

(No Model.)

2 Sheets—Sheet 1.

F. E. DE LONG.
GARMENT HOOK.

No. 492,743.

Patented Feb. 28, 1893.

FIG. 1.

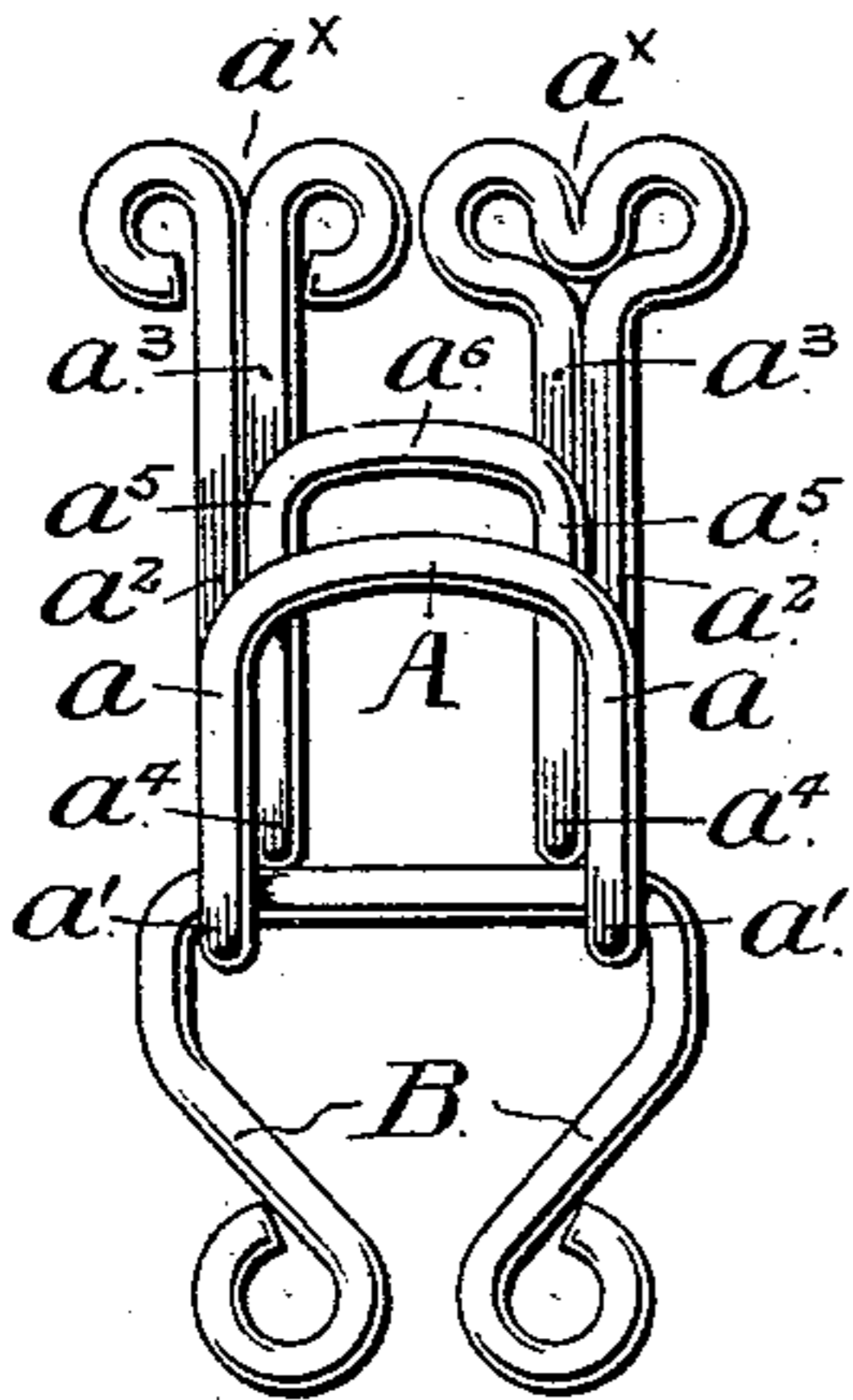


FIG. 2.

