

No. 862,245.

PATENTED AUG. 6, 1907.

J. W. GRANGER.
HOOK AND EYE.

APPLICATION FILED AUG. 4, 1906.

Fig. 1.

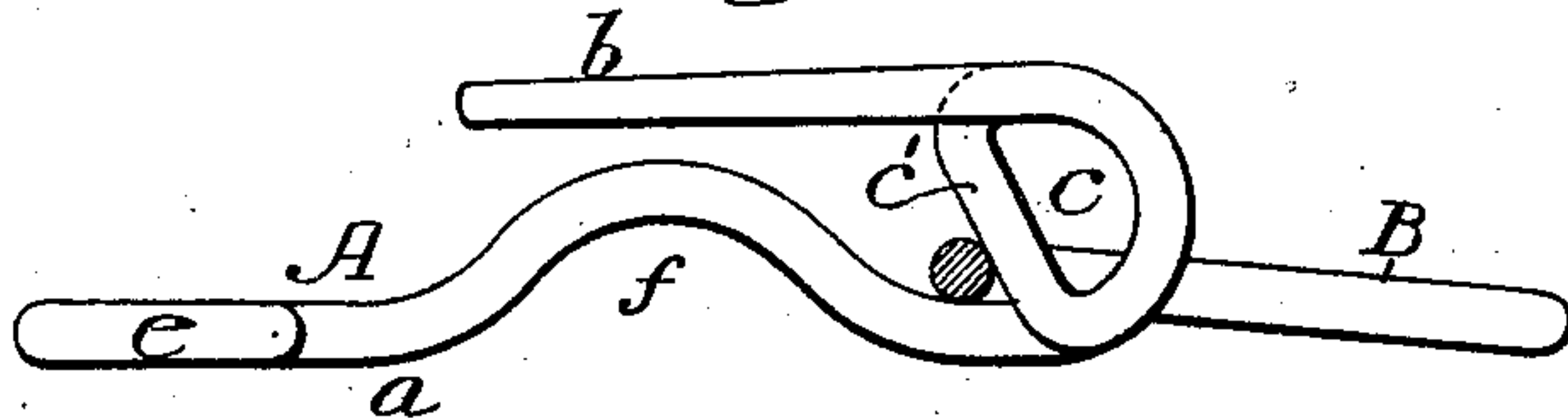


Fig. 2.

