

No. 864,231.

PATENTED AUG. 27, 1907.

F. E. DE LONG.

HOOK.

APPLICATION FILED DEC. 8, 1906.

FIG. I.

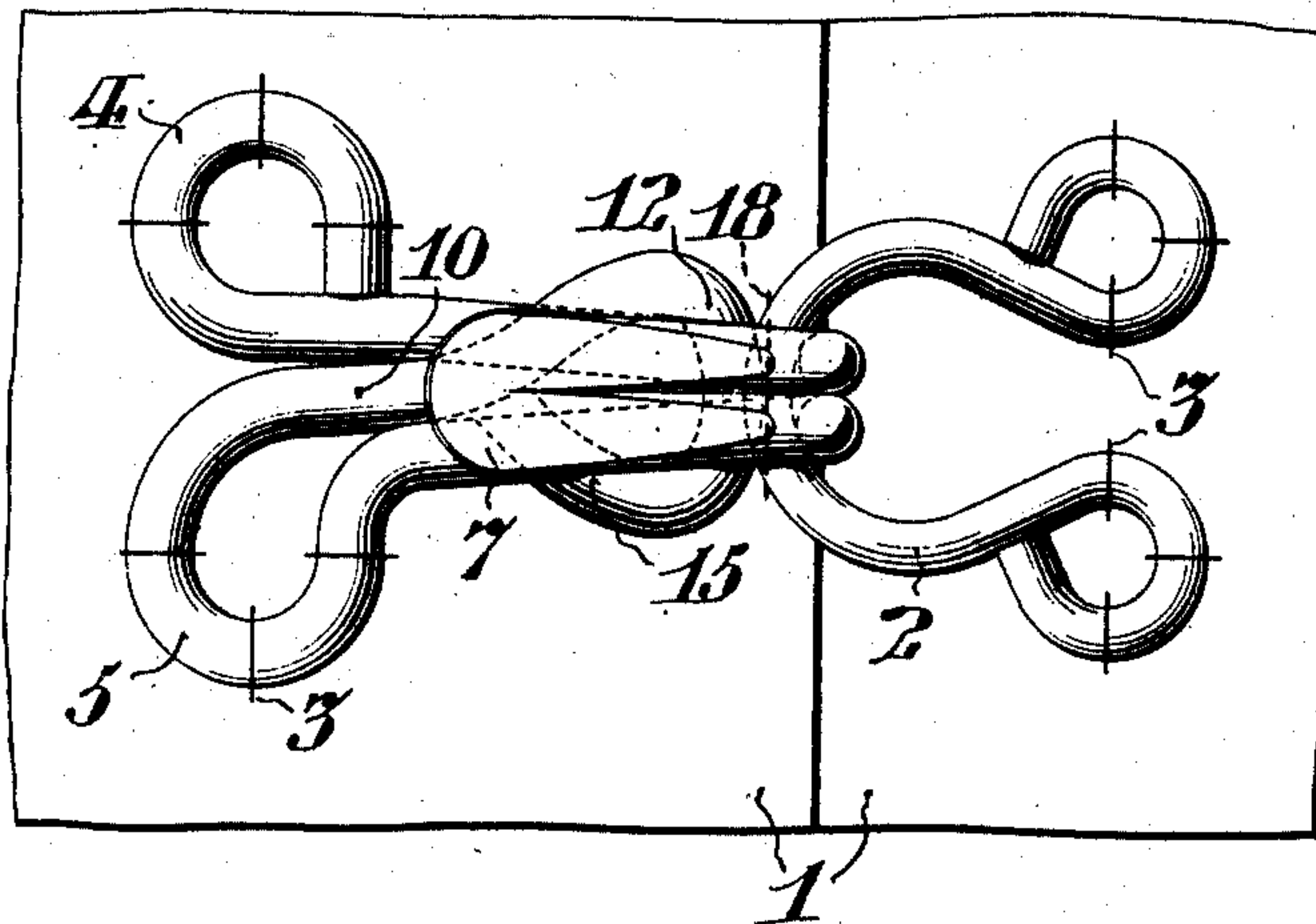


FIG. II.

