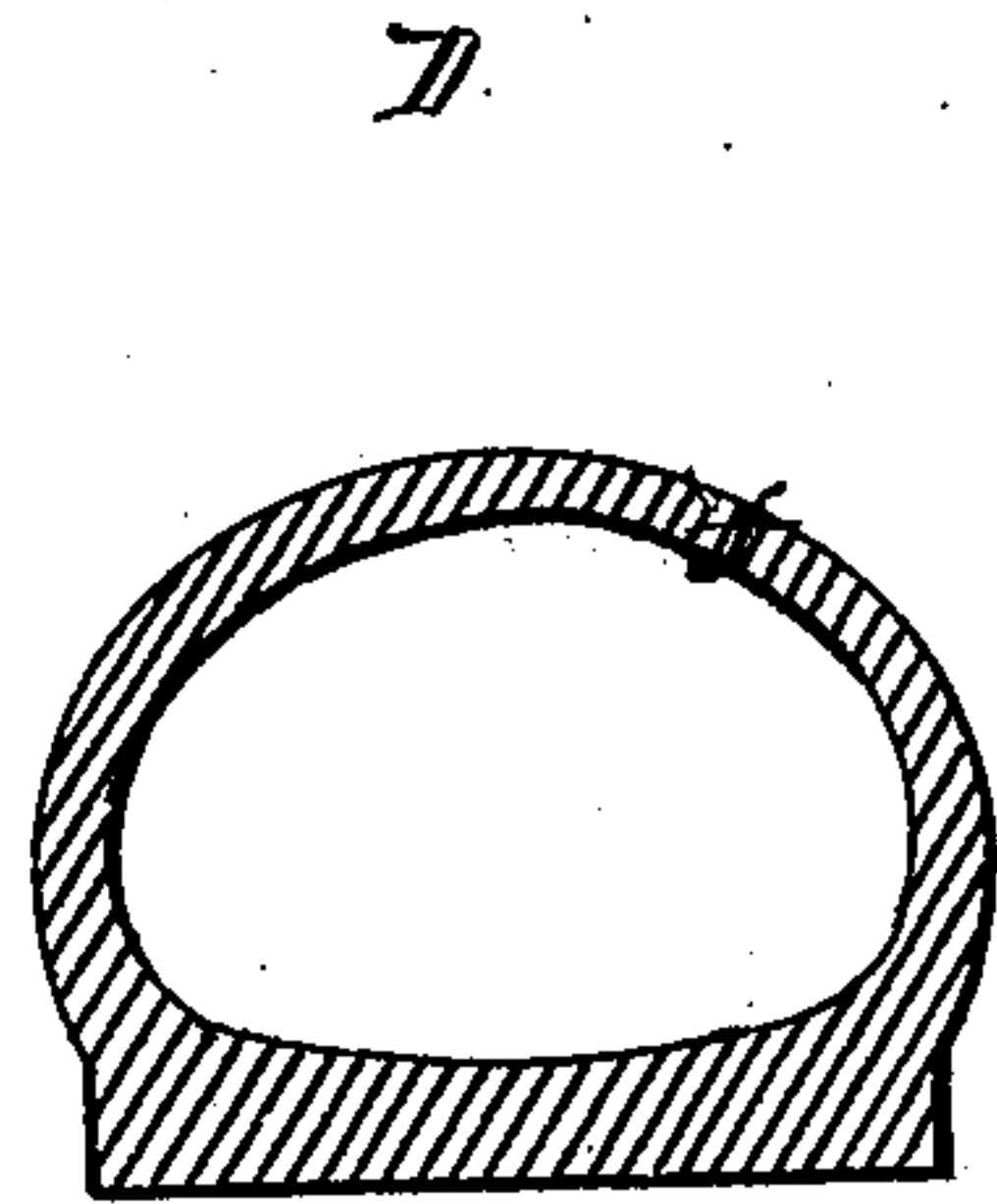
