(No Model.) 2 Sheets—Sheet 1.

O. I. HOWE.

BOOT OR SHOE TREE FOOT.

No. 342,298. Patented May 18, 1886.

Fig. 1.

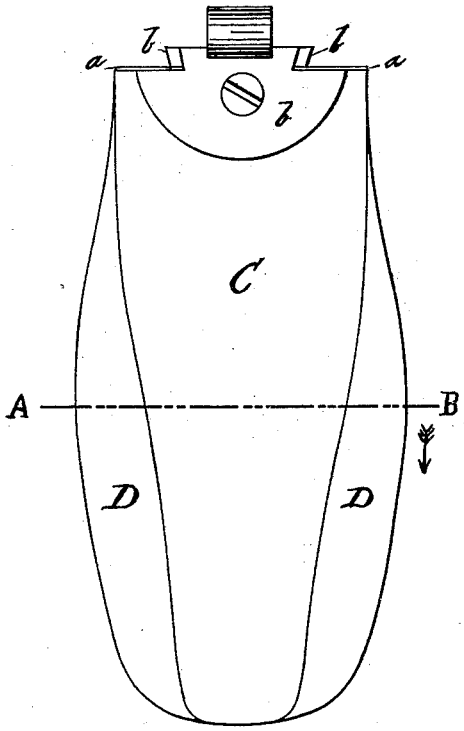


Fig. 2.

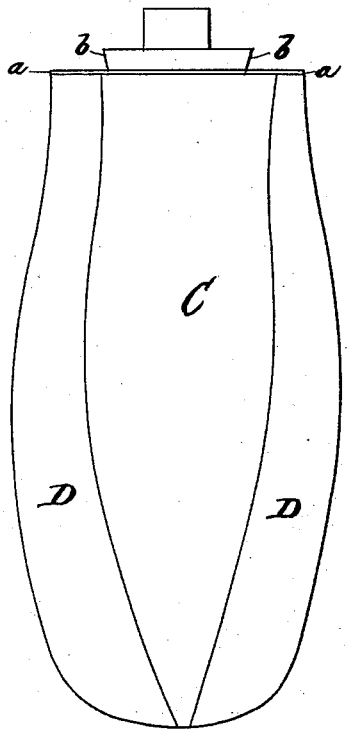
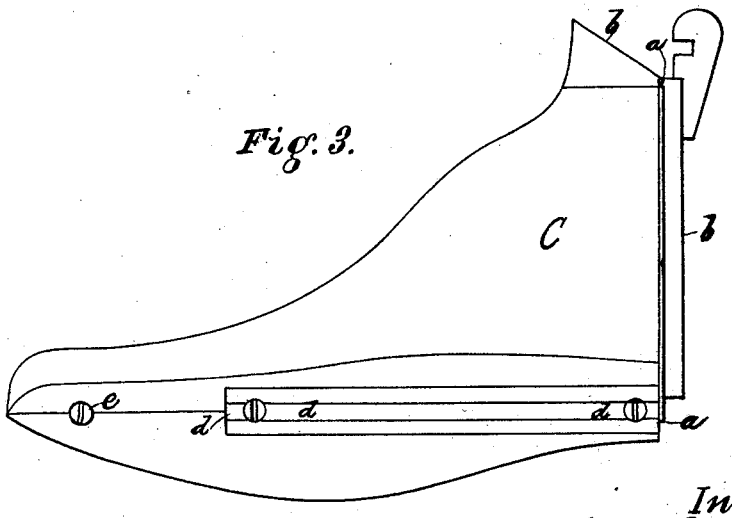


Fig. 3.



Witnesses. Joseph A. Tobin
Fred. W. Smith.

Inventor
Oliver I. Howe,
per J. L. Dewey, Attorney.

(No Model.)

2 Sheets—Sheet 2.

O. I. HOWE.

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Fig. 4.

