

No. 702,771.

Patented June 17, 1902.

C. A. BRYANT.

CLASP.

(Application filed Aug. 29, 1901.)

(No Model.)

Fig: 1.

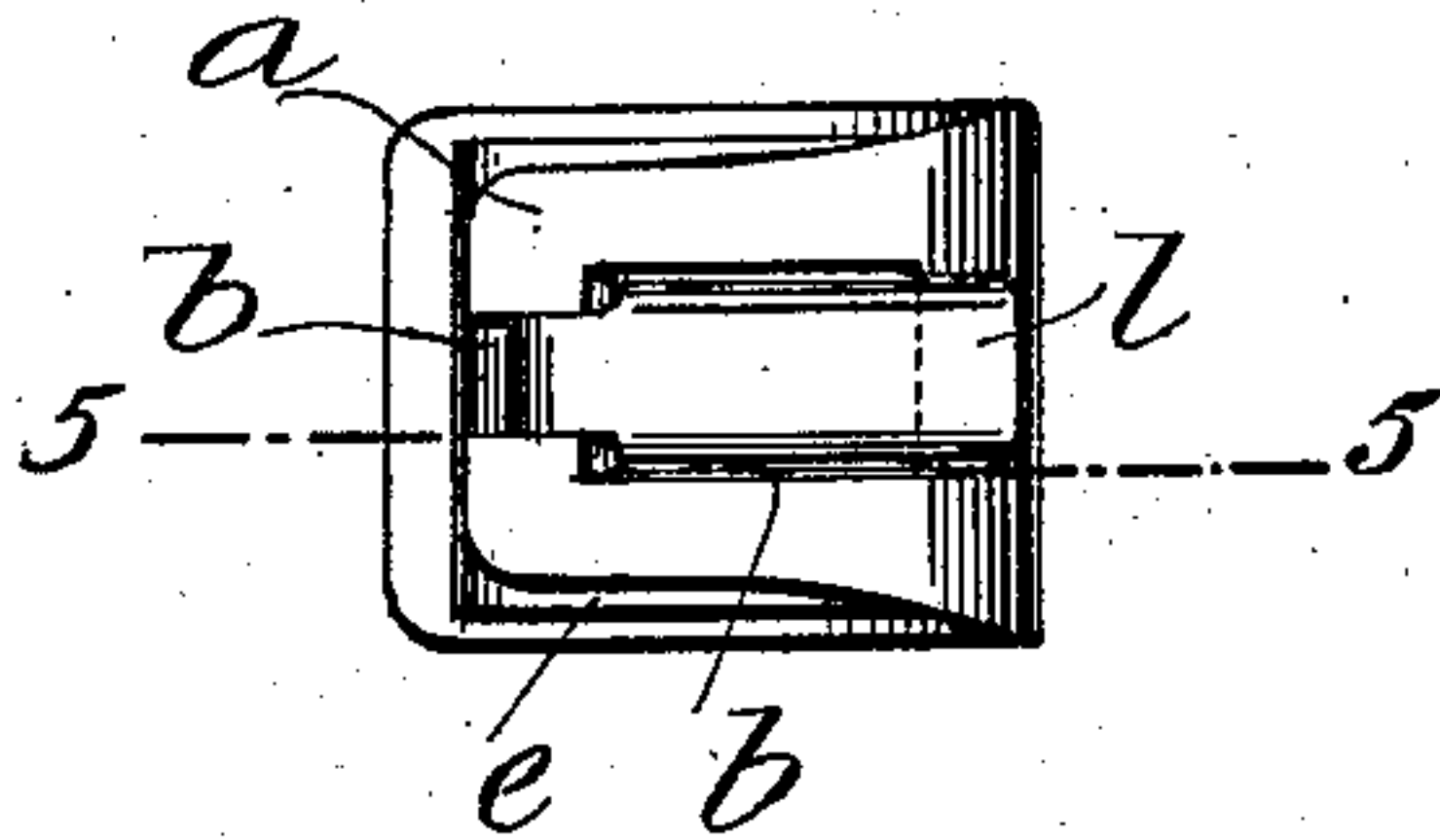


Fig: 2.

