

No. 854,802.

PATENTED MAY 28, 1907.

E. E. CLARK.  
TEMPORARY BINDER.  
APPLICATION FILED JULY 2, 1906.

Fig. 1.

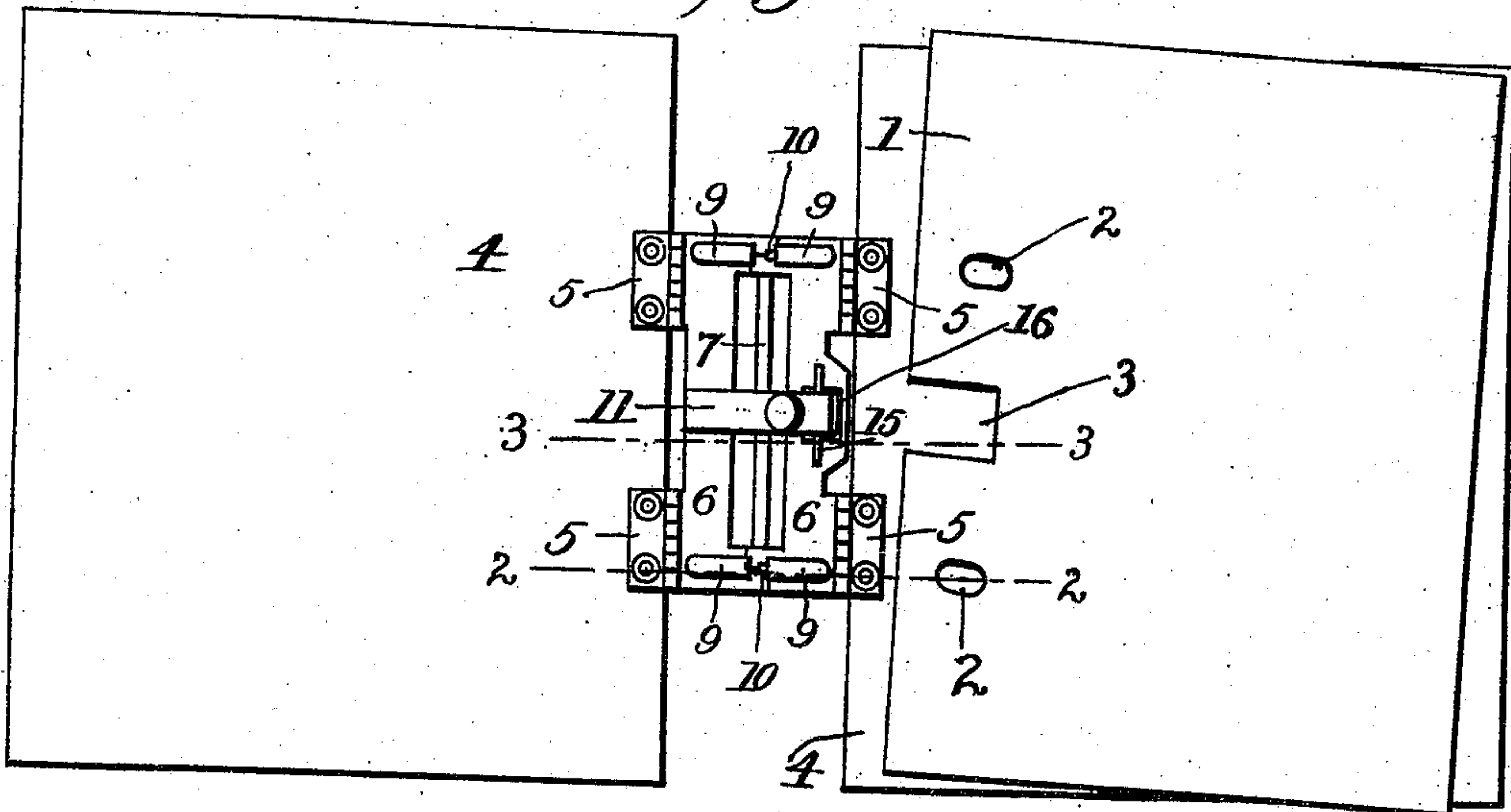


Fig. 2.

