

(No Model.)

F. E. DE LONG.
GARMENT HOOK.

No. 492,745.

Patented Feb. 28, 1893.

FIG. 1.

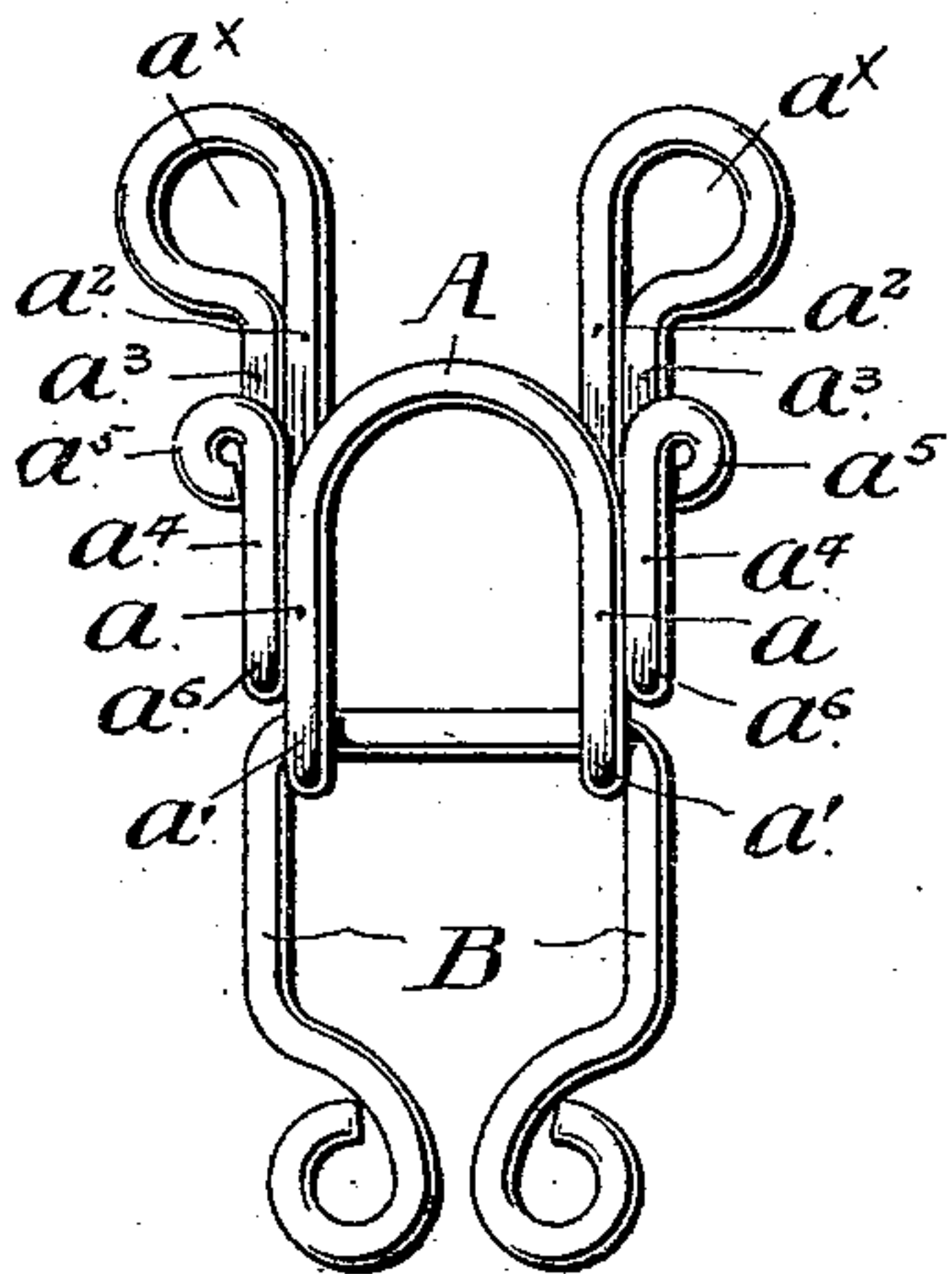


FIG. 2.