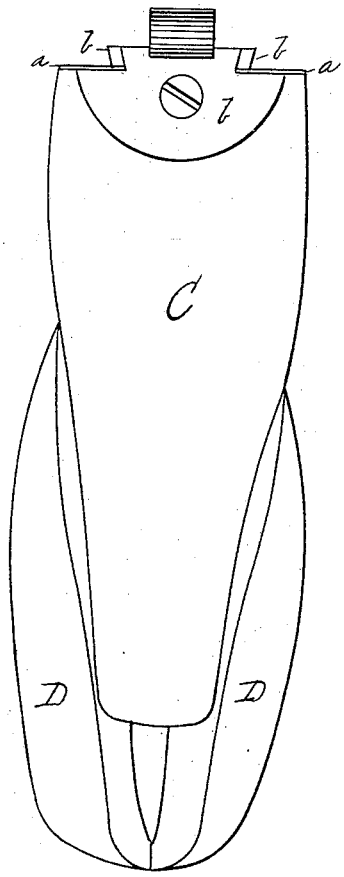


Fig. 5

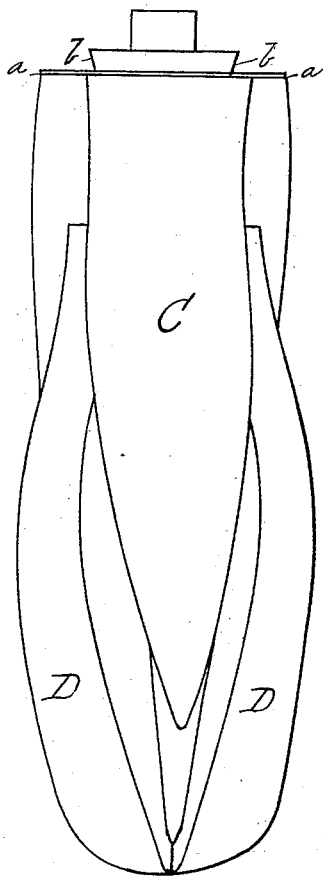


Fig. 6.

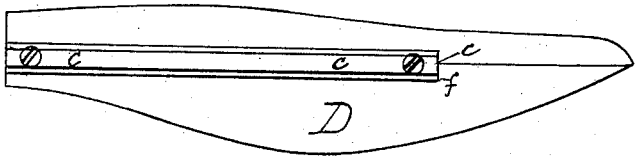
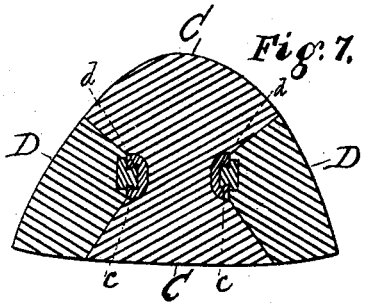


Fig. 7.



Witnesses Joseph A. Toupin.
Fred W. Smith.

Inventor
Oliver I. Howe,
per J. C. Dewey, Attorney.

UNITED STATES PATENT OFFICE.

OLIVER I. HOWE, OF WORCESTER, MASSACHUSETTS.

BOOT OR SHOE TREE FOOT.

SPECIFICATION forming part of Letters Patent No. 342,298, dated May 18, 1886.

Application filed January 18, 1886. Serial No. 188,833. (No model.)

To all whom it may concern:

Be it known that I, OLIVER I. HOWE, 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 Boot or Shoe Tree Feet; and I do hereby declare that the following is a full, clear, and exact description thereof, which, in connection with the drawings, forming a part of this specification, will enable others skilled in the art to which my invention belongs to make and use the same.

My invention relates to boot or shoe tree feet; and it consists in making the feet or foot pieces with sliding ball-pieces, one on each side of the foot-piece, leaving the rest of the foot solid and intact.

The object of my invention is to make a boot or shoe tree foot to be used in treeing boots or shoes, which will preserve the shape of the boot or shoe given to it on the original last, so that the shape will not be altered or changed by withdrawing the tree-foot from the boot or shoe after the same has been treed.

Referring to the drawings, Figure 1 is a top or plan view of a boot or shoe tree foot of my improved construction, showing the foot-iron, of the usual construction, attached thereto. Fig. 2 is a view of the under side or bottom of the tree-foot shown in Fig. 1. Fig. 3 is a side elevation of the tree-foot shown in Figs. 1 and 2, one of the sliding ball-pieces being removed. Fig. 4 is a top or plan view of my improved tree-foot, showing the sliding ball-pieces drawn out. Fig. 5 is a view of the under side or bottom of the tree-foot as shown in Fig. 4. Fig. 6 is a view in elevation of one of the sliding ball-pieces, detached from the tree-foot, shown in Fig. 3, its position being reversed around; and Fig. 7 is a cross-section through the tree-foot shown in Fig. 1 on line A B, looking in the direction of the arrow, same figure.

