

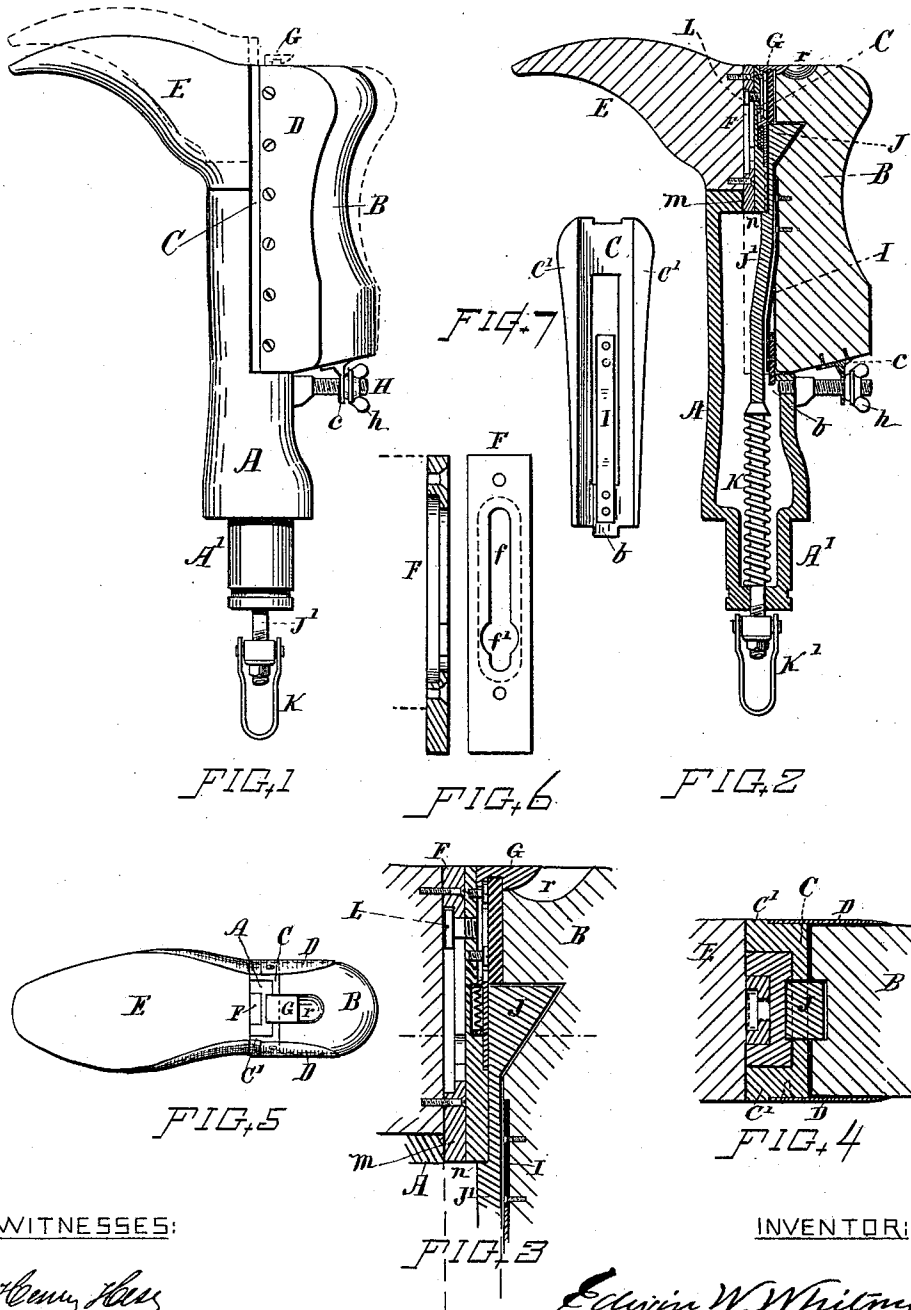
(No Model.)

E. W. WHITMORE.

BOOT TREE.

No. 338,575.

