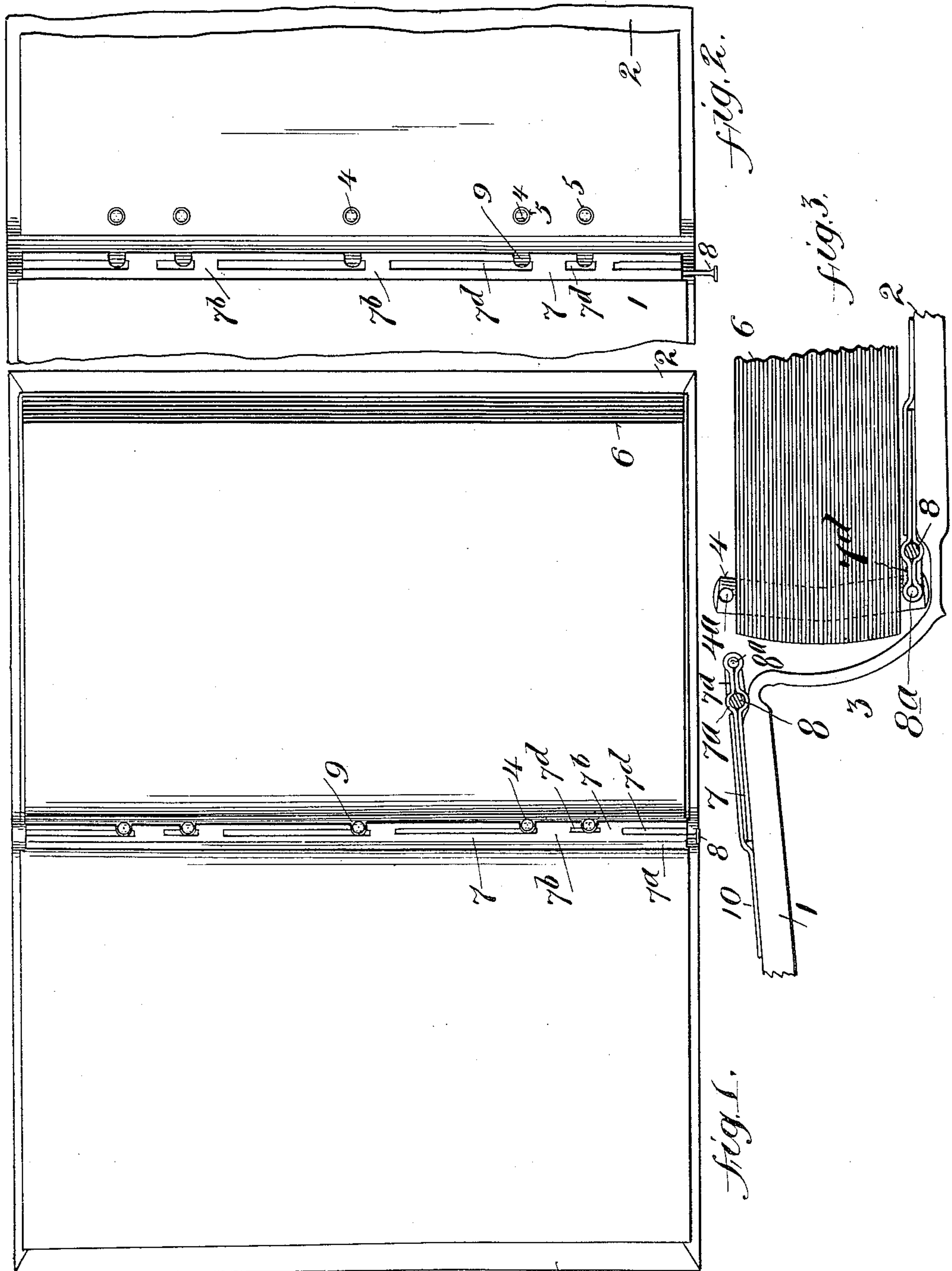


No. 855,988.

PATENTED JUNE 4, 1907.

