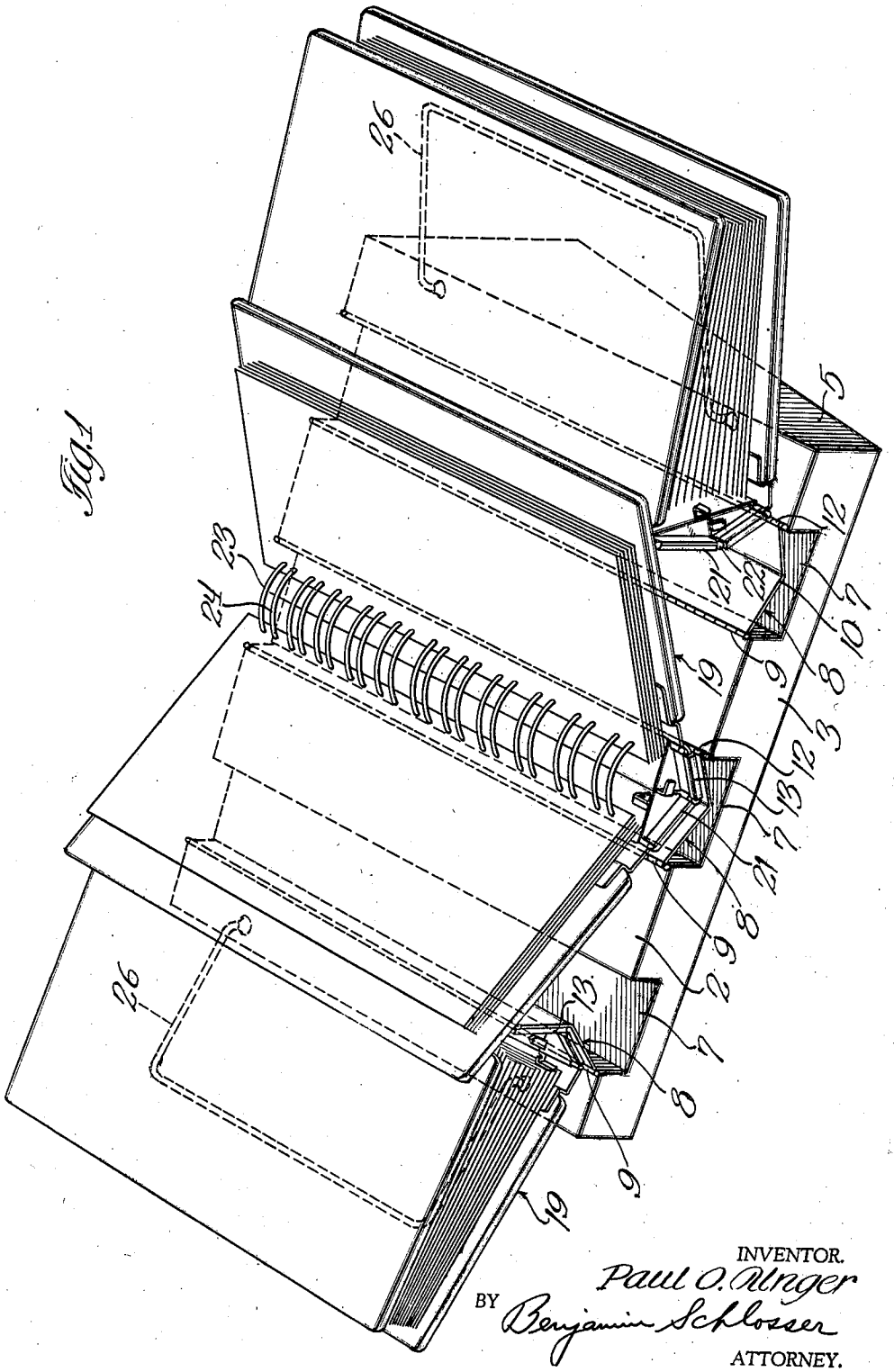
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Fig. 1



INVENTOR.
Paul O. Unger
BY Benjamin Schlosser
ATTORNEY.

