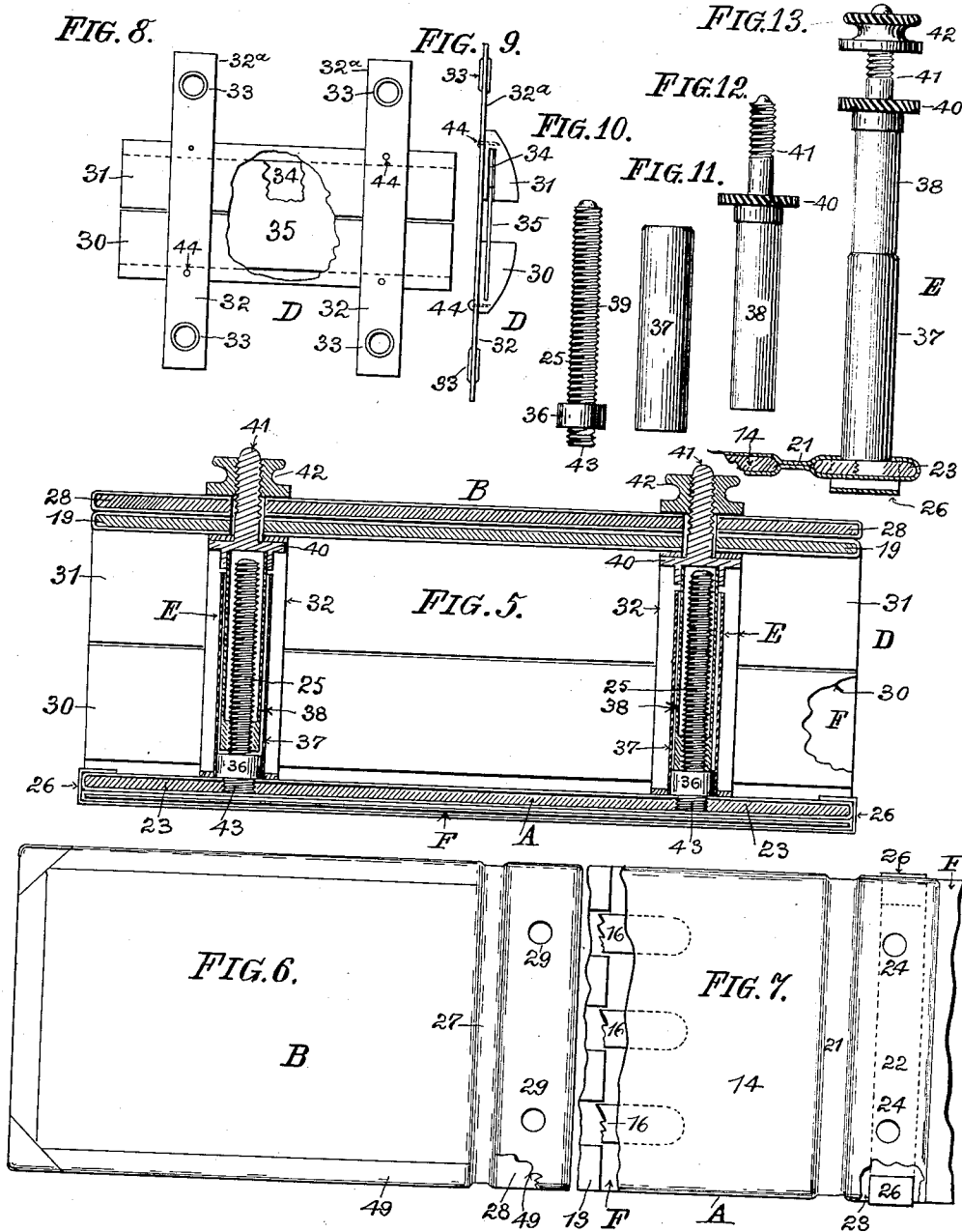


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BINDER FOR LOOSE LEAVES.
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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BINDER FOR LOOSE LEAVES.

941,198.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MAX VON HERTZBERG, a citizen of the United States, and a resident of Chicago, in the county of Cook, in the State of Illinois, have invented certain new and useful Improvements in a Binder for Loose Leaves; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to improvements in loose-leaf binders; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described and then pointed out in the claims.

The object of this invention is the production of a loose-leaf binder which is especially designed for carrying samples of cloth, leather or other textile manufacture and analogous goods, although it is also well adapted to all the uses of loose-leaf devices.