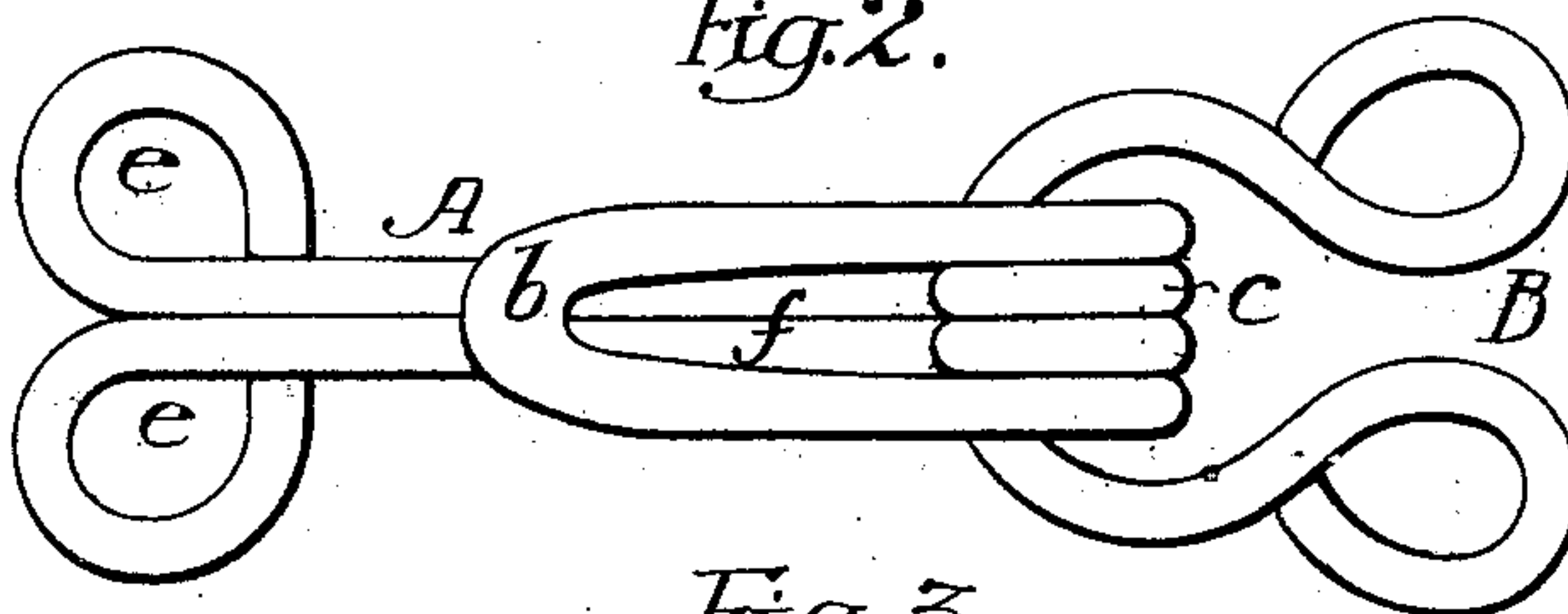


Fig. 3.

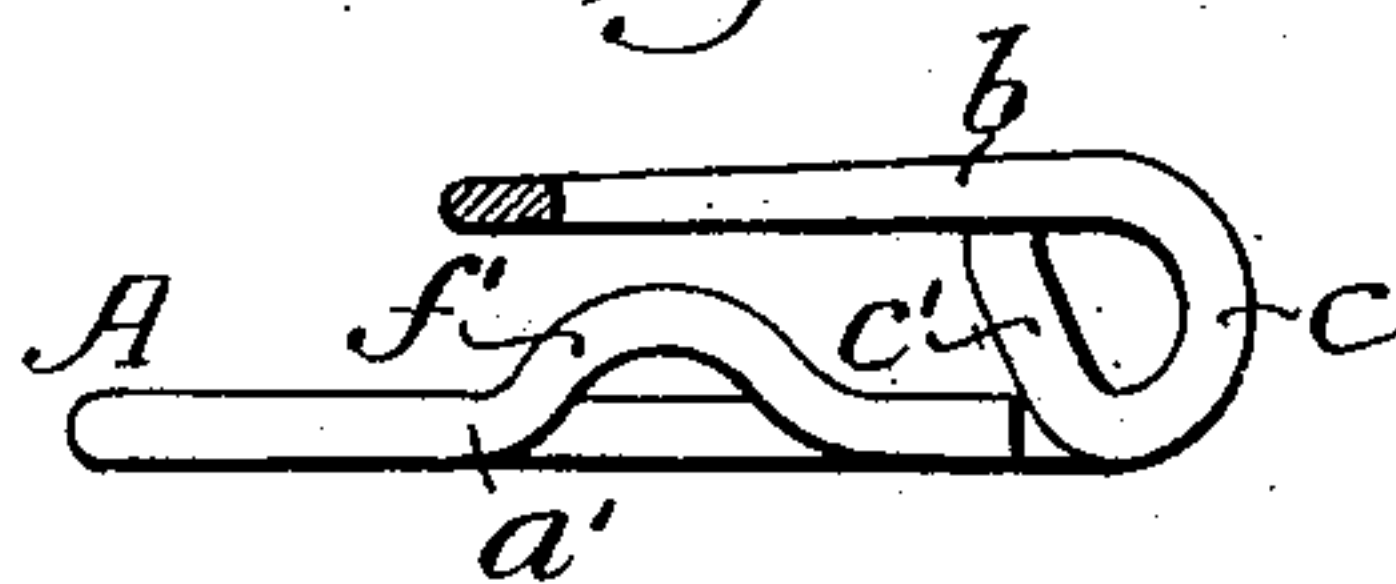


Fig. 4.

