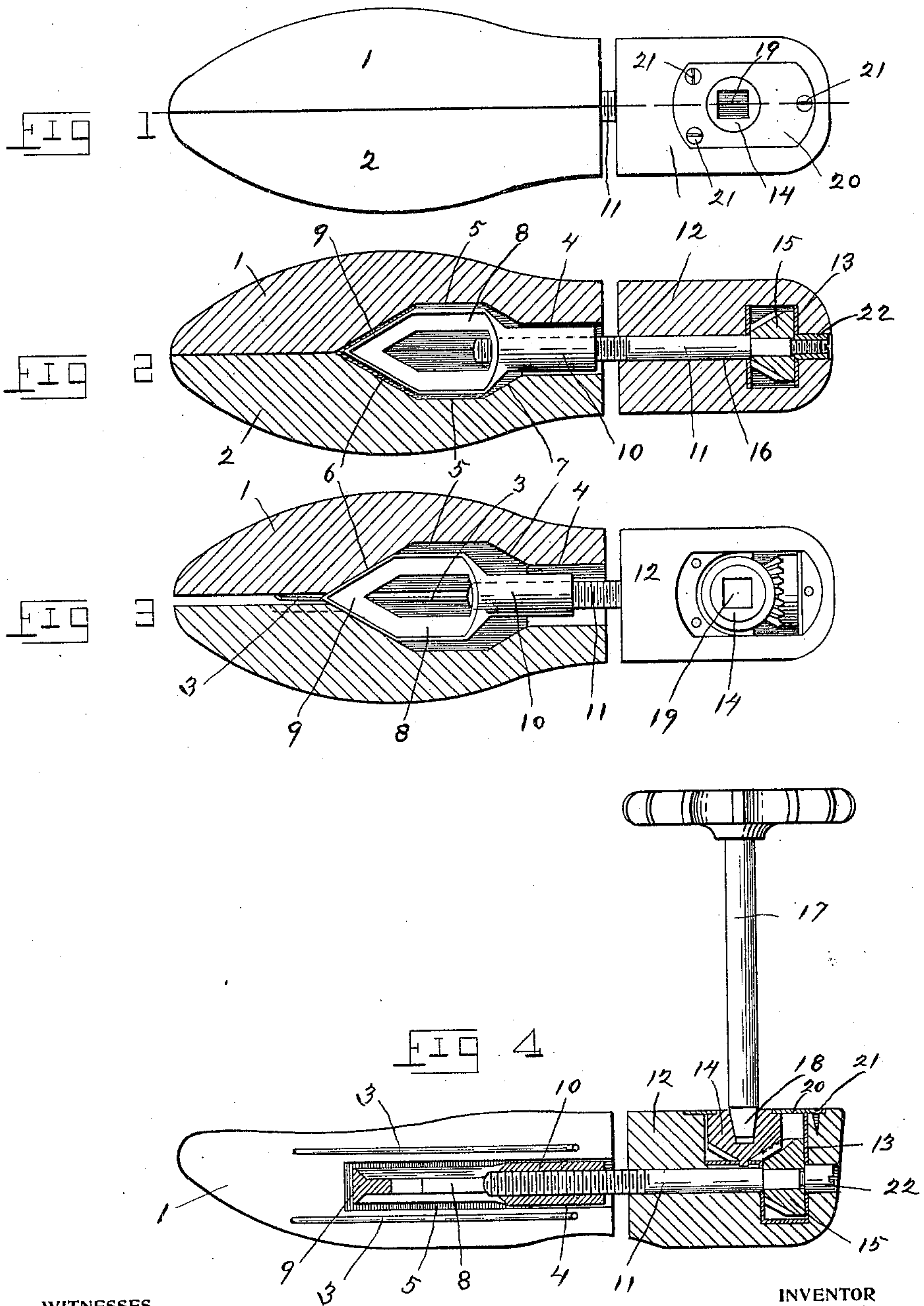


J. HEUYARD.
 REPAIRING AND STRETCHING LAST.
 APPLICATION FILED JUNE 13, 1910.

999,306.

Patented Aug. 1, 1911.



WITNESSES
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JOSHUA HEUYARD, OF TERRE HILL, PENNSYLVANIA.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSHUA HEUYARD, a citizen of the United States, residing at Terre Hill, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Repairing and Stretching Lasts, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a boot last and stretcher, of that class which is intended for repair work as well as for stretching the shoes.

The objects of the invention are to provide a stretcher and last of this kind that is so constructed and operated that the shoe is stretched evenly from the toe to the heel—as the two halves of the last are forced apart in a parallel manner to each other.

Another object of the invention is to provide a last and stretcher of this class that will be cheap, durable, effective, and contain few parts.

With these and other objects in view, my invention consists in certain construction and combination of parts as will hereinafter be fully described and claimed and illustrated in the accompanying drawings, which form a part of this application, and in which like figures of reference refer to corresponding parts in all of the views; but it is fully understood that while I have here described my invention as shown, that I do not confine myself to the exact design as shown, as slight changes may be made in the construction and arrangement of the several parts without departing from the spirit of the invention.

In the drawings:—Figure 1, is a top plan view of my improved combined last and stretcher. Fig. 2, is a longitudinal horizontal sectional view. Fig. 3, is a sectional view of the last, showing the same open, and the heel block with the gear case cap removed. Fig. 4, is a longitudinal vertical sectional view, showing the working parts.

Referring to the drawings, the last is formed of two halves 1, and 2, which are held together in a flexible manner by the wires 3, which have one of their ends secured to one-half of the last, and the other end secured to the other half of said last, and normally retain said halves in contact

with each other. Each of the halves or movable members 1, and 2, has the inner or abutting face provided with a longitudinal-extending groove 4, which extends from the rear end of and terminates at a point removed from the forward end of the members. The groove 4, near the center, is formed with an enlarged portion 5, which has the tapered or beveled ends 6, and 7.

Mounted in the groove 4, and enlargement 5, is a sliding member 8, which is formed with the wedge-shaped forward end 9, and the tubular rear end portion 10, which is screw-threaded to engage the forward end of the shaft 11.

Within the heel block 12, is mounted a gear case 13, within which is contained the bevel gears 14, and 15. The gear 15, being secured upon the rear end of the shaft 11, which extends through the hole 16, in said heel block 12. The bevel gear 14, being adapted to rotate the gear 15, and shaft 11, by the action of a detachable wrench or key 17, which is provided with a squared end 18, for engaging a squared hole 19, in the top of said gear 14. Said gear case 13, being retained within said heel block 12, by the plate 20, and screws 21, and also by the threaded collar 22, which is secured upon the end of the shaft 11.

The device, in a closed position, having been inserted into the shoe, and the key then operated to revolve the gears, the last is first moved away from the heel until the toe of the last has reached the toe of the shoe, when the last and heel cannot be further separated, but as the member 8, is still advanced by the shaft 11, its forward wedge-shaped end 9, engages and slides upon the beveled grooves of the last, thus forcing the halves of the last apart from each other, and as the two halves of said last are flexibly joined together they will exert an even stretch upon the shoe.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

The herein described repairing and stretching last comprising a heel section, a last section formed of two halves having registering recesses therein, a spreader mounted within the said recesses, means upon the heel section for reciprocating the spreader within the recesses, and a wire

binder extending longitudinally between the halves of the last section, one end of the wire binder being secured to one of the halves toward the front of the last section,
5 while the opposite end of the wire binder is secured to the other half of the last section toward the rear end thereof.

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

JOSHUA HEUYARD.

Witnesses:

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MABEL L. LEFEVRE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