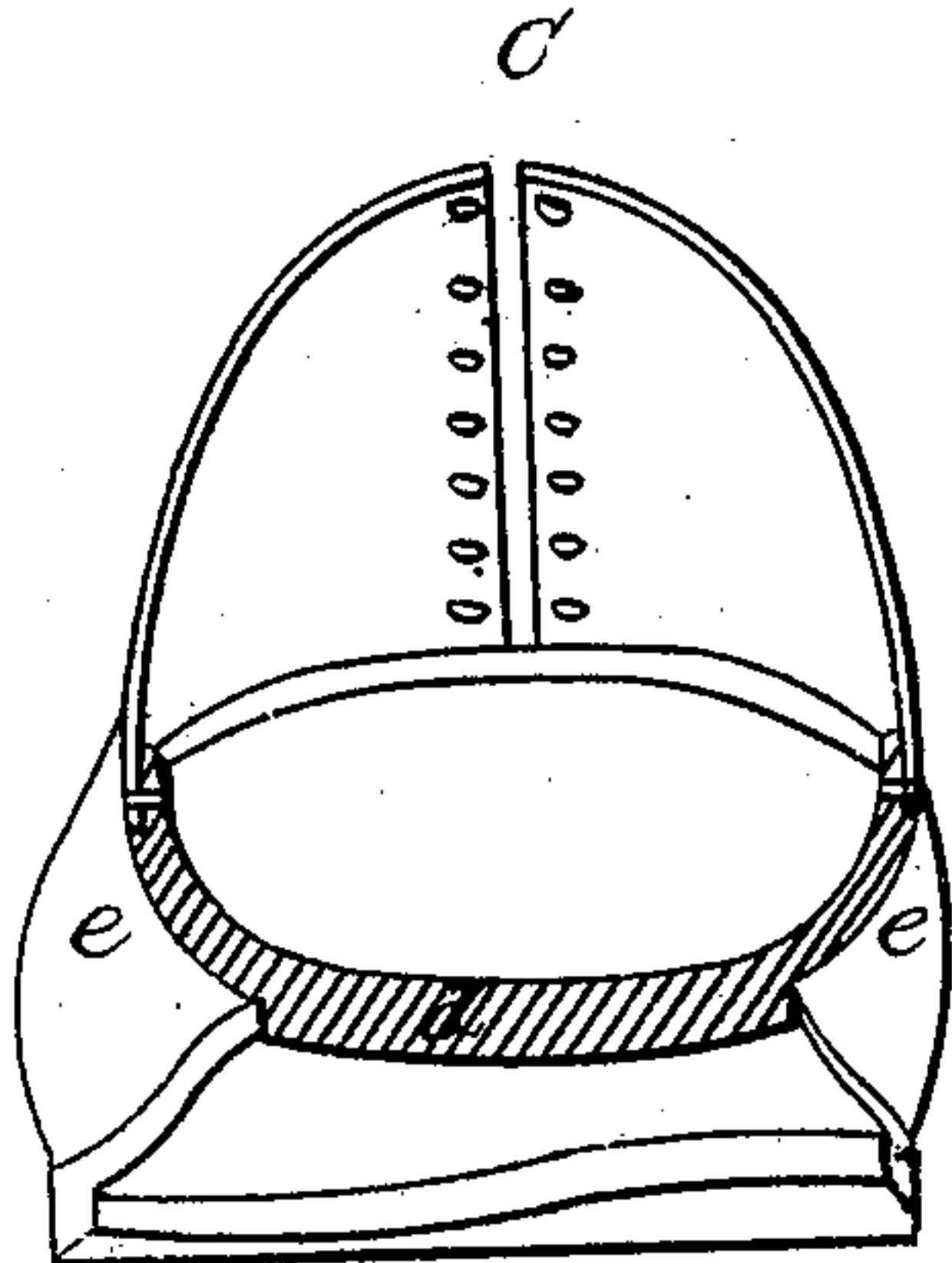
