

E. OPPENHEIM.
 HOOK AND EAR.
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1,036,315.

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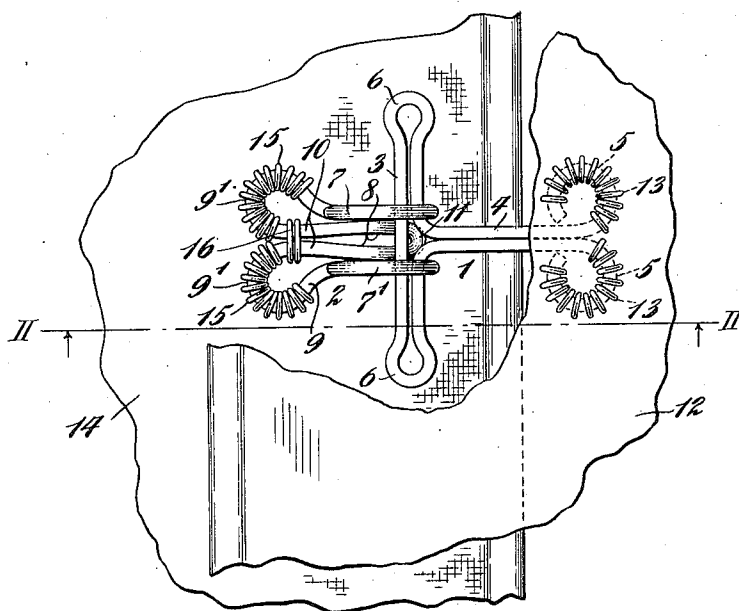


Fig. 1.

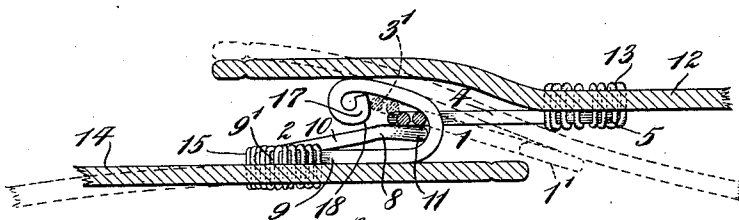


Fig. 2.

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HOOK AND EAR.

1,036,315.

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To all whom it may concern:

Be it known that I, EGON OPPENHEIM, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Hooks and Ears, of which the following is a full, clear, and exact description.

This invention relates to garment fasteners and more particularly to that class of fasteners of this character which are commonly designated hooks and eyes, but which in the present case is more particularly a hook and ear.

The invention has for its object the provision of an improved fastener of this description wherein the parts when in operative relationship are normally so disposed that inadvertent disengagement of the same is rendered practically impossible.

A further object of the invention is to so form one of these parts, preferably that which is hereinafter referred to as the cross bar member; so that it may be readily engaged by the fingers of the user even when the device is in a position difficult of access, as, for example, upon the back of a waist or skirt.

Another object of the invention is to so form the parts of the device that while it is substantially impossible for them to become disengaged when normally disposed upon the person of the wearer, they may be disengaged with facility when the respective parts of the garment to which they are attached are grasped by the fingers as they ordinarily would be when the user is preparing to undo the fastener.

These and other objects of my invention will hereinafter be referred to and the novel elements and combinations of elements whereby the same may be attained will be more particularly set forth in the claims appended hereto.

I am aware that various changes and modifications may be made in my improved fastener without departing from the spirit of the invention and hence desire to be limited only by the scope of the said claims.

In the accompanying drawings, wherein like reference characters designate like parts throughout the respective views, I have exemplified a preferred construction.

Figure 1 is a plan view of one form of my novel fastener; the elements thereof be-

ing shown as positioned upon and secured to fabric sections; a portion of one of which has been broken away for purposes of illustration. Fig. 2 is a section of the device taken on line II—II of Fig. 1.

The preferred construction comprises two principal elements. A cross bar member broadly designated 1 and a hook-member of rather peculiar configuration, broadly designated as 2. The cross bar member is substantially T-shaped; the head or cross-bar 3 of the same in this instance being disposed in a vertical line and the stem 4 thereof extending laterally and horizontally therefrom; said stem being bifurcated and turned or bent to form eyes 5 upon either side of its free extremity. The member in question may be made of resilient wire; the head or cross-bar 3 being formed by bending the wire back upon itself toward the median line of the member and then again bending each end of the wire laterally at substantially 90° to the first bend, these laterally extending portions being preferably disposed in parallelism and in contact with each other to form the stem 4. Where the wire is first bent around back upon itself in the manner aforesaid, the bend is preferably a smooth curve rather than a sharp one so that rounded extensions or enlargements 6 are formed upon either end of the head or bar 3. The function of these enlargements is to enable the user to readily grasp the same when the members are in place upon a garment to facilitate disengagement of the cross bar from the hook member. With this end in view it is also preferable that the head 3 be relatively longer than the width of the split hook with which it is engaged.

