

No. 816,421.

PATENTED MAR. 27, 1906.

J. B. BARLOW.
LOOSE LEAF BINDER.
APPLICATION FILED AUG. 22, 1904.

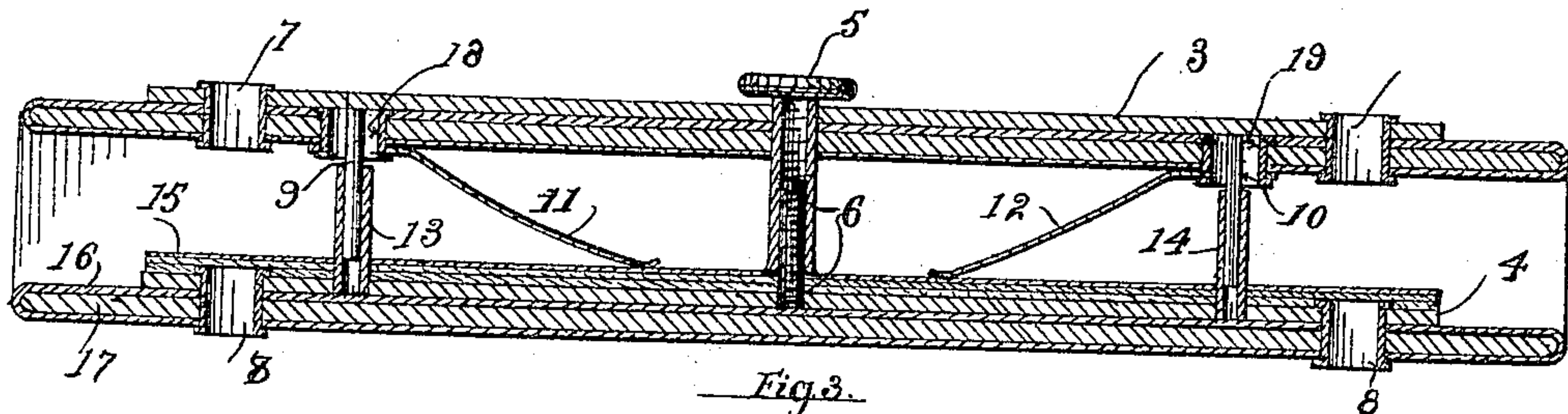


Fig. 3.

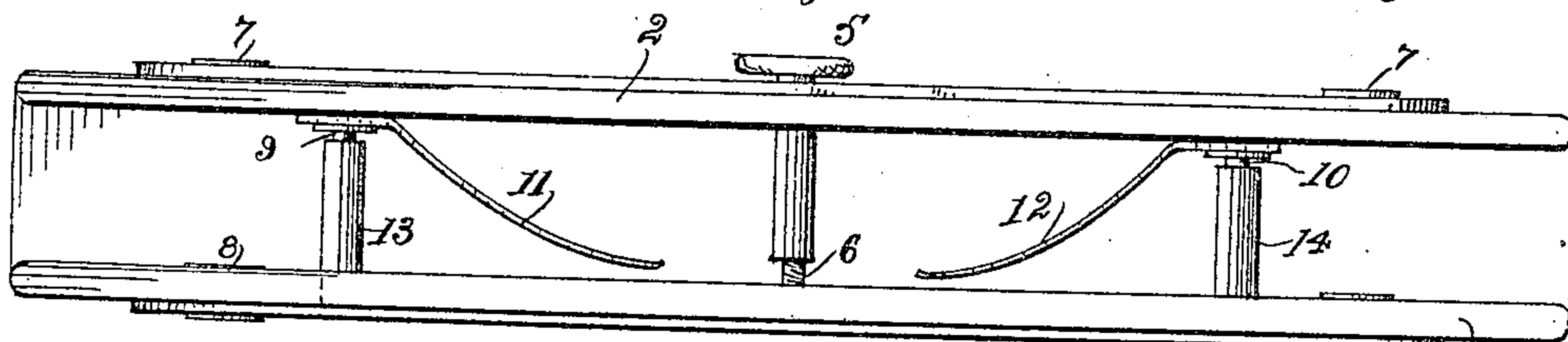


Fig. 4.

