

(No Model.)

B. D. PAINE.
HOOK AND EYE.

No. 478,357.

Patented July 5, 1892.

Fig. 3.



Fig. 1.

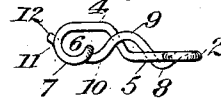


Fig. 2.

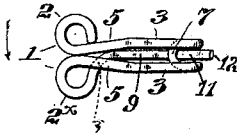


Fig. 4.

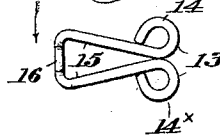


Fig. 5.

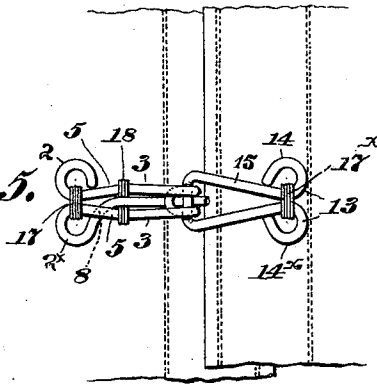
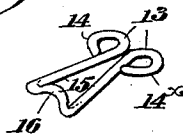


Fig. 4^a



Witnesses:
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UNITED STATES PATENT OFFICE.

BIRDSALL D. PAINE, OF PHILADELPHIA, PENNSYLVANIA.

HOOK AND EYE.

SPECIFICATION forming part of Letters Patent No. 478,357, dated July 5, 1892.

Application filed September 26, 1891. Serial No. 406,966. (No model.)

To all whom it may concern:

Be it known that I, BIRDSALL D. PAINE, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain
5 Improvements in Hooks and Eyes of the character employed to fasten the meeting edges of garments and the like to each other, of which the following is a specification, due
10 reference being had to the accompanying drawings, forming part hereof.

I will describe the hook and eye embodying my invention and point out the novel features in claim.

In the drawings, in which the hook and
15 eye are represented magnified for clearer illustration, Figure 1 represents a side or edge view of a hook constructed in accordance with my invention. Fig. 2 is a face or top plan
20 view of the same. Fig. 3 is a side or edge view of the eye constructed in accordance with my invention; and Fig. 4 is a face or
25 top plan view, and Fig. 4^a a perspective view, of the same. Fig. 5 is a top plan view of the hook and eye combined as when in use to
fasten the meeting edges of garments or the like to each other.

Referring to the drawings, the several parts are indicated by numerals, similar numerals denoting like parts in the different figures.

30 I prefer to construct the hook embodying my invention of a single piece of wire or other suitable material bent, shaped, or formed to provide fastening-points for attachment to the garment or the like, a socket or recess to
35 receive the engaging eye, a bent or hooked end for engaging the eye, and a movable guard or retaining tongue over said socket to prevent accidental displacement or separation of the hook and eye when combined and in
40 use. I prefer, also, to construct the eye embodying my invention of a single piece of wire or other suitable material bent, shaped, or formed to provide attaching-points, an engaging loop or eye proper, and a recess or
45 corrugation in said loop portion for engaging the guard-tongue of the hook and providing an easy and ready means of effecting a locking and unlocking of the hook and eye.

50 I will now describe in detail the construction of both the hook and eye as each constructed of a single piece of wire, and desire

it understood that, notwithstanding it is the best and present known cheapest way of manufacturing the articles, I do not desire to
limit myself to the construction of the arti- 55
cles as such of a single piece of wire or the like or confine myself to the exact construction of parts as shown, but may vary the same in any manner to carry out the spirit of
60 my invention without departing from the true scope thereof.

The wire 1 is first shaped to form an attaching-point 2, this being, more generally speaking, a small loop or eye. The wire is next
65 doubled upon itself to a proper and desired length, as best shown at 3 3, Figs. 2 and 5, and is then raised or struck up at or about
midway its length taken with regard to its longitudinal axis, as at 4, (best shown in Fig. 1), which leaves a portion of its extent 5 next
70 its attaching-points straight or on the same common plane with its attaching-points 2 2^x and provides a recess or socket 6, while its extreme outer or doubled end is then bent or
shaped to a hook form 7. The free end of the 75
wire is then bent or formed into the second attaching-point 2^x, opposite to and on the same common plane as its other attaching-point 2, and is then first passed beneath
80 the hook, as at 8, next upward, as at 9, between the double portion 3 3, preferably at or to the immediate rear of the struck-up portion 4, then downward, as at 10, so as to arch
or bridge over the recess or socket 6, its outer end 11 seating itself in the hook end 7 and its 85
tip or extreme end 12 preferably extending beyond the same to provide ready means of engaging the eye employed, in conjunction
with a hook of the character described and for the purposes set forth, and at the same 90
time the free end as such acts as a guard or retaining tongue to prevent displacement of the eye when in engagement with the hook, and by reason of the construction or form
95 given it is to a certain extent spring-like or resilient to the same end.

Having thus described in detail the hook of my invention, I will now describe the preferred construction of eye for joint use there- 100
with. An end of the wire 13 is first shaped to form an attaching-point 14 next an elongated or other desired shaped loop 15, and its

free end then formed into a second attaching-point 14^x, all on a common plane and as well known. This loop 15 at its outermost point is then struck up to form a recess or corrugation 16, vertical or at right angle with the plane of the eye, and provides an easy means of engaging and working the eye in conjunction with the hook of my invention and hereinbefore described.

10 In operation or use a departure is made from the old manner of combining or locking the hook and eye, in that in the old manner either the hook or the eye first had to travel the length or extent of the hooked end proper
15 of the hook over the surface of the other to effect engagement of parts, which has always been a great disadvantage and source of much annoyance to the users, while in the use of the hook and eye of my invention or hook of
20 my invention and the ordinary eye of commerce engagement or locking of parts is accomplished by seating the loop 15 of the eye by means of its recess or corrugation 16 or
25 otherwise on the movable guard or tongue of the hook at 12 and pressing downward and forward on the same, whereupon it will be lifted out of its seat in the hooked end 7 of the hook sufficient to permit the passing of the eye over said hooked end 7 into the
30 socket 6, and the tongue of its own resilience will again seat itself within the hooked end 7 and act as a guard to prevent the accidental

displacement or disengagement of the parts so engaged.

To disengage the parts, the operation is substantially the reverse of the engaging operation.

The hook and eye are fastened to the garment in the usual manner, as at 17 17^x, and, if desired, a good additional point for attaching the hook to the garment is provided in the hook of my invention, as shown at 18, all in Fig. 5.

Having now fully described my invention, I claim—

In a hook, the combination of the main or shank portion provided at one extremity with attaching means and at its opposite extremity with a hook portion turning underneath the main or shank portion, said main or shank portion struck up nearest the hook portion, whereby the latter is on the same plane with the attaching means, and a resilient guard or tongue extending from said attaching means to and beyond the hook end and removably seated on the outer or free side thereof, substantially as described, and for the purposes set forth.

In testimony whereof I have hereunto signed my name this 29th day of August, A. D. 1891.

BIRDSALL D. PAINE.

In presence of—

JOHN JOLLEY, Jr.,
DANIEL BRITTAIN.