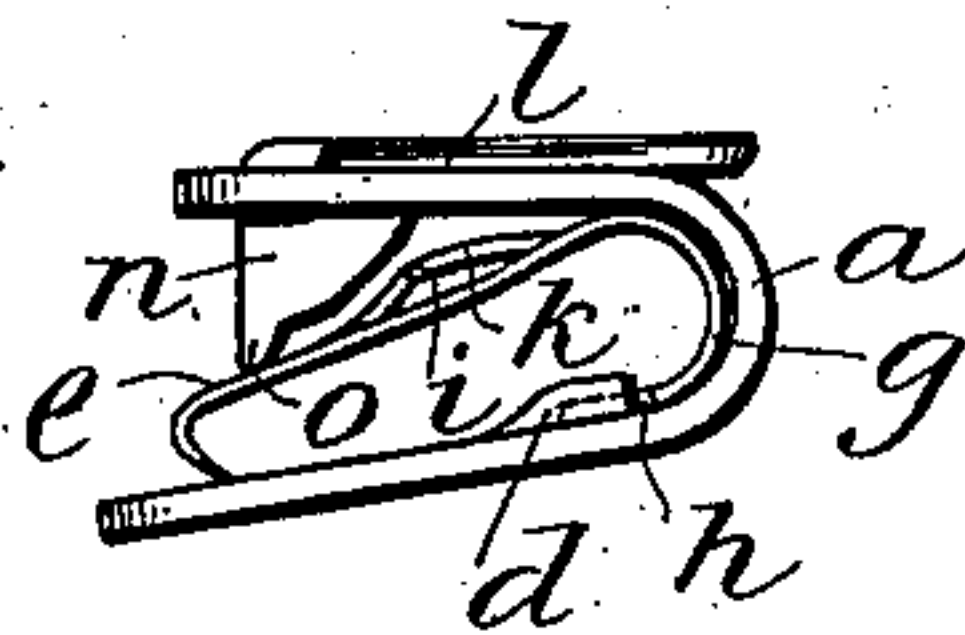


Fig: 3.

