

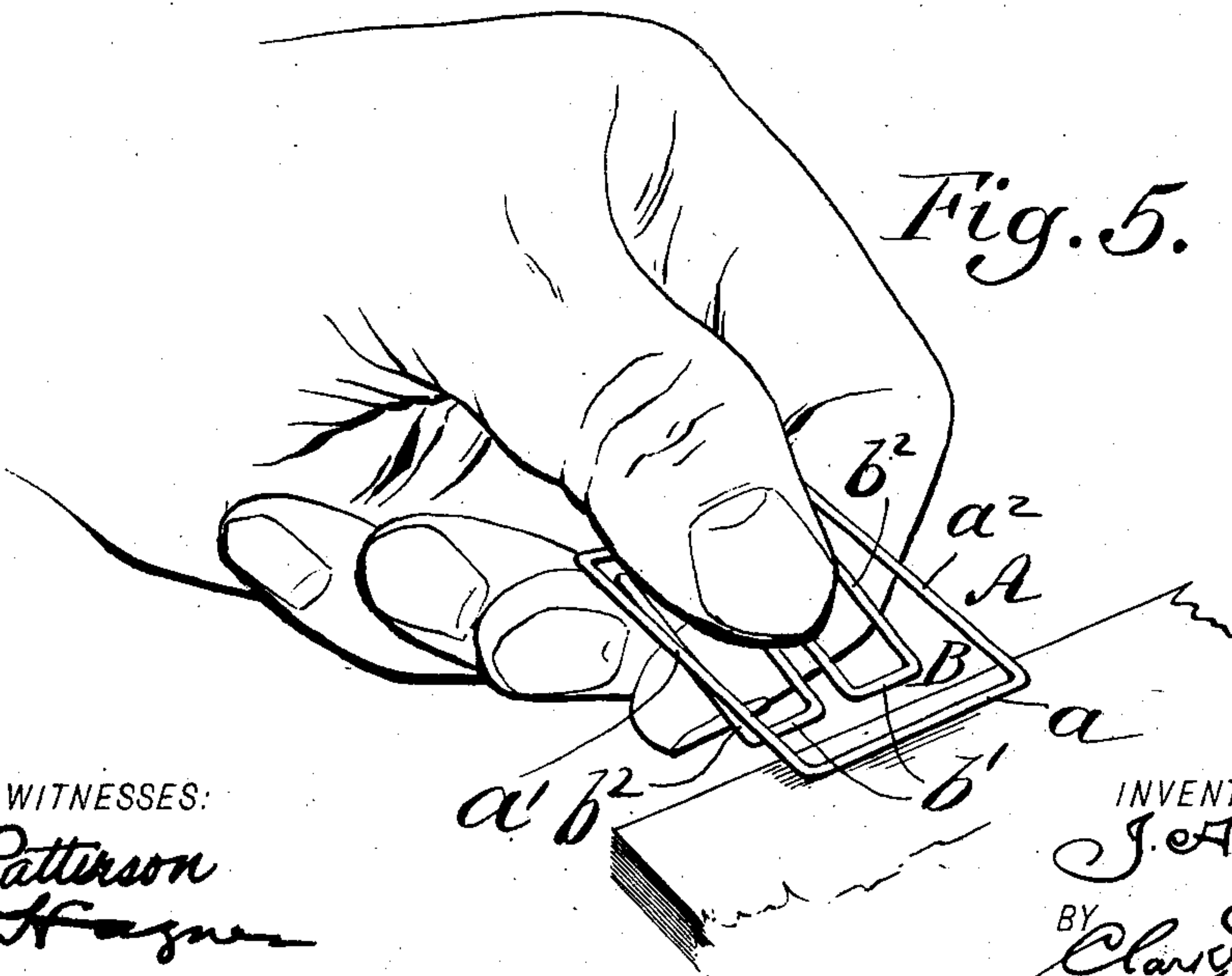
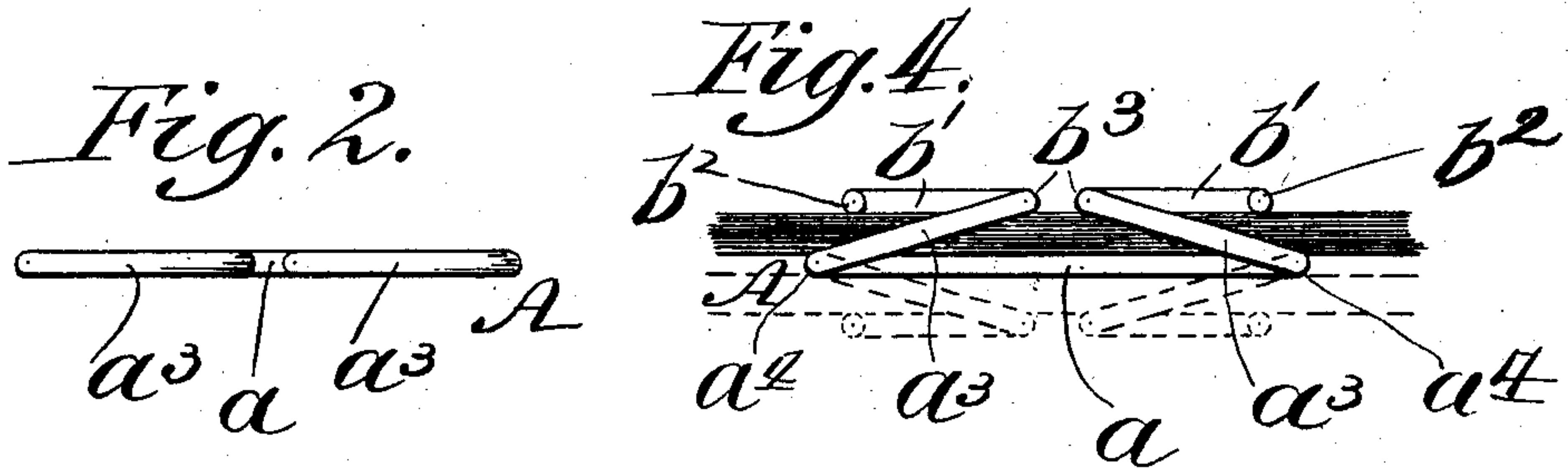
