

(No Model.)

B. A. BALLOU.

STOCK FOR HINGE JOINTS OF PINS OR BROOCHES.

No. 507,254.

Patented Oct. 24, 1893.

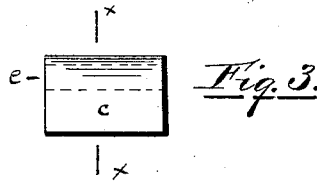


Fig. 4.

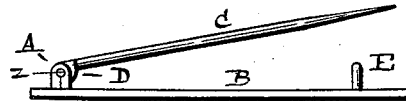
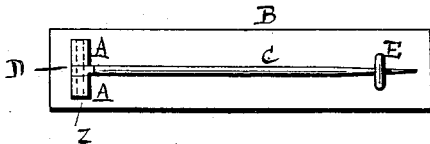


Fig. 5.

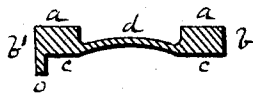


Fig. 6.

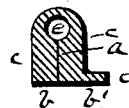


Fig. 7.

Witnesses:

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UNITED STATES PATENT OFFICE.

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STOCK FOR HINGE-JOINTS OF PINS OR BROOCHES.

SPECIFICATION forming part of Letters Patent No. 507,254, dated October 24, 1893.

Application filed February 9, 1893. Serial No. 461,570. (No model.)

To all whom it may concern:

Be it known that I, BARTON A. BALLOU, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Improvement in Stock for Hinge-Joints of Pins or Brooches; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a cross section of my improved stock for hinge joints. Fig. 2 is a section of the same on line *xx* of Fig. 3. Fig. 3 is a front elevation of my invention. Fig. 4 is an inverted plan view of a breast pin having an improved pin-joint made of my improved stock. Fig. 5 is a side elevation of the same. Figs. 6 and 7 show a modified form of my invention.

My invention relates to stock for the manufacture of hinge joints of breast pins, brooches and similar articles for securing pin-tongues thereto. My improved stock for this purpose consists of a metallic strip rolled out in the shape hereinafter specified and bent, and drawn so as to have a plane base and a tubular opening, the latter adapted to receive the pintle, which connects the hinge joint and pin-tongue. It has been usual, heretofore, in making hinge joints for such articles of jewelry, to use sections of hollow wire and solder them to the plate, but such joints are very liable to be broken open or separated from the plate, as the pin-tongue exerts a powerful leverage, when used, and the resistance is comparatively weak.

In my invention I use a metallic strip of stock of a peculiar shape, which shape is imparted by passing the strip between rollers, whose surfaces are properly formed for the purpose. I show in Fig. 1 a transverse section of such a metallic strip after it has been subjected to the rolling process. It has at each side the plane surfaces *a b* and *c* and a central portion *d*, integral therewith, of much less thickness and slightly concavo-convex in cross section, as will be fully understood from an examination of said figure. This strip is bent up, so as to bring the two surfaces *a* together and is then passed through a draw-

plate, the result of which operation is shown in Fig. 2, where it is seen that the two surfaces *b* now form a continuous base, the two surfaces *a* are in snug contact and central within the body and the thin portion *d* of the strip in bending and drawing has left a circular aperture *e*, while the two surfaces *c* form the parallel sides or faces of the piece. The strip so formed is now divided transversely into sections of proper length, and two of these, (indicated as *A* in Figs. 4 and 5,) are soldered by their bases *b b* to the back plate *B* of the breast pin or brooch a sufficient distance apart to receive between them the bead of the pin-tongue. The pin-tongue *C* has the usual bead *D*, which is bored transversely, and a pintle *z* passes through the tubular apertures *e e* of the joints *A* and through the bore of the pin-bead *D*, thus completing the hinge. The pin-catch is shown at *E*.

Hinge joints made from my improved stock have great strength and rigidity. Each section has a broad plane base, thus giving a large soldering surface and a firm resistance to the leverage caused by the movements of the pin, when the latter is inserted in or withdrawn from a garment. In burnishing the seam formed by the snug contact of the surfaces *a* entirely disappears. In case a greater degree of strength is desired, the stock can be rolled as indicated in cross section in Fig. 6, where the surface *b'* is seen extended by a lip or flange *o* on one side. The stock, when bent and drawn up as shown in Fig. 7, gives an elongated base, the surfaces *b b'* being then continuous as there seen.

Instead of soldering the joint, shown in Fig. 7, by its base *b b'* to the plate of the breast pin *B*, as above stated, the joint may be soldered to said plate upon the side *c'* thereof, in which case the lip or flange *o* would be useful as a fulcrum to spring the pin tongue *C* into the catch *E*.

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

1. The improved stock for hinge joints here-in described, made of one piece of stock, having the plane surfaces *a*, *b* and *c* on each side and a central thinner portion *d*, said stock

being bent and drawn so as to form a hinge joint having a continuous base *b b*, an interior seam *a* and an aperture *e*, substantially as specified.

- 5 2. The improved stock for hinge joints herein described, made of one piece of stock, having plane ends *b b* and bent to form an aper-

ture *e* and plane bases in one line, which bases are adapted to be soldered to a plate B, substantially as specified.

BARTON A. BALLOU.

Witnesses:

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