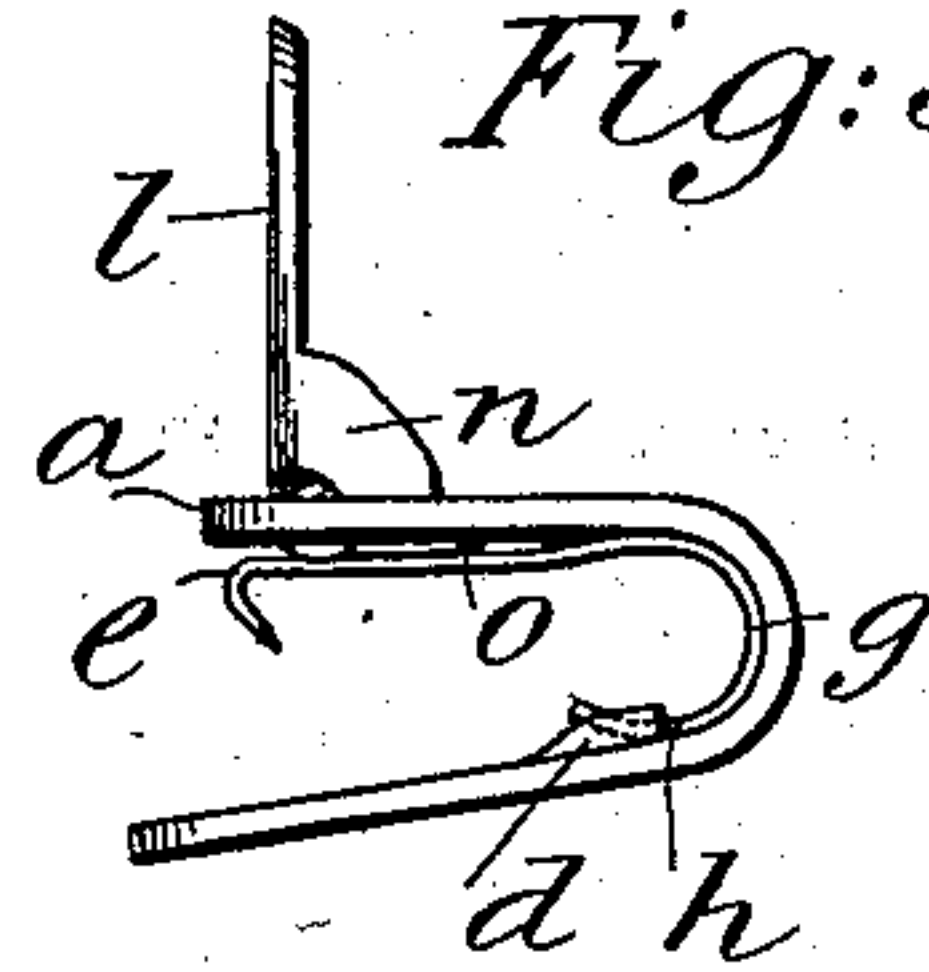


Fig: 4.

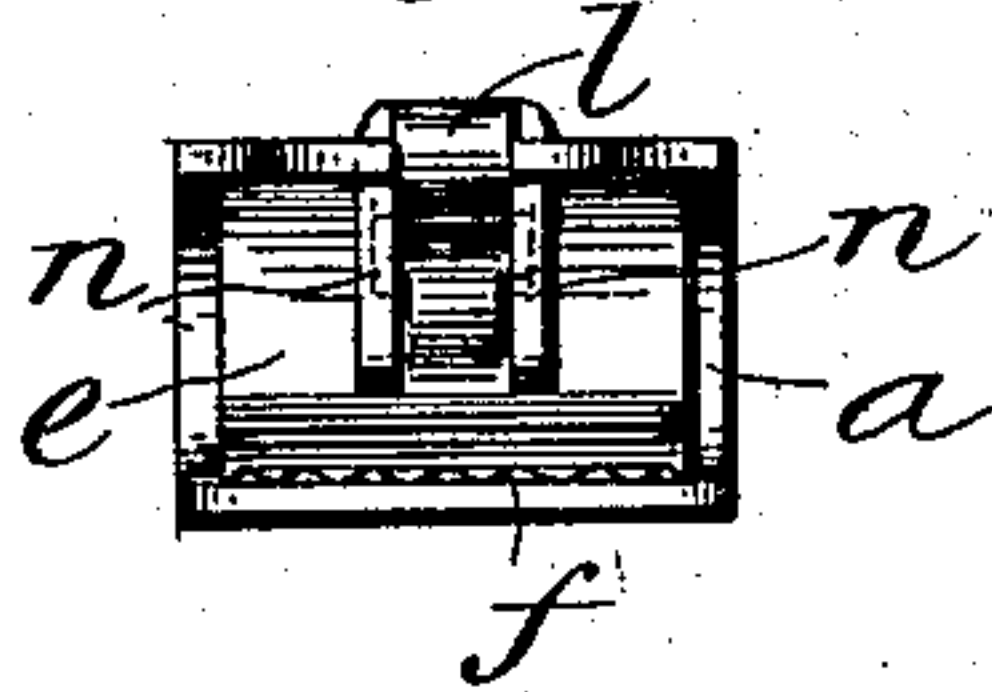


Fig: 5.