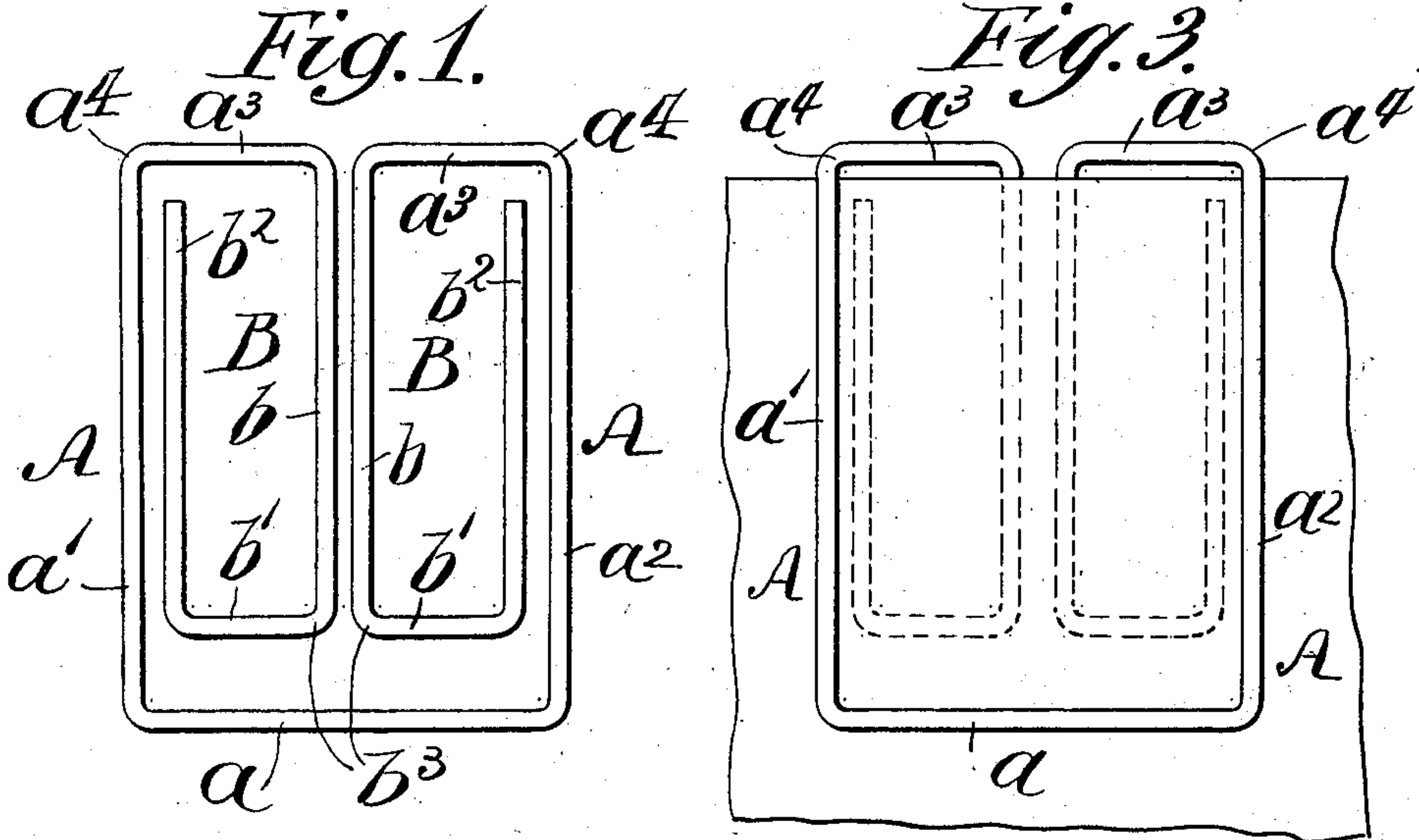
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J. A. MAYERS.
CLIP.

