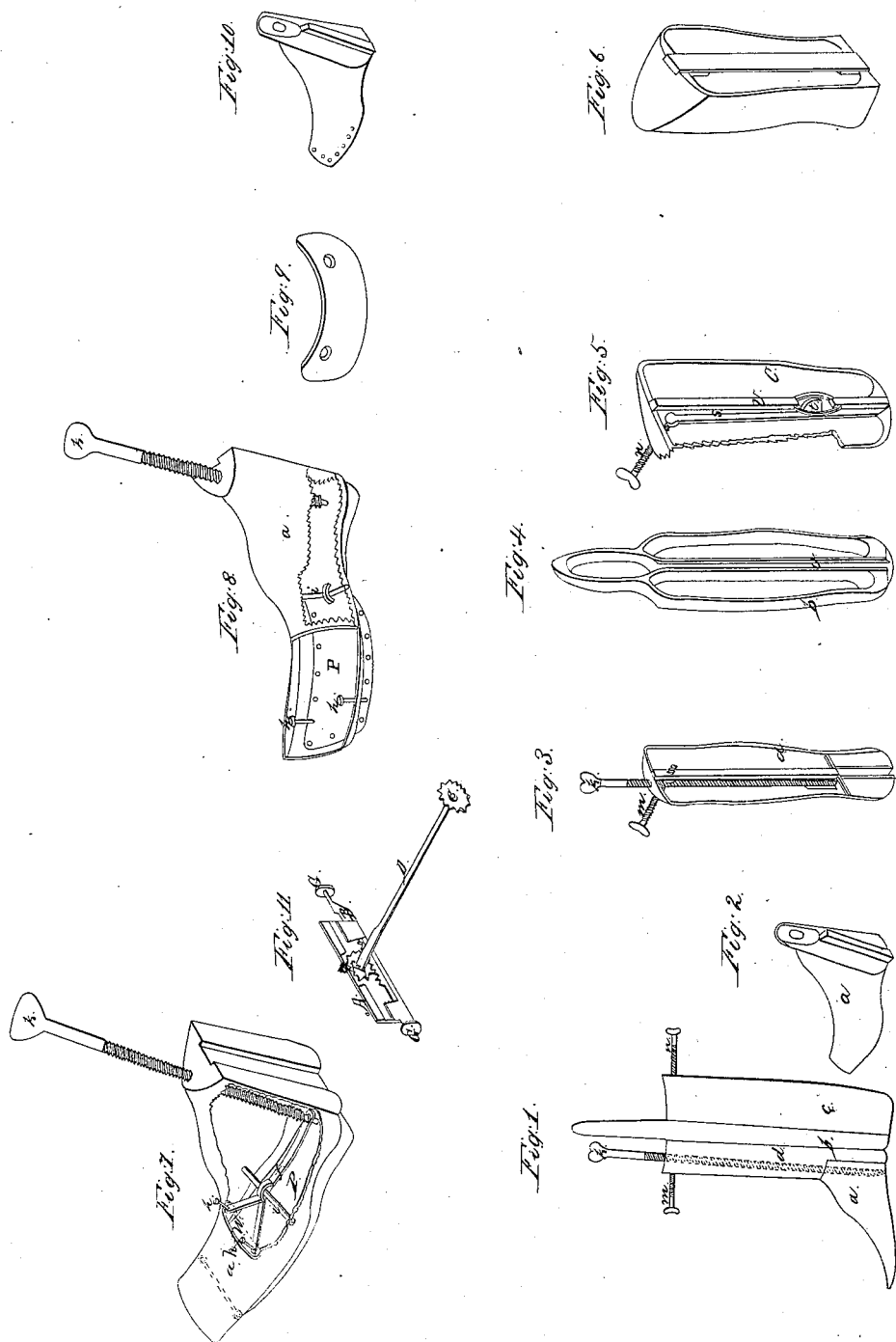


No. 4,623.

PATENTED JULY 7, 1846.

J. RUSSELL.
BOOT OR SHOE TREE.



UNITED STATES PATENT OFFICE.

JONA. RUSSELL, OF PHILADELPHIA, PENNSYLVANIA.

BOOT-TREE.

Specification of Letters Patent No. 4,623, dated July 7, 1846; Antedated July 4, 1846.

To all whom it may concern:

Be it known that I, JONATHAN RUSSELL, of the city and county of Philadelphia and State of Pennsylvania, have invented sundry new and useful Improvements in the Method of Constructing Boot and Shoe Trees; and I do hereby declare the following to be a full and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification.

I construct my improved boot and shoe trees of metal, hollowed out to a suitable strength and thickness, of the usual number of parts, and of the form herein represented.

By means of the additions and improvements I introduce into my improved hollow metallic boot and shoe trees, I am enabled to stretch a boot or shoe across the small and heel measures, over the instep, the ball of the foot, the toes, or any other part desired.

In the accompanying drawings, Figure 1, is an elevation of a boot tree complete, having a part of my improvement: *a*, is the shoe piece, *d*, is the front or shin piece, *c*, is the back piece, and *b*, is the key between the front and back pieces of the leg of the boot tree. *k*, is a screw passing down vertically through the front or shin piece *d*; *m*, is a screw passing horizontally into the front side of the front piece *d*, close to its upper end. *n*, is a screw passing horizontally into the rear of the back piece *c*, opposite the screw *m*.

