June 15, 1926. 1,589,170

C. E. JOHNSON

LOOSE LEAF BINDER

Filed Oct. 12, 1923

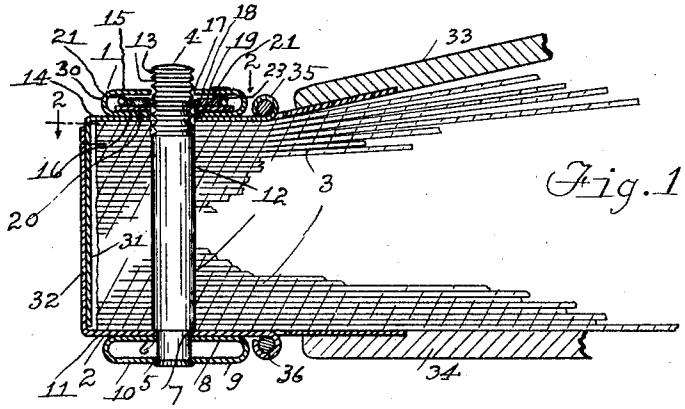


Fig. 1.

Fig. 2.

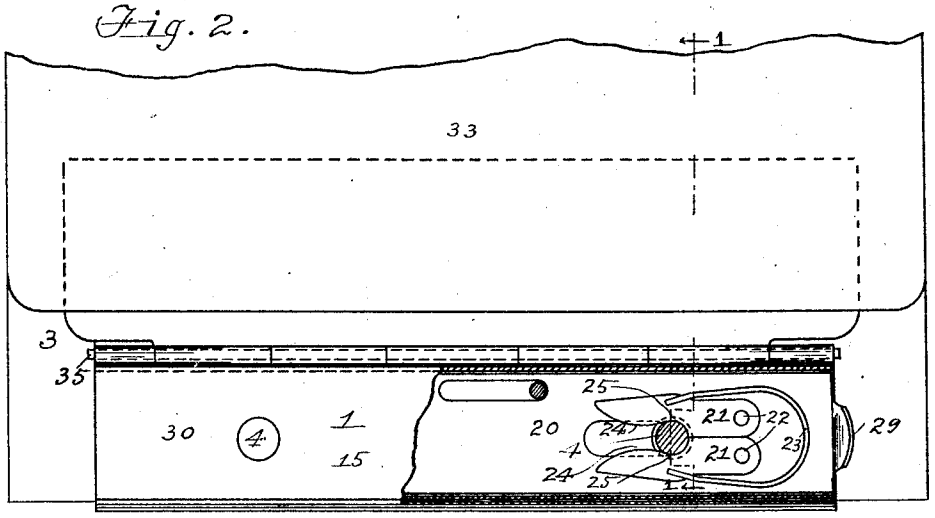
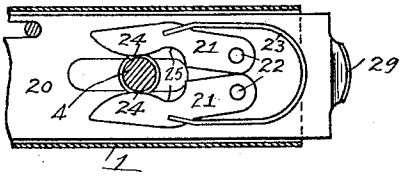


Fig. 3.



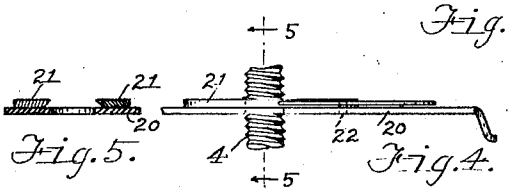


Fig. 5. Fig. 4.

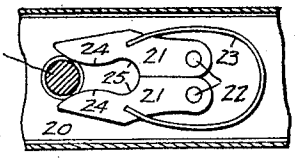


Fig. 6

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UNITED STATES PATENT OFFICE.

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LOOSE-LEAF BINDER.

Application filed October 12, 1923. Serial No. 668,096.

The present invention relates to loose-leaf binders; and its object is to provide a device of that character improved in various respects hereinafter appearing; and more particularly, to provide such a device having improved means for locking the leaf-binding members thereof in position; and further, to provide such members having improved features of construction.

These and any other objects hereinafter appearing are attained by, and the invention finds preferable embodiment in, the structure hereinafter particularly described in the body of this specification and illustrated by the accompanying drawings, in which:—

Figure 1 is a longitudinal sectional view of a loose-leaf binder taken on line 1—1 of Figure 2;

Figure 2 is a top plan view of the same, partially sectioned on line 2—2 of Figure 1;

Figure 3 is a detail view of a part thereof, but showing the post-engaging catches of the device in another position;

Figure 4 is a detail view showing in outer-edgewise position one of said catches and the slidable bar on which it is mounted;

Figure 5 is a transverse sectional view of said catch and bar taken on line 5—5 of Figure 4; and

Figure 6 is a view similar to Figure 3, but showing said catches disengaged from the post.

