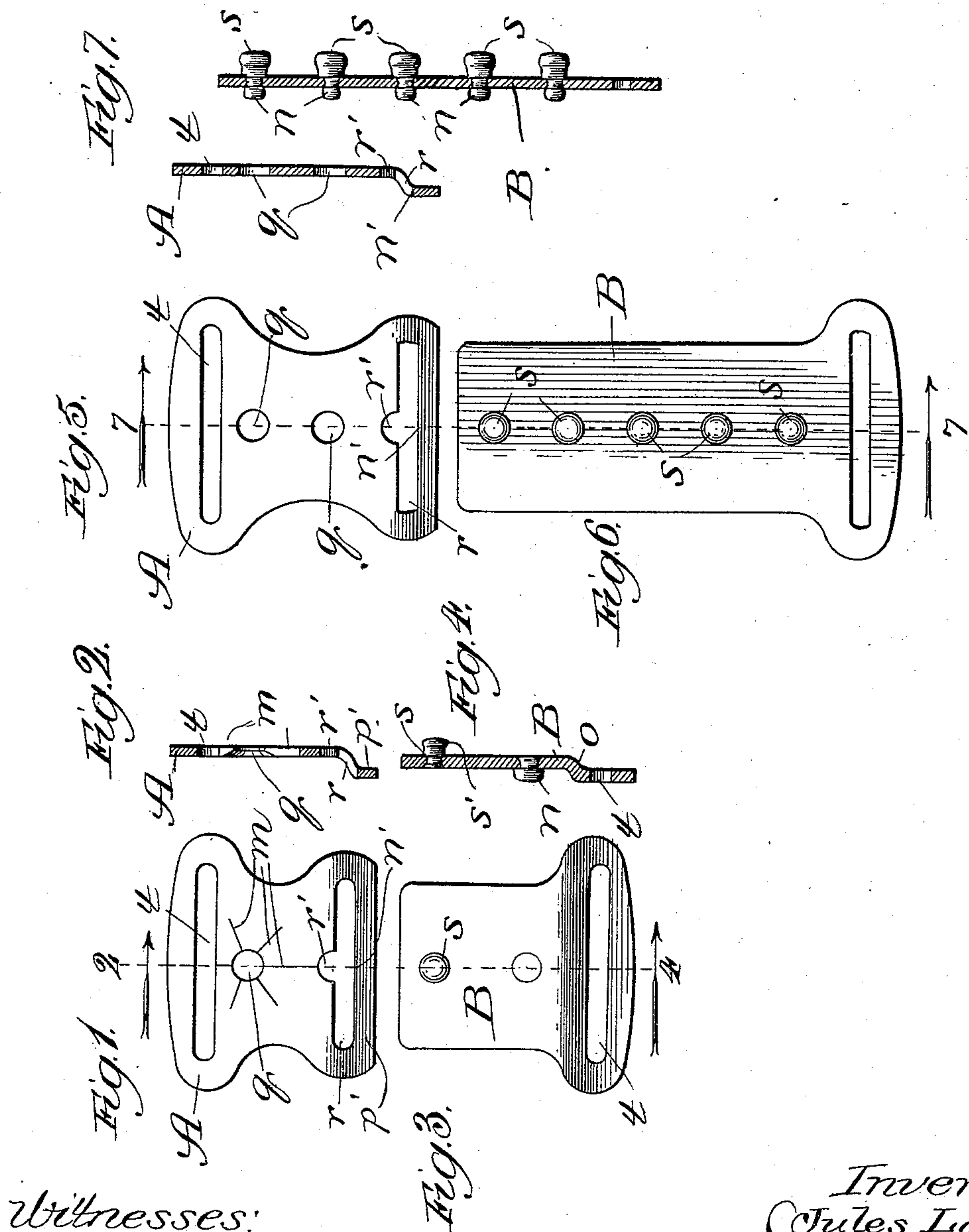


(No Model.)

J. LANG, D. W. EVANS & J. A. DEVORE.  
CLASP.

No. 488,017.

Patented Dec. 13, 1892.



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# UNITED STATES PATENT OFFICE.

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## CLASP.

SPECIFICATION forming part of Letters Patent No. 488,017, dated December 13, 1892.

Application filed December 23, 1891. Serial No. 415,996. (No model.)

*To all whom it may concern:*

Be it known that we, JULES LANG, D. WALTER EVANS, and JOHN A. DEVORE, citizens of the United States, residing at Chicago, in the  
5 county of Cook and State of Illinois, have invented a new and useful Improvement in Clasps, of which the following is a specification.

Our invention relates to an improvement in  
10 clasps for use in connection with suspenders, belts, gloves, corsets, and similar articles; and the primary purpose of our invention is to produce a clasp which shall be readily separable and yet shall be secure and sufficiently  
15 permanent when in use.

If the invention be employed in connection with the articles above described, it may involve the same details of construction; but we usually prefer to adopt a slightly-different  
20 construction where the clasp is to be employed in connection with a suspender to permit the strap to be separated from the ends without changing the length of the strap from that employed in connection with a belt and to  
25 employ slightly-modified forms in connection with a glove and corset; but they all involve certain main and novel features which are included within our invention.

Our invention consists in a clasp comprising  
30 two members, one of which is provided with a hole and having at its extremity a transverse slot, the other member comprising a plate provided with a stud to enter a hole formed in the first member after the plate  
35 has been passed through the transverse slot.

