

No. 628,634.

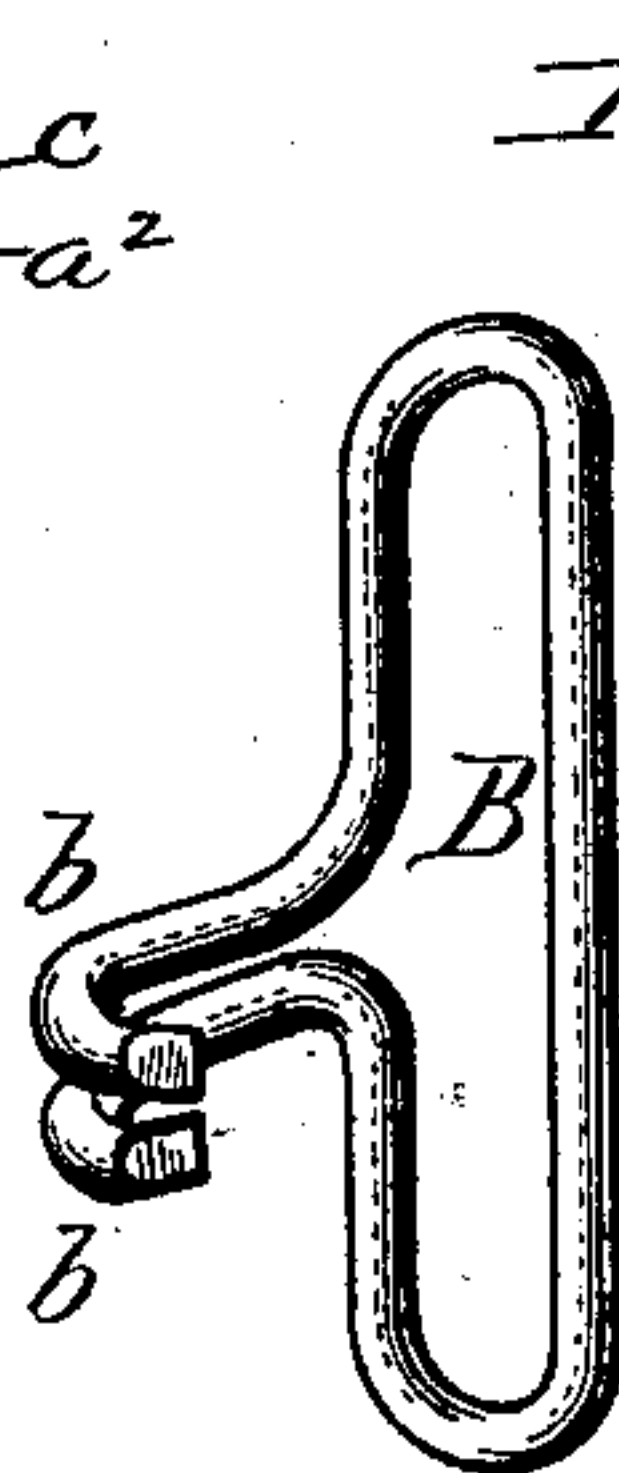
