(No Model.)

H. T. BROCKWELL.

LAST FOR BOOTS OR SHOES.

No. 550,095. Patented Nov. 19, 1895.

Fig. 2

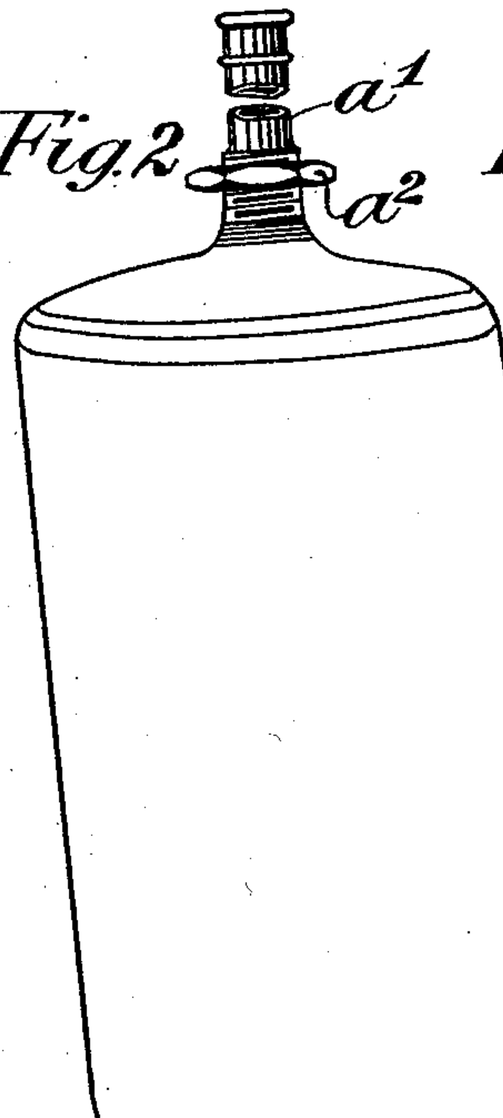

Fig. 1.

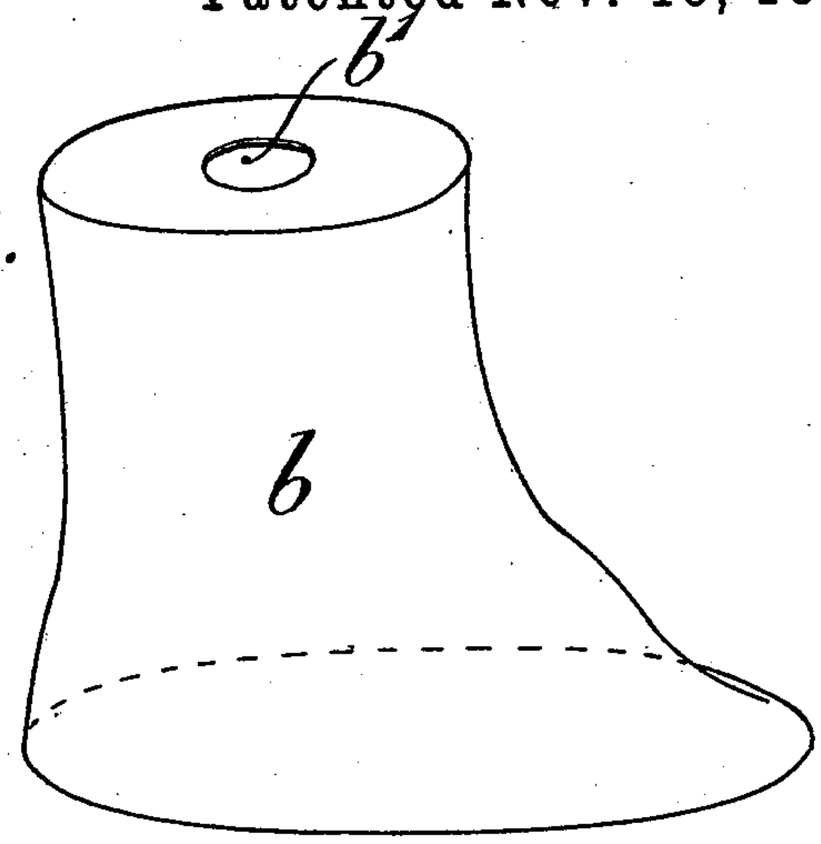

Fig. 3.

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UNITED STATES PATENT OFFICE.

HENRY TITTERTON BROCKWELL, OF LONDON, ENGLAND.

LAST FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 550,095, dated November 19, 1895.

