

No. 831,585.

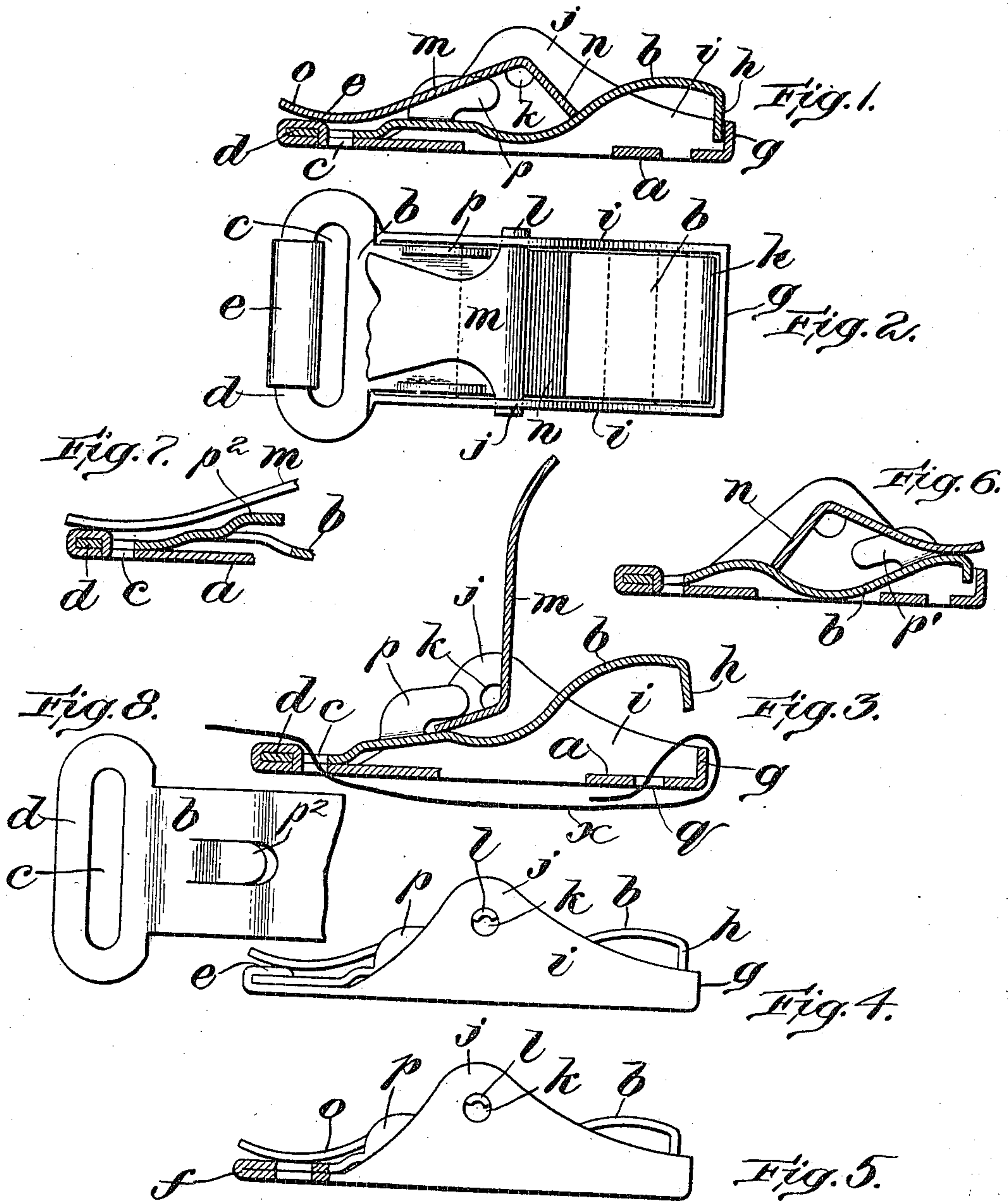
PATENTED SEPT. 25, 1906.

G. A. WELD.

CLASP.

APPLICATION FILED JULY 19, 1906.

