

E. WIENSS & R. D. MILLER.
 LOOSE LEAF BINDER.
 APPLICATION FILED NOV. 29, 1910.

992,465.

Patented May 16, 1911.

Fig. 1.

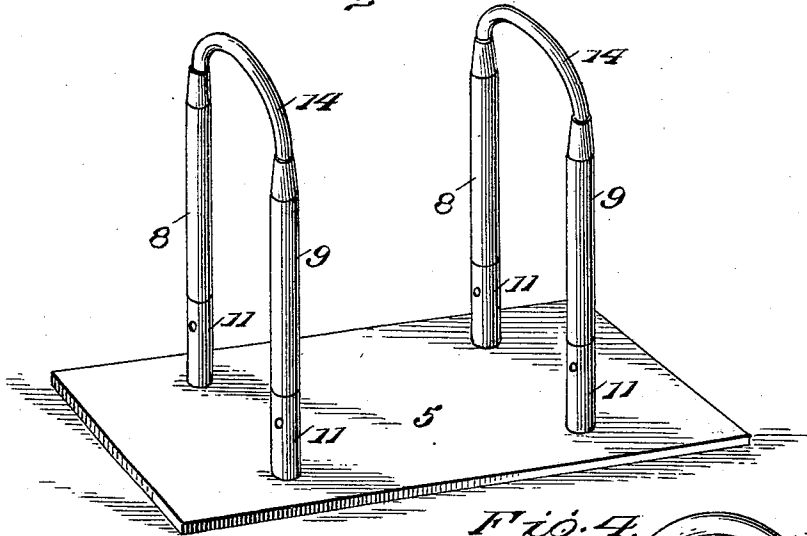


Fig. 2.

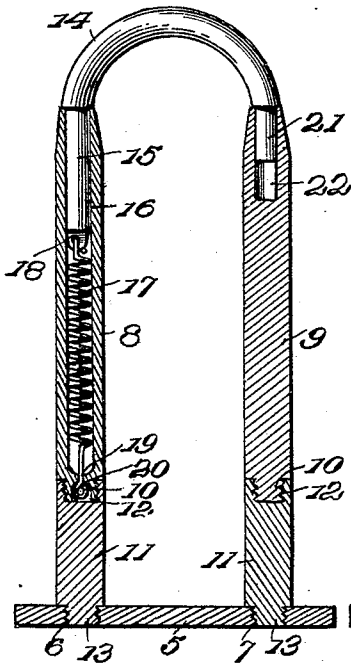


Fig. 3.

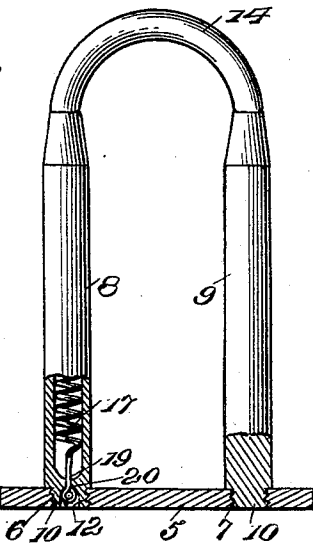
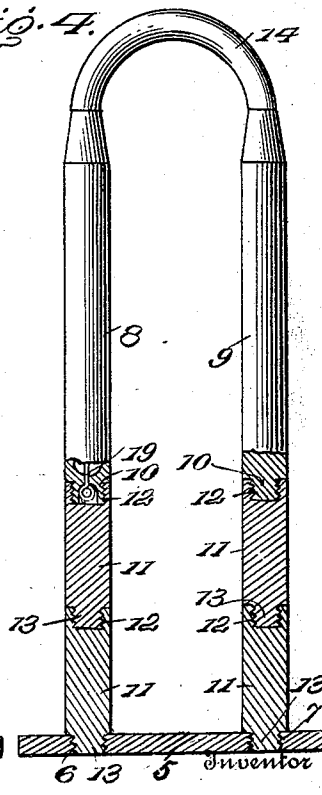


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

ERNST WIENSS AND RICHARD D. MILLER, OF SPOKANE, WASHINGTON.

LOOSE-LEAF BINDER.

992,465.

Specification of Letters Patent.

Patented May 16, 1911.

Application filed November 29, 1910. Serial No. 594,671.

To all whom it may concern:

Be it known that we, ERNST WIENSS, a subject of the Emperor of Germany, and RICHARD D. MILLER, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is a specification.