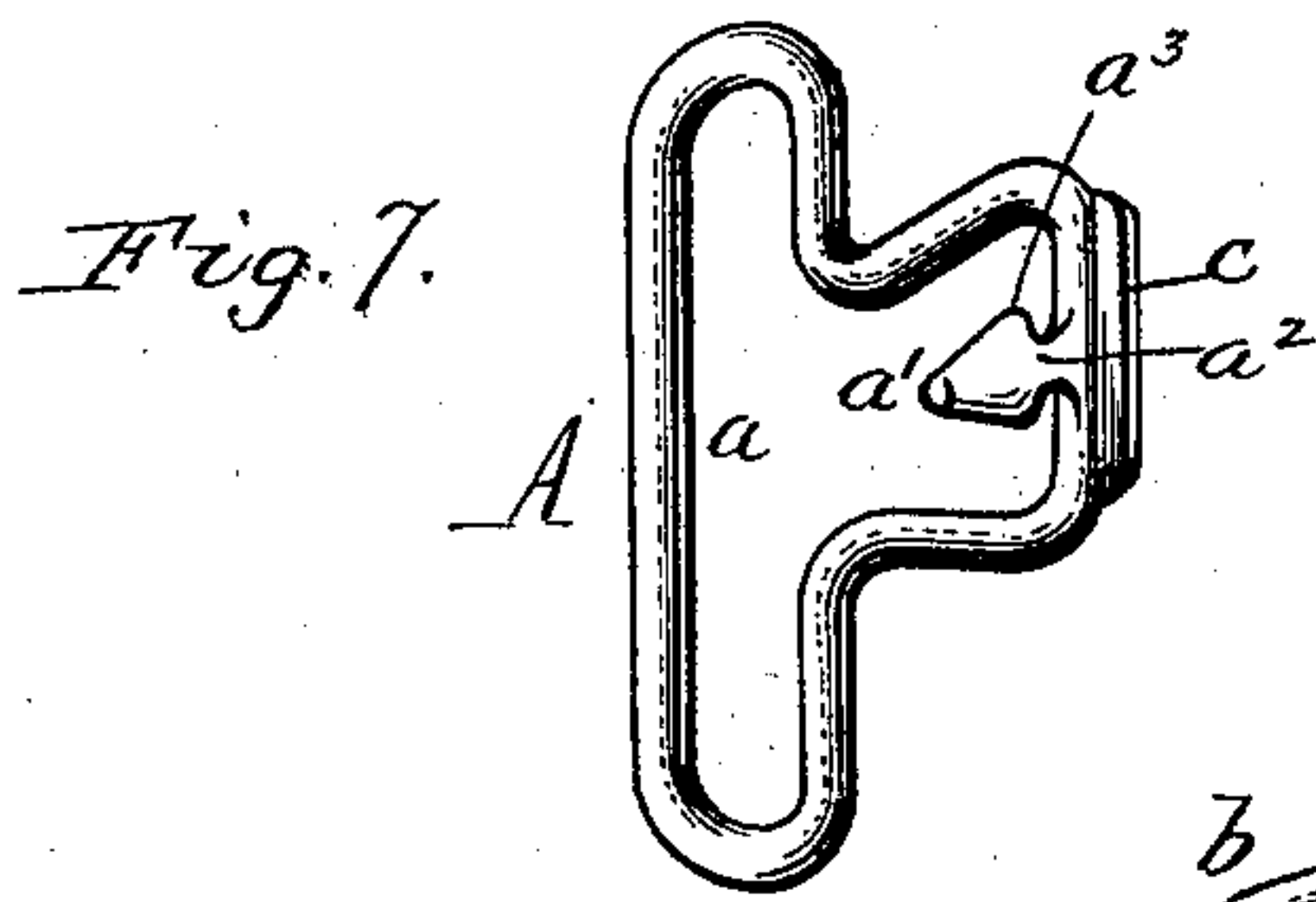
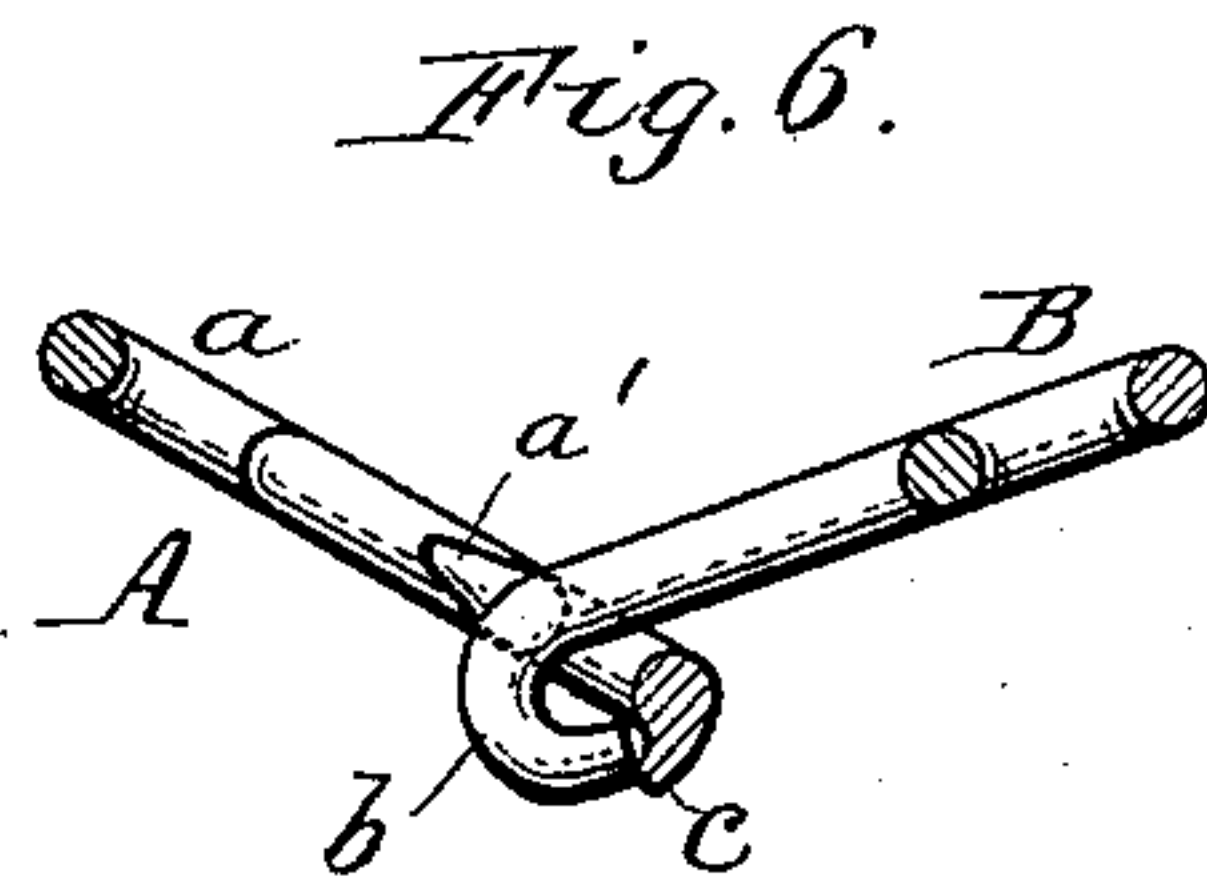
