

W. H. CARROLL & F. LEMMON.
TEMPORARY BINDER.

Patented Sept. 3, 1889.

Fig 1.

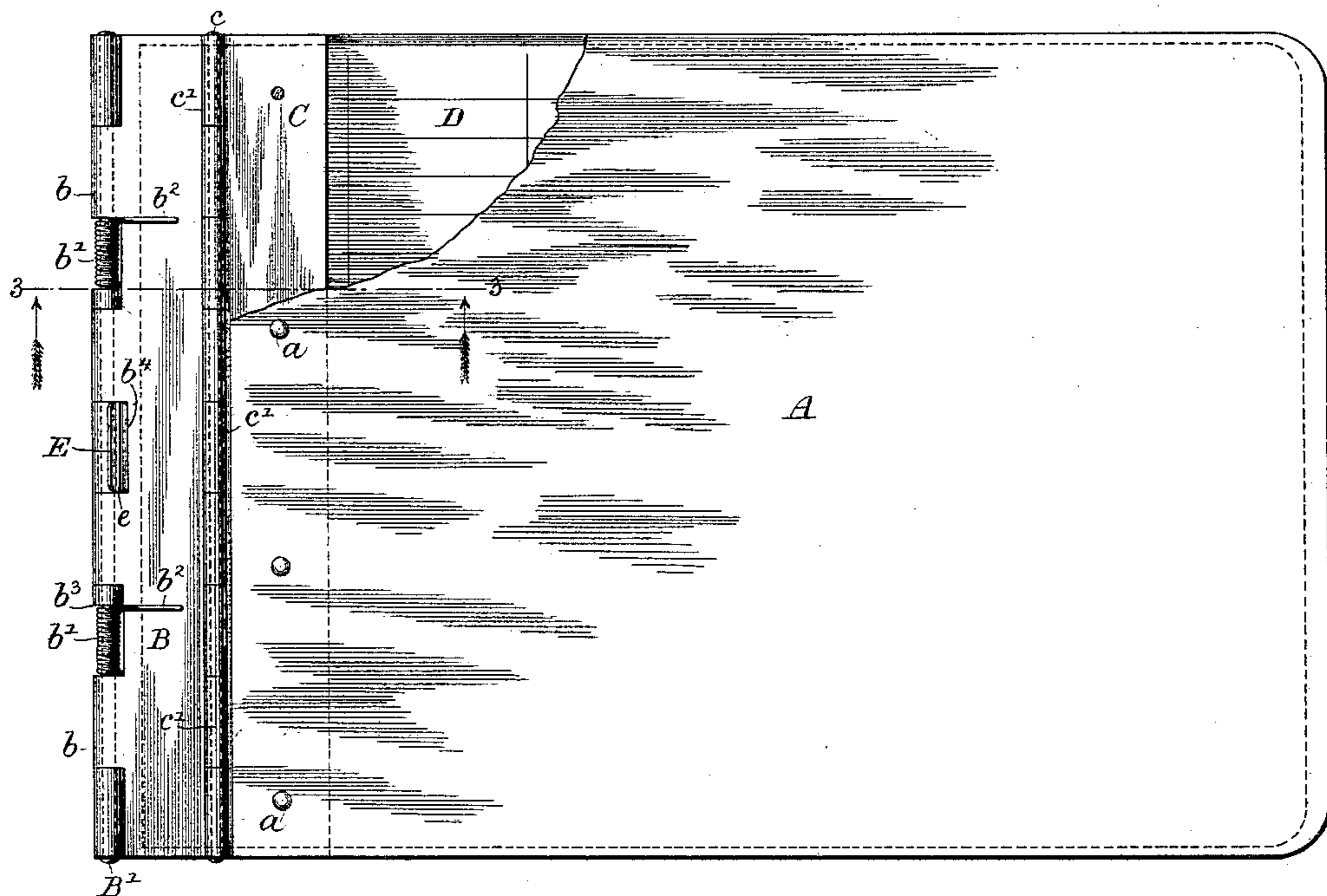


Fig 2.