H. I. SEDDON.  
LOOSE LEAF BOOK.  
APPLICATION FILED DEC. 17, 1906.

2 SHEETS—SHEET 1.



Witnesses  
*Wm. Benjamin*  
*L. Seddon*

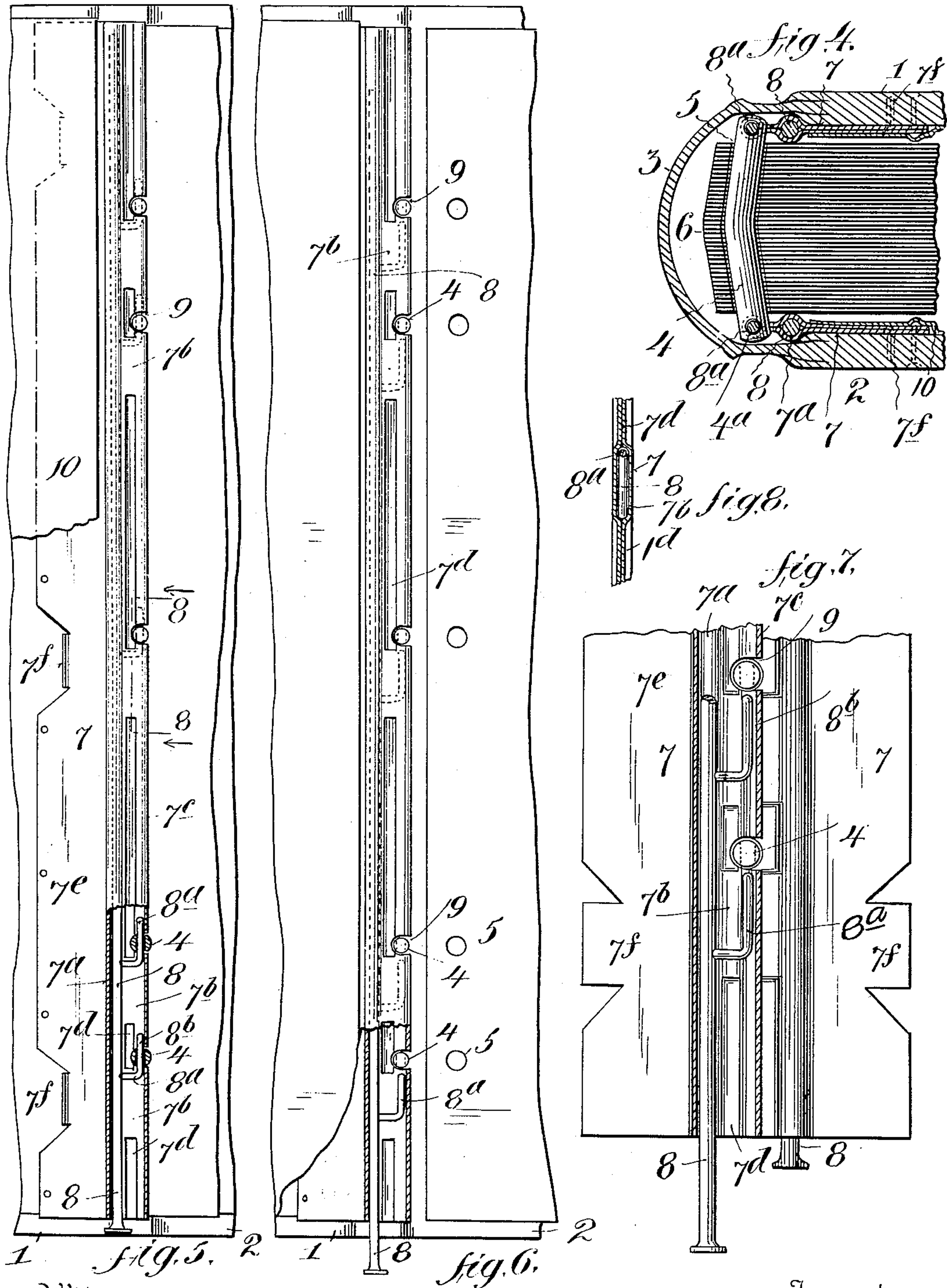
Inventor  
*Harry I. Seddon.*  
By his Attorney  
*T. F. Bourne*

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2 SHEETS—SHEET 2.



Witnesses  
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L. Burnett.

Inventor  
Harry I. Seddon  
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# UNITED STATES PATENT OFFICE.

HARRY I. SEDDON, OF SYRACUSE, NEW YORK.

## LOOSE-LEAF BOOK.

No. 855,988.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed December 17, 1906. Serial No. 348,339.

*To all whom it may concern:*

Be it known that I, HARRY I. SEDDON, a citizen of the United States, and a resident of Syracuse, Onondaga county, New York, have invented certain new and useful Improvements in Loose-Leaf Books, of which the following is a specification.

My invention relates to improvements in books commonly called "loose leaf books," wherein the leaves may be inserted and removed as required, and the object of my invention is to provide improved means for detachably connecting the binding bars or pins that pass through apertures in the leaves with the covers or back-binding of the book.

