G. C. MOORE.

LOOSE LEAF BINDER.

APPLICATION FILED FEB. 2, 1909.

944,893. Patented Dec. 28, 1909.

FIG. 1

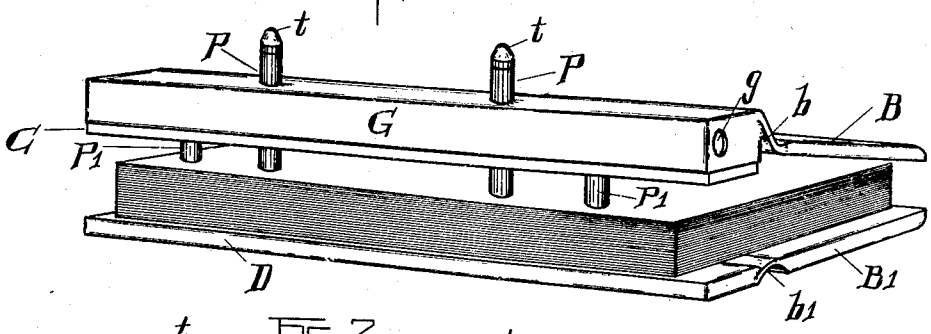


FIG. 2

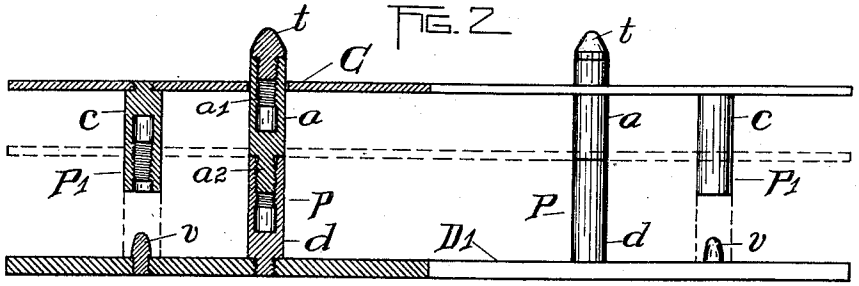


FIG. 3

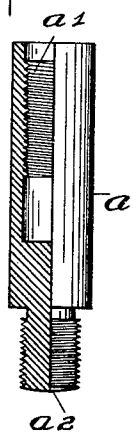


FIG. 4

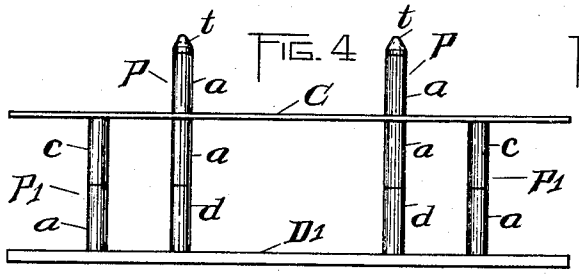


FIG. 5

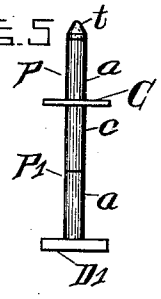


FIG. 6

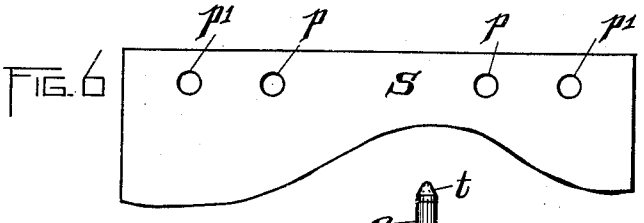


FIG. 7

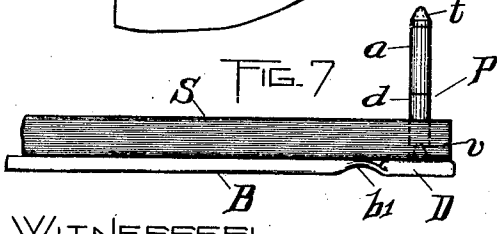
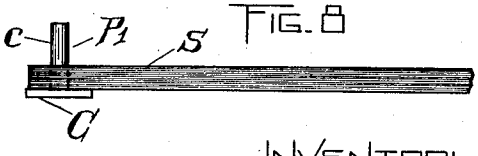


FIG. 8



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UNITED STATES PATENT OFFICE.

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LOOSE-LEAF BINDER.

944,893. Specification of Letters Patent. **Patented Dec. 28, 1909.**

Application filed February 2, 1909. Serial No. 475,573.

To all whom it may concern:

Be it known that I, GAIUS C. MOORE, a citizen of the United States, and a resident of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Loose-Leaf Binder, of which the following is a specification.

This invention relates to loose leaf binders and pertains more especially to that class of such binders in which the posts are sectionally extensible, that is, built up in sections which may preferably be similar and interchangeable, for the purpose of adapting the binder to hold any desired number of leaves, and changing the distances between the covers accordingly.

The object of my present invention is to provide a binder of the class described, in which the clamping plate carried by the upper cover section may be removed from the rest of the binder and thereafter the leaves in the binder divided at any desired point and those leaves above such desired point all removed together and held in positive alinement by mechanism adapted also to control their ready re-insertion in the binder in perfect alinement with the leaves already therein. For this purpose I make use of a plate beneath the clamping plate and provide such plate with sectional posts adapted, when in proper position, to be held in alinement, preferably regardless of the leaves engaged by the posts thereon.

