

No. 677,505.

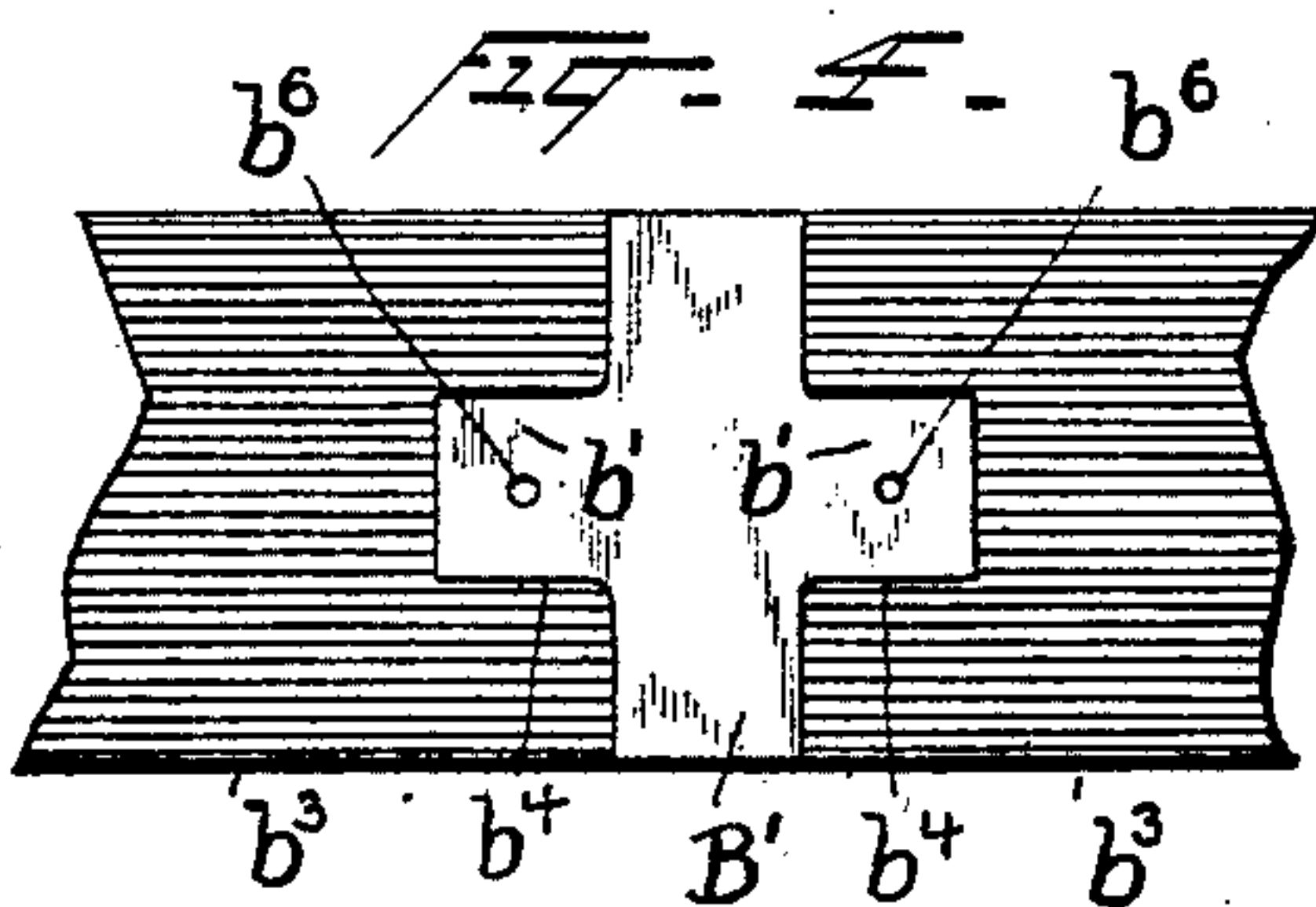
