

No. 661,065.

Patented Nov. 6, 1900.

V. O. MILLS.
HOOK AND EYE.

(Application filed July 11, 1900.)

(No Model.)

Fig. 1.

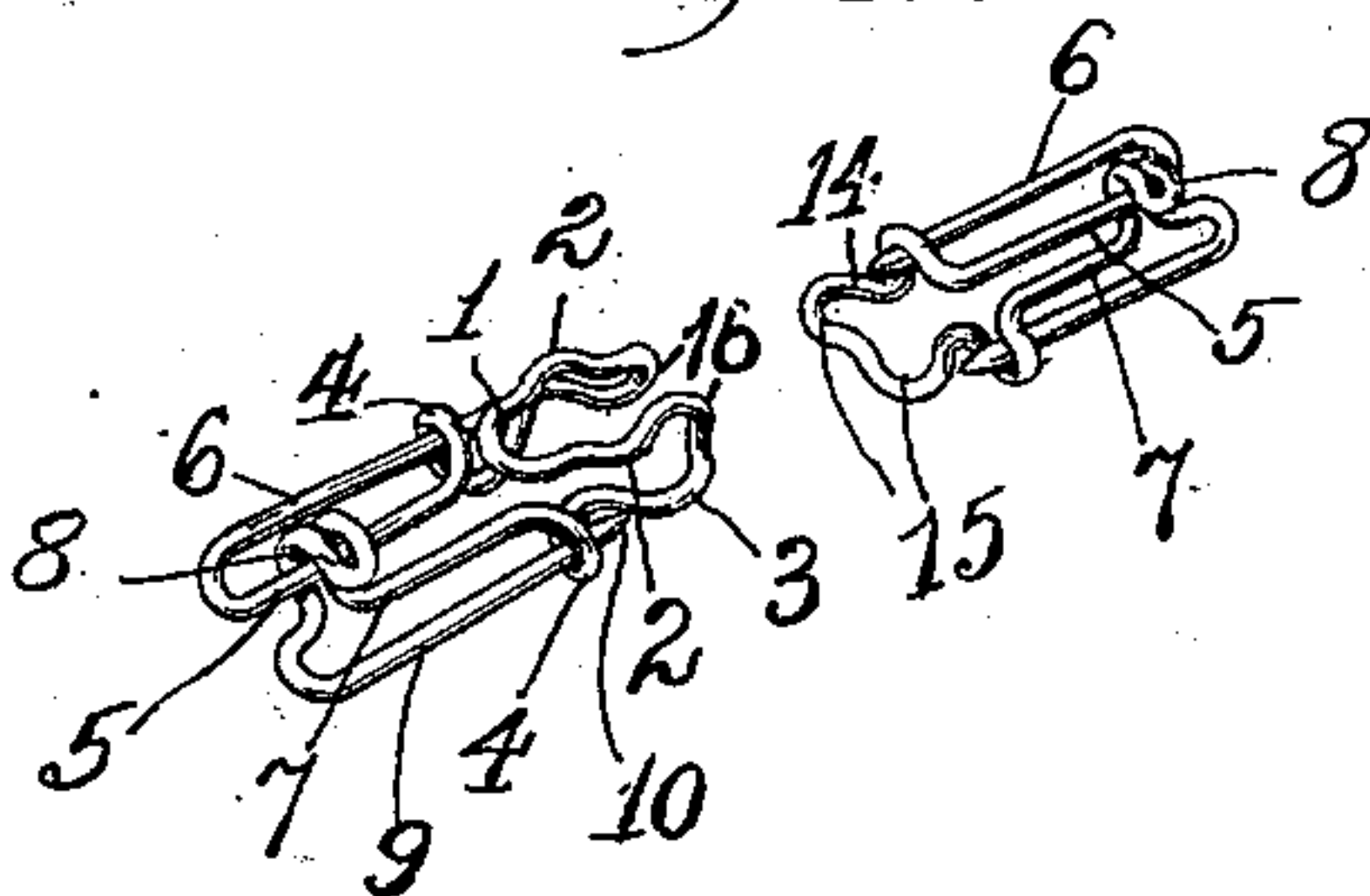


Fig. 2.