Our invention consists, further, in a clasp comprising two members, one of which is provided with a hole or holes and having at its  
40 extremity a transverse slot with a deflected portion constituting the wall of the slot, the other member comprising a plate provided with one or more studs to enter the hole or  
45 holes formed in the first member after the plate has been passed through the transverse slot.

Our invention consists, further, in a clasp comprising two members, one of which is provided with a hole or holes and at its extremity with a transverse slot and with a deflected  
50 portion constituting the wall of the slot, the other member comprising a plate provided

with one or more studs to enter the holes formed in the first member and provided on the opposite face with studs adapted to engage the outer deflected wall of the slot in  
55 the first member.

Our invention consists, further, in certain details of construction, all as hereinafter more fully pointed out.

In the drawings, Figures 1 and 3 represent  
60 the two members of the clasp particularly adapted to be used with a suspender. Figs. 2 and 4 are sections of these members, respectively, taken on the line 2 of Figs. 1 and 4 and viewed in the direction of the arrow.  
65 Figs. 5 and 6 represent a form of clasp especially adapted for use with a belt. Fig. 7 represents sectional views of the plates shown in Figs. 5 and 6, respectively, the view being  
70 taken on the line 7 7 and viewed in the direction of the arrow.

A represents the receiving member of the clasp, and B the entering member. Each member is provided, preferably, with means for attaching it to the suspender, belt, garment, or other device, such means comprising,  
75 for instance, the transverse slots *t*, although any other convenient means applicable to the purpose may be employed.

As the special construction of each clasp to  
80 adapt it for the particular use to which it is applied involves but a slight variation from the general construction, the description for the sake of clearness will follow the figures of the drawings in their order. It may be  
85 stated, however, that in each construction the entering member B of the clasp is provided with an entering stud *s*.

The suspender-clasp shown in Figs. 1 to 4 employs at the outer end of the receiving  
90 member a transverse slot *r*, preferably enlarged, as indicated at *r'*, at a middle point to permit the more ready passage of the stud *s*. At the slot *r* the metal of the member is bent, as indicated clearly in cross-section in  
95 Fig. 2, so that the inner wall *p* and the outer wall *n'* of the slot found on the deflected part *p'*, though parallel with each other, are in different planes, and thus the opening produced by the slot may be described as both  
100 vertical through the plate and horizontal through the same. Toward a middle point



of the member A a hole  $q$  is made, and the metal surrounding the hole is cut in radial lines to give to the wall of the hole a spring character. We also prefer to dish the metal around the hole, as indicated in Fig. 2 at  $q'$ , to permit the spring action of the plate to be more firm and sensitive. The entering member B is also preferably bent, as indicated at  $o$ , so that the part carrying the stud  $s$  and the part carrying the slot  $t$  shall be in different planes. In operation the entering member is introduced from a position substantially at right angles into the slot  $r$ , and after the stud  $s$  is passed through the slot the insertion is continued until the stud is opposite the hole  $q$ , which it is then caused to enter. It is held against slight effort to withdraw it by the embrace of the walls of the slot upon the stud, which may, moreover, if desired, be provided with a shoulder  $s'$ . In practice, however, this shoulder is not usually necessary. The separation of the parts may be readily accomplished with the exercise of little force to cause the stud to be withdrawn from the hole.

In the structure shown in Figs. 5 to 7, which is adapted particularly for use with belts, the slots  $t$  or equivalent means for attaching to the belt are employed, as before, and the receiving member A is provided with a slot  $r$ , and the metal is bent at the slot in the same manner as in the plate A. (Shown in Fig. 1.) The entering member B, however, need not be bent. Instead of one hole  $q$ , two or more holes  $q$  are provided in the receiving member to receive the studs  $s$ , of which a number—say four or five—are provided on the entering member B. In this case it may be stated that the slits in the metal around the hole to give a spring character thereto, though desirable, are not essential. On the under side of the plate, and for convenience formed as continuations of the studs  $s$ , smaller studs  $n$  may be provided, which engage the outer wall  $n'$  of the slot  $r$  and serve to assist in preventing withdrawal of the members from each other when they are applied together and interlocked.

We find it convenient to employ a similar stud  $n$  upon the member B when used in the connection shown in Figs. 1 to 4.

In operation the device shown in Figs. 5, 6, and 7 is very much like that shown in the first four figures; but by providing a number of studs  $s$  the belt may be shortened or lengthened in a manner that will be apparent from the figures.

What we claim as new, and desire to secure by Letters Patent, is—

1. A clasp comprising members A B, one A of which is provided toward its extremity with a transverse slot to receive the other member and in the body thereof with a hole  $q$  and the other member B of which is provided on the entering part with a stud to enter the hole  $q$  when said member has been introduced through the slot, substantially as described.

2. A clasp comprising members A B, one A of which is provided toward its extremity with a transverse slot and deflected portion  $p'$  and in the body thereof with a hole  $q$  and the other member B of which is provided with studs  $s$  to enter the holes  $q$  when said member has been introduced through the slot, substantially as described.

3. A clasp comprising members A B, one A of which is provided with a hole  $q$  and radial slots  $r$  and deflected portion  $p'$ , produced by bending, as shown, and the other B of which is provided with upward-projecting studs  $s$  toward its extremity and is bent as indicated at  $o$ , substantially as described.

4. A clasp comprising members A B, one A of which is provided with holes  $q$  and at its extremity with a transverse slot  $r$ , having the enlargement  $r'$  and the deflected portion  $p'$ , and the other B of which is provided with upward and downward projecting studs  $s$   $n$ , substantially as and for the purpose described.

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In presence of—

A. P. COBB,

J. N. HANSON.