

No. 831,011.

PATENTED SEPT. 11, 1906.

G. LABARRE.
LOOSE LEAF BINDER.
APPLICATION FILED APR. 4, 1906.

Fig. 1.

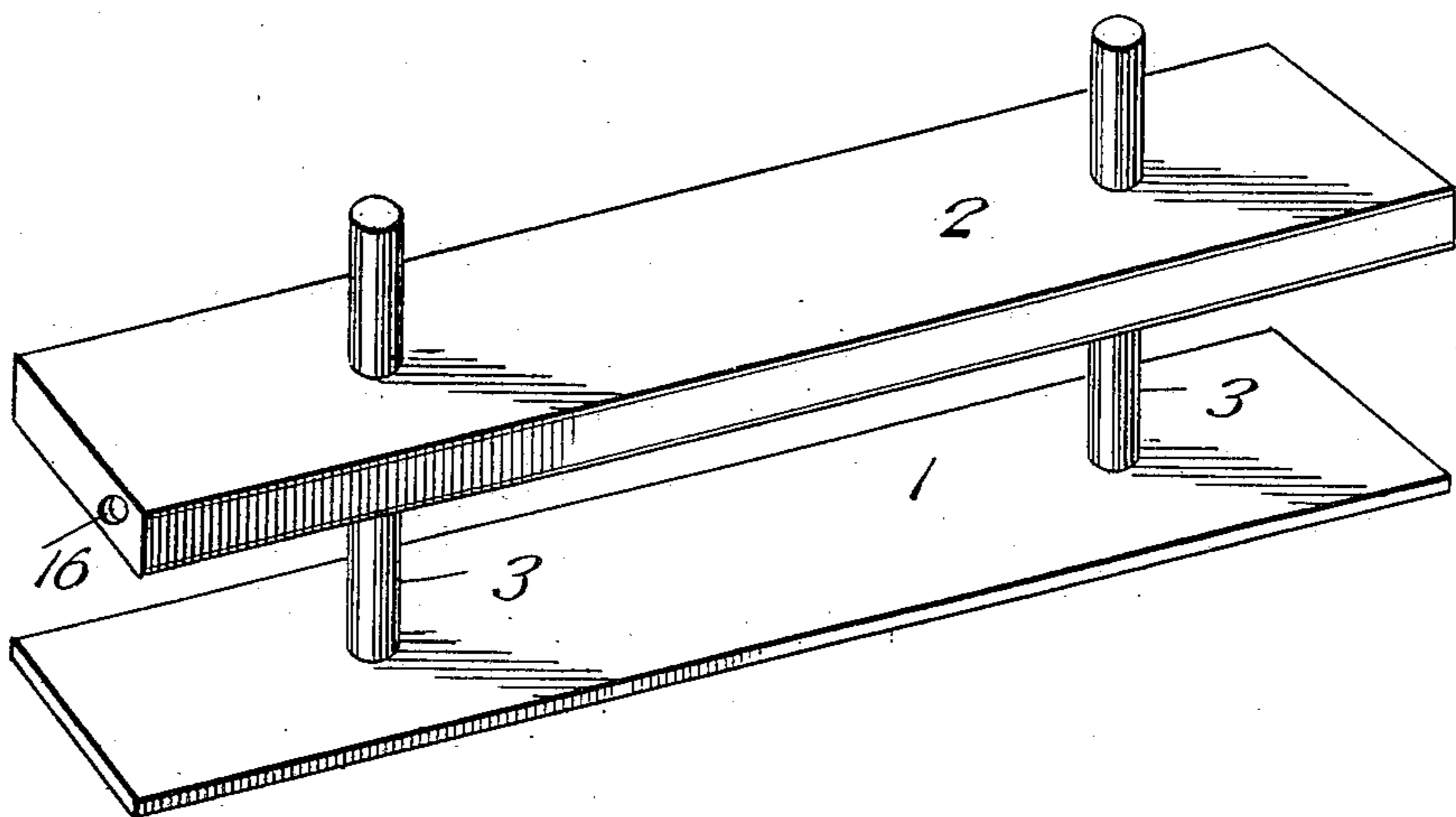


Fig. 2.