Application filed June 20, 1895. Serial No. 553,416. (No model.) Patented in France January 8, 1895, No. 244,187, and in Belgium January 8, 1895, No. 113,565.

To all whom it may concern:

Be it known that I, HENRY TITTERTON BROCKWELL, a subject of the Queen of Great Britain and Ireland, residing at London, county of Middlesex, England, have invented new and useful Improvements in Lasts or Trees for Boots or Shoes, (for which Letters Patent have been granted to me in France, dated January 8, 1895, No. 244,187, and in Belgium, dated January 8, 1895, No. 113,565,) of which the following is a specification.

Heretofore pneumatic lasts or trees for boots and shoes as constructed have been ineffective, owing to their not being capable of withstanding sufficient pressure to effectually distend the boot or shoe to which they were applied, the tendency of the air-pressure being to force the last or tree out of the boot or shoe on account of no provision having been made to resist this upward tendency. Now my invention is designed to overcome this disadvantage by so constructing these lasts that they shall be capable of withstanding considerable air-pressure without the tendency to leave the boot or shoe, and therefore be very efficient for the purpose for which they are intended.

To this end my improved pneumatic last or tree comprises two portions—viz., an elastic air-vessel or sock and a metal or other cap adapted to receive the neck of such sock and to pass down into and fit and be retained in the upper part of the boot or shoe by lacing or buttoning the boot or shoe over it or by otherwise securing it therein. This cap serves to confine the elastic air-vessel or sock in the boot or shoe. The air-vessel or sock is provided at its upper end with an air-tube (furnished with a valve) projecting through an aperture in the upper part of the cap.

In order that my invention may be readily understood, I will proceed to describe the same fully with reference to the accompanying drawings, in which—

Figure 1 represents the hollow metal cap adapted to fit inside the boot or shoe and to inclose the upper portion of the sock or air-vessel. Fig. 2 shows separately the elastic sock or air-vessel of the pneumatic last or tree; and Fig. 3 shows in section the improved pneumatic last or tree applied to a boot, the latter being indicated by dotted lines.

Referring to the drawings, a is the elastic sock. a' is the air-tube with which this sock is provided at its upper end and having a non-return valve similar to those used with pneumatic tires, and to which a small air-pump, such as used by cyclists, can be applied for the purpose of inflation. a^2 is a nut on the said tube, which may be screwed down onto the cap, as shown in Fig. 3, to keep the sock and cap in contact.

b is the hollow metal cap, in which is an aperture b' to allow passage to the air-tube when the said sock and cap are combined. This cap is of such a shape that when it is placed in the boot or shoe and the latter laced, buttoned, or otherwise fastened over it the last or tree will be firmly retained therein during and after inflation.

The improved last when inflated serves to restore the boot or shoe to its original form and does not splay or widen it, as the pressure of the air forces the front or toe portion of the boot or shoe upward, and thereby removes creases or wrinkles, thus improving the shape of such boot or shoe.

The metal caps when not in use may be packed one inside the other and the socks be folded up and placed inside the inner cap, thus rendering my improved lasts or trees very convenient for travelers and others who could not readily employ the ordinary solid wooden lasts or trees, owing to their great weight and bulk. The said caps may, however, be made of any other suitable material.

In applying my improved lasts or trees to riding-boots, cavalry-boots, and the like, which have neither laces nor buttons, the caps, which are also suitably shaped to fit the leg of the boot, may be maintained in position during and after inflation by a strap (or other fastening) passing under the waist or shank of the boot.

At places where it is not necessary to exert pressure against the boot—as, for instance, inside the cap—the elastic portion or sock of the last or tree may be covered with canvas or other strong material, which will resist the air-pressure and so direct the air toward the

toe or front portion or to such portion of the boot or shoe where it is more especially required.

Having now fully described my invention, what I claim is—

1. A pneumatic last or tree for boots or shoes, having a rigid cap adapted to pass down into and to fit the interior of the upper part of the boot or shoe, and approximating in shape thereto, in combination with the elastic sock, so as to confine and hold such inflated elastic sock or vessel within the boot or shoe, substantially as described.

2. In a pneumatic last or tree for boots or shoes, the combination with the elastic sock or air vessel, of a metal cap adapted to pass down into and to fit the interior of the upper part of the boot or shoe, and approximating in shape thereto, said cap having an aperture for the passage of a valved air tube forming part of the elastic sock, and through which tube inflation is effected, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY TITTERTON BROCKWELL.

Witnesses:

H. ASHBY NORRIS,

THOMAS LAKE.