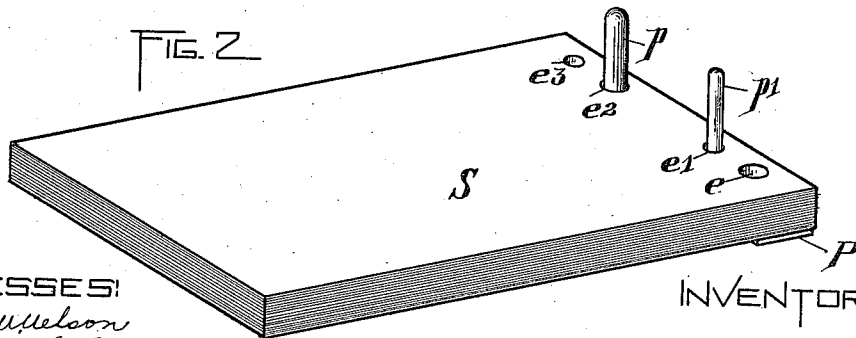
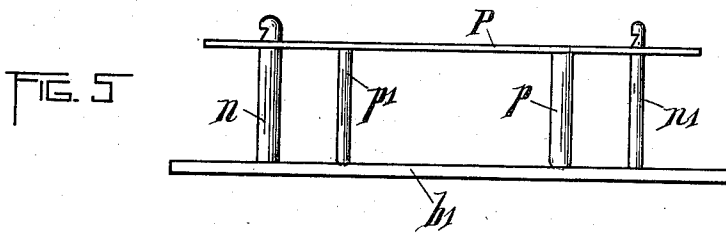
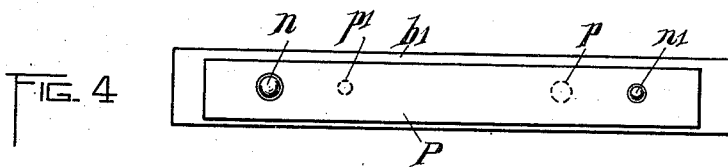
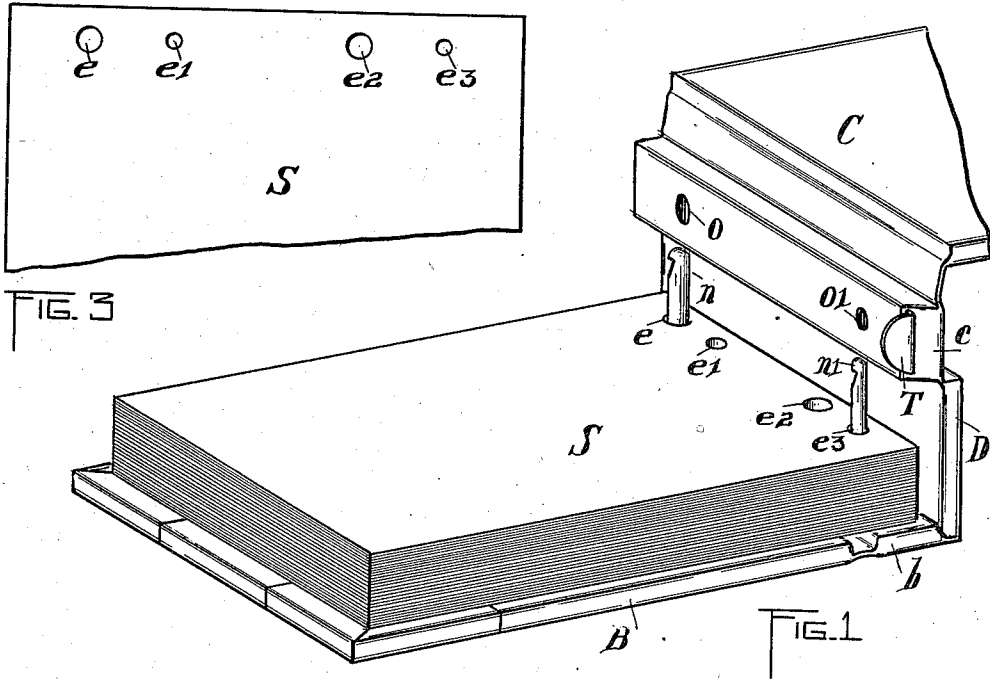


W. H. COOLEY.
 LOOSE LEAF BINDER AND LEAF THEREFOR.
 APPLICATION FILED MAY 6, 1911.

1,013,746.

Patented Jan. 2, 1912.



WITNESSES:
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LOOSE-LEAF BINDER AND LEAF THEREFOR.

1,013,746.

Specification of Letters Patent.

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Application filed May 6, 1911. Serial No. 625,574.

To all whom it may concern:

Be it known that I, WILLIAM H. COOLEY, a citizen of the United States, and a resident of Brockport, in the county of Monroe and State of New York, have invented a new and useful Improvement in Loose-Leaf Binders and Leaves Therefor, of which the following is a specification.

This invention relates to loose leaf binders and leaves therefor and has more especial reference to means for preventing the insertion, wrong side up in the binder, of leaves adapted to use therein.