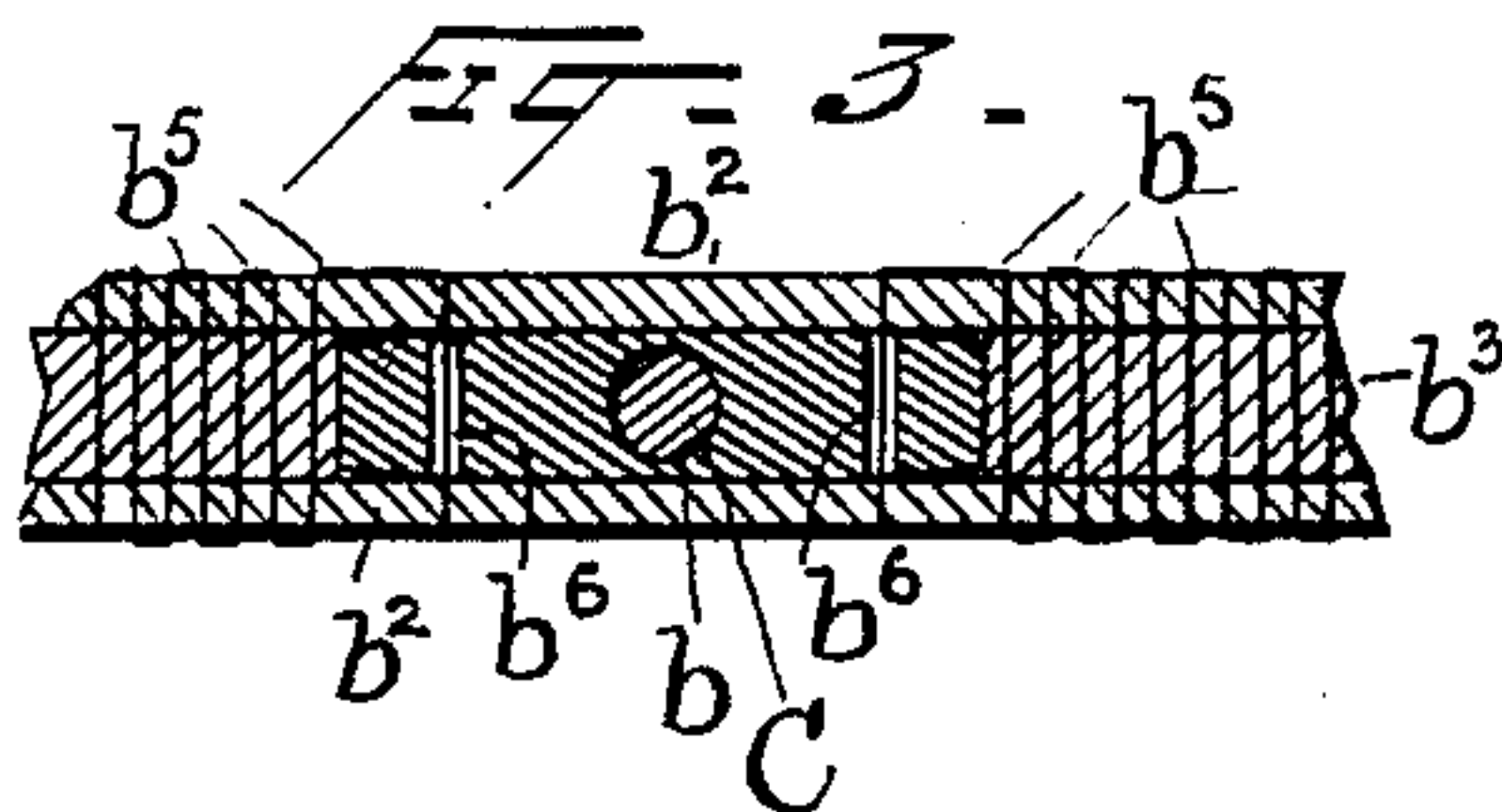
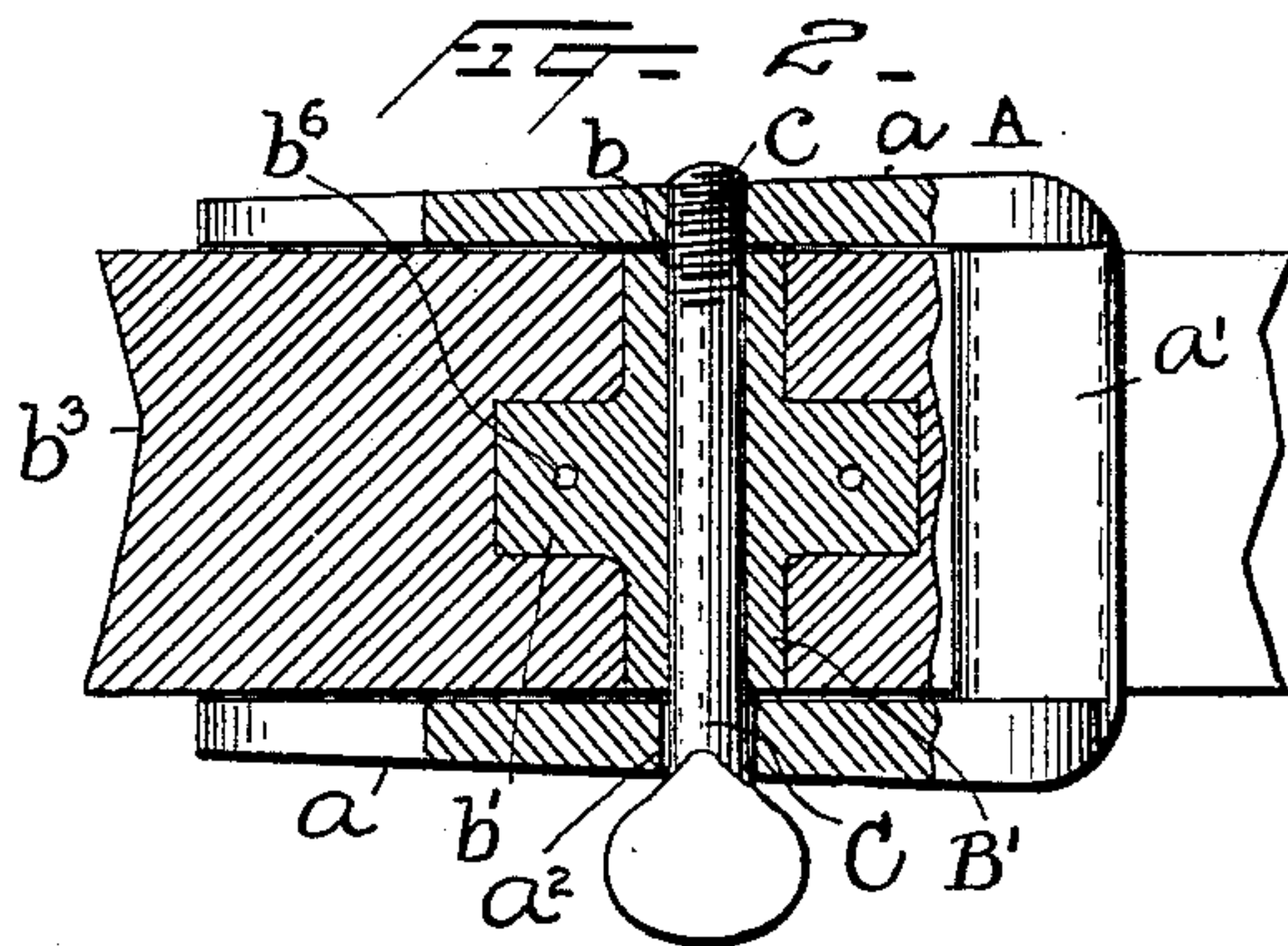
