2 Sheets—Sheet 1.

W. MANLEY.

Machine for Rubbing the Seams of Boots and Shoes

No. 205,562. **Patented July 2, 1878.**

Fig: 1.

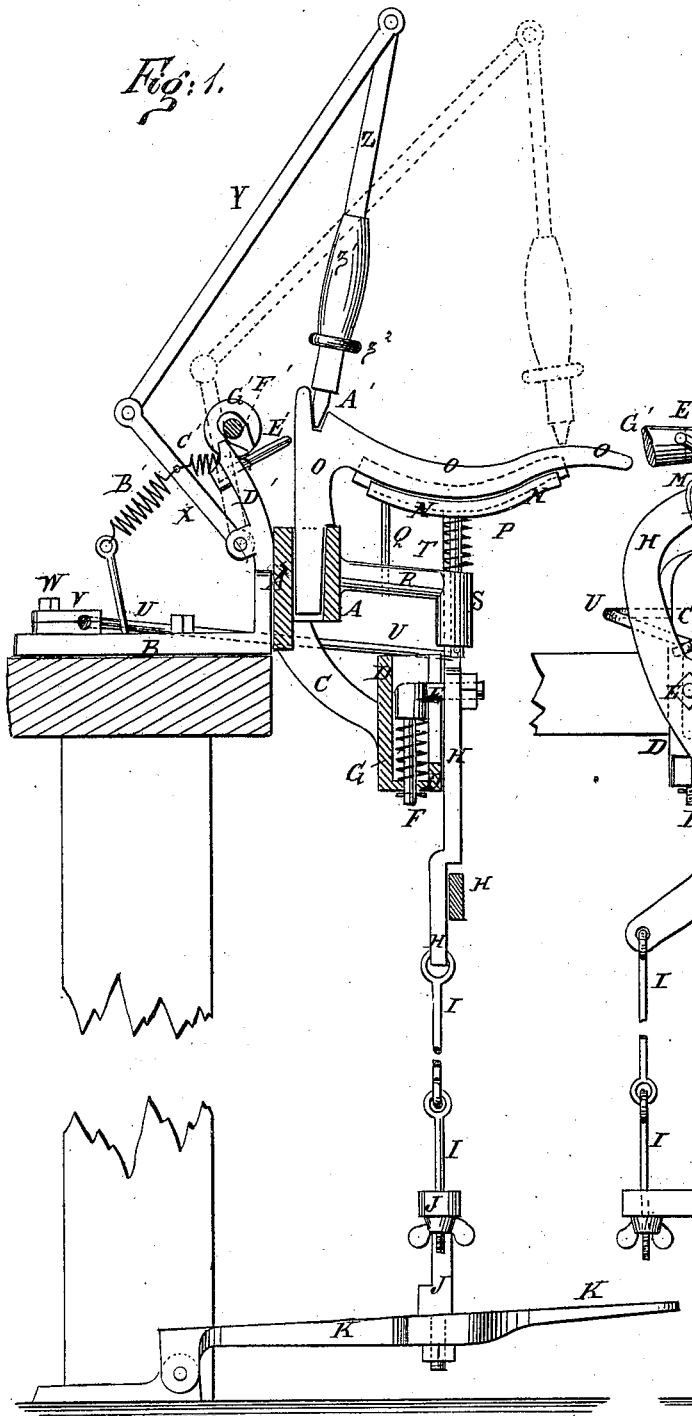
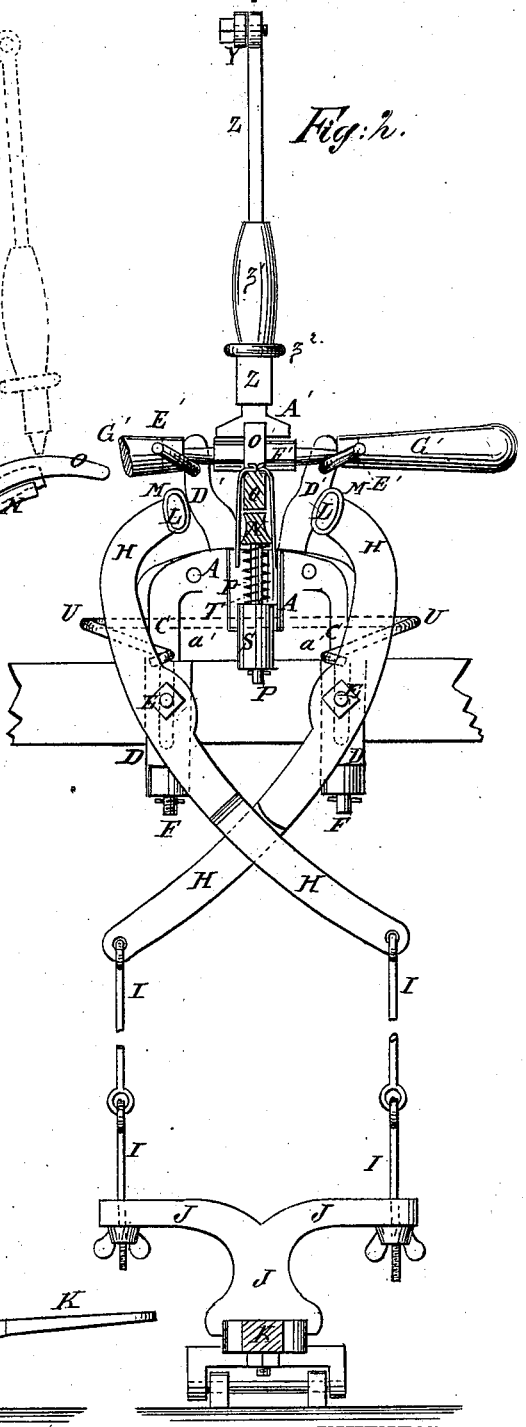