Patented Mar. 23, 1886.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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BOOT-TREE.

SPECIFICATION forming part of Letters Patent No. 338,575, dated March 23, 1886.

Application filed December 9, 1885. Serial No. 185,102. (No model.)

To all whom it may concern:

Be it known that I, EDWIN W. WHITMORE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Mounted Swiveling Boot or Shoe Trees, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

This invention relates to an improved mode of constructing and attaching the back portion to the supporting standard or body in a tree for treeing boots or shoes, wherein the back is movably connected with an auxiliary attaching-plate, which carries the wing-pieces, and which connects by detachable locking devices with the body, so that it can be readily put on and taken off for the various sizes, as required; also, in the manner of connecting the foot-piece, whereby it can be readily taken off and exchanged for different sizes, the particular features of invention claimed being hereinafter definitely specified.

In the drawings, Figure 1 is a side view of the tree constructed in accordance with my invention. Fig. 2 is a longitudinal central section. Fig. 3 is a central section (shown on somewhat larger scale) of a portion of the mechanism illustrated in Fig. 2. Fig. 4 is a horizontal section of the body and auxiliary attaching-plate. Fig. 5 is a view of the bottom of the foot. Fig. 6 shows details of the connecting-plate of the foot-piece. Fig. 7 is a front view of the auxiliary back-attaching plate separate from the body-standard.

In referring to parts, A denotes the body of the boot or shoe tree, provided with a journal, A', whereby the tree is supported and rotated. B indicates a movable back piece.

C is the auxiliary plate for attaching the back to the body or standard A, and to which plate C the side plates or guard-pieces, D, are fixed.

E indicates the foot-piece connected with the body by the slotted bar F. The body A is reduced at its upper end so as to be of less width than the foot of the tree, and the auxiliary back-attaching plate is made to embrace

said reduced portion of the body. This plate C is connected with the back piece, B, by a spring or link, I, extending from the central portion of the back to the lower portion of the attaching-plate, one of its ends being connected to said plate and the other to the back, B, thus leaving the back free to swing out and in between the side plates, D, by action of the draw-rod J', which is made with a plain wedge-shaped or backwardly-inclined head, J, that fits into a recess formed in the back piece, B, and having a correspondingly-inclined bottom surface, between which and the body metal the head J wedges when the rod J' is drawn back. Said rod is furnished with a spring, K, and link K', for effecting the operation of the parts in the usual manner. The plate C is detachably connected to the standard A, so that it can be put on and taken off at pleasure, and is held rigidly in position on the standard by detachably-locking fastening devices. In the present instance one end of said plate is inserted in a recess on the standard, as at b, and the other end is held by a spring-latch, G, connected with the body, which locks over the ends of the plate C and retains the parts in connection. By raising the latch G the plate C and back B can be readily removed from the body A, together with the side plates, D, which are secured to the sides of the auxiliary plate C. At the lower end the back is provided with a bifurcated lug, c, which embraces the sides and acts as a fulcrum on the stud H, which latter is provided with a regulating-nut, h, for varying the position at which the back is held in the ordinary manner.

By constructing the back with the attaching-plate and the side pieces fixed thereto, as described, the parts can be conveniently made up in sets for the different sizes of boots or shoes, so as to be readily put on or taken off from the standard A to accommodate the tree to all desired sizes of shoes, as may also the foot-pieces E, thus producing a very convenient and efficient apparatus for the purpose specified.

The devices for attaching the foot-piece to the body consist of a plate, F, having a central slot, f, and parallel edges, as indicated in Fig. 6. This plate is fastened to the rear end

of the foot-piece, and fits into a longitudinal groove formed in the body. (See Fig. 4.) At one portion the slot *f* is expanded into a circular opening, *f'*, of a size sufficient to pass over the head of the stud *L*, fixed to the body within the longitudinal groove, and which locks the plate to the body in all positions excepting when the stud and opening coincide, at which position the foot can be readily detached and replaced. The lower end of the plate *F* slides down into a recess in the body, as indicated at *m*, when the foot-piece is pressed down to position, as indicated in Fig. 2.