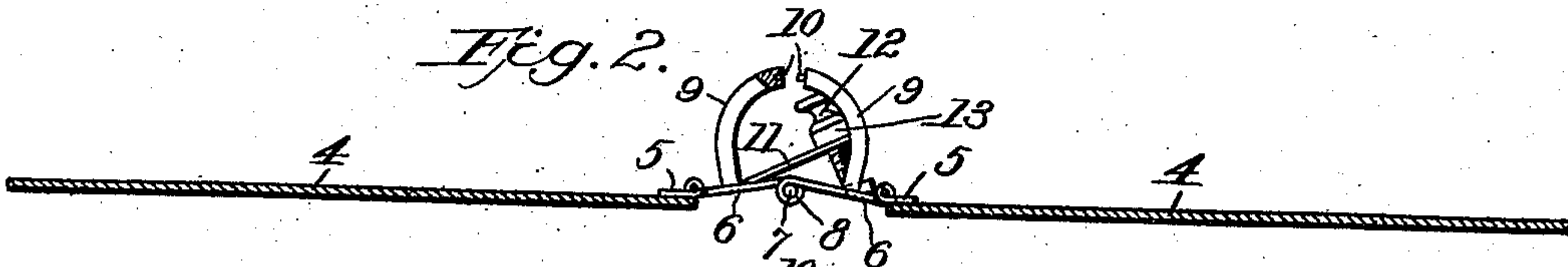


Fig. 3.

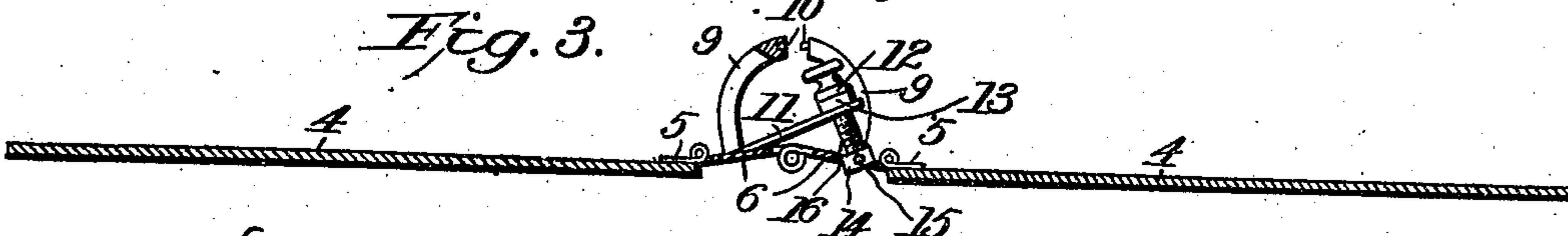


Fig. 4.