APPLICATION FILED APR. 30, 1903.

NO MODEL.



WITNESSES:

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JOSEPH A. MAYERS, OF REDBANK, NEW JERSEY.

CLIP.

SPECIFICATION forming part of Letters Patent No. 751,531, dated February 9, 1904.

Application filed April 30, 1903. Serial No. 154,984. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. MAYERS, a citizen of the United States, and a resident of Redbank, county of Monmouth, and State of New Jersey, have invented certain new and useful Improvements in Clips, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

The present invention has reference to clips for temporarily clamping and retaining a plurality of superposed sheets of paper or other material together, the object being more particularly the production of a simple and highly-efficient clip in which not only are all the parts normally disposed in a common plane, but the clamping members are capable of the same relative separation by pressure sustained at either side of the clip and in the same direction.

Further objects have in view ample clamping-surfaces and facility for reversing the separated relation of the clamping members for restoring the set or spring of the parts forming the connections between said members.

With the above objects in view the improved clip is embodied in a single piece of metal, preferably wire, presenting an outer loop-shaped clamping member and two clamping-tongues within the area of said outer member and normally disposed in a common plane therewith, each tongue comprising a plurality of bends or turns, so that both tongues will conjointly constitute a clamping member having a relatively broad bearing-surface.

The improved clip also includes other novel features and details, which, as well as those alluded to, are hereinafter fully referred to in the extended explanation.

In the accompanying drawings, forming part of this specification, Figure 1 is a face view showing on an enlarged scale my improved clip. Fig. 2 is a top edge view of the same. Figs. 3 and 4 are views corresponding with those preceding, but illustrating the clip as clamping a number of sheets of paper. Fig. 5 is a perspective view illustrating the

manner of exerting and manipulating the clip in applying the same.

In a preferred form of the clip it is made in a single piece of resilient wire, presenting the transverse end bar a and parallel side bars a' a'' , constituting three sides of the approximately rectangular outer clamping member A. Those portions of the side bars a' a'' which are remote from the bar a merge in inwardly-extending short horizontal lengths a^3 , which at a point adjacent to the longitudinal center of the member A are integrally continued by closely parallel shanks b b' , extending in the direction of the bar a and having proximate thereto outward horizontal turns or bends b' b'' , concluding in extended terminals b^2 b'^2 , lying parallel with the inner sides of the bars a' a'' . The lengths a^3 , shanks b , turns b' , and terminals b^2 form a pair of extended tongues within the member A and normally in a common plane with the same. These tongues conjointly constitute an inner clamping member B.