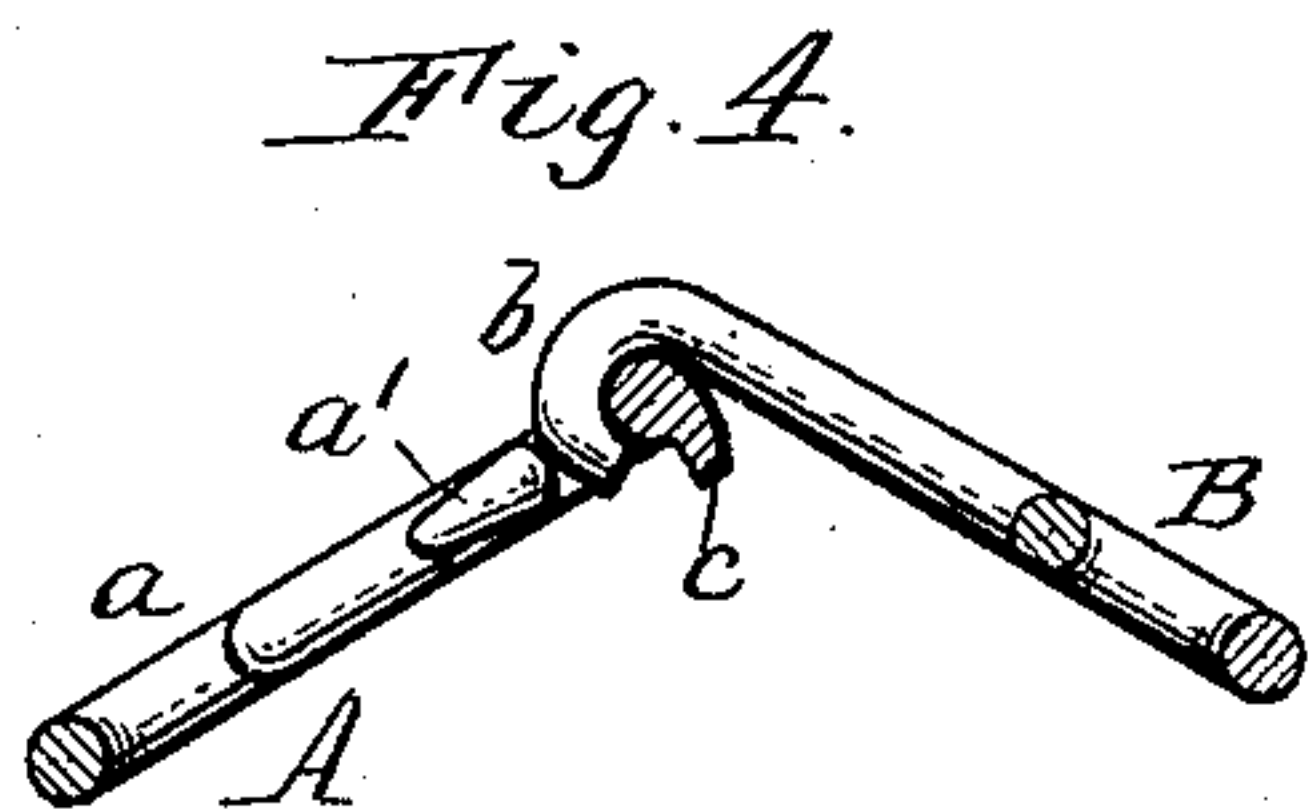
