

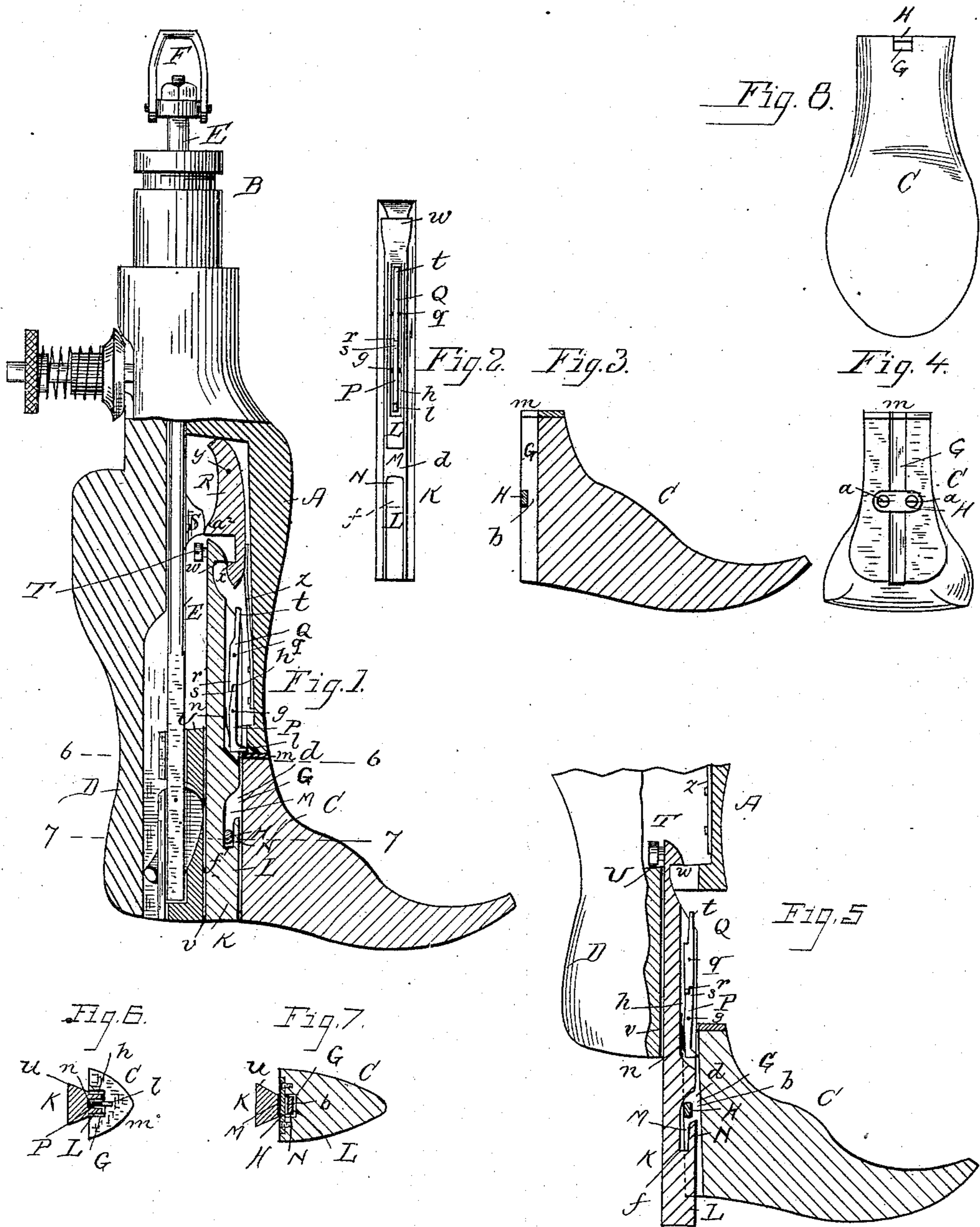
(No Model.)

A. D. TYLER, Jr.

BOOT TREE.

No. 319,355.

Patented June 2, 1885.



Witnesses.

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UNITED STATES PATENT OFFICE.

ABEL D. TYLER, JR., OF BROCKTON, MASSACHUSETTS, ASSIGNOR TO OLIVER
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BOOT-TREE.

SPECIFICATION forming part of Letters Patent No. 319,355, dated June 2, 1885.

Application filed March 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, ABEL D. TYLER, Jr., of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Boot-Trees, of which the following is a full, clear, and exact description.

This invention relates to the mode of attaching and securing a foot-piece to a boot or shoe tree; and the invention consists in constructing the foot-piece and the parts connecting it with the body portion of the boot or shoe tree in such manner that it can readily and conveniently be attached to and detached from the body, all substantially as hereinafter fully described.