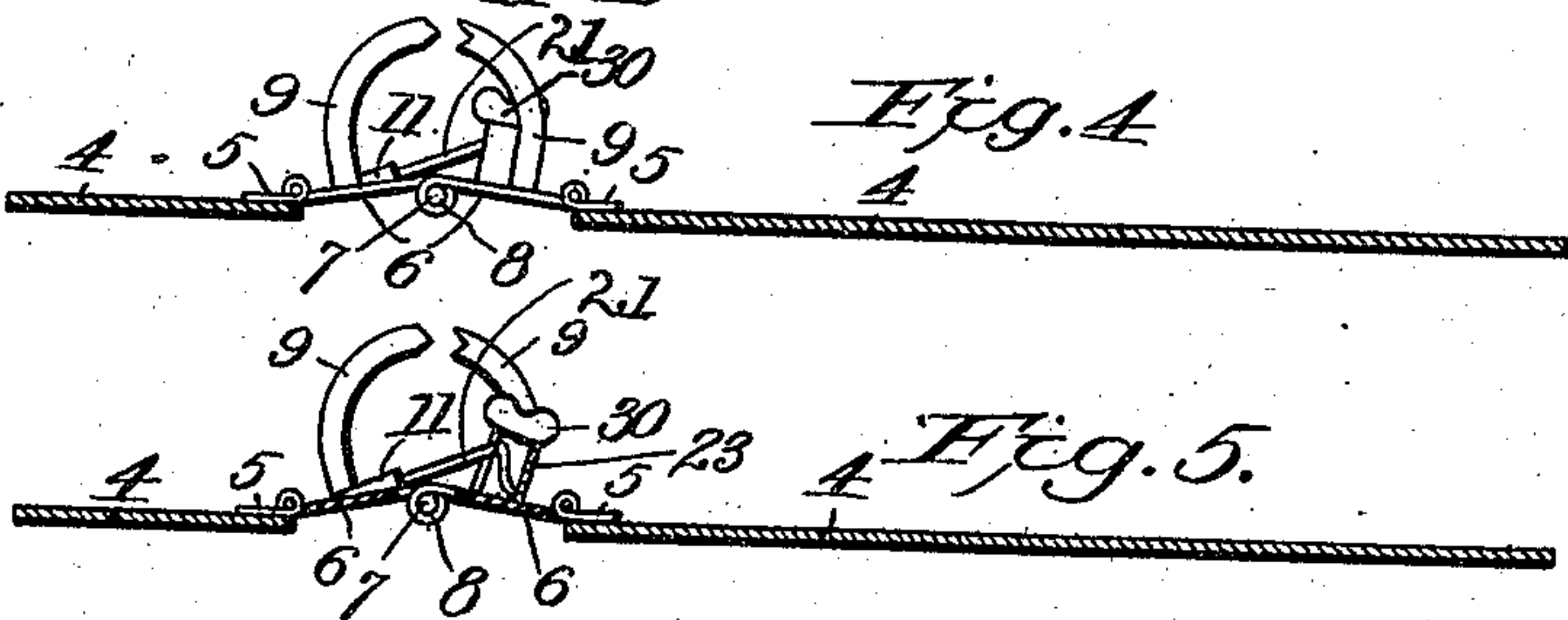
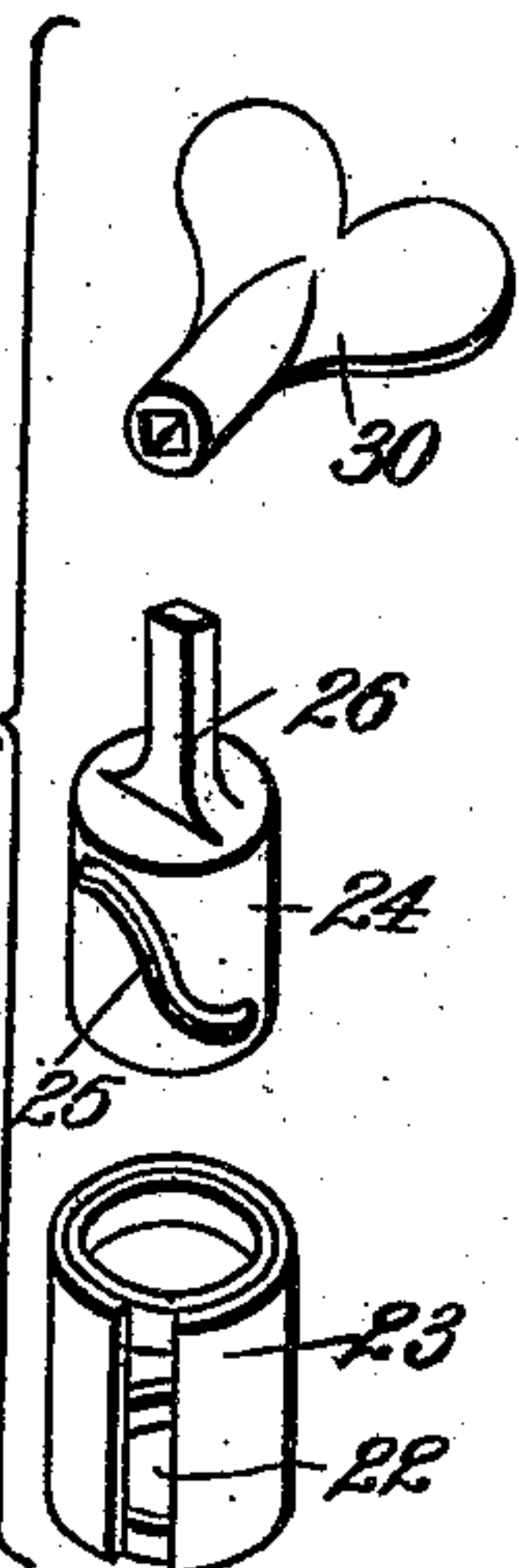


Fig. 5.