June 9, 1942. P. O. UNGER 2,286,128

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Fig. 2

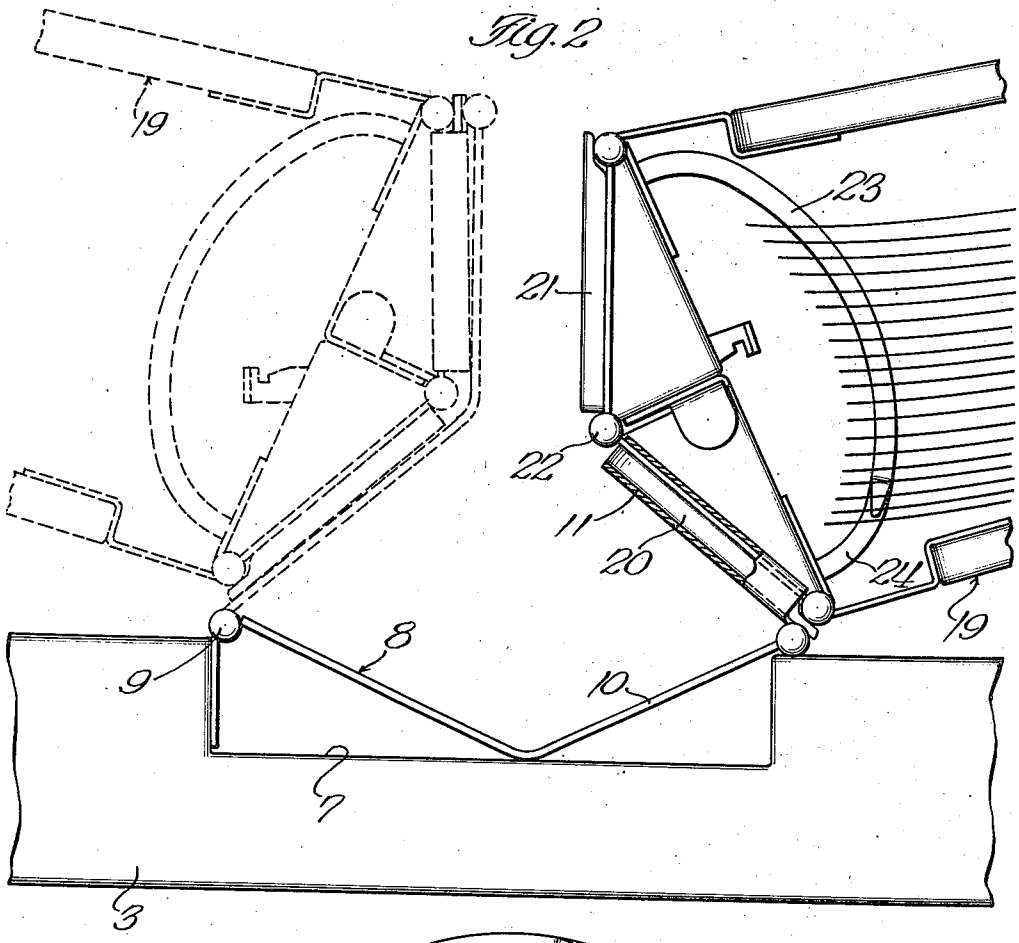
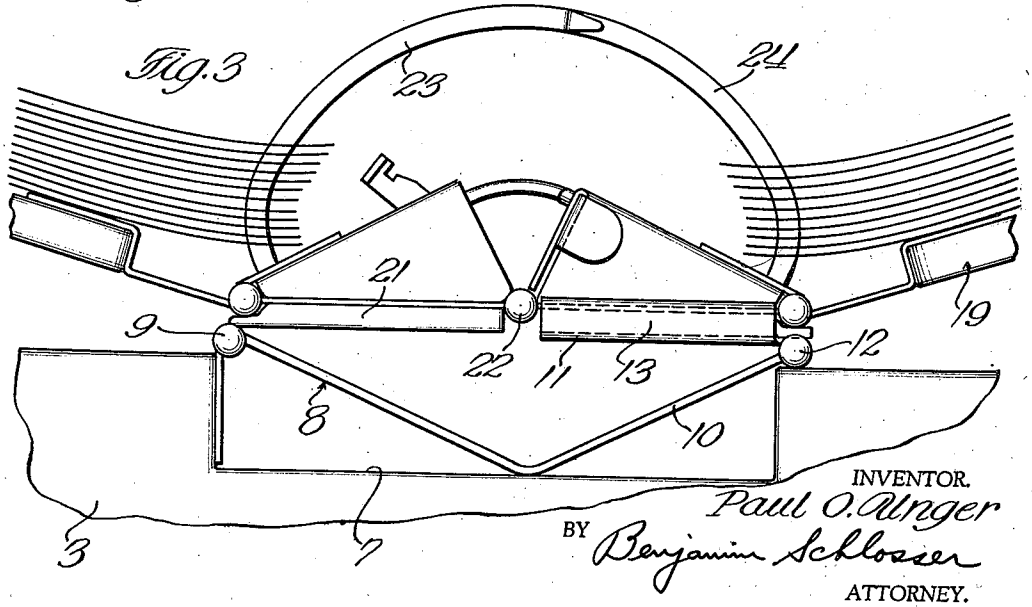


