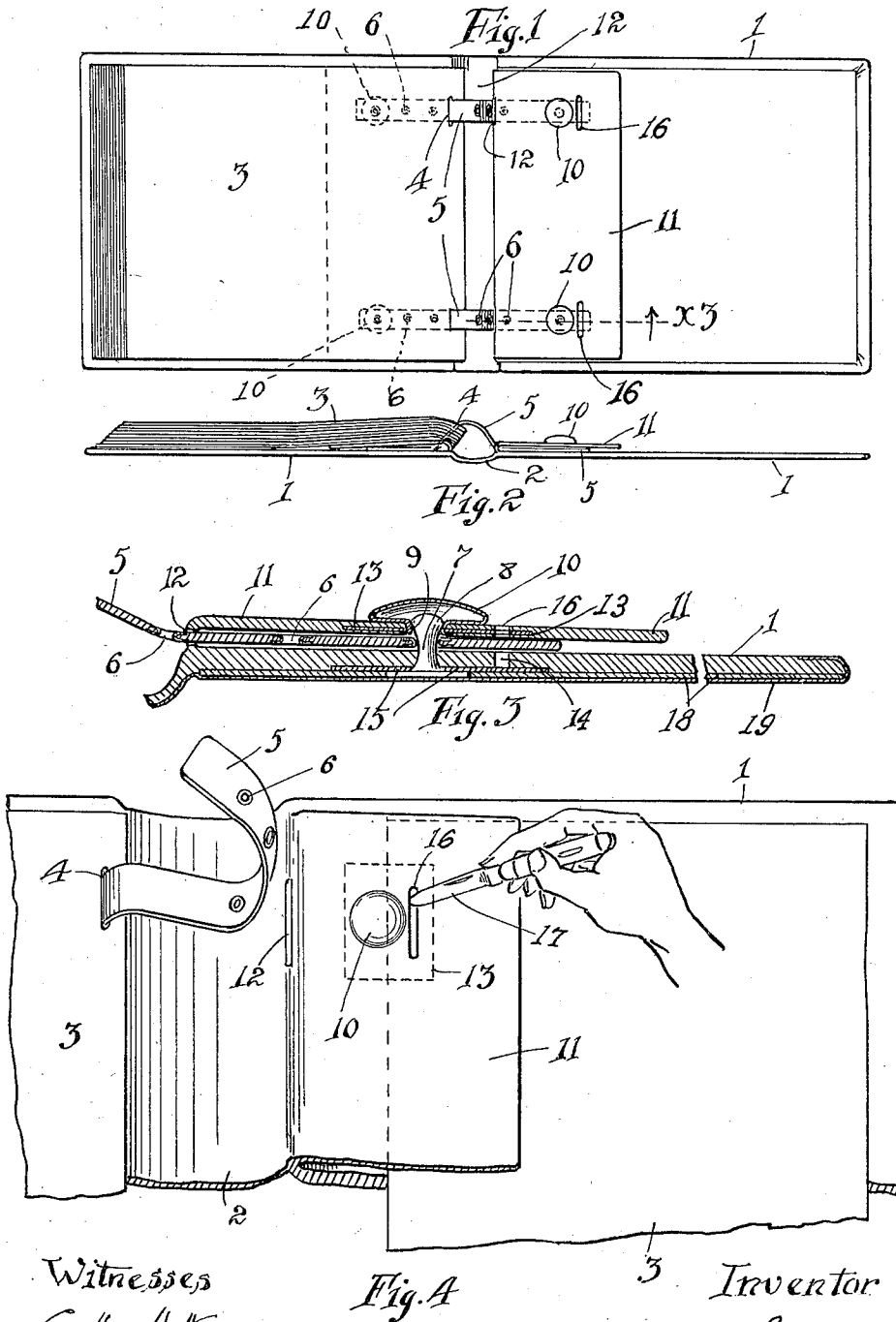


J. GRIESINGER.  
 BINDING DEVICE FOR LOOSE LEAF BOOKS.  
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1,004,777.

Patented Oct. 3, 1911.



Witnesses  
 Geoffrey Holt.  
 Henry C. Pitt

Fig. 4

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 John Griesinger  
 By Albert H. Merrill  
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# UNITED STATES PATENT OFFICE.

JOHN GRIESINGER, OF LOS ANGELES, CALIFORNIA.

BINDING DEVICE FOR LOOSE-LEAF BOOKS.

1,004,777.

Specification of Letters Patent

Patented Oct. 3, 1911.

Application filed November 21, 1910. Serial No. 593,569.

*To all whom it may concern:*

Be it known that I, JOHN GRIESINGER, a subject of the Emperor of Germany, residing at Los Angeles, California, have invented a new and useful Binding Device for Loose-Leaf Books, of which the following is a specification.

This invention relates to an improvement upon the loose-leaf book which I patented Feb. 2, 1909, No. 911125.

By the present invention improved means are provided to prevent accidental unfastening of the binding straps.

A further object of the present invention is to provide a binding device adapted for use in forming the perforations near the inner edges of the leaves for the insertion of the binding straps. To this end, without materially increasing the cost or size thereof, the book is furnished with a spacing device to locate the places where the perforations are to be made, and also with means to guide the knife or other pointed instrument which the operator uses in making said perforations.

Referring to the accompanying drawings, which illustrate the invention, Figure 1 is a plan view of an open loose-leaf book embodying the invention; Fig. 2 is a side elevation of the open book shown in Fig. 1; Fig. 3 is an enlarged sectional detail on line  $x^3$  of Fig. 1; Fig. 4 is an enlarged plan of a portion of an open book to illustrate the use of the means for making the perforations in the leaves to receive the binding straps.