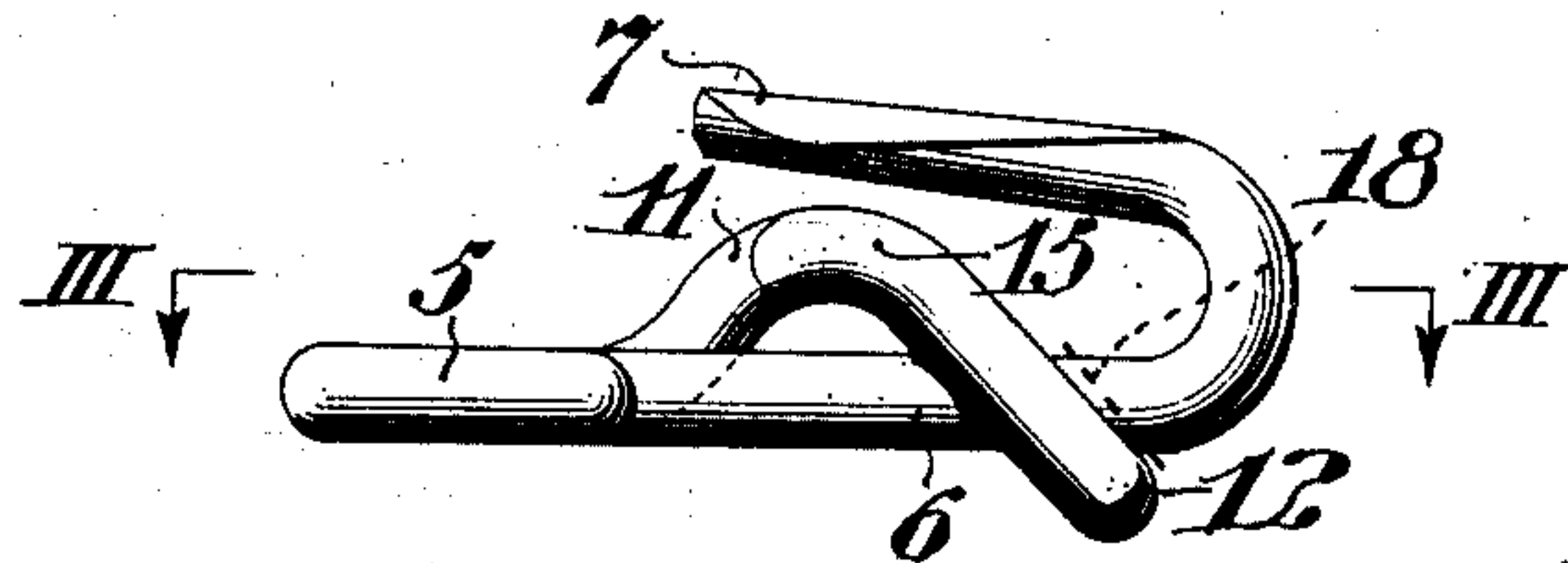


FIG. III.

