

(No Model.)

W. H. WETMORE.

BOOT OR SHOE.

No. 336,775.

Patented Feb. 23, 1886.

Fig. 1.

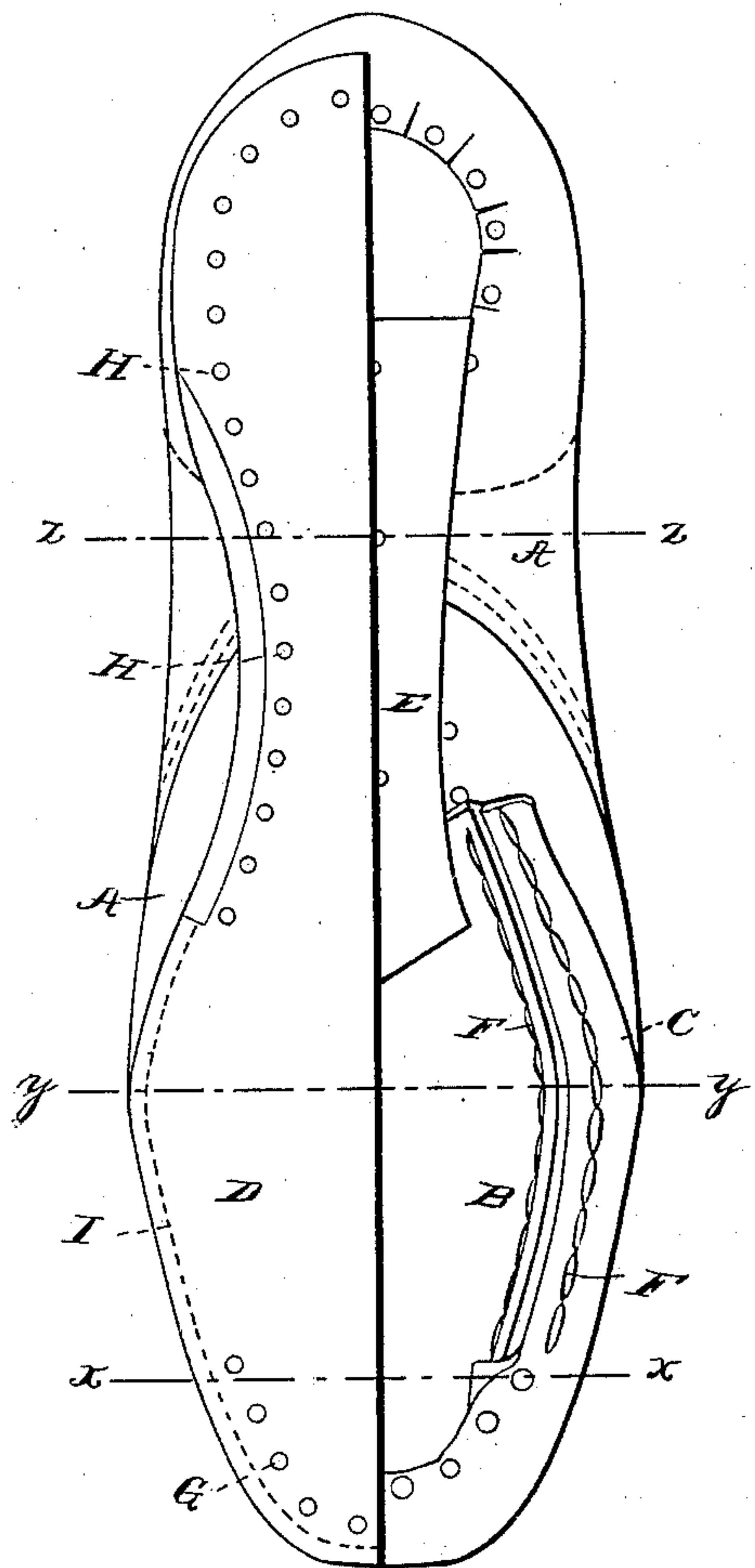


Fig. 3.