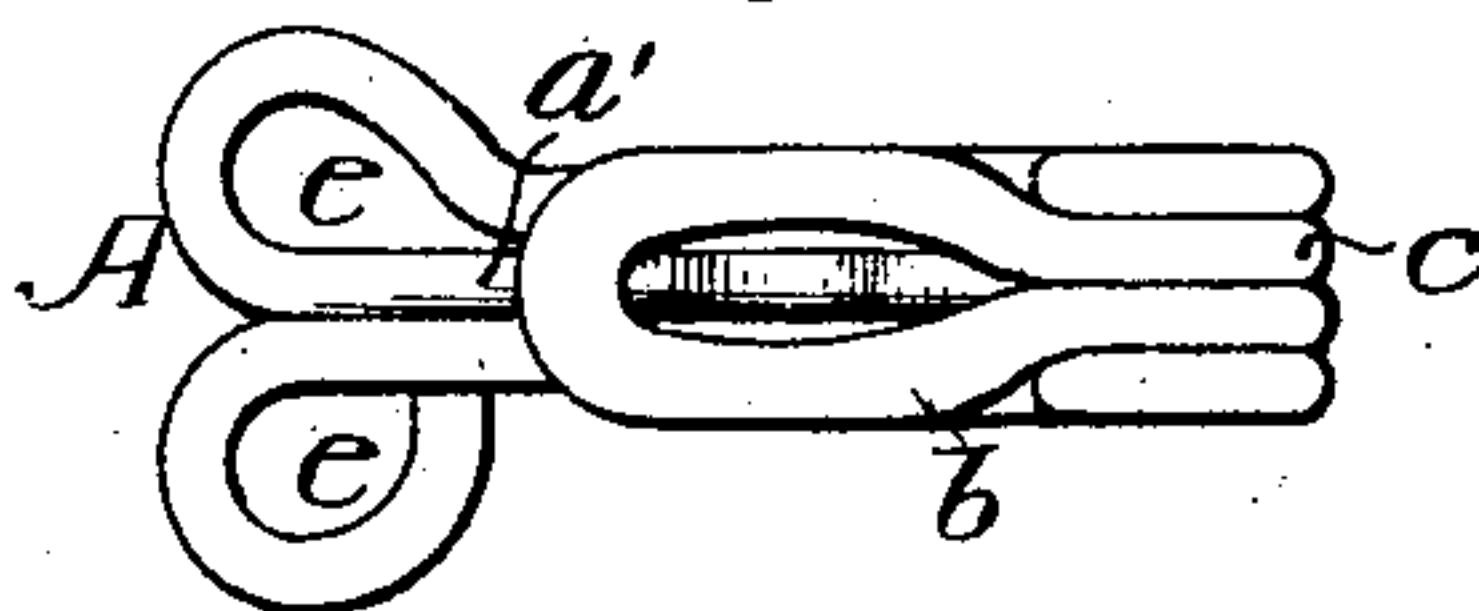


Fig. 5.

