

No. 871,025.

PATENTED NOV. 12, 1907.

M. BOYLAN.  
GARMENT FASTENER.  
APPLICATION FILED AUG. 28, 1906.

FIG. 1

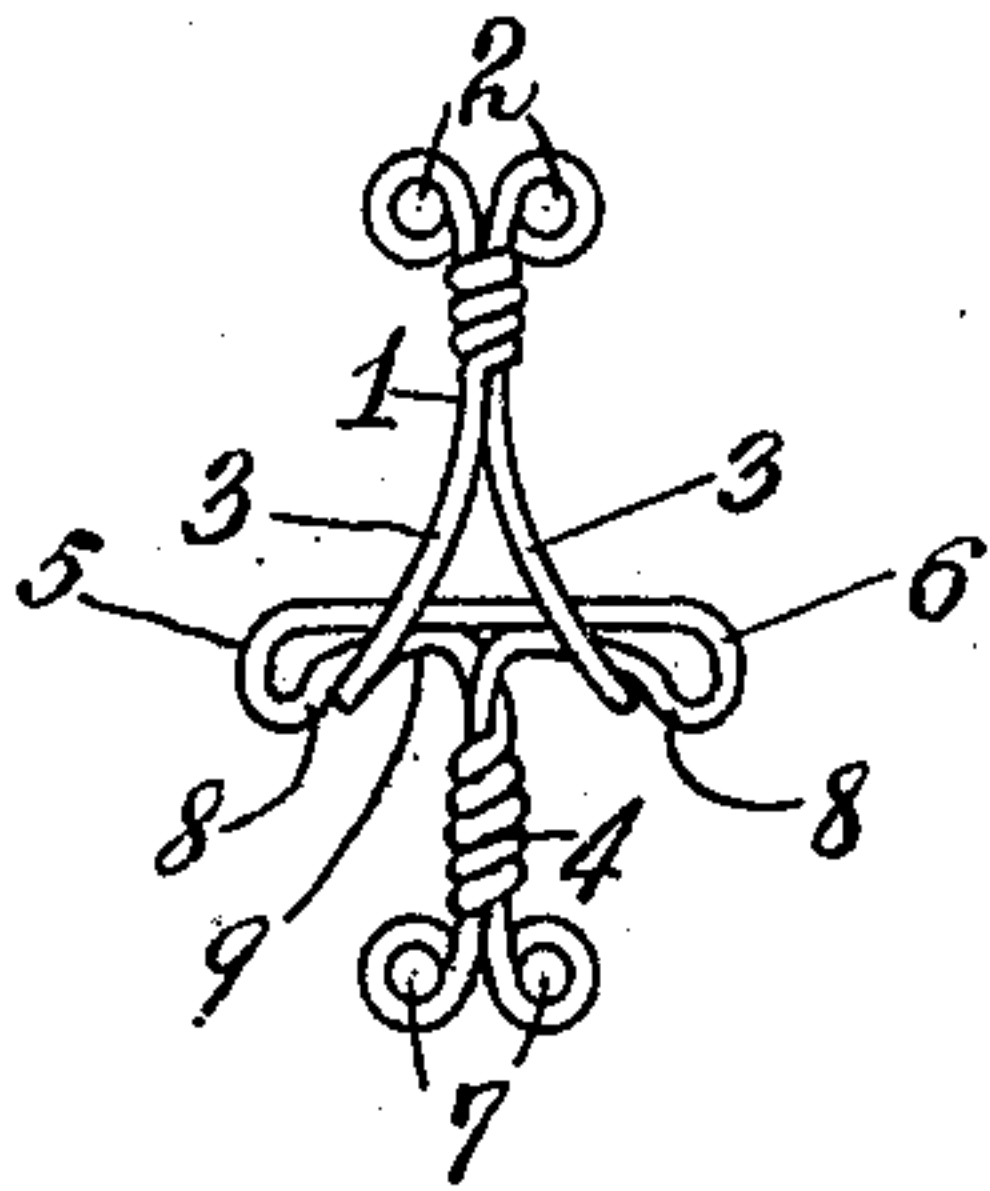


FIG. 2

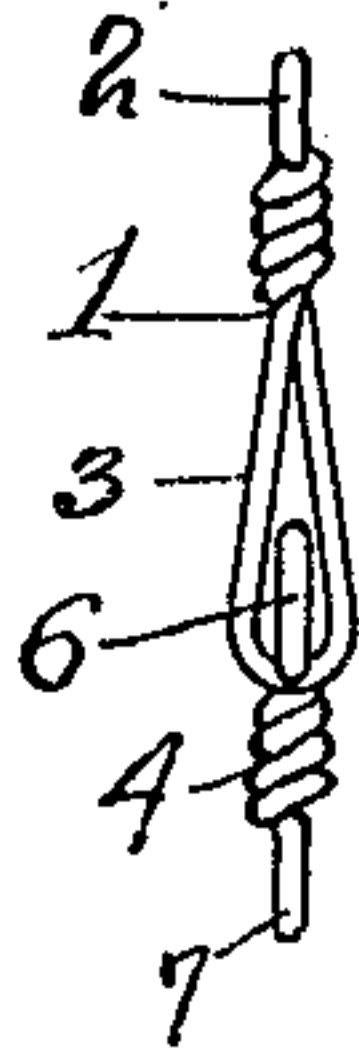


FIG. 3

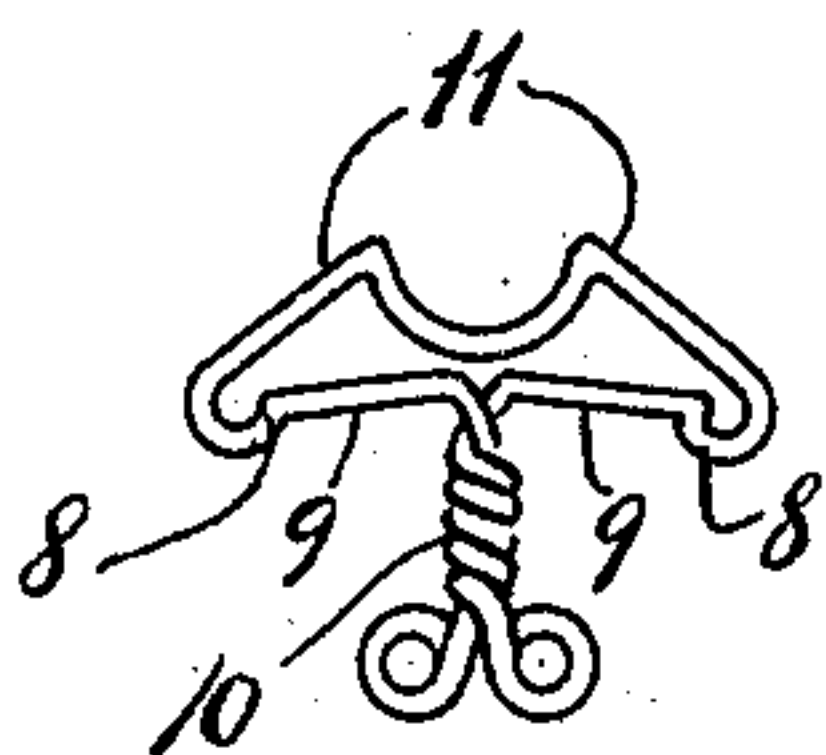


FIG. 8

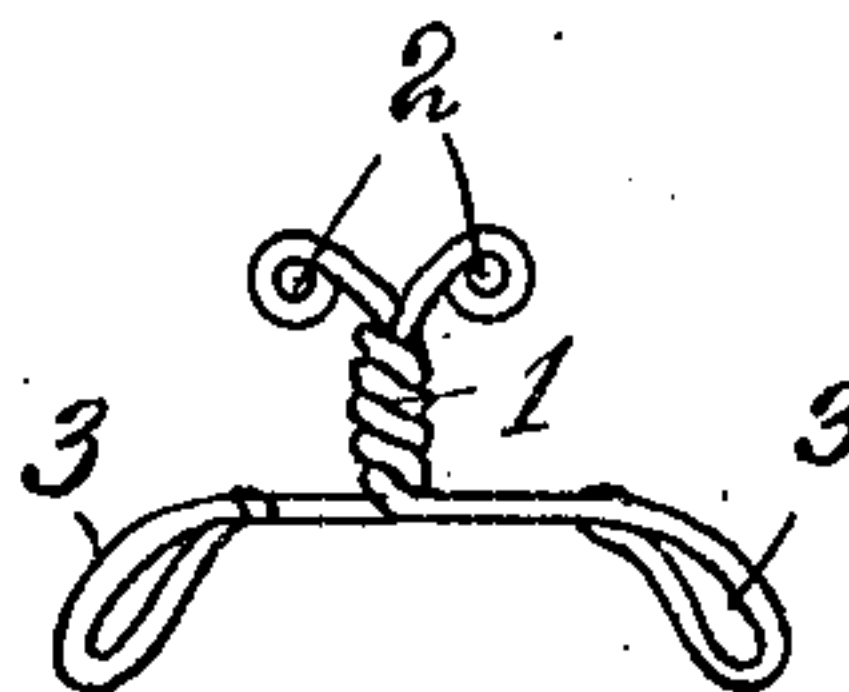


FIG. 4

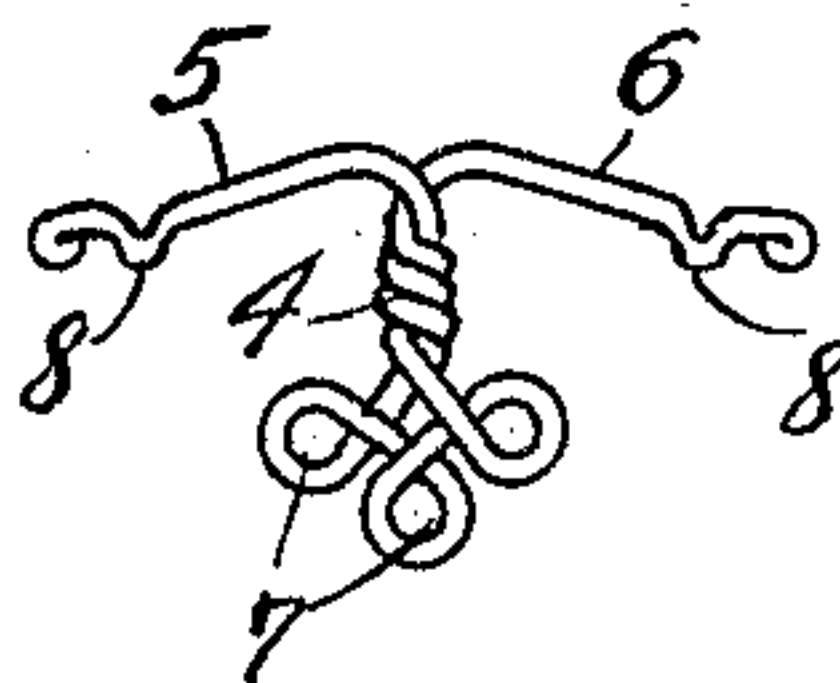


FIG. 7

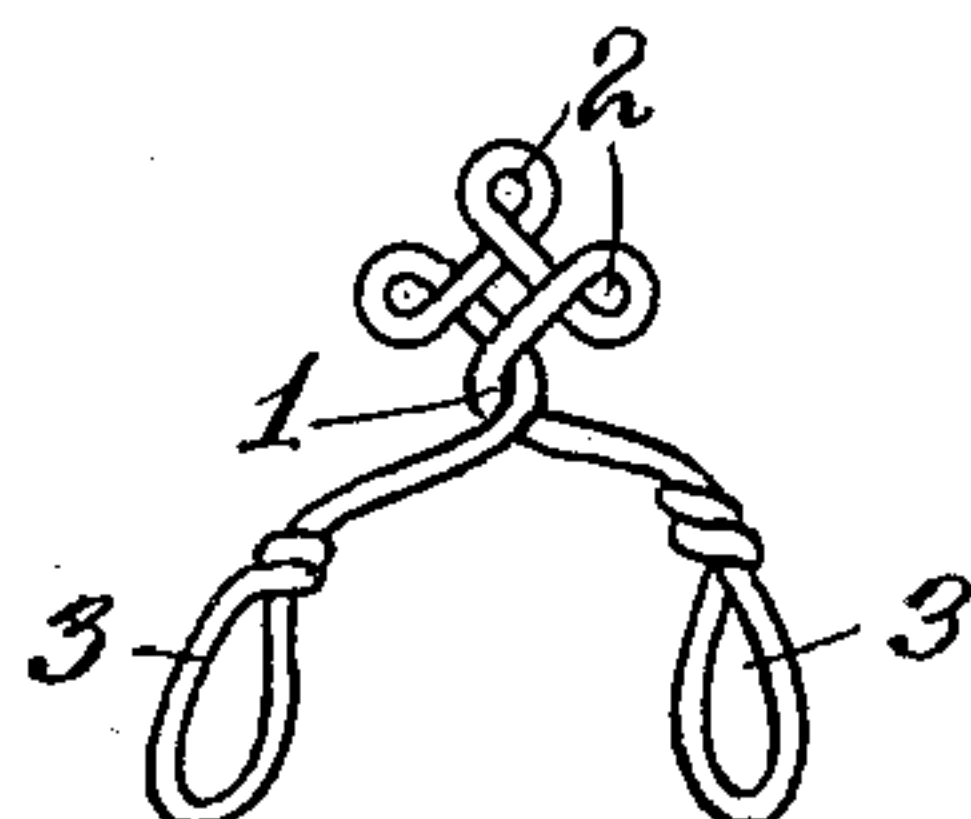


FIG. 5

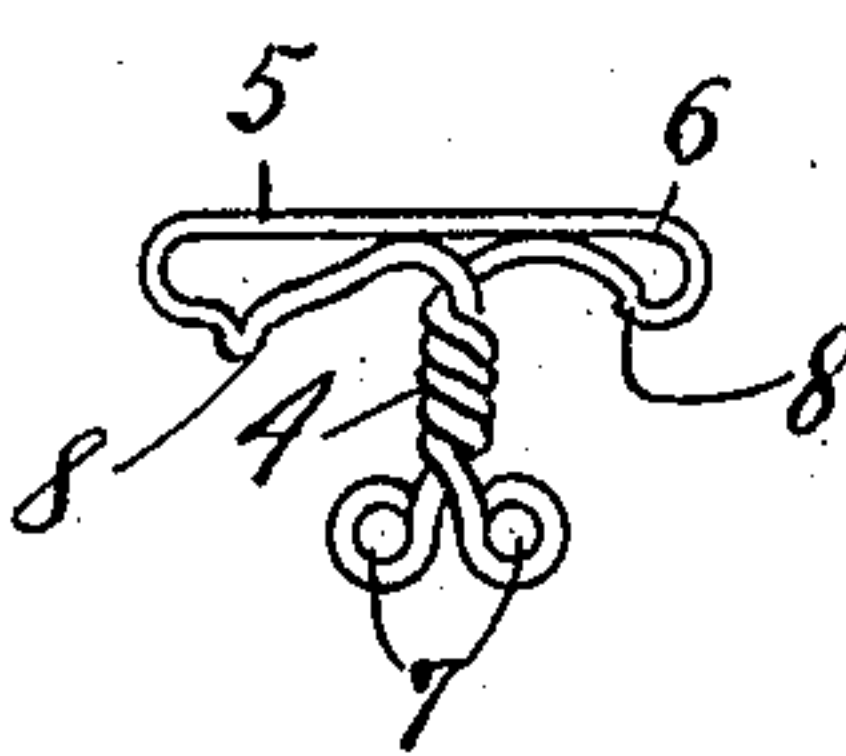


FIG. 6

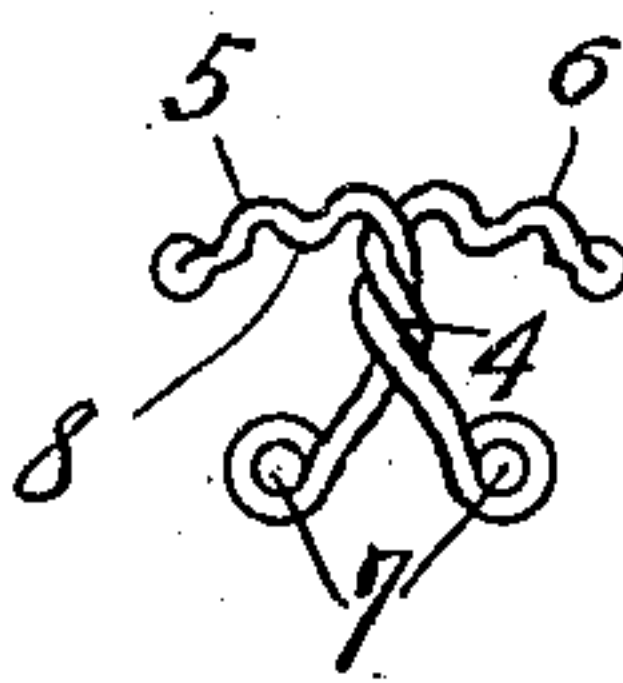
