

(No Model.)

A. A. PAGE.
SNAP HOOK.

No. 504,539.

Patented Sept. 5, 1893.

Fig. 1

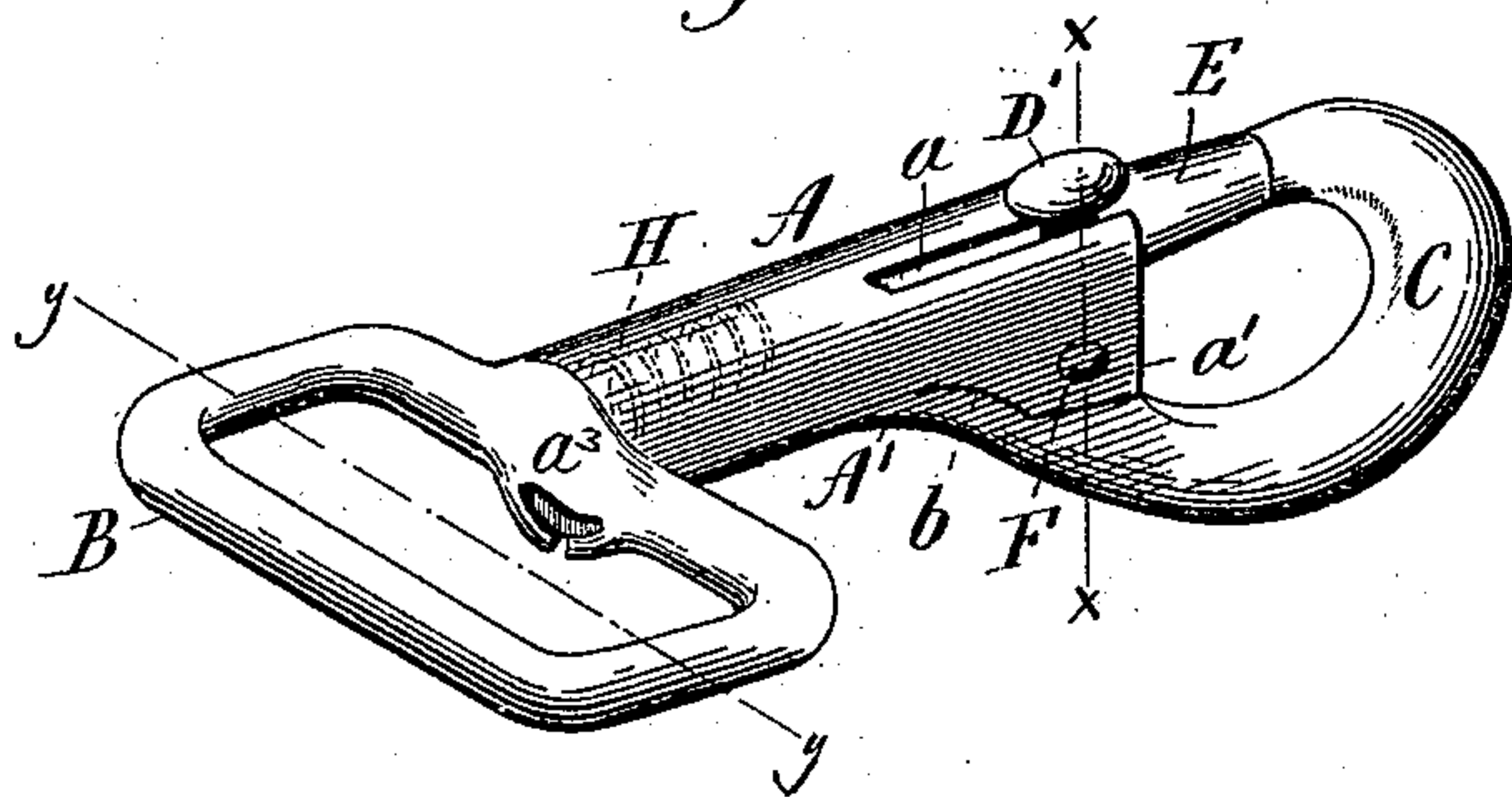


Fig. 2

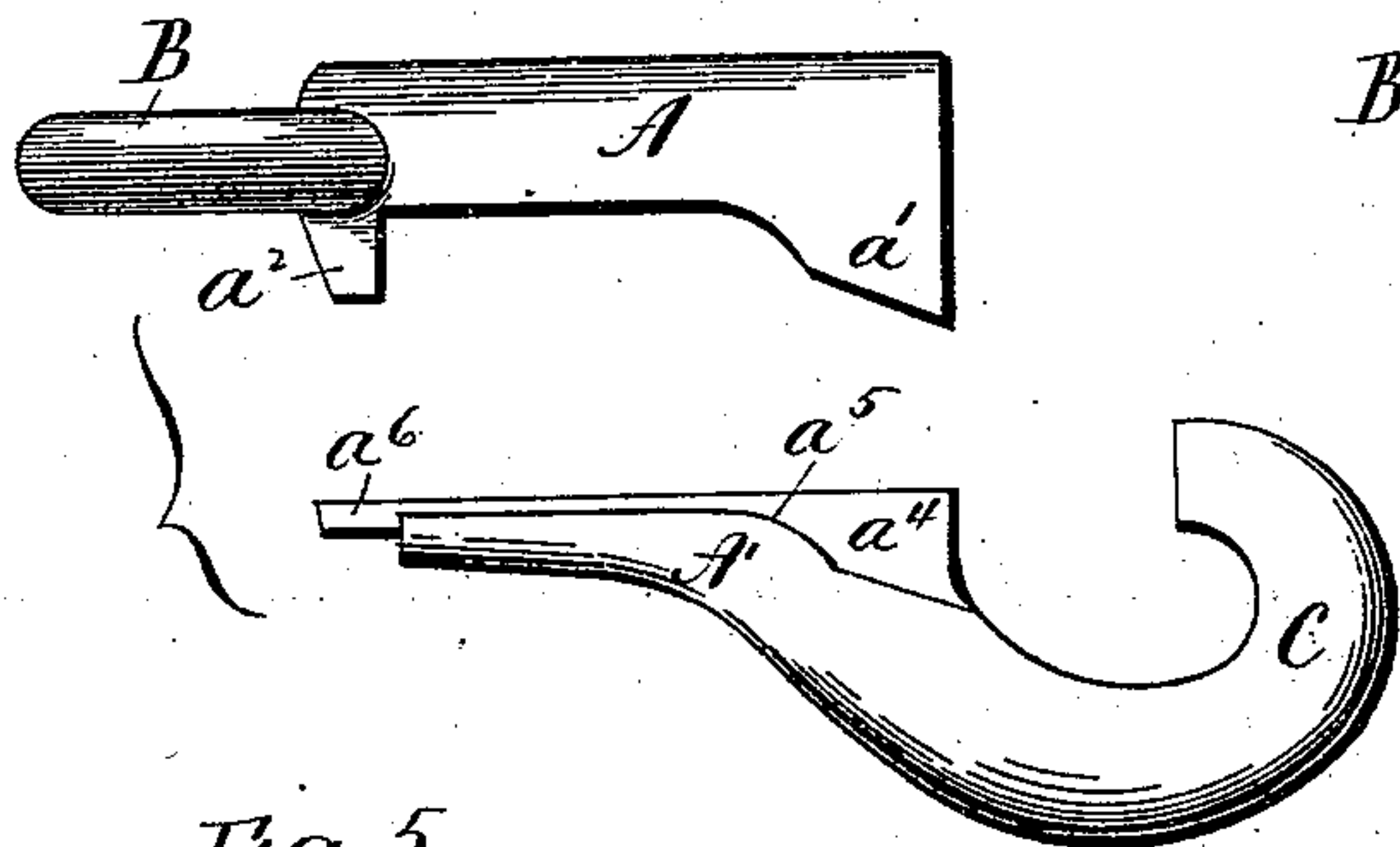


Fig. 3

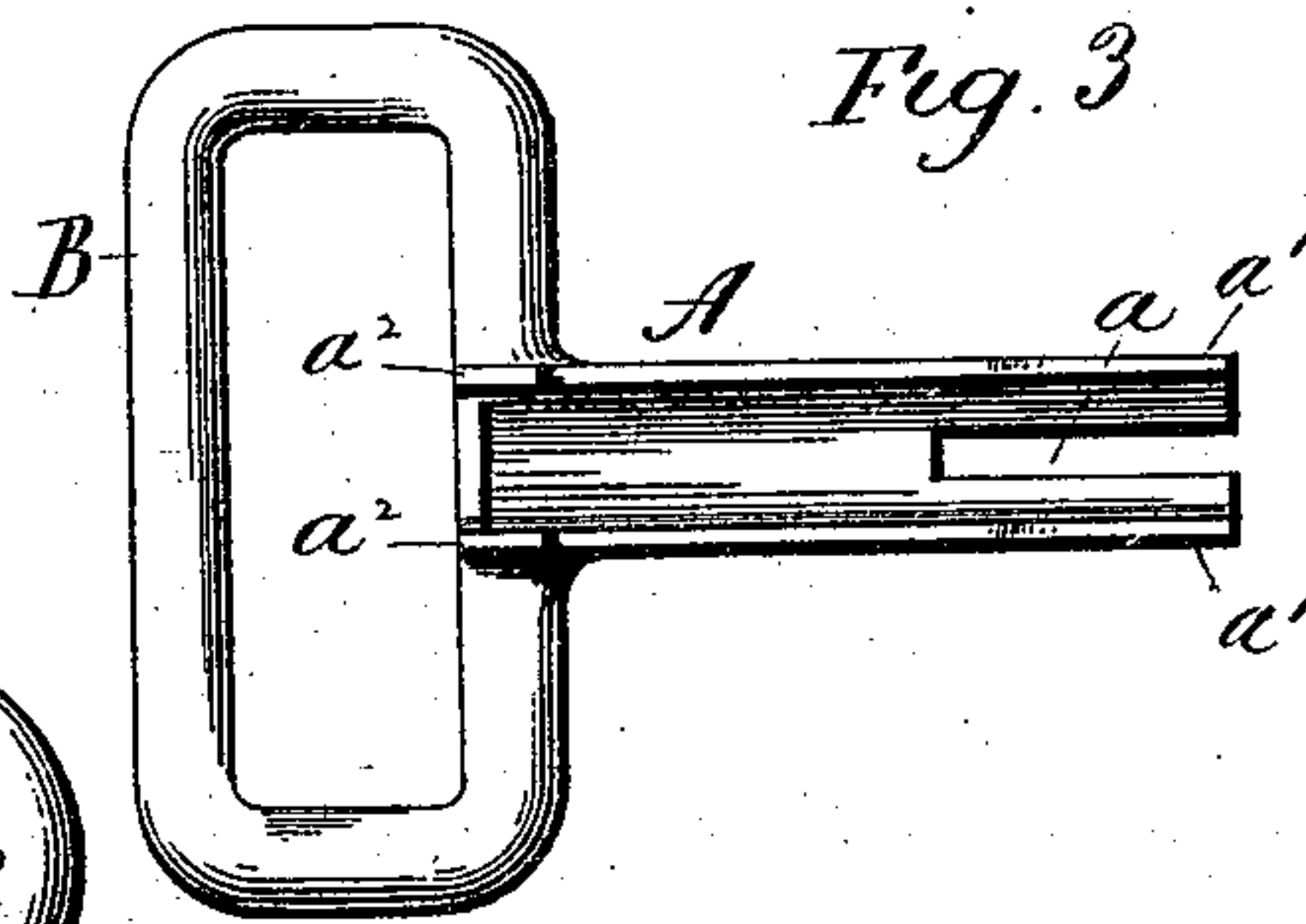


Fig. 5

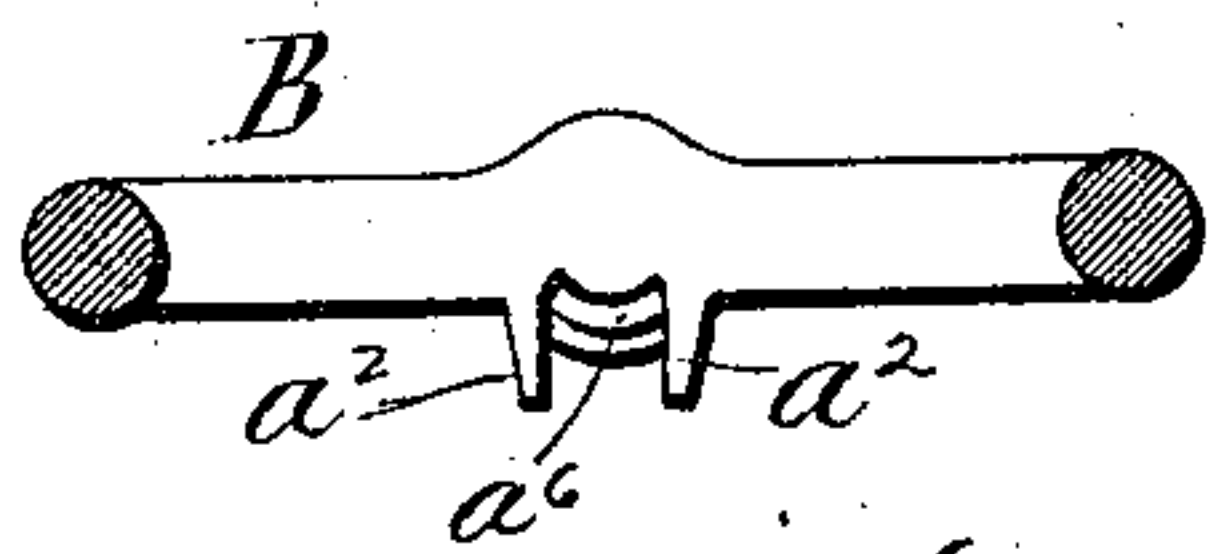


Fig. 6

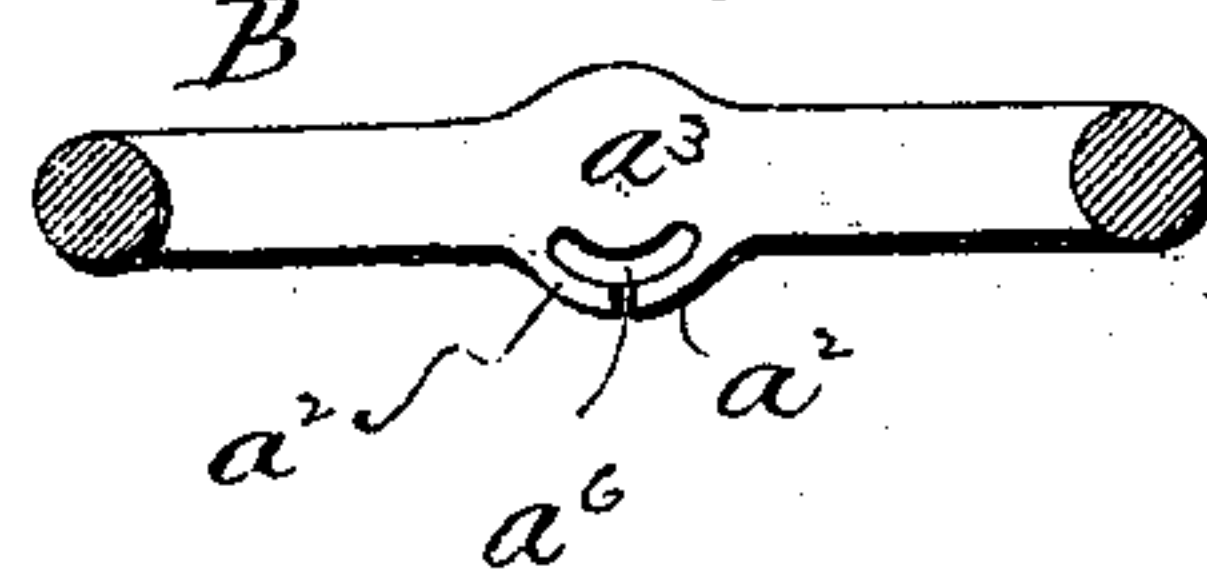


Fig. 7

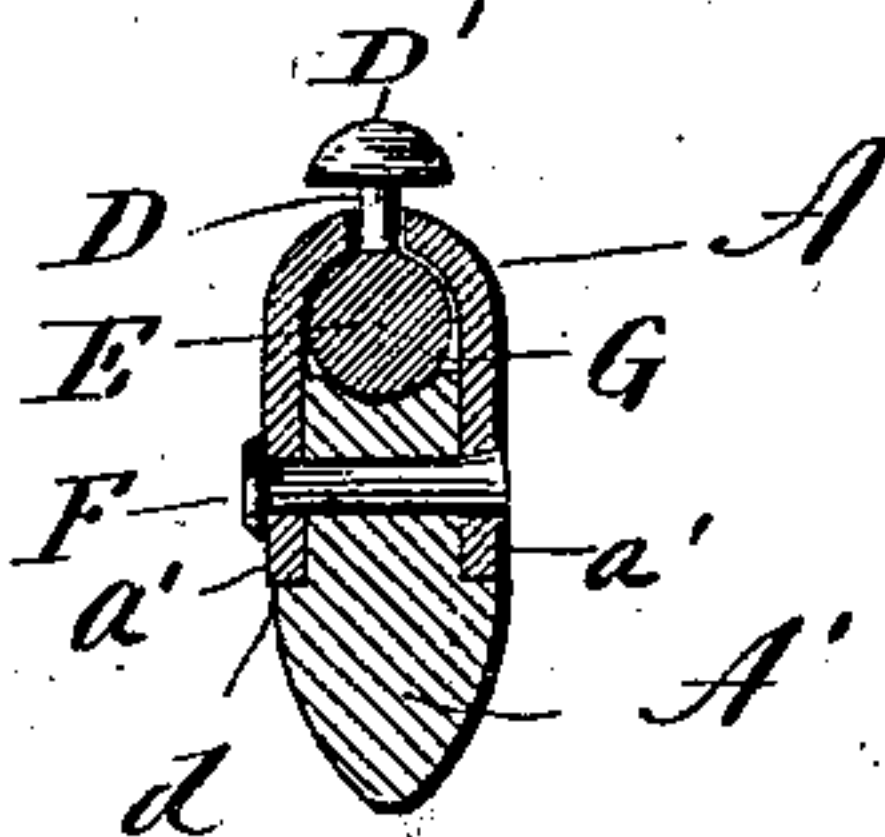


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

ALBERT A. PAGE, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE
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SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 504,539, dated September 5, 1893.

Application filed December 5, 1892. Serial No. 454,031. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. PAGE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Snap-Hooks, (Case B); and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of a snap-hook constructed in accordance with