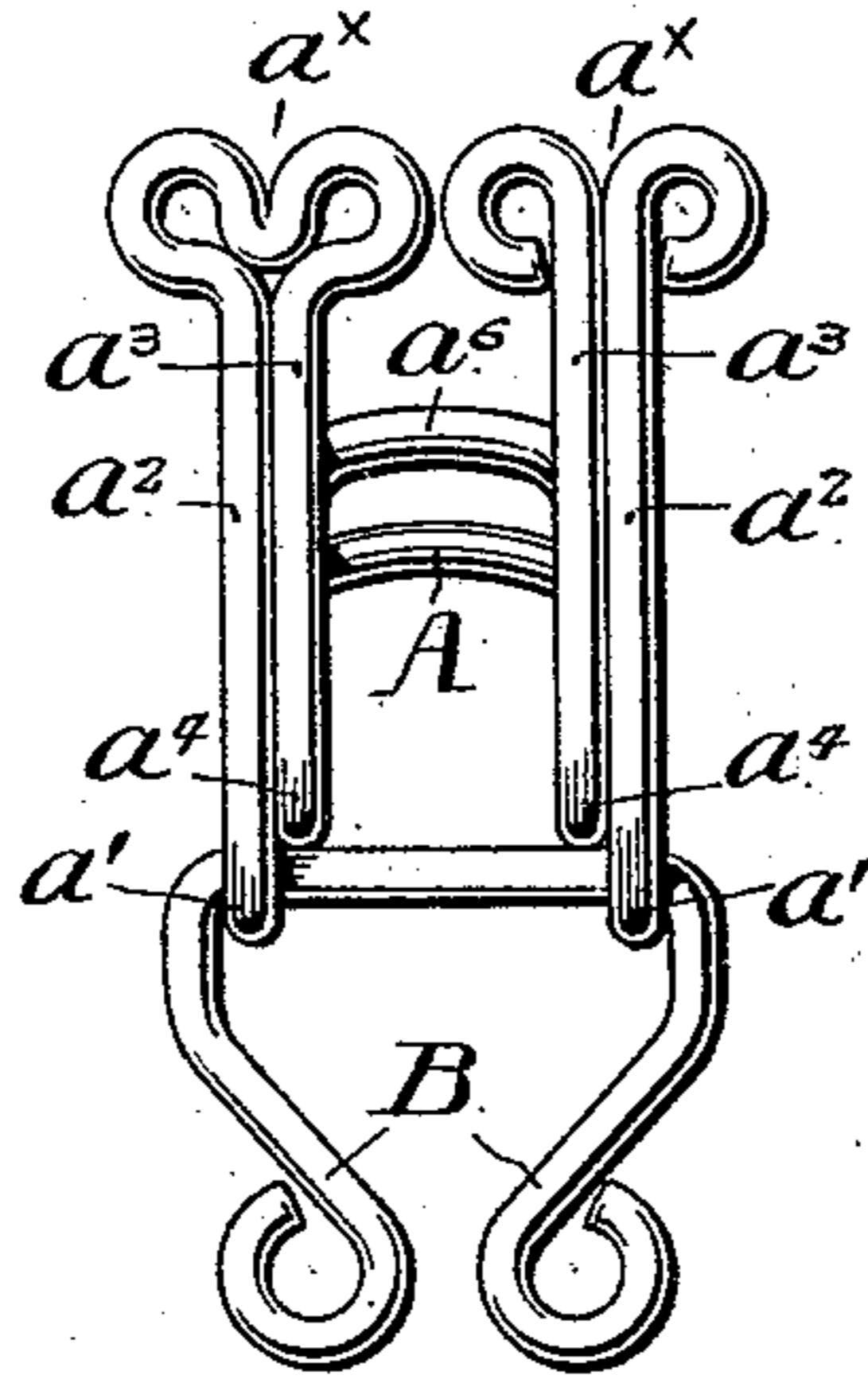


FIG. 3.

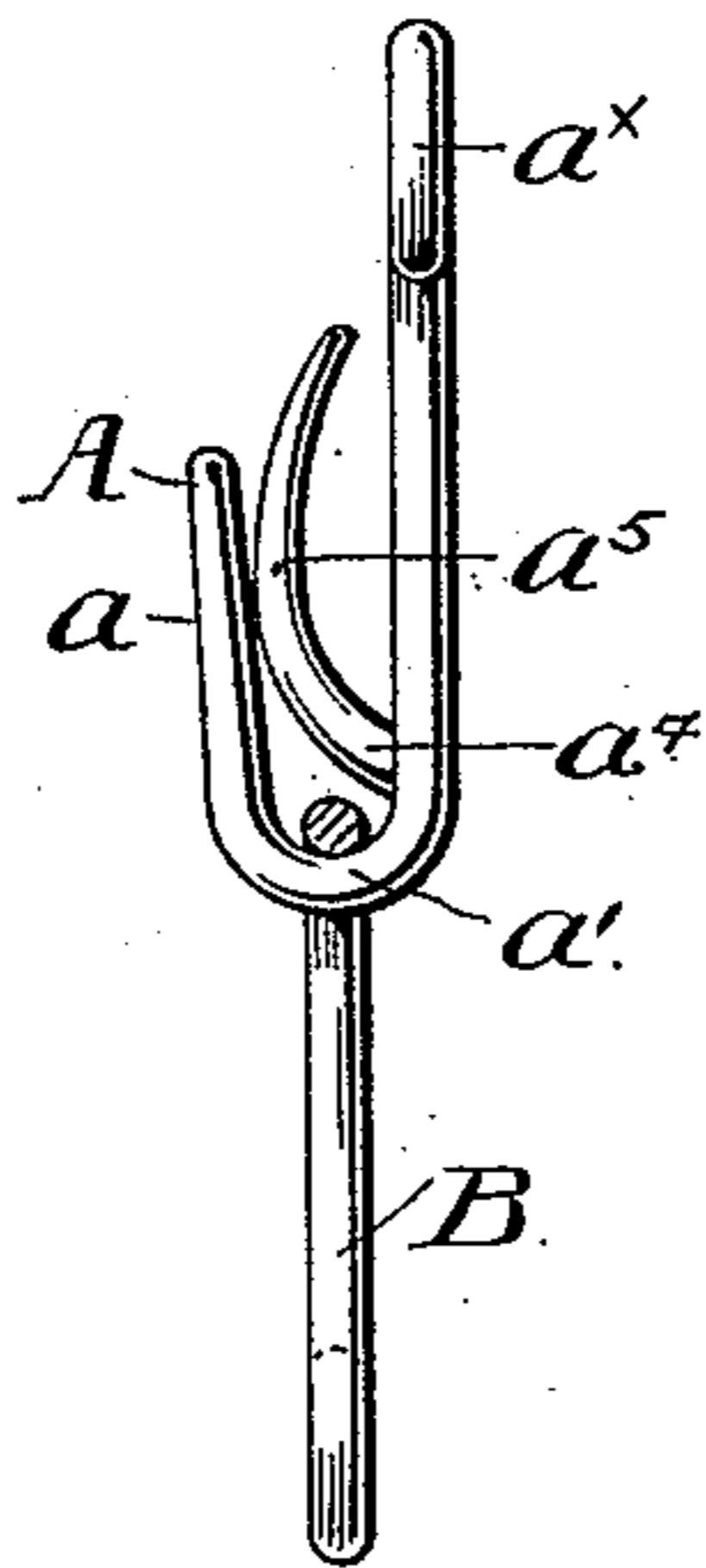


FIG. 4.

