No. 617,944. Patented Jan. 17, 1899.

# J. F. ATWOOD.

## CLASP.

(Application filed Feb. 18, 1898.)

(No Model.)

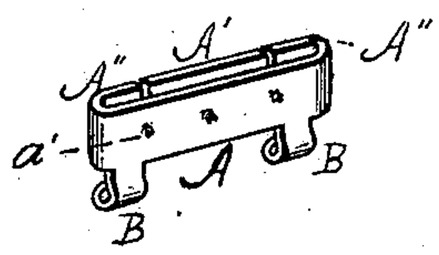


Fig. 1.

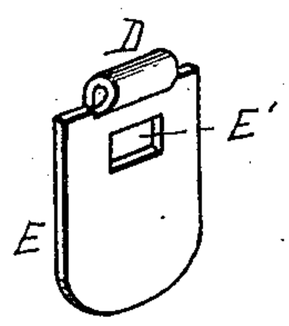


Fig. 2.

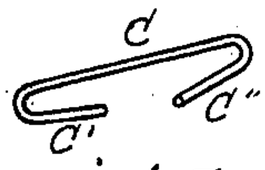


Fig. 3.

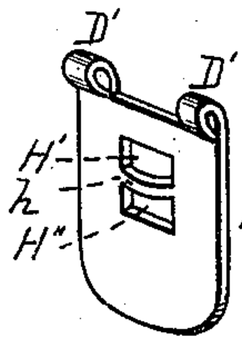


Fig. 4.

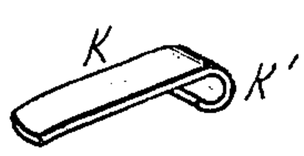


Fig. 5.

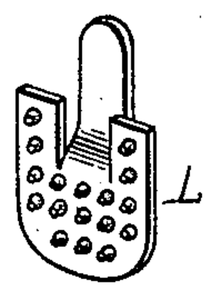


Fig. 10.

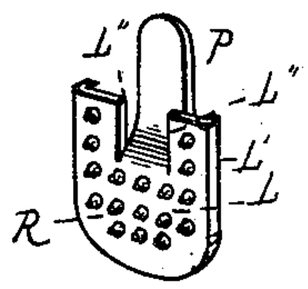


Fig. 6.

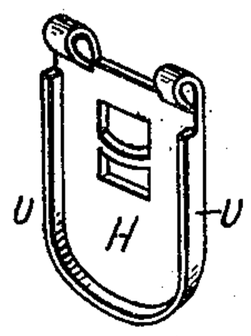


Fig. 11.

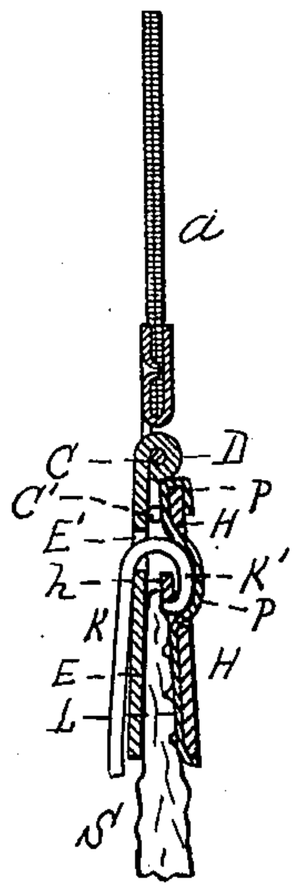


Fig. 7.

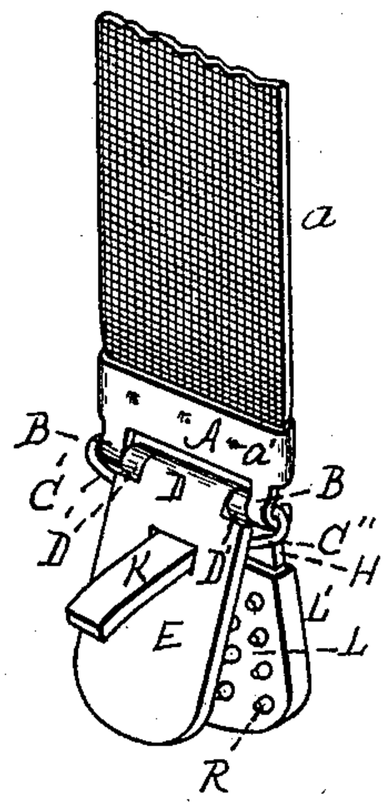


Fig. 8.

