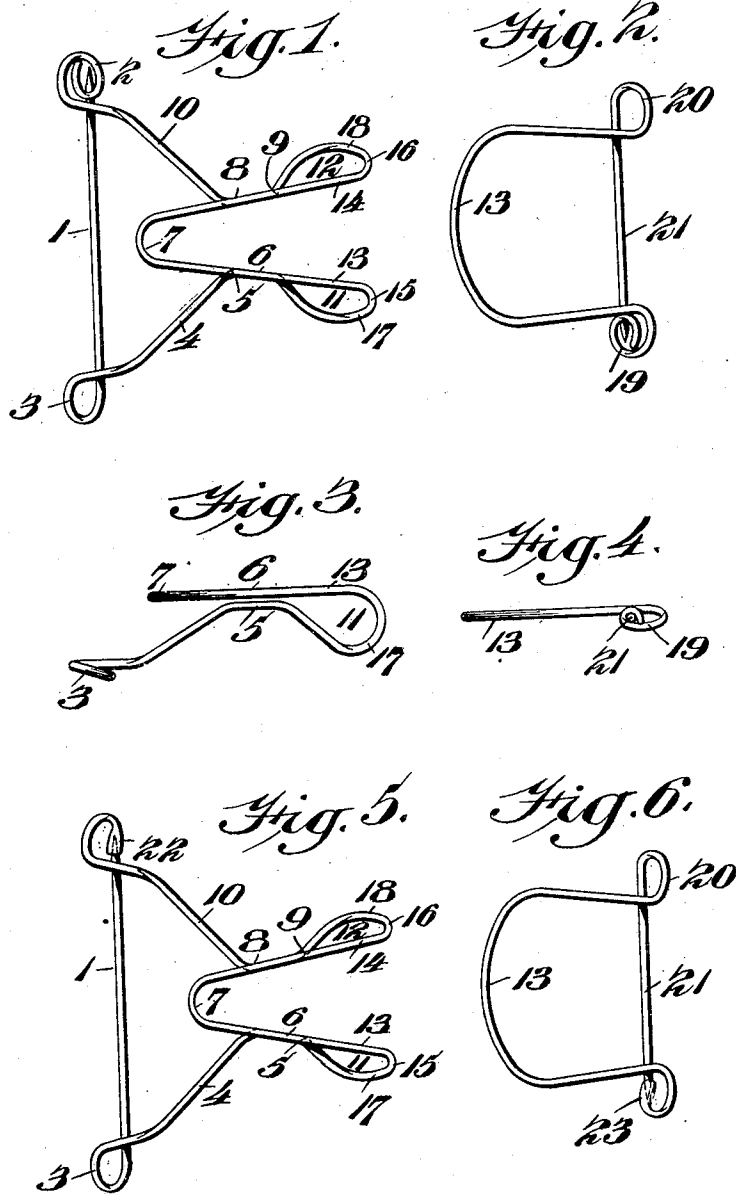


No. 891,202.

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E. M. BORHEK.
HOOK OR GARMENT FASTENER.
APPLICATION FILED SEPT. 18, 1907.



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UNITED STATES PATENT OFFICE.

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HOOK OR GARMENT-FASTENER.

No. 891,202.

Specification of Letters Patent.

Patented June 16, 1908.

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To all whom it may concern:

Be it known that I, ELMIRA M. BORHEK, a citizen of the United States, residing at Ridley Park, in the county of Delaware, State of Pennsylvania, have invented a new and useful Hook or Garment-Fastener, of which the following is a specification.

The purpose of my invention is to provide for ready and effective uniting of garments and bracing them against movement of the adjoining parts.

A further purpose of my invention is to provide the hook of a hook and eye with separated parallel members forming a throat to prevent accidental disengagement, each part of the throat being formed of wires lying closer together than the thickness of the material of which the hook is formed and of which the eye would normally be constructed.

A further purpose of my invention is to provide a hook with an extended length of contracted passage in place of the ordinary hump and to form this double, the two parts being spaced.

A further purpose of my invention is to so form one portion of the approaching members which make up the throat of a hook that the passage of the eye therethrough shall subject the wire of the hook to torsional strain as distinguished from direct spring strain.

A further purpose of my invention is to form a hook for use with an eye using a contracted portion in which torsional as well as spring movement takes place.

