

2 Sheets—Sheet 1.

No. 489,771.

Patented Jan. 10, 1893.

Fig. I.

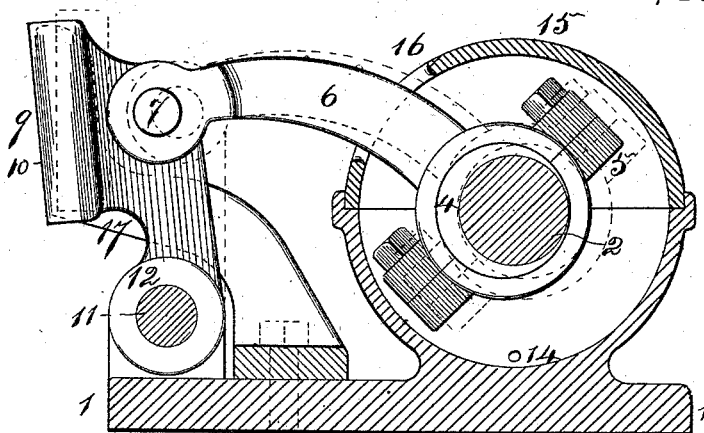


Fig. II.

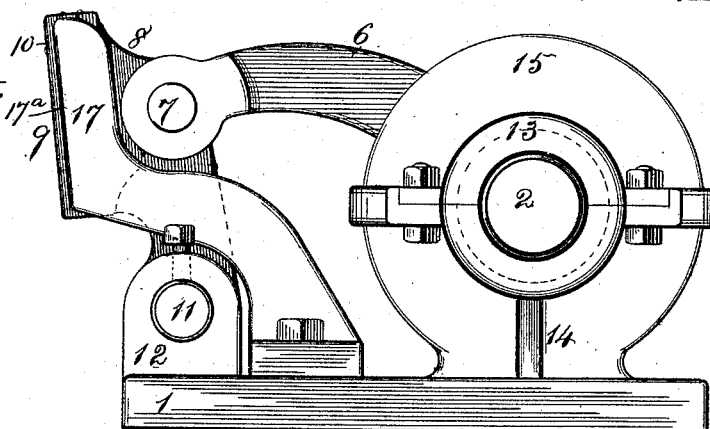
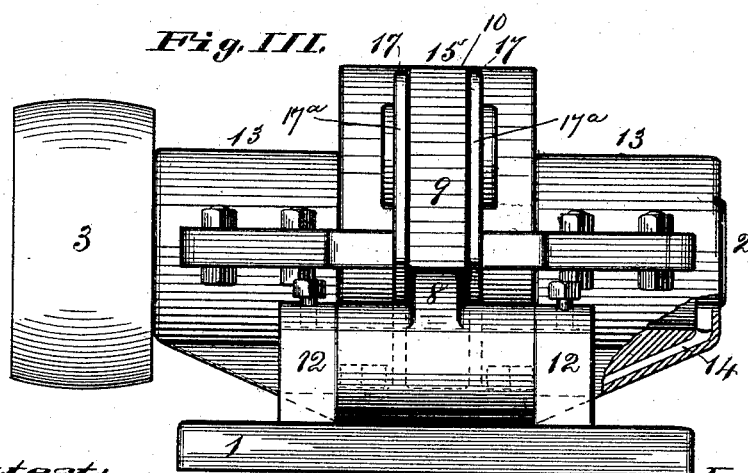


Fig. III.



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(No Model.)

2 Sheets—Sheet 2.

S. A. WEST & F. L. CLARK.
SOLE LEVELING MACHINE.

No. 489,771.

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Fig. IV.

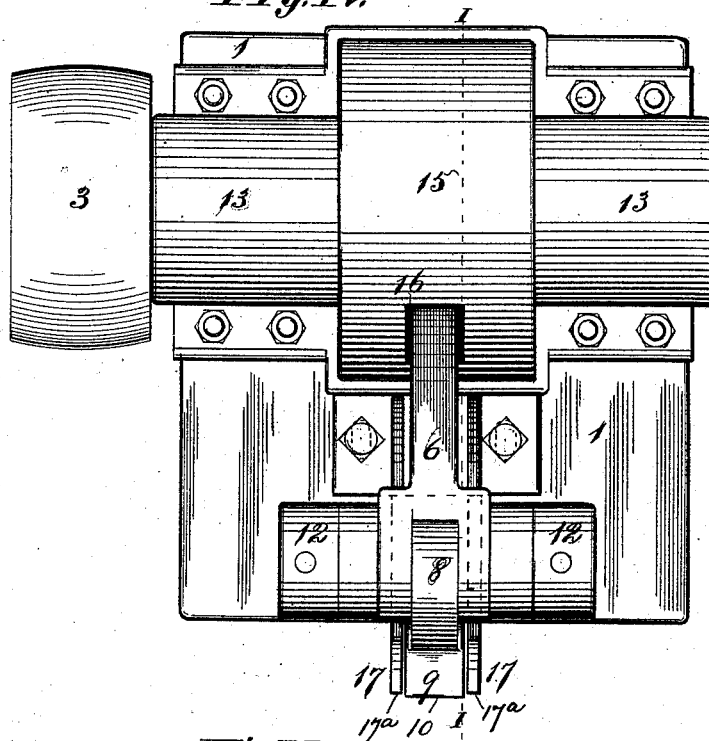
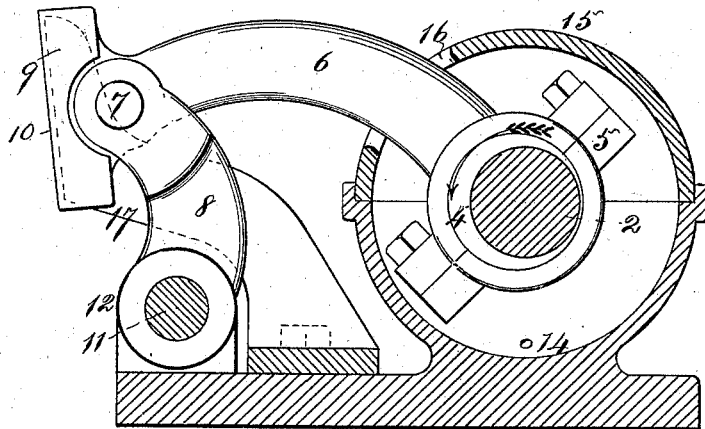