It will be noted that the relation of the members A B is such that the part of the member A comprising the cross-bar a , and which may be referred to as the "free" end thereof, occupies a position beyond the tongue ends, including the turns b' . Consequently in applying the clip to a plurality of sheets of paper for the purpose of clamping the same together the clip is so presented to the sheets at one edge that the member A is in a position with the extreme portion of its free end bearing upon the surface of the uppermost of the sheets near said edge, the free ends of the tongues being clear of the latter. With the clip thus held by the fingers of one hand the thumb of the same is caused to exert a slight pressure upon the member B to displace the same relative to the member A, whereupon the sheets can be moved by the other hand to a position fully between the members, and upon the removal of the thumb-pressure the members will tend to reassume their normal relation, thereby effectively clamping and retaining the contiguous portions of the sheets together. Manifestly the greater the number of sheets

the more pressure will be required in displacing the member B.

That portion of the member A which is beyond the free ends of the tongues will serve as a guide in directing the papers into position between the clasp members.

Those portions of the device constituting the intersections of the bars a' a^2 with the lengths a^3 serve as turning-points or fulcrums a^4 for the portions a^3 , and the lengths b' turn about the points b^3 , while the tongues constituting the member B and the loop A undergo their changing relation in the opening and closing movements of the clip, the consequent torsional effect or relaxation of the same on the bars a' a^2 and the tongue-shanks occurring contiguous to said turning-points, serving to provide the spring required to insure the efficient clamping operation of the device.

The peculiar arrangement of the inner member B permits its displacement by pressure exerted at either side. This is highly convenient, as it enables the clip to be used in connection with a definite pressure without any special observance as to which side of the clip is uppermost. This capacity for tongue displacement in either direction is also important in that should the set or force of the spring become weak through repeated use, undue strain, or from any other cause and the members not properly coact in their clamping relation after the member B has been displaced in one direction displacement can be effected in the opposite direction, as indicated by dotted lines in Fig. 4, which will have the effect of bolstering or restoring the spring-action of the device.

It will be seen that the configuration and disposition of the parts comprising the clip are such as to provide two clamping members of highly novel relation and presenting liberal clamping-surfaces.

By having all the parts normally occupying a common plane no external terminals of the wire are present, a feature that not only prevents the clip from becoming accidentally caught or engaged, but largely obviates its liability to accidental distortion. Furthermore, the feature of the parts being normally in a common plane, as stated, permits the improved clips to be more compactly arranged for shipment, a matter of some consideration when large quantities of these articles are handled.

Those portions of the device which partake of the greatest movement during the separation of the members are presented by the broad end portion including the bar a and the comparatively broad ends of the tongues. All the parts at their intersections are rounded for an obvious purpose.

The improved clip is not only highly efficient, but it is comparatively simple and inexpensive and extremely durable.

Slight changes may be made without departing from the spirit of my invention. For instance, inasmuch as all the parts normally occupy one plane it may be composed of sheet metal stamped out instead of wire.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The within-described clip presenting in a single piece, the outer clamping member of continuous character except at one side, and an inner clamping member integrally connected with said outer member at both of its terminals, which said terminals extend to the side aforesaid, both members normally occupying a common plane.

2. The within-described clip presenting in a single piece, the outer clamping member comprising a transverse bar a , and parallel side bars a' , a^2 , and an inner clamping member normally disposed in a common plane with the outer member, and connected to both of said side bars at portions thereof remote from the bar a , and means connecting said inner member with the bars a' , a^2 .

3. The within-described clip presenting in a single piece, the outer clamping member comprising a transverse bar a and parallel side bars a' , a^2 , horizontal lengths a^3 , at the portions of the side bars remote from the bar a , and an inner member embodying closely parallel central shanks b , relatively divergent bends b' , and extended terminals b^2 , the latter parallel with the side bars, all of the said parts normally occupying a common plane.

4. As a new article of manufacture, a clip for retaining a plurality of superposed sheets, comprising the outer clamping member embodying the loop A, and the inner member B, embodying two parallel tongues, both members formed integral and normally occupying a single plane, substantially as shown and described.

5. A clip for retaining a plurality of superposed sheets, comprising an outer clamping member embodying a loop, and an inner clamping member embodying two adjacent tongues, both members formed integral and normally occupying a common plane, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 23d day of April, 1903.

JOSEPH A. MAYERS.

Witnesses:

B. PATTERSON,
D. W. HAGNER.