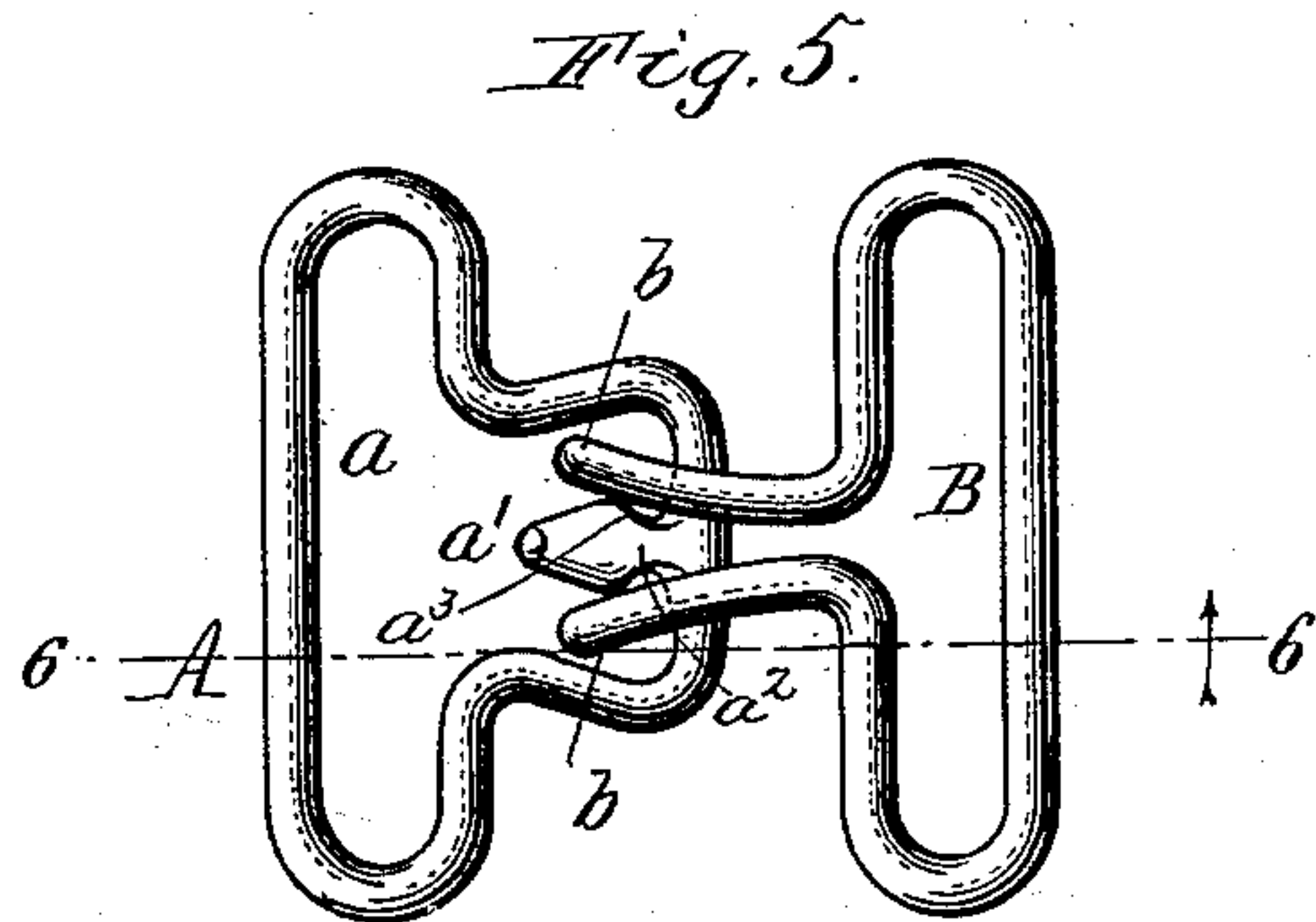
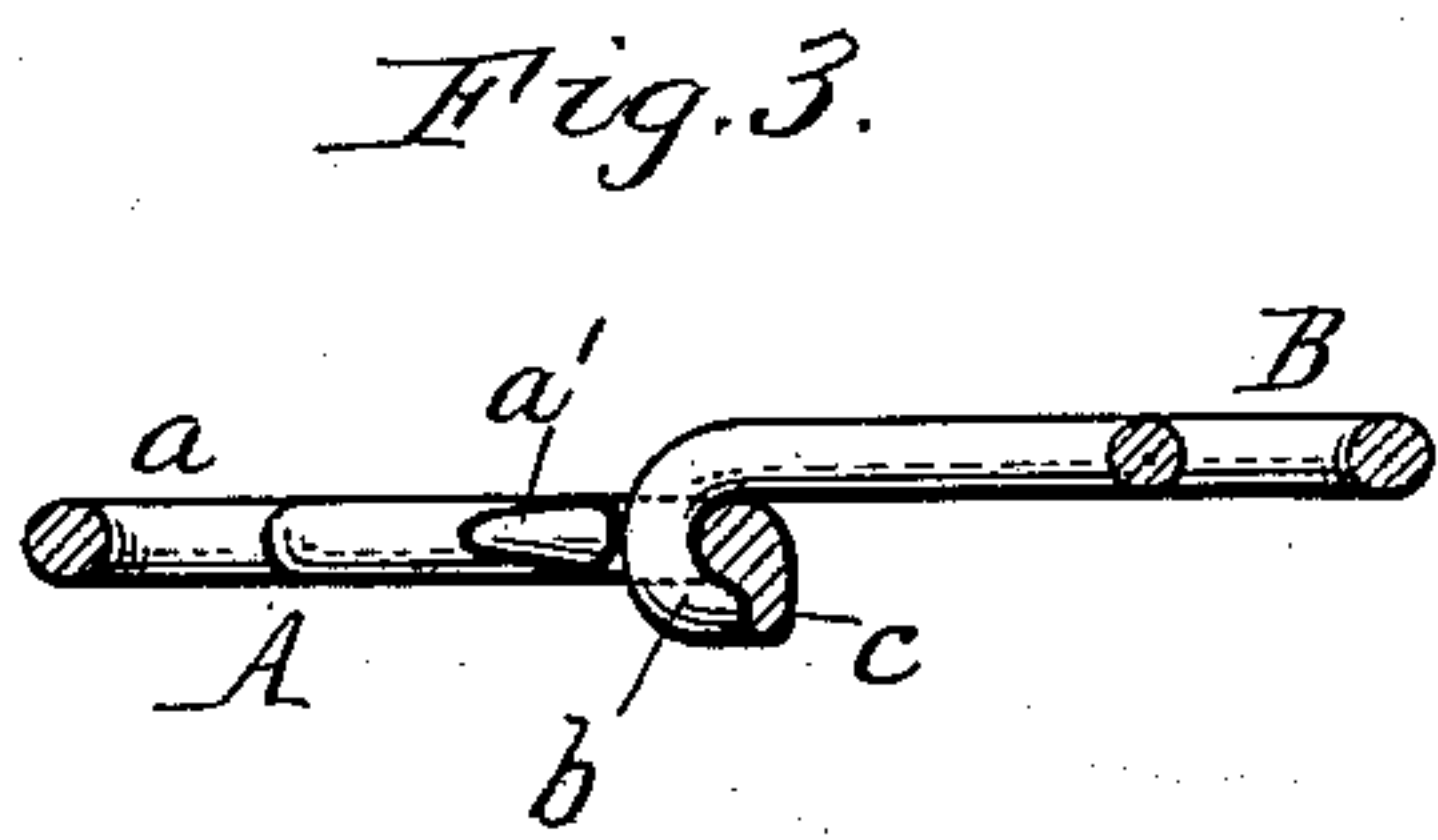