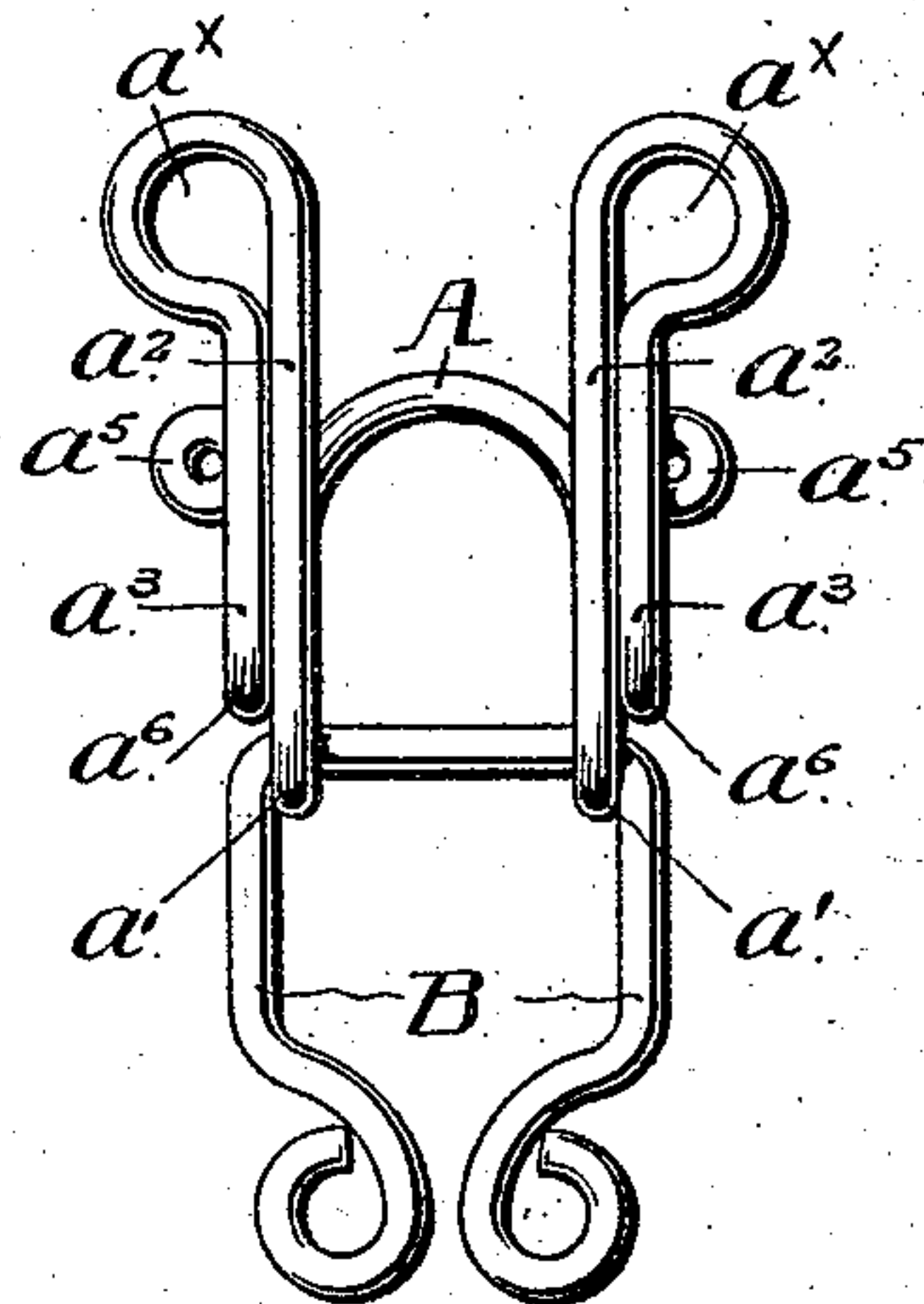


FIG. 3.