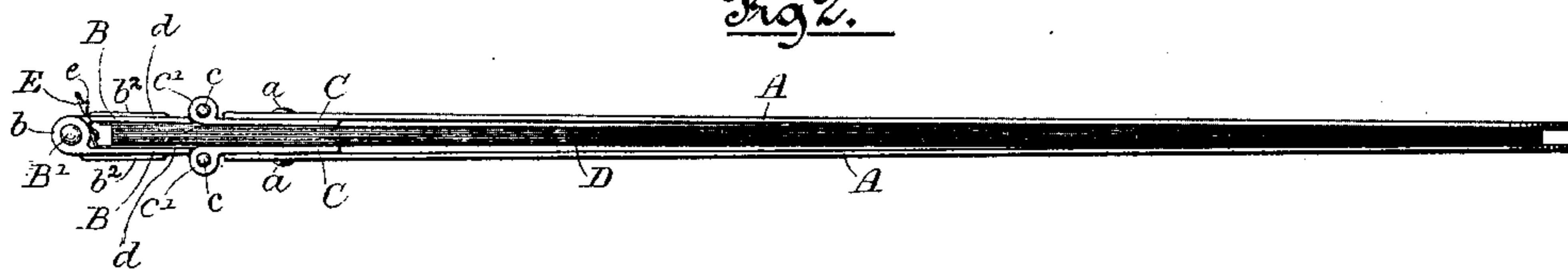


Fig 3.

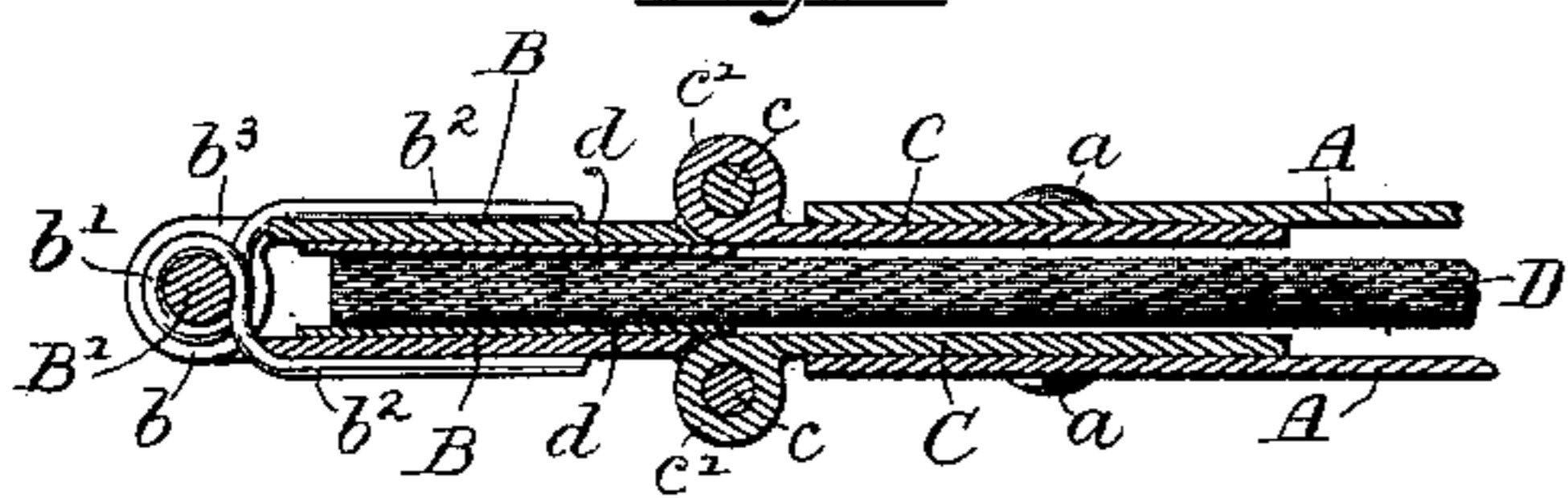


Fig 4.