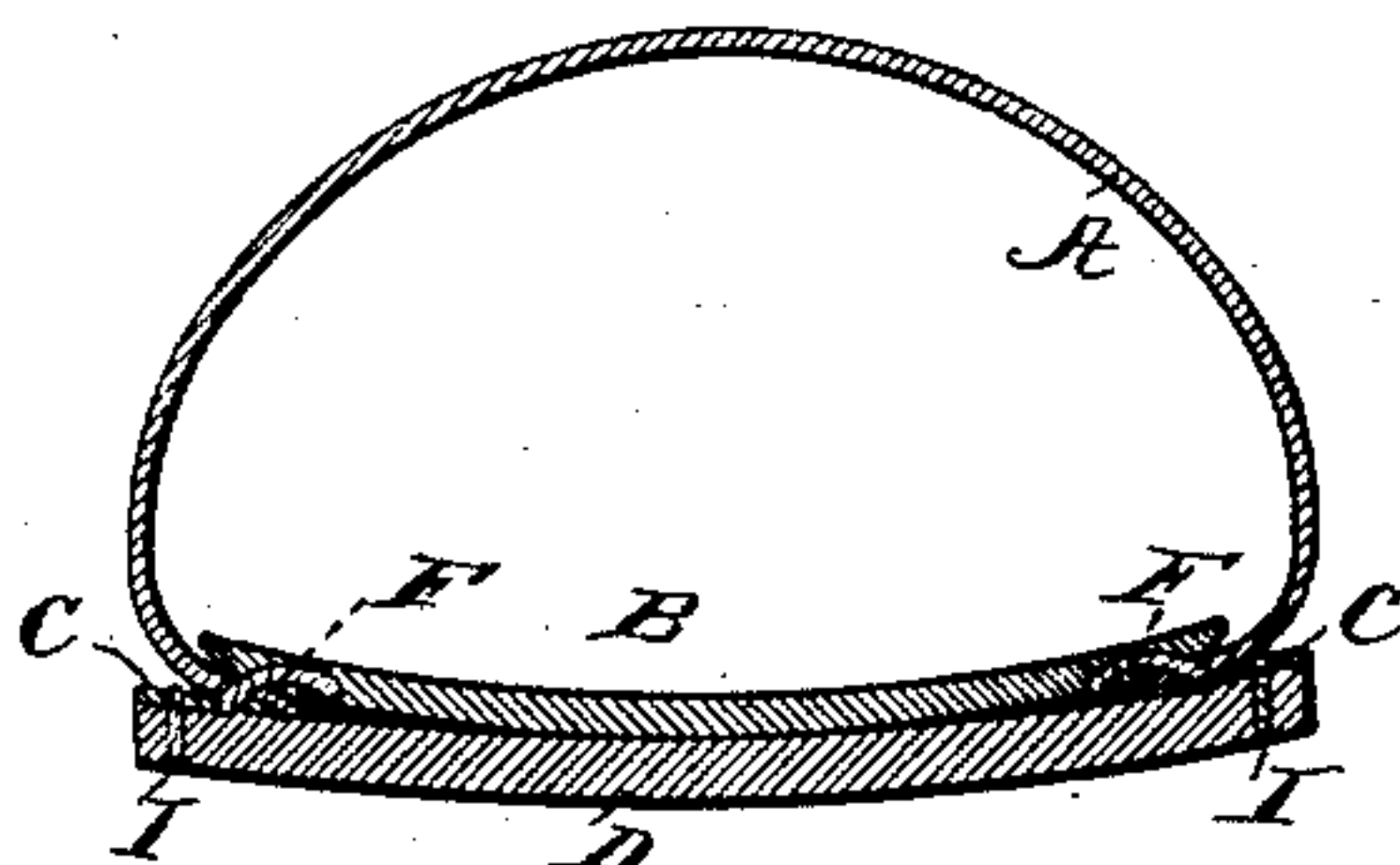


Fig. 2.