Fig. V.



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UNITED STATES PATENT OFFICE.

STILLMAN A. WEST AND FRED L. CLARK, OF ST. LOUIS, MISSOURI.

SOLE-LEVELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 489,771, dated January 10, 1893.

Application filed December 16, 1891. Serial No. 415,286. (No model.)

To all whom it may concern:

Be it known that we, STILLMAN A. WEST and FRED L. CLARK, both of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Machines for Leveling the Soles of Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This machine has a rapidly reciprocating hammer giving blows in rapid succession to the sole of a shoe while upon the last and held in the hands of the operator.

The novel features will be set forth in the claims.

Figure I is a longitudinal section, taken at I—I, Fig. IV. Fig. II is a side elevation of the machine. Fig. III is a front elevation. Fig. IV is a top view. Fig. V is a longitudinal section of a modified form of the machine.

1 is the base plate of the machine.

2 is a shaft turned by a belt on the pulley

3. The shaft carries an eccentric 4 upon which is a yoke 5 having an arm 6 connected by a hinge pin 7 to an oscillating hammer-arm 8 whose upper part forms a hammer 9 with an upright face 10. The hammer-arm oscillates on a pivot or arbor 11 fixed in standards 12.

The eccentric shaft turns in bearing boxes 13 connected by oil conduits 14 with the interior of a case in which the eccentric yoke revolves. These conduits prevent the leakage of oil at the ends of the eccentric shaft. The eccentric and its yoke are inclosed in a case 15 which has an aperture 16 for the passage of the eccentric arm 6.

17 are rests secured to the base-plate and projecting between the hinge-pin and the pivot or arbor to points adjacent to the hammer, having upright edges 17^a against which the sole bears when the hammer is in rear position, so that the sole receives the sharp concussion of the hammer as it moves forward.

In the modification shown in Fig. V the hammer 9 is made in one piece or integral with the eccentric arm 6, in place of being in-

tegral with the vibrating arm 8 as described in relation to Figs. I to IV; in other respects the construction is the same.

It is quite obvious that a crank or cam could be used in place of the eccentric 4, these devices being well known mechanical equivalents for an eccentric.

A single rest 17, upon one side of the hammer, would be effective for the purpose stated, but two rests are more effective and therefore preferred.

We claim as our invention:—

1. A machine for leveling the soles of shoes by hammering comprising a base-plate, a shaft, an eccentric mounted upon the shaft, a yoke mounted upon the eccentric having a forwardly projecting arm, an upwardly projecting oscillating arm pivoted to the base plate and connected with the forwardly projecting arm, and a hammer upon one of the arms; substantially as described.

2. A machine for leveling the soles of shoes by hammering comprising a base plate, a shaft, an eccentric mounted upon the shaft, a yoke mounted upon the eccentric having a forwardly projecting arm, an upwardly projecting oscillating arm pivoted to the base plate and connected with the forwardly projecting arm, a hammer upon one of the arms, and a rest adjacent to the hammer; substantially as described.

3. A machine for leveling the soles of shoes by hammering comprising a base plate, a shaft, an eccentric mounted upon the shaft, a yoke mounted upon the eccentric, having a forwardly projecting arm, an upwardly projecting oscillating arm pivoted to the base plate and connected with the forwardly projecting arm, a hammer upon one of the arms, having an upright face, and a rest, adjacent to the hammer, having an upright edge; substantially as described.

4. A machine for leveling the soles of shoes by hammering comprising a base plate, a shaft, a forwardly projecting arm, an upwardly projecting oscillating arm pivoted to the base plate and connected with the forwardly projecting arm, a hammer upon one of the arms, and means connected with the

forwardly projecting arm and with the shaft by which the shaft is coupled with the forwardly projecting arm to oscillate the latter; substantially as described.

- 5 5. The combination of the base-plate, the inclosing case having an arm-opening, the shaft, an eccentric upon the shaft, a yoke, upon the eccentric, having an arm, an oscil-

lating arm connected with the yoke, a hammer, and a rest; substantially as described.

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FRED L. CLARK.

In presence of:—
SAML. KNIGHT,
J. M. MAROT.