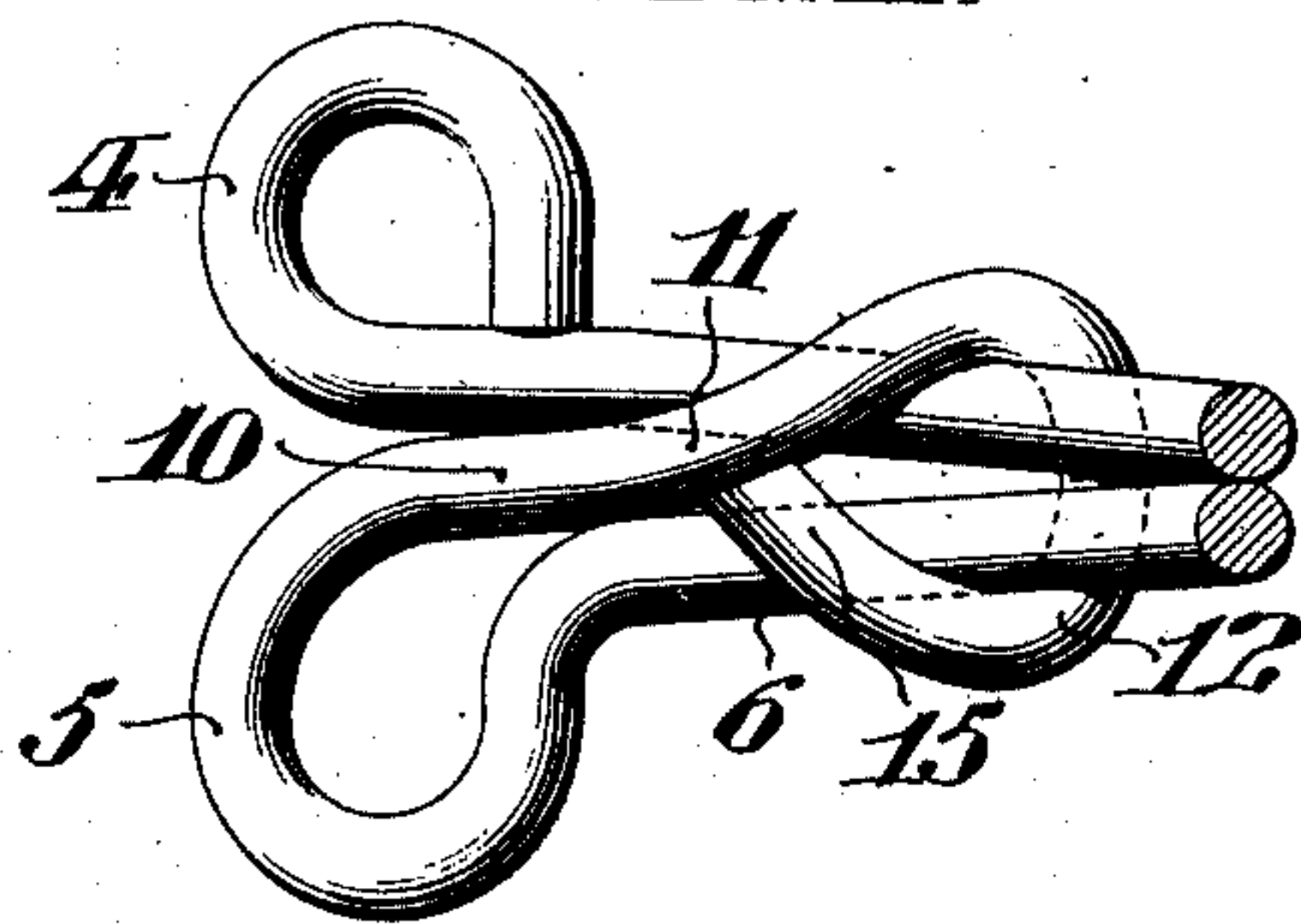
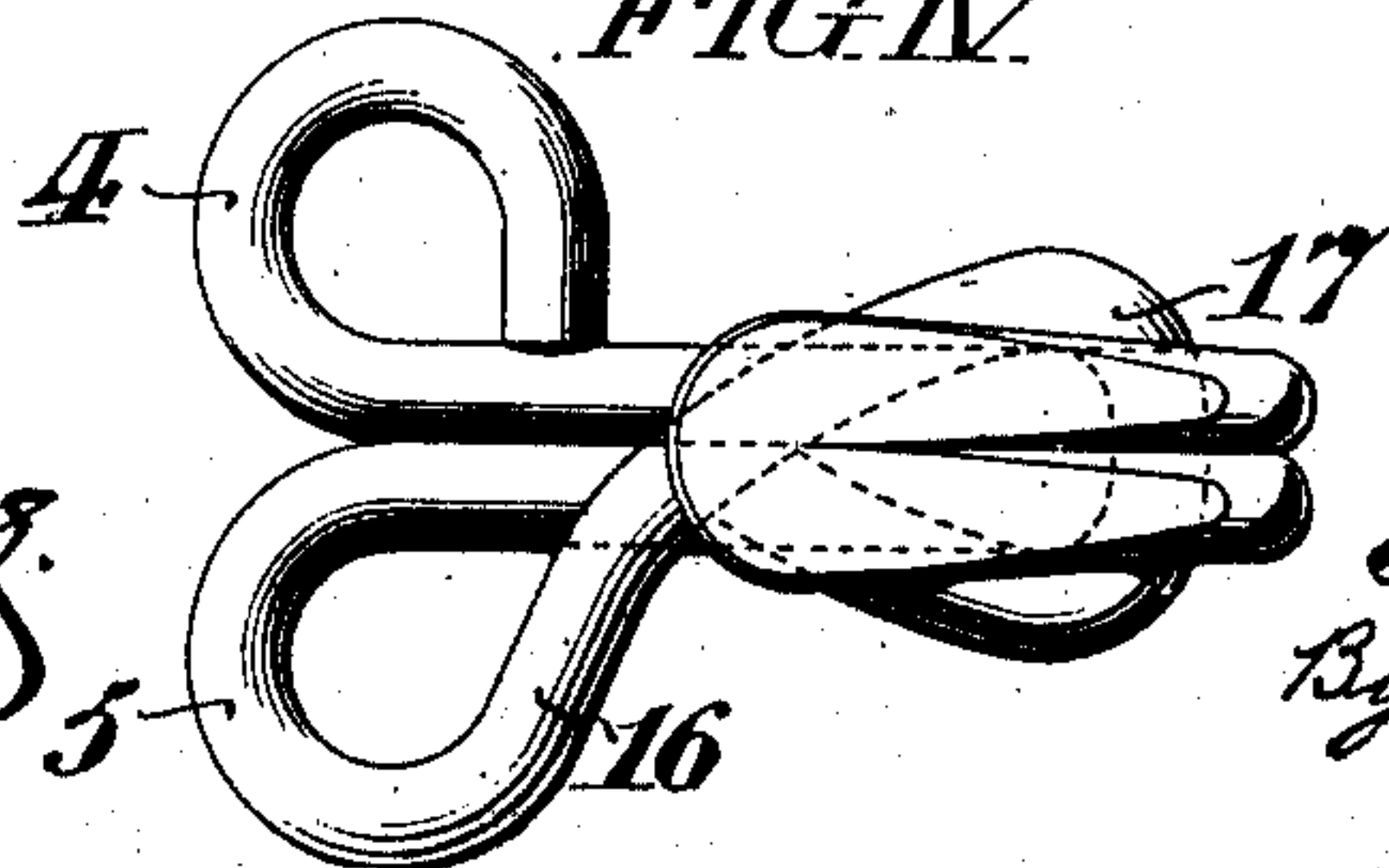