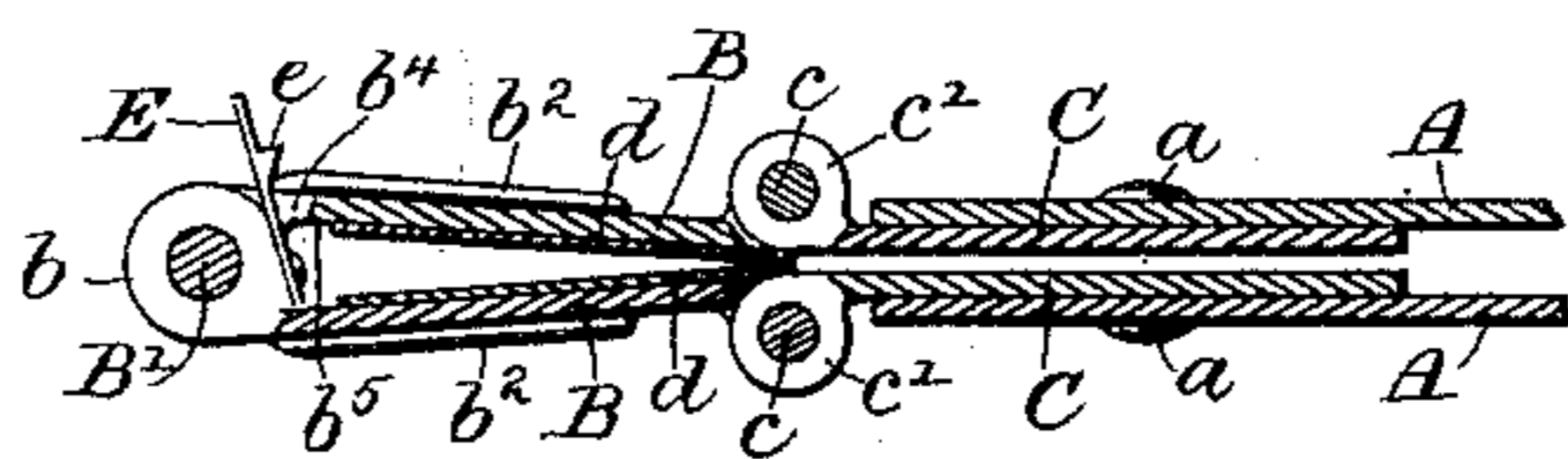
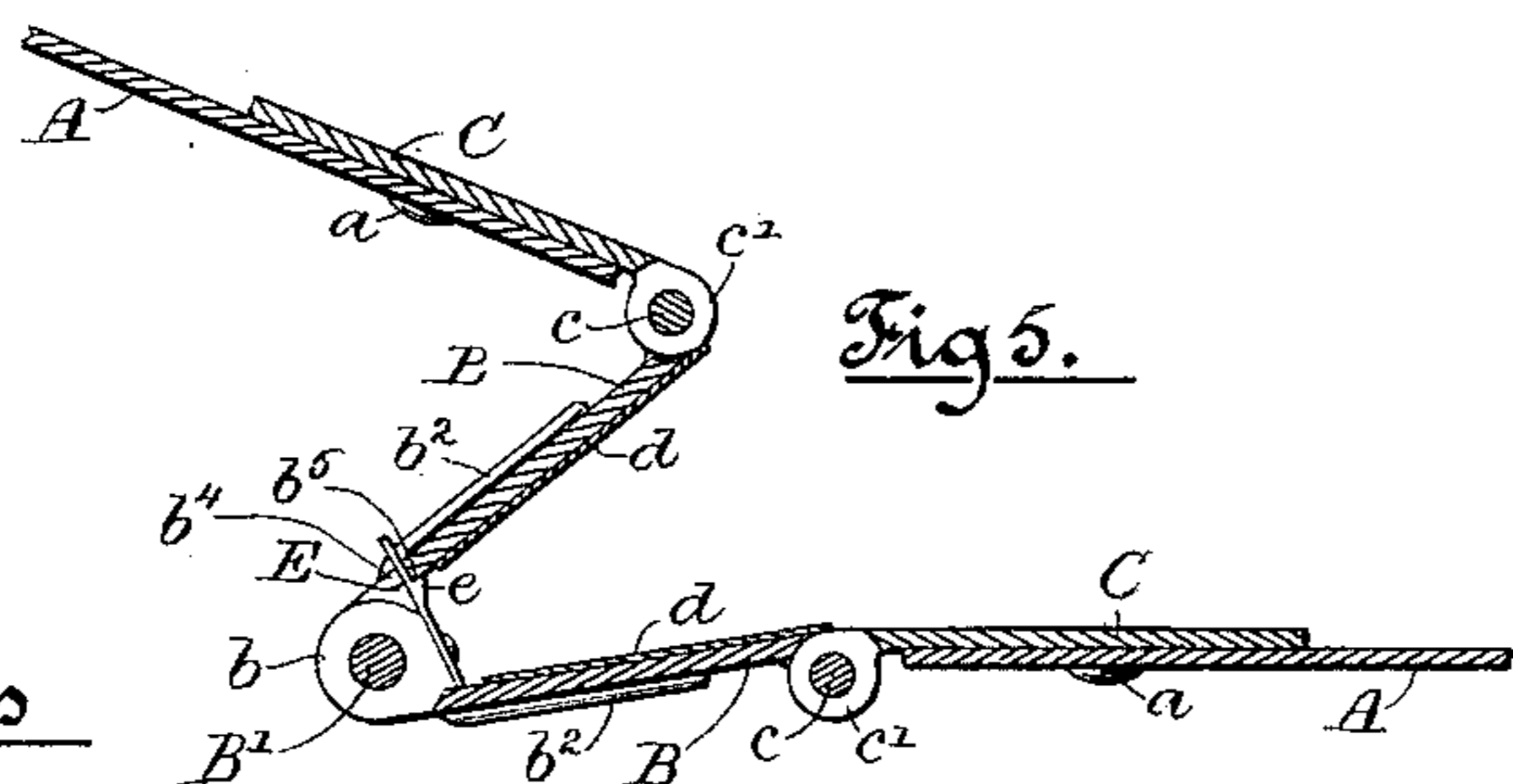