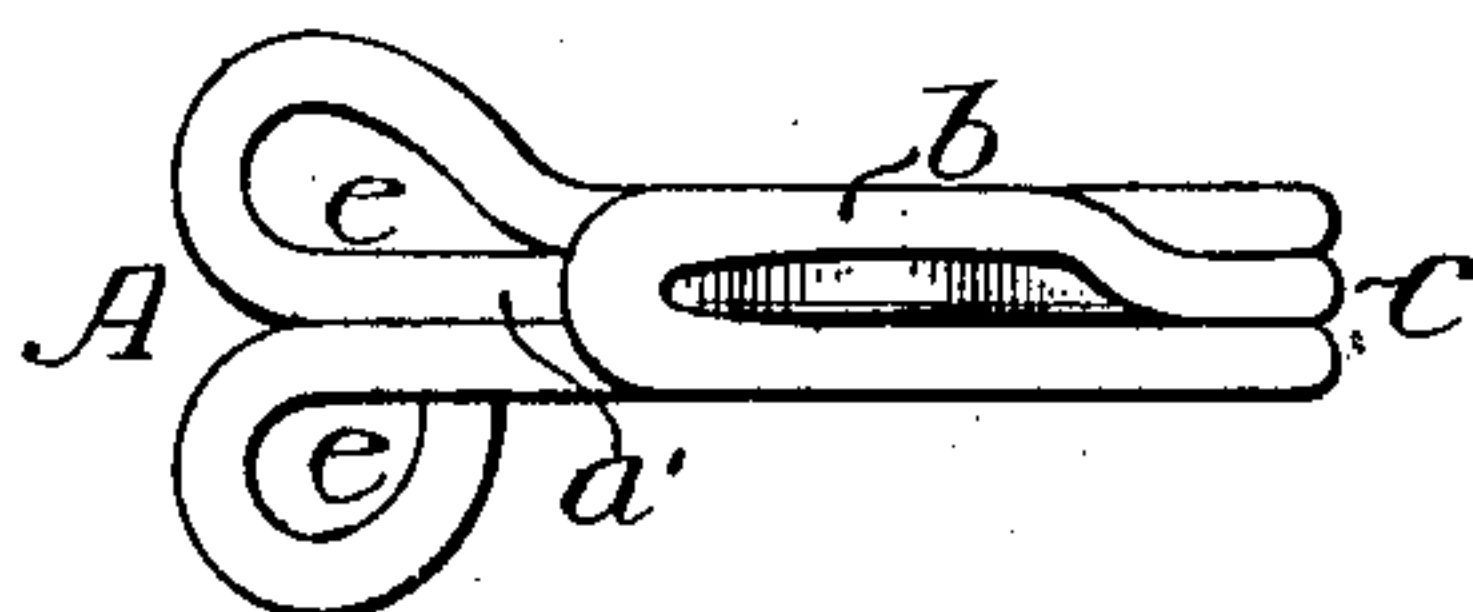


Fig. 6.

