

(No Model.)

J. C. KNOWLES.
FASTENING FOR GARTERS.

No. 462,358.

Patented Nov. 3, 1891.

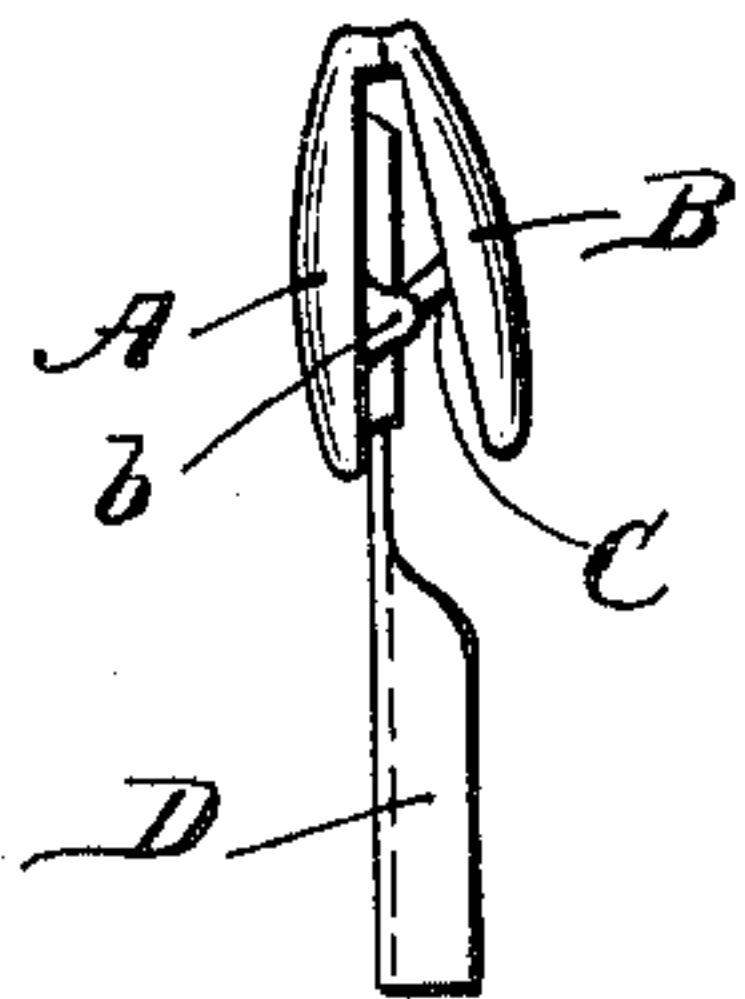


FIG. 1.

