No. 690,904. Patented Jan. 7, 1902.

N. CRANE.

CLASP.

(Application filed Mar. 19, 1898.)

(No Model.)

FIG. 1.

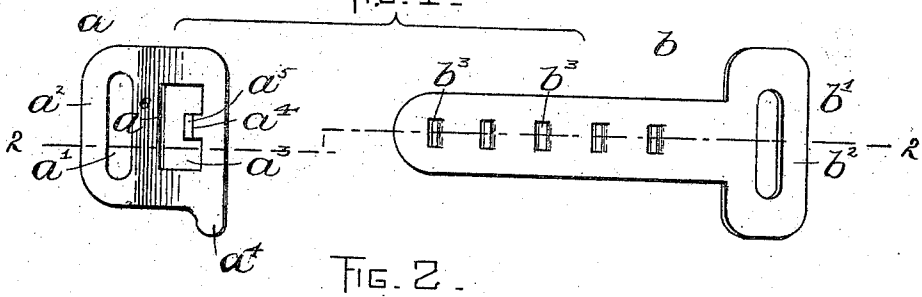


FIG. 2.

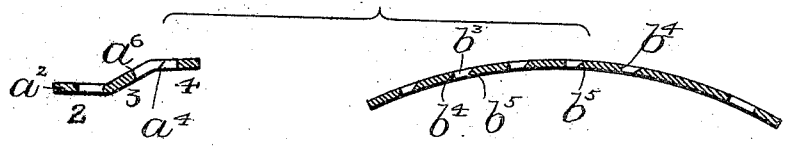


FIG. 3.

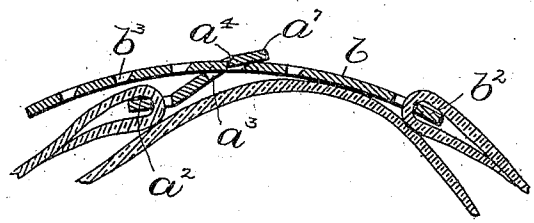
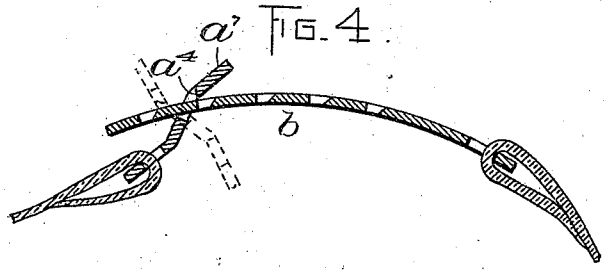


FIG. 4.



WITNESSES:

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by Wright, Brown & Quinby

Att'ys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

NEWTON CRANE, OF NEWTON, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE CRANE BUCKLE COMPANY, OF PORTLAND, MAINE, A CORPORATION OF MAINE.

CLASP.

SPECIFICATION forming part of Letters Patent No. 690,904, dated January 7, 1902.

Application filed March 19, 1898. Serial No. 674,410. (No model.)

To all whom it may concern:

Be it known that I, NEWTON CRANE, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Clasps or Fasteners, of which the following is a specification.

This invention relates to clasps or fasteners especially designed for overshoes; yet they may be used for any other purpose desired; and it has for its object to improve the construction of such a clasp or fastener to the end that no movable part or parts—such as, for instance, hinged or pivoted levers or tongues—are employed or required in its construction, and the part or parts composing it may be easily and quickly engaged and disengaged, and by reason of the simplicity of construction of said parts the clasp may be very cheaply manufactured.

My invention is herein illustrated and described as being embodied in a clasp or fastener composed of two essential parts or members adapted to be secured to the flaps of an overshoe or to any other parts to which it is desired to secure them, and one of said parts consists of an elongated strip curved longitudinally and formed or provided with a number of engaging portions disposed at short distances apart along the middle of said strip or at points between its edges, and the other part is formed or provided with an aperture adapted to receive the aforesaid strip and with a rigid tongue projecting into said aperture, preferably more or less obliquely, which is adapted to engage any one of the engaging portions on said strip, and when in such engaging position the said parts will be so disposed relatively to each other as to remain in engagement while under strain and also under all ordinary conditions. One of the parts—as, for instance, the apertured plate—is bent or formed to present substantially parallel end portions at different planes or elevations and an oblique intermediate portion and preferably at the upper end thereof or at the junction of said portion and the upper end portion of the plate, and said aperture is so shaped as to enable said plate to be turned relatively to the strip in order that it may impinge upon both the upper and under sides of said strip, with the rigid tongue in engagement with any one of the engaging portions.

The invention also comprehends certain details of construction, as will be hereinafter pointed out.

Figure 1 shows in plan view the two parts or members of my improved clasp or fastener. Fig. 2 shows a longitudinal section of said parts on the line 2 2 of Fig. 1. Fig. 3 shows a longitudinal section of the clasp or fastener, the parts thereof being in engagement. Fig. 4 shows a longitudinal section of the clasp or fastener, the parts thereof being in position which they will occupy when being engaged.