Fig: 2.



WITNESSES:

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Fig. 3.

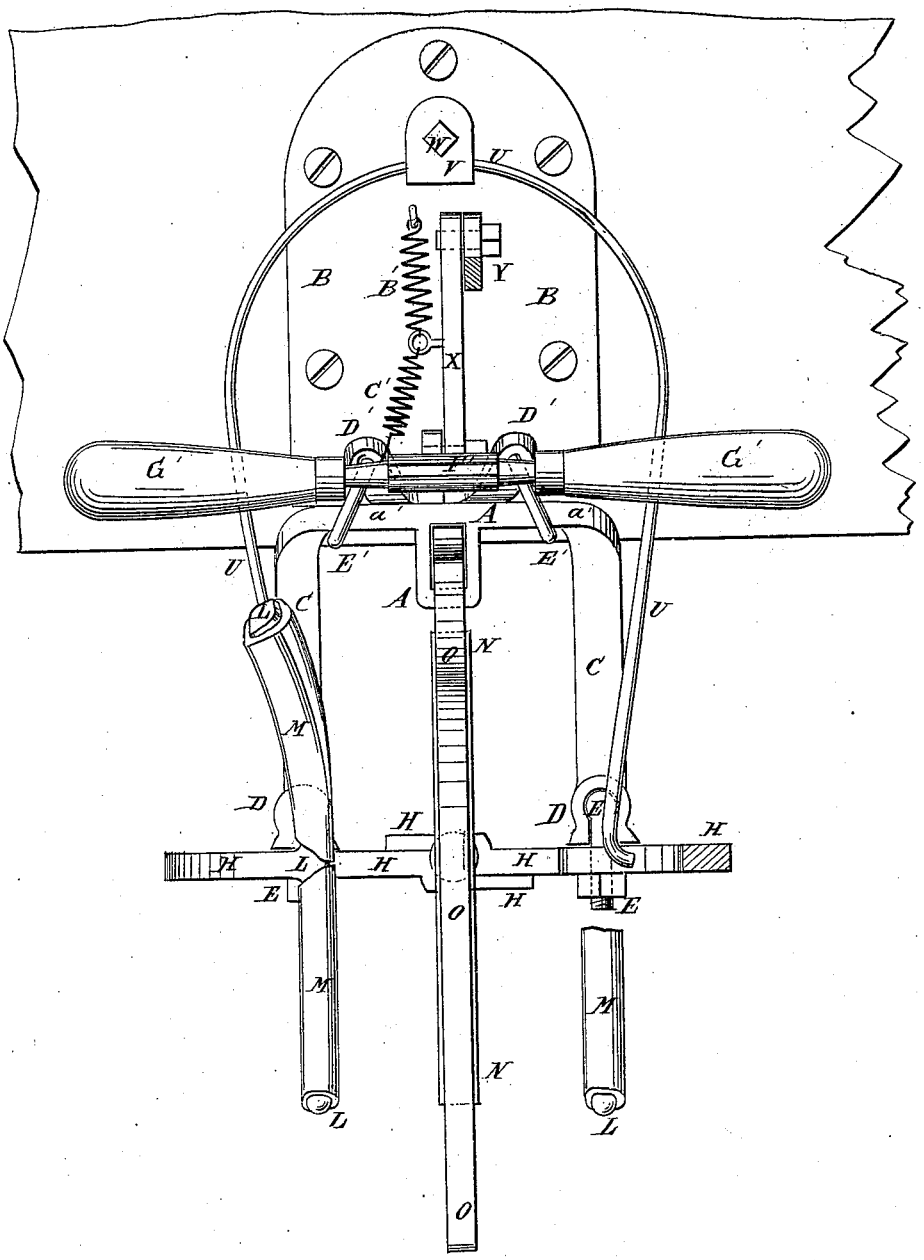
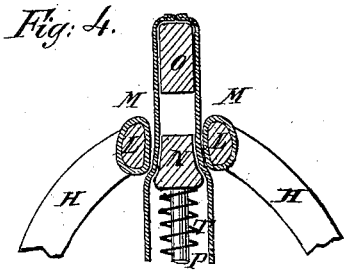