Fig 5.



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WILLIAM H. CARROLL AND FRANK LEMMON, OF CHICAGO, ILLINOIS.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 410,532, dated September 3, 1889.

Application filed February 12, 1889. Serial No. 299,654. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. CARROLL and FRANK LEMMON, both of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Temporary Binders; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in that class of devices employed in book-binding whereby blank leaves are inserted between the binding and held rigidly in place for temporary use, and from which said leaves may be easily withdrawn. In the devices now in use it has been customary to employ two relatively-narrow leaves hinged or otherwise secured together. The moving parts of these leaves have been joined to the pasteboard or other stiff covers of the book proper by some flexible material—such as leather, paper, canvas, or various kinds of cloth—whereby a flexible hinge is formed between the leaves of the “binder” and the covers of the book. It has been found in practice that these flexible hinges very soon become worn, easily tear, and that the covers of the book easily become detached entirely from the binding-leaves.

One of the objects of our invention is to provide a means for retaining or temporarily binding the blank pages or sheets of the book and providing for their ready detachment, while at the same time to so securely fasten the covers of the book and the hinged leaves as to prevent any breakage at the hinged part or any detachment of said covers from said hinged part on account of wear of the hinge.

The invention also consists in the novel means employed for closing the leaves of the temporary binder, to grasp and hold the blank sheets of paper, and, further, in the means employed for maintaining said leaves in an open position when it is desired to remove the said pages and insert new ones in their stead. These and other features of our invention will be more readily understood by the accompanying drawings and the

description thereof, and will be more specifically pointed out in the appended claims.

In the drawings, Figure 1 illustrates our invention as applied to a book, showing the flat side of the same. Fig. 2 illustrates the same, showing the edge of the book. Fig. 3 is an enlarged sectional view of a portion of the same, taken vertically upon the line 3 3 of Fig. 1. Fig. 4 is a similar view with the blank leaves removed. Fig. 5 is a view of the parts shown in Fig. 4, with the leaves open for the insertion of blank leaves or pages.

In the drawings, A represents the covers of a book, which may be pasteboard, metal, wood, or other suitable material.

B B are the leaves of the temporary binder hinged together, as clearly shown in Fig. 1.