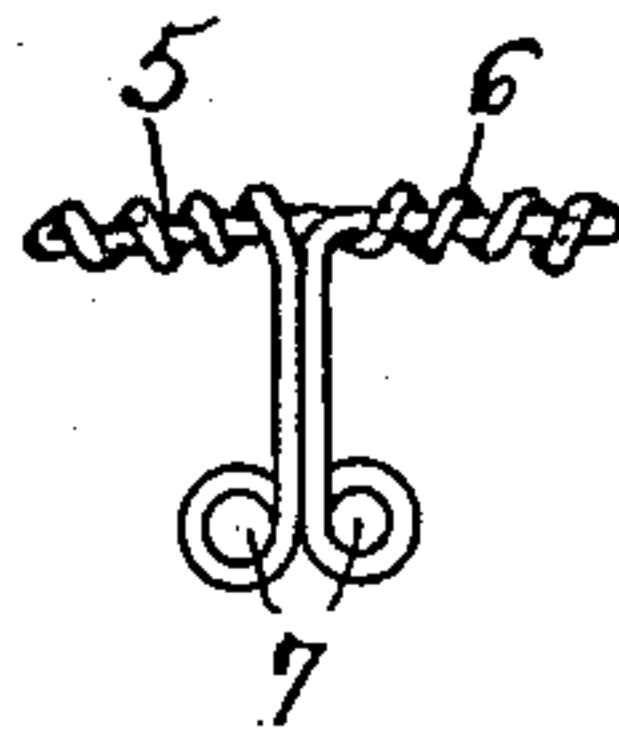


FIG. 9



WITNESSES

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# UNITED STATES PATENT OFFICE.

MARY BOYLAN, OF NEW YORK, N. Y.

## GARMENT-FASTENER.

No. 871,025.

Specification of Letters Patent.

Patented Nov. 12, 1907.

Application filed August 28, 1906. Serial No. 332,316.

*To all whom it may concern:*

Be it known that I, MARY BOYLAN, a citizen of the United States, residing at 459 West Twenty-third street, New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Garment-Fasteners, of which the following is a full, clear, and exact specification.

This invention relates to garment fasteners, and more particularly has reference to improvements in the construction and operation of hooks and eyes.

The objects of the invention are to provide a hook and eye construction which can be operated by an edgewise movement, without the necessity of overlapping the engaging members beyond the point of operative engagement, as is the case with the hooks and eyes now in common use.

A further object of the invention is to provide a hook and eye construction wherein the pulling strain tends to cause a more firm engagement of the hook with the eye, and also a construction wherein the parts can be readily and conveniently operated.

The invention is shown herein in various modifications, but comprises in general an eye member having oppositely disposed loops or holding portions, and a hook member having oppositely disposed portions, which are respectively engaged with the eye by transverse movements in the plane of the normal pulling strain. Means is provided for preventing such movement in any direction as would cause disengagement, and, by reason of the particular construction of eye, which will be more fully explained, pulling strain tends to cause the parts to more firmly interlock.

In the accompanying drawing, Figure 1 shows on an enlarged scale, one form of the invention with the parts engaged; Fig. 2 is a side view; Figs. 3, 4, 5, 6, and 9, show modified forms of hook-member; and Figs. 7 and 8 show modifications of the eye member.