Fig. 3



INVENTOR.
Paul O. Unger
BY Benjamin Schlosser
ATTORNEY.

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Fig. 4

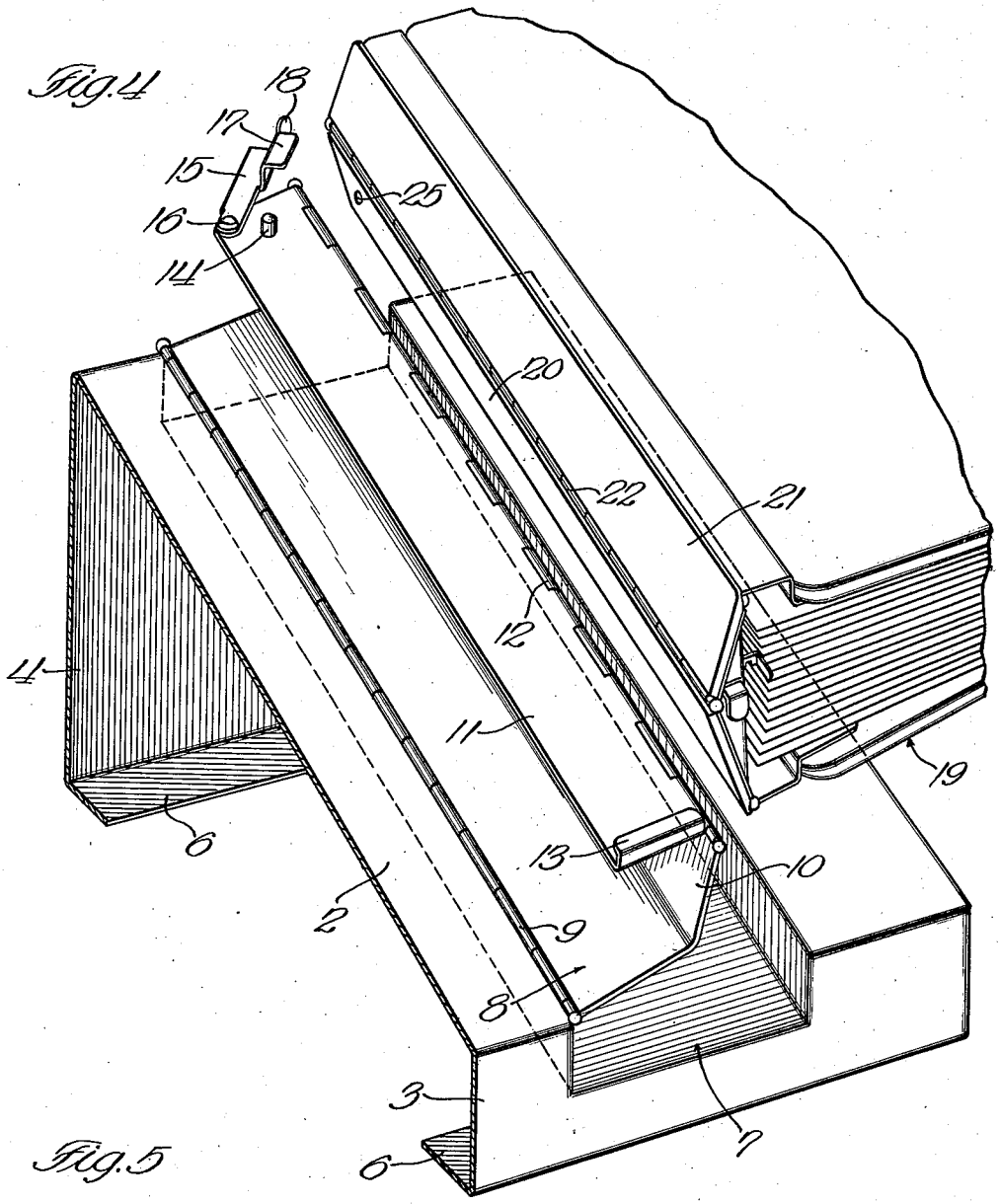
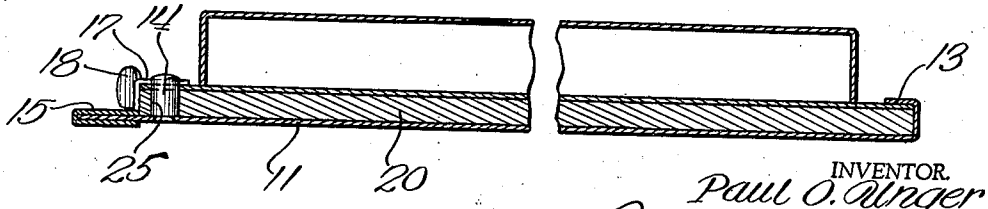