my invention; Fig. 2, a view in side elevation comprising the two main parts of the device, the said parts being properly arranged relatively, but separated to better show their construction; Fig. 3, a detached reverse view of the eye and the upper member of the body which is cast integral with it; Fig. 4, a detached, broken plan view of the hook, showing the lower member of the body; Fig. 5, a view of the device looking toward the inner end of the body, taken on line $y-y$ of Fig. 1, and showing the fingers $a^2 a^2$ of the upper member of the body before they are bent down upon the reduced extension a^6 of the lower member thereof; Fig. 6, a similar view showing the said fingers bent down to clasp the said extension; Fig. 7, a transverse section of the snap-hook on the line $x-x$ of Fig. 1.

My invention relates to an improvement in snap-hooks, the object being to produce a superior article at a low cost for manufacture, without casting the hook askew and bending it in finishing, as is now done, and involving the waste of many castings which are broken in bending their hooks, and impairing the strength of such castings as do not break.

With these ends in view, my invention consists in a snap-hook having a longitudinally divided, chambered body, composed of two members, one of which is formed integral with the eye of the article, and the other with the hook thereof, and the said members being rigidly secured together.

My invention further consists in certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In carrying out my invention, I form the chambered body of the hook of two members A and A', respectively cast integral with the eye B, of the article, and the hook C, thereof, the body being thus longitudinally divided. As herein shown, the said members A and A' of the body join each other in the plane of the eye, and may be respectively designated