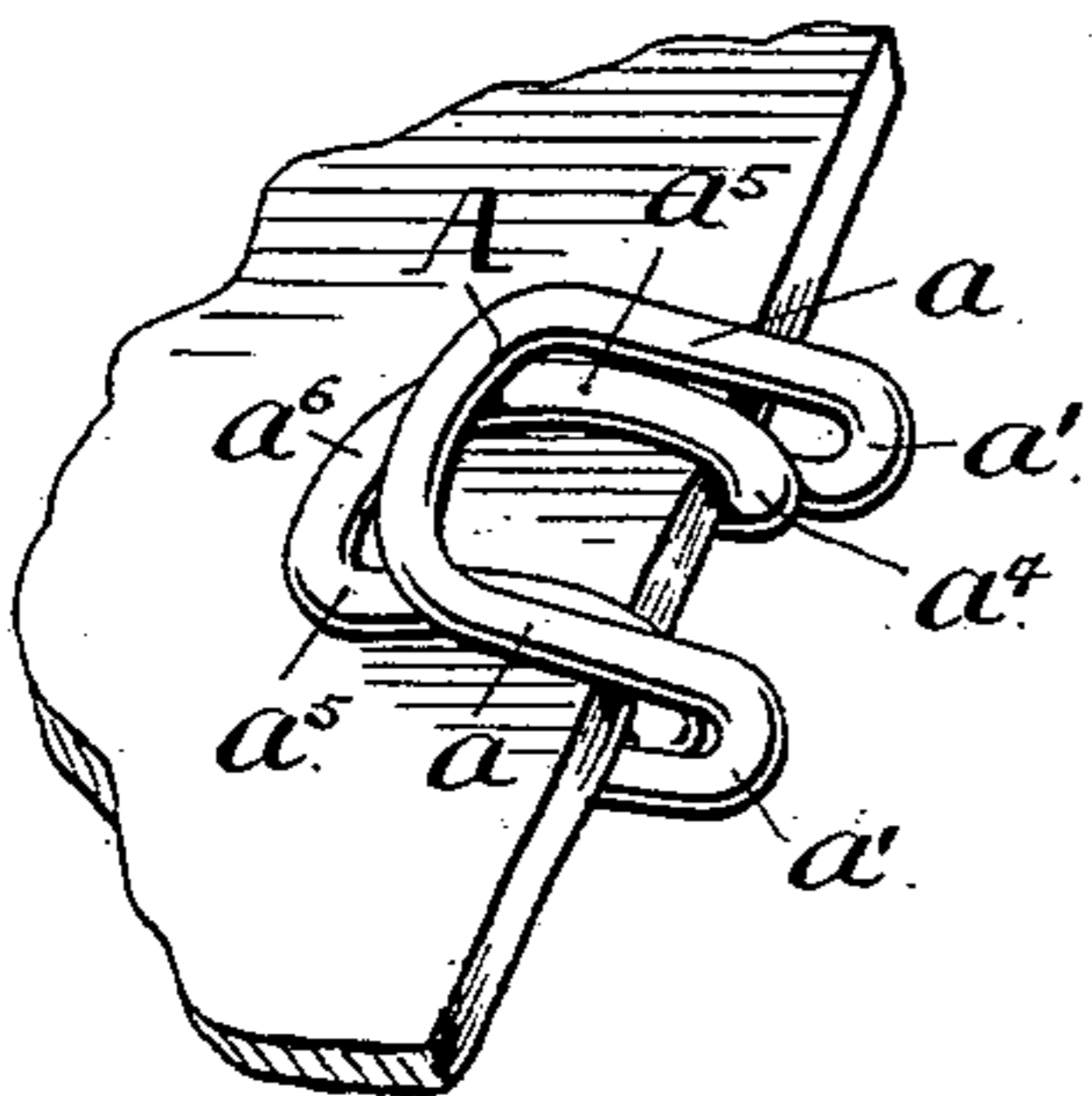
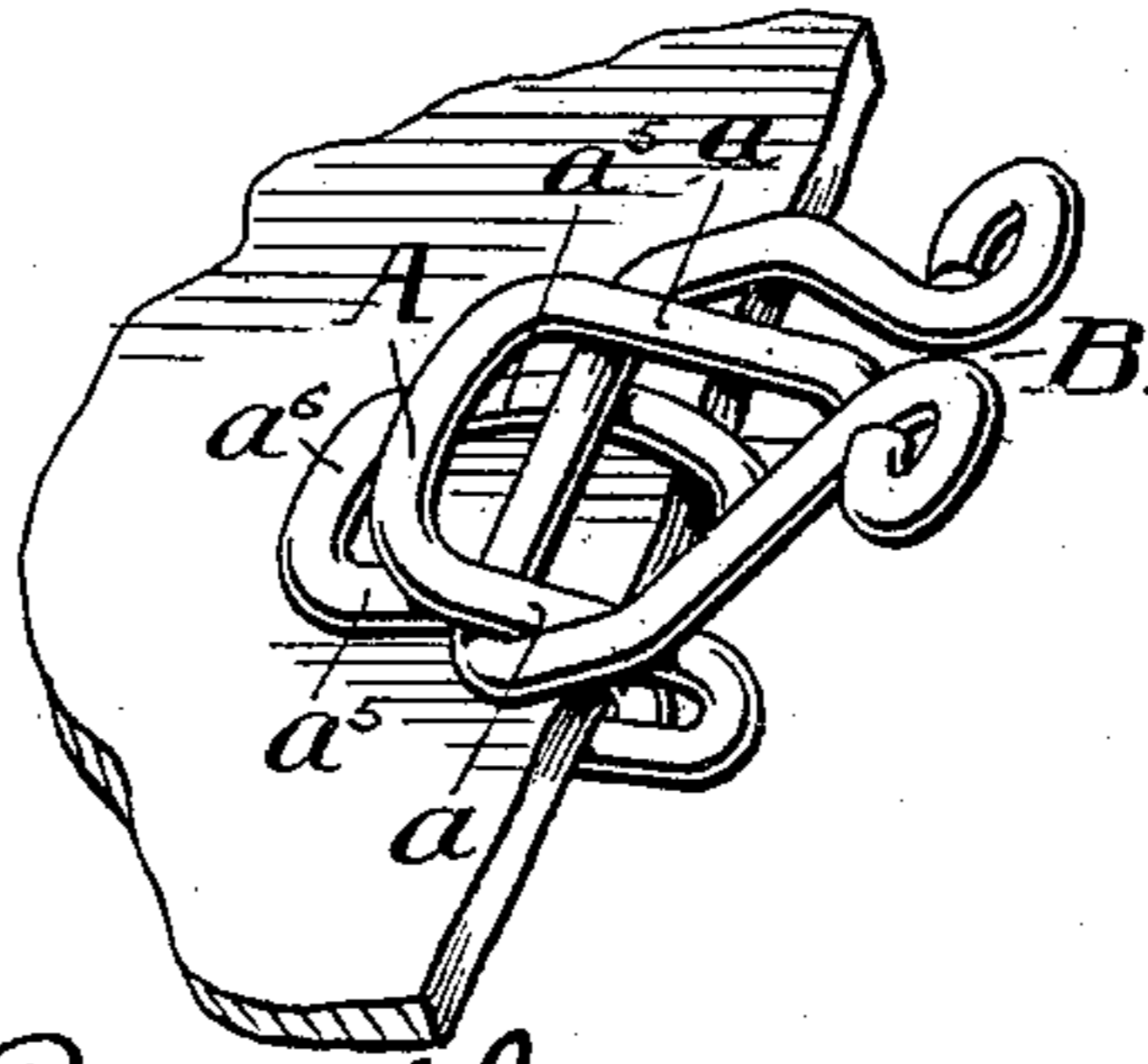