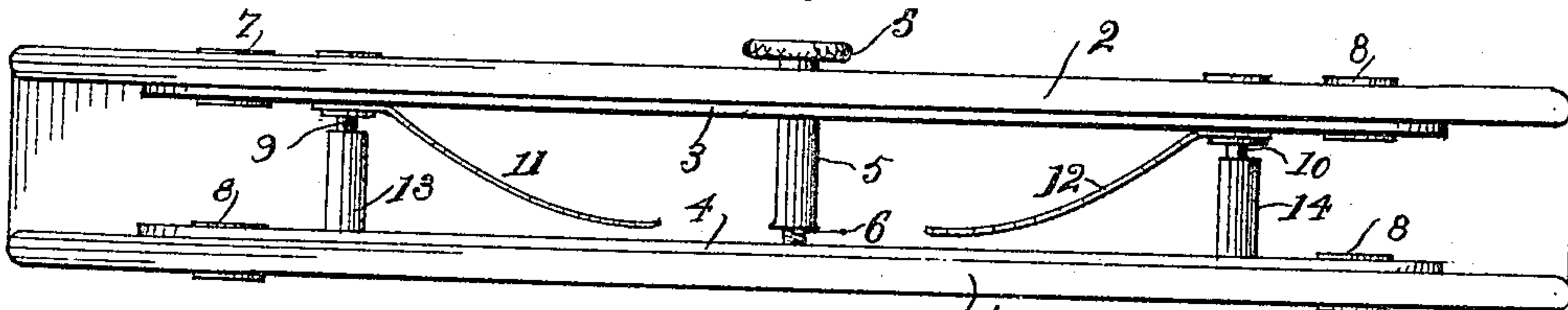


Fig. 5.