Referring to Fig. 1, 1 represents the eye member having attaching eyes 2, and the spreading loops 3, which are preferably of resilient material, so that they can move towards each other somewhat, in response to pulling strain. The hook member 4 consists of the diverging or T-headed engaging members 5, 6, and attaching eyes 7. Each of the members 5, 6, has a bend or offset 8, so formed that either member can pass freely into the eye 3, but when both members are engaged with their respective eyes, these offsets 8 prevent relative transverse movement and unlocking. Extending towards the shank 4 of the hook member between the offsets 8, are inclined portions 9, which engage the respective eyes, and when pulling strain is applied act as cams and force the resilient eyes together, and thus more tightly engage the hook and the eye.

In Figs. 1 and 2, the parts are engaged, first by slipping one branch of the hook through one eye and then

the other. In Fig. 3, the hook 10 has cam inclines 11, and is operated by forcing the cams in between the eyes 3 until they spring over the offsets 8. Disengagement is effected by disengaging first one and then the other eye.

Fig. 4 shows a construction of hook substantially like that in Fig. 1, except that the branches 5 and 6 are of a single wire.

In Fig. 5, a form is shown wherein one member, as 5, is longer than the other, as 6, this construction also having the offsets 8 to prevent disengagement, but, by reason of the shorter arm, requiring less transverse movement to engage and disengage.

Fig. 6 shows a modification in which the branches 5, 6, are bent to form offsets and have enlarged ends which may be desirable in some cases to insure better engagement with the eyes. In Fig. 6, the branches 5, 6, are shown formed of a single wire.

Fig. 9 shows a form of hook in which the parts are differently formed than in the other figures. Here, the hook is formed by starting from one of the attaching eyes 7, and after forming a part of the neck, the wire is bent at about right angles and extends to the end of the branch 6, returned by winding over the outgoing wire and then from the center extends directly to the end of branch 5 and returned by winding over this outgoing wire and then forms the other part of the neck and the other attaching eye 7. This forms a very substantial hook, and, of course, the branches 5, 6 may be bent to form offsets or bent at any angle desired, or the open spaces as shown between the turns forming the branches, will serve to secure a firm engagement with the eyes.

Figs. 7 and 8 show slightly modified forms of eyes, in which the engaging loops are somewhat flattened over those shown in Figs. 1 and 2.

From the foregoing description, the operation will be clear. In all cases it will be seen that in order to operate the hook and eye, overlapping is unnecessary, since all movements in engaging or disengaging are more or less in a transverse direction. After engagement is once effected, the notches prevent such movements as would, if unchecked, disengage the parts. Also, it will be seen that the operating movements are all edgewise of the hook and eye, so that a very thin construction can be attained, with a very slight if any tendency to bulge the fabrics on which used. The constructions commonly used are objectionable on some kinds of garments by reason of their thickness and cannot be used, whereas with my improvements, this objection cannot arise because of the thinness of my construction.

It will be obvious that the principles of my invention may be carried out in various structures, and I do not wish to be restricted to the precise forms shown herein.

Having thus described my invention, I declare that



what I claim as new and desire to secure by Letters Patent, is,—

- 5 1. A hook and eye comprising a hook having attaching portions and diverging eye engaging members, offsets for preventing disengagement of the hook from the eye, resilient branched eyes engaging within the offsets, said hook having inclined edges for spreading the eyes to engage the hook.
- 10 2. A hook comprising a shank having attaching means at one end, and oppositely disposed eye engaging members at the other end, offsets for preventing lateral disengagement, resilient branched eyes adapted to engage said divergent members, said latter members having inclined sur-

faces whereby to contract the branched eyes towards each other under strain.

3. The combination with an eye member comprising two resilient loops transverse to the engaging plane, of a T-hook member adapted to engage said eyes, said hook member having inclined surfaces for contracting the loops toward each other under strain.

In testimony whereof I affix my signature, in the presence of two witnesses.

MARY BOYLAN.

Witnesses:

HENRY N. HOELZLE,  
HENRY A. CUNNINGHAM.

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