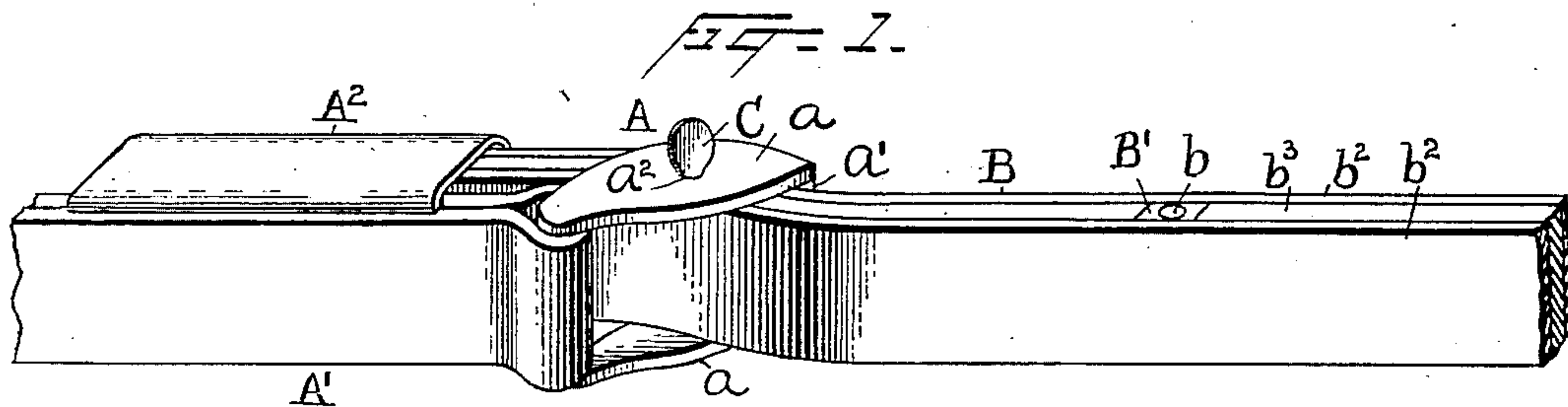
Patented July 2, 1901.