FIG. IV.



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# UNITED STATES PATENT OFFICE.

FRANK E. DE LONG, OF PHILADELPHIA, PENNSYLVANIA.

## HOOK.

No. 864,231.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed December 8, 1906. Serial No. 346,897.

*To all whom it may concern:*

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

My invention relates to an improvement in hooks of the character which are adapted to be used in connection with loop eyes, for the purpose of connecting the adjacent ends of an article together. The articles to which these hooks and eyes are usually, if not always, attached are of wearing apparel, but it is to be understood that they may be used in connection with other articles and are not limited in their use to any particular kind of article.

The object of my invention is to provide means whereby the material or fabric of the article may be connected to the hook in such manner that it will not be permitted to move relative to the hook.

A convenient embodiment of my invention is illustrated in the accompanying drawings, but it is to be understood that other forms of construction may be devised and employed within the scope of the appended claims without departing from my invention.

In order that the invention may be more readily and clearly understood, reference is to be had to the accompanying drawings, in which,

Figure I is a plan view of my improved hook in engagement with a loop eye, the hook and the eye being secured to a small piece of cloth or similar material;

Figure II is a side elevation of the hook;

Figure III is a view taken on the line III—III in Figure II, showing the shank portion of the hook in plan; and

Figure IV is a plan view of a hook showing a slightly modified construction, embodying my invention.

In the drawings,—

1 designates a piece of fabric or other similar material to which an eye 2 and a hook are secured by means of thread 3. The eye 2 is of usual construction, and, therefore, is not described in detail. 4 and 5 designate the thread eyes of the hook; 6 designates the shank portion of the hook; and 7 designates the bill of the hook which is of the style and shape usually known as "swan-bill". In Figures I to III, the inner portion of the wire forming the thread eye 5 is extended a short distance between the wires which constitute the shank of the hook toward the bend between the shank and bill portion of the said hook, as indicated at 10. The extended portion of the wire is bent toward the end of the bill 7 of the hook to form a raised portion 11 between the bill and the shank of the hook, and is then bent or extended downwardly on the outside and around the shank portion of the hook. The raised portion constitutes a guard to prevent accidental disengagement of the loop eye from the hook. After having passed under-

neath the said shank to form the loop 12, as shown clearly in Figures I and III, the end of the wire forming the hook is extended upwardly and inwardly into proximity to, or, if desired, into contact with the highest point of the raised portion 11 of the wire.