2 SHEETS—SHEET 1.



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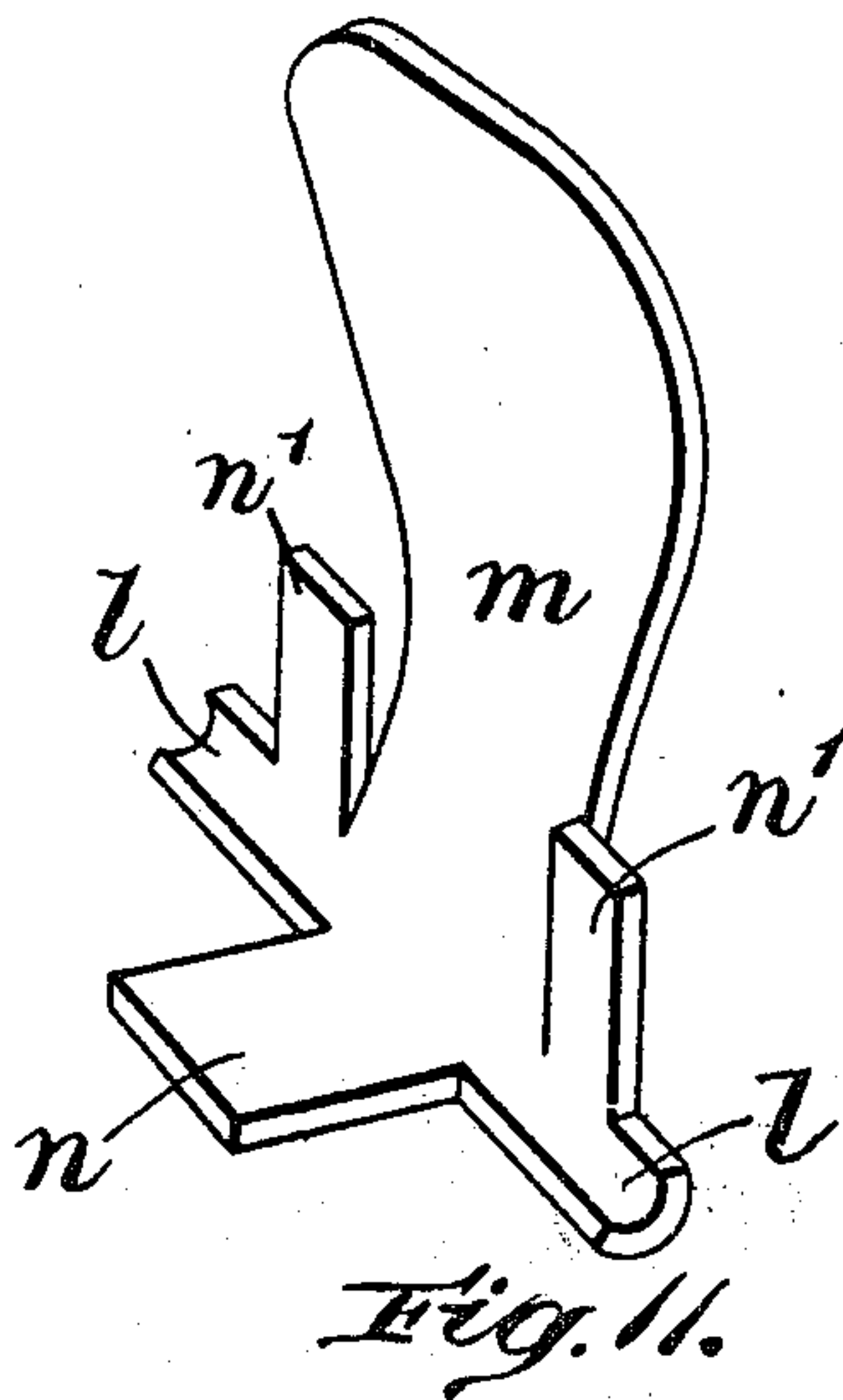
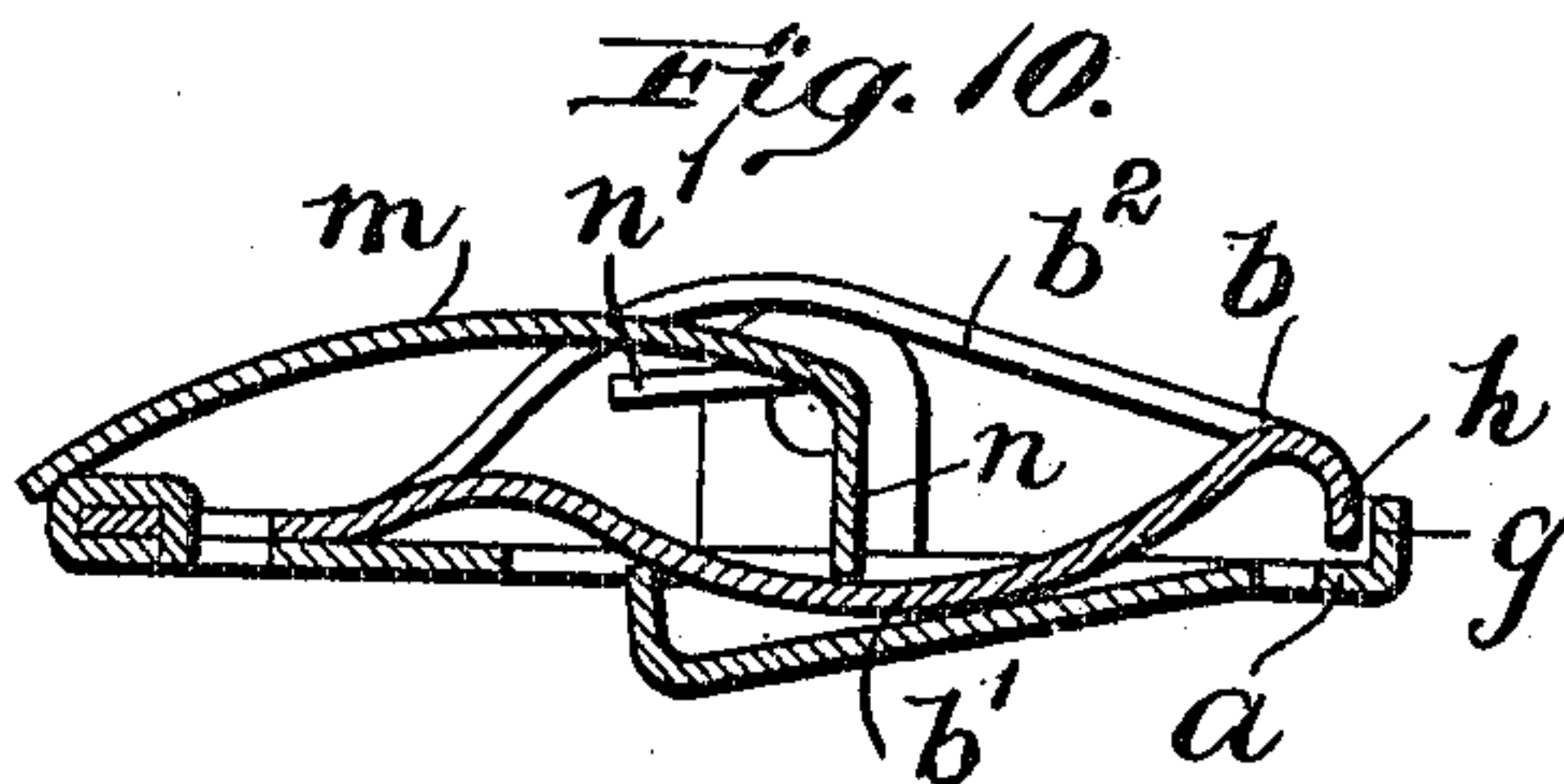