In carrying out my invention I provide hinge-pieces or plates with longitudinally disposed guides provided with communicating chambers, and recesses to receive leaf holding or binding bars, and rods slidable in said guides provided with projections slidable in said chambers, said projections being adapted to pass across said recesses and to enter apertures in the leaf-holding or binding bars, whereby said rods are retained in the guides to have limited longitudinal movement; and by sliding said rods back and forth the leaf-holding bars may be readily connected with and disconnected from the projections of said rods.

Reference is to be had to the accompanying drawings forming part hereof, wherein

Figure 1 is a face view of a book embodying my invention, shown opened and the parts connected together holding the leaves, Fig. 2 is a similar view showing a rod disconnected from the leaf holding bars or pins, Fig. 3 is an end view, enlarged, of Fig. 2, Fig. 4 is a sectional view of the book through the leaf apertures, showing the parts connected together, Fig. 5 is a detail broken view showing the hinge members connected, Fig. 6 is a substantially similar view showing said members disconnected, Fig. 7 is an enlarged detail sectional view illustrating the construction of the hinge plates, and Fig. 8 is a detail sectional view substantially on the line 8, 8, in Fig. 5.

Similar numerals of reference indicate corresponding parts in the several views.

The numerals 1, 2 indicate the back covers, and 3 the back binding, which may be arranged in any usual manner to permit the covers to open and close, and at 4 are binding bars or pins adapted to pass through aper-

tures 5 in the leaves 6, which binding bars have holes 4<sup>a</sup> to receive the holding projections or fingers to be explained, said bars 4 being of such length as to conveniently fit between the binding 3 or the covers, as shown in Fig. 4. At 7 are hinge plates attached along the inner edges of the covers 1, 2, for connection with the binding bars or pins 4. The hinge plates 7 are provided with longitudinally disposed grooves or guideways 7<sup>a</sup> located at a distance back from the projecting edge 7<sup>c</sup> of the hinge plates 7, which guideways may be formed by bending the plates 7 in grooved or channel form, and at 8 are rods located in said guideways and adapted to slide therein. At 7<sup>b</sup> are pockets or chambers communicating with the guideways 7<sup>a</sup> of the hinge plates, and located between said guideways and outer edge 7<sup>c</sup> of the hinge plates, and at 9 are recesses or notches formed in the edges of the hinge plates and communicating with the pockets or chambers 7<sup>b</sup>, into which recesses the ends of the binding bars 4 are adapted to pass. At 8<sup>a</sup> are projections or fingers carried by the rods 8 and extending from the side thereof and located in the chambers or pockets 7<sup>b</sup>, adapted to slide in said pockets and across the recesses 9 to pass through the apertures 4<sup>a</sup> in the binding bars 4. The chambers 7<sup>b</sup> are shown formed between depressed portions 7<sup>d</sup> of the hinge plates, and thereby said depressed portions 7<sup>d</sup> serve as stops or abutments for the fingers or projections 8<sup>a</sup> to prevent the rods 8 from being pulled out of the hinge plate guideways and to limit the longitudinal movement of said rods, the fingers or projections 8<sup>a</sup> being shown bent in right angle form and connected at one end with rods 8 and the parts 8<sup>b</sup> extending parallel to the rods 8 at a distance therefrom. Both of the hinge pieces 7 are made alike, and may be formed by bending a suitable strip of metal on the longitudinal line to form the folded edge at 7<sup>c</sup> providing a guide *a* near the edge for the parts 8<sup>b</sup> of the fingers or projections 8<sup>a</sup>, and also bent to form the guideways 7<sup>a</sup> and depressed at intervals at 7<sup>d</sup> from opposite sides, as shown in Fig. 6, forming the abutments and providing the chambers or pockets 7<sup>b</sup>. The inner or main parts 7<sup>e</sup> of the hinge plates lie upon the inner faces of the cover 7 and are secured thereto by rivets or in any other suitable manner. If desired tongues 7<sup>f</sup> may be cut out of the inner edges



of the hinge pieces and bent outwardly and be driven into the covers 1, 2, to assist in resisting lateral strain on the hinge pieces. The hinge pieces or plates 7 may first be stamped or rolled to produce the curved parts or guides 7<sup>a</sup> and the depressions 7<sup>d</sup> and then folded over at the edge 7<sup>c</sup>, and before being attached to the covers 1, 2, the rods 8 will be laid between the overlapping members of the hinge pieces in the guideways 7<sup>a</sup>, with the projections or fingers 8<sup>a</sup> in the corresponding pockets 7<sup>b</sup>, and then when the hinge plates are secured upon the covers the rod 8 will be permanently secured between the hinge plates. Finishing pieces 10 may be pasted on the covers over the hinge plates as shown.

