

(No Model.)

W. WOLFE.
SOLE MACHINE.

No. 460,494.

Patented Sept. 29, 1891.

Fig. 1.

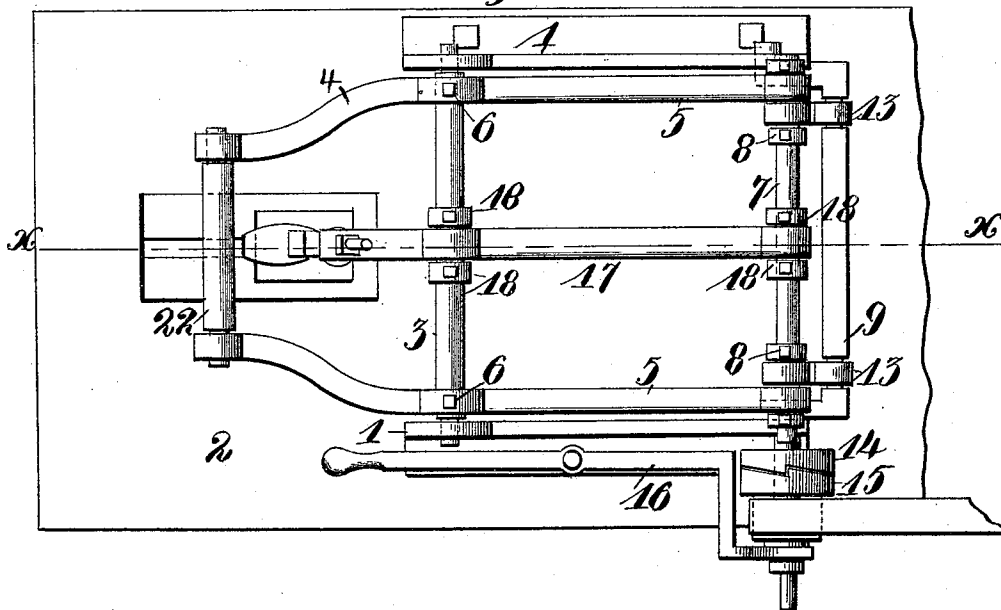


Fig. 2.

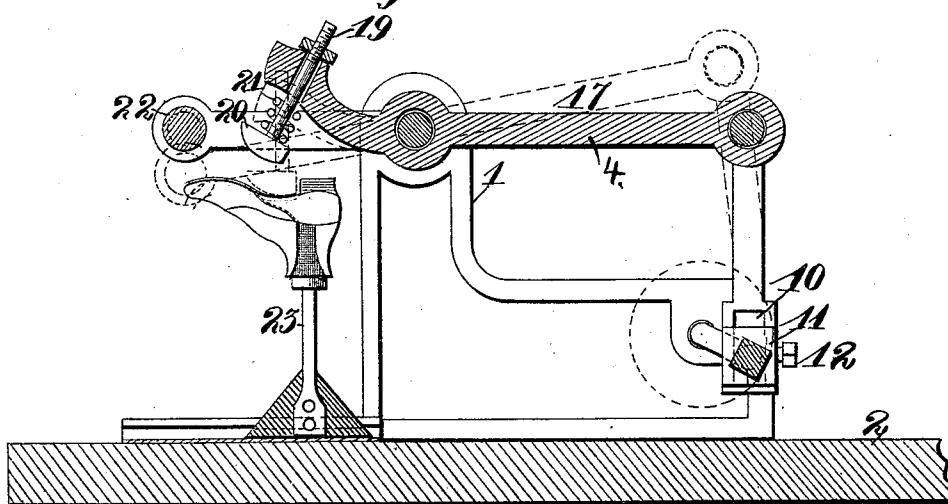
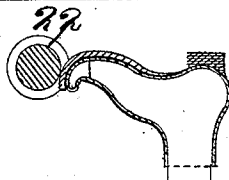


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM WOLFE, OF ST. LOUIS, MISSOURI.

SOLE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 460,494, dated September 29, 1891.