Figure 1 represents a plan view of a hook embodying one form of my invention. Fig. 2 represents a plan view of an eye embodying my invention. Figs. 3 and 4 represent plan views of modified forms of the hook and eye respectively shown in Figs. 1 and 2. Figs. 5 and 6 represent plan views of modified forms of the hook and eye respectively shown in Figs. 1 and 2.

In the drawings, 1 designates the piercing or pin portion of my hook which engages at its pointed end with a coil 2 when in closed position, and has its opposite end continuous of a suitable spring coil or loop 3, by which also the pin is connected with the rest of the hook and particularly with the portion 4 which extends inwardly and upwardly to form an extended throat member 5 parallel with the side 6 of the converging bill 7 of the hook, the side 6 lying most desirably directly

above the member 5 to provide the throat of the hook between these two portions.

The bill 7 of the hook is spaced from the side 6 and is similarly bent and in loose proximity to a portion 9 of the hook forming a similar throat between it and the side 6.

The throat is most desirably narrow enough to engage the eye and inasmuch as it has been the practice to make the hooks and eyes of similar material as to thickness and character, I describe the throat as most desirably narrower than the material of the hook itself. Some portion of the advantage of my device will be attained even if this be not the case, because the substantially parallel sides forming spaced passages, the eye is not likely to pass both of these at the same time with the accidental changes in position occurring in the movements of the body and will be retained in the hook if it fail to pass through either of the two throats formed.

When the throats are narrower than the material of the hook and correspondingly of a properly mating eye, the hook will be caught in either or both the throats, being retarded by the one in which it first engages and a shorter length of throat may be used by reason of their spaced character. The coil 2 is connected with the lower portion 9 of the throat by a member 10 preferably corresponding to the member 4 and between the parts 5 and 6 and 9 and 8, I connect my hook loops 11 and 12 which form resting places for the eye 13 and which are somewhat laterally extended as seen in Fig. 1 in order that downward pressure upon the lower portions of the two throat structures, namely 5 and 9, may result in torsional strain upon the parts 4 and 11 and 10 and 12 respectively, and more particularly upon the parts 11 and 12. The divergent side members 4 and 10 join the throat members, the sides 5 and 8 of the latter being not only disposed substantially directly beneath the side members 6 and 9 of the bill but extending in the same general direction therewith.

Passage of an eye through either of the throats formed will result in vertical relative movement of the parts 5 and 6 and 9 and 8 respectively, which, in the structure formed, will produce a strain of bending character chiefly in the parts of the bill 7 at 13 and 14 with some slight torsional strain upon the wire of the loop in the neighborhood of 15

and 16, while the corresponding downward movement of the parts 5 and 9 will produce torsional strain in the loops 11 and 12 along the sides 17 and 18 thereof. I thus get a
 5 combined torsional and bending effect. At the same time, the upward and inward bend of each side between the points 15 and 16 and the loops or coils 3 and 2, respectively, provide an extended length of wire between these
 10 points and give a spring to my hook not otherwise obtainable and relieves from the tendency of the bill of the hook to lift when there is strain upon the hook.

I preferably make my eye of the same general character as the hook as to the coil 19
 15 and loop or coil 20, using a pin 21 therefor and I space my eye preferably a little wider than the limits of the hook.

In Figs. 5 and 6, I have shown the same
 20 forms of construction as in Figs. 1 and 2, except that I have used a shield form of catch 22—23 in the hook and eye respectively.

It will be evident that I obtain great elasticity in my hook and combination torsional
 25 and bending strains with extended spaced throats.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

30 1. A hook of the character described having converging bill, divergent side members,

loops at the outer end of the bill and throat members lying directly beneath and extending in the direction of the length of the sides of said bill.

2. A hook of the character described, having converging bill, divergent side members, throat members lying directly beneath and extending in the direction of the length of the sides of said bill, and divergent sides between said throat members and the adjacent
 35 ends of the bill. 40

3. A hook of the character described, having a converging bill, laterally extended loops at one end of said bill, throat members
 45 beneath the sides of said bill, and divergent side members joining said throat members and terminating in interengaging securing means.

4. A hook of the character described, having a converging bill, laterally extended
 50 loops at one end of said bill, throat members beneath the sides of said bill, and divergent side members joining said throat members and terminating in interengaging securing
 55 means, the converging sides of said loops being inclined downwardly.

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Witnesses:

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