

B. C. Finfrack,

Boot Crimp.

No. 87,333.

Patented Mar. 2. 1869.

Fig. 1.

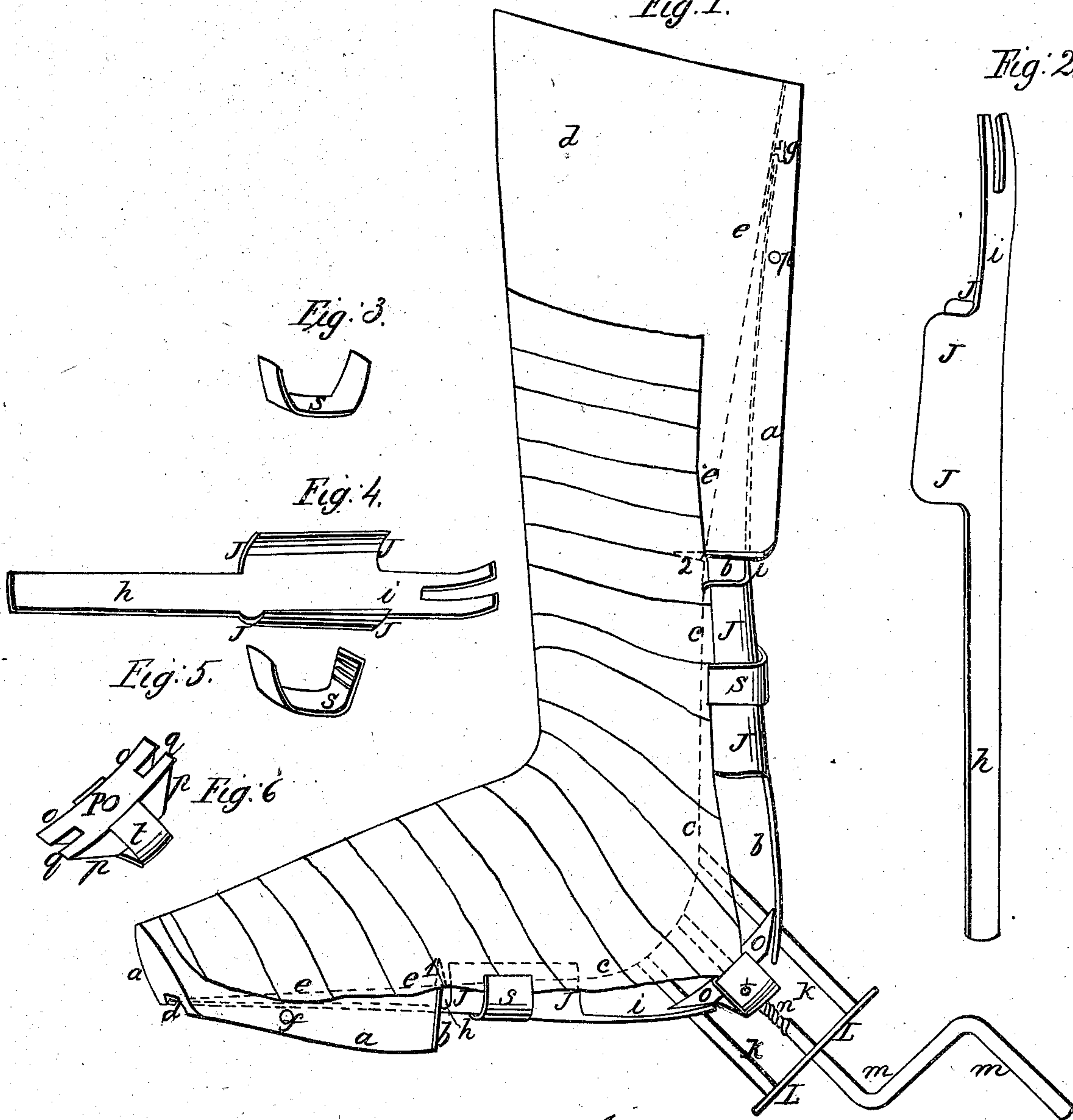
Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.



Witnesses;
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BENJAMIN C. FINROCK, OF STEPHENSON'S DEPOT, VIRGINIA.

Letters Patent No. 87,333, dated March 2, 1869.

IMPROVEMENT IN BOOT-CRIMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, BENJAMIN C. FINROCK, of Stephenson's Depot, in the county of Frederick, and State of Virginia, have invented and made certain new and useful Improvements in Boot-Crimps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and making a part of this specification, in which—

Figure 1 represents an ordinary boot-tree, somewhat changed in form, with the appliances attached thereto, and the upper of a boot stretched thereon.

Figure 2 represents a longitudinal view of the flexible metal-lever appliances used for keying or tightening.

Figure 3 represents one of the jaw-gripes or clamps used.

Figures 4 and 5 show similar devices to figs. 2 and 3.

Figure 6 represents a wedge-like tightening or tension-nut, and a jaw-gripe or clamp combined therewith.

The nature of my improvements consists in using devices which I term detachable jaw-gripes or clamps and flexible keying or tightening-levers, whereby the usual requirement of stretching the upper leather with aid of pincers is obviated, and also doing away with tacking the leather to the boot-tree, and, by forming the upper into shape much more readily and more perfectly, the greatest tension being applied immediately across the instep, in a direct line toward the heel, where most required.