In the construction illustrated by the drawings, the loose-leaf binder has a pair of cooperating leaf-binding members 1, 2, between which the contents of the binder—the loose leaves 3—are held. A pair of binding posts 4 are carried by the under member 2, extending through and secured in registering openings 5, 6, in the spaced opposite sides 8, 9 of a portion 10 of said member 2 and in the opening 7 in the body portion 11 of said lower member, these three openings being in registration with each other. These posts pass through openings 12 adjacent the binding edge of the loose leaves 3. The upper portions of these posts are provided with recesses, preferably the annular grooves 13 shown in Figure 1. The upper leaf-binding member 1 comprises a body portion 14 and a second portion 30 having spaced opposite sides 15, 16, openings 17, 18, 19 registering with each other extending through said opposite sides and said body member. The recessed ends of the posts 4 are receivable removably into these openings.

Slidably bearing between the opposite sides 15, 16 of the upper leaf-binding member 1, a bar 20 carries two pairs (only one pair however being shown) of catches 21, each catch separately pivotally mounted at 22 thereon and the catches of each pair pressed by a spring 23 toward each other and toward the post respectively. As shown in Figures 2 and 3, each of these catches has an edge adjacent the post, a portion 24 of which edge is convex toward the post and another portion 25 of which, nearer the catch's pivotal mounting 22, is concave toward the post. These catches are movable by the sliding movement of the bar 20 on which they are mounted, to a position seen in Figure 2, wherein the concave portions 25 of the catches straddle and holdingly engage yieldingly in recesses 13 on the opposite sides of the post. When the bar 20 is slid outwardly by drawing its handle portion 29, the catches are moved out of contact with the posts and the upper leaf-binding member 1 may be removed, whereupon leaves may be inserted into the binder or removed therefrom.

Inasmuch as the portions 30 and 10 are secured as by rivets, spot-welding or otherwise to the body portions 14, 11 respectively of the upper and lower leaf-binding members, it will be seen that the posts 4 are held securely on the lower member 2 and guided against any considerable tilting movement in the openings in the upper member 1.

The upper and lower leaf-binding members 1, 2 have respectively the right-angle extensions or plates 31, 32 extending toward and overlapping each other, thus forming a back for the binder and its contents, and each leaf-binding member has a swingable cover 33 or 34 pivotally connected therewith by the pintle hinges 35, 36.

The invention being intended to be pointed out in the claims, is not to be limited to or by details of construction of the particular embodiment thereof illustrated by the drawings or hereinbefore shown or described.

I claim:

1. In a device of the character described: a leaf-binding member having a post provided with lateral recesses; a second leaf-binding member; a bar slidably bearing in the last-mentioned member and carrying a pivotally-mounted catch spring-pressed toward the post and movable by the sliding of the bar to a position wherein it holdingly

engages yieldingly in a recess in the post and to another position wherein it disengages the same.

2. In a device of the character described: a leaf-binding member having a post provided with lateral recesses; a second leaf-binding member; a bar slidably bearing in the last-mentioned member and carrying a pivotally-mounted catch spring-pressed toward the post and having an edge, a portion of which is convex toward the post and another portion nearer the catch's pivotal-mounting which is concave toward the post, the catch being movable by the sliding of the bar to a position wherein said concave portion holdingly engages yieldingly in a recess in the post and to another position wherein the catch disengages the same.

3. In a device of the character described: a leaf-binding member having a post provided with lateral recesses; a second leaf-binding member; a bar slidably bearing in the last-mentioned member and carrying a pair of separately pivotally-mounted catches spring-pressed toward the post and movable by the sliding of the bar into a position wherein they respectively holdingly engage yieldingly in recesses in the opposite sides of the post and to another position wherein they disengage the same.

4. In a device of the character described: a leaf-binding member having a post provided with lateral recesses; a second leaf-binding member comprising a body portion and a portion secured thereto having spaced opposite sides; a bar slidably bearing between said opposite sides and carrying a pivotally-mounted catch spring-pressed toward the post and movable by the sliding of the bar to a position wherein it holdingly engages yieldingly in a recess in the post, and another position wherein it disengages the same.

In testimony whereof I have hereunto set my hand at Grand Rapids, Michigan, this 8th day of October, 1923.

CORNELIUS EVAN JOHNSON.