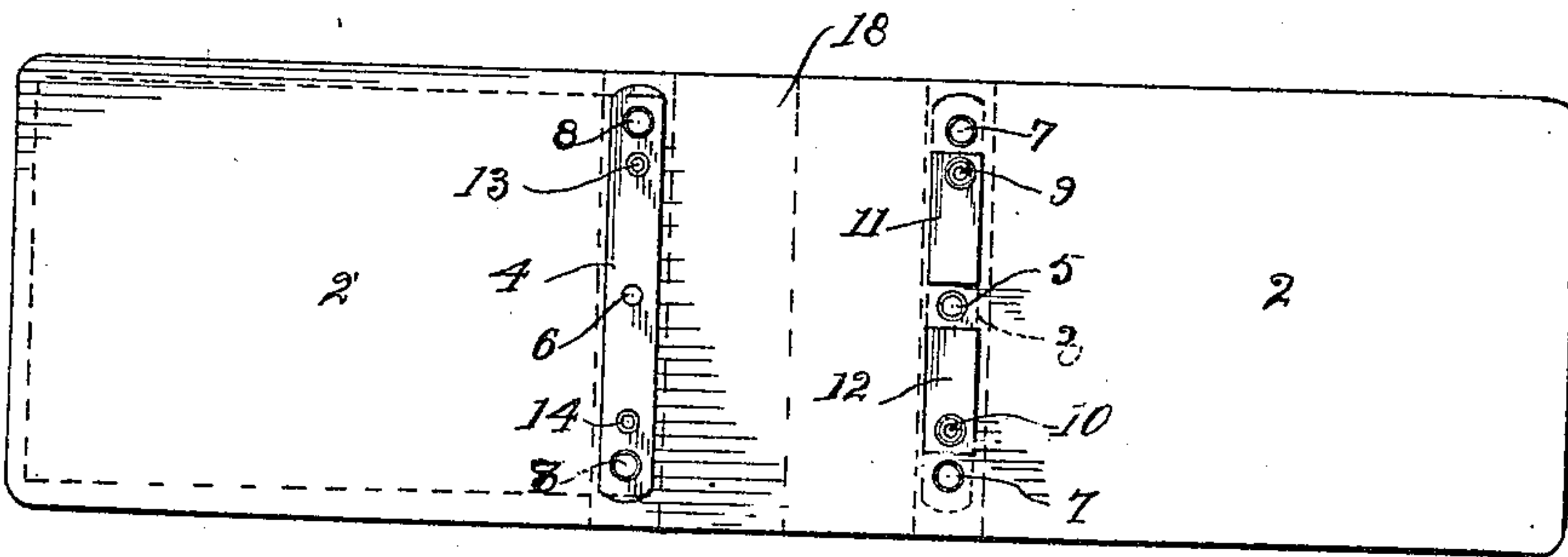


Fig. 2.