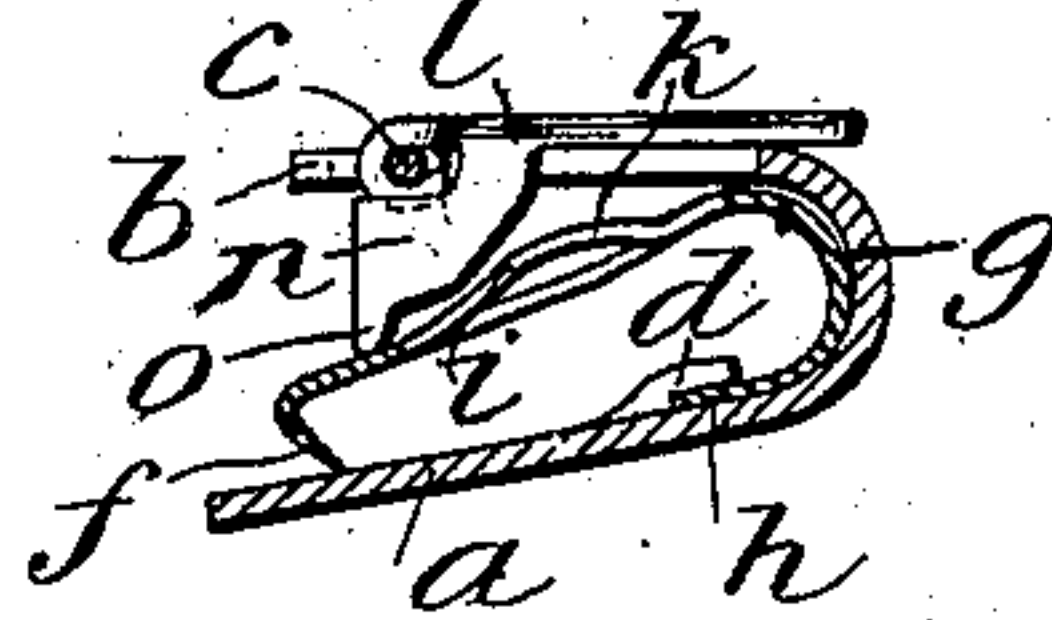


Fig: 6.