Referring in detail to the drawings, the book illustrated comprises the usual sides 1 united by the flexible back 2 and the independent leaves 3 having each a plurality of perforations 4 near its back edge through which are threaded the binding straps 5. Each of said straps is provided with eyeleted perforations 6 which are adapted to pass over studs 7 mounted on the sides of the covers and projecting from the inner faces thereof. Said studs 7 have enlarged heads 8 which spring through eyelets 9 formed by the shanks of buttons 10 that are mounted on a flap 11 hinged inside the cover near the back of the book. Said flap 11 is provided with slots 12 at the hinged portion thereof through which the straps 5 may be led. When the eyelets of flap 11 are sprung down over the heads of the studs 7, said

flap forms a guard to keep the straps 5 in the fastened position. The buttons 12 may be secured in place by metallic strips 13 embedded in the flap 11.

Reference will now be made to the features of the invention which relate to forming the perforations 4 in the leaves of the book. For this purpose, near each stud 7, spaced away therefrom toward the free end of each side of the book, is a recess 14 cut nearly through the cover and provided with a metallic bottom or backing piece 15, said piece 15 also forming a means for fastening the studs 7 to the cover. A corresponding opening 16 is made in the flap 11. If now, the straps 5 be withdrawn from beneath the flap 11 and a leaf 3 inserted as indicated in Fig. 4 until the edge of said leaf comes against the studs 7 beneath buttons 10, the leaf will be in such a position that the perforations for the binding straps may be made therethrough by means of a sharp instrument, for example a knife blade 17 inserted through the opening 16 and used to cut through the leaf, the cover being kept from perforation by means of the metallic backing piece 15 against which the point of the blade may strike. Openings 16 and recesses 14 are spaced away from studs 7 the proper distance to bring in the right place the perforations thus made through the leaves.

A thin board 18 may be placed upon the outer side of the cover over the plate 15 and this board may be covered by a flexible strip 19.

The construction shown in Fig. 3 may be duplicated on each side of the book as indicated in Fig. 1 where the eyelets 6 and buttons 10 are shown in dotted lines, this construction making it more convenient to use long straps and insert a large number of leaves.

If desired, straps formed in separate parts as described in my patent herebefore referred to, may obviously be employed in a loose-leaf book constructed in accordance with the principles of the present invention.

I claim:

1. A loose-leaf book comprising a cover having a back and sides, independent leaves for said book, each leaf having a plurality of perforations near its back edge, straps to pass through said perforations, said straps being provided with perforations,

studs mounted on the cover portion of the book and provided with heads for insertion through said perforations of the straps, and means adapted to spring over the heads of  
 5 said studs to guard against said straps becoming unfastened.

2. A loose-leaf book comprising a cover having a back and sides, independent leaves for said book, each leaf having a plurality  
 10 of perforations near its back edge, straps adapted to pass through said perforations, said straps being provided with eyelets, studs mounted on the cover portion of the book and provided with heads for insertion  
 15 through said eyelets, and a flap within the cover, said flap having eyelets adapted to spring over the heads of said studs and lie upon said straps to guard against said straps becoming unfastened.

20 3. A loose-leaf book comprising a cover having a back and sides, independent leaves for said book, each leaf having a plurality of perforations near its back edge, straps adapted to pass through said perforations,  
 25 said straps being provided with eyelets, studs mounted on the cover portion of the book and provided with heads for insertion through said eyelets, and a relatively stiff flap within the cover flexibly secured to said  
 30 cover near the back of the book, said flap carrying eyelets adapted to spring over the heads of said studs to guard against said straps becoming unfastened.

4. A loose-leaf book comprising a cover,  
 35 independent perforated leaves for said book, straps adapted to pass through said leaves to hold the same detachably in place, said straps being provided with perforations, studs extending from the inner side of said  
 40 cover and adapted to pass through the perforations in said straps, and a flap having eyelets to receive the heads of said studs, there being recesses in said cover spaced away from said studs, and corresponding

openings in said flap to provide for making  
 45 perforations through leaves for said book.

5. A loose-leaf book comprising a cover, a stud projecting laterally from said cover, there being a recess in said cover spaced  
 away from stud, a hinged member having  
 50 an opening therethrough adapted to be brought into register with said recess to provide for making perforations at predetermined points through leaves for said  
 book, there being an opening through the  
 55 hinged portion of said member, and a leaf-retaining strip adapted to extend through said opening and fasten to said stud.

6. A loose-leaf book comprising a cover portion, perforated leaves for said book,  
 60 straps to pass through the perforations of said leaves, said straps being provided with perforations, studs mounted on said cover portion of the book to pass through said  
 perforations of said straps, and means in-  
 65 dependent of said straps and studs to guard said straps from becoming disengaged from said studs.

7. A loose-leaf book comprising a cover, a flap hinged to the inner side of said cover,  
 70 said flap having openings therethrough, studs mounted on said cover and adapted to enter said openings, leaf-retaining straps adapted to fasten onto said studs, and other  
 openings through said flap nearer the free  
 75 end thereof than the first named openings, said other openings permitting the insertion of an instrument to perforate leaves inserted under said flap.

In testimony whereof I have hereunto  
 80 signed my name in the presence of two subscribing witnesses at Los Angeles, in the county of Los Angeles and State of California, this 14th day of November 1910.

JOHN GRIESINGER.

Witnesses:

ALBERT H. MERRILL,  
 LILLIAN YOUNG.