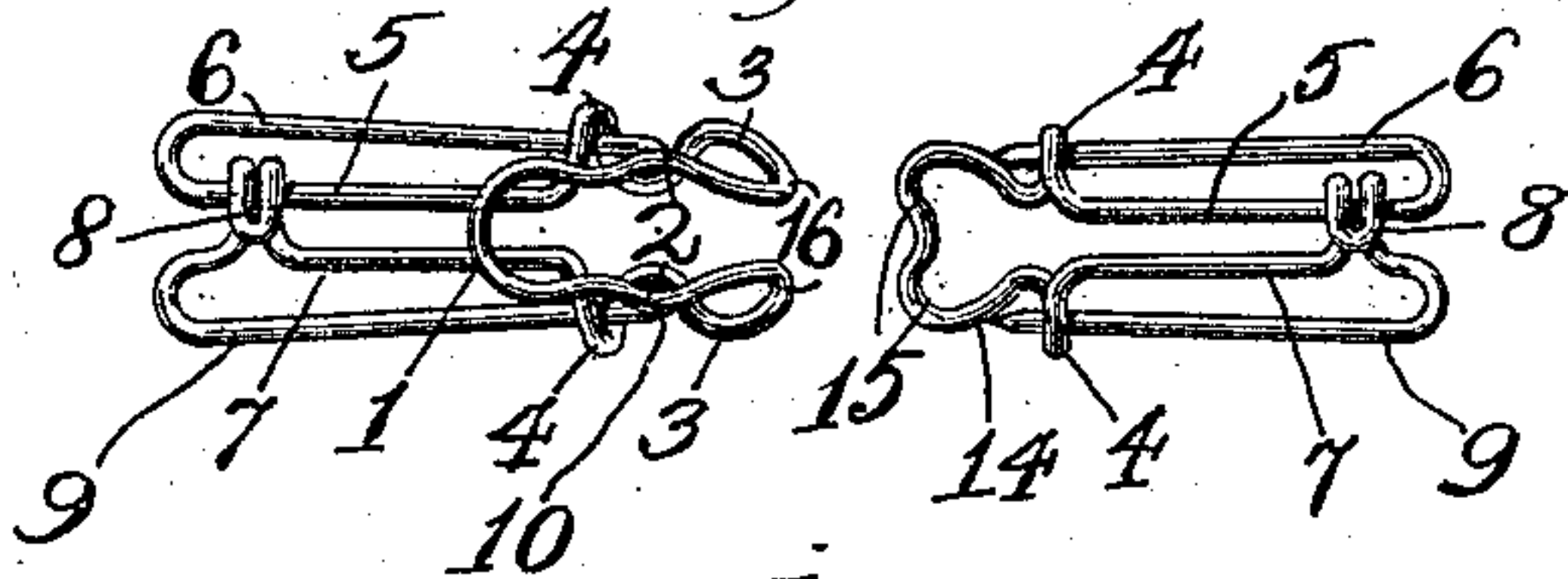


Fig. 3.