as the upper and lower members of the body. The said upper member, which is the larger of the two, is U-shaped in cross-section, and opens downward throughout its length, being provided at the upper edge of its outer end with an open longitudinal slot a to receive the stem D, of the finger-piece D', the said stem and finger-piece being cast integral with the bolt E, which is located in the said body, and operated by them. The said member A, is provided at the lower edge of its outer end with two depending parallel ears $a' a'$, and at the corresponding edge of its rear end with two fingers $a^2 a^2$, and an abutment a^3 having a curved lower edge. The lower member A' of the body which is formed integral with the hook C, as before described, corresponds in its external form and dimensions with the form and dimensions of the upper member A, so that when the two members are secured together, they will unite to form a symmetrical body, with only a smooth joint between them, exposed on the opposite sides thereof. The inner edge of the said member A', is constructed to form what I may describe as a tenon a^4 , adapted to fit within the upper member of the body, and having its greatest depth where it enters between the ears $a' a'$ thereof. A curved shoulder a^5 formed on each side of the member A' between its full size and the said tenon, forms abutments or rests for the lower edges of the upper member A, including its said ears $a' a'$ and conform thereto in curvature. At its extreme inner end the said lower member A', is reduced to form a concavo-convex extension a^6 , around which the fingers a^2 before mentioned are clasped, as shown in Fig. 7 of the drawings, the concave upper edge of this extension fitting over the curved lower edge of the abutment a^3 , formed, as before described, at the rear end of the upper member A, of the body. When the said

