## J. A. MAYERS.

CLIP.

APPLICATION FILED AUG. 26, 1903.

NO MODEL.

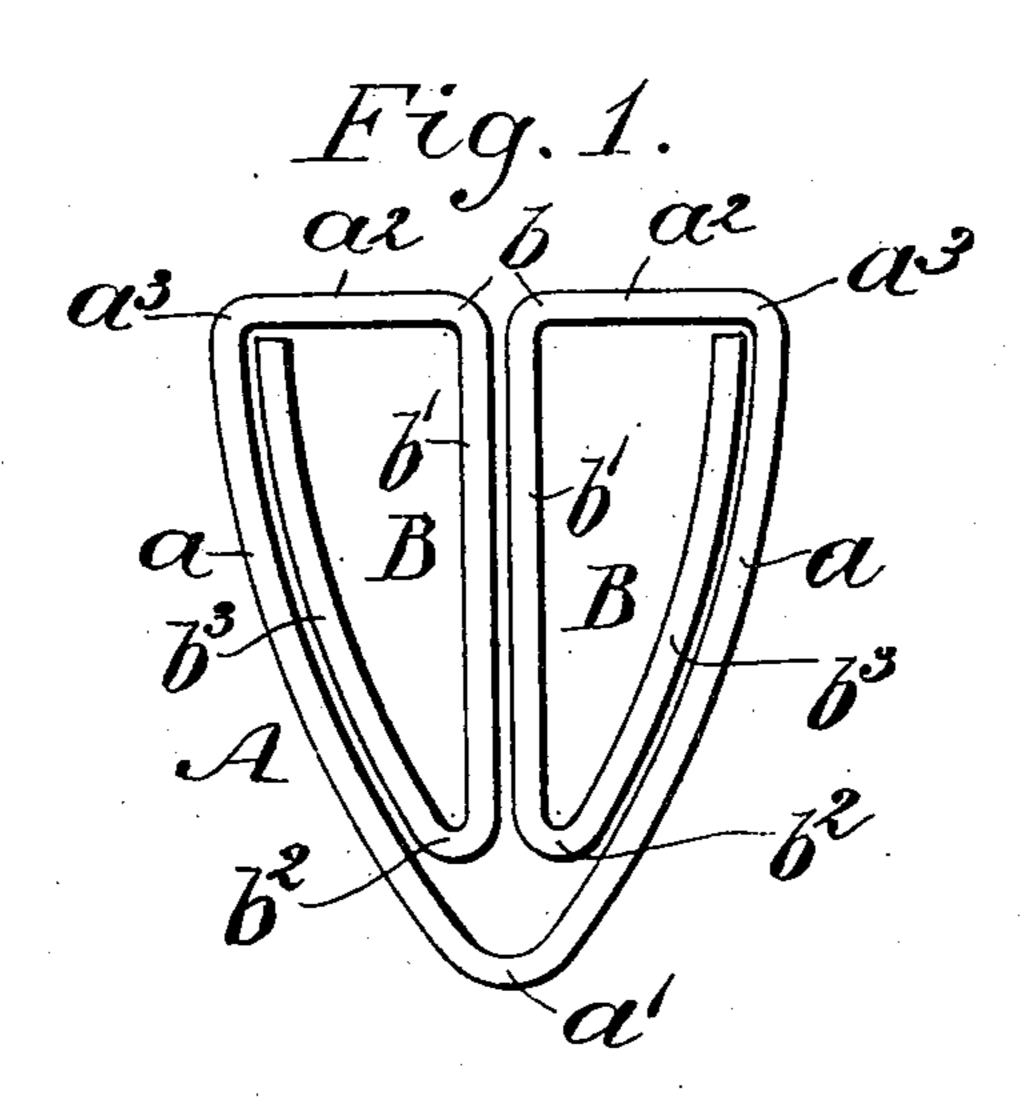


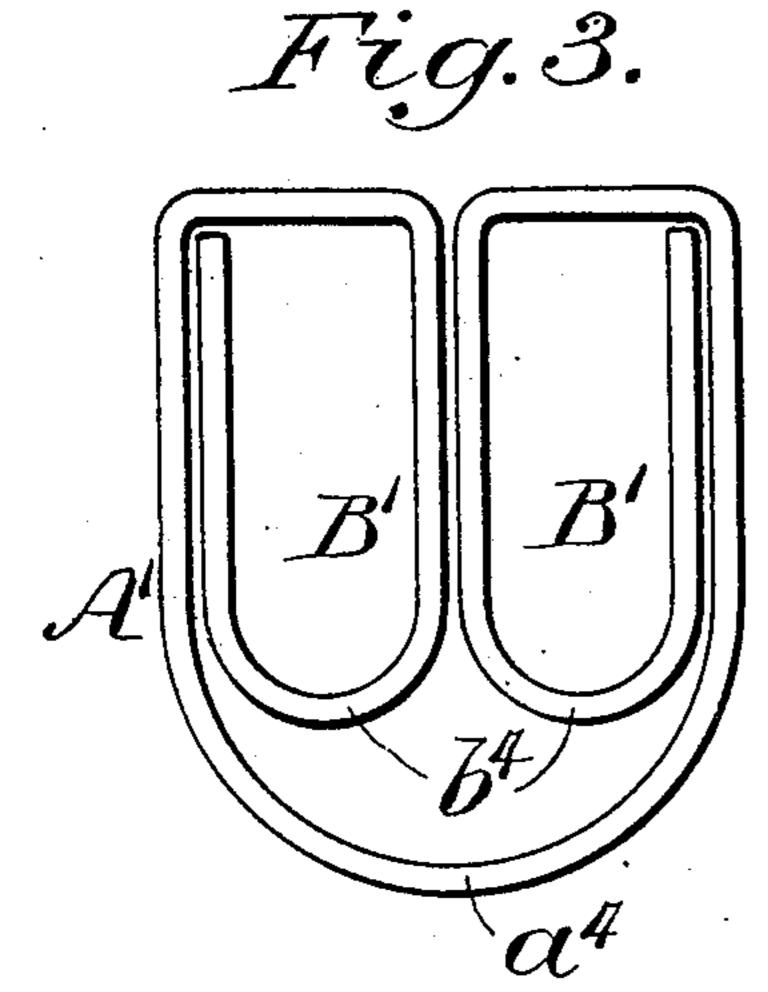
Fig. 2.

