J. C. WHITE.

ROLLING SEAMS OF BOOTS OR SHOES.

No. 39,515. Patented Aug. 11, 1863.

Fig. 1.

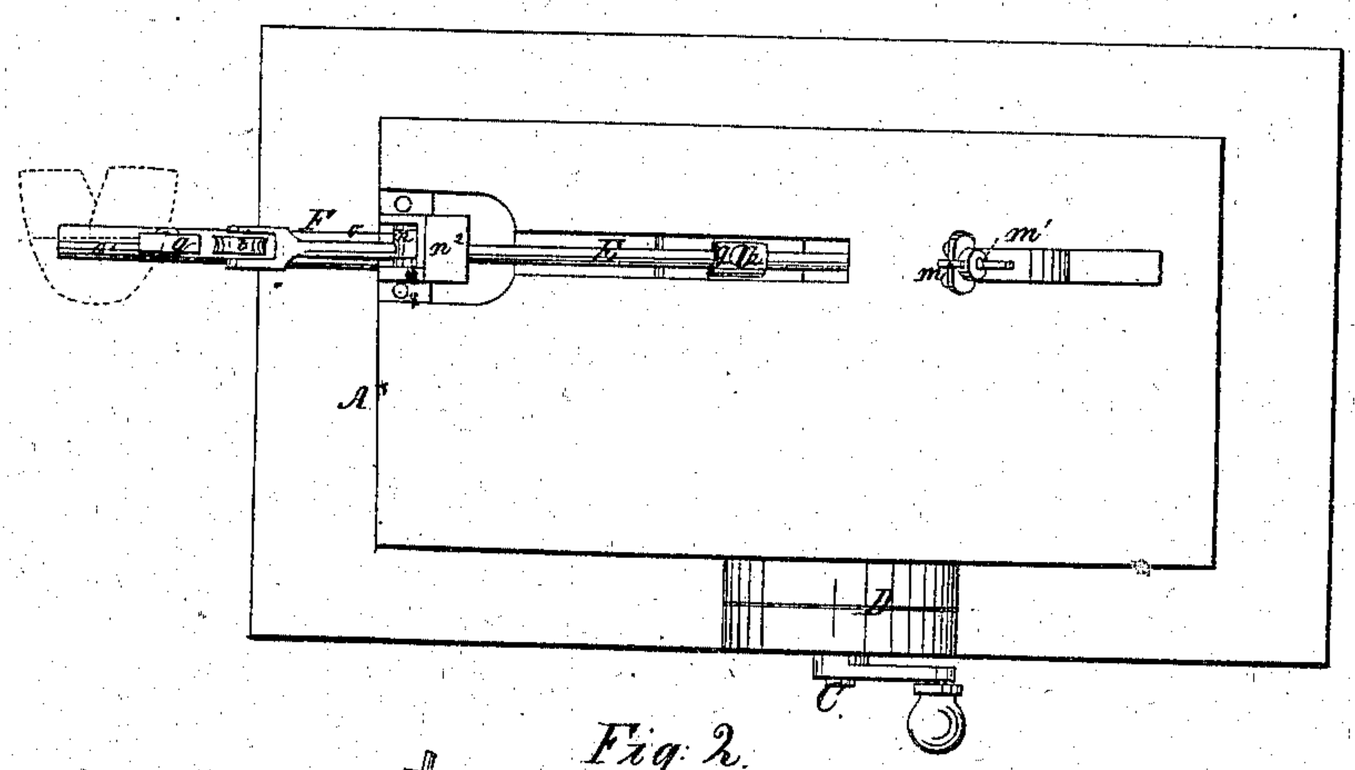
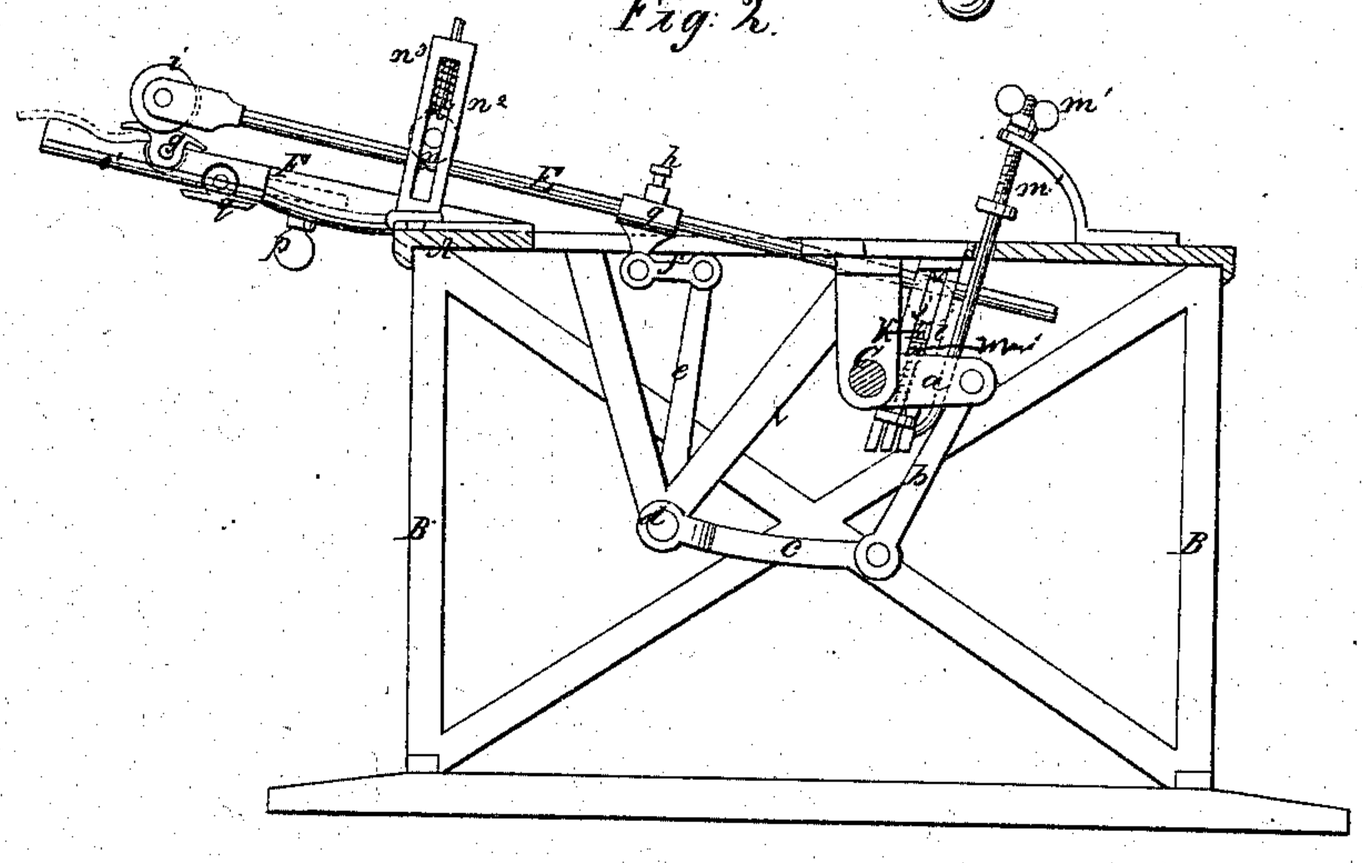