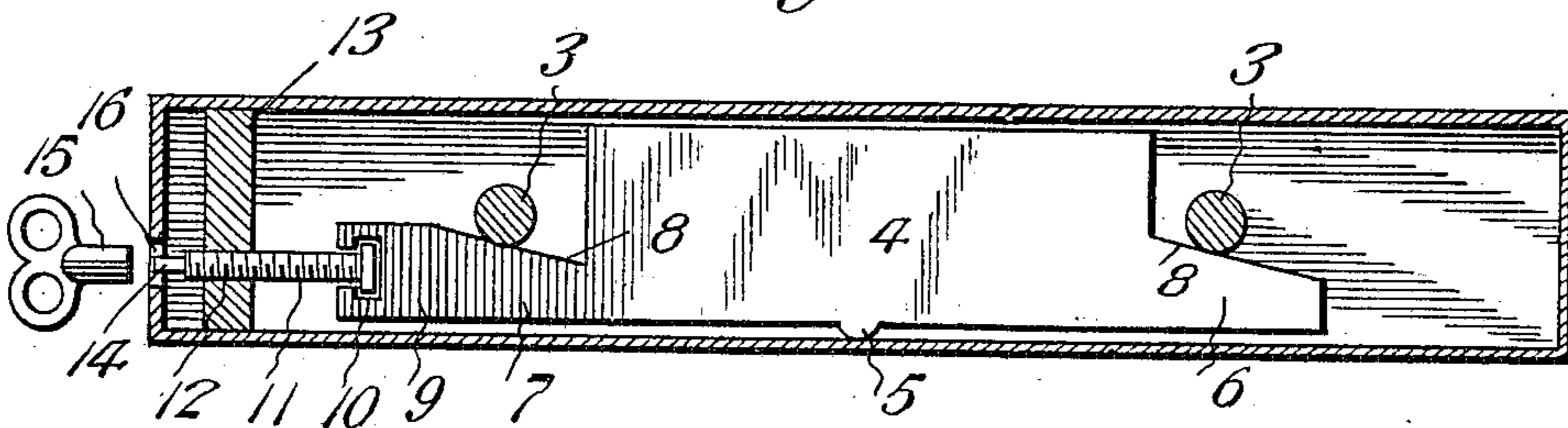
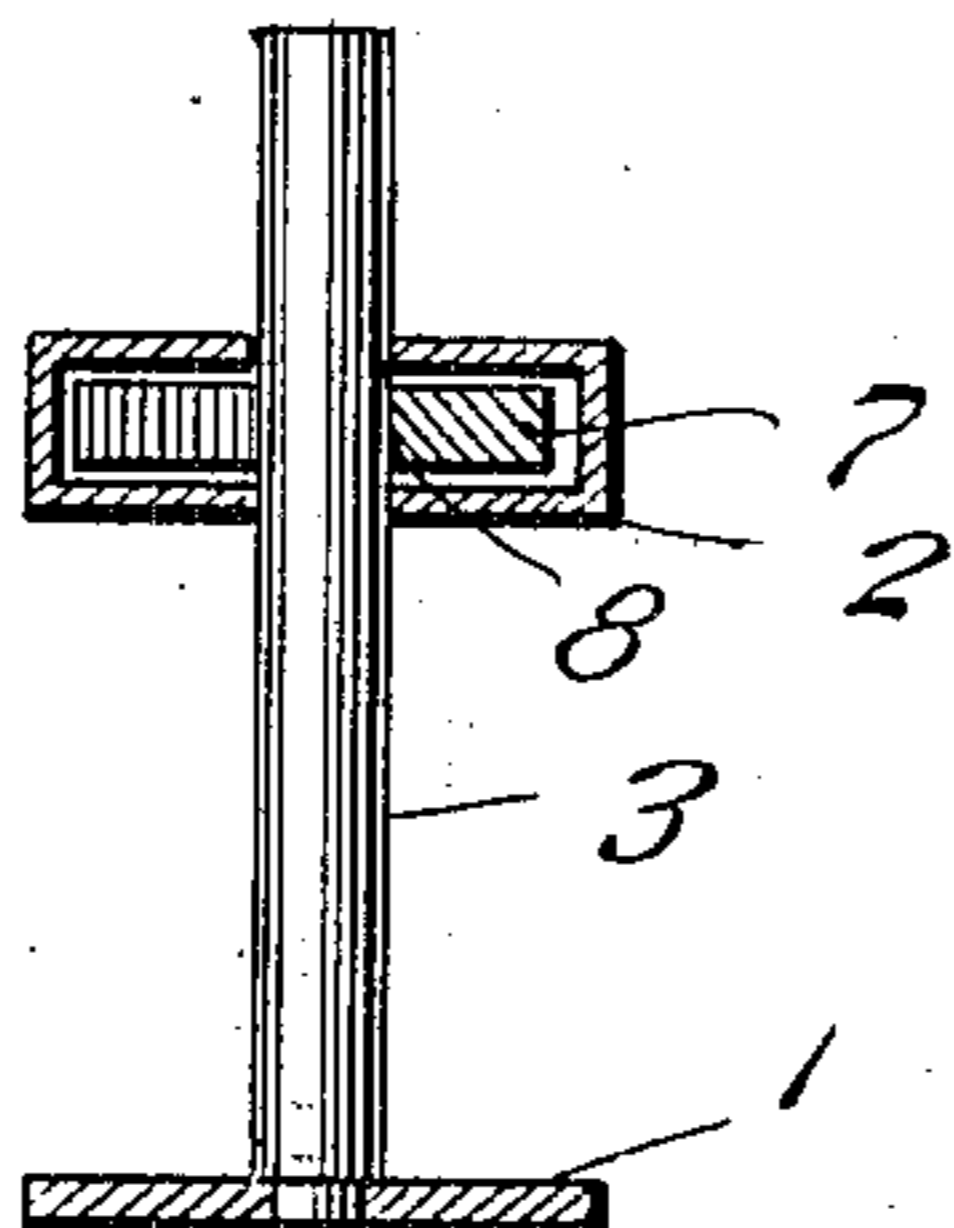