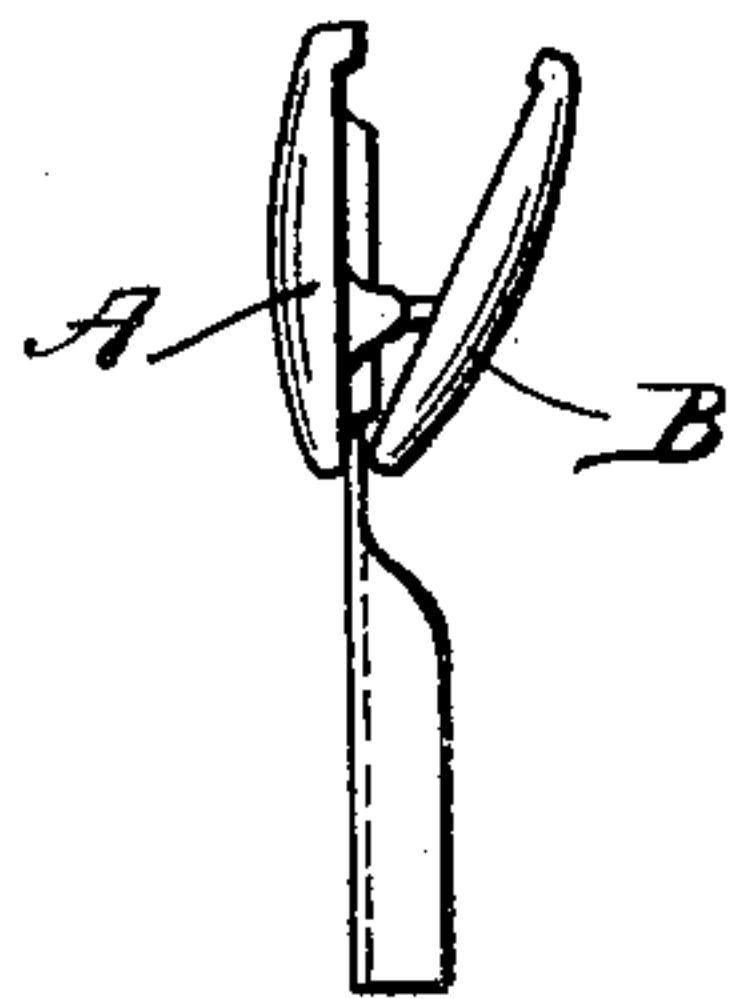


FIG. 2.

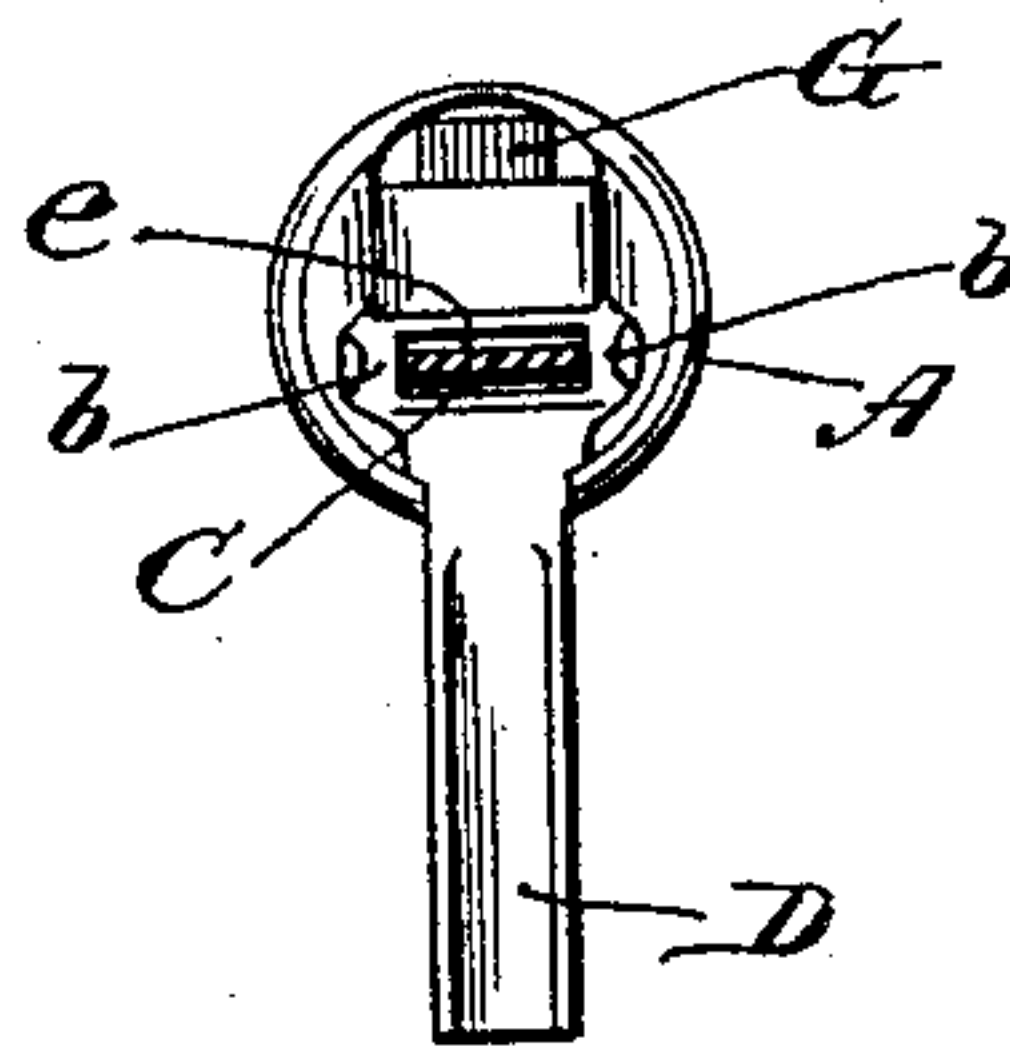


FIG. 4.