It will be observed upon examination of Figure II that adjacent to its end, as indicated at 15, the extended portion of the middle wire 10 is curved so as to be symmetrical with the portion of the said wire upon the opposite side of the hook to that shown in said Figure II.

In Figure IV the construction is substantially the same as that shown in Figures I to III, except that the outer portion 16 of the thread eye 5 is extended transversely of the shank of the hook and also upwardly toward the end of the bill portion of the hook to form a raised portion for a guard, in the same manner as the portion 11 in Figures I to III, inclusive.

After having extended across the shank portion of the hook, the wire is bent downwardly and again extended across the shank of the hook and upwardly, forming a loop 17 around the shank. The end of the wire is extended to a point in proximity to or, if desired, in contact with the portion 16 at its highest point underneath the end of the bill of the hook. The outer convex portions of the loops 12 and 17 underneath the shanks of the hooks in the respective forms of construction are located a short distance from the ends of the shank portions of the hooks so as to leave room between such outer convex portions of the said loops and the inside of the bends between the bills and the shanks of the hooks for the purpose of sewing the shanks of the hooks to the cloth in the manner indicated by dotted lines at 18 in Figure I of the drawings.

When the hooks and eyes are in engagement, the loops of the eyes will be located above the thread 18 and in such relation thereto as not to wear or abrade the same unnecessarily.

The hook is made of a single wire bent in the manner clearly indicated in the drawings. The raised portion of the wire indicated most clearly at 11 in Figure II, is located near enough to the underneath side of the bill of the hook to act as a guard to prevent accidental disengagement of the eyes from the hooks after they have been once engaged, but owing to the fact that the wire of which the hooks are made is more or less resilient, the raised portion 11 may be slightly displaced in order to permit the passage of the wire constituting the eye member of a hook and eye fastener, so as to engage or disengage the same.

When the hooks are secured to an article by means of the threads 18, it will be seen that such article cannot be moved either longitudinally or laterally with respect to a hook, the longitudinal movement being prevented by the presence of the loop 12 or the loop 17 which extends around the shank portion of the hook member of the fastener. Such a construction will pre-



vent the adjacent edges of an article of wearing apparel which are connected together by means of hook and eye fasteners from separating from each other so as to leave a space or gap between its edges. Such gaps or  
5 spaces are unsightly and objectionable.

Having thus described my invention, I claim:—

1. The hook member of a hook and eye fastener, consisting of a single piece of suitable material forming the shank and the bill of the hook and an extension of such  
10 material which is extended upwardly toward the bill of the hook to form a raised portion between the shank and the said bill and then downwardly on the outside of and underneath the shank portion of the hook.

2. The hook member of a hook and eye fastener, consisting of a single piece of suitable material forming the shank and the bill of the hook and an extension of such  
15 material which is extended upwardly toward the bill of the hook to form a raised portion between the shank and the said bill and then downwardly on the outside of and around the shank portion of the hook to form a loop.

3. The hook member of a hook and eye fastener, consisting of a single piece of wire bent to form the thread eyes, the shank and the bill of the hook, and one portion  
20 of the said wire being extended and bent upwardly toward

the bill of the hook to form a raised portion between the shank and the bill and then downwardly on the outside of and around the shank portion of the hook to form a loop. 25

4. As an article of manufacture, a hook consisting of a single piece of wire and having thread eyes, a shank portion, and a bill portion, the portion of wire leading from one of the thread eyes being extended upwardly toward the bill of the hook to form a raised portion between the shank and the bill of the hook, and then bent downwardly on the outside of and underneath the said shank portion of the hook. 30

5. As an article of manufacture, a hook consisting of a single wire and having thread eyes, a shank portion and a bill portion, the inside portion of one of the said thread eyes being extended upwardly toward the bill portion of the said hook to form a raised portion constituting a guard, and then downwardly and underneath the shank portion of the said hook and then upwardly and inwardly to a point adjacent to the said high portion. 35 40

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 4th day of December, A. D. 1906. 45

FRANK E. DE LONG.

In the presence of—

S. E. PATTERSON,

LAURA KLEINFELDER.