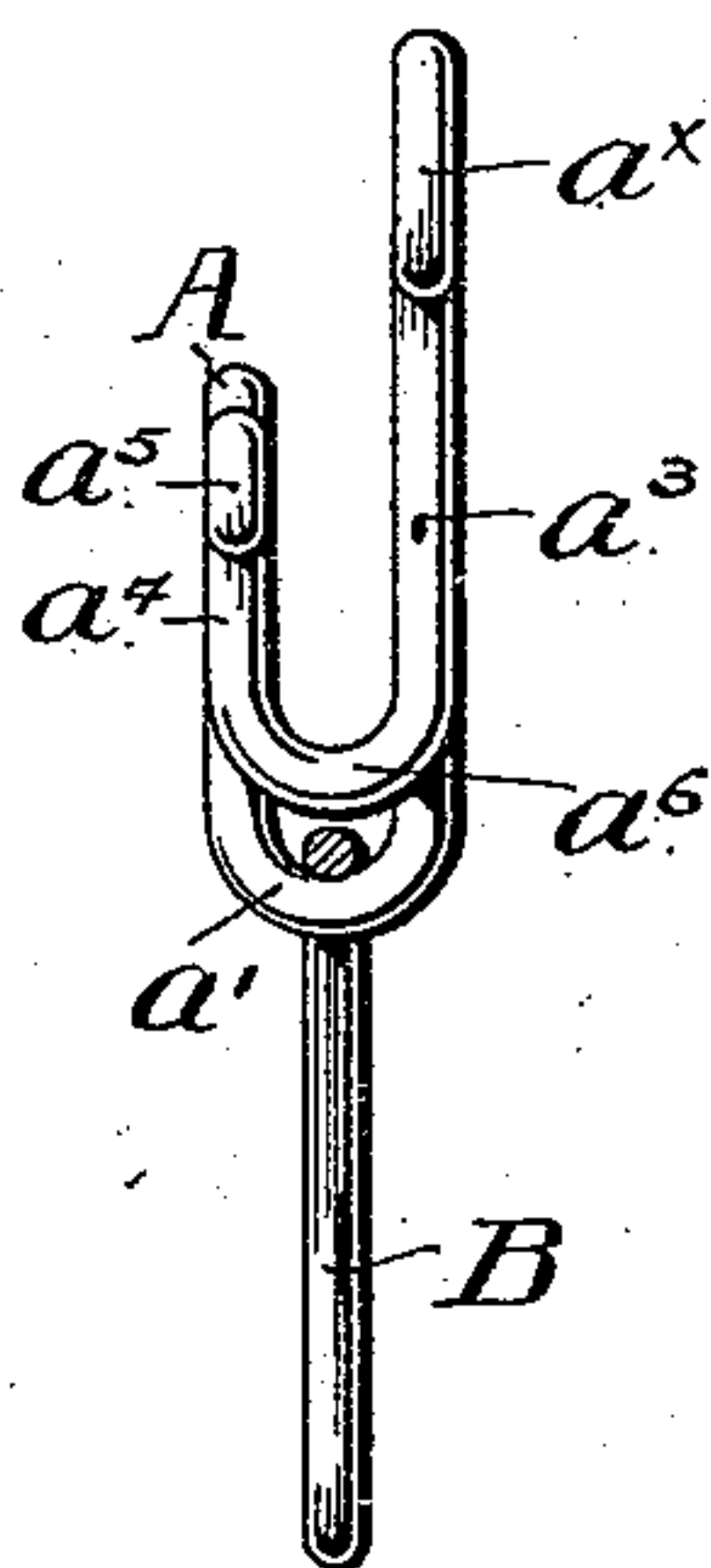


FIG. 4.