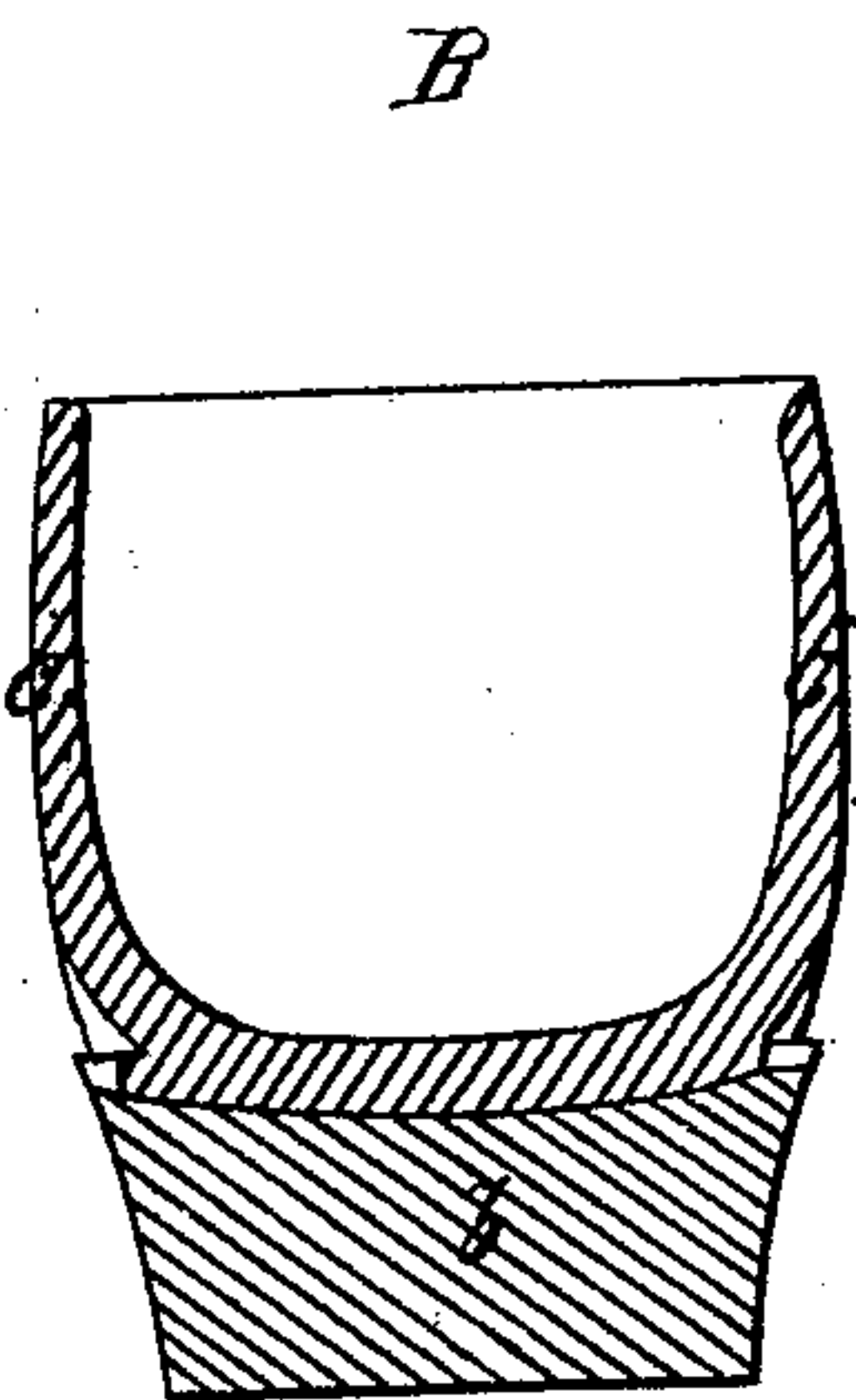