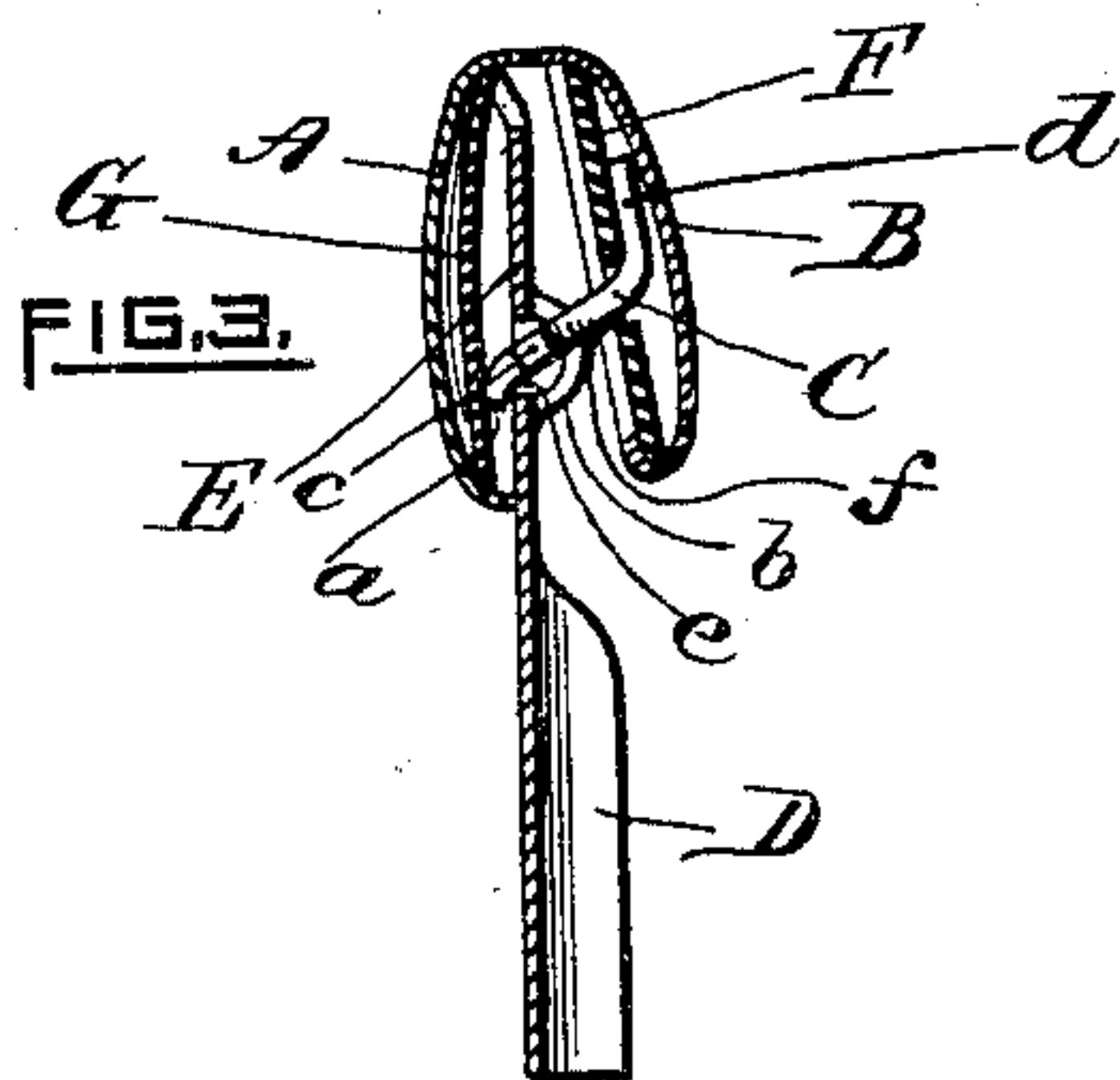


FIG. 3.