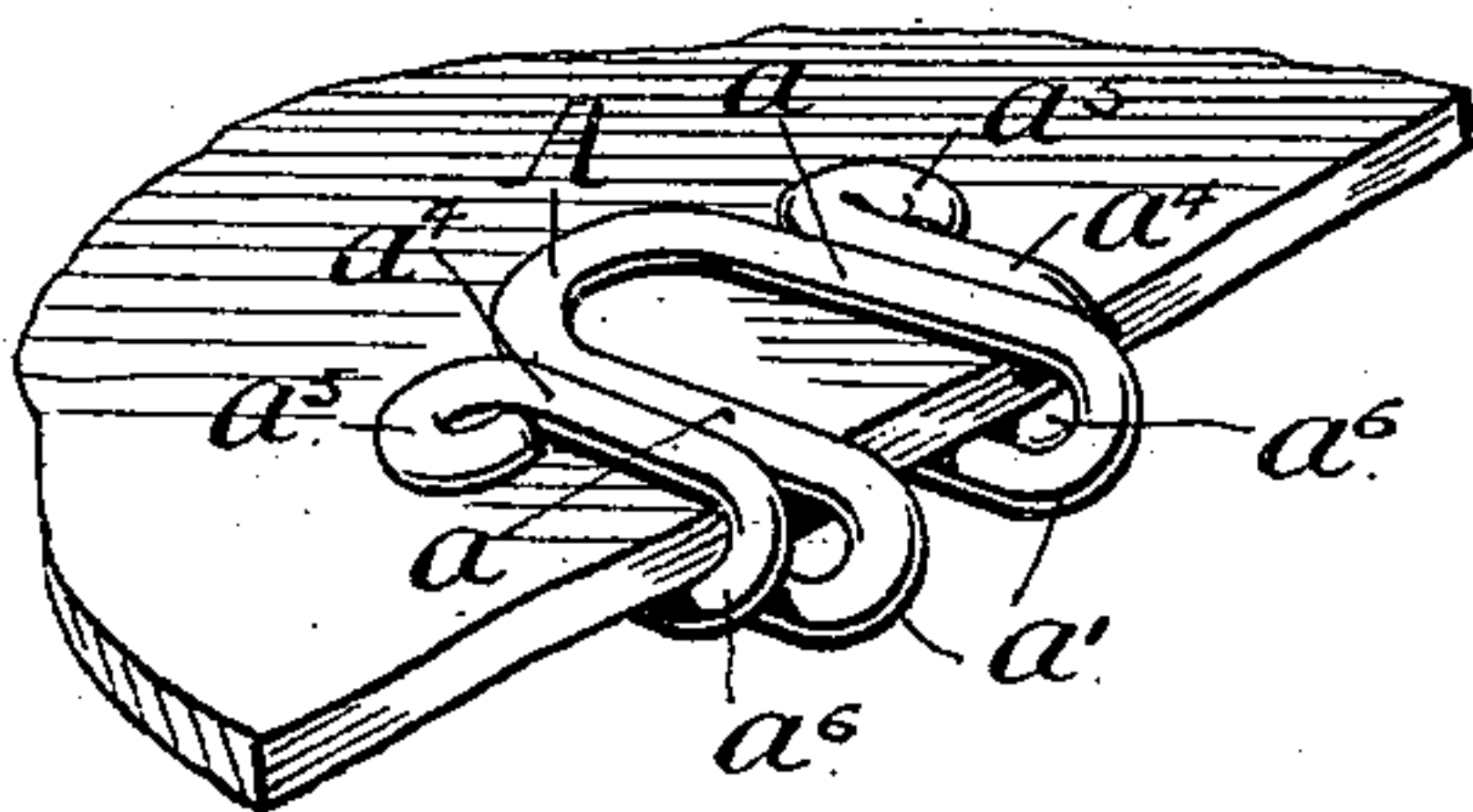