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM MANLEY, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN MACHINES FOR RUBBING THE SEAMS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **205,562**, dated July 2, 1878; application filed May 28, 1878.

To all whom it may concern:

Be it known that I, WILLIAM MANLEY, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Boot and Shoe Seam Rubber, of which the following is a specification:

Figure 1, Sheet 1, is a side view, partly in section, of my improved machine. Fig. 2, Sheet 1, is a front view of the same. Fig. 3, Sheet 2, is a top view of the same. Fig. 4, Sheet 2, is a detail cross-section, showing the manner of clamping an upper to the form.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved machine for holding the uppers of boots and shoes firmly and smoothly while the seams are being opened and rubbed down, which shall be simple in construction and convenient in use, enabling the work to be done quicker and better than when done in the usual way.

The invention consists in the combination of the sockets, the springs, and the guide-pins with the arms that support the clamps and with the bolts that pivot the clamp-bars; in the combination of the cross-head with the single treadle and the two connecting-rods of the two clamp-bars; in the combination of the curved bar, having its sides concaved, the pins, the spring, and the socket and arm with the form, the socket-block, and the clamps; in the two-hand seam-rubber made with one edge thin and flat and the other edge thick and round; in the combination of the arms and the pins with the socket-block, as hereinafter fully described.

A is a socket-block, upon the rear part of which are formed side lugs or flanges *a'*, to receive the bolts by which it is secured to the flange of a bed-plate, B, to enable it to be readily secured to a bench, counter, or other support.

Upon the lugs or flanges *a'* are formed arms C, which are curved downward and forward, and upon the ends of which are formed upright sockets D, having their forward sides slotted to receive the bolts E. The heads of the bolts E move up and down in the sockets D, and to said heads are attached pins F, which pass through holes in the bottoms of said sockets, and have pins passed through them or nuts screwed upon them to keep them in place. Within the sockets D, around the pins F, and below the heads of the bolts E, are placed spiral springs G, to hold the said bolts E up. To the bolts E are pivoted the arms H, the rear parts of which curve inward and have offsets formed in them, so that they may cross each other, while their upper parts remain in the same plane. To the lower ends of the arms H are pivoted the upper ends of the connecting-rods I, the lower ends of which are attached to the ends of a cross-head, J. The connecting-rods I are jointed to give them freedom of movement, and are secured to the ends of the cross-head J by hand-nuts, so that their lengths may be readily adjusted as required. The cross-head J is attached to a foot-lever or treadle, K, which is pivoted to a support attached to the floor. The upper ends of the arms H are curved inward, and upon them are formed the clamps L. The clamps L are slightly curved, and upon their end parts are placed, or to them are secured, rubber tubes, plates, or blocks M, to prevent them from marking or slipping upon the uppers while holding them in place.