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN C. WHITE, OF AUBURN, NEW YORK.

ROLLING SEAMS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **39,515,** dated August 11, 1863.

To all whom it may concern:

Be it known that I, JOHN C. WHITE, of Auburn, in the county of Cayuga and State of New York, have invented a new and Improved Machiche for Rolling the Seams of Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a plan or top view of my invention. Fig. 2 is a longitudinal vertical section of the same.

Similar letters of reference in both views indicate corresponding parts.

In the manufacture of boots and shoes, particularly of leather or morocco, it is essential, in order to produce good work, to rub the seams well down on the inner side. Up to the present time this operation has been performed entirely by hand, with great exertion and loss of time.

The great object of this invention is to perform the operation of rubbing down or rolling the seams by machinery capable of being driven by other than human-power; and the invention consists in the arrangement of a roller-arm, connected by suitable mechanism with a rotary shaft, and working on a curved or straight bed, which supports the material to be rolled in such a manner that by imparting to the shaft a continuous rotary motion the roller assumes a reciprocating rectilinear motion, traveling repeatedly over the seam on the bed. The bed is adjustable to conform to the shape of different seams, and the pressure exerted by the roller on the seams can be increased or decreased by a simple arrangement of springs.

To enable those skilled in the art to make and use my invention, I will proceed to describe it.

A represents a frame, of metal or other suitable material, which is supported by legs B, and which forms the bearings for a shaft, C, to which a rotary motion is imparted by a belt running on the pulley D, or by any other suitable means. The shaft C carries a crank, *a*, which connects by a rod, *b*, and arm *c* with a rock-shaft, *d*, and this rock-shaft connects by an arm, *e*, and link *f* with a sleeve, *g*, which is adjustable by means of a set-screw, *h*, on the roller-arm E. The outer end of this arm is forked, and forms the bearings for the axle of a grooved roller, *i*, which travels on the bed F, and the rear or inner end of said roller-arm is supported by a grooved roller, *j*, the shaft of which has its bearings on boxes *k*, that slide up and down in slotted standards *l*, suspended from the frame A. The boxes *k* are exposed to the action of springs *m*, the tension of which can be regulated by a screw-rod, *m'*, and nut *m''*. Another roller, *n*, is attached to an axle which has its bearings in boxes *n'*, that slide up and down in slotted standard n^2, rising from the frame A, and said boxes are exposed to the action of springs n^3. The roller *n* acts on the top of the grooved roller *i* in the outer end of the roller-arm, and by referring to Fig. 2 of the drawings it will be readily understood how, by raising the roller *j*, supporting the inner end of the roller-arm, the outer end or grooved roller, *i*, is depressed on the bed F, and by lowering the roller *j* the pressure exerted by the grooved roller on the bed is diminished. The bed F consists of a metal bar, the surface of which is rounded, and which extends in an upwardly-inclined direction from the end of the frame A. The inclination of said bed is steeper than that of the roller-arm E, so that the grooved roller rises gradually as the arm advances, and when said roller has reached its extreme pssition the arm E is parallel with the bed. The bed F is made of two parts, *o o'*, the inner part, *o*, being rigidly attached to the frame A and forming a socket for the outer part, *o'*, and said outer part is so arranged that it can be turned round in the inner part, and that either of its surfaces can be brought under the roller *i*. It is secured in the desired position by a set-screw, *p*, and it is provided with two swivel-clamps, *q*, one on each surface, to hold the leather or other material to be rolled. These swivel-clamps are intended to stand just high enough to admit the seam of a boot or shoe, and they hold the work and prevent the grooved roller from striking the same too suddenly. One surface of the outer part of the bed F is straight, and the other curved, to correspond to the shape of different seams. If desired, the bed can be accommodated to a great variety of seams by substituting pieces of different shapes for the outer part, *o'*.

What I claim as new, and desire to secure by Letters Patent, is—

1. The employment or use of the reciprocating roller-arm E and stationary bed F, when said arm connects by suitable mechanism with the rotary shaft C, or its equivalent, substantially as and for the purpose specified.

2. The arrangement of the adjustable roller *j* and spring-roller *n*, in combination with the roller-arm E and bed F, constructed and operating substantially as and for the purpose set forth.

3. Making the outer part, *o'*, of the bed F adjustable by a set screw, *p*, or other equivalent means, as and for the purpose described.

4. The arrangement of the swivel-clamps *q* in combination with the bed F, constructed and operating in the manner and for the purpose substantially as specified.

JOHN C. WHITE.

Witnesses:
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