Our invention relates to certain new and useful improvements in loose leaf binder structures, and the object thereof is to provide a device of this character which may be readily adjusted to accommodate varying numbers of sheets, and by which the size of the binder may be increased or diminished as the number of sheets contained thereby varies.

It frequently happens that when a loose leaf binder is first used that comparatively few sheets are inserted therein, but as its use continues the number of sheets carried thereby is increased, so that unless a large and bulky binder is first purchased a new binder must be bought to accommodate the increase in sheets. If on the other hand the large binder was first purchased then the annoyance of having a thick book for a small number of sheets is experienced. By our invention the size of the binder can be increased with the increase in number of sheets, thus avoiding the objection above recited.

With these and other objects in view our invention consists in certain constructions, combinations and arrangements of parts, the preferred form of which will be first described in connection with the accompanying drawings and then the invention particularly pointed out in the appended claims.

Referring to the drawings wherein the same part is designated by the same reference numeral wherever it occurs Figure 1 is a perspective view of a portion of a binder constructed in accordance with our invention; Fig. 2 is a central section of one pair of the posts shown in Fig. 1; Fig. 3 is a section showing however the posts when arranged to accommodate a minimum number of leaves, and Fig. 4 is a view similar to Fig. 3, showing the parts when arranged for accommodating a greater number of leaves than that shown in Figs. 1 and 2.

5 designates the base plate which may be secured to any form of cover or base desired.

This plate is provided with pairs of thread-

ed openings 6, 7, a pair of openings being shown adjacent each end of the plate.

8, 9 are pairs of posts provided on their lower ends with the reduced screw threaded portions 10, of a size to fit the screw threaded openings 6 and 7 in the plate 5, as shown in Fig. 3. We also provide a plurality of sections 11, each of which has a threaded recess 12 in one end, and a threaded projection 13 at the other, the recess 12 being of a size to receive the threaded projections 10, and the threaded projection 13 being the same size as the threaded extensions 10, so that one or more sections 11 may be threaded onto the ends of the posts 8 and 9, and then threaded into the openings 6 and 7 to increase the height of the post from, for instance, the size shown in Fig. 3 to the size shown in Figs. 2 and 4, and by adding additional sections the post may be increased to a height greater than that shown in Fig. 4.

14 designates a U-shaped loop provided at one end with a reduced extension 15 extending into a bore 16 formed in the upper end of the post 8.

17 is a coil spring connected at one end to the eye 18 formed in the end of the reduced section 15, and its other end secured to a wire loop held in the lower end of the bore 16 by means of the annular shoulder 20 formed within the bore. The other end of the U 14 is provided with a reduced section 21 adapted to enter into a bore 22 formed in the upper end of the post 9.

From the foregoing description of our construction it will be seen that by means of the sections 11 the heights of the post may be varied to suit varying conditions, and that the height of the post can be adjusted in accordance with the number of leaves that it is desired to bind. Furthermore it will be noted that we have provided a simple and efficient means for securing the spring for the U shaped section in its position in the bore of the post, and that the U shaped sections may be rotated without distorting the spring for the reason that the wire loop will turn in its seat. We realize that considerable variation is possible in the details of construction and arrangement of parts without departing from the spirit of our invention, and we therefore do not intend to limit ourselves to the specific form shown and described.

Having thus described our invention what

we claim as new and desire to secure by Letters Patent is:

1. A leaf binder, comprising a base, a pair of posts connected to the base, one of said posts being bored, the lower end of the bore being reduced to form an annular inwardly extending shoulder, a spring having one end extended, said extension terminating in a loop with the annular shoulder surrounding the extension above the loop, a U-shaped loop adapted to connect the upper ends of said posts, one end of said U-shaped loop extending into the bore and having the free end of the spring connected thereto.
2. A leaf binder, comprising a base, a pair of posts, one of said posts being bored, the lower end of the bore being reduced to form an annular inwardly extending shoulder, a spring having one end extended, said extension terminating in a loop with the annular

shoulder surrounding the extension above the loop, a U-shaped loop adapted to connect the upper ends of said posts, one end of said U-shaped loop extending into the bore and having the free end of the spring connected thereto, the posts being also provided with threaded projections at their lower ends, and extensions for said posts, each comprising a body section having a threaded recess at one end adapted to engage the threaded extension of a post, and a threaded extension at the other end adapted to engage a threaded opening in the base.

In testimony whereof we affix our signatures in presence of two witnesses.

ERNST WIENSS.

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Witnesses:

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GUSTAV A. SIPES.

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