members of the body are fitted together, they are united by a pin F, passing through the ears $a' a'$ of the upper member A, and through the main forward portion of the tenon a^4 of the lower member A'. By adapting the lower member to fit into the open lower edge of the upper member, as described, the two members are prevented from separating laterally, while their longitudinal separation is prevented by the pin F, which is largely relieved from strain by the abutment of the edges of the ears $a' a'$ of the upper member, at the points b , (Fig. 1) against the adjacent curved portions of the shoulders a^5 formed between the tenon a^4 and the exterior surface of the member A'. The clasp-
 10 ing of the extension at the rear end of the member A', by the fingers $a^2 a^2$ formed at the rear end of the member A, also materially assists in binding the two members together.
 20 If desired, the end of the member A' might be turned upward at a right angle, so as to get a grip on the member A, at a right angle to the draft of the hook. This construction is so obvious that it is not thought it re-
 25 quires illustration. The tenon a^4 of the member A' is longitudinally grooved, as at a^7 to co-operate with the member A, which is U-shaped in cross-section, as before explained, to form a circular chamber G, for the bolt E, and the
 30 spiral spring H, employed for actuating it, the said spring being interposed between the inner end of the bolt and the abutment a^3 before referred to.

It will be obvious that the parts of my improved snap-hook may be very readily assembled by placing the bolt and spring within the member A, of the body, and then applying the member A' thereto as a cap, after which the parts are riveted together, and the
 40 fingers $a^2 a^2$ turned down.

I do not broadly claim a snap-hook having a longitudinally divided chamber, but only my particular construction. Nor do I broadly claim a snap-hook constructed so as not to
 45 require the casting of its hook askew. I do not limit myself, however, to making the respective members of the chambered body of the hook in the form shown, in which the greater part of the chamber is provided in
 50 one member, the other being grooved but slightly. If preferred that formation might be reversed, or the provision for the chamber equalized or even divided between the two members, or it might be entirely provided for
 55 in one member, in which case the other would be merely a cap, so to speak, therefor. These

different forms seem too obvious to require more than mention as above.

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

1. A snap-hook having a longitudinally divided, chambered body, composed of two members rigidly secured together, one of which is formed integrally with the eye of the article, and the other with the hook thereof, and one member extending to the base of the hook and the other to the base of the eye; and a bolt located in the said chambered body, substantially as described.

2. A snap-hook having a longitudinally divided, chambered body composed of two members, rigidly secured together, one of which is formed integrally with the eye and the other with the hook thereof, the said body being divided in the plane of the eye, and one member being substantially U-shaped in cross-section, and the other being shaped to fit over it to form a chamber; and a bolt located in the said chamber, substantially as described.

3. A snap-hook having a longitudinally divided, chambered body, composed of an upper and a lower member rigidly secured together and respectively formed integral with its eye and its hook, the said upper member being provided at its outer end with depending ears, and the lower member being constructed to fit within the upper member, and with curved shoulders conforming to the curvature of the lower edges of the upper member which rest upon them, substantially as described.

4. A snap-hook having a longitudinally divided chambered body, composed of an upper and a lower member rigidly secured together and respectively formed integral with its eye and hook, the said upper member being provided at its forward end with depending ears, and at its rear end with depending fingers, and the said lower member being constructed to fit within the upper member, having shoulders for the edges thereof to rest upon, and reduced at its inner end to be clasped by the fingers of the said upper member, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT A. PAGE.

Witnesses:

WM. H. KIRSCHNER,
WILLIAM S. COOKE.