Fig. 5



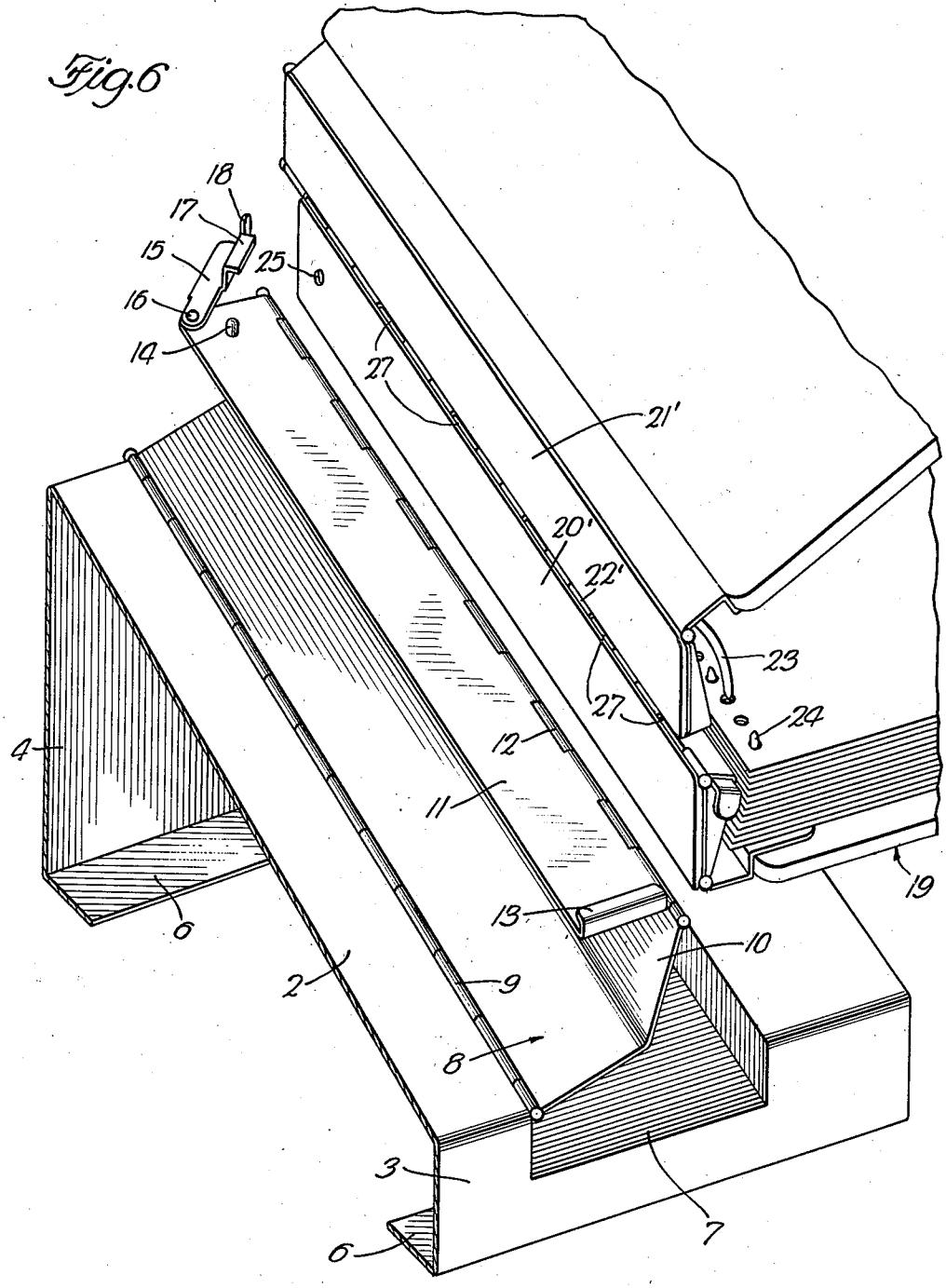
INVENTOR.
Paul O. Unger
BY Benjamin Schlosser
ATTORNEY.