The hook proper of the member 2 comprises a split or two-part hook 7—7', a tongue 8, and a base 9. The respective parts 7—7' of the split hook are spaced apart to permit of the introduction of the stem 4 therebetween; and each of these parts 7—7' are bent downwardly and back through a relatively long radius curve. From these curves or bends the wire extends rearwardly for a short distance and is then looped around laterally as at 9' to provide attaching eyes in the base. The loops 9' each terminate in a limb 10 of the tongue, which as a whole is upwardly inclined with respect to the base; and the limbs 10 are,

in turn, integrally connected; being joined together by a loop 11, which forms the free end of the tongue. The tongue so formed is resilient and projects forwardly into the space between the parts 7—7' of the hook.

5 It will be observed upon inspection of Fig. 2 that the loop 11 is preferably disposed in a plane which diverges slightly from that in which are positioned the limbs 10, so that the said loop 11 is practically 10 in parallelism with the base of the hook. The cross bar member 1 may be secured to a portion 12 of a garment by means of stitches 13 which are drawn around the walls of the eyes 5 in a well known manner; 15 and correspondingly the loops 9' of the hook may be secured to another portion 14 of the said garment by stitches 15. It is also preferable to pass one or more stitches around the base of the limbs 10 as at 16. 20 In this manner the member 2 is secured firmly and quite flatly upon the fabric 14 while the hooking parts thereof are left free. Correspondingly the head 3 of the member 25 1 may also be freely moved away from the fabric by flexing the latter. Finally it will be observed that the extremities of the hook parts 7—7' are each curled around as at 17, these turns preferably not being quite circular 30 but having relatively sharp bends therein as at 18, and the portions of the turns 17 beyond the respective bends 18 being relatively straight and extending slightly rearwardly as well as upwardly 35 with respect to the tongue 11.

The operation of the device is as follows: Assuming that the parts have been secured to the fabric section as shown in Fig. 1, the user preferably grasps the cross head member 40 at the enlargements 6, between the forefinger and the thumb and centers said member with respect to the hook member 2; the stem 4 being dropped or pushed in between the hook parts 7—7'; and the head 3 being 45 snapped into the position shown in Fig. 1 by depressing the resilient tongue. As the body of the wearer is more or less round, it is evident that the cross head member will be swiveled around by the tension upon the 50 fabric, so that it will assume the position indicated by dotted lines in Fig. 2 and designated 1'. The members 1 and 2 are now locked against inadvertent displacement with respect to each other, since in the first 55 place, the resilient tongue 8 tends to resist disengagement of the fastener parts while a more positive locking means is provided by the configuration of curled extremities of the parts 7—7' which in a certain way co-act 60 with the looped extremity of said tongue. If by any chance the tension upon the garment fabric is slackened so that the cross head 3 starts to move away from the position in which it is shown in full lines in 65 Fig. 2, it is evident that owing to the angu-

lar disposition of the two parts of the fastener with respect to each other and to the guiding action of the downwardly bent loop 11, the cross head 3 will tend to move 70 upwardly as well as rearwardly and will hence encounter the sloping walls of the curled extremities 17 of the hook parts beyond the points 18, so that it will, so to speak, wedge itself more or less up into the 75 angular recesses afforded between these up-turned extremities and the adjacent portions of the hook proper; the position of the head 3 in such case being indicated by the dotted lines 3'. This action is in large measure 80 due to the fact that not only does the head 3 normally ride upon or engage the loop 11, but further, when it moves rearwardly from the forward tip or extremity of this loop, the stem 4 will continue in engagement with 85 said loop and, as said stem is angularly disposed with respect to the base of the hook-member, it directs the head toward the angular recesses above referred to and guides it 90 thereto. It is therefore unlikely that the head will drop down toward the points 18 and even if it did the resilient tongue must be depressed before the parts can become 95 disengaged. When however it is desired to undo the fastener, the hand of the user naturally grasps the fabric to which the respective parts are attached and thereby 100 swings the base of the cross-bar member either into the same plane with the base of the hook-member or outwardly beyond said plane, so that in either case, and especially 105 in the latter, the stem 4 will no longer co-act with the loop 11 to guide the head toward the angular recesses. The head may hence in such case be pressed through between the tongue and the curled extremities 17 of the hook parts until the cross-bar has been freed, whereupon the stem may be 110 lifted out of the cleft in the hook to completely disengage the parts.

Having thus described my invention, what I claim is: 110

1. A garment fastener comprising a hook member having a base and provided with a split hook and a resilient, forwardly and upwardly directed tongue between the sides 115 of said split hook, the free extremities of the respective outer sides of said hook being looped around to form angular recesses between said extremities and the adjacent body portions of said sides, and a cross-bar 120 member, the head of which, when in operative engagement with the hook-member, is adapted to rest upon said tongue, said cross-bar member having a stem laterally directed with respect to said head, said stem normally adapted to engage said tongue when 125 said head is moved away from the extremity of the latter, whereby to direct said head into said angular recesses.

2. A garment fastener comprising a hook- 130

member provided with two spaced hooks proper and a resilient tongue therebetween, the free extremities of said hooks being looped around to form angular recesses between said extremities and the contiguous body portions of said hooks, and a substantially T-shaped cross-head member, the head of which is materially longer than the width of the space between said hooks plus the thicknesses of said hooks. 10

In witness whereof, I subscribe my signature, in the presence of two witnesses.

EGON OPPENHEIM.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