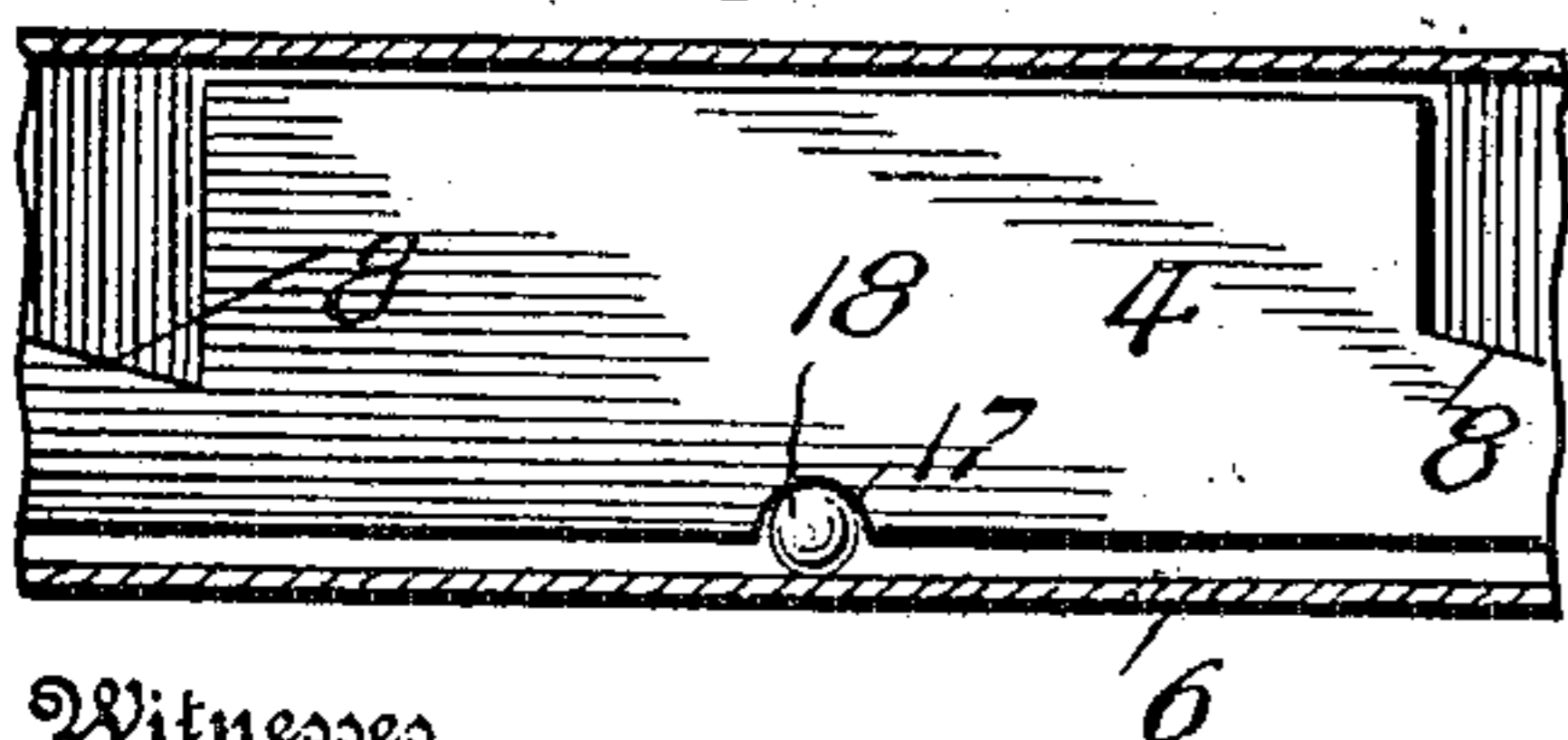


