No. 833,533. PATENTED OCT. 16, 1906.

C. B. LONGENECKER.

FASTENING DEVICE.

APPLICATION FILED MAR. 28, 1906.

Fig. 1.

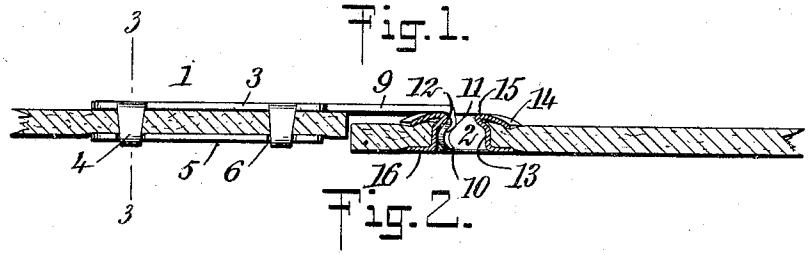


Fig. 2.

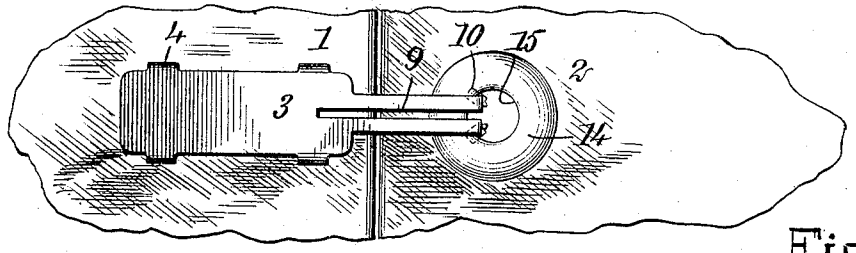


Fig. 10.

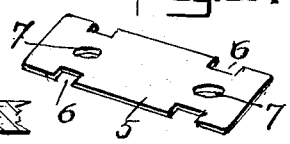


Fig. 3.

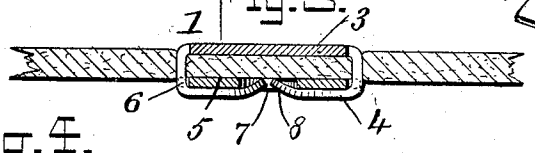


Fig. 4.

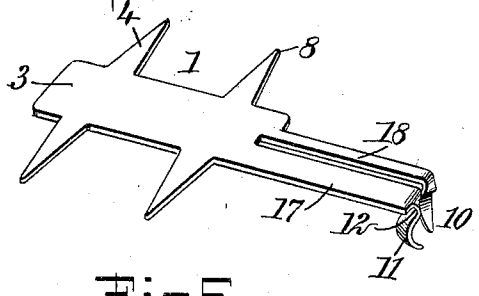


Fig. 5.

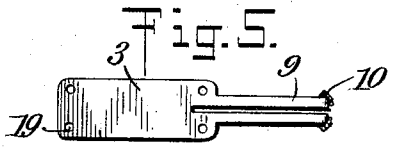


Fig. 6.

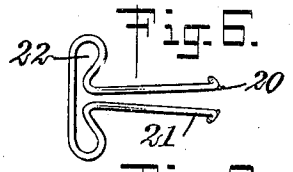


Fig. 8.

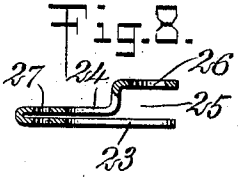


Fig. 7.

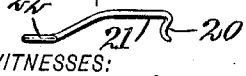
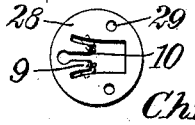


Fig. 9.



WITNESSES:

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CHRISTIAN B. LONGENECKER, OF PHILADELPHIA, PENNSYLVANIA.

FASTENING DEVICE.

No. 833,533. Specification of Letters Patent. Patented Oct. 16, 1906.

Application filed March 28, 1906. Serial No. 308,471.

To all whom it may concern:

Be it known that I, CHRISTIAN B. LONGENECKER, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Fastening Device, of which the following is a full, clear, and exact description.

This improvement relates to fastening devices for garments or for other purposes, and is particularly useful in connection with closures where it is only possible to use direct vertical pressure or pull in fastening or unfastening the clasp.

The object of the invention is to provide a simple, strong, and inexpensive device or clasp which can be attached to the fabric without difficulty and will not easily tear loose therefrom, which can be fastened or unfastened by a simple manipulation, and which strongly resists all lateral pull.

The invention consists in the construction and combination of parts, which will be set forth hereinafter and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my invention in use, showing a part in cross-section. Fig. 2 is a plan view of the clasp, showing the members engaged. Fig. 3 is a cross-section on the line 3 3 of Fig. 1. Fig. 4 is a perspective view of a modified form of the hook member. Fig. 5 is a plan view of another modified form of the hook member. Fig. 6 is a plan view of the hook member of another modified form of the device. Fig. 7 is a side elevation of the form illustrated in Fig. 6. Fig. 8 is a partial cross-section of a modified form of the eye member of the device. Fig. 9 is a plan view of a modified form of the hook member of the device, and Fig. 10 is a perspective view of a detail of my invention.