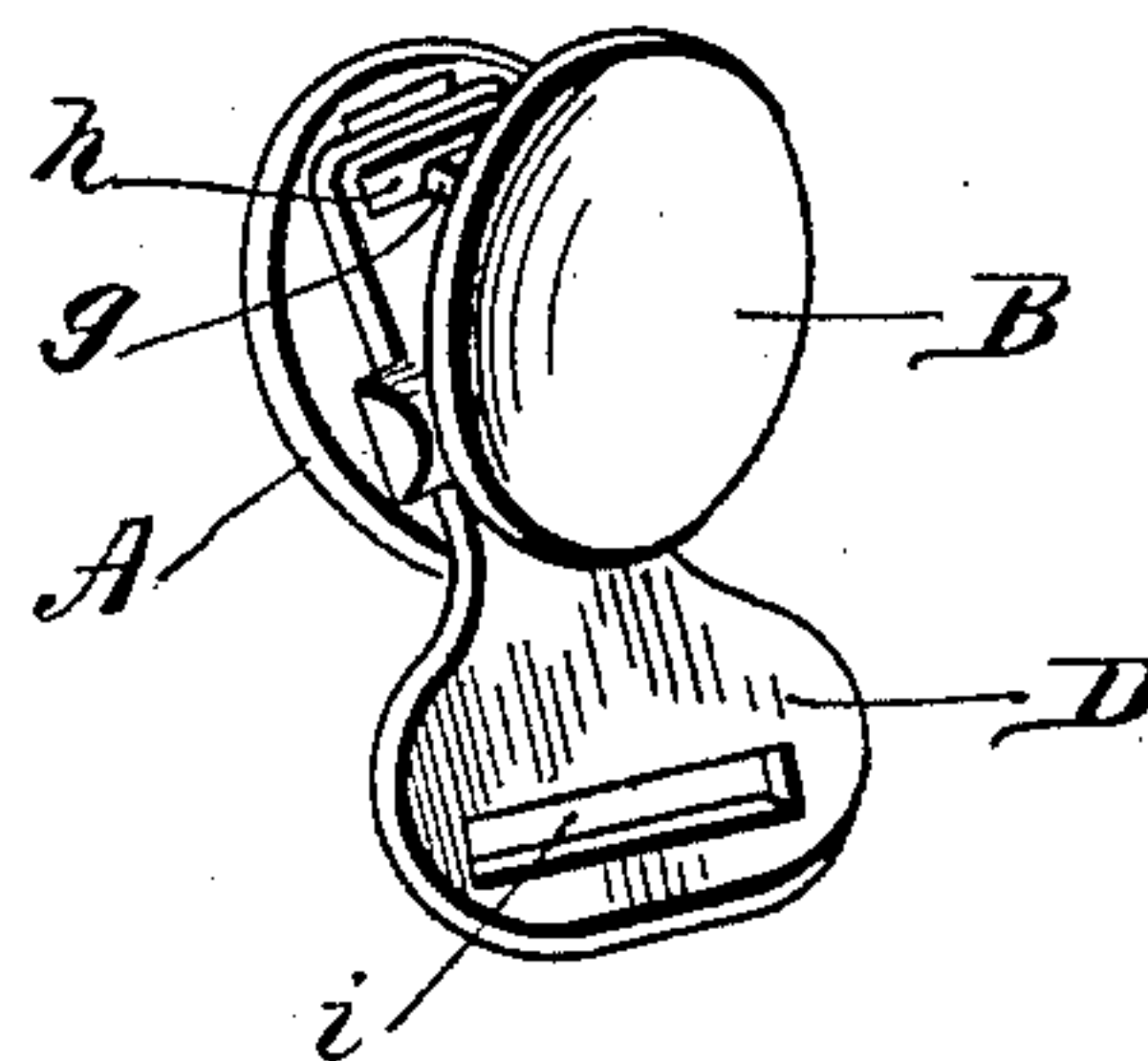


FIG. 5.

WITNESSES.

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FASTENING FOR GARTERS.

SPECIFICATION forming part of Letters Patent No. 462,358, dated November 3, 1891.

Application filed October 18, 1890. Serial No. 368,770. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. KNOWLES, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Clasps, &c.; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Figure 1 is a side elevation of the clasp closed. Fig. 2 is a side elevation of the clasp open. Fig. 3 is an enlarged longitudinal sectional view through the center. Fig. 4 is a transverse sectional view showing inner face of the stationary member. Fig. 5 is a perspective view.

A is the stationary member, including all its parts.

B is the movable member, including all its parts.

C is the post connecting the two members.

D is the arm or projection of stationary member, having raised sides designed to be turned over upon and secure one or more cords, bands, &c.

E is the inner or back plate of the stationary member.

F is the inner or back plate of the movable member.