On the drawings, $a\ b$ indicate the two members which are adapted to be attached to the flaps of an overshoe or attached to a garment or other parts which it is desired to connect together.

The member a is substantially square in plan view and is herein shown as made of thin sheet metal, and it is formed or provided with a slot a', which forms an end cross-bar a^2, around which the end flap of the overshoe may be passed to secure it in place, or, if desired, the rear end of the member may be provided with a series of perforations, through which threads may be passed to attach it to the garment, or, so far as the present invention is concerned, said plate may be otherwise adapted to be secured in place. The member or plate a is also provided with an aperture a^3, which may be more or less elongated, and with a tongue or projection a^4 at one side of said aperture a^3 and preferably at a point midway the length thereof, and said tongue a^4 is formed integral with the plate or is rigidly secured thereto and projects into the aperture a' for a short distance and is preferably turned obliquely to the plane of the intermediate part of the plate. The end of the tongue a^4 is beveled, as at a^5. The member or plate a is bent or formed to present substantially parallel end portions 2 4 at different elevations and an oblique intermediate portion 3, and when so formed the aperture a^3 will be formed through said oblique intermediate portion and preferably at the upper end or part thereof or at the junction of said

oblique portion and the upper end portion 4. The plate a thus bent or formed presents the end of the tongue a^4 at an elevation substantially in a plane with the edge a^6 of the aperture a^3 and between the top and bottom faces of said plate.

The part or member b consists of an elongated strip curved longitudinally and having at one end a slotted portion b', formed to present a cross-bar b^2, around which the edge of the flap of the overshoe may be passed, or, if desired, this member may be likewise provided with perforations, through which threads may be passed to secure it in place, or said member may be otherwise formed to adapt it to be secured in place. The member b is formed or provided with apertures b^3 at intervals along its length, which are herein shown as rectangular and which occupy a position transversely to the strip; but said apertures may be made of any suitable shape—as, for instance, they may be square or circular. Said apertures b^3 are formed to present a straight front wall b^4, which serves as an abrupt engaging portion, and an inclined rear wall b^5; but I desire it to be understood that the inclination or obliquity given to said rear wall may be more or less, and in lieu thereof said rear wall may be straight—*i. e.*, substantially parallel to the front wall.

The width of the part or member b is less than the length of the aperture a^3 through the part or member a, for it is designed and intended that said strip shall be passed freely through said aperture a^3.

The tongue a^4 is preferably made of substantially the same width as the length of the aperture b^3, yet this is not material, and the beveled end or engaging portion of said tongue will be shaped to correspond to the shape of the engaging portion on the strip b, which it is designed and intended that it shall engage—as, for instance, if the engaging portion on the strip b is straight, as herein shown, then the end of the tongue will be straight; but if the engaging portion on the strip is of a different shape other than straight then the end of the tongue will be correspondingly shaped through said aperture a^3.

By referring to Fig. 3 it will be seen that when the strip b is passed through the aperture in the plate a and the parts are brought into engaging position the substantially parallel upper and under end portions 2 and 4 will lie as close to said strip b as possible, the upper end portion 4 bearing directly upon the outside of the strip and the lower end portion 2 having thereon the material to which the part is secured and bearing against the under side of said strip, although it will be obvious that when the parts are so disposed that said plate a is in engagement with the endmost aperture of the plate b then the under end portion 2 will not at such time bear against the under side of said strip, for the reason that it lies beyond the end thereof.

When it is desired to engage the parts a b, the strip b will be passed through the aperture a^3 of the part a, while the parts are held at an angle to each other, substantially as shown in Fig. 4, and then the plate a will be pressed down and the parts brought into the position shown in Fig. 3, wherein it will be seen that the strip b passes obliquely through the aperture a^3 of the plate, and said plate impinges upon both the upper and under sides of said strip, and the bevel-ended tongue enters one of the apertures of the strip b and engages the front side wall thereof, and when in this position said parts will remain in engagement while under strain and also under all ordinary conditions. When it is desired to disengage said parts, the lateral extension on the plate a will be engaged by the finger and said plate will be lifted at such point, which gradually turns it relatively to the strip b, and as it turns the tongue serves as a fulcrum or pivot for it until the beveled end of said tongue is canted so far to one side as to reverse its position, whereupon the member b will under the strain of the part to which it is attached immediately disengage itself from the plate a.

The tongue is so located that it does not project beyond the faces of the plate and engage the fabric of the article being fastened, and hence the device may be employed for umbrella-straps and similar articles.

Having thus explained the nature of the invention and described a way of constructing and using the same, though without attempting to set forth all of the forms in which it may be made or all of the modes of its use, I declare that what I claim is—

A clasp or fastener comprising two parts, one part consisting of an elongated strip having a number of engaging portions at intervals along its length, and the other part consisting of a plate bent or formed to present substantially parallel end portions at different elevations and an oblique intermediate portion, and having an aperture through said oblique portion through which the said strip passes, and also having a rigid tongue projecting from one of the end portions into said aperture which is disposed to engage any one of the said engaging portions on the strip, substantially as described.

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

NEWTON CRANE.

Witnesses:
MARCUS B. MAY,
PETER W. PEZZETTI.