In the drawings already referred to, which serve to illustrate this invention more fully and form a part of this specification: Figure 1 is a perspective view of my improved loose-leaf binder. Fig. 2 is a longitudinal sectional elevation of the same on line *x x* of Fig. 3, the post being shown in elevation. Fig. 3 is a plan of a portion of the bottom-board or back-cover detached. Fig. 4 is a longitudinal section of the same on line *x x* of Fig. 3. Fig. 5 is a transverse-sectional elevation of the binder complete, the figure being drawn on line *y y* of Fig. 2. Fig. 6 is a plan of the front-cover detached. Fig. 7 is a plan of a fragment of the back-cover, illustrating details of construction. Fig. 8 is a plan of the removable back of the binder. Fig. 9 is an end-elevation of the same. Fig. 10 is an elevation of one of the post-studs. Fig. 11 is an elevation of the sleeve upon said post-stud. Fig. 12 is an elevation of inner member of the post, and Fig. 13 is an elevation of one of the posts complete.

Like parts are designated by corresponding characters and symbols of reference in all the figures.

A in these drawings designates the bottom-board or back-cover of this improved binder. This back-cover is constructed of three separate pieces of binders-board or other suitable material the lowest one of which, indicated

by the reference-numeral 12 being a rectangular piece of proper width and length determined by the size of the book to be produced. Upon this board 12 there is located, and preferably glued or pasted upon the bottom board, an intermediary board 13, which is of the same width as the bottom board but shorter than the latter, the reason for which will hereinafter appear. In this intermediate board there are a series of slots or excisions 15, which, when the two boards 12 and 13 are pasted together form recesses, and in these recesses are located elastic bands 16, which are secured to the bottom-board by tubular rivets 17 or other suitable means. Upon the intermediary board 13 there is pasted or glued a top-board 14, Figs. 2 and 7, corresponding in dimensions with those of the bottom-board 12, the whole constituting the back cover of the binder.

F designates an apron which when the binder is assembled constitutes a cover for the back of the binder. This apron is made from flexible material, preferably of leather of the same color as the covering of the book-covers. It is of a width corresponding to that of the book-covers and of suitable length to reach over the back of the binder, as will hereinafter appear. This apron, in its normal position, bears with its inner end 18, upon the edge 19* of the intermediary board 13 and to it are sewn or otherwise secured the elastic tapes or bands 16, as shown in Fig. 3, the elastic tapes being in their relaxed condition. On the outer end of this apron F there is secured a metallic strip 19 by folding the end of said apron over said strip 19, and cementing the parts together, there being in said strip and the apron surrounding the same, holes 20, by which the apron is adapted to be attached to the upper end of the post as hereinafter to be described. This apron is placed into position upon the bottom-board 12 prior to the top-board 14 being pasted upon the intermediary board. The top-board 14 is covered with, preferably a leather, covering, or a portion of it is so covered so as to produce on the end of said board a flexible joint or hinge 21, and in front of this flexible joint, and embraced by the leather covering 22, which forms this flexible joint, there is located a metallic bar 23, which bar is provided with two screw-threaded openings into which the post-studs 25, of the posts E are screwed. Prior to inclosing the bar 23

into its leather sheath 22, there is suitably fastened at both of its ends a loop 26 which loop passes underneath the bar 23 and affords a guiding-passage for the apron F, as shown in Figs. 1 and 2.

C are the leaves upon which the samples of cloth and other articles are properly secured. They are provided with end-perforations for the passage of the posts and have flexible joints not shown, of the usual construction.

B is the cover. It is of the usual construction, having a flexible joint 27, and a metallic bar 28, inclosed within the leather covering 49 of the binder-cover B, there being in bar 28 apertures 29, for the passage of the posts E.

D designates the removable binder-back. It consists of two, preferably wooden, members 30, 31, of a length corresponding to the width of the binder, and aggregating a width somewhat less than the thickness of the book when in its least thickness. To these two members 30, 31, are fastened elastic tapes 32 of suitable length, there being, holes near the ends of these tapes, fitted with eyelets 33, by means of which these ends are adapted to engage the posts E. In the opposing sides of the members 30, 31, there are longitudinal grooves 34, wherein is located a thin strip of metal or other suitable material 35. This strip serves as a guide to the two members 30, 31, to prevent their displacement and at the same time as a cut-off to prevent dust from entering the back of the book.

Each of the posts E already mentioned comprises the post-stud 25 already referred to, which is a screw-threaded rod having near its lower end a collar 36, upon which is located, and permanently affixed thereto, a tube 37. Within this tube is arranged a tubular member 38, which is internally screw-threaded to engage the screw-threaded part 39, of the post-stud 25 there being a collar 40, knurled on its outer periphery, wherewith the tubular member 38 is rotated. Above this collar 40 there is a screw-threaded shank 41 adapted to receive a thumb-nut 42. These posts are screwed into the bar 23 by their screw-threaded lower shank 43.