To enable others to become skilled in the construction, application, use, and operation thereof, I herewith describe the same, as follows, viz:

An ordinary boot-tree is employed, as shown at *a a*, fig. 1.

About midway of the length of the sole and the leg-part of the tree is sufficiently cut out or reduced in transverse diameter, as indicated by the letters *b b* and dotted curved line *c c c*, and the outer surface of the reduced part bevelled off, as indicated by the short dotted lines 1 2.

Through the longitudinal length of the sole and the leg part of the tree, a suitable groove or channel is formed, as indicated by the letter *d* and the dotted line *e e e e*.

Transversely across the groove or channel, through the sole-part, and also near the upper end of the leg-part of the tree, are inserted small wire rest-pins, *f f*, leaving space of about one-eighth of an inch, more or less, between the bottom of the groove or channel *e* and the pins *f f*.

At *d* and the dots *g*, are headed stop-pins driven or screwed into the bottom of the groove or channel, all for the purpose as hereinafter explained.

At letters *h h* and *i i*, figs. 1, 2, and 4, are indicated one long and one short flexible metal keying or tightening-lever, each one being formed with short folded

flanches, *J J*, the long ends *h h* being slightly less in width than the grooves or channels *d e* in the sole and leg-parts of the tree, the metal of the flexible keying-levers being of suitable shape and required thickness for the necessary strength and flexibility.

The short ends *i i* of the keying-levers are split or forked, and slightly bent or curved inwardly, as shown in figs. 2 and 4.

In the heel of the boot-tree are permanently inserted two wire guide-rods, *k k*, with a cross-connecting metal brace-plate, *L L*, formed with a suitable eye or hole in the centre, through which is inserted a crank-like tension tightening-rod, *m m*, formed with screw-thread on the end *n*, toward the heel of the tree.

Fig. 6 and letters *O O* represent a suitable keying or tension-nut, with bevelled ends, *p p*, formed with suitable slots, *q q*, and a central screw-thread hole, *r*.

Figs. 3 and 5 and letters *s s s*, *t t*, represent and indicate small flexible metal jaw-gripes or clamps, formed on the inner surface, near their ends, with notches or ridges, as shown in figs. 3 and 5, the one indicated by *t t* being formed also with a hole for the insertion of the screw-end of the crank-like tension or tightening-rod *m m*.

The manner of applying said devices, and the operation of my improvements, are as follows, viz:

The boot-upper being prepared in the usual manner, the long ends *h h* of the flexible keying or pressing-levers, figs. 2 and 4, are adjusted within their respective grooves or channels in the boot-tree, the long ends *h h* passing between the pins *f f* and bottom of the groove, and abutting up against the stop-pins *d g*, fig. 1, while the forked ends *i i* straddle the two wire guide-rods *k k*, and rest flush against the bevelled ends of the screw-tension or keying-nut *O O*, the jaw-gripe or clamp *t* being applied over the top of the screw-tension nut *O O*, and arranged in place with the crank-like tension-rod *m m*, *n*, fig. 1.

The devices described being all adjusted in position, as shown in fig. 1, the upper of the boot is placed over the tree, edges pulled down with the hands, and arranged over the flanches *J J* of the tension-levers *h i*, and also over the sides of the tension-nut *O O*, when the jaw-gripes or clamps *s s* and *t* are each severally slipped over the outside surface of the upper, as shown, the crank-like tension or tightening-rod *m m* being thereafter more or less tightened up in the manner required, the short ends *i i* pressing or bending outwardly by the action of the tension-nut *O O*, and by all of which means the upper is drawn or stretched down close over the boot-tree, the keying-lever *h i* pressing outward against the jaw-gripe or clamp *s t*, whose inside surfaces being grooved or notched, catch on to the upper, thus wedging outwardly from the boot-tree, the flanches *J J* of the keying-lever *h i* and jaw-gripes or clamps *s s t*, impinging together on each side of the boot-uppers, as shown in fig. 1.

The advantages of my improvements over the many

boot-crimping devices heretofore used are the great simplicity and cheapness of construction, little or no liability to get out of order, the great facility with which the boot-upper can be adjusted and readily put into shape, together with the graduated strain or tension, at the several points required, and the dispensing altogether with tacking or nailing of the upper, as heretofore most generally resorted to. Furthermore, any ordinary boot-tree may be readily reshaped and altered, so as to be adapted to the application of my devices.

Having shown the form and construction, and described the nature and operation of my said improvements,

What I claim as new, and desire to secure by Letters Patent of the United States, is as follows:

1. I claim forming a boot-tree with the reduced leg, heel, and sole-parts *c c c c*, and providing the tree with a groove or channel, *d, e e*, substantially as described.

2. I claim the construction and use of the peculiar flexible keying-levers *h i J*, or their equivalents, the jaw-gripes or clamps *s s t*, and the bevelled slotted screw-nut *O P*, as shown and described.

3. I also claim the combination of said devices with the guide-rod and plate-appliance, the crank-like tension or tightening-rod *k k, L L, m m n*, all substantially in the manner set forth, shown, and described.

BENJ. C. FINFROCK.

Witnesses:

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