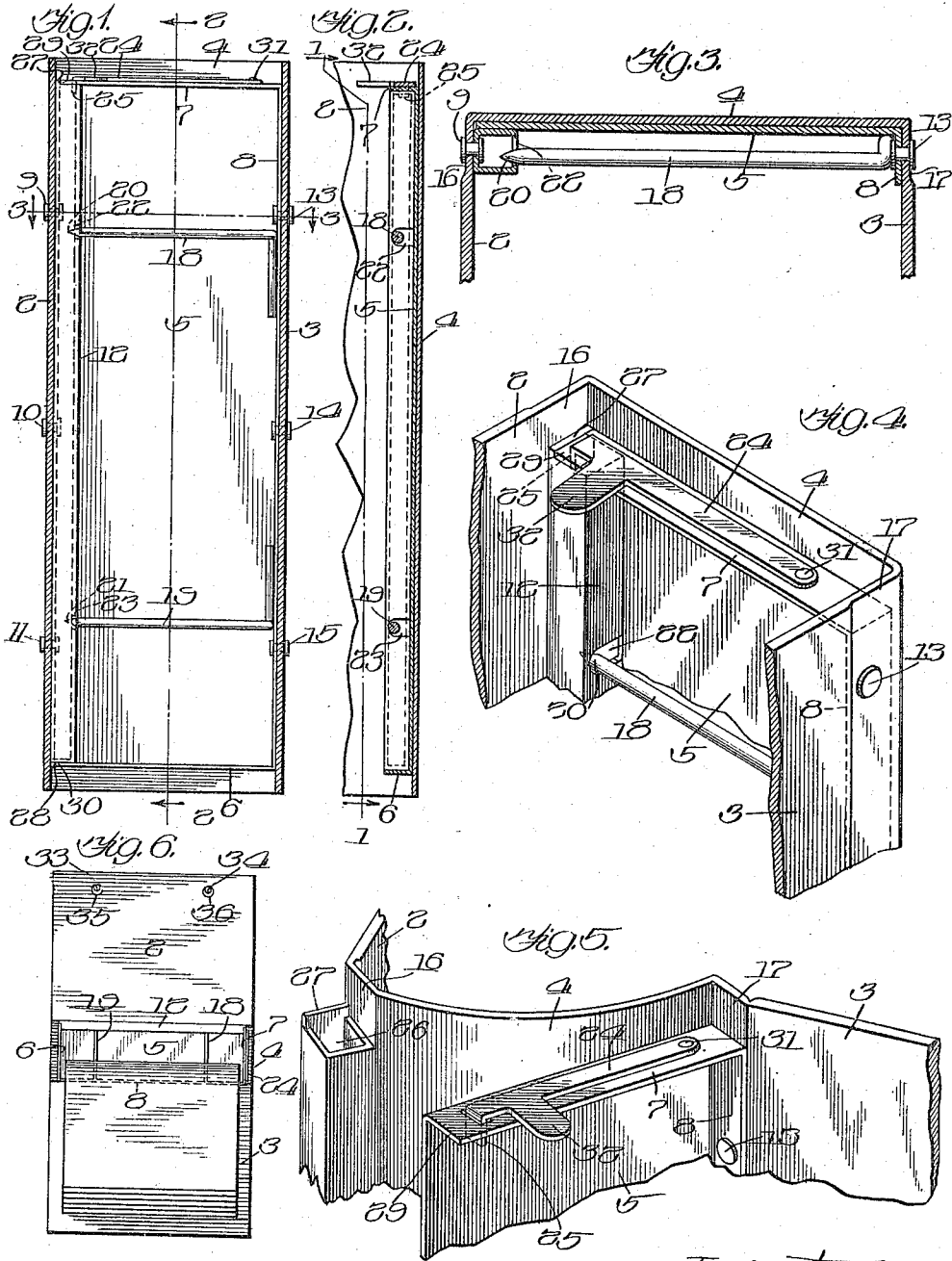


F. K. ALSTRAND,
BINDER.

APPLICATION FILED SEPT. 21, 1914.

1,197,995.

Patented Sept. 12, 1916.



Witnesses:
 Jno. A. Nelson Jr.
 Edwin B. Nelson

Inventor:
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UNITED STATES PATENT OFFICE.

FELIX K. ALSTRAND, OF CHICAGO, ILLINOIS.

BINDER.

1,197,995.

Specification of Letters Patent. Patented Sept. 12, 1916.

Application filed September 21, 1914. Serial No. 862,657.

To all whom it may concern:

Be it known that I, FELIX K. ALSTRAND, a subject of the King of Sweden, residing at Chicago, in the county of Cook and the State of Illinois, have invented certain new and useful Improvements in Binders, of which the following is a specification.