To assemble this binder for loose-leaves, the bottom board or back cover, with its posts, from which the members 38 have been removed is placed upon a table or other suitable support. Then the back D is temporarily placed into position by placing the ends 32 of the elastic tapes therein over the posts E or rather the tubular member 37 thereof. Now the insert-leaves C are placed upon the posts and then the ends 32 of the elastic tapes on the back D passed upon the posts, which will properly locate the back in position. In the event that the book is thicker than the width of the back D, its two members 34, 35 will separate as shown

in Fig. 9, by the elastic tapes thereon stretching between the fastening means 44. Now the apron F is pulled out sufficiently to permit its end-plate 19 together with the tubular member 38, which has previously been passed into the apertures 20 therein, to be placed upon the post-studs 25 when the tubular members 38 are revolved so as to cause them to screw into the sleeves 37 upon the threaded portion 39 until the collars 40 on said tubular members 38 bear upon the end bar 19 of the apron and compress the book to assume its proper thickness. The book-cover proper B is now located upon the shanks 41 of the tubular members 38, and the thumb-nuts 42 screwed down upon the bar 28 on said cover B which completes the assembling of the book. To disassemble the same for the removal, or insertion of additional leaves the order of operations, as far as is necessary, is reversed. Instead of placing, as now described, the end-plate 19 of the apron F upon the tubular members 38 and then screwing the members 38 upon the post-studs 25 so that the collars 40 will bear upon the end-bar 19 to compress the book, I may first assemble the leaves C upon the sleeves 37, and then compress the same by screwing the tubular members 38 upon the post-studs 25 so that the collars 40 bear upon the uppermost leaf of the book, such a procedure being a reversal of the order of assembling the parts, the parts as thus assembled being illustrated in Fig. 4. Instead of placing the apron-bar 19 upon the cover-bag 28, as shown in Fig. 1, this arrangement may be reversed and the apron-bar 19 located below the cover-bar 28, as illustrated in Fig. 5, it being immaterial what position the apron-bar 19 occupies when the book is assembled, the more convenient method being the one shown in Fig. 1.

It will now be observed that the elastic tapes 16 attached to the apron F perform the double function of keeping the apron taut when stretched over the back D, and permit of the book being increased in thickness within the capacity of the posts, by the elastic tapes 16 stretching to the required length, the length of the apron and its elastics being so proportioned that a portion of the apron will remain in the space between the bottom-board 12 and the top-board 14 of the back cover proper A when the book has been increased in thickness to its full capacity, the elastic tapes 16 always returning the apron F to its normal position as soon as the outer end of the apron is released from the posts.

Having thus fully described this invention I claim as new and desire to secure to me by Letters Patent of the United States—

1. A loose-leaf binder comprising a back-cover; posts on said back-cover; a front-

cover removably attached to said posts and a removable back, there being elastic members on said back adapted to engage said posts.

5 2. A loose-leaf binder comprising a hollow back-cover; posts on said back-cover; a front-cover removably attached to said posts, a removable back, there being elastic members on said back adapted to engage said posts, and an apron adapted to cover the said removable back, said apron being in part located in the hollow back-cover; elastic means on said apron adapted to return said apron to its normal position, and means on said apron adapted to engage said post.

15 3. A loose-leaf binder, comprising a back-cover, said back-cover being constructed of a bottom-board, an intermediary board having excisions as described, and a top-board; a front-cover; a flexible apron, said apron being partly located in the space between the bottom and top boards in said back-cover; elastics secured to the end of the apron within the back-cover with one end, and 25 to the bottom board of the back-cover with their other end, and means for connecting the apron with the front-cover whereby the apron serves as a flexible back for the binder.

30 4. In a loose-leaf binder, a back-cover; a bar on said back-cover and flexibly connected therewith; posts removably secured to said bar, said posts comprising a screw-threaded

post-stud, a sleeve over said post-studs, a tubular, internally screw-threaded member engaging the screw-threaded post-stud, said 35 internally screw-threaded member having a laterally projecting collar at its upper end, an externally screw-threaded shank on the upper end of said internally screw-threaded member, and a thumb-nut upon said shank; 40 a series of leaves upon said posts, and a front-cover, said front-cover having a bar adapted to engage said posts and retained thereon by said thumb-nuts, said bar being flexibly connected to said front-cover. 45

5. In a loose-leaf binder, a back-cover; a front-cover; a series of interposed leaves; a separate back for said binder, said back consisting of two pieces flexibly connected together at their inner faces by elastic tapes 50 and adapted to be separated to fit said back to binders of various thicknesses; means for removably connecting said back to said covers, said parts of the back being returned to their normal position when released from 55 said covers by said elastic tapes.

In testimony that I claim the foregoing as my invention I have hereunto set my hand in the presence of two subscribing witnesses.

MAX VON HERTZBERG.

Attest:

H. BUNKENBURG,
F. F. BRIMKAMP.