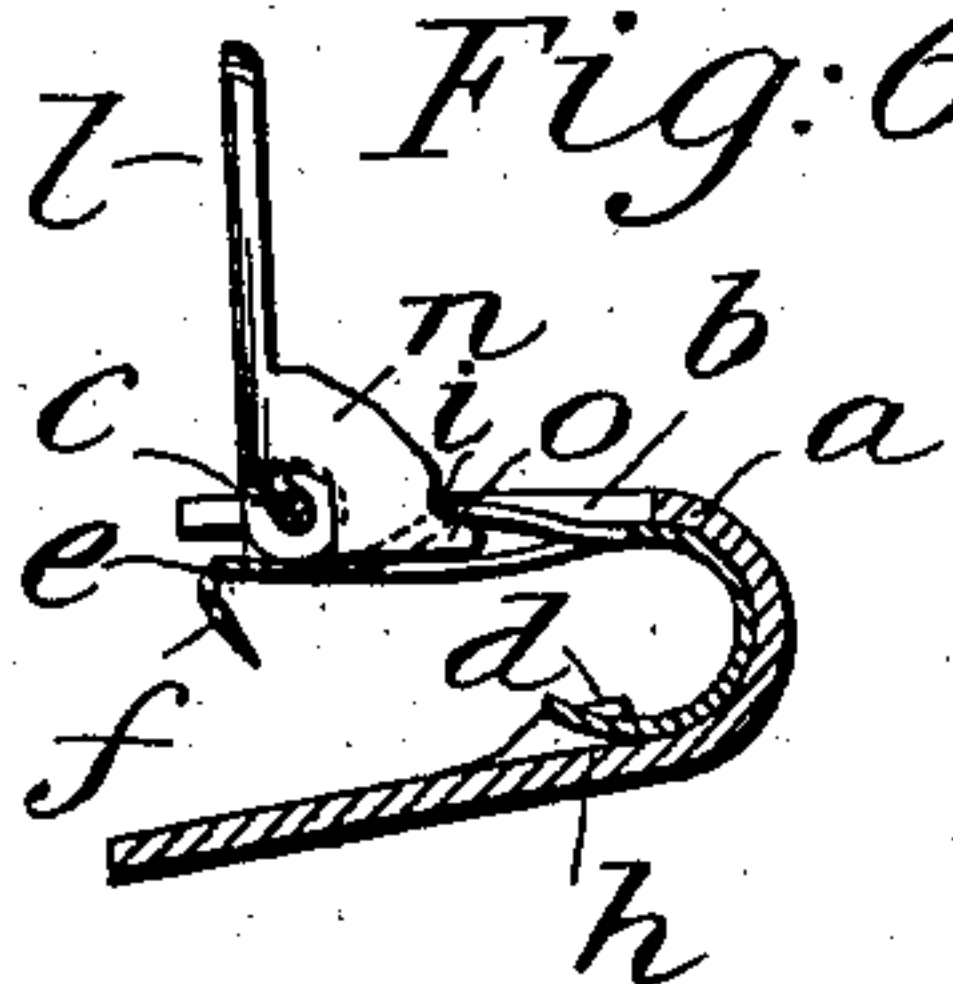


Fig: 7.

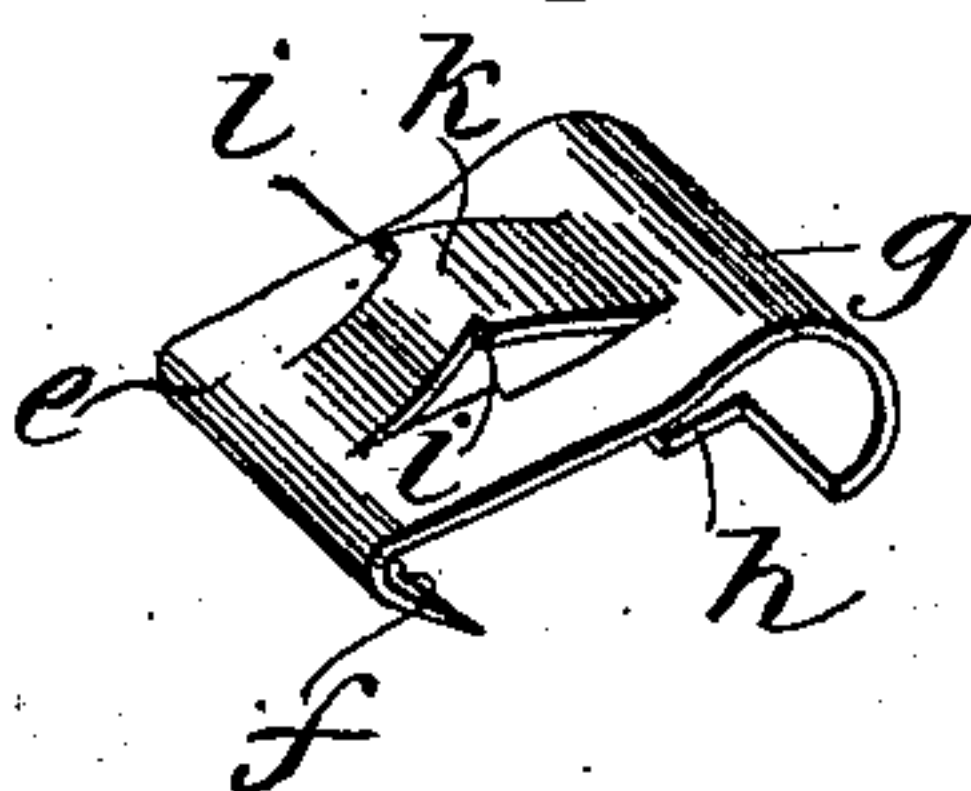
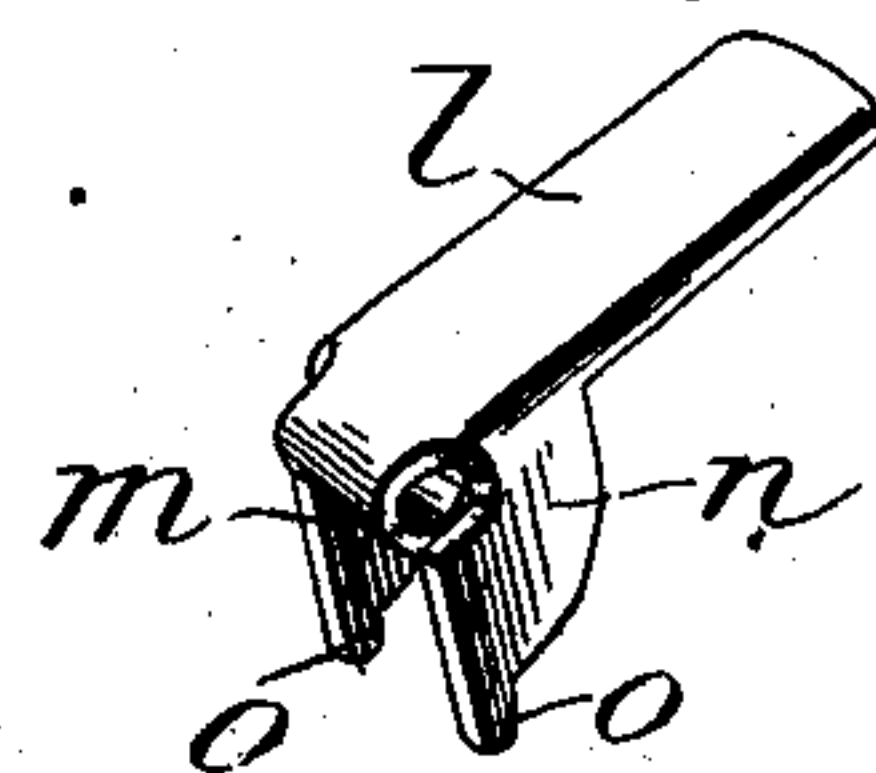