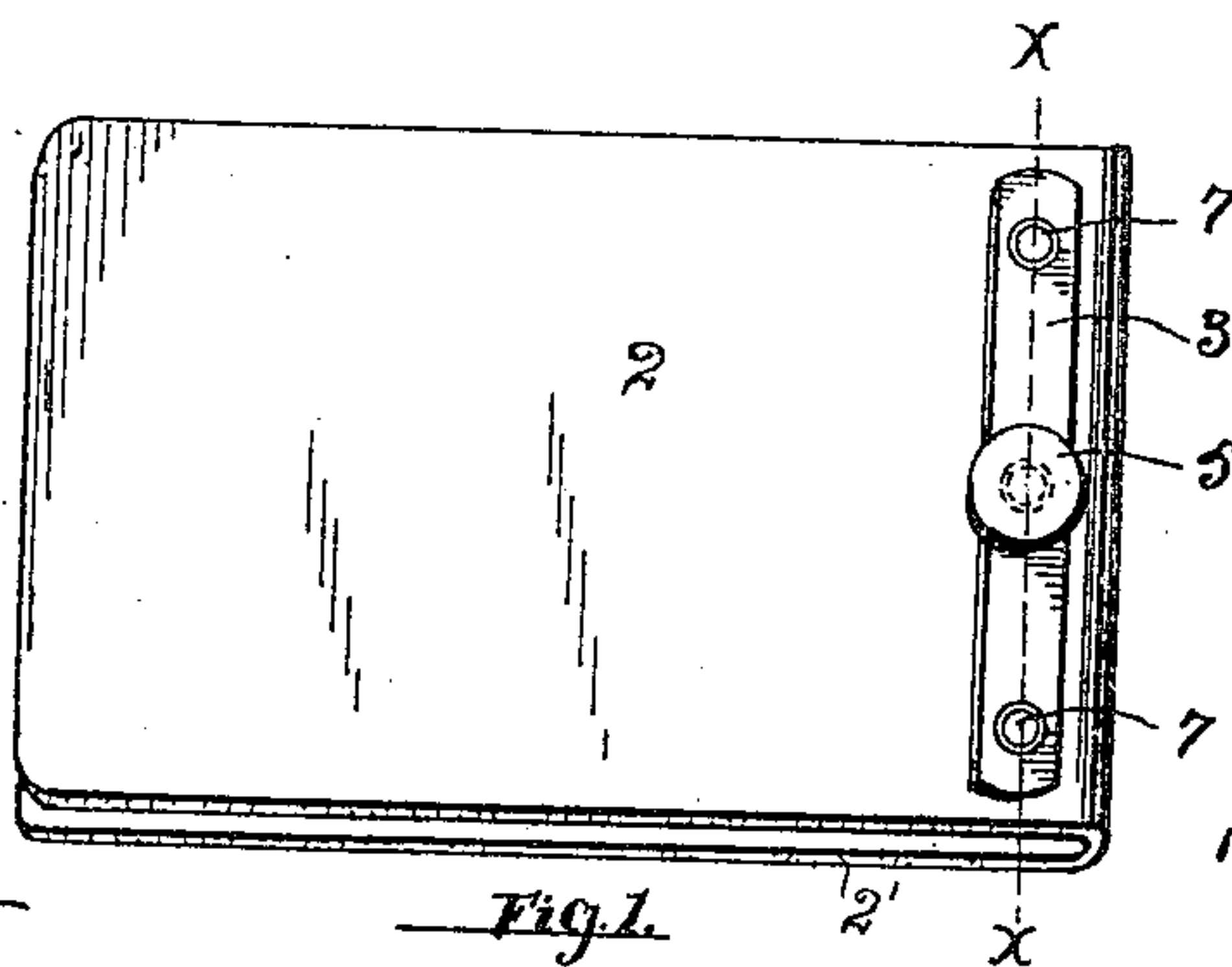


Fig. 1.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN B. BARLOW, OF GRAND RAPIDS, MICHIGAN.

LOOSE-LEAF BINDER.

No. 816,421.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed August 22, 1904. Serial No. 221,725.

To all whom it may concern:

Be it known that I, JOHN B. BARLOW, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Loose-Leaf Binders, of which the following is a specification.

This invention relates to a new and useful binder for binding together, temporarily and otherwise, loose sheets of paper or leaves; and the invention consists in the combination and arrangement of parts hereinafter described and claimed.

The objects of my invention are, first, to simplify the construction of loose-leaf binders and dispense with portions usually found in such binders; second, to furnish means for retaining the leaves securely in the binder and which will allow the leaves to be removed singly or otherwise; third, to combine with a cover and binding-plates a pressure bearing-spring for retaining the leaves compactly in position within the binder; fourth, other objects pointed out in the specification. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a binder constructed in accordance with my invention, the same showing the binder closed and also illustrating one of the binding-plates and the means for tightening the same. Fig. 2 shows an inside plan view of the binder when thrown open. Fig. 3 shows a sectional view on the line *xx* of Fig. 1, Figs. 1, 2, and 3 illustrating my preferred form of the binder. Fig. 4 shows a front view of the binder having both the binding-plates on the outside of the cover, and Fig. 5 shows a front view of the binder with the binding-plates both on the inside of the cover. Figs. 3, 4, and 5 are shown on an enlarged plan or scale for the purpose of more clearly showing the arrangement of the plates and the means for tightening the same.

Similar numerals refer to similar parts throughout the several views.

In the drawings, 2 and 2' show the opening flaps of the cover, and 18 shows the back. This back is preferably flexible, excepting that the same is preferably stayed at the point which receives the binding-plates, as hereinafter described.

3 shows the upper binding-plate, which in Figs. 1 and 3 is shown on the upper side of the cover as the same is illustrated in the figure. This cover is properly the upper cover.

This plate consists of a narrow strip, preferably of metal, and is secured to the cover, as shown in the drawings, by means of eyelets, but may be secured in any suitable manner.

4 shows a binding-strip upon the lower cover, which in the example of my invention shown in Fig. 3 is placed on the inside of the cover. This strip is also composed of metal and is provided with two hollow posts secured thereto, together with a central screw-threaded stud or post, which is hereinafter described. In combination with the upper plate or cover I use the screw-threaded tubular bolt 5, which is provided, preferably, with a thumb-nut, so as to be readily grasped between the thumb and finger. The internal thread of the bolt 5 engages with the external thread of the bolt 6, said bolt 6 being securely attached to the plate 4, preferably at a central position, and extends upwardly. The tubular part of the nut 5 passes through the plate 3 and extends downwardly so as to engage with the bolt 6, the lower end of the tubular part of the nut 5 being slightly enlarged, so that it cannot draw through the plate 3, but is preferably permanently attached thereto. With the exception of the enlarged lower portion, this bolt 5 moves freely within the opening through the plate 3.