Referring more particularly to the drawings, 1 represents the hook member of the device, while 2 is the eyelet. The hook member consists of a plate 3, stamped or otherwise formed of suitable metal, and has tapering tongue extensions 4, which are bent at right angles to the plate 3 and in attaching the device to a fabric are forced through the weave and then bent inwardly over a bottom plate 5, as shown most clearly in Fig. 3. This plate 5, which is approximately the same size as the plate 3, has lateral recesses 6 to receive the tongues 4 and holes 7, into which the points 8 of the tongues are depressed, as shown in Fig. 3, in order to obviate the catching of the points in other portions of the fabric. The engaging of the tongues 4 with the recesses 6 and the openings 7 tends to hold the bottom plate securely in place and firmly to secure the hook member to the fabric. The hook member has a projecting fork having tines 9 substantially parallel and having the ends thereof formed into spurs 10, which are bent downwardly and outwardly and which have a curved portion 11, forming recesses 12, adapted to engage with an internal annular lip or projection of the eyelet. The curved parts of the spurs tend to guide the latter toward each other against the tension of the fork-tines 9 when the hook is forced into the opening of the eyelet. The tines while yielding laterally to pressure (or when curved spurs spring them toward each other when these spurs are inserted in the eyelet) are sufficiently rigid ordinarily to maintain their relative positions, and thus hold the spurs securely in the eyelet against accidental disengagement.

The preferred form of the eyelet consists of an essentially cylindrical body 13, having a laterally-disposed flange 14, which rests against the fabric in the usual manner when the eyelet is inserted therein. The eyelet is formed with an internal annular corrugation 15, which forms a constricted throat and is adapted to engage with the recesses 12 of the hook-spurs. To secure the eyelet in place it is inserted through the fabric and then the lower end is turned over laterally to form the riveting-flange 16 in the usual manner.

It will be understood that the forks 9 must have sufficient spring or elasticity to permit them to approach each other when the spurs 10 are inserted in the eyelet, and the convexity of the latter pressing against the edge of the eyelet-throat forces them together. However, as shown in the modified hook member illustrated in Fig. 4, one tine 17 of the fork may be rigid, while the other tine 18 provides the necessary resiliency to permit the pressing together of the spurs. In Fig. 5 is shown another modification of the hook member, in which the plate 3 is provided with a number of suitably-located perforations 19, adapted to secure the member to the cloth by sewing.

In Figs. 6, 7 is illustrated the hook mem-

ber of a modified form of the clasp. This is formed of suitable wire, which has two free ends bent downwardly and outwardly to form the spurs 20, similar in shape to the spurs 10 of the other form, the spurs 20 being at the extremity of two substantially parallel sections 21, which possess sufficient spring for the purpose of the device, as described above. Toward the end of the member remote from the spurs the wire is bent downward at an angle with the sections 21 and is then formed into horizontal loops or eyes 22, by means of which the member may be secured to the fabric by sewing. Fig. 8 represents the eyelet for this modified form of the clasp. This is formed of a flat strip of suitable metal having a straight base-section 23, which is folded back upon itself to form the upper section 24. The end of the upper section 24 is doubly bent at right angles, thus forming a rectangular recess 25, providing room for the spurs 20, which are inserted through the opening 26, formed for this purpose in the upper section of the eyelet. The other extremity of the eyelet is provided with an opening 27, by means of which it can be sewed or riveted to the fabric.

In Fig. 9 is shown a form of the hook member stamped from a plate 28, which has holes 29, by means of which it can be sewed to the fabric. The forks 9 are formed within the circumference of the plate by stamping and have their ends bent into the spurs 10, as in the other forms above described.

The advantage possessed by this device over many hook-clasps designed for similar purposes lies in the fact that it can be fastened or unfastened by a vertical movement, and therefore is adapted for many purposes for which a clasp necessitating sliding or turning movement is useless. Thus it may be used as a shoe or belt fastening, as a tent-wall clasp, as a buckle, &c.

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

1. A device of the class described, comprising a hook member and an eyelet, said hook member having means adapted to secure it to a fabric, and fork-tines adapted to be deflected, having spurs laterally disposed and curved downwardly and outwardly, said eyelet having means to secure it to a fabric, and a lip adapted to engage said spurs of said hook member.

2. A device of the class described, comprising a hook member and an eyelet, said hook member having tongues adapted to penetrate a fabric and be riveted thereto, and fork-tines having spurs laterally disposed and with outward and downward curvature, said eyelet having means to secure it to a fabric, and a constricted throat presenting a lip adapted to engage with said spurs of said hook member.

3. A device of the class described, comprising a hook member and an eyelet, said hook member having laterally-disposed tongues adapted to penetrate a fabric, a plate having lateral recesses and openings, and fork-tines having spurs laterally disposed and with outward and downward curvature, said tongues being adapted to engage with said recesses of said plate and have the points thereof depressed into said openings, said eyelet having means to secure it to a fabric, and a constricted throat presenting a lip adapted to engage with said spurs of said hook member.

4. A device of the class described, comprising a hook member and an eyelet, said hook member having tongues adapted to penetrate a fabric, fork-tines having spurs laterally disposed and with outward and downward curvature, forming recesses and adapted to press said tines together in inserting said spurs in said eyelet, and a plate having lateral recesses and openings, said plate being located on the side of the fabric remote from said fork-tines, said tongues being adapted to engage with said recesses of said plate and to have the points thereof depressed in said openings, said eyelet having means to secure it to a fabric, and a constricted throat presenting a lip adapted to engage in said recesses of said spurs.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHRISTIAN B. LONGENECKER.

Witnesses:

HENRY L. KLOPP,

J. W. THATCHER.