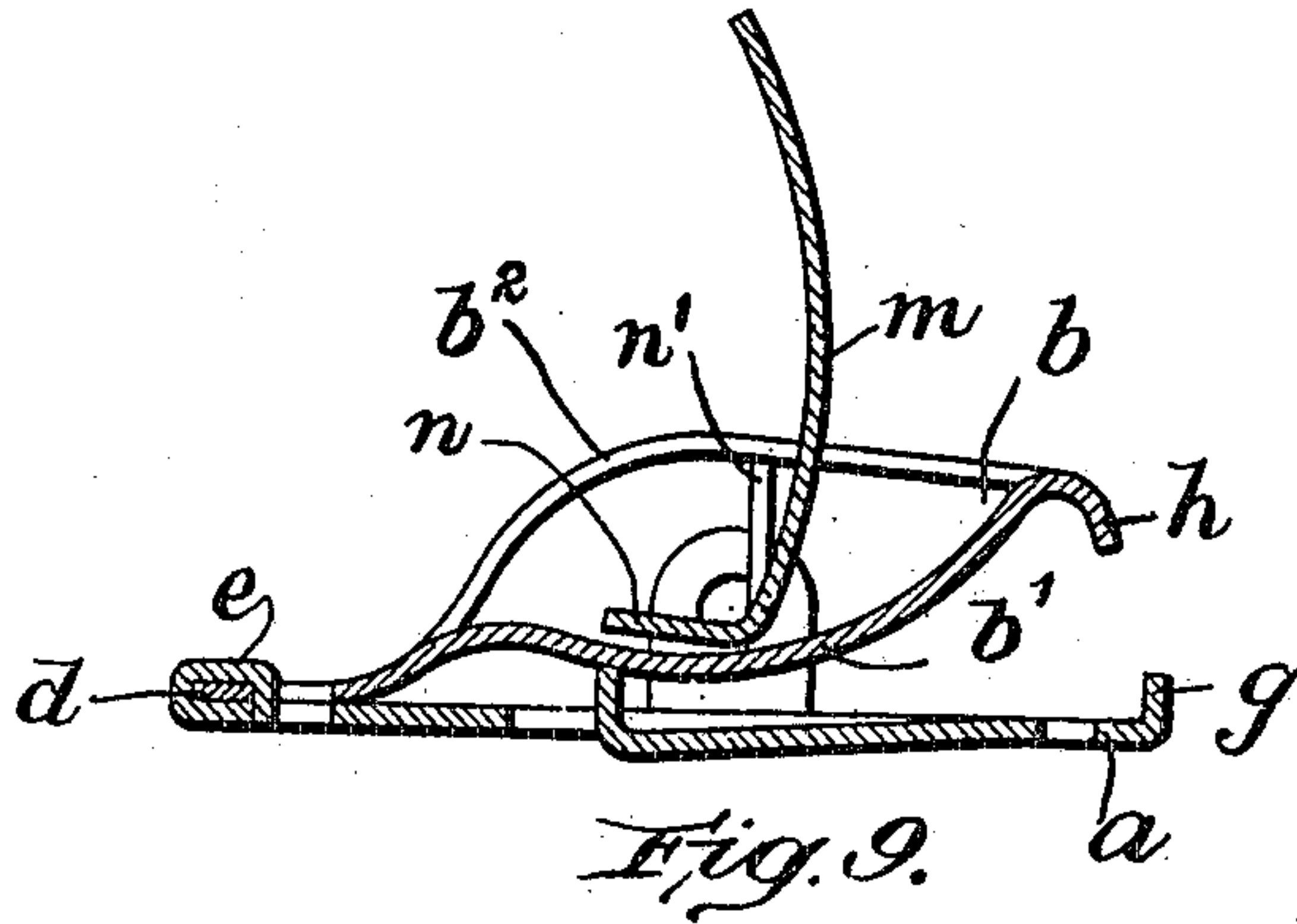
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UNITED STATES PATENT OFFICE.