FIG. 5.



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(No Model.)

2 Sheets—Sheet 2.

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FIG. 6.

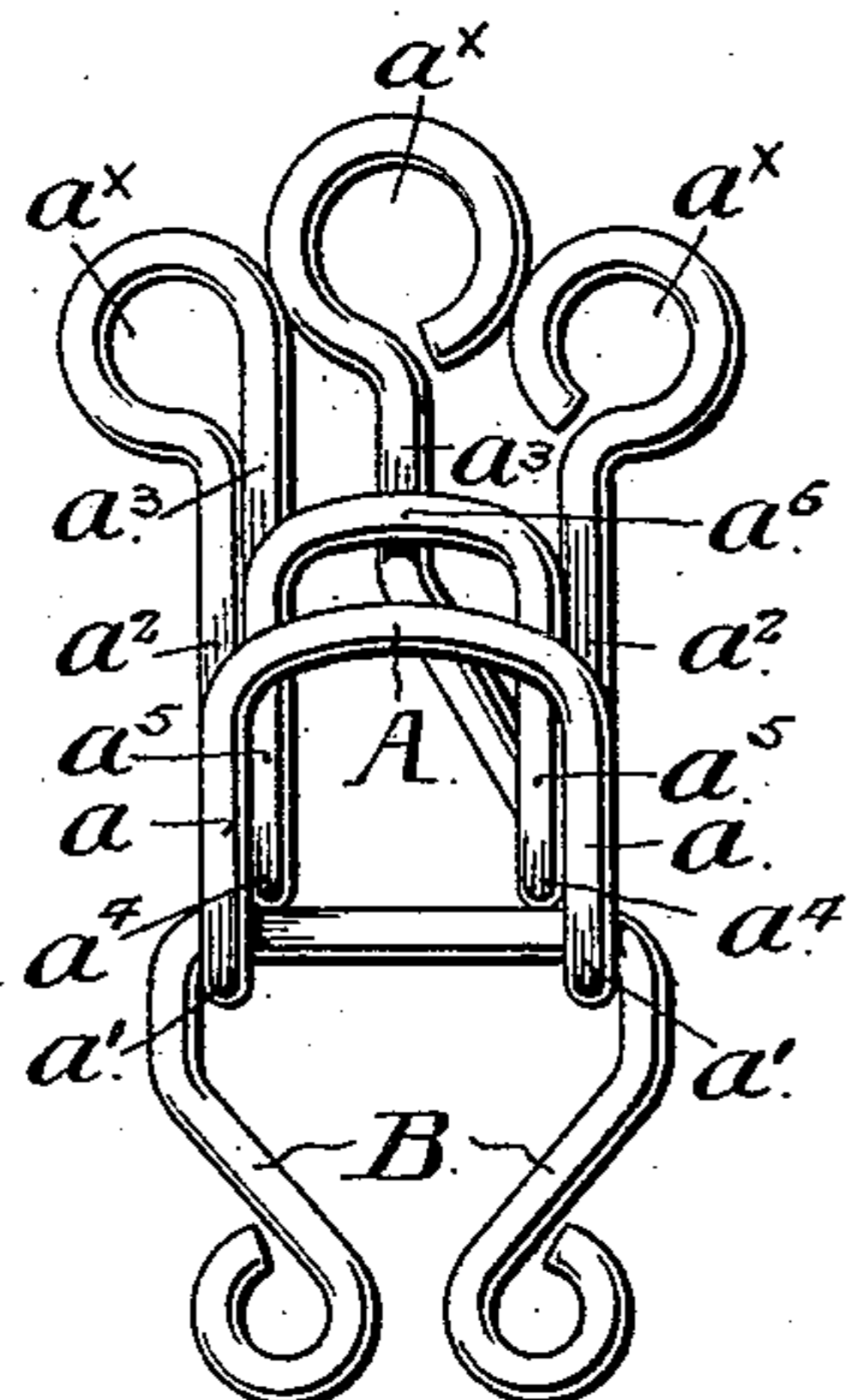


FIG. 7.