S. W. GIBBS & C. MONTIETH.

STRAP CONNECTION.

(Application filed Feb. 4, 1901.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## STRAP CONNECTION.

SPECIFICATION forming part of Letters Patent No. 677,505, dated July 2, 1901.

Application filed February 4, 1901. Serial No. 46,001. (No model.)

*To all whom it may concern:*

Be it known that we, SAMUEL W. GIBBS and CHARLES MONTIETH, citizens of the United States, residing at Somerset, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Strap Connections; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in strap connections, and is more particularly designed as a trace-buckle or the like, our object being to provide a neat and attractive structure which can be readily manipulated and in which the parts are firmly held with relation to each other. To these ends and also to improve generally upon devices of the nature indicated our invention consists in the various matters hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of the present invention. Fig. 2 is a vertical central sectional elevation. Fig. 3 is a fragmentary sectional elevation, and Fig. 4 is a fragmentary face view with one of the outer strap layers removed.

Referring now more particularly to said drawings, A represents the buckle member, here shown as attached to a hame-tug strap A', said strap also carrying the usual strap-end guard A<sup>2</sup>, and B represents the strap, here shown as a trace-strap. C is a pin connecting said buckle member and strap. The said buckle member has side walls *a*, which are connected at the free ends—i. e., the ends not attached to the tug—by a cross-piece *a'*, and a pin-hole *a*<sup>2</sup> extends transversely through each of said walls, one of said holes being threaded, as shown. Said buckle member is pivoted to the tug-strap and is open across its faces—i. e., between the said walls.