In the accompanying plate of drawings this invention is illustrated, Figure 1 being in part a vertical section from the rear to the front, and a partial side view of a boot or shoe tree having this invention applied thereto. Fig. 2 is a detail view. Fig. 3 is a longitudinal vertical section of the foot detached; Fig. 4, a back view of same, and Fig. 5 a detail vertical sectional view of the foot and its attaching parts, with the foot in position to be removed; Fig. 6, a detail cross-section on line 6 6, Fig. 1; Fig. 7, a detail cross-section on line 7 7, Fig. 1; Fig. 8, a plan view of the bottom of the foot.

In the drawings, A represents the body of a boot or shoe tree provided with a journal, B, on which the boot-tree is supported and rotated; C, its foot; D, its back; E, its center rod, having an eye, F, all constructed and arranged to be secured together for operation as usual in any of the well-known ways, and needing no particular description, except as to this invention.

The foot C has in its back a vertical groove, G, having a cross-bar, H, about midway of the height of the back, which cross-bar is set in the back, so as to be flush therewith, and secured by screws *a*, but so as to leave a space, *b*, behind it in the recess or groove G.

K is a bar of iron or of any suitable material, to which the foot-piece is to be attached, its front rib portion, L, being of a thickness to fit within the groove G in the back of the foot-piece, and when therein it is held by the cross-bar H, being disposed within a ver-

tical slot, M, in the bar K and prevented from lateral movement by the portion N of the bar at such slot. This portion N is cut away at the upper part of the slot, leaving an opening, *d*, to the slot, by which the cross-bar can pass into and out of said slot to secure the foot-piece to the bar, and to enable it to be removed therefrom whenever desired. The cross-bar H rests on the bottom *f* of the slot when in its proper position.

To lock or secure the bar to the foot-piece to prevent accidental detachment, a lever, P, pivoted at *g* in a groove, *h*, in the rib portion of the bar by its lower end, *l*, projects over the upper end, *m*, of the foot C when attached to the bar, and is held in such position by a spring, *n*, secured to bar K in its groove. To operate this spring-lever P conveniently, so as to release its engagement with the upper end of the foot-piece, a lever, Q, pivoted at *q* to the bar above said lever P, bears by its lower end, *r*, against the inner side of the upper end, *s*, of the spring-lever, so that pushing against the end *l* of lever Q will, through its connection with the lever P, cause its end *l* to move back and away from over the upper end, *m*, of the foot, when the foot can be moved upward on the bar and its cross-bar H out from its engagement with the slot M, and thus the foot detached from the bar K.

To attach the bar to the foot, insert its rib L in the groove G at such point that the entrance or opening *d* to the slot M will be opposite the cross bar H, which will allow the bar to freely enter the groove in the foot, forcing the end *l* of spring-lever P back, as shown in Fig. 5. Then slide the foot downward on the bar until the cross-bar H reaches and rests on the bottom of the slot, when the end *l* of said spring-lever P will move outward and lock the foot to the bar, as shown in Fig. 1.

The foot can be attached to the bar either when the bar is secured to the tree or when separate from it.

The back part of the bar K is of dovetail shape in cross-section, as shown at *u* in Figs. 6 and 7 more particularly, and by such portion it is adapted to slide vertically within a corresponding dovetail groove, *v*, in the body portion of the boot or shoe tree.

The upper end of the bar K is hook-shaped, as at *w*, and when inserted in and pushed up the dovetail groove *v* its hook *w* comes into a position for it to engage with the shoulder *x* of a swinging pawl, R, pivoted at *y* to the body portion, when the center rod is pulled out to distend the back to secure the boot or shoe in operating the tree, such engagement being secured by the force exerted by a spring, *z*, against the back edge of said pawl and prevented from such engagement when the center rod is down in its normal position by the abutment of a projection, S, of the rod E against the edge *a*² of the pawl R, as shown in Fig. 1.

At the back of the upper end of the bar K, opposite its hook *w*, is a set-screw, T, which prevents by its abutment on the shoulder U of the body portion the detachment of the bar from the tree, the removal of which screw (which can easily be done when the back is off) allows the bar to be removed entirely from the body portion of the tree.

I do not restrict myself to the foot-piece C, constructed as described, combined with the particular locking means set forth, as the same construction of foot-piece may be used with any other equivalent locking means.

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

1. A foot-piece, C, for a boot or shoe tree, formed with a vertical groove, G, at its back, and provided with a cross-bar, H, secured across said groove intermediate of the upper and lower portions of said foot-piece, for the attachment and detachment of the foot-piece to and from a tree, substantially as described.

2. In a boot or shoe tree, a foot, C, having a groove, G, in its back, and a cross-piece, H, in combination with a bar, K, adapted to fit in said groove and to be attached to the boot tree, and having an open slot, M, and locking mechanism, substantially as and for the purpose specified.

3. In a boot or shoe tree, a foot having a groove, G, in its back, and a cross-piece, H, in combination with a bar, K, adapted to fit in said groove and to be attached to the boot-tree, and having an open slot, M, and levers P and Q, and spring, *n*, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ABEL D. TYLER, JR.

Witnesses:

EDWIN W. BROWN,
WM. S. BELLOWS.