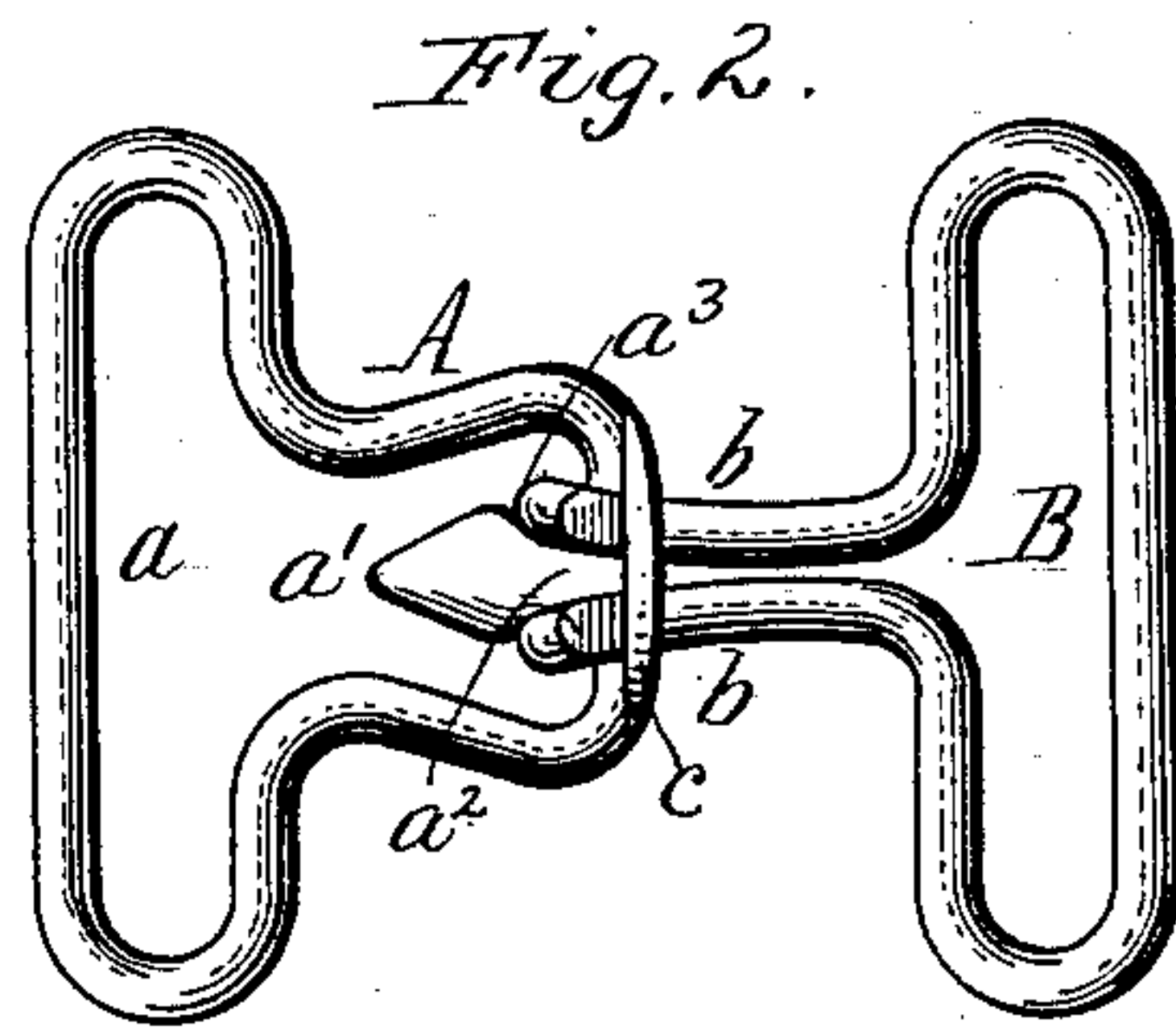