In the accompanying drawings, the part marked C is my improved tree-foot or foot-piece, having the foot-brass *a* and foot-iron *b*, of the usual shape and construction, attached thereto for attaching the foot to the tree proper in any usual and well-known manner. Said foot-piece C is provided with movable or sliding ball-pieces D D, one on each side, which may be made or cut, by means of a saw, directly out of the foot-piece C.

Each sliding ball-piece D is provided with a tongue, *c*, extending out therefrom, as shown in Figs. 6 and 7, and which fits and slides in a corresponding groove, *d*, made in or attached to the foot-piece C, as shown in Figs. 3 and 7.

A screw or stud, *e*, is secured in the foot-piece C near the toe part thereof, as shown in Fig. 3, which projects out just far enough to have the end *f* of the tongue *c* on the sliding ball-pieces D strike against it, and thus prevent the ball-pieces from being drawn out too far and becoming detached from the foot-piece C in drawing out the tree-foot from the boot or shoe after the same has been treed.

The sliding ball-pieces D are connected with the foot-piece C by inserting the tongue *c* in the groove *d* and sliding the pieces D along toward the heel part of the foot until the end *f* slides by the stud or stop *e*.

The foot-brass *a* prevents the ball-pieces D from moving or sliding beyond the heel part or end of the foot-piece.

The sliding ball-pieces D may be detached from the foot-piece C, if desired at any time, by sliding them out as far as the stop *e* will permit them to go, and then drawing the toe parts slightly away from each other, just enough to allow the ends *f* to pass by the studs *e*.

The operation of my improved tree-foot will be readily understood from the above description in connection with the drawings.

The foot-piece C, having the sliding ball-pieces D attached thereto, is inserted in the boot or shoe, and connected with the tree proper in any usual and well-known manner. After the boot or shoe is treed, the tree-foot is removed or drawn out in the usual manner; but in drawing out my tree-foot the sliding ball-pieces remain stationary in the boot or shoe while the solid part of the foot is being drawn out, the act of drawing out the foot-piece causing the ball-pieces to approach each other, as shown in Figs. 4 and 5, thus contracting and making narrower the width of the tree-foot across the ball of the foot, allowing the foot-piece to pass freely and easily up through the instep and narrower part of the boot or shoe without changing the shape there-

of given to it in treeing the same. Any other equivalent means for connecting the sliding ball-pieces D D with the foot-piece C may be used in lieu of those shown and described.

I prefer and intend to use two sliding ball-pieces, D D, one on each side of the foot-piece C; but only one sliding ball-piece may be used without departing from the principle of my invention.

The value of my improved boot or shoe tree-foot will be readily appreciated by those skilled in the art to which my invention belongs. My improved tree-foot, though made in three parts, each separate and independent of each other, is so constructed and the several parts so connected and operated together that it is inserted in and withdrawn from the boot or shoe in which it is used in the same manner and with equal facility and speed as if it was but a single piece or solid foot; and the narrowing or contracting of the width of the tree-foot across the ball in the process of drawing it out of the boot or shoe prevents it from altering or changing the shape thereof as given on the original last or in treeing the same.

Having described my improved boot or shoe tree-foot, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. A boot or shoe tree foot provided with two longitudinally sliding or movable ball-pieces, one on each side thereof, substantially as and for the purpose stated.

2. In a boot or shoe tree foot, the combination, with the foot-piece C, of the two sliding or movable ball-pieces D D, substantially as shown, and for the purpose stated.

3. In a tree-foot, the combination, with the foot-piece C, of the sliding ball-pieces D D and means, substantially as described, for attaching them together, substantially as set forth.

4. In a tree-foot, the combination, with the foot-piece C, provided with grooves *d* and studs *e*, of the sliding ball-pieces D D, provided with tongues *c*, substantially as shown, and for the purpose stated.

OLIVER I. HOWE.

Witnesses:
JOHN C. DEWEY,
FREDK. W. SMITH.