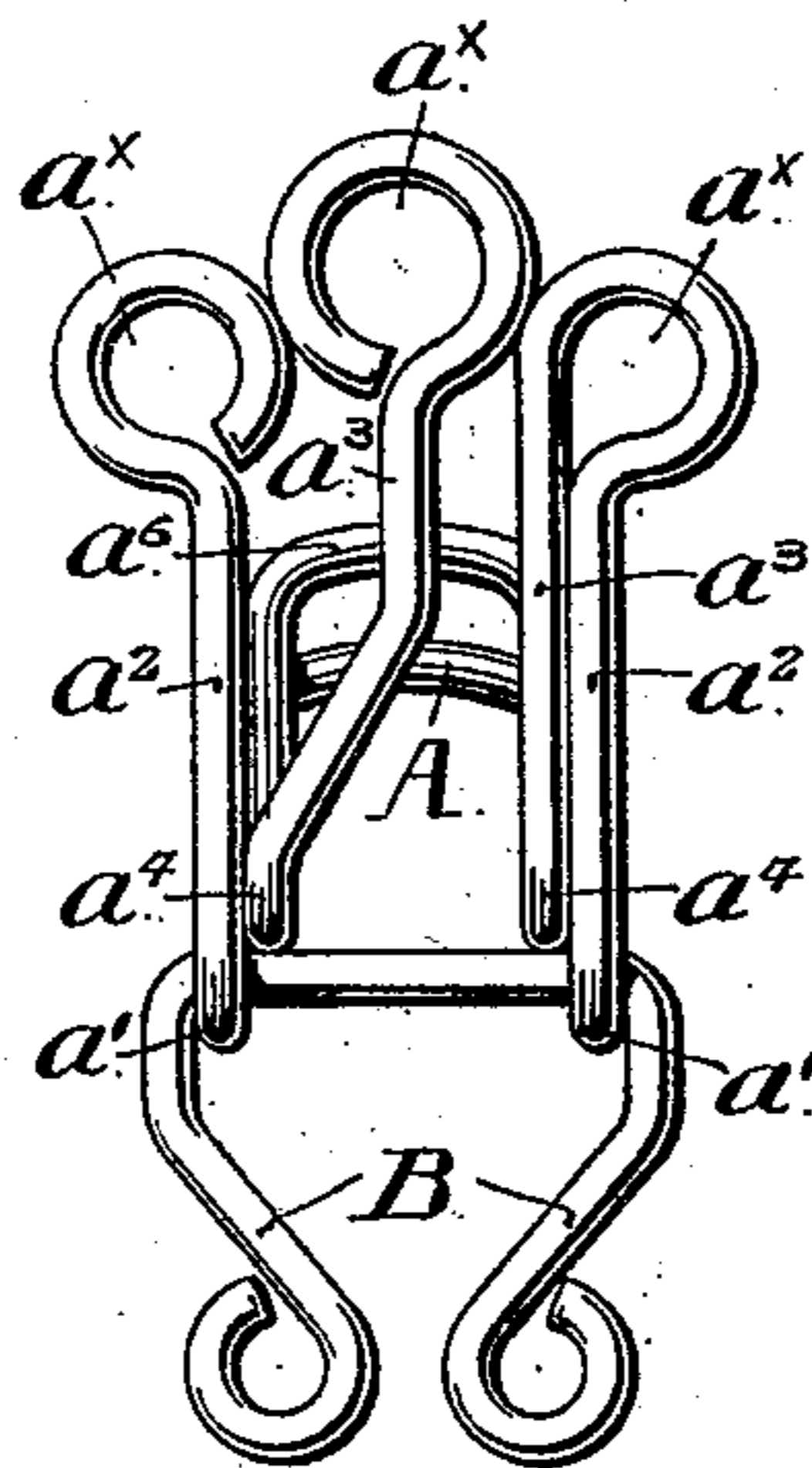


FIG. 8.