GEORGE A. WELD, OF WINCHESTER, MASSACHUSETTS.

CLASP.

No. 831,585.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed July 19, 1905. Serial No. 270,376.

To all whom it may concern:

Be it known that I, GEORGE A. WELD, of Winchester, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Clasps, of which the following is a specification.

This invention relates particularly to clasps for hose or other garments adapted to be attached to and supported by a strap of webbing; and its objects are to provide simple and effective means for holding the strap to the clasp, to provide simple locking means by which the jaws of the clasp may be closed firmly on the article to be held without tendency to separate or slip, to provide means by which the jaws may be positively separated, and to provide for such a clasp a jaw having tying or securing means to prevent bending of the jaw when a pull is given by the article held by it. These objects are attained by the construction more particularly described and claimed in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 represents a longitudinal section of the clasp. Fig. 2 represents a plan. Fig. 3 represents a section similar to Fig. 1, but showing the jaws of the clasp and the locking member in a different position. Fig. 4 represents a side elevation showing the parts in the same position as that of Fig. 1. Fig. 5 represents a similar elevation showing a modification. Fig. 6 represents a sectional view showing a further modification in which the arrangement of locking-lever and hooks for the clamping member is reversed. Figs. 7 and 8 represent, respectively, a longitudinal section and a plan view of the end of the clasp, showing jaw *b* with a hook of a different character. Figs. 9, 10, and 11 represent, respectively, sectional views of a different form of the clasp and a perspective detail of one of the parts thereof.

