

F. WINSLOW & J. W. ROGERS.

Shoe-Press Beds.

No. 149,364.

Patented April 7, 1874.

Fig. 1.

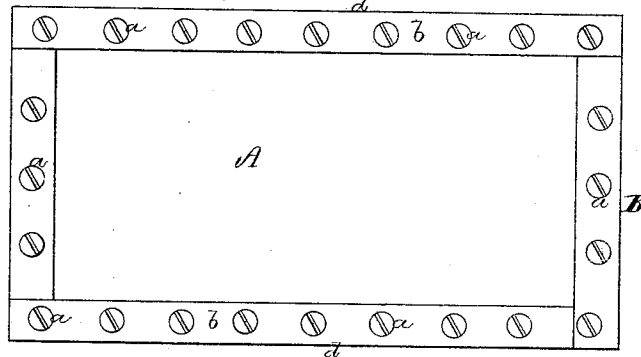


Fig. 2.

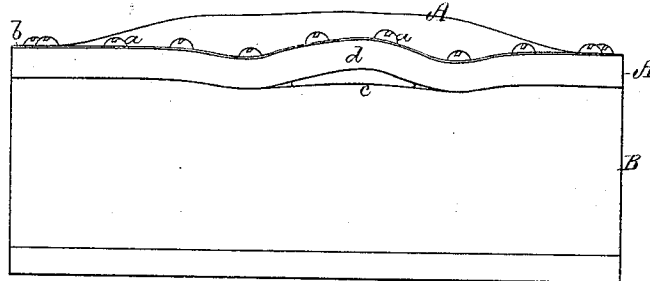


Fig. 3.

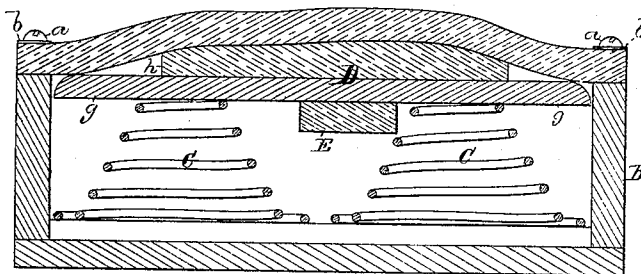
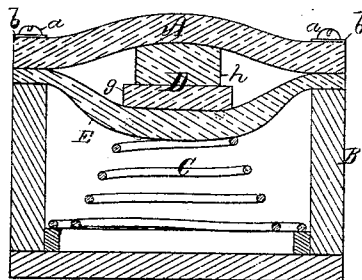


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

FREEMAN WINSLOW AND JOSIAH W. ROGERS, OF SALEM, MASSACHUSETTS.

IMPROVEMENT IN SHOE-PRESS BEDS.

Specification forming part of Letters Patent No. **149,364**, dated April 7, 1874; application filed October 31, 1873.

To all whom it may concern:

Be it known that we, FREEMAN WINSLOW and JOSIAH W. ROGERS, of Salem, of the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Shoe-Press Beds; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, Fig. 3 a longitudinal section, and Fig. 4 a transverse section, of a bed constructed in accordance with our invention.

It is for use in cementing an outer sole to the inner sole and upper of a shoe. Elastic beds for such purposes have generally had flat upper surfaces, and each consisted mainly of a thick plate of india-rubber fixed upon a block or frame. On forcing a shoe down upon such a bed the heel and "ball" portions of the sole to be forced upward into close contact with the insole and overlaps of the upper would first be pressed upon, in consequence of which the shank part of the sole would be drawn straight, and with such tension as to render it very difficult, if not impossible, to bring it closely up to that of the insole, so as to cause it to properly adhere thereto. It is all-important to have the sole firmly cemented at the shank; otherwise it will be very liable, while the shoe is in wear, to there give or break away. It is also all-important to have the cementation commence first along the longitudinal medial line of the soles, and proceed therefrom in lateral directions toward the edges of the sole. In this way the surplus cement, if any, will be driven from the middle of the soles outward to the edge of the outer sole, from whence it may be easily removed. By this process of cementation the cement becomes equally diffused between the surfaces, and in drying dries equally, practically speaking.

In carrying out our invention we make the elastic bed crowning or convex on its top, both longitudinally and transversely, and especially with an auxiliary or additional crown or convexity, which we term the "shank-crown," and we support the thick plate or mass of rubber

composing the elastic cushion of the bed, and impart to it its convex form, by a series of conical spiral springs and a crowning-cap, which operate to crown it or force it upward along its middle.

In the drawings, A denotes the thick plate or cushion of rubber, fastened by screws *a* and metallic strips *b b* down upon the upper edge of a box or hollow frame, B, which frame, near its middle, is, or may be, crowned a little, as shown at *c*, in order to produce in the elastic bed-plate, before it is thrown up by the springs C C and crowning-cap D, a crowning or arched form—that is, to give it what we term the lateral shank-crowns *d d'*—after which the metallic springs C C are to be arranged and applied in the box, and with the crowning-cap D, in manner as shown, so as to cause such cap (formed of a bar, *g*, and a mass of rubber, *h*, fixed on the bar) to force or crown up or render convex, both longitudinally and laterally, as represented, the rubber plate. The springs and crowning-cap not only perform such office, but they suffice to restore the plate to its normal curvature or convexity after each depression of it by a shoe. Extending across the box, and immediately beneath the shank-crowns *d d'*, and underneath the crowning-cap D, is a thick elastic cross band or spring, E, which, secured at or near its ends to the box, serves not only to raise the crowning-cap, but, with the crowns *d d'*, to cause the elastic bed to force or bend up the sole at or near the edges of the shank, in order to cause it to conform to the curves of the adjacent parts of the shank of the insole and upper, while such outer sole is being forced upward toward them.

With an elastic bed so made, a shoe, when lasted, and forced by a press downward upon a sole laid on the said bed, and with cement between such sole and the bottom surface of the shoe, will first have the sole pressed upward at the shank thereof, and next from the shank toward the toe and heel, and next in opposite directions laterally from the medial line of the sole toward the opposite edges of the sole, whereby all parts of the upper surface of the outer sole will be properly brought

into contact with the lower surface of the in-sole and upper, and the surplus cement, if any, will be gradually crowded from the middle of the soles outward toward the edges of the outer sole, a sure fit, and equality of cementation of the parts to be connected, being thus effected. With our improved bed we save all the usual labor of hammering and rubbing down the sole that becomes necessary to obtain a fit of it to the lasted shoe, especially at the shank, after cementation by a plane-surface elastic bed, such as commonly used. We also effect a saving in cement and a stronger fixation of the sole, especially at the shank, and near the edges.

What, therefore, we claim as our invention is—

1. The improved shoe - press bed, made as described, viz., of the frame B, the metallic springs C C, crowning-cap D, and the elastic cushion or plate A of rubber, all arranged substantially as and for the purpose specified.

2. The shoe-press bed, as composed of the frame B, metallic springs C C, crowning-cap D, elastic cross band or spring E, shank-crowns *d d'*, and the elastic cushion or plate A of rubber, all arranged substantially as and for the purposes described, and to operate as explained.

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Witnesses:

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