as

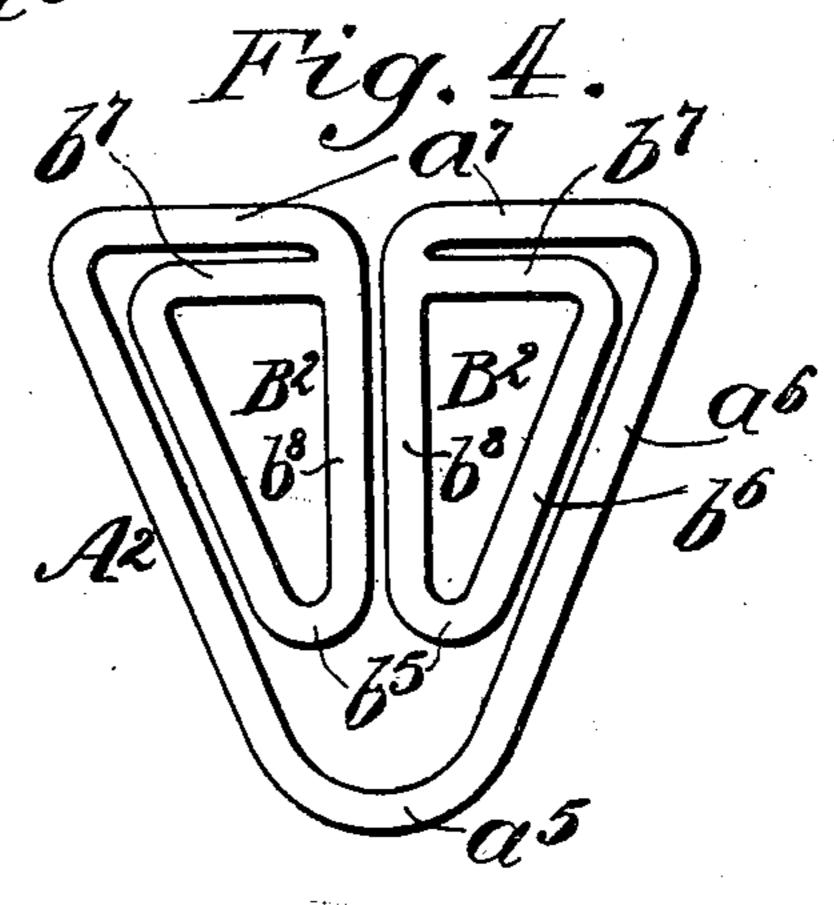
as

as

as



WITNESSES:
Blatterson.
Molyman



1 ATTORNEYS.

## United States Patent Office.

JOSEPH ALEXANDER MAYERS, OF REDBANK, NEW JERSEY.

## CLIP.

SPECIFICATION forming part of Letters Patent No. 763,303, dated June 21, 1904.

Application filed August 26, 1903. Serial No. 170,787. (No model.)

To all whom it may concern:

Be it known that I, Joseph Alexander Mayers, a citizen of the United States, and a resident of Redbank, county of Monmouth, 5 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 10 letters of reference indicate corresponding

parts.

This invention relates to clips for retaining a series of superposed sheets; and it consists in certain improvements in the type of clip 15 disclosed in my copending application, filed April 30, 1903, Serial No. 154,984, wherein is set forth an article of the character mentioned comprising an outer clamping member embodying a loop and an inner clamping mem-20 ber presenting two adjacent tongues, both members formed integral and normally occupying a common plane. In the construction of the said copending application the configuration of the inner and outer tongues, 25 as well as that of the device generally, is of rectangular character, resulting in comparatively broad ends for said tongues, not always convenient for clamping application, but responsible for a certain amount of unstability 3° of the clip at the relative connecting-points of both the inner and outer tongues. By my improvements both the outer and inner tongues have rounded engaging ends, thus facilitating the clamping application of the device, 35 the construction of the latter generally rendered more compact and stable and an appreciable economy effected in the amount of metal required in the production of the clip. In the accompanying drawings, forming part

4° of this specification, Figure 1 is a face view showing on an enlarged scale my improved clip. Fig. 2 is top edge view of the same, the dotted lines indicating the positions assumed by the tongues when relatively spread 45 for the purpose of clamping. Fig. 3 is another enlarged face view illustrating a modification. Fig. 4 is a somewhat similar view showing a form of the clip more particularly adapting the same to be made from sheet metal. Fig. 5 is a top edge view of the clip 50

disclosed in the preceding figure.

In the form illustrated in Figs. 1 and 2 the clip is made in a single piece of resilient wire, if preferred, having a considerable part at both sides of its mid-length bent to present 55 an outer tongue A, comprising the curved sides a a, which forwardly or downwardly converge and merge in the rounded end or nose a'. At their upper ends the sides a are succeeded by inward horizotal bends a<sup>2</sup>, which 60 at points quite close to each other have downward turns b b, constituting the connections for two inner tongues BB, each embodying a straight depending member b', which is centrally located within the outer tongue 65 and lies closely parallel with the corresponding member b' of the companion tongue B. Each member b' has a lower rounded outwardly-disposed turn  $b^2$  some distance above the nose a' of the outer member, said turn 70 constituting the rounded engaging nose or end of its particular tongue B, the remainder of which is presented by an ascending extended terminal portion  $b^3$ , curved to lie closely parallel with the contiguous side a of the 75 tongue A at a point within the same. It will be noted that the relation of the outer and inner tongues is such that the end a' of the outer tongue occupies a position beyond the tongue ends  $b^2$ . Consequently in applying 80 the clip to a plurality of sheets of paper for the purpose of clasping the same together the clip is so presented to the sheets at one edge thereof that the tongue A is in a position with the extreme portion of its free end 85 bearing against the surface of the lowermost of the sheets near said edge, the free ends of the tongues B B being clear of the same. the clip thus held by the fingers of one hand the thumb of the same is caused to exert a 90 slight pressure against the parallel members b' b' to displace the tongues B B relative to the outer tongue, whereupon the sheets can be moved by the other hand to a position fully between the tongue A at one side and 95 the tongues B B at the opposite side, and upon the removal of the thumb-pressure the tongues will tend to reassume their normal