To use my improvements a suitable number of binding bars 4 will be attached to one of the hinge members 7 by inserting the ends of said bars in the recesses 9 and sliding the rod 8 forwardly to carry its fingers or projections 8<sup>a</sup> through the holes in said bars, then the desired number of loose leaves 6 may be strung on the bars 4, and then the latter connected with the opposite hinge piece by sliding the corresponding rod 8 to carry its fingers through the holes in said bars 4 as before described, whereupon the leaves will be firmly attached to the cover. The leaves may be detached and replaced as desired by pulling out one of the rods 8 to release the binding bars 4 and replacing said rod and its fingers in connection with the bars 4 after adjusting the leaves. The folded portions of the hinge pieces 7 adjacent the edges 7<sup>c</sup> serve to securely hold the fingers 8<sup>a</sup> from twisting and bending.

Changes may be made in the arrangements shown and described without departing from the spirit of my invention.

Having now described my invention what I claim is:—

1. The combination of a pair of covers, a binding flexibly connecting them, a hinge member secured to one cover and extending along the inner edge thereof, said member having a guideway provided with recesses, a rod located in said guideway and provided with projections extending substantially in the direction of the rod, binding bars provided with apertures to receive said projections and adapted to enter the recesses in said hinge member, and means for pivotally connecting said binding bars with the other cover.

2. The combination of hinge members provided with guideways and having pockets communicating with said guideways and also provided with recesses communicating with said pockets, with rods located in said guideways and having projections extending in the direction of the rods and located in said pockets, and binding bars adapted to enter said recesses and provided with apertures to receive said projections.

3. The combination of hinge members having guideways and pockets communicating therewith, and abutments at the ends of the pockets, with rods located in the guideways and provided with projections extending in the direction of the rods and located in said pockets, said hinge pieces having recesses communicating with the pockets, and binding bars adapted to enter said recesses and provided with apertures adapted to receive said projections.

4. The combination of a pair of covers, and a binding connecting them, with hinge members provided with guideways and having pockets communicating therewith, said hinge members having recesses communicating with said pockets, rods in said guideways having projections located in said pockets and extending in the direction of the rods adapted to cross said recesses, and binding bars provided with apertures adapted to receive said projections.

5. The combination of a pair of covers, and a binding connecting them, with hinge members provided with guideways and having pockets communicating therewith, said hinge members having recesses communicating with the pockets, rods in said guideways having projections located in said pockets and extending in the direction of the rods adapted to cross said recesses, and binding bars provided with apertures adapted to receive said projections, said hinge members having abutments at the ends of said pockets to limit the movement of said projections and rods.

6. The combination of covers, and a binding connecting them, with hinge members comprising plates folded upon each other and bent to form guideways and pockets communicating with said guideways between the corresponding edges of the hinge members and said guideways, rods located in said guideways and provided with projections located in said pockets and extending in the direction of the rods, said hinge members having recesses communicating with said pockets, and binding bars adapted to enter said recesses and provided with apertures to receive said projections.

7. The combination of covers, and a binding connecting them, with hinge members comprising plates folded upon each other and bent to form guideways and pockets communicating with said guideways, rods located in said guideways and provided with projections located in said pockets and extending in the direction of the rods, said hinge members having recesses communicating with said pockets, and binding bars adapted to enter said recesses and provided with apertures to receive said projections, said plates having depressions adjacent the pockets forming abutments for said projections.

8. The combination of covers, and a binding



ing connecting them, with hinge members attached to the covers and having guideways and pockets communicating therewith, and also provided with recesses connecting with said pockets, with rods having projections extending outwardly and bent substantially parallel with the rods and located in said pockets adapted to cross said recesses, and binding bars adapted to enter said recesses and provided with apertures to receive said projections.

9. A hinge member comprising a strip of metal folded upon itself and bent to form guideways, and having pockets communicating with said guideways between the latter and the folded edge of the member, and also having recesses, and a rod located in the guideways and provided with projections lo-

cated in the pockets and extending in the direction of the rod.

10. A hinge member comprising a strip of metal folded upon itself and bent to form guideways and pockets communicating with said guideways between the latter and the folded edge of the member, and also having recesses, a rod located in the guideways and provided with projections located in the pockets and extending in the direction of the rod, said metal being depressed between the pockets forming abutments for the projections.

HARRY I. SEDDON.

Witnesses:

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C. H. DELANO.