No. 870,760. PATENTED NOV. 12, 1907.

W. D. BAKER.

REINFORCED LAST FOR BOOTS AND SHOES.

APPLICATION FILED JULY 5, 1907.

FIG. 1

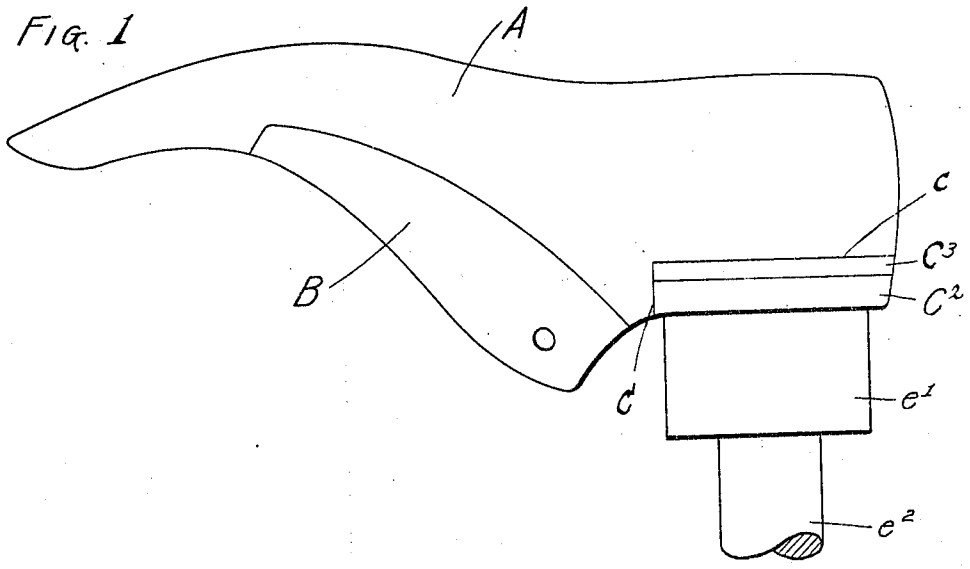
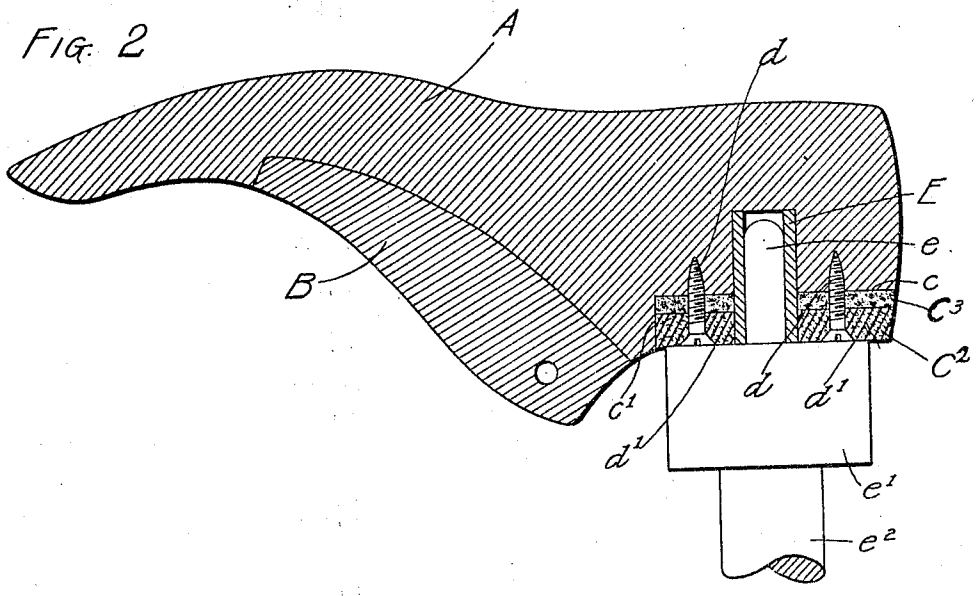


FIG. 2



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REINFORCED LAST FOR BOOTS AND SHOES.

No. 870,760. Specification of Letters Patent. Patented Nov. 12, 1907.