Fig: 8.



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UNITED STATES PATENT OFFICE.

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CLASP.

SPECIFICATION forming part of Letters Patent No. 702,771, dated June 17, 1902.

Application filed August 29, 1901. Serial No. 73,649. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BRYANT, a citizen of the United States, whose residence and post-office address is Wakefield, in the county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Clasps, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to clasps of the general character of that shown in Letters Patent of the United States No. 553,972; and it has for its object to overcome certain objections or difficulties incident to the manufacture and use of such clasps as heretofore constructed. Heretofore and as represented in the Letters Patent above referred to the clamping-jaw has been formed as a part of a spring member held within the rigid or frame member and the resilience of the spring has been relied upon to open the jaw when the same is released by the movement of the clamping-lever. The formation of this spring member contributes materially to the cost of production of the clasp, and such spring member is the source of more or less trouble in the use of the article. If the spring is not properly tempered or loses its resilience, the clasp becomes useless. Furthermore, the constant pressure of the clamping-jaw against the clamping-lever during its operation causes the contacting parts to wear rapidly, so that for this reason the clasp soon becomes useless.

35 In accordance with the present invention the spring is done away with altogether and in its place is employed a grip or clamping-jaw, which is loosely hung or pivoted within the frame and is positively engaged by the clamping-lever to open as well as to close the clasp.

45 The invention will be more fully described hereinafter with reference to the accompanying drawings, in which for purposes of illustration and explanation it is represented as embodied in a convenient and practical form.

50 In the drawings, Figure 1 is a top view of the improved clasp. Fig. 2 is a side view of the same with the jaw closed. Fig. 3 is a view similar to Fig. 2, but with the jaw open.

Fig. 4 is a front end view. Fig. 5 is a view in section on the plane indicated by the line 5 5 of Fig. 1 with the jaw closed. Fig. 6 is a view similar to Fig. 5 with the jaw open. Fig. 7 is a detail view of the grip or clamping-jaw. Fig. 8 is a detail view of the clamping-lever.

The rigid or frame member *a* of the clasp or fastener is formed of a sheet of metal having the necessary stiffness and bent into a substantially U shape. It is cut out, as at *b*, a cross-bar being left, as at *c*, to form the bearing for the operating-lever. It also has on its opposite member lugs or projections *d*, struck up or otherwise formed to constitute stops, as hereinafter referred to.

