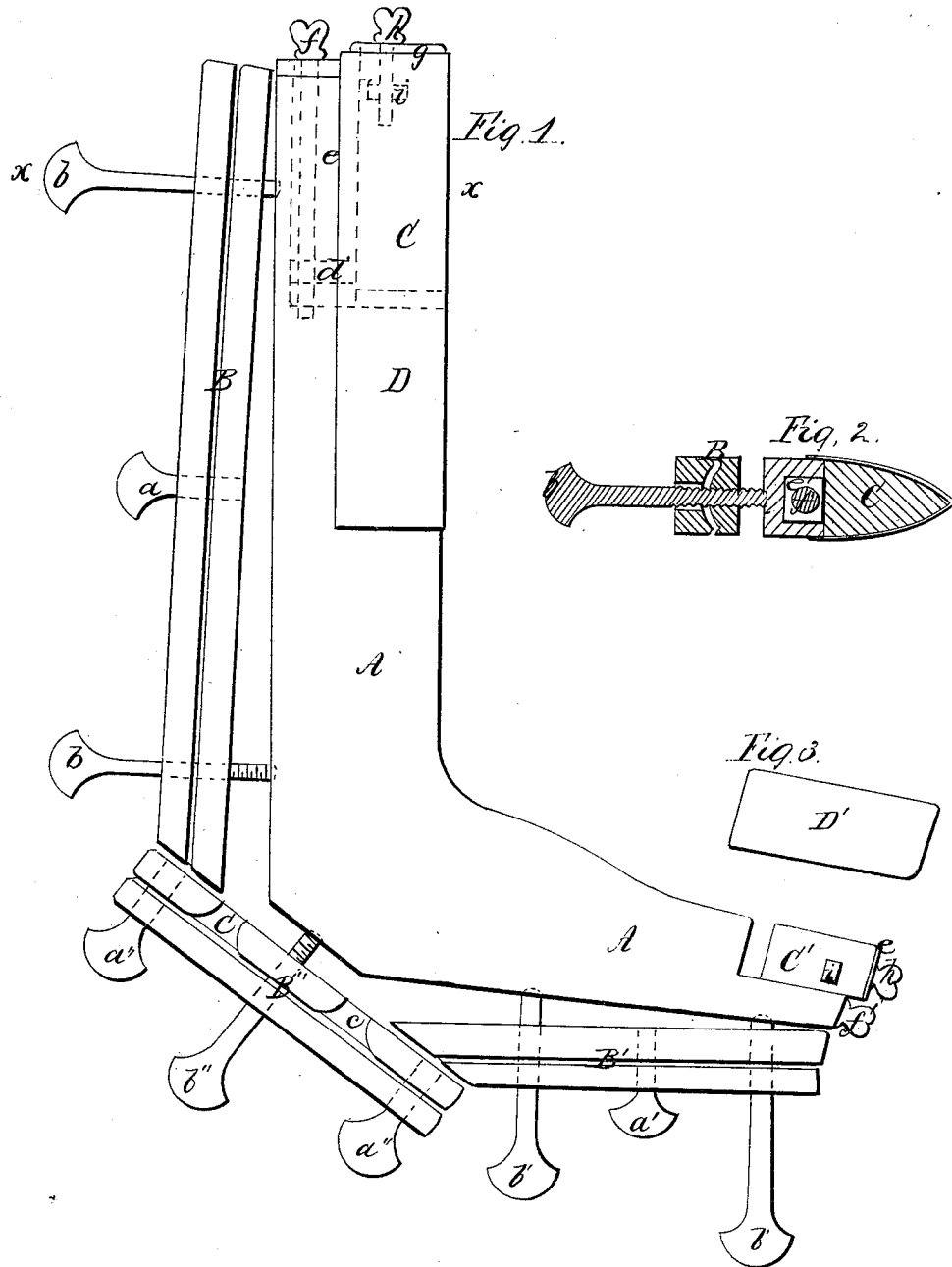


*Horner & Holland,*

*Boot Crimp.*

*N<sup>o</sup> 6,770.*

*Patented Oct. 2, 1849.*



# UNITED STATES PATENT OFFICE.

E. R. HORNER AND WILLIAM HOLLAND, OF FAYETTEVILLE, PENNSYLVANIA.

## BOOT-CRIMP.

Specification of Letters Patent No. 6,770, dated October 2, 1849.