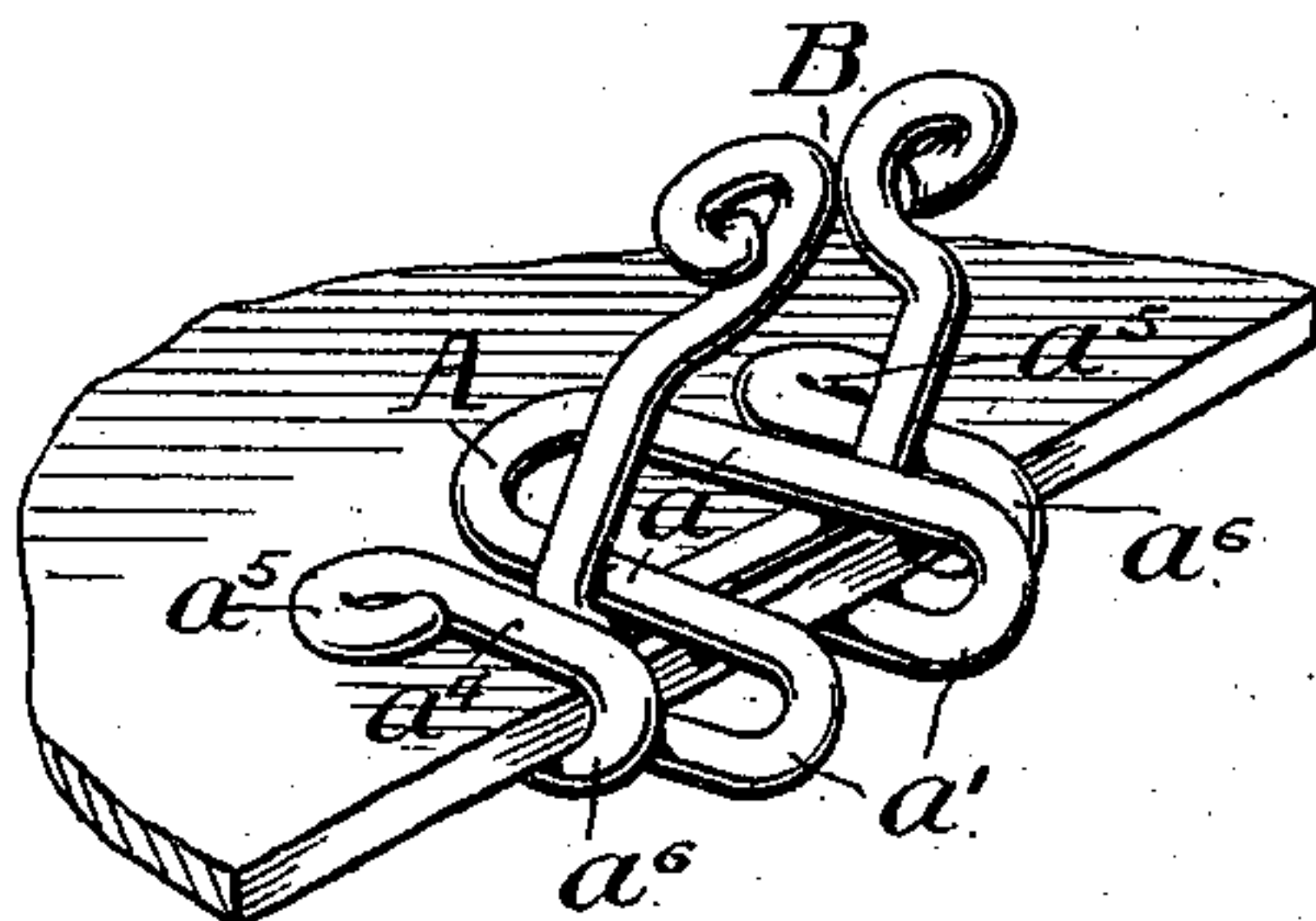


