cards less easily removable, some persons may prefer this arrangement on account of the additional security afforded against loss of the cards.

The operation of the binder will be obvious from the foregoing description. One simply withdraws strap 10 from beneath strap 16 and places one or more leaves on strap 10, after which the strap is restored to its original position. The leaves are thus bound in place, loose leaf fashion, by a flexible arrangement which adds no substantial increase in bulk to the book. The arrangement is also flexible in that it admits of expansion or contraction of the book to meet individual needs. This feature is especially desirable where the book is used for carrying membership cards. Many people have a large number of such cards. Perhaps, when they are travelling, they wish to carry them all, but when at home they prefer to carry only the one, or the few, which are going to be needed immediately and thereby keep the pocket book as thin as possible. The present arrangement enables this to be readily done. The card containers can be removed and replaced by others with the same facility as the leaves of any loose leaf note book.

A most important feature of the binder is in the arrangement, whereby the several leaves are forced to move into stepped or offset relation, clap-board fashion, when the covers are closed. By so doing, the bulk at the hinge line of the covers, which would result if a plurality of leaves were firmly held between the covers, near the hinge line thereof, is avoided. Where the bound articles are card containers, this feature is of special importance because these containers are general-

ly thicker at the bottom and if these thick parts were superposed there would be a considerable increase in bulk. By offsetting these thick parts, this difficulty is eliminated.

5 The flexible binder, of course, is important as allowing a stiff leaf such as a card container, to be swung through a wide angle, such as 180 degrees for example, without requiring bending of the leaf itself.

10 Thus, the invention affords a loose leaf binder suitable for binding leaves, and especially relatively stiff leaves, such as cards or card board or card containers, in place between flexible covers in a manner such that
15 wide freedom of movement of the individual leaves may be had when the covers are opened and so that removal and replacement of individual leaves may be effected with facility. The flexible nature of the binder also allows
20 some latitude for the leaves to shift between the covers when the same are closed and, in fact, forces enough such shifting of the leaves so as to keep the closed book as thin and compact as possible, and of approxi-
25 mately uniform thickness.

The invention has been disclosed herein, for illustrative purposes but the scope of the invention is defined by the appended claims rather than by the foregoing description.

30 What I claim is:

1. In combination, a strip of leather doubled on itself to form a pair of hingedly connected flexible covers, a leather strap secured to the inner surface of one of said
35 covers at a point closely adjacent the hinge line thereof and creased to swing freely about a definite hinge line, the other cover at a point remote from said hinge line having a guide slot through which the free end of said
40 strap is passed and by which it is forced to slope outwardly from its point of attachment to the first named cover and extend along the other cover.

2. A loose leaf book, comprising, a pair of
45 flexible covers hingedly connected the one directly to the other and when closed forming substantially a V-shaped part adjacent their hinge line, and a flexible binder member extending between the inner surfaces of
50 said covers and having a well defined hinge line overlying the hinge line of the covers, said member having a part on one side of its hinge line to lie against one of said covers and a part on the other side of said line to lie
55 adjacent the other of said covers, said member being slidable with respect to one of said covers and stiff enough to compel sliding relatively to such cover and avoid buckling when the covers are swung about their hinge
60 line to open or close the book.

3. A loose leaf book, comprising, a pair of flexible covers hingedly connected the one directly to the other and when closed forming substantially a V-shaped part adjacent their
65 hinge line, a flexible binder member extend-

ing between the inner surfaces of said covers and having a well defined hinge line overlying the hinge line of the covers, said member having a part on one side of its hinge line to lie against one of said covers and a
70 part on the other side of said line to lie adjacent the other of said covers, said member being slidable with respect to one of said covers and stiff enough to compel sliding relatively to such cover and avoid buckling
75 when the covers are swung about their hinge line to open or close the book, and a plurality of leaves threaded on said binder member and held in place between said covers solely by said member.

4. A loose leaf book, comprising, a pair of flexible covers hingedly connected the one directly to the other and when closed forming substantially a V-shaped part adjacent
80 their hinge line, a flexible binder member extending between the inner surfaces of said covers and having a well defined hinge line overlying the hinge line of the covers, said member having a part on one side of its hinge
85 line to lie against one of said covers and a part on the other side of said line to lie adjacent the other of said covers, said member being slidable with respect to one of said covers and stiff enough to compel sliding relatively to such cover and avoid buckling when
90 the covers are swung about their hinge line to open or close the book, and a plurality of relatively stiff leaves threaded on said binder member and free to move along the same when the covers are opened, said leaves
95 being held in place between the covers solely by said binder member.

5. A loose leaf book, comprising, a pair of flexible covers hingedly connected the one directly to the other, and a flexible binder member on which the leaves may be threaded, said
100 member connected to the inner face of one cover and having a portion extending toward but not to the hinge line of the covers and another portion extending away from said hinge
105 line and along the other cover and free to slide relatively to the last named cover, said member having a well defined hinge line intermediate its ends at the junction of said portions and adjacent but spaced from the
110 hinge line of the covers.

6. A loose leaf book, comprising, a strip of flexible material doubled over to form a pair of hingedly connected covers, and a flexible binder member on which the leaves
120 may be threaded, said member hinged to the inner face of one cover at a location close to but spaced from the hinge line of the covers and biased to slope toward and follow along the other cover extending away
125 from the hinge line of the covers and free to slide relatively to the last named cover.

7. A device for containing and displaying cards and the like, comprising, a doubled
130 over strip of transparent material forming

two integrally-united walls disposed in approximately parallel relation, between which walls the cards may be placed and through which walls the cards may be viewed, said
5 walls made of material which is stiff enough so that the walls normally assume and retain the aforesaid relationship and resilient enough to permit the walls to be sprung apart to facilitate insertion and removal of
10 the cards, releasable means for retaining said walls in the aforesaid relationship, said walls each having a slot therethrough near their united edges, and stop means located at a point above said slot and formed on one
15 of said walls and extending toward the other for supporting said cards in non-interfering relationship with said slot.

In testimony whereof I have affixed my signature.

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WARNER R. BUXTON.

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