relation, thereby effectively clasping and retaining the contiguous portions of the sheets together. Manifestly the greater the number of sheets the more pressure will be re-5 quired in displacing the tongues B B. The relatively projecting end a' of the outer tongue will serve as a guide in directing the papers into position between the clasping-tongues. Those portions of the device constituting the 10 intersections of the sides a with the horizontal bends a<sup>2</sup> serve as turning-points or fulcrums  $a^3$  for said bends  $a^2$ , the extended terminals  $b^3$  turning about points contiguous to the ends  $b^2$  in order to generally maintain 15 the parallel disposition of the outer and inner tongues in the clamping condition. I attach importance to the forwardly-contracting character of both the outer and inner tongues and also to rounded ends of the same, as such 20 features enable the clip to engage and clasp the sheets of paper without the difficulty that might be experienced were they broad and transversely straight at their ends, as in my other construction before referred to. The 25 curved convergence of the sides of the outer tongue, as well as outer sides of the inner tongues, results in a comparatively compact device and, furthermore, tends to greater stability of relation of the several tongues. 30 Another advantage is that considerably less material is required for the improved form of the clip than is involved in the said prior construction. In the arrangement disclosed in Fig. 3 both

In the arrangement disclosed in Fig. 3 both the outer tongue A' and inner tongues B' B' are not of the contracting configuration of the device illustrated in the two previous figures, the tongues A' B' B' having, however, the ends a' b' rounded for facilitating the engagement of the clip, as previously explained.

The form of clip set forth in Figs. 4 and 5 is particularly adapted to be produced by being stamped from sheet metal, both the outer tongue A<sup>2</sup> and inner tongues B<sup>2</sup> B<sup>2</sup> converging toward their rounded ends  $a^5 b^5$ . The ascending outer members  $b^6$  of the tongues B<sup>2</sup> are disclosed in close parallel relation with the

sides  $a^6$  of the outer tongue, said members  $b^6$ 

merging at their upper ends in inward hori-50 zontal turns  $b^7$  parallel with the corresponding

turns  $a^7$  of the tongue  $A^2$ . The turns  $b^7$  integrally join at their inner ends with the vertical members  $b^8$  of the inner tongues, this arrangement serving to impart strength and contributing to the perfect production of the 55 clips in the stamping operation.

It will be comprehended that the improved clip is not only simple and conveniently manipulated, but it is comparatively inexpensive.

The normal position of all the tongues in a 60 common plane presents the advantages of the similar feature in my other form of clip.

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

1. A clip for retaining a plurality of superimposed sheets, comprising an outer clampingtongue with lower rounded closed end, and an inner clamping member embodying two tongues, each having a lower closed rounded 7° end, all of said tongues formed integral and normally occupying a common plane.

2. A clip for the purpose described, comprising an outer clamping member having sides terminating in a lower closed rounded 75 end, and inner tongues, each embodying a centrally-located depending member, a lower closed rounded end and an outer extended ascending member, said outer clamping member and inner tongues being integral and all 80 occupying a common plane.

3. A clip for the purpose described, comprising an outer member having downwardly-converged sides terminating in a lower closed rounded end, and inner tongues, each comprising a centrally-located straight depending member, a lower closed rounded end, and an outer extended ascending member, the latter lying parallel with the contiguous side of the outer tongue, said several tongues being integral and all occupying a common plane.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 19th day of August, 1903.

JOSEPH ALEXANDER MAYERS.

Witnesses:

B. Patterson, M. Lynch.