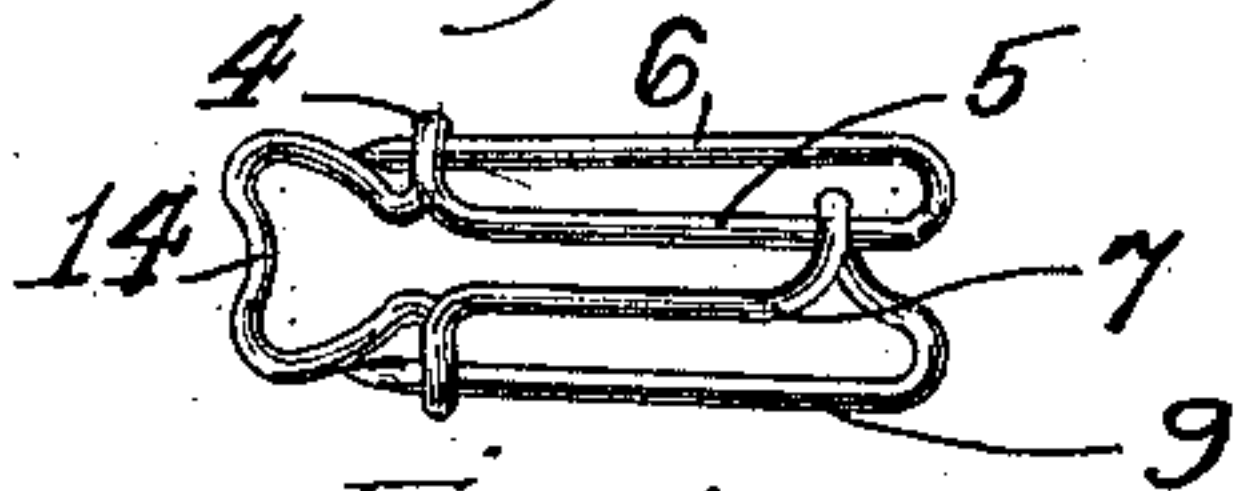


Fig. 4.

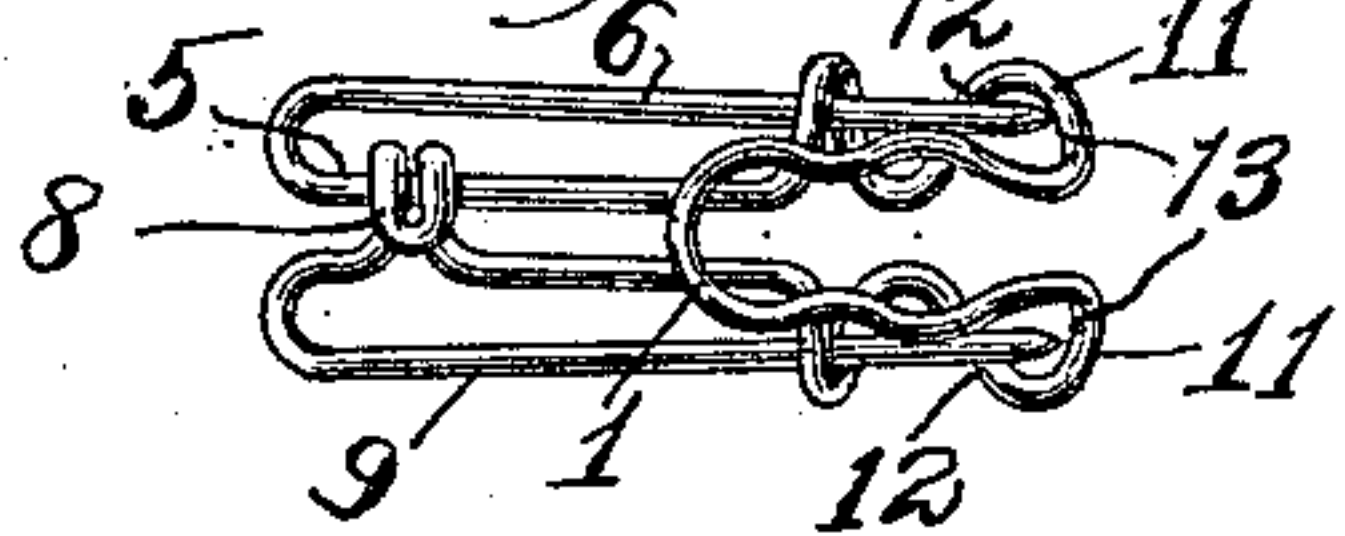
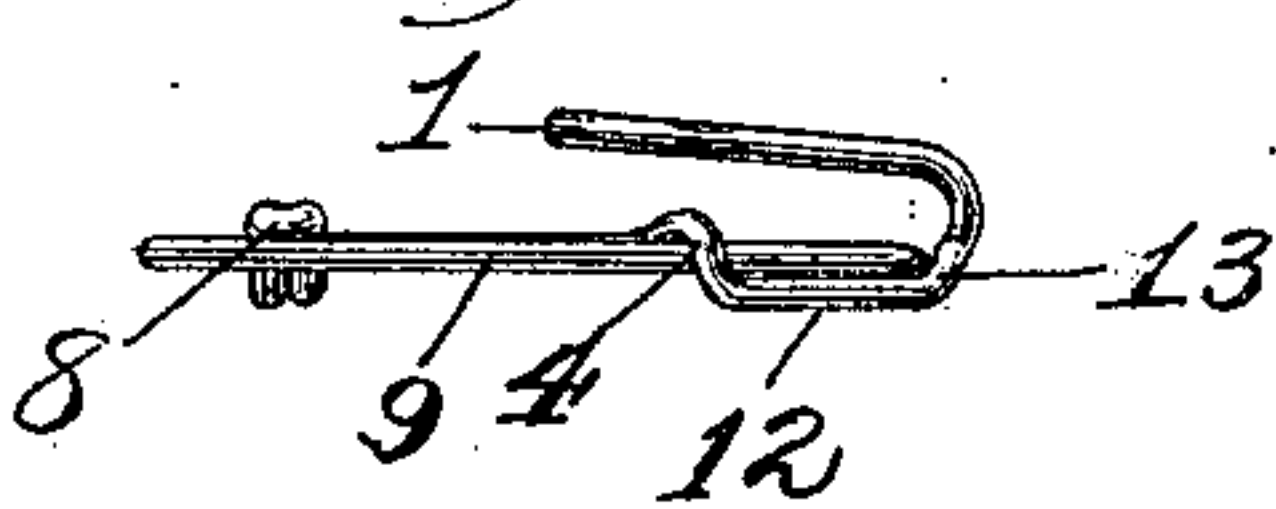