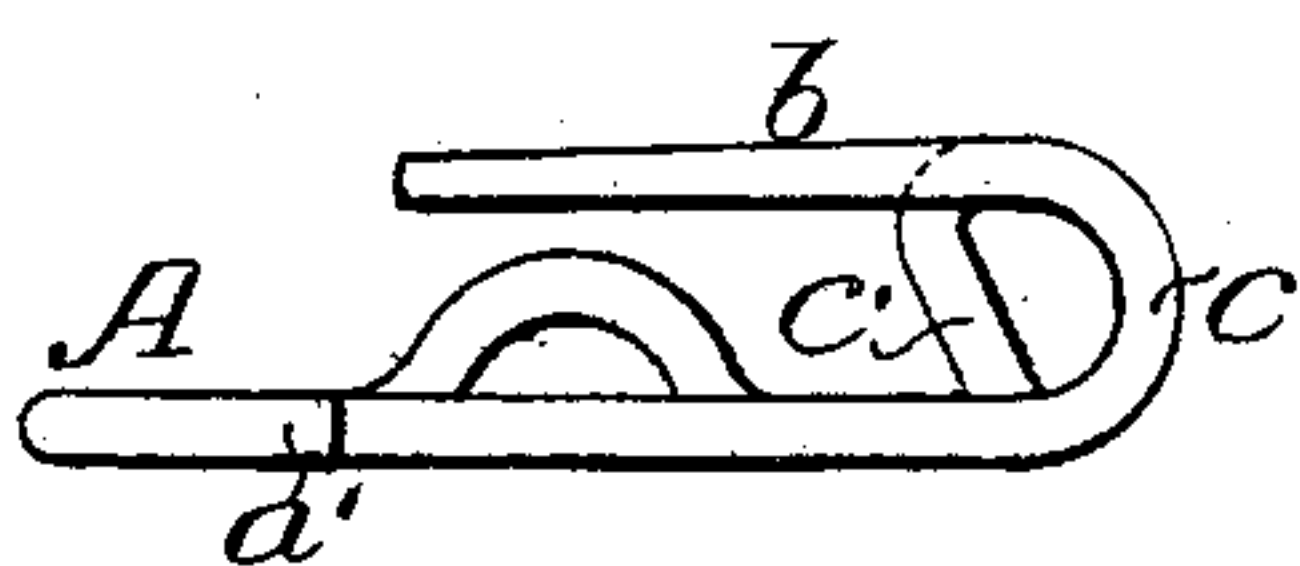
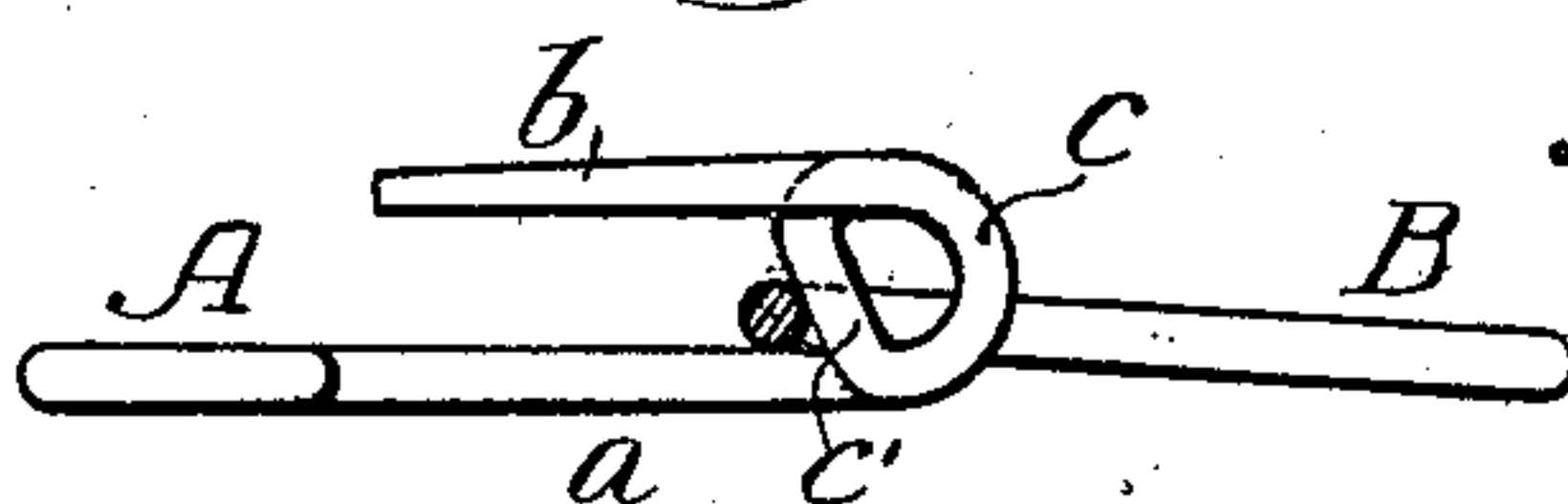


Fig. 7.



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UNITED STATES PATENT OFFICE.

JOHN W. GRANGER, OF PHILADELPHIA, PENNSYLVANIA.

HOOK AND EYE.

No. 862,245.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed August 4, 1906. Serial No. 329,197.

To all whom it may concern:

Be it known that I, JOHN W. GRANGER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Hooks and Eyes, of which the following is a specification.

One object of my invention is to so construct a garment hook that the hook portion of this will yield to the pressure due to forcing the eye past the hump of the hook.

A further object of the invention is to provide a spring bill for a garment hook so that in the event of the hook portion being placed under pressure it will yield and not be permanently bent out of position as is the case with ordinary hooks of hooks and eyes.

A still further object of the invention is to so form the garment hook that the eye used therewith will be drawn down to and maintained in the lower corner of the hook, as fully described hereafter.

In the accompanying drawing: Figure 1, is a side view of my improved hook with the eye in section; Fig. 2, is a plan view of Fig. 1; Figs. 3 and 4, are respectively a vertical section and a plan of a modified form of my invention; Figs. 5 and 6, are respectively a plan and a side elevation of a form of my invention in which but one side member is coiled, while the other is made with but a single curve, and Fig. 7, is a view of my improved hook without the hump.