Application filed March 14, 1891. Serial No. 385,020. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WOLFE, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Machines for Breaking and Flexing Soles on Boots or Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in machines for breaking and flexing soles on boots or shoes; and it consists in the novel arrangement and combination of parts, as will be more fully hereinafter described, and designated in the claim.

In the drawings, Figure 1 is a top plan view of my complete invention. Fig. 2 is a vertical cross-section taken on the line *xx* of Fig. 1; and Fig. 3 is a longitudinal section of a shoe, showing the same being acted upon by the mechanism embodied in my invention.

The object of my invention is to construct a device for breaking, flexing, and making pliant the soles of boots or shoes after the same have been manufactured. Heretofore this object has been accomplished and achieved only by the agency of the hands, which necessarily involved a great degree of physical energy.

Referring to the drawings, 1 indicates the side plates in which part of the operative mechanism of my device is mounted, as will be more fully hereinafter set forth. Said side plates are adapted to be secured to any suitable support or frame-work, the same designated as 2. Interposed between said plates and pivotally secured between the same by means of a shaft 3, is a rocking frame 4, the same being approximately clevis-shaped and consisting of slightly-curved pieces 5. Said pieces 5 are rigidly mounted upon shaft 3, and held in such a position by thumb-screws or set-screws 6. The rearward portions of said pieces 5 are connected together by means of a similar shaft 7. Said shaft is loosely mounted in said pieces and held in a proper location by means of adjustable collars 8.

9 indicates a crank-arm, which is pivotally secured in the said plates 1. The connecting-rods 13 are provided with vertically-elongated

slots 10, in which adjustable bearings 11 are located, and in said bearings said crank-arm 9 is directly mounted. Said bearings 11 are held in the desired adjustment by means of set or thumb screws 12. Shaft 7 and crank-arm 9 are pivotally secured together by means of rods 13. Said frame-work 4 is, however, free to rock or move on the supporting-plates 1, said movement being effected by turning and operating crank-arm 9, as can be readily perceived by referring to Fig. 2. Said crank-arm may be rotated by means of a crank, or a belt may be applied to a belt-pulley secured to the same, as shown in Fig. 1. Said crank-arm 9 is provided with a ratchet-disk 14, which ratchet-disk is adapted to engage with a similar disk 15. Said disk is operated and thrown in and out of engagement with disk 14 by means of a lever 16, pivotally secured to any part of the device, as may be desired. Mounted on said shafts 3 and 7 is a curved clamping-bar 17, the same being interposed between adjustable collars 18, located on said shafts. Located in said clamping-bar is an adjustable yielding supplemental clamp 19. Said clamp is provided a shoe 20, and interposed between said shoe and the lower surface of said clamping-bar 17 is a very stiff spring 21. Said supplemental clamp 19 when depressed is adapted to clamp and hold the sole of the shoe in the region of the instep firmly to the last, as can be readily perceived in Fig. 2 in the dotted lines.

Pivotally mounted in pieces 5 is a roller 22, the same being so constructed and located that it will strike the sole of the shoe in the region of the toe or the part back of the same.

23 indicates an adjustable shoe-jack, the same being mechanically secured to support 2 and adjustable to and from the clamping and flexing mechanism, so that the entire sole of the shoe may be subjected to the action of said mechanism.

In using the device I may use any ordinary last; but in order for the same to be adapted for the purpose designed the front portion thereof should be cut away, as shown in sectional Fig. 3, so that the sole may be acted upon and bent downwardly by the flexing mechanism, as shown in said figure.

Having fully described my invention, what I claim is—

In a machine for breaking and flexing soles on boots or shoes, a curved clamping-bar 17,
5 provided with a supplemental clamp 19, the same being provided with a shoe for clamping and holding the sole of the shoe in the region of the ball firmly on the last, and a roller 22 carried by the same mechanism for bending

and flexing said sole, substantially as set forth.

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

WILLIAM WOLFE.

Witnesses:

C. K. JONES.

EDWARD E. LONGAN.