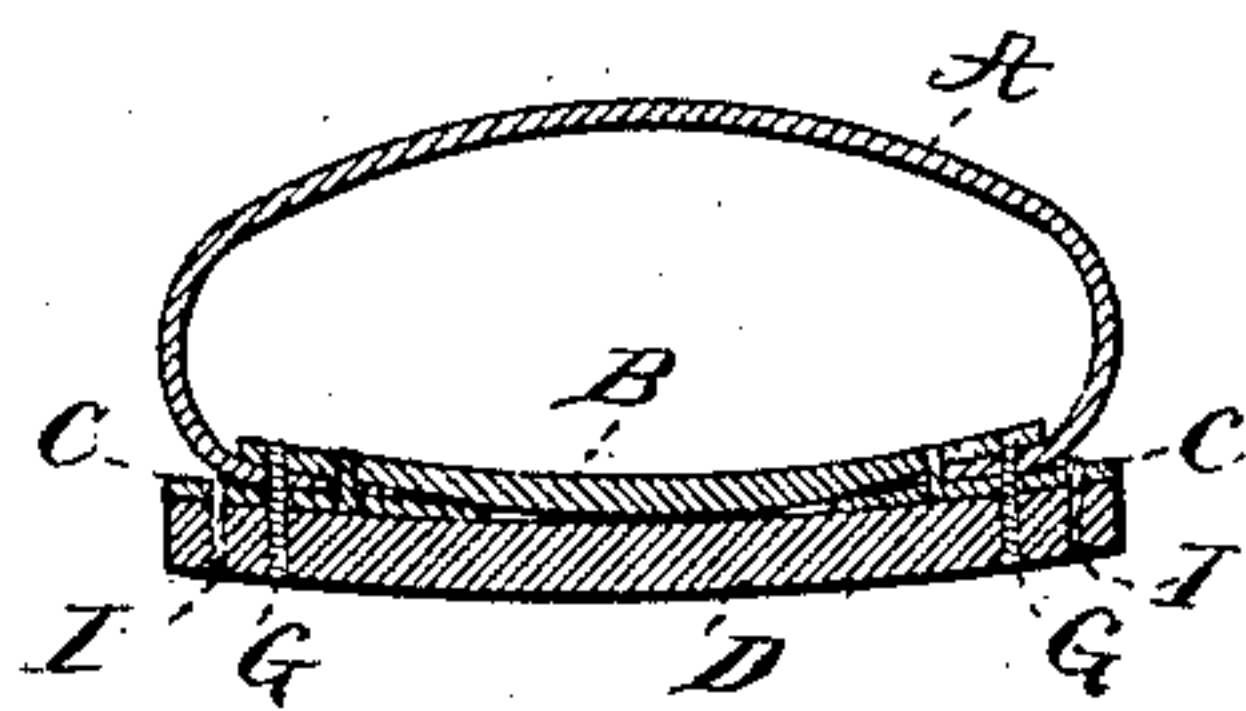
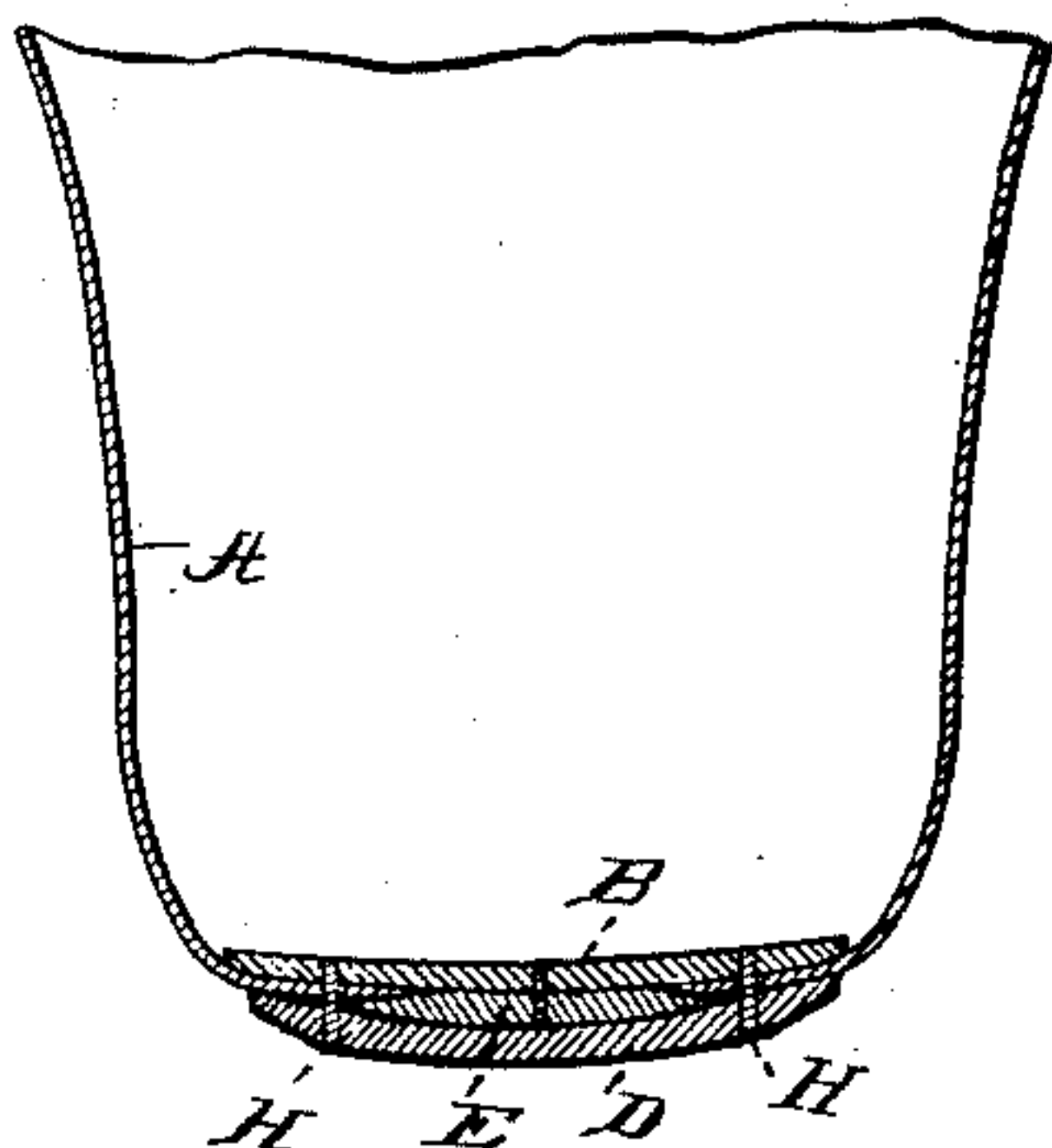