The same reference characters indicate the same parts in all the figures.

The clasp consists of two clamping members *a* *b*, made of sheet metal, the first member being constructed so as to be substantially rigid, while the other is resilient and yielding. These members are securely united at one end, so that there is absolutely no movement between them at the point of connection. One form of connection where the members are made from separate pieces

of metal is shown in the first four figures, and in this form each of the members is provided with a slot *c*, formed adjacent the ends which are placed together and leaving on the member *b* a cross-bar *d*. The member *a* has projecting from its end a tongue *e*, which is bent about the cross-bar *d* and its end carried around the latter and located at one side of the slot *c*. This tongue is so tightly compressed about the part *d* that the two members of the clasp are rigidly connected together.

Another manner of joining the members is shown in Fig. 5, and in this construction the two parts *a* and *b* are made from a single piece of stiff sheet metal which is bent double at *f*, forming an integral union between the members. The other ends of the members are unconnected and free to be moved together or apart. On the free end of the member *a* a flange *g* is bent up at right angles to the bottom of the member and forms a jaw, while the end of member *b* is turned down, forming a complementary jaw *h*, which coöperates with jaw *g* in holding the garment or other article which may be placed between them. Member *a* also has integral flanges *i* turned up at its sides, these flanges being extended so as to form lugs *j*, which are perforated with circular pivot-receiving holes, forming closed bearings *k*, into which extend the pivots *l* of a locking-lever *m*. It will be observed that the pivots *l* are curved transversely, (see particularly Figs. 4, 5, and 11,) so as to fit the bearings formed by the holes *k* in such manner that the pivots will have a smooth bearing and enable the lever to get a good purchase whether it is thrown in one direction to close the jaws or in the other direction to positively open the jaws, as hereinafter described. This lever is in the form of a bell-crank and has an arm *n*, adapted to act upon the resilient member *b* of the clasp, and the second arm *o*, which forms a handle by which the locking-lever may be manipulated. When the handle *o* is depressed toward the end of the clasp, the arm *n* is moved toward the jaws and bears against the intermediate part of the resilient member *b*, depressing the end of the latter and moving the jaw *h* into proximity to jaw *g*. It will be noted that when the jaws are in their locking position *h* is inside of *g* and that any great strain brought upon the article clasped between them would

tend to bend jaw *g* outward, and this would release the thing held by them. In order to prevent any such result, I secure the ends of the side flanges *i* to the ends of the jaw, either
 5 by soldering them together or by forming them integrally, and thus the side flanges act as tie members which hold the jaw *g* in upright position and prevent its being bent under unusual strain. Normally the resilience
 10 of jaw *b* holds it in the position shown in Fig. 3, and when the locking-lever is moved into the position of Fig. 1 it depresses this jaw against the resistance due to its elasticity. Consequently when the jaws are closed
 15 member *b* is always under stress, and therefore it presses upwardly against arm *n* of the locking-lever, tending to turn it about its pivot, and thereby holding the handle *o* against the end of the clasp. Thereby all the
 20 parts are locked and are prevented from separating except when external force is applied to the handle. On the sides of the member *b* are formed lugs *p*, which are extended forwardly to form hooked projections. These
 25 hooks are in position to be engaged by the sides of the arm *n* when the handle *o* of the lever is raised, and when the lever has been rotated a certain amount after it has engaged the hooks the latter and the resilient member
 30 are raised until the resilient member comes into engagement with the angle of the lever. This arrangement provides a positive means for separating the jaws a wider distance than they would be normally separated by the resiliency of the member *b* alone.
 35 This is a capability which is of great convenience whenever it happens that the jaw *h* becomes caught and held, so that the resiliency alone is not sufficient to separate it from the
 40 other jaw and is also valuable after the movable member has lost its spring under conditions of use. Owing to the construction hereinbefore mentioned of the circular holes forming closed bearings and the transversely-
 45 curved pivots *l* entering said holes or bearings, there is no possibility of the lever becoming disengaged whether it is thrown forward or backward. The slots *c* before mentioned and also a slot *q* in the bottom of the
 50 member *a* near the jaw serve as means for attaching a strap or tape to the clasp. The end of the tape is passed through slot *q* and is then carried around the jaw and along the underside of the member *a* and drawn through
 55 slot *c*, and thereby is securely attached to the clasp. It will be noted that the central part of the clamping member *b* is depressed and formed with a curvature substantially concentric with the hole *k*. This depression permits the locking-lever to be moved after it
 60 has clamped the jaws together far enough for its handle portion to be pressed against the ends of the clamping members and allows its operative arm *n* to be moved past the center, so that the upward pressure of the resilient

jaw will retain it in locking position. In order to accommodate its depressed portion, the central part of the rigid member *a* is removed; but obviously this exact arrangement is not essential, as, if desired, other constructions may be employed.

