

(No Model.)

T. C. BRONSON.
RUBBER.

No. 470,101.

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Fig. 1

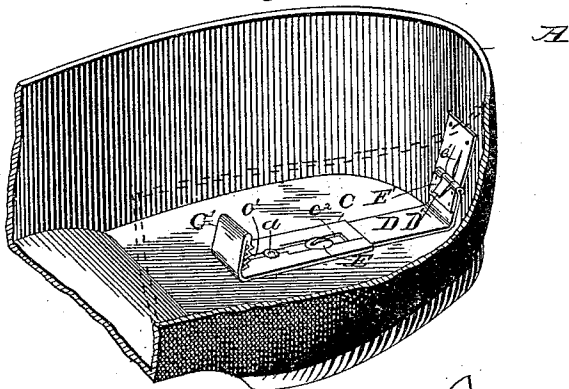


Fig. 2

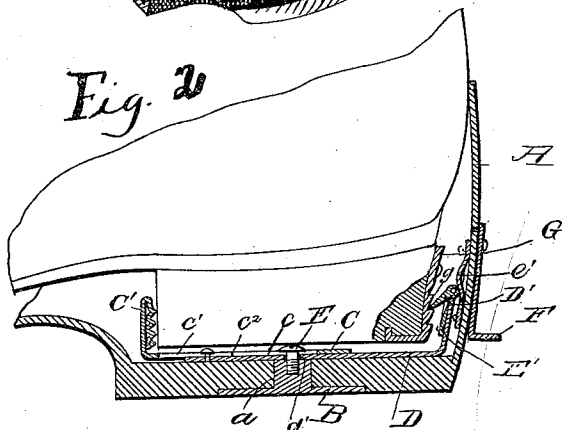
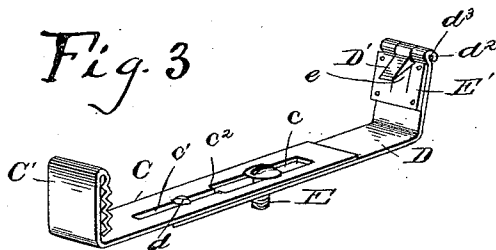


Fig. 3



WITNESSES:

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SPECIFICATION forming part of Letters Patent No. 470,101, dated March 1, 1892.

Application filed May 19, 1891. Serial No. 393,311. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. BRONSON, a citizen of the United States, residing at Hiawatha, in the county of Brown and State of Kansas, have invented new and useful Improvements in Rubber-Shoe Fasteners, of which the following is a specification.

This invention relates to an improvement in rubber-shoe fasteners; and it consists in the certain peculiar features of construction and combination of parts more fully described hereinafter, and definitely pointed out in the claims.

The object of my invention is to provide improved means for retaining the rubber on the shoe and preventing the rubber from working up and down on the heel. This object I accomplish by the construction illustrated in the accompanying drawings, in which like letters of reference indicate like parts in the several views, and in which—

Figure 1 is a perspective view of a rubber shoe, part of which is broken away and having my improved fastening attached thereto. Fig. 2 is a longitudinal section through the center of the heel, and Fig. 3 is a detail perspective view of the clamp and stationary plates.

In the drawings, A represents a rubber shoe having an opening *a* in the center of the heel. B is a securing-plate having a screw-threaded bushing thereon which extends up through the opening *a* and flush with the inside face of the heel.

C is an adjustable spring-clamp having longitudinal slots *c* and *c'* therein which open into each other at one end and form shoulders *c²*, the slot *c* being wider than the slot *c'*. The plate C is bent up and formed into a flat loop *C'* at one end, as shown in Fig. 2, which has a roughened inner surface.

D is a stationary plate provided with a guide-pin *d* and an opening *d'* at one end thereof, the other end being bent up at right angles and formed into a bearing *d²*, in which is secured a dog *D'*, pivoted on a rod *d³*. This stationary plate D is secured in place by a screw E, which engages into the screw-threaded bushing of the securing-plate B and passes through the opening *d'* and the slot *c* in the stationary plate and the spring-clamp, respectively.

When the fastener is secured in the shoe, I preferably cover the bent-up portion of the stationary plate with a piece of leather or other suitable material *E'*, leaving an opening *e* in the same to permit of the free action of the dog, the leather under the end of the dog acting as a spring during the operation of securing the rubber shoe in place. A leather tongue *e'* is also formed by cutting the leather directly above the dog, the lower end projecting over the upper end of the dog, thus forming a guide for the heel to permit the same to pass over the enlargement formed by the bearing, and also prevents the dog from being forced up and back to a point where it would be out of engagement with the heel. This flap may, however, be raised to permit of the dog being placed behind the same, so that the dog may be thrown up and out of engagement with the heel of the shoe when desired.

F is an outer removing-plate secured at its upper end only to the outside of the heel about the middle of the same and which extends downward, so that the ledge portion is only a slight distance from the bottom of the heel.

G is a heel-plate adapted to be secured to the heel of the shoe of the person wearing the rubber, and which is formed with a series of teeth *g*, which engage with the dog *D'* when the shoe is forced into the rubber and secures the same in place.

The operation of my device is as follows: The spring-clamp is adjusted to the size of the shoe-heel, the adjustment of the same being limited by the shoulders *c²*, the screw E being of a diameter greater than the width of the slot *c'*. The shoe-heel is then forced down into the heel of the rubber shoe, the roughened face of the flat loop C clamping against the forward portion of the heel and the dog *D'* engaging over the teeth *g* of the plate G, thereby securing the rubber shoe in place, the leather in the rear of the dog acting to force the engaging end out at an incline, so that the same will at all times engage the serrated plate on the heel.

When it is desired to remove the rubber shoe, the wearer presses on the ledge on the removing-plate, which tends to throw the up-

per part of the heel back through the connection at the upper end, and thereby disengages the dog from the heel-plate and allows the heel to be withdrawn.

5 I am aware that many minor changes in the construction and arrangement of the parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

15 1. In a rubber-fastening, the combination of a serrated plate adapted to be secured to the rear of a shoe-heel and a plate secured within the heel of a rubber, the latter plate provided with an upwardly-projecting rear end, and a dog pivotally secured thereto for
20 engaging the serrations of the shoe-heel plate, as set forth.

25 2. In a rubber-fastening, the combination of a dog-supporting plate located in the heel of a rubber, a dog pivoted to the upwardly-turned rear end thereof, and a flexible flap

over the dog, substantially as and for the purpose specified.

3. In a rubber-fastener, the combination of a stationary plate in the heel of the rubber, said plate provided with an upwardly-turned end and dog, as described, with an adjustable clamp having a serrated front end for engaging the inner part of a shoe-heel, and a bolt for clamping same to the stationary plate, substantially as set forth.

35 4. The combination, in a rubber-fastener, of a serrated heel-plate, as described, with a plate adapted to be secured in the heel of a rubber, said plate provided with an upwardly-turned end and a dog pivoted therein, an adjustable sliding clamp with upwardly-turned front end serrated to engage the shoe-heel, and a clamping-bolt, substantially as described, and for the purpose set forth.

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

THOS. C. BRONSON.

Witnesses:

T. McLAUGHLIN,
C. D. LAMME.