Fig. 3.

Fig. 4.



Inventor

George Labarre

By

Victor J. Evans

Attorney

Witnesses

Geo. Ackmann
D. W. Gould.

UNITED STATES PATENT OFFICE.

GEORGE LABARRE, OF NEW ORLEANS, LOUISIANA.

LOOSE-LEAF BINDER.

No. 831,011.

Specification of Letters Patent.

Patented Sept. 11, 1906.

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To all whom it may concern:

Be it known that I, GEORGE LABARRE, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Loose-Leaf Binders, of which the following is a specification.

The invention relates to an improvement in loose-leaf binders of the class in which the loose sheets are held between a pair of clamping-plates.

The main object of the present invention is the provision of means whereby the movable clamping-plate may be locked relative to the fixed clamping-plate to prevent unauthorized removal of any of the sheets carried on the binder.

The invention will be described in the following specification, reference being had particularly to the accompanying drawings, in which—

Figure 1 is a perspective view of a binder constructed in accordance with my invention. Fig. 2 is a longitudinal section through the movable clamping-plate. Fig. 3 is a vertical section through the binder. Fig. 4 is a broken longitudinal section showing a modified form of fulcrum-support.

Referring to the drawings, my improved binder comprises clamping-plates 1 and 2, hereinafter referred to as the "fixed" clamping-plate and "movable" clamping-plate, respectively. The fixed clamping-plate is a comparatively thin strip of material of the size desired, which is adapted to form the base-plate of the binder. The usual posts 3 are secured to the plate 1, projecting therefrom in spaced parallel relation for the reception of the loose sheets. The posts 3 are preferably of solid sectional formation and firmly seated or secured in the plate 1. The movable clamping-plate 2 is of hollow formation, being preferably, however, equal in exterior dimensions to that of the plate 1. The upper and lower walls of plate 2 are formed with openings arranged to receive the posts 3, whereby to permit the necessary movement of the plate 2 relative to the plate 1.