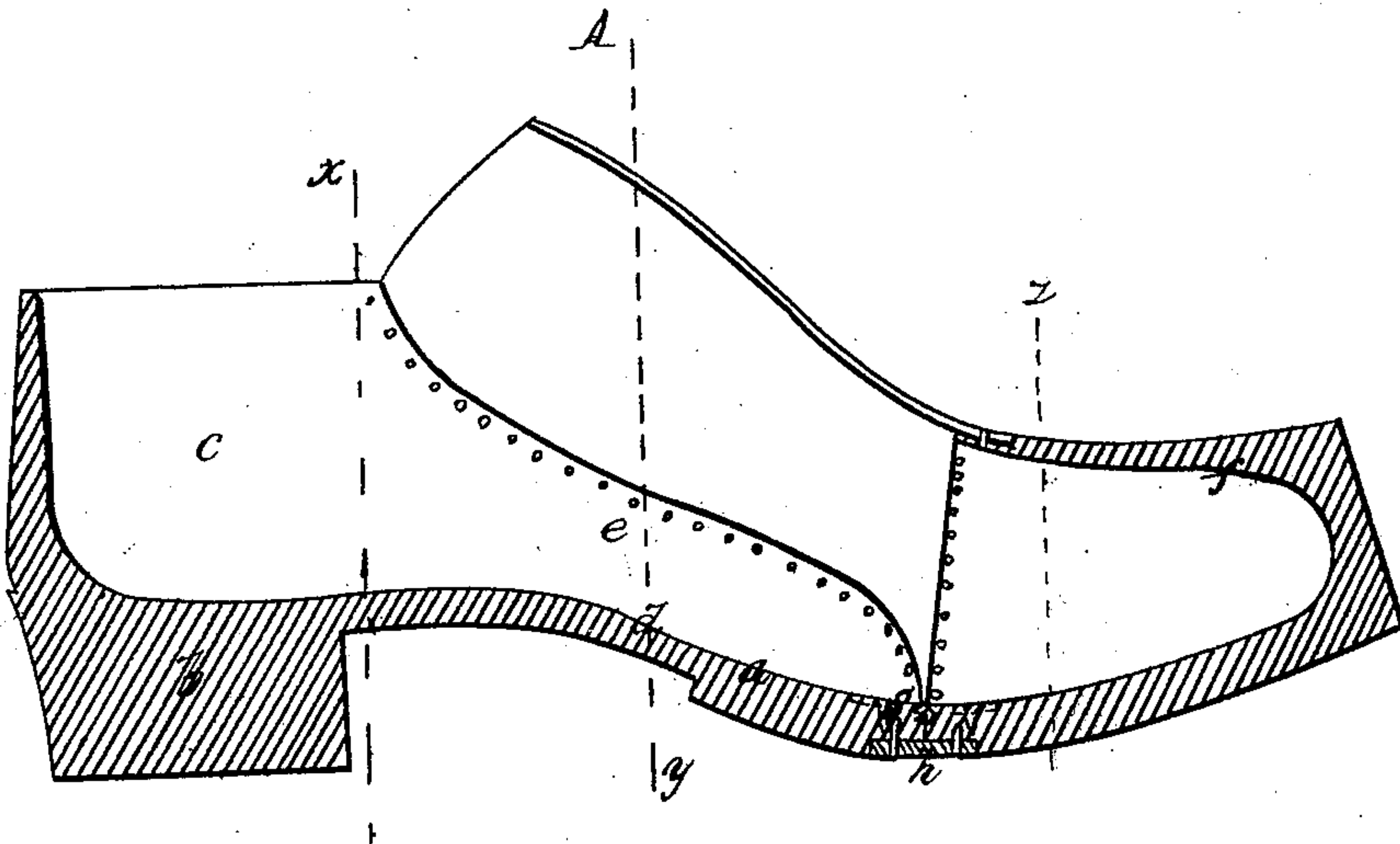