Figs. 2, 3, 4, and 5, are perspective elevations of the different parts of my improved boot tree detached, showing the manner and form of constructing them of hollow metal, and also the arrangement for stretching a boot at the small and heel measures.

Fig. 6, is a perspective elevation of a back piece, which I use with a shoe piece, of the form represented in Figs. 7 and 8, for stretching shoes, monroes, &c., the shin piece *d*, being dispensed with.

Figs. 7 and 8, are perspective views, showing different methods of constructing the foot piece *a*, of my improved trees, for stretching boots or shoes. *P*, in Fig. 7, is the sole piece at the bottom of the shoe piece *a*; confined to the same by a hinge at the toe. *f*, is a forked lever, with an oblong opening or slot near its center (just back of the fork), through which a rod *i*, passes on which the lever vibrates. The rod *i*, passes through and is secured in each side

of the shoe piece *a*. In the front ends of the forks of the lever *f*, there are screw openings, into which are inserted the screws *h*, *h*. The oval buttons which are screwed to the top of the screws *h*, *h*, pass up through the opening *W*, in the top of the shoe piece. The lower end of the screw *k*, is inserted into an opening in the rear end of the lever *f*. By the action of screwing down the screw *k*, the buttons on the heads of the screws *h*, *h*, on the forks of the lever, are forced up against and stretch the leather at those portions of the boot or shoe. When I wish to stretch the boot or shoe over the instep for cleaning, &c., I detach the screw *k*, from the lever *f*, and allow it to press against the sole piece *P*; by then turning down the screw, the rear end of the sole piece *P*, is forced down, thereby stretching the leather over the instep.

Fig. 8, represents a different method of stretching any or all parts of the front of the foot of a boot or shoe. In this arrangement the upper front part of the shoe piece, is removed, or holes are made in it, as represented in Fig. 10. The sole piece *P*, in this arrangement, is secured to the shoe piece *a*, by a rod *i*, passing through loops or staples on the upper side of the sole piece, placed near its center. The rod *i* passes through and is secured in each side of the shoe piece. The sole piece *P*, has screw openings at its sides and at the toes, and other parts if desired into which screws, *h*, *h*, with buttons at their heads, are inserted for stretching the foot of the boot or shoe at any place required, by the action of the screw *k*, upon the rear end of the sole piece *P*, forcing down the same, and elevating the front end thereof. In place of the buttons on the heads of the screws *h*, *h*, I sometimes secure to the vibrating lever *f*, or vibrating sole piece *P*, a cap piece, as represented in Fig. 9, for stretching the front portion of the foot of a boot or shoe.

Fig. 5, presents an internal view of the back piece *C*, of the boot tree; and also, connected therewith, my arrangement for stretching a boot across the small and heel measures. *U*, is a vertical piece secured to the center of the back of the hollow back piece *C*, which fits into the groove *V*, in the key *b*, immediately in the rear of the vertical piece *U*, there is secured by a hinge at the bottom, the lever *S*; the top of which, is connected to the screw *n*, passing into the

rear of the back piece *c*, at its upper end. There is a projection *t*, on the lever *S*, which passes through an opening near the lower end of the vertical piece *U*. By turning the screw *n*, after the tree has been placed in a boot, the projection *t*, upon the lever *S*, is pressed through the opening in the vertical piece *U*, against the key *b*, which forces back the bottom of the back piece *C*, thereby straining and stretching the boot at the small and heel measures.

Fig. 11, is a perspective view of an attachment to be used in the shoe piece of my improved hollow boot and shoe trees for stretching a boot or shoe at the ball or toes by a lateral movement. *A*, is a cross piece, having a groove in its lower side in which a rack, *B*, is placed. There is a smooth oval head or button *G* secured to one end of the cross piece *A*, and a similar head placed on the outer end of the rack *B*. Lateral movement is given to the rack *B*, by the pinion *F*, on the shaft *D*. Motion is given to the shaft *D*, by the driving screw *k*, the threads of which are made to work into the pinion *F*, on the rear end of the shaft. By forcing out the rack *B*, the button *G*, is pressed

against the leather of the boot or shoe and stretches it at that point.

This instrument may be used by itself, 30 without making use of the trees, by placing a handle on the rear end of the shaft *D*, for the purpose of acting upon the same by hand.

What I claim as my invention and desire 35 to secure by Letters Patent, is—

1. The constructing boot and shoe trees of hollow metal, or wood in combination with the forked lever *f*, vibrating sole piece *p*, and screws *h*, *h*, (either with button heads 40 or cap piece,) combined and operating with the screw *k*, for stretching a boot or shoe, substantially in the manner and for the purpose herein set forth.

2. I also claim the combination of the 45 screw *n*, lever *s*, and projection *t* on the same, with the back piece *C*, and key *b*, of the leg of the boot tree, for stretching a boot across the small and heel measures, substantially as herein set forth.

JONATHAN RUSSELL.

Witnesses:

Z. C. ROBBINS,
H. W. BALL, Jr.