June 9, 1942. P. O. UNGER 2,286,128

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Fig. 6



INVENTOR.
Paul O. Unger
BY Benjamin Schlosser
ATTY.

Patented June 9, 1942

2,286,128

UNITED STATES PATENT OFFICE

2,286,128

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Paul O. Unger, Elmhurst, Ill., assignor to Wilson-Jones Company, Chicago, Ill., a corporation of Massachusetts

Application October 20, 1939, Serial No. 300,357

8 Claims. (Cl. 129—1)

This invention relates to a rack particularly adapted to receive and hold a plurality of loose leaf binders having hinged back sections which form a V-shaped back when the binder is closed.

It is an object of this invention to provide a rack for supporting a plurality of binders with means whereby any binder may be turned out of the way to permit easy reference to any adjacent binder. It is a further object of this invention to provide means for permitting full opening of any binder and shifting of so-called shift-binders without impairing the security with which the binders are held. Other objects of this invention will become apparent upon reading the following description taken in conjunction with the accompanying drawings, in which:

Figure 1 is a perspective view of the rack with a plurality of loose leaf binders supported thereon;

Figure 2 is a fragmentary end elevation illustrating the hinge action of the supporting member;

Figure 3 is a fragmentary end elevation showing a binder in intermediate position;

Figure 4 is a fragmentary perspective view showing a binder about to be secured to the support;

Figure 5 is a cross sectional view showing the means for securing a binder to the support, and

Figure 6 is a view similar to Figure 4 showing a binder having longitudinally shiftable back sections.

The rack comprises an inclined platform 2 supported by means of a short front wall 3, a longer rear wall 4 and a pair of side walls 5. Each of these walls is provided with a flange 6 to provide stability. The platform is provided with a plurality of channels 7, and a back support 8 is hinged to one longitudinal edge of each of said channels as indicated at 9. The channels may be shaped to conform to the configuration of the binder back if desired, but it is preferred to make them rectangular for manufacturing economy. The channels are spaced apart a sufficient distance to permit free access to any of the binders carried by the support. I have arbitrarily shown a rack with three channel members but it is obvious that any desired number may be provided.

The book supports are duplicates of each other so only one will be described. Each book support includes a V-shaped plate 10 which conforms to the shape of the binder back when the binder is closed and a wing 11 hinged to the plate 10, as indicated at 12. It is obvious that the plate 10 may be formed in any desired shape to conform to the configuration of the binder back. The wing 11 is slightly less than half the width of the plate 10 and is provided with a flange 13 at one end for a purpose hereinafter described. The other end of the wing 11 is provided with a stud 14 and a latch 15 pivoted to the wing, as indicated at 16. The latch 15 is provided with a flange 17 parallel to the wing 11 and in the same plane as the flange 13. The latch 15 is also provided with a finger piece 18 to facilitate manipulation of the latch around its pivot.