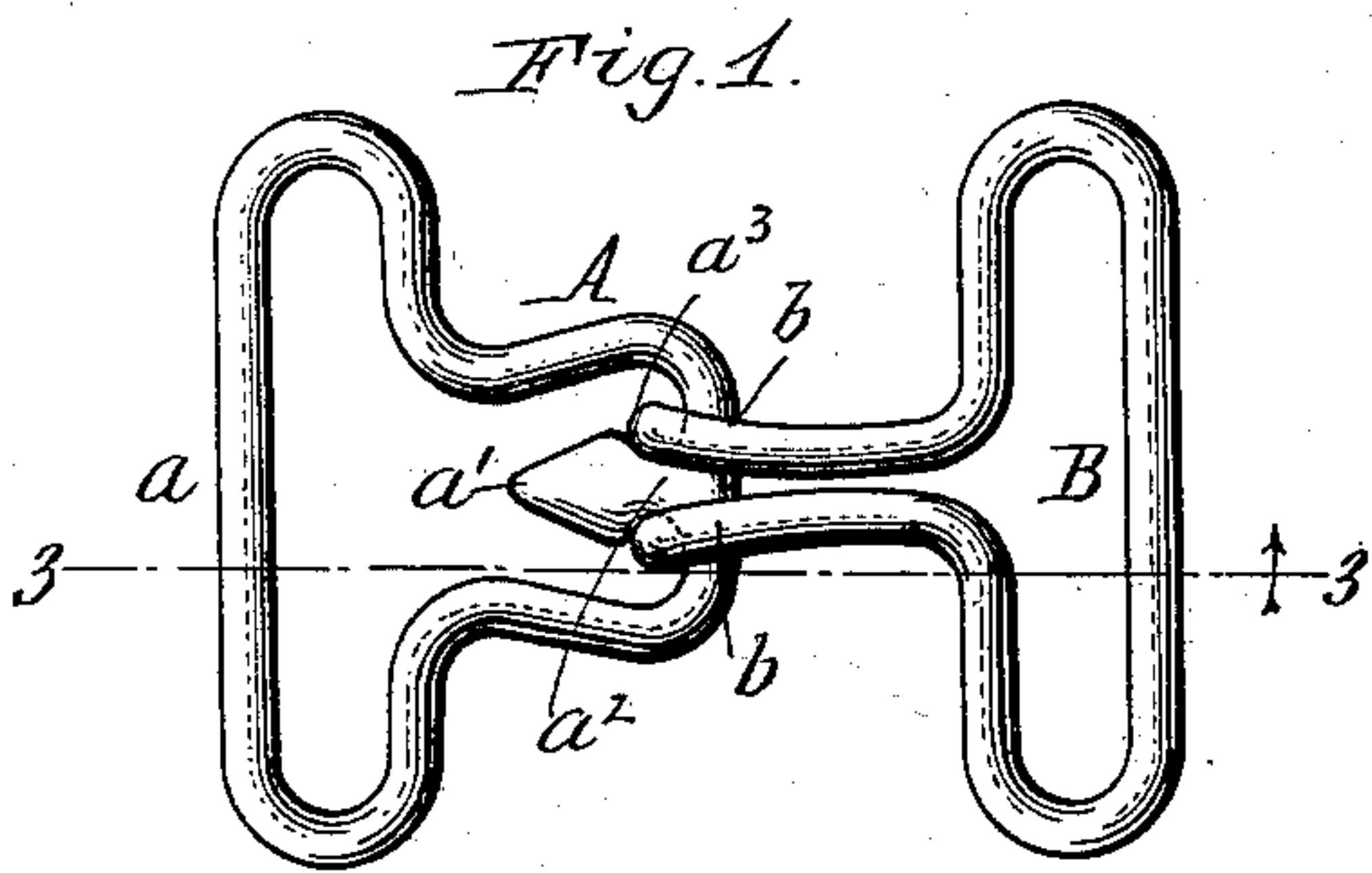
Patented July 11, 1899.