In the above drawing, A is the hook and B the eye, of which the latter is made in the ordinary manner and need not be further described. Any suitable eye may be used in connection with my improved hook.

The hook A has a body portion *a* and a bill *b*, being provided with a coiled spring section *c* connecting said bill portion with the body of the hook. In the present instance, as shown in Figs. 1 and 2, the hook is made from a single piece of wire bent to form thread loops *e*, *e* by which it is secured to the garment, and a double coil formed to produce the spring *c*. The bill is formed by the return loop of the wire which is preferably flattened as illustrated in Figs. 1 and 2.

The hump *f* is produced by bending the body portion, as illustrated in Fig. 1, and extends close to the underside of the bill so that when the eye is moved into the hook it will raise said bill in passing the hump; the bill thereafter returning to its normal position since spring wire is used in constructing the device.

I preferably form the spring as illustrated in Fig. 1, with its back portion inclined as at *c'*, so that when the hook and eye are under tension, the latter will be drawn down into the lower corner of the hook, with the result that no matter how much tension is applied the strain will not lift the bill or force the hook out of shape.

By making the coiled spring at the end of the hook I also provide a ready means of attaching the outer end of the hook to the fabric, as the thread can be passed through the open coil of the spring.

I do not wish to limit myself to the exact form of hook illustrated in Figs. 1 and 2, as it may be made in some instances as shown in Figs. 3 and 4, with the portion *a'* extended between the two side members of the body portion and terminating directly under the inclined portion of the spring member *c*; the portion *a'* in this instance being bent to form the hump *f'*. In such case the coil is formed the reverse to that illustrated in Figs. 1 and 2, the side members of the body portion turning towards each other to form the bill, which is flared as indicated in Fig. 4.

In Figs. 5 and 6, I have shown another form in which instead of making a double coil, one side member is coiled and the other is bent plain, thereby producing the same effect, which, however, is not so acceptable as the form of the device illustrated in Figs. 1 and 2.

In Fig. 7, I have shown my improved hook as formed without the hump—such modification of my invention being specially designed for use in places where the parts to be connected are always under tension. Under these conditions the eye is drawn down into the lower corner of the hook so as to relieve the bill of all strain and prevent the distortion of the hook.

It will be understood that the invention can be modified considerably within the scope of the appended claims without departing from the essential feature, which is to provide a hook with a coiled spring at its outer end so that the bill will be relieved of all strain and will yield when the eye is forced into the hook, the eye resting back of the coil. This is a very simple and practical construction which in appearance is not very different from the hook now on the market. The hook will not be pressed out of shape during the washing and ironing of the material to which it is attached, nor will it be pulled out of shape by any extra tension for the reason that the use of the coil spring *c* permits the bill to be bent back or temporarily crushed down without causing permanent distortion of the hook as a whole.

I claim:

1. A garment hook having a body portion, a bill, and a coiled spring section, formed substantially at right angles to the plane of said bill, said spring section connecting the body portion to the bill and being placed so that its back part extends within the eye-receiving portion of the hook, substantially as described.

2. A hook for a hook and eye fastening having a body portion, a hump thereon, a bill portion extending over the hump of the body portion, and a coiled spring portion connecting the body portion with the bill portion so that its back part extends within the eye receiving portion of the hook, substantially as described.

3. A hook for a hook and eye fastening having a body
portion, a bill portion extending over the body portion,
and a coiled spring portion connecting the body to the bill,
the back section of the coiled spring being arranged at an
5 angle so as to force the eye into the corner between the
spring and the body portion, substantially as described.

4. A hook for a hook and eye fastening made of spring
wire having its ends bent to form thread loops and looped
to form the bill, there being a coiled section forming the

connection between the bill and the body portion of the 10
hook, and a hump formed from the body portion directly
under the bill, substantially as described.

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

JOHN W. GRANGER.

Witnesses:

WILLIAM E. BRADLEY,

JOS. H. KLEIN.