Fig. 6.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ERNEST E. CLARK, OF ST. LOUIS, MISSOURI.

## TEMPORARY BINDER.

No. 854,802.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed July 2, 1906. Serial No. 324,352.

*To all whom it may concern:*

Be it known that I, ERNEST E. CLARK, a citizen of the United States, and a resident of St. Louis, State of Missouri, have invented certain new and useful Improvements in Temporary Binders; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with a claim particularly specifying the novelty.

This invention relates to paper files and binders of the "loose leaf" type, and more especially to such as have pins and hinged backs; and the object of the same is to produce a binder having means for readily detaching and inserting leaves, and one amplification of the idea having the key for this purpose removable so as to constitute a check on the insertion or removal of leaves.

The following specification describes my idea amplified in two of its forms, as illustrated in the accompanying drawings wherein—

Figure 1 is a plan view of the binder in one form complete, one of the leaves being shown as slightly removed. Fig. 2 is a section on the line 2—2. Fig. 3 is a section on the line 3—3. Fig. 4 is a section of another form, corresponding with the sectional line 2—2. Fig. 5 is a similar section of said form, corresponding with the sectional line 3—3. Fig. 6 is a perspective detail of the parts of the lock shown in Figs. 4 and 5, slightly separated from each other and with the detachable key removed.

Referring to the drawings, the numeral 1 designates the leaves, each having two holes 2 and a notch 3—the former for the reception of the interlocking pins, and the latter for the reception of the lock. These holes and notches may be made in the leaves by any approved means forming no part of the present invention.

4, 4, designate the covers, to the adjacent edges of which are attached the outer leaves of the hinges 5 (preferably two to each cover) while the inner leaves of each pair are preferably connected by a bar or strap 6 to give strength to the binder. Said two straps 6 are in turn hinged to each other by a pintle 7 extending through eyes 8 on the straps. The result of this construction is that the covers are hinged to the straps and

may be moved independently, and the straps are hinged to each other for the purpose set forth below so that they may move relatively to each other and independent of the movements of the covers.

Projecting from the straps at points preferably near their upper and lower ends are two pair of curved pins 9 which rise upward from the back of the binder and curve inward toward each other, their meeting ends having pin and socket connections 10 as seen in Fig. 2, or point and notch connection as seen in Fig. 4, or any suitable type of engagement with each other which will cause each pair when united to present an unbroken surface so that the leaves of the book can be moved from side to side as usual.

Rising obliquely from one strap 6 and projecting across and above the other is a rigid bar 11, and in the drawings I have shown two forms of lock by means of which the extremity of this bar can be drawn toward or elevated above the other strap—the former movement turning the straps on their pintle so that the tips of the pins are brought together, and the latter movement swinging the straps in opposite direction so as to separate the tips of the pins and permit the insertion or removal of leaves. One form of said lock is best seen in Fig. 3, and consists of a thumb-screw 12 threaded through a nut 13 on the outer end of the bar 11, with its lower end swiveled in a block 14 which is pivotally mounted on pins 15 rising from the other strap 6 so that it may rock slightly within a hole 16 in this strap. Turning the thumb-screw in one direction draws down on the bar 11, and turning it in the opposite direction has the opposite effect. Another form of the lock is shown in Figs. 4 and 5. Here the bar 11 has a reduced tip 21 extending into an upright slot 22 formed in the side of a cup 23 which is mounted upon the right-hand strap 6. Within this cup oscillates a swivel 24 having in one side an oblique or ogee slot 25 which also receives the tip of the bar 11. If this slot is made of ogee shape, or oblique and with its extremities carried out slightly on the horizontal, it will be obvious that when the tip of the bar stands at one end the strap members are locked in one position, and the reverse is the fact when the tip of the bar stands in the other end of the



slot; a partial turning of the swivel causing said tip to travel up and down within the slot 22 of the cup.