W. W. PIERCE.

HOOKE AND EYE.

(Application filed Oct. 14, 1898.)

(No Model.)



Witnesses:

Henry L. Deck.

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# UNITED STATES PATENT OFFICE.

WILLIAM W. PIERCE, OF BUFFALO, NEW YORK.

## HOOK AND EYE.

SPECIFICATION forming part of Letters Patent No. 628,634, dated July 11, 1899.

Application filed October 14, 1898. Serial No. 693,541. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM W. PIERCE, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Hooks and Eyes, of which the following is a specification.

This invention relates to the garment-fastenings known as "hooks and eyes," and more especially to an improvement in the fastening shown and described in Letters Patent of the United States No. 587,189, granted July 27, 1897; to I. P. Doolittle. The fastening of this patent comprises an eye member having its bow provided with an inwardly-extending locking-head, which is connected with the bow by a contracted neck, and a hook member having a pair of laterally-yielding shanks arranged side by side and terminating at their outer ends in hooks which engage with the bow of the eye member on opposite sides of its locking-head and which are separated at their bends by an aperture which receives said head. In disconnecting or "breaking" the parts of this fastening the same are turned outwardly at an angle to each other, so as to cause the hooks to be spread apart by the neck of the locking-head and permit said neck to pass between the ends or noses of the hooks.

