(No Model.)

H. WOODING.

SOLE.

No. 481,682. Patented Aug. 30, 1892.

Fig. 4

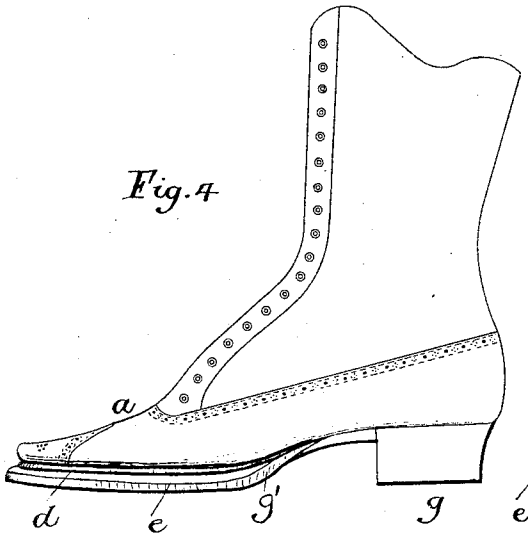


Fig. 3

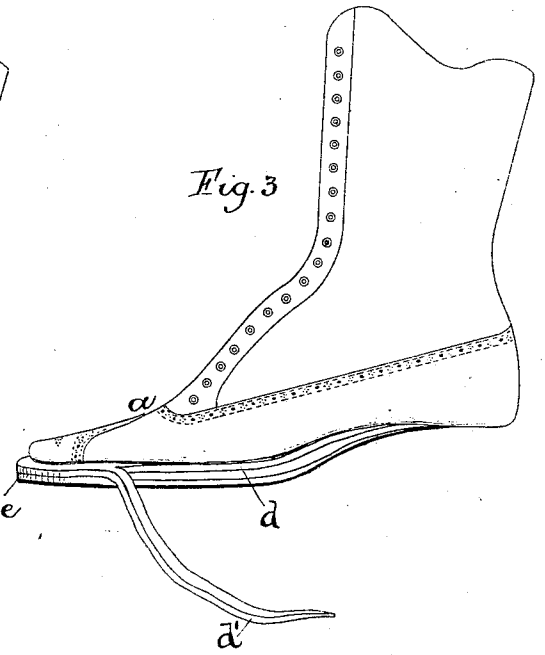


Fig. 2

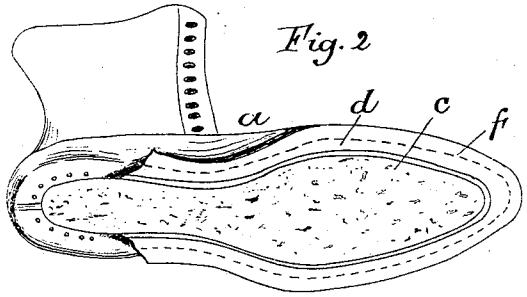
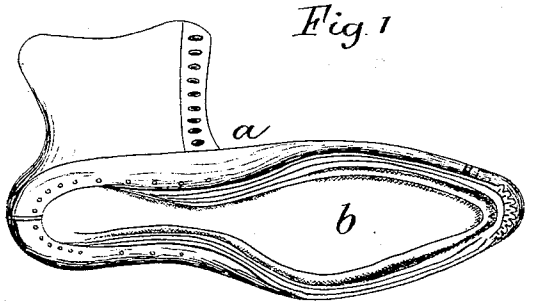


Fig. 1



Witnesses:
Claude Kesler.
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Inventor.
Henry Wooding.
By John J. Halsted & Son
his Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY WOODING, OF NORTHAMPTON, ENGLAND.

SOLE.

SPECIFICATION forming part of Letters Patent No. 481,682, dated August 30, 1892.

Application filed March 1, 1892. Serial No. 423,420. (No model.)

To all whom it may concern:

Be it known that I, HENRY WOODING, boot and shoe manufacturer, a subject of the Queen of Great Britain and Ireland, residing at Pytchley Street, Northampton, in the county of Northampton, England, have invented certain new and useful Improvements in the Manufacture of Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

Heretofore it has not been found practicable to produce boots and shoes sewed by machinery with rand-cork resembling that produced by "hand-made" means.

My invention has for its object the manufacture of a welted boot or shoe produced by a welting-machine, such, by preference, as the "Goodyear" welting-machine, (a machine well known in the trade by that name,) and having a rand-cork presenting the same appearance as the rand-cork of a boot or shoe of "hand make," while provision is afforded for the proper introduction of a layer of cork or equivalent damp-resisting material between the inner sole and the outer sole. The "upper" leather is attached to the "inner" sole in usual or convenient manner, and I then sew thereto a double welt at one operation, so that the one half thereof may be removed by cutting away, thereby forming a rand-cork, leaving the remaining half for usual attachment to the outer sole to inclose the "waterproof" or damp-resisting interposed surface.

My invention consists in combining, in a welted boot or shoe, with the upper, the inner sole, the damp-proof filling, and the outer sole of a double welt, all of such parts being secured by a single line of stitching and having the edge of the "lower" welt trimmed off to form a rand and the projecting welt sewed to the outer sole, as will presently be more fully described.

Figure 1 of the accompanying drawings shows an under side view of a boot-upper attached to an inner sole in usual manner and ready for welting. Fig. 2 is a like view of the prepared upper and inner sole with the "double" welt sewed thereto and the hollow space left within the line of welt and above the inner sole filled with damp-proof matter, here indicated as cork. Fig. 3 is a side view of a boot-upper with double welt having its inner or lower half welt or lower welt partially removed by cutting to form the rand-cork appearance desired. Fig. 4 shows such a boot when finished and heeled as may be produced by the described method.

a is the upper leather and lining.

b is the inner sole.

c is the cork filling.

d is the inner or lower welt as it rests on the "last" in manufacture, and *e* is the outer or upper welt.

f indicates the threads of the sewing attaching the double welt to the upper and to the inner sole.

d' in Fig. 3 indicates a portion of the waste being severed from the inner or under welt *d'*, leaving only a slightly-projecting portion thereof showing beyond the upper leather.

g is the heel, and *g'* the outside, amalgamated with the other parts into a complete boot. The superfluous material *d'* will be removed by means of a knife of usual or convenient form.

Although I have shown a boot, it will be clear that a shoe will be made up, so far as regards the present invention, in like manner, and although I have indicated the rand-cork as extending from heel to toe it may extend any lesser distance that may be preferred by simply employing shorter welts than the length indicated in Fig. 2 or any convenient length.

In practice I find the double welt to be best attained by two single welts being superposed one over the other and secured by usual sewing through the combined two welts and the parts they are thereby attached to, as a double welt attained by means of a thick welt split and having its upper edge pared away to produce the "rand" leaves a welt for attachment to the outer sole generally insufficiently strong for the best results.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

In a welted boot or shoe, the combination, with the upper, the inner sole, the damp-proof

filling, and the outer sole, of the double welt, all of said parts being secured by one line of stitching and having the edge of the lower welt trimmed off to form a rand and the projecting welt sewed to the outer sole, substantially as set forth.

In testimony whereof I, the said HENRY WOODING, have hereunto set my hand this 15th day of February, 1892.

HENRY WOODING.

Witnesses:
GEORGE JAMES DAVIS,
GEORGE WILLIAM THOMAS BAILEY.