Application filed July 5, 1907. Serial No. 382,138.

To all whom it may concern:

Be it known that I, WINTHROP D. BAKER, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Reinforced Lasts for Boots or Shoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in lasts used in the manufacture of boots and shoes, and it has for its object to so construct and protect a wooden last that it can be used during the heeling operation.

In the manufacture of boots and shoes it is very desirable to be able to attach the heels thereto without removing therefrom the wooden last upon which the shoe has been lasted, and upon which it has been supported and shaped during the operations incident to its manufacture up to the heeling operation, and the consequent re-lasting of the shoe after the attaching of the heel causes a distortion of the upper and sole of the shoe, which is objectionable, and the labor incident to the withdrawal of the wooden last and the subsequent re-lasting adds to the cost of production. The result is that many attempts have been made to reinforce and strengthen the heel portion of wooden lasts so that they may be capable of withstanding the tremendous pressure incident to the attaching of the heel and the proper compression of the heel and toplift.

It has been found impracticable to use the ordinary wooden last, for the reason that there is considerable play between the spindle of the jack of the heeling machine and the thimble of the last, and therefore the last is liable to tip while under compressive strains, thus producing torsional strains between the jack spindle and the last, which frequently splits the last at the heel portion. Furthermore, the metallic block which supports the spindle of the jack of the heeling machine cuts into the fibers of the wood and destroys the surfaces of the last in contact therewith.

The object of the present invention, therefore, is to provide a pressure receiving cushioning protective plate to be secured to a wooden last at the comb portion thereof, and thus protect the last from splitting and from being injured by the block of the heeling machine.

To the above ends my invention consists of the improved last which will be hereinafter described and particularly pointed out in the claims.

My invention is illustrated in the accompanying drawing, in which:—

Figure 1 shows in side elevation a last embodying my invention mounted upon the jack of a heeling machine, a portion only of the jack being shown. Fig. 2 shows a longitudinal sectional view through the last and showing the upper part of the jack in elevation.

Similar reference characters will be employed throughout the specification and drawing to designate corresponding parts.

In the drawing A represents a wooden last of any usual or preferred construction, and provided with the usual instep block B.

C represents my improved protective cushioning comb plate which is inserted in a recess in the upper or comb part of the last A, formed by cutting away the last upon the lines c and c'.

My improved protective cushioning plate is formed of two parts, an outer part C^2, formed of some hard and substantially incompressible material, preferably a fibrous material, such as vulcanized fiber, and a cushioning part C^3, preferably formed of sole leather. The parts C^2 and C^3 will be fashioned to conform to the sides and rear end of the last at the comb portion and will be snugly fitted within the cut-away portion, as shown, and securely fastened therein in any suitable manner, as by means of the screws d, the heads of which will be received in countersunk recesses d'. The last will preferably be provided with a metallic thimble E, arranged to receive the spindle e projecting upwardly from the block e' of the jack e^2.

It will be noted from an inspection of the drawing that when the last is in position upon the jack, the comparatively hard fibrous pressure receiving block is in direct contact with the block e' of the jack and that the pressure incident to the attaching of the heel will be transmitted by the protecting plate over a considerable area and through the cushioning layer, and that no matter how small the jack block may be with relation to the comb of the last, the pressure cannot be localized; thus the last is protected and prevented from chipping off along the comb and is adapted to withstand the great pressure incident to the heeling operation.

Having described the construction and mode of operation of my invention I claim and desire to protect by Letters Patent of the United States:—

1. A wooden last for boots or shoes provided with a recess at the comb portion and with a protective cushioning plate fitted in said recess, said cushioning plate comprising an outer layer of fibrous substantially incompressible material and an under layer of cushioning material, substantially as described.

2. A protective comb plate for wooden lasts comprising

an outer layer of fibrous substantially incompressible material and an under layer of cushioning material secured thereto and having its sides and rear end shaped to conform with the sides and rear of a last at the comb portion thereof, substantially as described.

3. A last provided at its comb portion with a protective cushioning plate comprising an outer layer of fibrous substantially incompressible material and an under layer of cushioning material and means for attaching said protective plate to the comb of a last, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses.

WINTHROP D. BAKER.

Witnesses:
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MARY AVENIL KENNEY.