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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HOOK AND EYE.

SPECIFICATION forming part of Letters Patent No. 661,065, dated November 6, 1900.

Application filed July 11, 1900. Serial No. 23,222. (No model.)

To all whom it may concern:

Be it known that I, VICTOR O. MILLS, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Hook and Eye, of which the following is a specification.

My invention pertains to fastening devices commonly known as "hooks and eyes;" and its object is to provide an improved hook and eye of the type or class which are pinned onto the goods or fabric as distinguished from being sewed thereon.

My invention consists of several improvements in the construction of the hook and eye resulting in a practical and serviceable fastening device and whose advantages will be apparent from the description hereinafter given.

In the accompanying drawings, Figure 1 is a perspective of the hook and eye; Fig. 2, a plan thereof; Fig. 3, a view of an eye with a modified form of retaining device for the shank also applicable to a hook; Fig. 4, a plan of a modified form of construction to protect or guard the pin-point ends, and Fig. 5 a side view of a portion of the hook shown in Fig. 4.

The hook and eye are both preferably made of a single piece of wire or a strip of the size and strength requisite for the particular uses to which the hook and eye are put, although they might be formed from more than one piece of wire. Moreover, while I will describe the bending or formation of the hook and eye as beginning in the middle of a piece of wire, it will be obvious that the process may begin at either end or elsewhere, the invention residing in the completed hook and eye and not in the method of formation.

The hook, preferably made from a single wire, is bent at the middle to form a hook proper (marked 1 in the drawings) and provided with swells 2. The wires are then bent downwardly to form the shank portion. At its forward portion the shank has side swells 3 and also loops 4, having entrance on their inner adjacent sides for the insertion of the pins, hereinafter referred to. The portion 5 of one end of the wire is then extended back from the loops and then reversed to form the pin proper, (marked 6.) The rearwardly-extending portion 7 of the other end of the wire

has a bend 8, adapted to catch over and retain the wire portion 5, as shown in Figs. 1 and 2. The wire 7 then continues and is reversed to form the pin proper, (marked 9.) As shown in Fig. 3, the wire 7 may, if desired, be looped or passed around the wire 5, the same general purposes being attained in both cases—that is, liability of the spreading of the two parts of the shank will be avoided. The pin portions rest in the loops 4, and their extreme ends 10, which may be pointed, rest against or lie close to and in line with the swells 3, which thereby serve to guard or protect these ends. To accomplish the same result, the hook and eye may be made, as shown in Fig. 4, wherein the loops or swells 11 may be formed, so that the pins may rest on the portion 12 of such loops, with the extreme ends or pin-points in line with the forward portion 13 of the loops 11 and protected thereby.