G is a spring confined between the inner surface of the stationary member and its inner plate E.

a is a longitudinal projection or lug of the post C, designed to operate upon the spring G.

b b are bearings designed to receive and engage lateral extensions or lugs of the post C.

c c are lateral extensions or lugs of the post C, designed to operate in the bearings b b.

d is an angular extension or shoulder of the post C.

e is a slot in the plate E, designed to receive the post C.

f is a slot in the plate F, designed to receive the post C.

g is a wide tooth integral with and turned down from the plate F.

h is a slot in the plate E, designed to receive the tooth g.

i is a slot in the arm or extension D, designed to receive and engage one or more ribbons, bands, &c.

My invention relates to clasps to be at-

tached to suspenders, garters, &c., to secure drawers, stockings, &c., to secure or loop dresses, draperies, &c., and generally to take the place of clasps heretofore used for the above and other purposes.

The members A B may be of any desired shape and size. Their exterior faces are preferably smooth and slightly rounded, although they may be rough and may be flat, concave, &c. The movable member B is furnished with a post C, immovably secured to the interior thereof by inserting the shoulder d into the slot f of the plate F and by swaging or turning the edge of the outer surface of the part B upon the plate F. The angle which the shoulder d makes with the post will govern the angle which the projecting post makes with the plane of the plate F. The shoulder may be of a length to project slightly at any angle through the edge of the inner plate inclosing it or between the edge of the plate and the edge of the front of the member, the part of the shoulder so projecting serving as a wide tooth designed to enter a slot h, cut in the plate E, Fig. 5, or to meet another tooth upon the opposite member. Preferably, however, a wide tooth g, Fig. 5, forming an integral part of the plate F, may be turned up from the plate at any desired angle or inclination, having a plain, rough, broken, or saw edge and designed to enter the slot h, as shown in Fig. 5. The post may be secured to the member B by soldering it thereto; but preferably it is an integral part of the plate F, struck up in one piece, including the lugs a and c c, the part intended for the post projecting more or less, as desired, from the plate proper and being turned at any desired angle or inclination to the plate, the base of the post being either at or within the edge of the plate, as desired. If not an integral part of the plate, the post, projecting at any desired angle or inclination through the slot f in the plate F, furnished with lugs, as specified, is secured to the interior of the member A by placing the lugs c c within the bearings b b of the plate E and placing the end of the lug a upon the spring G, placed across or upon the interior surface of the member A, and by swaging or turning the edge of the outer surface of the part A upon the plate E. If an integral part of

the plate, the post may be secured by its lugs *c c* within the bearings *b b* of the plate *E* by making slots in the edges of the post adjacent to the lugs *c c*, designed to admit of the passage of the bearings *b b* into such slots for the purpose of entering the lugs *c c* within the bearings *b b*; but preferably a suitable slot may be made in the inner plate *E*, connecting with the slot *e* at one side thereof, designed to admit of the proper entering and adjustment of the lugs *c c* within the bearings *b b*. The member *B* may be struck up or formed from one piece of material of sufficient size and thickness to have a close resemblance to the stationary member *A* and furnished with all necessary parts, as before enumerated, said parts being integral with the member.

Various devices may be used for securing the clasp to a cord, band, ribbon, &c., in place of the long arm *D*. A simple device for this purpose is an aperture or slot *i*, Fig. 5, in the member or in an extension thereof, of a shape and size to receive the article to be secured therein.

If desired, the parts or edges of the two members designed to come into contact with each other or with any fabric to be secured to said clasp may be smooth or plain. This might be desirable if the fabric to be engaged were fragile or if a secure engagement were not required; or, if desired, the edges of the two members meeting may be roughened or broken to provide means for frictional engagement with the fabric to be held. Each of these edges may be furnished with one or more points or teeth, those of one member being designed to strike upon or interlock with those of the other member when the fastening is closed. The edges of the two members at the point of contact may be extended or projected so that they may meet, or one may overlap the other. One of said members may be furnished upon or near the under edge thereof, at or near the point of contact with the opposite member, with one or more indentations, and the other member may be furnished in corresponding place or places with one or more points or teeth, designed when the clasp is closed to enter said indentation or indentations. If desired, indentations and points or teeth may be put upon the same member, to be engaged by corresponding points or teeth and indentations upon the other member. Said points, teeth, &c., serve as holding devices. They may be produced in any manner desired; but they are preferably integral with the part or parts of the clasp upon which they appear. The points of contact when the clasp is closed may be formed by extensions of the outer parts of the members, as shown in the drawings, by extensions of the edges of the linings of the two members, or by extensions of both the outer parts and the linings of the two members. Upon the inner surface of one of the members, or the inner surfaces of both