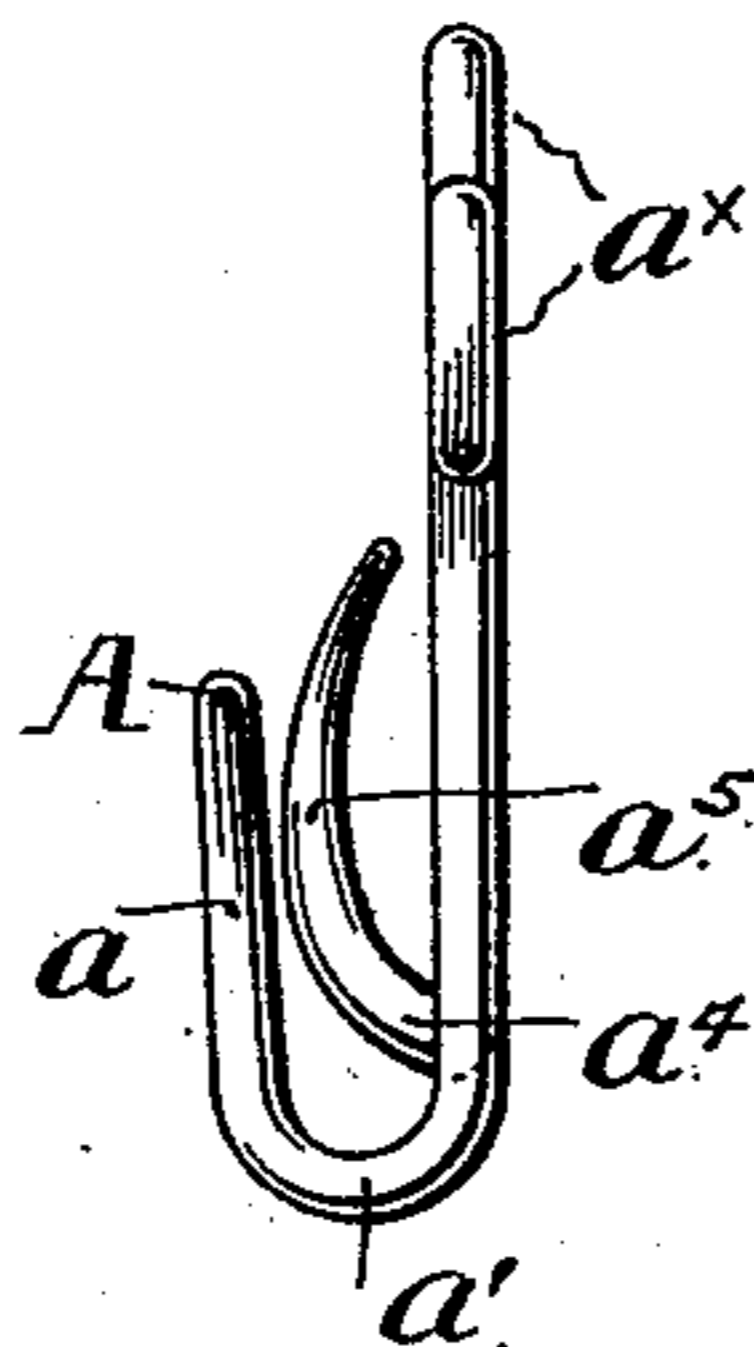
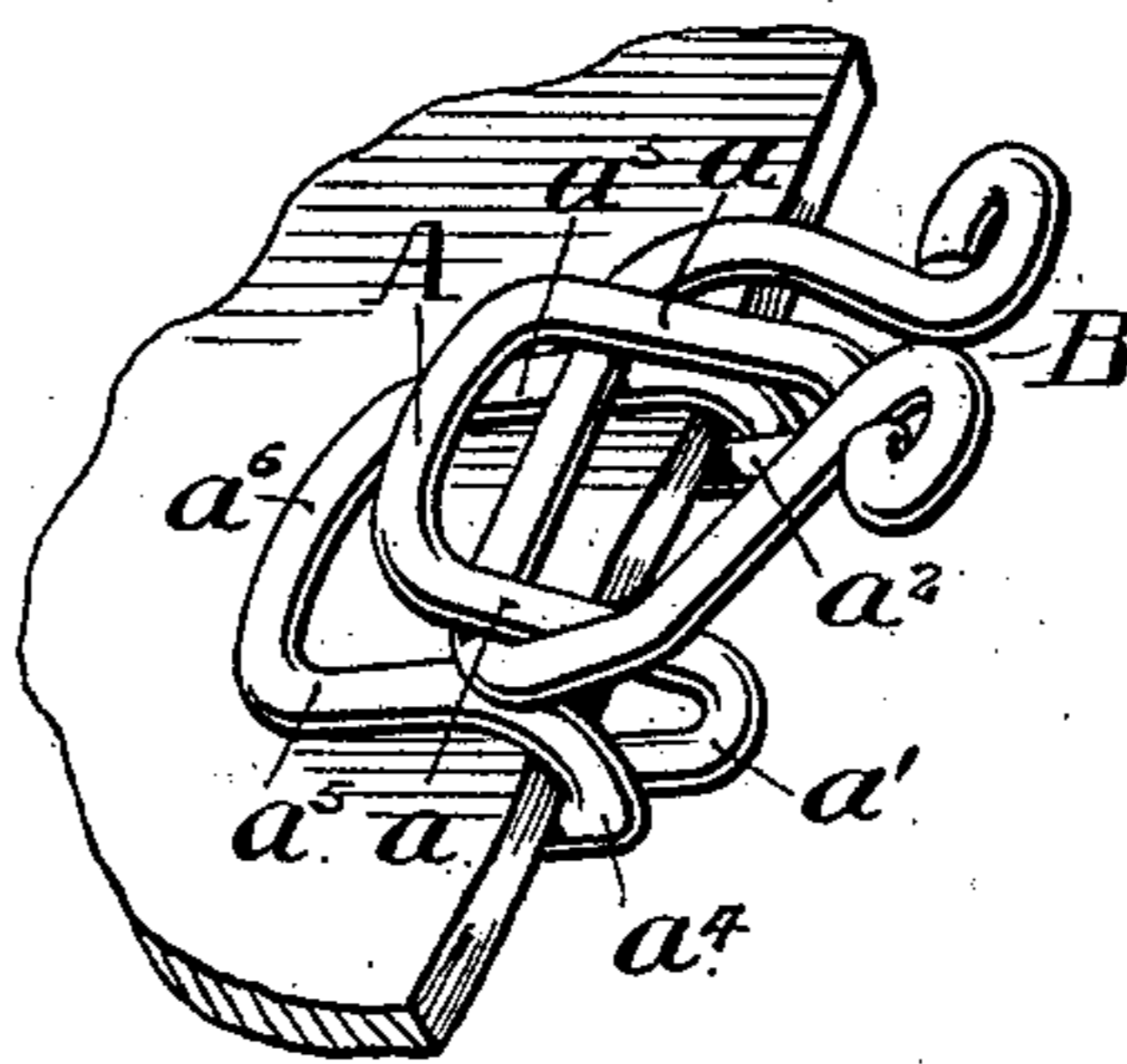
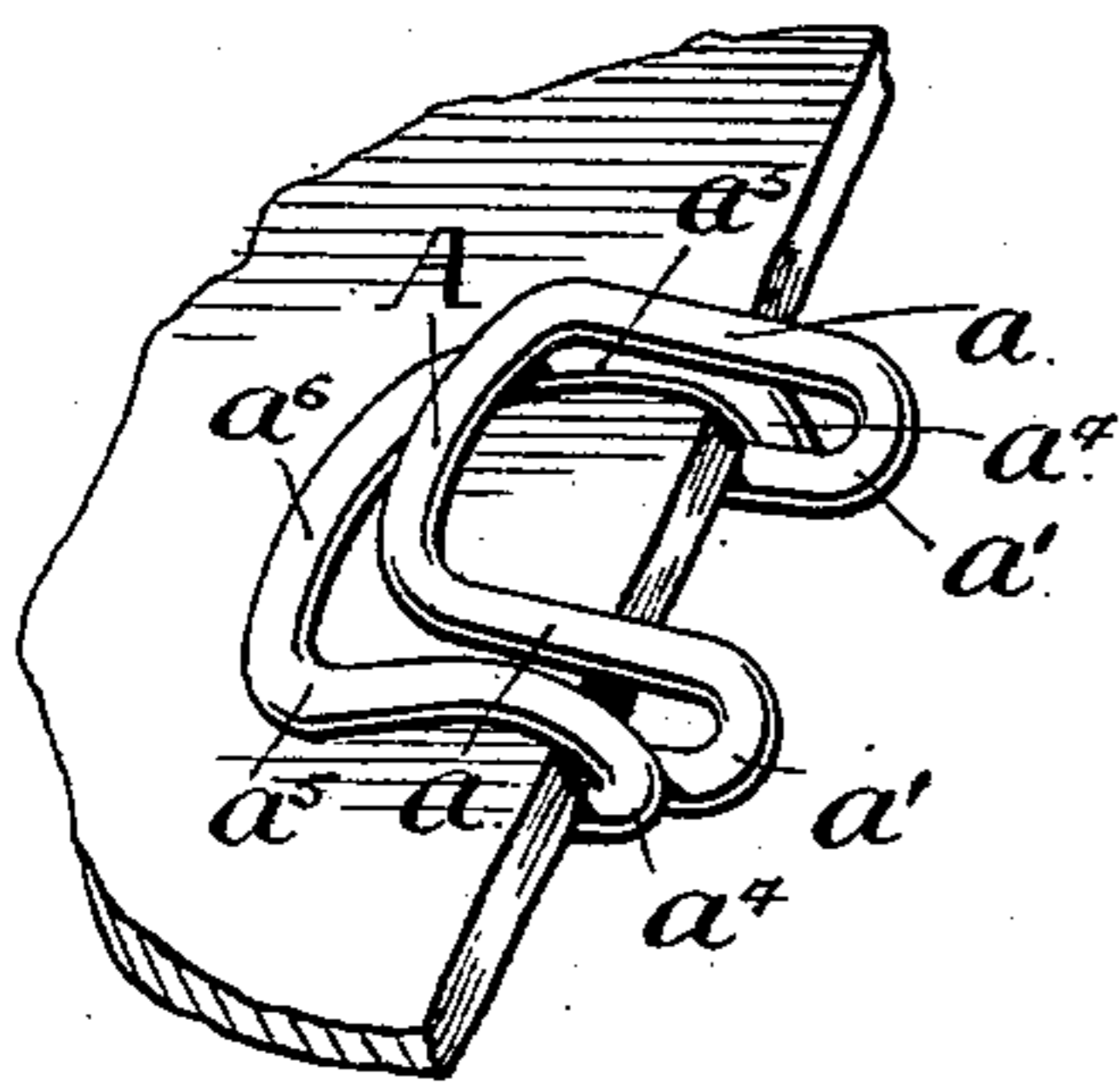