So far as the shank is concerned, the eye may be made similar to the hook above described, and consequently similar figures are applied to corresponding parts. As shown, the eye 14 is made broad, with two end sockets 15 to receive the two bends 16 of the hook. By these means the eye will fit the hook without undue lateral movement and without drawing together the parts of the hook, which would be the result if the eye were made of the usual circular form. The pin-points of the eye are also protected by swells or bends in the same manner as the pin-points of the hook.

In attaching the hook and eye the pin-point ends removed from their loops are inserted into the cloth and then pressed through the cloth in the opposite direction, and the pins are then pressed inwardly toward each other and then allowed to pass into the openings on the inner sides of the loop. When the pins take their places in the loops, the sharp ends will not be exposed, but will be protected by the swells or bends formed beyond the pins on both the hook and eye, so that nothing can catch against the pin-points. The retainer serves to prevent the two portions of the shank from spreading, so that the shank will be held compactly together, and the strain thereon will be distributed evenly. It will be observed that when the

eye is attached to the hook the peculiar formation of the end of the eye will permit the two wire portions of the hook to retain their normal and proper position instead of being pulled together out of shape. This latter construction also prevents undue lateral movement.

Although I have described more or less precise forms and details of construction, I do not intend to be understood as limiting myself thereto, as I contemplate changes in form, the proportion of parts, and the substitution of equivalents as circumstances may suggest or render expedient and without departing from the spirit of my invention.

I claim—

1. A hook or eye comprising a hook or eye proper and a two-part shank each having a pin-point end, one of such shank parts engaging the other and then continuing to form the pin-point end proper.

2. A hook or eye comprising a wire or strip which is bent substantially at the middle to form a hook or eye and whose remaining ends are each extended rearwardly and then reversed to form the shank, one of the said rearwardly-extending portions engaging and retaining its similar member.

3. A hook or eye comprising a strip or wire bent at its middle to form a hook proper, the remaining ends having a rearwardly-extending portion and bent to form an inwardly-extending portion, one of the rearwardly-extending portions having a loop or bend to engage or retain the other corresponding portion to prevent spreading of the shank.

4. A hook or eye having a shank provided with pins for attachment to cloth or the like,

and having swells or bends in front of and in line with the extreme ends of the pins to protect the same.

5. In a hook or eye, the combination of a hook or eye proper and a shank with pin-point ends for attachment to the cloth, said shank having loops to receive the pin-point ends and having swells in front of such loops to protect the extreme ends of the pins when resting in such loops.

6. A hook and eye comprising a hook proper 1, swells 3, loops 4, portions 5 and 7 and pins 6 and 9, the portion 7 having a retainer 8 engaging portion 5.

7. A hook or eye comprising a hook or eye proper, swells 3, loops 4, portions 5 and 7, pins 6 and 9, the portion 7 having a retainer 8 engaging portion 5, the hook proper having bends 16 and the eye proper having sockets 15 engaging in such bends.

8. A hook or eye comprising a hook or eye proper and a shank portion consisting of portions 5 and 7, and pins 6 and 9, the portion 7 being looped over portion 5 to prevent spreading of such shank.

9. A hook or eye comprising a wire or strip which is bent substantially at the middle to form a hook or eye and whose remaining ends are bent to form a two-part shank consisting of the rearwardly-extending portions or arms 5 and 7 and the forwardly-extending portions 6 and 9 forming the pins proper and means for preventing the spreading, one from the other, of the two parts of the shank.

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