B' is the pivotal or hinged rod which passes through the enlarged bearing *b* of the leaves B B, which alternate, as shown, and by which such leaves are secured together, as will be readily understood.

b' b' are springs wrapped about the rod B' at one or more places in such manner that the ends *b*² thereof, after crossing each other, as clearly shown in Fig. 3, pass to the outside of the leaves B B, and are there secured to said leaves. The ends *b*² of the springs have a tendency to move toward each other, as clearly shown in Fig. 4, and thus hold said leaves B B together. It will be understood, of course, that a portion of one of the bearings *b* is cut away at *b*³ sufficiently to accommodate the spring *b'*.

C C are plates or leaves pivotally secured along one of their edges to the outward or moving edges of the leaves B B by means of the pivotal rod *c* passing through alternate bearings *c' c'* in the leaves B and C, as clearly shown in Figs. 1 and 3. The cover A of the book is riveted at *a*, or otherwise secured to said leaves C.

D are the blank pages or sheets of paper of the book, and *d d* are thin strips of leather, cloth, or other cushioning material secured to the inside of the two leaves B B. Between the extreme edges or ends of one of the leaves B we cut away a portion of said leaves adjacent to one of the spaces of said leaf; in which the bearing *b* of the opposite leaf B would fit a distance sufficient to leave a slot or open-

ing b^4 between said cut-away portion of the leaf B and the bearing b of the other leaf B.

Secured to the leaf B opposite to the slot b^4 , and projecting through said slot, is a flexible spring-detent E, having a shoulder e at a slight remove from its end. This shoulder e is adapted to engage the under side b^5 of the slot b^4 when the leaves B B are open against the action of the spring b' , as clearly shown in Fig. 5.

It will be noticed that the blank pages D are firmly held by the spring b' between the leaves B B, and that either of the covers A of the book is free to be open or closed upon the hinge c . It will also be noticed that the strips of leather or other material d , secured to the inside of the leaves B, are of sufficient thickness only to guard the moving portion of the hinges c of the leaves C C from direct contact with said blank pages D, thus preventing any creasing or wearing of the latter. When it is desired to remove the pages D, the leaves B B are open against the action of the spring b' , as shown in Fig. 5, until the shoulder e of the spring-detent E engages the edge b^5 of the slot b^4 . The leaves B B are thus held in the opened position illustrated in Fig. 5, and the said pages D may be removed and others inserted in their place. The closing of the leaves B B is accomplished by moving the end of the spring-detent toward the pin B' a distance sufficient to release the part b^5 from the shoulder e , whereupon the spring b' exerts its power and immediately closes the leaves B B upon the pages D, as shown in Fig. 3.

The ends b^2 of the spring b' may be inserted in holes or recesses in the leaves B B, or may be secured to said leaves upon their adjacent sides, if preferred.

The entire metal portion of our device—

that is, the leaves B B and the leaves C C—may be incased in canvas or leather, if preferred, for the purpose of concealing the same from view and making a neat-looking book-binding; but these changes are mere mechanical and well-understood variations, and do not alter the invention above described.

We claim as our invention—

1. The temporary binder, comprising the spring-actuated clamping-leaves B B, pivotally secured to each other at one of their margins and each provided with a leaf C, to which the covers of the book may be secured, said leaves C C being pivotally joined to said clamping-leaves B B, substantially as specified.

2. The combination, with the clamping-leaves B B, hinged together at their adjacent margins, and a spring adapted to compress or hold said leaves together, of a spring-detent secured to one of said leaves, provided with a shoulder to engage a margin or part upon the other leaf when said leaves B B are opened, and to hold the latter in the opened position against the action of the said spring.

3. In a hinge-back for book-binders, the spring-actuated clamping-leaves B B, the cover-leaves C C, each pivotally attached to the outer margins of the leaves B B, the pages D, and a cushion d interposed between said pages D and the clamping-leaves B B, substantially as and for the purpose specified.

In testimony that we claim the foregoing as our invention we affix our signatures in presence of two witnesses.

WILLIAM H. CARROLL.
FRANK LEMMON.

Witnesses:

TAYLOR E. BROWN,
GEO. W. HIGGINS, Jr.