The grip or clamping-jaw *e* is formed from a thinner sheet of metal, which has the requisite stiffness, but need not possess such a degree of resilience as would be necessary in the case of the spring-grip of the old construction. It is provided at its outer end with teeth or points *f*, and at its inner end is curved, as shown in *g*, or may be otherwise suitably formed to permit the grip or jaw to be retained in position while swinging freely within the frame member *a*. As shown, the grip or jaw is provided at its inner curved end with a tongue *h*, which when the jaw has been slipped into position in the frame *a* rests between the two stops *d*, thereby preventing the accidental dislodgment of said grip or jaw. One or more shoulders *i* are formed on the grip for engagement with the operating-lever, and such shoulders may be formed in a convenient manner by striking up a bridge-piece *k*, the forward portion of which is narrower than the rear portion, so that the shoulders *i* are exposed toward the front. Such bridge-piece when the jaw is open may stand up in the recess *b* of the frame *a*, thereby permitting the jaw to be swung up close against the upper member of said frame *a*.

The operating-lever or clamping-lever *l* is pivoted upon the frame *a* by bending a portion *m* thereof around the bar *c* of said frame, and other parts *n* of the same piece of metal are bent down to form fingers or claws to engage the grip or clamping-jaw. As shown clearly in Figs. 5, 6, and 8, the extremities *o*

of the fingers *n* are arranged to engage the shoulders *i* of the grip or jaw *e* and to lift the same positively when the lever *l* is moved to the position indicated in Figs. 3 and 6. When
 5 the lever is moved to the position shown in Figs. 2 and 5, the extremities of the fingers bear upon the grip or clamping-jaw adjacent to the bridge-piece *k* and force the grip or clamping-jaw to its closed position, as shown
 10 in said figures, firmly grasping between the jaw and the opposing member of the frame *a* whatever material may have been introduced between the jaw and such member. It will be understood that the fingers *n* swing slightly
 15 beyond a line drawn from the axis about which the lever moves at right angles to the clamping-jaw, so that outward pressure of the grip or clamping-jaw is resisted and the clasp remains closed until the lever *l* is shifted.
 20 In the operation of the improved clasp, as will be understood, the curved portion of the clamping-jaw slides around or swings in the curve of the frame. Its outer end is pressed down upon the fabric by the action of the
 25 fingers *n* against the jaw, as shown in Fig. 5, and when the operating-lever is turned to the opposite position, as shown in Fig. 6, the extremities *o* of the fingers *n* engage the shoulders *i* of the jaw and move it positively away
 30 from the fabric.

I claim as my invention—

1. In a clasp, the combination with a U-shaped frame, of a clamping-jaw loosely hung or pivoted within said frame, and an operating-lever pivoted on one member of the frame
 35 and having a finger which positively engages said jaw both to open and to close the same, substantially as shown and described.

2. In a clasp, the combination with a U-shaped frame, of a clamping-jaw loosely hung
 40 or pivoted within said frame and having a shoulder, and an operating-lever pivoted on

one member of the frame and having a finger to engage said shoulder to open the jaw, substantially as shown and described. 45

3. In a clasp, the combination with a U-shaped frame, of a clamping-jaw loosely hung or pivoted within said frame and having a bridge-piece struck up to form shoulders, and an operating-lever pivoted on one member of
 50 the frame and having fingers to straddle said bridge-piece and engage said shoulders, substantially as shown and described.

4. In a clasp, the combination with a U-shaped frame, of a clamping-jaw loosely hung
 55 or pivoted within said frame, and an operating-lever having a part looped around a portion of the frame and other parts bent down to form fingers to engage said jaw, substantially as shown and described. 60

5. In a clasp, the combination with a U-shaped frame, of a clamping-jaw having its inner end curved to fit within said frame and swing therein, and an operating-lever pivoted on one member of the frame and having a
 65 finger which positively engages said jaw both to open and to close the same, substantially as shown and described.

6. In a clasp, the combination with a U-shaped frame, having lugs near its curved
 70 part, of a clamping-jaw having its inner end curved to fit within said frame loosely and formed to engage said lugs, and an operating-lever pivoted on one member of the frame and having a finger which positively engages
 75 said jaw both to open and to close the same, substantially as shown and described.

This specification signed and witnessed this 23d day of August, A. D. 1901.

CHARLES A. BRYANT.

In presence of—

CHARLES F. HARTSHORNE,
 FREDERIC S. HARTSHORNE.