The head or handle 30 of the swivel may be fast thereon as shown in Fig. 5, or may be removable therefrom as shown in Fig. 6, as by squaring the upper end of the swivel as at 26 and shaping the shank of the handle accordingly, in which case said handle becomes a key and can be removed after its use.

The binder being opened with its covers flat upon the desk, the key is turned so as to cause the bar 11 to rise and the pins to open; the holes 2 in the leaves 1 are then threaded over the points of said pins and turned down on one cover; the key is rotated in the opposite direction so that the tips of the pins are then brought together; and finally, if the removable key shown in Fig. 6 is employed, it can be withdrawn to lock the leaves in place.

The parts are of the desired sizes, proportions and materials, and considerable departure may be made in the exact details of construction without sacrificing the idea.

What is claimed as new is:

1. In a temporary binder, the combination with the covers, a pair of straps hinged to each other and each of them independently hinged to one of said covers, and pins mounted on said straps in pairs and having points adapted to engage each other; of a bar projecting rigidly from one strap across and above the other strap, and means carried by the latter for raising and lowering the outer end of said bar, for the purpose set forth.

2. In a temporary binder, the combination with the covers, a pair of straps hinged to each other and each of them independently hinged to one of said covers, and pins mounted on said straps in pairs and having points adapted to engage each other; of a bar projecting rigidly from one strap across and above the other strap, and means carried by the latter for positively raising and lowering the outer end of the bar and for holding it in either position, for the purpose set forth.

3. In a temporary binder, the combination with the covers, a pair of straps hinged to each other and each of them independently hinged to one of said covers, and pins mounted on said straps in pairs and having points adapted to engage each other; of a bar projecting rigidly from one strap across and above the other strap, and a member rotatably mounted on the latter and engaging the free end of said bar for raising and lowering it, for the purpose set forth.

4. In a temporary binder, the combination with the covers, a pair of straps hinged to each other and each of them independently hinged to one of said covers, and pins

mounted on said straps in pairs and having points adapted to engage each other; of a bar projecting rigidly from one strap across and above the other strap, a member rotatably mounted on the latter and engaging the outer end of the bar for the purpose set forth, and a key removably engaging said member.

5. In a temporary binder, the combination with two members flexibly connected, and a pair of pins mounted on them and having points adapted to engage each other; of a bar on one member projecting rigidly over and above the other and across the line of connection between them independent of the pins, and positive means for adjusting the outer end of said bar with reference to the last-named member, for the purpose set forth.

6. In a temporary binder, the combination with two members flexibly connected, and a pair of pins mounted on them and having points adapted to engage each other; of a bar on one member projecting rigidly over and above the other, a cup on the latter having a vertical slot into which the tip of the bar extends, and means within the cup for positively raising and lowering said tip.

7. In a temporary binder, the combination with two members flexibly connected, and a pair of pins mounted on them and having points adapted to engage each other; of a bar on one member projecting rigidly over and above the other, a cup on the latter having a vertical slot into which the tip of the bar extends, a swivel mounted within the cup and having an oblique slot engaging said tip, and a handle on the swivel.

8. In a temporary binder, the combination with two members flexibly connected, and a pair of pins mounted on them and having points adapted to engage each other; of a bar on one member projecting rigidly over and above the other, a cup on the latter having a vertical slot into which the tip of the bar extends, a swivel mounted within the cup and having an ogee slot engaging said tip, and a handle on the swivel.

9. In a temporary binder, the combination with two members flexibly connected, and a pair of pins mounted on them and having points adapted to engage each other; of a bar on one member projecting rigidly over and above the other, a cup on the latter having a vertical slot into which the tip of the bar extends, a swivel mounted within the cup and having an oblique slot engaging said tip, and a key removably engaging the upper end of the swivel.

10. In a temporary binder, the combination with two members flexibly connected, and a pair of pins mounted on them and having points adapted to engage each other; of

a bar on one member projecting rigidly over and above the other, a cup on the latter having a vertical slot into which the tip of the bar extends, a swivel mounted within the cup and having an ogee slot engaging said tip, and a key removably engaging the upper end of the swivel.

In testimony whereof I have hereunto subscribed my signature this the 23rd day of June, A. D. 1906.

ERNEST E. CLARK.

Witnesses:

ALBERT FISCHER,  
TONY MASSA.