The present invention is designed, primarily, to providing means for securing the movable clamping-plate in fixed relation to the posts, whereby to prevent removal of said plate from the posts when serving as a binding medium. To this end I arrange within the plate 2 a locking-plate 4 of slightly

less width than the interior dimension of the plate 2 and centrally provided with a fulcrum projection 5, extending from one edge of the plate and adapted in use to bear against one of the side walls of the clamping-plate. The locking-plate is of less length than the distance between the openings in the clamping-plate arranged for the reception of the post, and from each end of the locking-plate project wings 6 and 7, respectively, of a length to project beyond said post-openings. The wings project from the plate in alinement with one of the side edges thereof and are of a width considerably less than that of the plate, the edges next the post-opening being inclined at 8 at an angle to the respective ends of the locking-plate. The wing 7 is extended, as at 9, and formed with an undercut recess 10, which recess is adapted to receive the headed end of an operating-rod 11, the construction providing for the independent revolution of the rod without separation from the locking-plate. The rod extends longitudinally of the plate 2 and is exteriorly threaded to engage a threaded opening 12, formed in a partition 13, fixed within the clamping-plate adjacent one end thereof. The free end of the rod 11 terminates adjacent one end wall of the clamping-plate 2, said end being preferably reduced and squared at 14 to permit its operation by a key 15, introduced through an opening 16 in the end wall of the clamping-plate.

The inclined edges 8 of the respective wings are when the parts are in position adapted to engage the posts 3, it being noted that said edges 8 incline in the same direction relative to the plane of the locking-plate.

In use, after the sheets are in position on the posts and the movable clamping-plate 2 has been adjusted to bear with the desired pressure upon said sheets the rod 12 is rotated through the medium of the key to force the locking-plate longitudinally of the clamping-plate, thereby wedging the inclined edges 8 of the wings against the posts 3 and serving to bind the clamping-plate in position on the posts against removal except in the event of obvious operation of the rod 11.

In connection with the above operation it is to be particularly noted that the locking-plate has a rocking bearing on one side wall of the clamping-plate and by virtue of this bearing the wedging action of the inclines 7 of the lips is equalized on the two posts, as

any unequal pressure from one of the inclines due to wear or imperfect formation will be equalized and distributed to the other incline through the rocking of the plate on its fulcrum.

While preferring that the clamping-plate and posts be constructed of metal, it is obvious that they may be constructed of any other desired material and that, if desired, the operation of the rod 11 may be prevented by any well-known form of lock, whereby to secure the device against unauthorized manipulation of the locking-plate to release the sheets.

Referring particularly to Fig. 4, it will be noted that the fulcrum for the locking-plate is of ball construction, the central portion of the lower edge of the plate being recessed at 17 to partly receive a hardened ball 18, whereby to provide the necessary support for the locking-plate.

Having thus described the invention, what is claimed as new is—

1. A loose-leaf binder comprising a fixed clamping-plate, posts rising therefrom, a hollow clamping-plate arranged to engage the posts, and a locking-plate fulcrumed within the clamping-plate and adapted to frictionally engage the posts to prevent disengagement of the movable clamping-plate therefrom.

2. A loose-leaf binder comprising a fixed

clamping-plate, posts secured thereto, a hollow clamping-plate arranged to engage the posts, a locking-plate movable longitudinally of and fulcrumed within the hollow clamping-plate, wings projecting from the ends of said locking-plate and having inclined edges to engage the posts, and means for moving the locking-plate longitudinally of the clamping-plate.

3. A loose-leaf binder comprising a fixed clamping-plate, posts rising therefrom, a hollow clamping-plate arranged to engage the posts, a locking-plate fulcrumed within the hollow clamping-plate, lips projecting from the ends of the locking-plate and having inclined edges to bear against the posts, and means for moving the locking-plate longitudinally of the clamping-plate.

4. A movable clamping-plate for loose-leaf binders comprising a hollow body, and a locking-plate fulcrumed within said body and adapted for movement longitudinally of the body, said plate being provided with wings having inclined edges arranged to frictionally engage the posts of the binder.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE LABARRE.

Witnesses:

DELRAILLE H. THÉARD,
GUS. A. LLAMBIAS.