The object of my invention is the construction of a fastening of this character which permits the breaking or disengagement of the parts by turning the same at an angle, not only in one direction, but either inwardly or outwardly, as may be most convenient.

In the accompanying drawings, Figure 1 is a front or outside view of the fastening, showing the parts engaged. Fig. 2 is a rear or inside view of the same. Fig. 3 is a longitudinal section of the fastening in line 3 3, Fig. 1. Fig. 4 is a similar section showing the parts of the fastening turned outwardly at an angle to each other for breaking or disengaging the same. Fig. 5 is a front or outside view showing the members of the fastening turned at an angle in the opposite direction, the hooks being shown as spread to their maximum extent preparatory to separating the members. Fig. 6 is a longitudinal section in line 6 6, Fig. 5. Figs. 7 and 8 are perspective views of the members of the fastening.

Like letters of reference refer to like parts in the several figures.

A is the eye member, having a loop *a* for attaching it to the garment or other article, and *a'* is the locking-head, extending inwardly from the bow or front portion of the member and connected therewith by the narrow neck or reduced portion *a*<sup>2</sup>. The locking-head preferably has the form of a spear or arrow head, and the portion thereof between its widest portion and the bow tapers toward the neck, or, in other words, the lateral edges of the head immediately in rear of its widest portion diverge toward the point of the spear-head, as shown at *a*<sup>3</sup>.

The hook member consists of an attaching-loop B and the two laterally-yielding hooks *b b*, which engage with the bow of the eye member on opposite sides of the neck *a*<sup>2</sup> when the parts are interlocked and which are separated at their outer portions or bends by an aperture which receives the locking-head of the eye member and is normally narrower than the widest portion of the head, so that the hooks must spring farther apart in order to allow the locking-head to pass through the aperture, as in the fastening of the Letters Patent hereinbefore referred to. When the parts of the fastening are disconnected, by turning the same at an outward angle or away from the garment or other article, as shown in Fig. 4, the neck of the eye member forces the hooks of the other member apart and passes between the same, as in the fastening of the Letters Patent hereinbefore referred to.

In order to permit the breaking or disengagement of the fastening by a reverse or inward turn of its members, the bow of the eye member is provided with an inwardly-projecting stop or lip *c*, against which the ends of the hooks *b* bear in turning the members inwardly on each other and which compels the hooks to spring inwardly over the locking-head of the eye member for disengaging the parts. In turning the members on each other in this manner the stop or lip *c* acts as a fulcrum or abutment against which the points of the hooks bear and which causes the bends of the hooks to ride inwardly or rearwardly along the diverging sides *a*<sup>3</sup> of the locking-head as the members are turned at an increasing angle to each other, thereby



spreading the laterally-yielding hooks sufficiently to allow them to clear the locking-head, as shown in Fig. 5, and disengaging the members of the fastening. This double unlocking capacity renders the fastening more convenient in use than a fastening which unlocks only in one direction, such a fastening being especially desirable for suspenders and horse-blankets, where convenience requires that the fastening should be capable of disengagement by turning the parts in either direction. The stop or lip *c* also serves as a guard which covers the points of the hooks *b* and prevents the same from catching or tearing the clothing.

I claim as my invention—

1. The combination with an eye member having its bow provided with an inwardly-extending locking head or enlargement connected with the bow by a neck or contracted portion and a stop or abutment arranged on the outer or front portion of the bow, of a hook member having a pair of laterally-yielding hooks adapted to engage with the bow of the eye member on opposite sides of said neck

and arranged to bear against said stop or abutment in turning the members of the fastening at an angle to each other for disconnecting the same, substantially as set forth.

2. The combination with an eye member having its bow provided with a stop or abutment and an inwardly-extending locking head or enlargement connected with the bow by a narrow neck, the edges of that portion of the head adjacent to said neck diverging toward the widest portion of the head, of a hook member having a pair of laterally-yielding hooks adapted to engage with the bow of the eye member on opposite sides of said neck and separated by an aperture normally smaller than said head and arranged to bear at their ends against said stop or abutment, substantially as set forth.

Witness my hand this 3d day of October, 1898.

WM. W. PIERCE.

Witnesses:

JNO. J. BONNER,  
CARL F. GEYER.