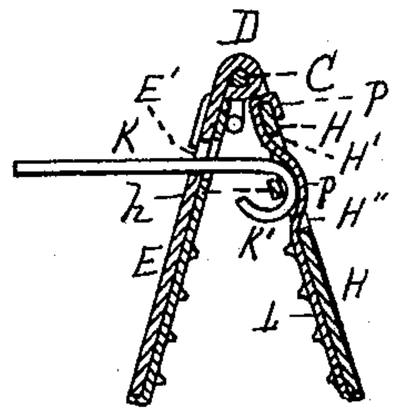


Fig. 9.

WITNESSES

A. A. Ponney.

A. G. Ponney.

INVENTOR

James F. Atwood.

By his Atty

Henry W. Williams.

# UNITED STATES PATENT OFFICE.

JAMES F. ATWOOD, OF MALDEN, MASSACHUSETTS.

## CLASP.

SPECIFICATION forming part of Letters Patent No. 617,944, dated January 17, 1899.

Application filed February 18, 1898. Serial No. 670,809. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES F. ATWOOD, a citizen of the United States, residing in Malden, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Clasps, of which the following is a specification.

This invention relates to clasps adapted to be used for supporting garments or portions thereof or for attaching garments or articles of apparal together, such as supporting hose or underwear, attaching cuffs to shirt-sleeves, neckties or scarfs to shirt-bosoms, &c.

The invention relates particularly to that class of clasps in which two directly-connected jaws are forced against opposite sides of the garment to be clasped as distinguished from the style of clasp illustrated in Letters Patent of the United States granted to me November 27, 1883, and January 5, 1886, and numbered 289,057 and 333,494, respectively, in which an intermediate spring-jaw extends between the outer jaws and a cam-lever having its bearing in one of the outer jaws forces the intermediate jaw against the fabric, which is placed between said intermediate jaw and the other outer jaw.

The nature of the invention is fully described below and illustrated in the accompanying drawings, in which—

Figures 1, 2, 3, 4, 5, and 6 represent the separated parts of my clasp, such parts being respectively the holder, a jaw, the spring, the opposite jaw, the locking-lever, and the platform, below described. Fig. 7 is a transverse vertical section showing the clasp suspended from a tab and in position on a piece of fabric. Fig. 8 is a perspective view showing the clasp open. Fig. 9 is a cross vertical section illustrating a modification. Figs. 10 and 11 are respectively perspective views of modified forms of the platform and rear jaw.

Similar letters of reference indicate corresponding parts.

The holder may be constructed in any suitable manner whereby it can be secured to a tab *a* or other means of support, the holder in the drawings consisting of a piece of sheet metal A, having its under edge extending into an upwardly-bent portion A′ and its ends into the inwardly-bent portions A″, whereby the end of the tab may be clamped between the portion A and the portions A′ A″ and held securely in such position by means of the indentations *a′* or other suitable contrivance. The lower edge of the portion A is provided with the downwardly-extending hooks B, through which a pivot-wire C extends horizontally and constitutes the pintle or pin connecting the parts D D′, which constitute the knuckle of a hinge and are integral, respectively, with the jaws E and H, formed of flat material. By this construction the jaws are hinged together at their upper ends and swing from the holder A, in which respect they differ from the invention described in my application of even date herewith, in which the two jaws are of an integral piece and are held apart by their inherent spring. The jaw E is provided near its upper end with the horizontal and preferably rectangular opening E′, and the jaw H is provided with the two horizontal openings H′ and H″, one above the other, such openings being separated by the strip of metal *h*, which serves as a pivotal support for the hook-shaped end K′ of the flat locking-lever K, whose free end extends normally through the opening E′. The wire pin or pintle C has its ends extended into the inwardly-bent spring portions C′ and C″. These portions are not bent toward each other on the same plane or in line with each other, but the portion C′ is bent forward and the portion C″ rearward, so that the jaws will be held normally spread, as indicated in Fig. 8, the portion C′ bearing against the rear side of the jaw E and the portion C″ bearing against the inner surface of the jaw H.

