C. A. FORD.

HOOK AND EYE.

APPLICATION FILED JULY 25, 1913.

1,084,852.

Patented Jan. 20, 1914.

Fig. 1.

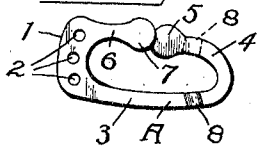


Fig. 2.

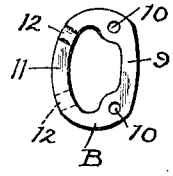


Fig. 3.

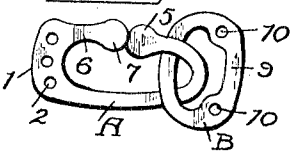


Fig. 4.

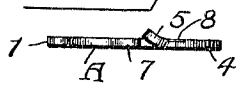


Fig. 5.

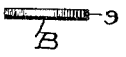


Fig. 6.

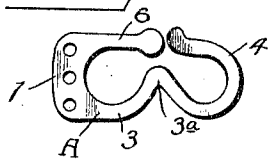


Fig. 7.

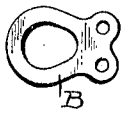


Fig. 8.

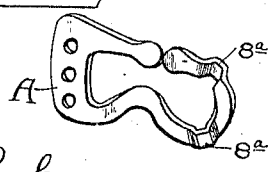
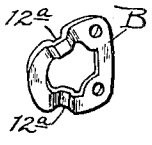


Fig. 9.



Witnesses

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HOOK AND EYE.

1,084,852. Specification of Letters Patent. Patented Jan. 20, 1914.

Application filed July 25, 1913. Serial No. 781,150.

To all whom it may concern:

Be it known that I, CHARLES A. FORD, citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Hooks and Eyes, of which the following is a specification.

The present invention relates to certain new and useful improvements in hooks and eyes, the primary object of the invention being to provide a separable fastening of this character in which the two elements are both perfectly flat, thereby enabling them to be passed through a wringer or stepped upon without danger of injury, and eliminating any necessity for removing the hooks from the clothes when the latter are being laundried.

A further object of the invention is to provide a hook and eye of this character which is simple and inexpensive in its construction, which provides a secure fastening, which can not become accidentally unhooked, and is not liable to be bent out of shape by rough usage.

With these and other objects in view, the invention consists in certain novel combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a plan view of a flat hook constructed in accordance with the invention. Fig. 2 is a similar view of the eye adapted to coöperate with the hook. Fig. 3 is a similar view showing the hook and eye in engagement with each other. Fig. 4 is a top plan view of the hook. Fig. 5 is a similar view of the eye. Fig. 6 is a plan view of a modified form. Fig. 7 is a similar view of the corresponding eye. Fig. 8 is a perspective view of a still further modification of the hook, and Fig. 9 is a similar view of the corresponding eye.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Specifically describing the preferred embodiment of the invention, as illustrated by the first five figures of the drawing, the character A designates the hook and the character B the coöperating eye. Each of these members is designed to be stamped from a piece of resilient sheet material, and is perfectly flat so that it can be passed through a clothes wringer, stepped upon, or subjected to other rough handling without danger of injury. The hook A comprises a base 1 which is shown as provided with a number of perforations 2 by means of which it can be readily stitched in proper position upon the garment. An integral arm 3 projects from the lower end of the base 1, the end of the arm being returned to provide a hook 4, the nose of the hook terminating in a circular head 5. A retaining arm 6 projects from the upper end of the base 1 and terminates in a circular head 7 which frictionally engages the circular head 5 upon the nose of the hook and coöperates therewith to provide a spring clasp for retaining the eye B in engagement with the hook. As indicated more clearly by Fig. 4, the circular head 5 upon the nose of the hook is deflected laterally to a slight extent for the purpose of facilitating the operation of bringing the eye B into and out of engagement with the hook. It will also be observed that the two arms of the hook are provided upon opposite sides thereof with depressions 8.

The eye B comprises a base 9 provided with perforations 10 by means of which it can be readily stitched in position upon the garment, and also a keeper 11 which is adapted to be brought into and out of engagement with the hook A. As previously mentioned, this eye B is stamped from a single piece of sheet material and is perfectly flat. In order to bring the eye into engagement with the hook, it is merely necessary to lay the hook upon the eye and then snap the two members together, and by the reverse operation the two members can be separated. The position assumed by the hook and eye when in engagement with each other is illustrated by Fig. 3, and it will be observed that the keeper 11 of the eye B is provided upon opposite sides thereof with the depressions or cut away portions 12 corresponding with the before mentioned depressions 8 of the hook A and adapted to engage the same. The provision of these corresponding depressions 8 and 12 upon the hook and eye enable the hook and eye to lie in substantially the same plane when assembled, thereby providing a flat structure.

The hook shown by Fig. 6 is substantially the same as that previously described, with the exception that the hook carrying arm 3 is provided with a crimped or offset portion 3^a which constitutes a hump to confine the keeper of the eye within the outer end of the hook and prevent the said eye from playing back and forth throughout the length of the hook. This modified form of the eye is also substantially flat, being stamped from a single piece of sheet material, and the operation thereof is identical with that previously described. The eye B shown by Fig. 7 is slightly different in design from that shown by Fig. 2, although it is adapted to be employed in substantially the same manner, and is likewise stamped from a piece of sheet material so as to be perfectly flat.

A still further modification is shown in Figs. 8 and 9. The hook A shown by Fig. 8 is substantially the same as that shown by Fig. 6, although it is preferably formed of slightly thinner material and the depressions 8^a in opposite sides of the hook member formed by gripping or offsetting the metal. The coöperating eye B shown by Fig. 9 is substantially the same as the eye shown by Fig. 2, although the depressions 12^a adapted to engage the before mentioned depressions 8^a of the hook are formed in a similar manner by crimping or offsetting the sheet metal. As previously described, these depressions 8^a and 12^a of the hook and eye respectively permit the hook and eye to set in a substantially flat position when brought into engagement with each other.

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

1. A hook and eye fastening including a flat hook formed with a base having an arm projecting from one end thereof and terminating in a hook, and also having a retaining arm projecting from the opposite end thereof, the nose of the hook and extremity of the retaining arm being provided with substantially circular heads which cooperate with each other to provide a spring clasp, one of the heads being deflected laterally, and a flat eye adapted to coöperate with the hook.

2. A hook and eye fastening including a flat hook formed with a base having an arm projecting from one end thereof and terminating in a hook, and also having a retaining arm projecting from the opposite end thereof, the nose of the hook and extremity of the retaining arm being provided with heads which coöperate with each other to provide a spring clasp, and the first mentioned arm of the base being formed with a hump which projects toward the retaining arm to limit the play of the eye within the hook, and an eye adapted to be engaged by the hook.

3. A hook and eye fastening including a flat hook stamped from a single sheet of spring material and formed with a base having an arm projecting from one end thereof and terminating in a hook, and also having a retaining arm projecting from the opposite end thereof, the end of the retaining arm and nose of the hook being provided with heads adapted to coöperate with each other to form a spring clasp, and one of the heads being deflected laterally, while the first mentioned arm of the base is formed with a hump which projects toward the retaining arm to limit the play of the eye within the hook, and an eye adapted to be engaged by the hook.

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

CHARLES A. FORD.

Witnesses:
JOHN J. LEDWITH,
HENRY BOSSET.

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