The accompanying drawings illustrate a loose leaf binder made in accordance with my invention and are as follows:—Figure 1 is a perspective view of the binder as seen from the rear and one end. Fig. 2 shows in elevation the post carrying plates separated and the posts therein and with all the parts to the right of the center shown in full, while to the left of the center, such parts are shown in vertical central section, the closed positions for the parts being indicated in dotted lines. Fig. 3 shows partially in vertical central section and partially in side view one of the sections of the impaling posts. Fig. 4, which is drawn to a reduced scale, shows the parts seen in Fig. 2, but with each of the posts therein as having been elongated by the addition of another section thereto. Fig. 5 is an end view of the parts seen in Fig. 4. Fig. 6, drawn to the same scale as Fig. 4, is a plan view of a part of a leaf adapted to use in such binder. Fig. 7 shows the parts of the lower cover and the impaling posts carried thereby with leaves engaged by such posts, but with the upper post carrying plate removed, such upper post carrying plate with leaves held thereby, being shown in Fig. 8, as having been removed from the binder, after first of course, removing the cover and the thereto attached clamping plate.

Similar letters refer to similar parts throughout the several views.

Referring to the drawings:—B is the upper cover flexibly united at b to the inclosed clamping bar G which is preferably bound with the same material as the rest of the cover.

B^1 is the lower cover section flexibly united at b^1 to the member D comprising the similarly bound bottom plate D^1.

The internal mechanism of the clamping bar within the member G is substantially that shown in United States Patent No. 872,968, issued Dec. 3, 1907, to Milan W. Patric, and is operable by means of a suitable key inserted in the key hole g and by means of which the member G may be clamped to the posts P at any desired point vertically thereon.

Within the member D is contained the bottom plate D^1 in which are rigidly secured the lower sections d of the sectional posts P.

C is the upper plate having holes therethrough adapted to receive the posts P and having also rigidly secured therein the upper sections c of the sectional posts P^1. The posts P and P^1 are sectionally extensible to any desired length by the addition of sections a which may be screwed therein, one of such sections being seen in Fig. 3 and all of such sections being exactly alike. The plate D' is provided with tapered studs v which are adapted to engage in the openings or holes at the lower ends of either of the sections c of the posts P^1, or the lowermost sections a of the posts P^1, when any desired number of such sections a are added thereto.

To add to the appearance of the binder, in the threaded holes a^1 in the upper ends of the sections a of the posts P, there may be inserted threaded terminal pieces t adapted to facilitate the insertion thereover of the plate C or the member G.

In using my binder, the clamping mechanism within the member G is released from the posts P by means of the key inserted

within the opening g therefor and the cover B with the member G is removed from the posts P and thereafter the plate C is removed from the posts P and the posts P are made of the desired length by the insertion of the proper number of sections a having the reduced and externally threaded portion a^2 adapted to be screwed into the threaded hole a^1 in the other end of the adjacent and similar section a. The posts P^1 are also similarly built up to the desired length as indicated in the drawings. In removing any desired leaf from the binder the cover B with the member G is removed and the leaves separated at the desired point and all above such point are removed with the plate C as indicated in Figs. 7 and 8 when the desired leaf may be removed or others inserted. In this way a leaf may be inserted or removed at any desired point within the binder.

From the foregoing description it is believed that the construction and method of using my binder is sufficiently clear to call for no further explanation.

In the following claims, I shall make use of the term "sectional impaling post" meaning thereby an impaling post built up in sections, which are preferably similar and interchangeable, whereby the post may be made of different desired lengths, and also the term "additional impaling post sections" meaning thereby sections of impaling posts adapted to be detachably secured or added to the posts already in the binder member.

In Fig. 6, there is shown a part of one of the leaves S having openings therethrough p and p^1 adapted to engage over the posts P and P^1 respectively.

What I claim is:—

1. A series of substantially similar and interchangeable impaling post sections adapted to be brought into interlocking engagement successively one with another to form impaling posts each comprising a plurality of such sections; two binder plates, each carrying impaling posts formed of such impaling post sections and one of such binder plates provided with holes to receive the impaling posts, carried by the other plate and also with clamping mechanism adapted to engage and clamp such posts extending therethrough carried by the other plate, such binding post sections, such plates and such clamping mechanism so coöperatively proportioned that, when the posts, carried by the plate provided with the clamping mechanism extend substantially to the other plate, the posts carried by such other plate will extend upwardly through the holes therefor in the plate carrying the clamping mechanism so as to be engaged thereby at all times upon the addition to or removal from each of the posts carried by each of such plates of the same number of such impaling post sections.

2. A series of substantially similar and interchangeable impaling post sections adapted to be brought into interlocking engagement successively one with another to form impaling posts each comprising a plurality of such sections; two binder plates, each carrying impaling posts formed of such impaling post sections and one of such binder plates provided with holes to receive the impaling posts, carried by the other plate, and also with clamping mechanism adapted to engage and clamp such posts extending therethrough carried by the other plate, such binding post sections, such plates and such clamping mechanism so coöperatively proportioned that, when the posts, carried by the plate provided with the clamping mechanism extend substantially to the other plate, the posts carried by such other plate will extend upwardly through the holes therefor in the plate carrying the clamping mechanism so as to be engaged thereby at all times upon the addition to or removal from each of the posts carried by each of such plates of the same number of such impaling sections and means carried by the plate carrying the posts extending through the plate provided with the clamping mechanism for releasably engaging the posts carried by such plate provided with clamping mechanism independent of the number of sections in such last named posts.

GAIUS C. MOORE.

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