FIG. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK E. DE LONG, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
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GARMENT-HOOK.

SPECIFICATION forming part of Letters Patent No. 492,745, dated February 28, 1893.

Application filed December 19, 1892. Serial No. 455,580. (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 garment hooks which are made from a single piece of wire bent to the desired form, and which are employed, in connection with eyes, for fastening wearing apparel and for kindred purposes; and further relates, and is especially applicable, 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. 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 the accidental or too easy disengagement of the eye. It is the object of my invention to secure this desirable result, and to such end my invention comprehends a garment hook formed of a single piece of wire bent to form a bill, a shank, and thread-eyes, and also bent to embody laterally-disposed, outwardly-expansible, eye-detaining spring keepers, which are so formed and disposed relatively to the bill as to perform the function of slightly obstructing both the engagement and disengagement of the eye with regard to the hook.

A hook embodying a preferred form of my improvements is represented in the accompanying drawings, and herein described, the particular subject-matter which I claim as novel being hereinafter definitely specified.

In the drawings, Figure 1 is a top plan view, and Fig. 2 a bottom plan view, of a hook embodying my improvements, and of an eye engaged therewith. Fig. 3 is a right hand side view of the hook as represented in Fig. 1, with the eye shown in section. 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, representing the posi-

tion which the parts occupy during the operation of engaging or disengaging the eye.

Similar letters of reference indicate corresponding parts.

The bill of the hook is formed of a single piece of wire, continuous as the bill-side-bars $a a$, in each direction from its apex or point A, conveniently in the form shown, 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 of the hook, and which at the rear are respectively bent to form thread-eyes a^x , which may be either in the form represented or in any other preferred form, from which the wires are then carried forward along the outside of, in substantially parallelism with, and generally in the plane of the shank-side-bars a^2 , to form what I term spring-base-bars $a^3 a^3$, which continue to a point short of, or slightly to the rear of, the eye-engaging bends a' of the hook, and are at such point bent upwardly in the bends a^6 , with a curvature that may be made generally correspondent to that of said bends, and are then extended backward as the eye-detaining spring keepers $a^4 a^4$, along the bill-side-bars, upon the respective outside sides of said bars, to a point beyond the point where said bill-side-bars curve, as shown, inwardly toward each other, to merge into each other in the region of the apex or point of the bill,—and as to their portions which are so extended, are preferably flared or turned slightly outward, and are also preferably folded or bent back upon themselves to form the folds a^5 .

In the application of the eye B to a hook embodying the foregoing construction, the eye is intentionally of a width but slightly in excess of that of the bill so that it fits said bill quite closely, and, in its application to it, is caused first to pass over its apex, and then, as it is drawn farther along, is caused to encounter the spring-keepers, with the result of occasioning their lateral spreading apart or expansion, until, in its further movement, it passes beyond them, and seats itself in the eye-engaging bends of the hook, and is retained in place by the bends a^6 of the keepers, and can only be disengaged by the exer-

cise of such slight force as will again occasion the opposite springing out of the spring-keepers.

5 In practice, the form of the spring-guard-bars may be varied, but it is preferable that they should be so inclined outwardly at their outer portions as to present, in connection with the inward inclining of the bill-bars, tapering or flaring throats, so to speak, into
10 which the eye is easily guided.

The breadth of the hook as an entirety is dependent upon the distance apart of its side-bars, and may be varied according to the lateral extent or breadth of bearing which it
15 is desired that the hook shall possess. Thus the distance may be less or greater than that represented in the drawings.

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

20 1. A hook formed, substantially as set forth, of a single piece of wire bent to form a bill, a shank, thread-eyes, and the oppositely-disposed, outwardly-expansible eye-detaining spring-keepers hereinbefore described.

25 2. A hook for garments, having the usual bill, shank, and thread-eyes, and having the wire forming the eye extended substantially

parallel with and adjacent to the bill, and its outer portion curved and adapted to be deflected away from the bill, substantially as
30 and for the purposes set forth.

3. A hook provided with two members structurally independent of the bill but existing in close proximity to the respective sides
35 of it, curved at their outer portions to diverge from the bill, and free to be deflected away from it, substantially as and for the purposes set forth.

4. A hook formed of a piece of wire bent to form a shank and a bill, portions of which
40 wire extend along the shank, at a point between the eye-engaging bends and the bill apex are curved upward and extended along the outside of the bill, and at their outer portions are bent away therefrom, substantially
45 as and for the purposes 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.