Figs. 6, 7, and 8 show modifications of the arrangement for positively separating the jaws. In Fig. 6 the parts are simply reversed from the position they occupy in the
 75 first five figures, the hooks *p'* being located near the free end of the resilient member *b*, while the arm *n* of the locking-lever acts on the portion of the resilient member nearer its point of attachment to the other member.
 80 In this construction also the direction of movement of the locking member both for pressing the jaws together and also separating them is exactly reversed from that of the other form. In Figs. 7 and 8 there is shown
 85 a hooked projection *p''*, which instead of being formed from a lug bent up from the side of the resilient member, as are the projections *p*, is formed as a tongue intermediate the sides of this resilient member and offset from
 90 the same.

Figs. 9 and 10 show a form of clasp in which the jaw members *a* and *b* are secured together in the same manner as previously; but a modified construction is provided by
 95 which the locking-lever *m* acts to separate the jaws positively. In this form the upper clamping member *b* is formed between its ends with two longitudinal parallel cuts and the middle part thereof is bent inward, while
 100 the part between the sides of the member and the cuts is bent in the opposite direction, there being thus formed a space between the parts of the member, as seen in side elevation. The trunnions *l* of the locking-lever
 105 extend between these oppositely-bent portions of the clamp, and the arm *n* of the lever acts on the depressed part *b'* of the clamping member to move the jaws together. On the sides of the locking-lever are projections,
 110 wings, or arms *n'*, which project at an angle, approximately a right angle, from the arm *n* and are offset outwardly toward opposite sides of the clasp from the arm *n*. These
 115 arms *n'* are arranged to come directly under the outwardly-bent strips *b''* of the member *b* and to engage them when the locking-lever is turned in the position shown in Fig. 9. By this motion of the locking-lever the depressed engaging part *b'* of the clamping
 120 member is released, allowing the latter to be raised, and also the parts *b''* of the clamp are engaged with the arms *n'*, and this member is positively separated from the other member.

I claim—

1. A clasp comprising a pair of members connected together at one end and having clamping-jaws on the other end, a locking-lever having pivots fitting closed bearings in
 130

one of said members to act on the other member and said last-named member and the locking-lever having interengaging parts to close the jaws when the lever is moved in one direction and also interengaging parts to positively separate the jaws when the lever is moved in the other direction.

2. A clasp comprising a pair of members connected together at one end and having clamping-jaws on the other end, pivot-receiving lugs formed on one of said members, a projection on the other of said members, and a locking-lever having pivots fitting closed bearings in said lugs and arranged to engage said projection when moved into one position and thereby separate the jaws, and to engage the last-named member when moved into another position, to thereby force and hold the jaws together.

3. A clasp consisting of two members formed from sheet metal, one member having its end and both sides bent up and joined together, forming a gripping-jaw and tie members therefor, the second member being resilient and rigidly united to the first member and having a flange on its end constituting a complementary gripping-jaw, a hook on said second member, and an angular locking-lever pivoted to said tie members arranged

to engage the body of the second member and the hook carried by said member, at the extremes of its movement.

4. A clasp comprising gripping members or jaws, and a locking-lever for closing said gripping members, said members and locking-lever having interengaging portions adapted to positively separate the members or jaws when the locking-lever is moved into one position, one of said gripping members having closed bearings, and the lever having pivots fitting said bearings.

5. A clasp comprising a pair of members having coacting jaws, one of said members having upwardly-bent sides formed with circular holes, and a locking-lever for closing said members, said locking-lever having curved pivots fitting said circular holes, said members and locking-lever having interengaging portions adapted to positively separate the members or jaws when the locking member is moved into one position.

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

GEORGE A. WELD.

Witnesses:

A. C. RATIGAN,
ARTHUR H. BROWN.