of the members, or upon such part or parts of them as may be selected, preferably at and about the point of contact when the clasp is closed, rubber or some other suitable material, materials, or combination of materials designed to produce considerable friction with the fabric, &c., to be engaged, may be secured, and the same, with the pressure of the spring *G*, with or without the aid of one or more of the holding devices above described, may serve in the practical use and operation of the clasp.

If desired, the member *B* may be a counterpart of the member *A*. In such case both ends of the post should be furnished with lugs and both ends should bear upon springs, &c., as shown in the stationary member; or each member may be furnished with a spring *G* and post *C*, the two posts moving side by side in opposite directions, or one post may move through a slot cut in the other post.

When the two members are connected by the post, as above described, and the clasp is ready for use, the constant pressure of the spring will hold it either shut or open, as desired. The holding power of the clasp will depend to a considerable degree upon the stiffness of the spring used, although one or more of the above-described various devices will aid in effecting a secure attachment. The fastening may be opened by pressing the two members at or near the side opposite the point of contact between the thumb and finger. It may be held open to a certain extent by continued pressure while being attached to or released from a fabric; or, if desired, the pressure may be increased until the spring will operate to hold it open without further pressure, when it may be engaged or disengaged at pleasure. If held open by pressure of the spring, it may be closed by sufficient pressure to overcome the resistance of the spring.

As thus constructed the clasp may present smooth outer surfaces, which will not catch or tear any fabric. The length of the post will materially limit the width or thickness of the device between the outer surfaces of the two members. Preferably the post should be as short as practicable, thus bringing the two members closely together and thus securing a thin or approximately flat device desirable for the uses specified. When secured upon a fabric, the device may hold by friction only or by friction and leverage made by the piercing of the fabric by the teeth, points, &c., above described. The teeth, points, &c., above mentioned may be blunt or sharp, so that they will either indent or pierce the fabric, as desired.

The clasp may be composed of metal or other suitable material or materials. It is especially useful as an attachment to suspenders and garters, although useful in divers other ways.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. A clasp having two principal members A B, connected by the post C, furnished with the shoulder or lateral extension *d* and immovably secured to the movable member B 5 between the outer part of the member and its lining F, the free end of said post being furnished with the lug *a*, bearing upon the spring G, and with the lugs *c c*, operating within the bearings *b b*, said post being connected with the stationary member A by the 10 engagement of the lugs *c c* within the bearings *b b*, said clasp being held closed or open by the constant pressure of the spring G upon the lug *a*, substantially as set forth.

15 2. A clasp comprising two principal members A B, adapted for frictional engagement with the fabric to be held, a spring G, confined between the inner and outer parts of one of said members, and the connecting-post C, secured 20 to the other one of the said members and provided with lugs or lateral extensions *c c*, journaled in bearings *b b* of the opposite member and having a lug *a* adapted to operate upon the spring G, said clasp being held closed or 25 open by the constant pressure of the spring on the lug *a* of said post, substantially as set forth.

3. A clasp having two principal members A B, the first being stationary, the second 30 movable, and one of them, preferably the stationary member or an extension thereof, being

furnished with a slot or aperture *i* of the size and shape to receive a string, band, ribbon, &c., said parts being connected by the post C, bearing upon the spring G, the post being im- 35 movably secured to the movable member B and one of said members being furnished at or near the point of contact of the two members when the clasp is closed, with means for frictional engagement with the fabric to be 40 held, said clasp being held open or shut by the spring G, pressing upon the post C, substantially as set forth.

4. A clasp comprising the two principal members A B, one stationary and the other 45 movable, the stationary member being provided with bearings *b b* and a slotted inner plate E, the spring G, confined between the inner and outer parts of said stationary member, and the post C, secured to the movable 50 member and having lateral lugs or extensions *c c* journaled in the bearings *b b*, said post being extended through the slotted plate E and adapted to bear on the spring G, whereby the clasp may be held either open or closed 55 by the pressure of the spring on said post, substantially as set forth.

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Witnesses:

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