With this object in view my invention consists in such a series of impaling posts in the binder and of leaves having corresponding openings therein to receive the impaling posts that such a leaf is insertible over the posts in the binder with only one side thereof uppermost and that a plurality of such leaves are therefore insertible over the posts in the binder with only one and the same and corresponding side thereof uppermost. I prefer that the impaling posts for holding the leaves and engaging the openings therein and the openings in the leaves for receiving the impaling posts be unsymmetrically disposed, although it is not necessary that this should be the case, and I prefer to prevent the insertion of the leaves over the posts wrong side up by making correspondingly positioned posts and the correspondingly positioned openings for receiving them of different sizes. It will be readily seen that, in such an arrangement, the openings for receiving the smaller posts cannot be inserted over the larger posts and the smaller posts engaging in the openings for the larger posts will not serve to hold the leaves in alinement.

My invention, it will at once be seen, is applicable to loose leaf binders in general although in the accompanying drawings I have shown it as applied to a loose leaf binder of the general construction such as shown in United States Letters Patent #767,161, issued Aug. 9, 1904 to Henry J. Moore, without however, limiting myself in its application to such or to any particular style of binder.

The drawings are as follows,—Figure 1 is a partial perspective view of such a binder opened and partially filled with leaves and with the removable impaling post carrying plate withdrawn from the binder. Fig. 2 is a perspective view of the removable

impaling post carrying plate and a pack of leaves engaged thereby placed bottom side up. Fig. 3 is a plan view of a part of one of such leaves. Fig. 4 is a plan view and Fig. 5 an elevation of the impaling post carrying plates in the binder.

Similar parts are designated by similar reference characters throughout the several figures of the drawings.

Referring to the drawings,—in a binder of the above indicated character constructed in accordance with my invention as seen in Fig. 1, B and C are the cover members each flexibly connected respectively to the connecting pieces *b* and *c* which latter in turn are flexibly connected to the back piece D. Bound into the flexible piece *b* is a post carrying plate *b*¹ having posts *n* and *n*¹ secured therein of different sizes, the post at the left, as indicated, being the larger. Within the connecting piece *c* there may be bound a spring actuated locking mechanism such as described more fully in said above named United States Letters Patent #767,161, and in which the spring actuating locking member carries an operating part T adapted to be operated to release the locking mechanism from the notched upper ends of the posts *n* and *n*¹.

P is an impaling post carrying plate having impaling posts *p* and *p*¹ secured therein and with the post *p* larger than the post *p*¹. The plate P has openings therethrough to engage over the posts *n* and *n*¹ and permit the notched upper ends thereof to project above the plate P to receive in releasable locking engagement the locking mechanism actuated by the projecting operating member T.

Leaves such as shown in Fig. 3 at S for use in the binder are provided with openings *e*, *e*¹, *e*² and *e*³ adapted to receive the impaling posts, *n*, *p*¹, *p* and *n*¹. The notched upper end of the posts *n* and *n*¹ engage into the openings *o* and *o*¹ in the under side of the connecting piece *c* when the same is forced down thereover and the spring actuated locking mechanism serves to engage the notched upper end of the posts *n* and *n*¹ in a way to hold the connecting piece *c* in its normal locking position, being the position which the parts are caused to assume when the binder is used.

When it is desired to insert leaves the member T is operated to release the connecting piece *c* from the upper ends of the posts

n and n^1 and the plate P is then removed and the leaves inserted over either the posts n and n^1 or p and p^1 and the parts returned to their normal positions. For inserting or
 5 withdrawing a leaf at any point in the binder the operator engages the hand under, preferably all the leaves above the one to be removed, or at the point at which a leaf is to be inserted, and such leaves above each point
 10 together with the plate P with the posts p and p^1 thereon in engagement with the corresponding openings in the leaves and such pack of leaves may then be placed wrong side up as indicated in Fig. 2 and the desired leaf or leaves withdrawn after which
 15 the pack of leaves as seen in Fig. 2 is again turned right side up and the posts p and p^1 and n and n^1 engage into the openings in the separated packs of leaves thereof and the
 20 parts are returned to their normal positions and the connecting piece c forced into locking engagement with the posts n and n^1 .

It is believed from the foregoing description of my binder that the operation and
 25 method of using the same is sufficiently clear to call for no further explanation herein.

What I claim is:

1. In a loose leaf binder in combination with the frame members, a plurality of impaling posts for engaging and holding the
 30 leaves, two of said impaling posts corre-

spondingly positioned but differing in size whereby a leaf having openings corresponding in size and position to the posts is insertible over the posts in the binder with
 35 only one side thereof uppermost.

2. In a loose leaf binder in combination with the frame members, a plurality of impaling posts for engaging and holding the
 40 leaves, two of said impaling posts correspondingly positioned but differing in size and leaves for the binder having openings therein corresponding in size and position to the posts and insertible over the posts in
 45 the binder with only one and the same and corresponding side thereof uppermost.

3. A leaf for a loose leaf binder having a plurality of openings therein for receiving posts in the binder corresponding in position and size, at least two of said openings
 50 correspondingly positioned but differing in size whereby said leaf is insertible over the posts in the binder with only one side thereof uppermost and whereby also a plurality
 55 of such leaves are insertible over the posts in the binder with only one and the same and corresponding side thereof uppermost.

WM. H. COOLEY.

Witnesses:

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