FIG. 9.

FIG. 10.



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UNITED STATES PATENT OFFICE.

FRANK E. DE LONG, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
RICHARDSON & DE LONG BROTHERS, OF SAME PLACE.

GARMENT-HOOK.

SPECIFICATION forming part of Letters Patent No. 492,743, dated February 28, 1893.

Application filed December 19, 1892. Serial No. 455,578. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. DE LONG, a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Garment-Hooks, of which the following is a specification.

My invention relates to hooks which are employed, in connection with eyes, for fastening wearing apparel, and for kindred purposes, and especially to that class of the same in which both the hook and the eye are intentionally made quite wide, so as to cause them to present a broad bearing upon or with respect to, and to prevent the puckering of, the material to which they are applied. Hooks of this class are largely employed as fastenings for heavy garments such as capes, circulars, and great-coats, made of fur, cloth, or other material, and usually lined with silk or other less substantial and more perishable fabric than the outside material or fabric. In the use of these hooks, as in the use of the ordinary hooks and eyes, it is a desideratum to provide as a part or member of the hook itself some device or means to prevent accidental or too easy disengagement of the eye, and it is also important to guard against the wear of the lining material which the bill of the hook overhangs, occasioned by the friction of the eye against such material in the engagement and disengagement of the eye with respect to the hook. It is the object of my invention to secure these desirable results more particularly in hooks of the class mentioned, which are made from a single piece of wire bent to the desired form, and a component of which is a tongue or member formed with a bend, bellied portion, or so-called "hump," in it, which bears such relation to the bill and shank portions as to partially close the eye-space between the bill and the shank, and slightly obstruct both the engagement and the disengagement of the eye, and a type of which is set forth in United States Letters Patent No. 411,857, granted to me October 1, 1889.

With the foregoing object in view my invention comprehends a garment hook formed

of a single piece of wire bent to form a bill, a shank, and thread-eyes or kindred means for attachment, and also bent to form a combined guard and spring-keeper, which performs not only the function of slightly obstructing both the engagement and the disengagement of the eye with respect to the hook, but also the function of protecting that part of the fabric to which the hook is applied which is overhung by the bill, from contact with and consequent injury by the eye.

In the accompanying drawings I have represented preferred forms of hooks alike embodying my improvements, and differing only from each other in the formal arrangement of the component wire,—all of the hooks represented being hooks having considerable breadth and of the type referred to, although it is not to be understood that my invention is confined to wide hooks.