Embedded at suitable points in the strap B and extending transversely through the same are bearing-boxes B'. Each of said boxes is polygonal (preferably rectangular)

in cross-section and is provided with a pin-opening *b*, extending through the same. Wings *b'* are formed upon the sides of each box. The ends of these bearing-boxes are substantially flush with the edges of the strap B, and their pin-openings produce, in effect, openings through the strap itself. The strap is composed of outer layers *b*<sup>2</sup> and an intermediate layer *b*<sup>3</sup>, said intermediate layer being in sections and the appropriate sections having rectangular notches *b*<sup>4</sup> in their ends to receive the rectangular wings *b'*, the ends of said sections lying flush against the boxes proper. The strap-layers are united by suitable stitching *b*<sup>5</sup>, and thread-openings *b*<sup>6</sup> are provided in the wings to receive appropriate stitches. The boxes, with their wings, form a cross and are very firmly held in position. The wings extending into the notches of the intermediate strap layer and the stitches through the thread-openings *b*<sup>6</sup> prevent displacement lengthwise of the box, while the wings and the rectangular box prevent turning or working loose sidewise under the strains and jerks to which the tugs are subjected. The short boxes do not materially affect the flexibility of the strap, and said boxes being embedded in said strap no edges are presented to catch and cause trouble in handling. The buckle member being open upon its faces, no difficulty is experienced in placing the box-holes in alinement with the openings through the buckle-walls, so that the pin C can be readily inserted. The buckle being pivoted to the tug, as described, it can after the pin has been withdrawn be thrown outwardly to allow the trace-strap to be pushed in a substantially straight line into the strap-end guard A<sup>2</sup>, and said buckle can then be swung back into normal position and the pin inserted. This greatly facilitates the insertion of the strap into the guard or any movement of said strap for adjustment.

The headed pin C has its end threaded, as at *c*, to engage the threads in one of the before-mentioned openings in the buckle-walls, and thus hold the strap and buckle firmly connected.

The present device can be manufactured readily and at small cost, is neat and attract-



ive in appearance, and its parts are firmly positioned.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a buckle member having side walls and open across its faces, said side walls being provided with cooperating transverse openings, of a strap, a box rectangular in cross-section embedded in said strap and extending transversely through the same, said box having an opening therein transverse the strap, wings upon the sides of said box, and a removable pin adapted to engage the openings in said buckle-walls and box and retain the said buckle and strap together; substantially as described.

2. The combination with a buckle member having side walls and open across its faces, said side walls being provided with cooperating transverse openings, of a strap having a transverse opening therethrough adapted to register with said openings in the said buckle-walls, and a removable pin adapted to pass through the openings in said buckle and engage any one of said openings in the strap; substantially as described.

3. The combination with a strap, of a box embedded therein and having an opening extending transverse said strap, said box being polygonal in cross-section, and side wings upon said box; substantially as described.

4. In a strap, a layer having a notch therein, in combination with a box having a side wing entering said notch, said layer and box being secured together; substantially as described.

5. In a strap, a sectional layer having a notch in the section ends, and a box having side wings entering said notches, said layer and box being secured together; substantially as described.

6. In a strap, a box having a side wing in-

termediate its ends, and a strap layer having its end abutting against said box proper and provided with a notch receiving said wing, said layer and box being secured together; substantially as described.

7. In a strap, a box having a rectangular side wing intermediate its ends, and a strap layer having its end abutting against said box proper and provided with a rectangular notch receiving said wing, said layer and box being secured together; substantially as described.

8. In a strap, outer layers, a box between the same, rectangular side wings upon said box intermediate its ends, said wings having thread-openings therethrough, an intermediate sectional strap layer having its section ends abutting against the sides of the box proper and provided with rectangular notches receiving said box-wings, and stitches securing said strap layers together and passing through said thread-openings in the box-wings; substantially as described.

9. In a device of the nature indicated, a part having a buckle pivoted thereto and provided with a strap-end guard, said buckle having side walls, each of which is provided with a pin-hole, one of said holes being screw-threaded, and also having a cross-piece between said side walls at its free end, a strap having a transverse opening therethrough adapted to register with said pin-holes, and a removable pin adapted to enter said pin-holes and opening and having a screw-threaded portion to engage with the screw-threaded hole; substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

SAMUEL W. GIBBS.  
CHARLES MONTIETH.

Witnesses:

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