The spring-latch *G* may be located either at the upper or lower end of the plate *C*, as preferred. If at the lower end, an overhanging lug could be used for holding the upper end.

When putting the back piece, *B*, upon the body or standard *A*, the end piece of the plate *C* is inserted behind the lug, and then its other end is snapped under the spring-latch *G*, (this can be instantly done,) and the parts can be disconnected by simply raising the latch.

The back *B* may be provided with a depression, *r*, in the sole thereof, to facilitate raising the latch *G* when it is desired to remove the back and plate from the body-standard.

The spring connecting-link *I* serves to press the back piece, *B*, forward so that a plain recess for the head of the draw-rod and a plain wedge-shaped head can be employed without the necessity of connecting the two by dovetailed or undercut grooves, as in the usual practice, and the draw-bar head and back being thus unconnected, there is no inconvenience in separating and putting together the parts when removing and replacing backs.

The auxiliary plate *C* is made with an open center to allow space for the draw-bar to pass through it and work against the back. The draw-bar *J'* is made with a flat front side that rests against and slides on the metal of the body, and said body is preferably provided with a longitudinal groove or depression within which the draw-rod is guided. The rod is made with a shoulder or offset that strikes the metal of the body, as at *n*, and which serves as a stop against the action of the spring *K* when the bar is at the desired limit of movement.

The sides of the standard *A*, which are reduced along the foot portion, are embraced by the side portions, *C'*, of plate *C*, which parts fill out and give proper fullness and proportion to the foot and leg, according to the particular size of back *B* and plate *C* used thereon, so as to correspond with the size of shoe to be treed, and the change of plates and backs gives the variation on this part of the tree, as required.

In lieu of making the wing-plates to attach to the plate *C* and pass by the angle of the back *B* the construction could be reversed,

the plates *D* being attached to the part *B* to extend past the angle of the part *C*. In either case they serve as guards for the varying space between the back and the attaching-plate *C*; but I prefer the construction shown.

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

1. The combination, with the back piece in a boot or shoe tree, of an auxiliary attaching-plate, as *C*, having forwardly-extending side flanges, *C'*, outwardly conforming to the lateral size and shape of said back piece, and connected to said back piece by a spring or flexible link, as *I*, substantially as and for the purposes set forth.

2. The combination of the back piece, *B*, the auxiliary plate *C*, provided with side plates, *D*, and the connecting-link *I*, substantially as and for the purpose set forth.

3. The combination, with the standard *A*, having the reduced end portion, of the auxiliary attaching-plate *C*, embracing the sides of said standard, the wing-plates *D*, rigidly secured thereto, the back *B*, movably connected to said attaching-plate, and means, substantially as described, for detachably connecting the plate and standard, for the purpose set forth.

4. The combination, substantially as described, of the standard *A*, the attaching-plate *C*, the back *B*, flexibly connected therewith, the side plates, *D*, protecting the variable space between said plate and back, the lug *b*, and the spring-latch *G*, for the purposes set forth.

5. The combination, with the standard having the reduced end, and the removable back piece, *B*, of the back-attaching plate *C*, having the rigid side flanges, *C'*, that embrace the sides of said standard and fill out the space to the proper size of the foot, substantially as set forth.

6. The combination, substantially as hereinbefore described, of the standard *A*, the auxiliary plate *C*, the back piece, *B*, flexibly connected thereto and provided with a triangular recess, the rod *J'*, having a plain wedge-shaped head fitting said recess, and stop-shoulder *n*, substantially as and for the purposes set forth.

7. The combination, with the foot-piece *E* and standard *A*, having a longitudinal guide-way, of the recessed plate *F*, having the slot *f* and opening *f'*, secured to said foot-piece, and the projecting headed stud *L*, fixed to said standard, substantially as and for the purposes set forth.

Witness my hand this 2d day of December, A. D. 1885.

EDWIN W. WHITMORE.

Witnesses:

CHAS. H. BURLEIGH,
CHARLES S. BACON.