In the drawings, 7 7 show eyelets for attaching the plate 3 to the cover; but any suitable means may be used, and 8 8 show the eyelets for attaching the plate or binding-strip 4 to the cover, which, however, may be attached in any suitable manner.

9 and 10 are downwardly-projecting posts or studs secured to the plate 3 and adapted to register with the upwardly-extending posts 13 and 14 and to fit easily therein.

13 and 14 are tubular posts secured to the plate 4 and adapted to receive the downwardly-extending posts 9 and 10 when the binder is used for retaining the loose sheets.

Attached either to the plate or beneath the plate 3 are two pressure, (springs shown by 11 and 12.) These may be attached in any suitable manner and have their free ends extending inwardly and adapted to press upon the loose leaves which are held in the binder, the leaves being shown in Fig. 3 by 15. The cover of the binder may be made in any suitable manner; but I prefer to make the back thereof flexible, as shown by the covering 16, and to strengthen the same at the point where the binding-plates are attached by means of some stiffening, as shown by 17 in

Fig. 3, the position of these stiffening-strips being shown by dotted lines in Fig. 2. This allows the flaps to open along the lines of the stiffening-strips. I do not, however, wish to
 5 confine myself to this particular method of construction, as the cover of the book may be constructed in any suitable manner.

In using my invention the leaves are provided with proper openings to fit upon the
 10 lower plate, so that the holes in the leaves engage with the hollow posts and also with the central stud 6. The cover is then closed.

The tubular screw 5 being brought into position to engage with the screw-threaded post
 15 6 and the downwardly-projecting posts or studs 9 and 10 engaging with the hollow posts 13 and 14 brings the springs 11 and 12 in contact with the leaves retained in the binder. In order to tighten the binder upon
 20 the leaves, the tubular nut 5 is turned down a sufficient distance to retain the leaves securely in the binder, these springs 11 and 12 being of sufficient length to retain any number of leaves from one upward to the capacity
 25 of the binder. By this construction I am enabled to use a single nut for binding and loosening the loose sheets, and the loose sheets may be taken from the binder one or more at a time as required.

30 In the drawings and description I have shown and described my preferred form; but it will be evident that variations from the exact form may be used without departing from the spirit of the invention.

35 Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. In a loose-leaf binder including covers, plates oppositely arranged on the covers, eye-
 40 lets connecting the plates to the latter, one of said plates having hollow posts intermediate the eyelets, studs intermediate the eyelets on the other plate and adapted to slidably en-

gage in said hollow posts, a threaded pin intermediate the said posts, an interiorly-
 45 threaded post terminating exteriorly of the cover in a thumb-nut and adapted to engage the pin for adjusting the covers, spring-fingers carried by one of the covers and eyelets in the cover forming passages for the
 50 studs and for securing said fingers in position.

2. In a loose-leaf binder, covers, one of the same provided with openings, plates mounted on said covers and arranged opposite one
 55 another, hollow posts on one of said plates, studs on the other plate and passing through the openings in the cover for slidably engaging the hollow posts, a threaded pin and an interiorly-threaded post engaging one another intermediate the hollow posts, said
 60 threaded post terminating exteriorly of the cover in a thumb-nut, spring-fingers intermediate the posts and eyelets in said openings forming means for securing the fingers to the
 65 cover.

3. In a loose-leaf binder including an upper and lower cover flexibly connected, plates arranged on the upper face of the said
 covers, hollow rivets for securing said plates to the cover and arranged to register with
 70 one another, hollow posts carried by the lowermost plate, said upper plate provided with openings forming passages, studs on the upper plate passing through said openings and slidably engaging the hollow posts, a threaded
 75 pin intermediate said posts, and an interiorly-threaded post terminating exteriorly of the cover in a thumb-nut and adapted to engage the threaded pin for adjusting the covers.

In testimony whereof I have hereunto set
 80 my hand in presence of two subscribing witnesses.

JOHN B. BARLOW.

Witnesses:

EDWARD TAGGART,
 MARY S. TOOKER.