My invention relates to improvements in binders or loose leaf fasteners for circulars, pamphlets, periodicals and the like, and its object is to simplify the construction, lessen the cost and improve the convenience of handling devices of this kind, and with these objects in view the invention consists in the novel construction, combination and arrangement of parts, all as hereinafter described in detail, illustrated in the accompanying drawing and incorporated in the appended claims.

In the drawing—Figure 1 is a sectional plan view of the fastener back of the binder taken substantially on line 1—1 on Fig. 2. Fig. 2 is a section taken substantially on line 2—2 of Fig. 1. Fig. 3 is an enlarged section taken substantially on line 3—3 of Fig. 1. Fig. 4 is a perspective view of a section of the binder back and covers attached thereto. Fig. 5 is a perspective view showing the parts of Fig. 4 in different positions. Fig. 6 is a reduced view of the whole binder hung on a wall with some papers attached to the binder.

In the several views 2 and 3 represent the covers of the binder, and 4 is the back portion of said covers, all usually made of cardboard. Against the inside of the back 4 is placed a metallic back 5 which may be made of tin. Three of the edges of the back 5 are turned up to form stiffening ribs or flanges 6, 7 and 8. Along the fourth edge of the back 5, and attached to the hinge edge of the cover 2 by means of rivets 9, 10 and 11, is mounted a tube 12 which is made of tin and is shown as of rectangular cross section. The flange 8 of the metal back 5 is attached as by rivets 13, 14 and 15 to the cover 3, or along the line of junction between the cover 3 and the back 4. The metallic back 5 may thus be tilted angularly relative to the back 4 and this for the purpose of facilitating the manipulation of the tube 12 in the manner hereinafter indicated and as shown in Fig. 5 where the backs 2 and 3 are provided with flexing strip portions 16 and 17 of the widths of the tube 12 and flange 8 attached, respectively, to said portions. To

the flange 8 are secured the lower ends of two or more prongs 18 and 19 which have points 20 and 21 that engage apertures 22 and 23 in one side of the tube 12. The tube is held in engagement with these prongs and the free edge of the metal back 5 held against the back 4 by means of a spring 24 which has a lug 25 that enters the open end 26 in the tube 12. One side of the tube 12 extends beyond the ends of the other sides of the tube in the form of lugs 27 and 28 which rest on the ends 29 and 30 of the flanges 7 and 6 when the tube is locked on the prongs by the lug 25 engaging the opening 26 of the tube. The spring 24 is riveted to the flange 7 at 31. On the spring 24 is a thumb piece or lug 32 by means of which the spring may be pressed back to disengage its lug 25 from the end of the tube 12.

In Fig. 6 the whole binder is shown on a reduced scale spread out and hung up on a pair of pegs 33 and 34 engaging holes 35 and 36 in the outer edge of the cover 2. This form of binder is adapted as a file for letters as well as a scrap book, there being no necessity of having the papers folded as in the case of the ordinary magazine binders. The sharply pointed prongs will conveniently perforate papers and these prong points are protected by the lugs 27 and 28 preventing the side of the tube 12, opposite to the side in which the prong openings are made, from coming into contact with the points.

The single bar or tube 12 extending the entire length of the hinged edge of the cover 2 engages all of the prongs at once whether they be two or more in number. The cover to which the tube or bar is attached serves as a guide to place it properly and simultaneously over all the prong points, and the auxiliary or inner back 5 serves as a sort of stop or guide which determines the distance from the edge of each paper that the perforations are made. The bar 12 is made of tubular form in the interest of light weight and cheapness of construction, and, of course, need not be a seamless tube.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a pair of covers having a pair of backs one thereof having a flexible connection with each of said covers and the other having its one longitudinal edge secured substantially to one of said covers at its junction with the first men-

tioned back, prongs on the back secured to only one of said covers, a tubular member 12 having apertures therein adapted to engage the free ends of said prongs, and means 5 on the last mentioned back for locking it to said tubular member and holding the latter in engagement with said prongs.

2. The combination with a pair of covers having a back 4 to which said covers are 10 flexibly joined or hinged, an inner back 5 secured at one edge at the line of junction between said back 4 and one of said covers, stiffening flanges on the ends and one longitudinal side of said inner back, prongs se- 15 cured to the flange along the longitudinal

side of said inner back and projecting transversely across the latter, a tubular member secured to the other of said covers and said back 4 along their line of junction, and a catch on said back 5 adapted to engage and 20 disengage the open end of said tubular member, said tubular member being adapted to engage the free ends of said prongs.

In testimony whereof I have heretunto set my hand in the presence of two subscribing 25 witnesses.

FELIX K. ALSTRAND.

Witnesses:

G. A. TAUBERSCHMIDT,
J. W. BECKSTROM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."