The loose leaf binder for which the rack is particularly designed is fully described in the patent to Charles V. St. Louis and Fred D. Wedge, No. 2,239,121 dated April 22, 1941, and will not be described in detail. The binder, designated broadly by the reference numeral 19, includes a pair of back sections 20 and 21 hinged together, as indicated at 22, and shaped to form an angular back when the binder is closed. The sheet retaining prongs 23 secured adjacent the back member 21 are adapted to shift longitudinally relative to the prongs 24 secured adjacent the back member 20. In this particular binder the back section 21 does not shift relatively to the back section 20, but the support is designed to operate as well with a binder in which one back section does shift relatively to the other, and such a binder, in which one back section does shift longitudinally relative to the other, is illustrated in Figure 6 of the drawings. The back section 20 is provided with an aperture 25 adapted to fit on the stud 14. The binder is secured to the wing 11 by sliding one end of the back section 20 under the flange 13 and positioning the aperture 25 over the stud 14 to allow the back section 20 to lie flat against the wing 11. The latch 15 is then swung inwardly so that the flange 17 fits over the other end of the back member 20 to hold the binder securely.

As can be seen in Figure 3, the retention of the binder in the book support only by means of the securement of the back member 20 to the wing 11 permits free pivotal movement of the back members 20 and 21 around the hinge 22. Because the back section 21 is not secured to any supporting member, the prongs 23 may be shifted longitudinally without removing the binder from the support, and without impairing the security with which the binder is supported.

In the binder illustrated in Figure 6 the hinge 22', by means of which the back sections are connected, is provided with a plurality of gaps 27 to permit relative longitudinal shifting of the back

sections. When binders of this type are used in the rack, the back setcion 21' may be shifted longitudinally relative to the back section 20' without interfering with the securement of the binder on the rack, because the binder has only one back section 20' secured to the rack.

The operation of the device is apparent from the foregoing description. Whenever it is desired to use any of the binders, the hinge 12 permits swinging of one adjacent binder to the right, and the hinge 9 permits swinging the other adjacent binder to the left, to provide maximum access to the binder to be used. The rack is provided with a bracket 26 at each end to support the outermost binders.

While I have described a preferred embodiment of my invention in detail, it will be understood that the description thereof is illustrative, rather than restrictive, as many details may be modified or changed without departing from the spirit or scope of my invention. Accordingly, I do not desire to be restricted to the exact construction described, except as limited by the appended claims.

I claim:

1. In a book support, a V-shaped plate, a wing less than one-half the width of said V-shaped plate hinged along one longitudinal edge of said plate, and means on said wing for securing a book thereto.

2. In combination, a loose leaf binder having a pair of hinged back sections, one of said back sections having an aperture therein, and a supporting wing of a width not exceeding the width of said apertured back section, said supporting wing having a stud engaging said aperture, a fixed flange at one end engaging one end of said apertured back section, and a movable flange at its other end engaging the opposite end of said apertured back section.

3. In combination with a loose leaf binder having a pair of hinged back sections presenting an angular configuration when closed, an angular plate conforming to the configuration of the closed back sections of said binder, a wing hinged along one longitudinal edge of said angular plate, said wing being of a width less than one-half the width of said angular plate and provided with means for securely retaining one of said hinged back sections.

4. In a rack, a plurality of channels, a V-shaped plate hinged along one edge to each of said channels, a wing hinged along the opposite edge of each of said plates, each of said wings being adapted to lie against one wall of said V-shaped plate to which it is hinged, and means on each of said wings for securely retaining one back section only of a loose leaf binder provided with a pair of hinged back sections presenting an angular configuration when closed, whereby each binder may be swung to either side of its respective channel member.

5. In a rack, a channel, a plate hinged along one longitudinal edge to one edge of said channel, and a wing of less than one half the width of said plate hinged to the other longitudinal edge of said plate, said wing being provided at one end with a fixed flange and at its other end with a pivoted flange.

6. In combination with a loose leaf binder having a pair of hinged back sections, one of said back sections being provided with an aperture, a supporting wing of a width no greater than the width of said apertured back section having a stud engaging said aperture, and a pair of flanges engaging opposite ends of said apertured back section.

7. In combination with a loose leaf binder having a pair of hinged back sections shiftable longitudinally relatively to each other, a support including means for holding only one of said back sections whereby one of said back sections may be shifted longitudinally relatively to the other without disengaging said binder from said support.

8. In combination, a loose leaf binder, said binder having a pair of hinged back sections presenting an angular configuration when closed, said back sections being shiftable longitudinally relative to each other, and a support, said support including an angular plate shaped to conform to the configuration of said back when said binder is closed, and a wing hinged to said angular plate, said wing being provided with means for retaining only one portion of said binder back, whereby said back sections may be shifted longitudinally relative to each other without removing said binder from said support.

PAUL O. UNGER