The lower edge of the opening E′ is a little higher than the center of the dividing portion *h*, which serves as a pivot on which the hook-shaped end K′ of the locking-lever K swings. This hook-shaped end is formed on a curve which is considerably larger in diameter than the portion *h*. The effect of the relative heights of the lower edge of the slot E′ and the center of the portion *h* and the relative diameters of the said portion *h* and hook-shaped end K′ is such that when the jaws are held apart, as shown in Fig. 8, by the springs C′ C″ the locking-lever K extends from one jaw to the other and through the opening A′ in a substantially horizontal position. In or-

der to close these jaws upon a piece of fabric, as S, the outer end of the locking-lever is pressed down, with the effect of slightly raising its rear hooked end K′, so that said hooked end presses up against the under edge of the portion *h*, and the free end of the locking-lever acting on the lower edge of the opening E′ forces inward the jaw E until the locking-lever is parallel with and bears against the outer surface of said jaw E, as indicated in Fig. 7, in which position the jaws are locked together and cannot be separated except by swinging up the lever K.

Instead of serrating or roughening the inner surfaces of the jaws for the purpose of securing a firm hold on the fabric I prefer to apply to the inner surface of the jaw H a roughened plate or platform L. This consists of a thin piece of metal struck up into the shape shown, having its edge L′ turned over into a flange adapted to fit around the edge of the jaw H, slitted at L″, provided between said slitted portions with the extended tongue P, and formed on its surface with suitable protuberances R. This plate or platform L is applied to the jaw H, as shown in Figs. 7 and 8, and the tongue P is bent outward through the opening H″ and back inward through the opening H′ and is thence bent upward over the upper edge of the jaw H between the parts D′ and down against the rear side of said jaw, all as indicated in Fig. 7, thus holding the platform or plate securely in position. By means of this platform a roughened surface may be more easily and readily secured, and opportunity is provided for strengthening the grasping power of the jaws and giving them a tighter hold on the fabric by underlaying the platform or plate L—that is to say, placing flat pieces of cloth, paper, or other material under it—thus lifting or forcing its surface from the jaw H and toward the jaw E and of course lessening the normal distance between said jaws. The underlaying material is easily applied by springing the plate slightly from the jaw H and is prevented from slipping out of place by the flange L′.

In Fig. 9 the jaw E, as well as the jaw H, is provided with a roughened or serrated inner platform or plate.

In Figs. 10 and 11 the platform or supplemental jaw L is made without a flange, and the jaw E is provided with a flange U, the modification consisting solely in the flange extending from the jaw H instead of from the platform or supplemental jaw L.

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

1. In a clasp of the character described, a pair of jaws hinged together at one end; and a locking-lever formed at one end into hook or loop shape and thereby pivotally connected with one of said jaws, and extending through a suitable opening in the other jaw, the bearing-point in the first-named jaw being somewhat lower than the lower or bearing edge of the opening in the last-named jaw, and the hooked or looped end of the locking-lever being somewhat larger in diameter than the pivot around which it extends, whereby downward pressure on the outer end of the locking-lever will cause the hooked or looped end thereof to be lifted with relation to its pivot, and the outer end to force the jaws into and retain them in a closed position, substantially as described.

2. In a clasp of the character described, the jaws E, H hinged together at their upper ends; the wire C constituting the pintle of the hinge and provided with the extended ends C′ and C″ located between the jaws and bent respectively forward and rearward whereby said jaws are held normally open; and a locking-lever pivotally secured to one jaw and adapted to engage the other and close the jaws against the power of the said spring ends C, C′, substantially as set forth.

3. In a clasp of the character described, a pair of jaws adapted to swing with relation to each other; mechanism whereby said jaws are opened, closed and retained in a closed position; and the platform or supplemental jaw L provided with the bent edge or flange L′ and having its surface suitably roughened or serrated, said platform being secured to one of the jaws and conforming generally in shape to the outer end thereof, said platform being provided with the tongue P extending therefrom and adapted to be bent and thereby secured to the jaw, thus holding the platform in place thereon, substantially as set forth.

JAMES F. ATWOOD.

Witnesses:
HENRY W. WILLIAMS,
A. N. BONNEY.