*To all whom it may concern:*

Be it known that we, ELI R. HORNER and WM. HOLLAND, of Fayetteville, in the county of Franklin and State of Pennsylvania, have invented a new and useful Improvement in Boot-Crimps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, in which—

Figure 1 is a view of our improved boot crimp with the sheath (Fig. 3) removed, Fig. 2 a section at the line *x x* of Fig. 1, and Fig. 3 a side view of the toe sheath separated from the tree.

Our invention consists in a combination of adjustable clamps with sheaths for the tree, by which arrangement the leather is drawn down to the tree both lengthwise and crosswise without risk of cracking or tearing.

In the drawing A represents the wooden tree of the same general shape as the ordinary hand boot crimp. To the back of the leg is applied the clamp B composed of two plates or bars of metal, having the section shown in Fig. 2. The two bars are drawn together by the clamp screw *a*, and the clamped bars are moved from the wooden tree by the set screws *b b*. A similar set of clamping irons B' with their clamp (*a'*) and set screws *b' b'* are applied to the foot of the tree. The heel of the tree is cut off so as to give it a direction parallel to the general direction of the instep, and to it a third set of clamping irons B'' with their clamp (*a'' a''*) and set screw (*b''*) is applied. This set has the same section and general form as the other two, but differs from them in having two notches *c c'* cut from each side of the inner bar to allow a passage for the edges of the leather.

The three above described sets of clamps serve to seize and stretch the leather in a transverse direction; to stretch it lengthwise another arrangement is necessary. From each extremity of the tree a block C C' is cut, having its inner edges parallel to the face edge and ends of the tree, to the back of each of these blocks a nut *d* (dotted in Fig. 1) is attached, moving with the block in a slot *e* (dotted in Fig. 1) sunk in the tree; and through these nuts, set screws *f f'*

pass, each having a head and shoulder resting upon the respective ends of the tree, by turning these set screws the top (C) and toe blocks (C') can be moved lengthwise from the instep; in order to secure the extremities of the leather to the top and toe blocks, a clamp or vise composed of a plate *g* and clamp screws *h* working in a nut *i* inserted in the block, is attached to each; and as the instep is the point at which the greatest stretching is required, and as the top and toe extremities of the leather are scarcely stretched at all, it is necessary to apply the stretching force to the instep particularly. This is accomplished by the application of a sheath of thin metal D to the leg and another D' to the toe of the tree, these sheaths are fastened to their respective top and toe blocks, and as these latter are withdrawn from the instep by the action of the screws *f f'*, the sheaths are drawn with them, carrying the leather on their upper surface.

The various members of the boot crimp may be made of such materials as the constructor may see fit to employ. By these improved clamps the leather is stretched in both directions, lengthwise as well as crosswise, and the wrinkles at the instep can be entirely obliterated at one operation while the tearing of the leather is avoided. If the sheaths were not used the great friction caused by clamping the leather to the tree by the leg and boot cramps, would prevent its slipping longitudinally, and the withdrawal of the leg and toe blocks would only be followed by a tearing of the leather in the vises at the extremities of their respective blocks.

What we claim as our invention and desire to secure by Letters Patent is—

The combination of the top (C) and toe (C') blocks and their respective sheaths D D', with the leg (B), heel (B'') and foot (B') clamps, the whole arranged substantially in the manner and for the purpose herein set forth.

ELI R. HORNER.  
W. HOLLAND.

Witnesses:

A. U. HOLLAND,  
W. G. HORNER.