In the drawings, Figure 1 is a top plan view, and Fig. 2 a bottom plan view, of a hook embodying my improvements in a preferred form, and of an eye engaged therewith. Fig. 3 is a right hand side view of the hook as represented in Fig. 1. Fig. 4 is a view in perspective of the hook represented in Fig. 1 as it appears when applied to the edge of a fabric in the ordinary mode of applying the hook to a garment. Fig. 5 is a view similar to Fig. 4 of the same hook, representing the positions which the parts occupy during the operation of engaging or disengaging the eye. Fig. 6 is a top plan view, and Fig. 7 a bottom plan view, of a hook embodying my improvements in a slightly modified form, and of an eye engaged therewith. Fig. 8 is a right hand side view of the hook as represented in Fig. 6. Fig. 9 is a view in perspective of yet another slightly modified form of hook embodying my improvements, and shown as applied to the edge of a fabric in the ordinary mode of applying the hook to a garment. Fig. 10 is a view similar to Fig. 9 of the same hook, representing the positions which the parts occupy during the operation of engaging or disengaging the eye.

Similar letters of reference indicate corresponding parts.

Referring first to the hook represented in the first five figures of the drawings, the bill of the hook is formed of a single piece of wire, continuous in the bill-side-bars $a a$, in each direction from its apex or point, A, to the eye-engaging bends $a' a'$, where upon each side it returns upon itself, so to speak, and passes back to form the shank-side-bars $a^2 a^2$, which together constitute the shank portion proper of the hook, and the wires forming which are at the rear respectively bent to form thread-eyes a^x , which may be made either in the form represented or in any other preferred form.

The combined fabric-guard and spring-keeper,—which, as explained, serves both to prevent the accidental or too easy disengagement of the eye from the hook, and to protect the fabric which the bill of the hook overhangs from the wearing action of the eye in its engagement and disengagement with respect to the hook,—is formed from and as a continuation of the wire which likewise forms the bill, the shank, and the thread-eyes, of the hook,—and it is composite of two basal or shank members $a^3 a^3$, which spring from the thread-eyes at the rear, extend forward to a point inside of the eye-engaging bends of the hook, and are then bent upward and backward to form the eye-retaining bends $a^4 a^4$, and are then continued backward in the form of two upwardly-bellied spring bars $a^5 a^5$ which face toward the bill, extend beyond its apex, and there, to complete the structure of the combined guard and spring-keeper as an entirety, merge into each other in the form of a cross bar or other connection a^6 , integral with and connective of said “humped” or bellied lateral spring-bars.

In the application of the eye B to the hook, the eye makes contact first with that portion of the guard which extends beyond the apex of the bill of the hook and rests upon the fabric, and, riding over the bellied spring-bars of the same in its passage beneath the bill, occasions the depression of the guard as an entirety by its contact between the bellied portions of said guard and the under surfaces of the bill-bars, and then, when it has finally passed to its final engagement with the eye-engaging bends a' of the hook, is retained against accidental displacement by its contact with the eye-retaining bends a^4 of the guard, which resist its backward movement except under such force or pressure as will occasion the depression of the guard as an entirety, and permit the disengagement of the hook.

The entire hook and guard being, as explained, made of a continuous piece of wire, it is immaterial what form the thread-eyes are caused to assume, and they may be conveniently of that represented in Figs. 1 and 2, or they may, for instance, be arranged as represented in Figs. 6, 7, and 8, in which three independent thread-eyes are formed.

In practice I prefer to form the guard within

the lateral confines of the shank-side-bars and bill-side-bars of the hook, as shown in Figs. 1 to 5, but it may, without departure from the invention, be arranged outside of said bars, as shown in Figs. 9, and 10.

Such being a description of a hook made from a single piece of wire and embodying my improvements, it will be apparent that its breadth will be dependent upon the distance apart of the side-bars, and may be varied according to the lateral extent or breadth of bearing which it is desired that the hook as an entirety shall possess. Thus, the distance may be less or greater than that represented in the drawings.

The distinguishing characteristic of the hook is the provision in integral relationship with the hook, of the combined fabric-guard and spring-keeper described, which is formed of the wire of which the hook proper is formed, and which is so locally disposed relatively to the bill and shank of the hook as to not only guard the fabric from the wear incident to the engagement or disengagement of the eye, but also to prevent the too easy or the accidental displacement of the eye from engagement with the hook.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A hook formed, substantially as set forth, of a single piece of wire bent to form a bill a shank and means for attachment to a garment, and a member continuous of said wire, lying between the shank and bill, and forming a keeper for the eye and a guard for the fabric, substantially as set forth.

2. A hook provided with a member constituting a fabric-guard, a portion of which member is extended from the region of the eye-engaging bends in the direction of the apex of the bill and in a plane intermediate of the planes occupied by the shank and bill members and below the path traversed by the eye, substantially as and for the purposes set forth.

3. A hook provided with a member constituting a fabric-guard, a portion of which is extended from the region of the eye-engaging bends in the direction of the apex of the bill in a plane intermediate of the planes occupied by the shank and bill members and below the path traversed by the eye, and which is bellied toward the bill, substantially as and for the purposes set forth.

4. A hook provided with a member constituting a combined fabric-guard and spring-keeper, a portion of which member is extended from the region of the eye-engaging bends in the direction of the apex of the bill and in a plane intermediate of the planes occupied by the shank and bill members and below the path traversed by the eye, and which is extended beyond the apex of the bill, substantially as and for the purposes set forth.

5. A hook provided with a member constituting a combined fabric-guard and spring-keeper, which extends in the form of bars

along the shank, which embodies return bends
in the vicinity of the eye-engaging bends, and
which is extended in a plane intermediate of
the planes of the shank and bill and is bel-
5 lied outward toward said bill, substantially
as set forth.

In testimony that I claim the foregoing as

my invention I have hereunto signed my
name this 15th day of December, A. D. 1892.

FRANK E. DE LONG.

In presence of—

J. BONSALE TAYLOR,
F. NORMAN DIXON.