W. A. Webster.

Wooden Shoes.

Nº 90,900.

Patented Jan. 1, 1869.



Witnesses.

*S. B. Kidder
M. W. Frothingham.*

Inventor.

*W. A. Webster
by his Attys
Croby, Halstead & Co.*

United States Patent Office.

WILLIAM A. WEBSTER, OF WESTFORD, MASSACHUSETTS.

Letters Patent No. 90,900, dated June 1, 1869.

IMPROVED WOODEN SHOE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM A. WEBSTER, of Westford, in the county of Middlesex, and State of Massachusetts, have invented an Improved Wooden Shoe; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

My invention relates to the construction of wooden shoes; that is to say, of shoes in which both the sole and upper are made of wood, instead of leather.

Wooden-soled shoes are common, and wooden shoes, though not common in America, are worn to a considerable extent in parts of the European continent. Such latter shoes are made inflexible, or are, in effect, composed, each, of a single piece of wood, without any capability of movement of one part relatively to another. For this reason, they are but little worn. And yet the durability and cheapness of wood, as compared to leather, form a great recommendation for the employment of wood. And, if a boot or shoe be really fitted to the form of the foot, or be large enough (and yet not too large) for the free movement of the muscles of the foot, it will be found that no considerable relative movement of the parts of the foot occurs in walking, except at the ball of the foot. The foot stands, when the person is erect, upon the heel and ball. As the forward step is taken, the heel rises, and the foot rocks upon the ball-joint, and stands upon the ball and toes, so that, if proper provision be made for the movement of the part of the foot from the ball to the heel, relatively to the part thereof included in the ball and toes, no flexibility is needed in the other parts of the shoe, provided the inner surfaces of such other parts are so made as not to unduly press upon the foot.

Now, the object of my invention is to make a wooden shoe having this provision, or a shoe, the sole and upper of which, being made of wood, are formed in two parts, namely, a toe-piece and a heel-and-shank piece, which two parts are hinged together at the ball of the foot; and

My invention consists, primarily, in a shoe so made.

The drawings represent a shoe embodying my construction.

A shows a longitudinal central section.

B, C, and D, are cross-sections, taken, respectively, on the lines *x*, *y*, and *z*.

a denotes the sole of the shoe;

b, the heel;

c, the quarter;

d, the shank of the sole; and

e, the upper shank.

f, the toe-upper.

The upper and sole of the toe are made in one piece, as seen at A and D, a solid piece of wood being hol-

lowed out to a proper shape, for reception of the front end of the foot.

The shank-upper and shank-sole are also formed of one piece of wood hollowed out, as seen at A and C, and the quarter and heel are made in one piece with the shank, and of the form shown at A and B.

The toe-piece is connected to the shank-piece by a suitable hinge, *g*, between the two sole-pieces, this hinge being upon either the inner or outer surface of the sole; and, when upon the inside of the sole, the joint on the outside may be covered by a flexible strip, *h*.

The heel-part of the shoe, consisting of the quarter *c* and heel *b*, may be made in one piece, separate from and joined to the shank-part; and the shank-sole may sometimes be made without the wooden shank-upper, or for attachment of a flexible upper; but I prefer the construction shown.

It will be obvious that the heel may be made of less thickness than shown, and may be built up with an auxiliary heel-lift or lifts, of leather, wood, or metal; and the bottom of the heel, and of the sole at the ball, may be surfaced with leather, to prevent noise in walking.

i denotes a flexible tip or lacing-piece, fastened, at its edges, to the shank and toe-piece.

The parts of a shoe thus formed of wood may be very readily, cheaply, and perfectly manufactured, by suitable machinery, both as regards internal and external shape; and, when made to fit the foot, and with the hinged toe-piece, I have found such a shoe to be very comfortable, light, and satisfactory to wear, and the wood may easily be rendered impermeable to moisture, by filling it with oil or oily compounds.

I claim—

1. A shoe formed of a hollow toe-piece made of one piece of wood, and hinged to a shank-piece, of which the sole and upper are formed of one piece of wood.

2. Also, a toe-piece, of which the upper and sole are one piece of wood, when made for application to, or to form part of a hinged or jointed shoe, substantially as described.

3. Also, the shank-piece, having its upper and sole one piece of wood, to be hinged to the toe-piece, substantially as shown and described, and whether such shank-piece is made integral with the heel or quarter, or as a separate piece fastened thereto.

4. Also, a quarter and heel made of one piece of wood, (whether forming an integral part of the shank or not,) when made for application to, or to form part of a hinged or jointed shoe, substantially as described.

WM. A. WEBSTER.

Witnesses:

FRANÇOIS GOULD,
S. B. KIDDER.