The clamps L, when holding the uppers, press them against the sides of the bar N, which is placed beneath the form O, and is curved to correspond with the shape of the clamps L and of the form O. The sides of the bar N are concaved, as shown in Figs. 2 and 4, so that the clamps draw the uppers firmly down on the forms at the same time that the said clamps hold the work securely to the form. To the lower side of the middle and rear end parts of the bar N are attached pins P Q. The pin Q passes down through a hole in the arm R, formed upon the forward side of the socket-block A, to prevent the said bar R from turning. The pin P passes down through the socket S, formed upon the outer end of the arm R, and has a pin passed through or a nut screwed upon its lower end, to prevent it from rising out of the said socket. Upon the pin P, between the socket S and the bar O, is placed a spiral spring, T, to hold the said bar O up.

With this construction, when the uppers have been pressed against the sides of the bar

N by the inward movement of the clamps L, caused by downward pressure upon the treadle K, and the pressure upon the said treadle is continued, the clamps L and bar N will be drawn downward, drawing the upper tightly over the form O, so that its seam can be easily and quickly opened and smoothed down, the said clamps and bar being immediately raised to their former position as soon as the pressure upon the treadle K is withdrawn.

U is a bent spring, the center of which is secured to the bed-plate B by a clamp, U, and bolt W. The ends of the arms of the spring U are bent outward, and rest in recesses in the inner sides of the arms H a little above the pivoting-bolts E, so as to hold the clamps L away from the bar N, except when drawn inward by pressure upon the treadle K.

To the rear part of the socket-block A, or to the flange of the bed-plate B, is hinged the lower end of a bar, X, to the upper end of which is hinged the lower end of a bar, Y. To the upper end of the bar Y is hinged the upper end of the bar Z, upon the lower part of which is formed, or to it is attached, a hand-piece, Z^1, which is grasped by the hand of the operator when rubbing down a seam, and which is provided with a flange, Z^2, at its lower end to prevent his hand from slipping off. To the lower end of the bar Z is attached the seam-rubber A′, which may be made of wood or other suitable material, and which, when not in use, rests in a notch in the upper side of the rear end of the form O.

To the bar X is attached the inner ends of two springs, B′ C′. The outer end of the rear spring B′ is attached to a pin or other support attached to or formed upon the bed-plate B. The forward end of the forward spring C′ is attached to one of the arms D′, formed upon or attached to the socket-block A or the flange of the bed-plate B. The springs B′ C′ give steadiness of motion to the seam-rubber while being used. Upon the socket-block A or the flange of the bed-plate B are formed two arms, D′, to which, near their upper ends, are attached pins E′, to receive and serve as a support for the two-hand seam-rubber F′, to the ends of which are attached handles G′. The seam-rubber F′ is made with one of its edges thin and flat, to better adapt it for opening a seam, and the other edge is made thick and round, as shown in Fig. 1.

The two-hand seam-rubber F′ G′ is designed for use when it is desired to rub a seam harder than can be readily done with the swinging seam-rubber.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination of the sockets D, the springs G, and the guide-pins F with the arms C, that support the clamps H L, and with the bolts E, that pivot the clamp-bars H, substantially as herein shown and described.

2. The combination of the cross-head J with the single treadle K and the two connecting-rods I of the two clamp-bars H, substantially as herein shown and described.

3. The combination of the curved bar N, having its sides concave, the pins P Q, the springs T, and the socket and arm S R with the form O, the socket-block A, and the clamps L, substantially as herein shown and described.

4. The two-hand seam-rubber F′ G′, made with one edge thin and flat and the other edge thick and round, substantially as herein shown and described.

5. The combination of the arms D′ and the pins E′ with the socket-block A, substantially as herein shown and described.

WILLIAM MANLEY.

Witnesses:

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