Fig. 4.



Witnesses.

Wm. Rheem.

Philip Mauro.

Inventor.

William H. Wetmore

by Chas. J. Hedrick
his attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. WETMORE, OF RALEIGH, NORTH CAROLINA.

BOOT OR SHOE.

SPECIFICATION forming part of Letters Patent No. 336,775, dated February 23, 1886.

Application filed November 2, 1885. Serial No. 181,567. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WETMORE, a citizen of the United States, residing at Raleigh, in the county of Wake, State of North Carolina, have invented certain new and useful Improvements in Boots and Shoes, of which the following specification is a full, clear, and exact description.

This invention relates to the manner of securing the sole to the upper, and has special reference to boots and shoes in which a welt is used.

Hand-sewed boots and shoes, as ordinarily made, have a welt stitched to the upper and insole by stitches which pass obliquely through the thickness of the insole, so that they do not appear on top, and then the outer sole is sewed to the projecting edge of this welt, which extends from the heel all around the front of the shoe. Boots and shoes thus made are flexible and comfortable to wear; but they are not so strong as and are much more expensive than cabled or nailed shoes, which have the outsole, upper, and insole united by cable-screws, nails, and other like fastenings passing through the outsole, upper, and insole. In this latter class of shoes a welt or middle sole is usually dispensed with.

An intermediate class of shoes has been made in which a middle sole or welt extending only to the shank has been employed. In shoes of this class the shank has been secured by fastenings which pass through the outsole, upper, and insole, while at the front of the shoe the welt or middle sole is sewed or otherwise fastened to the upper and insole and the outsole is sewed to the edge of the welt or middle sole. Several varieties of this shoe have been devised, with the object, principally, of making a welted shoe sewed by machinery, the stitches passing from top of the insole to the bottom of the welt or middle sole, or being sunk in channels or covered by channel flaps.

The present invention is more particularly designed for making boots or shoes by hand, although it may be applied, at least in part, to machine-made goods.

The object is to produce economically a boot or shoe having a degree of strength and durability combined with comfort not found in boots or shoes heretofore made.

To this end the invention consists in a boot

or shoe having a welt of extra width at the toe united to the upper and insole at the ball of the shoe by an in seam composed of two short rows of fastenings, (one row on each side of the shoe,) and specially by such an in seam composed of oblique or lateral stitches, such as used in the in seam of hand-sewed shoes, and secured at the toe by cable-screws, nails, or other fastenings, which pass through the outsole as well as through the welt or middle sole, upper, and insole. The shank is similarly secured by cable-screws or the like, except that the welt extends or may extend only to the front of the shank, and is or may be therefore absent at the shank itself. The edges of the outsole and welt are stitched together. Thus the outsole is fastened to the upper and insole indirectly through the intermediary of a welt at the ball of the shoe, so as to give flexibility at that point; but on both sides of the same—namely, at toe and shank—it is fastened directly to the upper and insole. It is necessary to make the welt wider at the toe than in the ordinary hand-sewed shoe, in order to give a strong hold to the cable-screws, nails, or like fastenings at that point. The extra width of the welt also facilitates lasting. Ordinarily the welt is not lasted to the insole, but is applied to the upper as the sewing of the in seam proceeds. The ball of the shoe is made more secure by the mode of fastening the welt at the toe. The shoe has substantially the strength and durability of a cabled shoe, although nearly or quite as comfortable as a welted and sewed shoe. Moreover, as the foregoing construction dispenses with about two-thirds of the sewing, which in the ordinary welted shoe is employed to attach the welt to the upper, the improved shoe can be made much more cheaply.

It may be here observed that some shoes having ordinary welts and sewed at the toe have afterward been nailed to give them strength; but this plan is more expensive than that of the present invention, and will not accomplish the same result, because (for one reason) if the nails were to be driven close to the toe through the upper and welt, which is required to give strength, they would be apt to cut the threads which fasten the welt, and make the shoe worse than it was at first.

The following is a description of what is

considered the best mode of applying the principle of the invention, reference being had to the accompanying drawings, which form a part of this specification.

5 Figure 1 is a bottom view of a shoe constructed in accordance with the invention, the heel being omitted and one-half the outsole removed; and Figs. 2, 3, and 4, cross-sections on lines *x x*, *y y*, and *z z* of Fig. 1, respectively, 10 the full width of the outsole being shown.

A is the upper; B, the insole; C, the welt; D, the outsole, and E a shank-stiffener.

To make the shoe, the upper A is lasted over the insole B, as usual, the welt C (which 15 is preferably crimped at the toe of the shoe or center of the welt and is there left wider than at the ends) is placed on and temporarily secured at the toe by lasting-tacks. Then the welt is sewed to the upper and insole by the 20 short rows of stitches F, one row on each side the ball of the foot, the stitches being made by the use of the curved awl and passing through the thickness of the insole entirely below the upper surface. These stitches are 25 omitted at the toe, so that the inseam is discontinuous and occurs only at the ball of the foot. Preferably the upper and welt are allowed to extend at the toe inward beyond the line of the inseam, as shown. The shank-stiffener E having been applied and tacked, 30 the outsole D is applied and fastened by a row of cable-screws, G, around the toe, practically in the line of the inseam, but extending through

the outsole as well as through welt, upper, and insole, so as directly to fasten them together, and a second row, H, at the shank and heel. These screws or fastenings pass through the outsole D, the upper A, and insole B, and at the toe through the welt C also. The outer edge of the welt is then stitched to the outsole 40 by the line I of stitches put in either by hand or by machine. The shoe is finished in any ordinary or suitable way.

It is obvious that modifications may be made in details without departing from the spirit of 45 the invention, and that parts of the invention may be used separately.

I claim the new improvements described, namely:

A boot or shoe provided with a welt of extra width at the toe united to the upper and insole at the ball of the shoe by an inseam in two parts, one on each side of the shoe, and secured at the toe by fastenings which pass through the outsole as well as the welt, upper, 55 and insole and fill the gap between the two parts of the inseam, the fastenings at the shank of the shoe passing through the outsole, upper, and insole, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses. 60

WILLIAM H. WETMORE.

Witnesses:

JOHN T. PULLEN,
SAM. C. WHITE.