

(No Model.)

E. E. WINKLEY.
PRESSING FORM FOR SOLE LAYING MACHINES.

No. 573,069.

Patented Dec. 15, 1896.

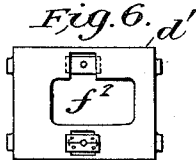
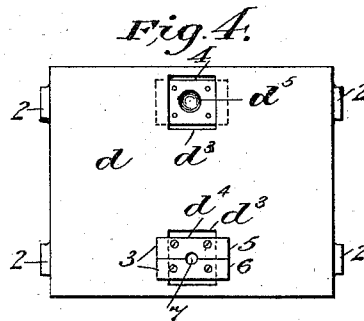
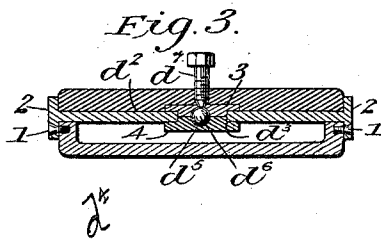
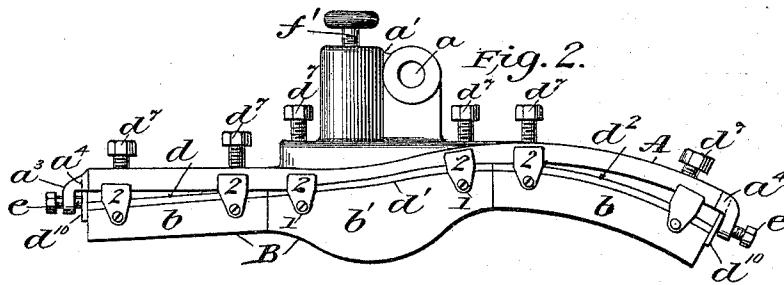
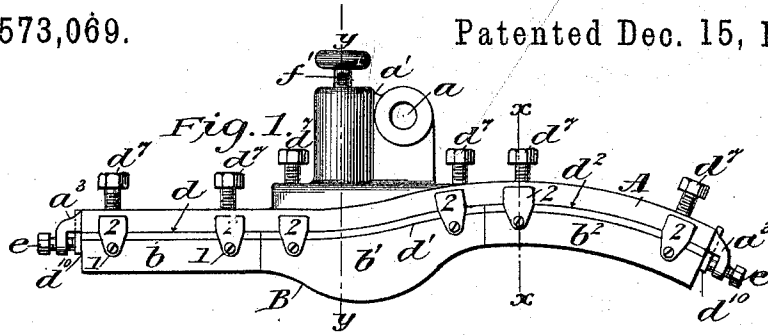
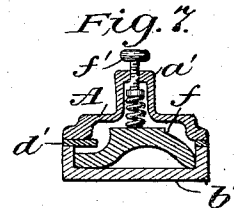
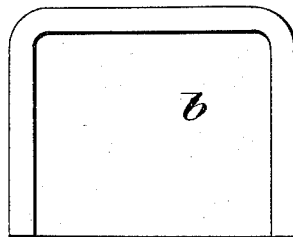


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

ERASTUS E. WINKLEY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE GOOD-YEAR SHOE MACHINERY COMPANY, OF BOSTON, MASSACHUSETTS.

PRESSING-FORM FOR SOLE-LAYING MACHINES.

SPECIFICATION forming part of Letters Patent No. 573,069, dated December 15, 1896.

Application filed February 21, 1896. Serial No. 580,260. (No model.)

To all whom it may concern:

Be it known that I, ERASTUS E. WINKLEY, a citizen of the United States, residing at Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented a new and useful Improvement in Pressing-Forms for Sole-Laying Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

It has heretofore been proposed to construct a pressing-form for sole-laying machines embodying in its structure a pressing-pad composed of a series of independent sections pivotally supported and free to tip longitudinally, (in the direction of the length of the form,) to conform to the shape of the bottom of a last to which the form is applied. The above-suggested arrangement has heretofore been found to be objectionable in that as the independent sections change their longitudinal inclination the position of their adjacent ends changes, so that instead of being substantially in contact with each other, as required to smoothly lay a sole, they become separated or crowded onto each other, so that the sole is creased or otherwise improperly laid.

The object of the present invention is to remedy the objection above noted and to improve and render more efficient other portions of the form; and to such end the present invention consists in providing in a pressing-form a pressing-pad comprising a series of independent sections arranged to tip longitudinally to vary their relative longitudinal inclination and movable longitudinally toward and away from each other to vary their relative longitudinal position, and, further, of the devices and combination of devices hereinafter set forth and claimed.

The present invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a form embodying the same. Fig. 2 is a similar view showing the parts in a changed position. Fig. 3 is a section on line *xx*, Fig. 1. Fig. 4 is a top plan view of one of the supporting-plates which in the preferred form of my invention support the pad-sections. Fig. 5 is a top plan view of one of the pad-sections. Fig. 6 is a

top plan view of the shank-supporting plate; and Fig. 7 is a section (reduced scale) taken on line *yy*, Fig. 1.

Similar letters and figures of reference refer to similar parts throughout the several views.

In the drawings, A represents a suitable support or bed, which may be of any suitable construction, but which I prefer to form of a rigid plate having the general longitudinal contour of the bottom of a last.

The bed A may be secured to the machine by an arbor extending through the bearing *a* in the boss *a'*, or in any other suitable manner.

B represents an elastic pressing-pad, preferably made of rubber or rubber material and comprising a series of independent sections *b*, *b'*, and *b²*. Each of the sections *b*, *b'*, and *b²* is preferably hollow, or, more accurately speaking, the edge-pressing portion thereof is reinforced by an elastic reinforcing-strip. In accordance with the present invention the sections *b b' b²* are suitably supported from the bed A and are arranged to tip longitudinally to vary their relative longitudinal inclination and are movable longitudinally to vary the relative longitudinal position, so that they will conform accurately to the shape of the bottom of the last to which they are applied.

In the preferred form of my invention shown in the drawings I secure the above-described result as follows: The pad-sections *b b' b²* are respectively secured to the supporting-plates *d*, *d'*, and *d²* conveniently by means of the bolts 1 1, extending through suitable bolt-holes in the lugs 2 2 2, &c., on the plates *d*, *d'*, and *d²*. Each of the plates *d*, *d'*, and *d²* preferably corresponds in shape to the portion of the bed B under which it is located. In each of the plates *d*, *d'*, and *d²* I form the longitudinal slots *d³ d³*, preferably centrally located therein and adjacent to opposite ends thereof. To each of the slots *d³ d³* is fitted a block *d⁴*, grooved upon opposite sides to engage the plate in which the slot is formed and free to reciprocate along said slot. Each of the blocks *d⁴* is preferably formed of an upper plate 3 and a lower plate

4, between which is formed a socket d^5 , to which is fitted a ball d^6 . The ball d^6 is secured to the lower end of a threaded bolt d^7 , which is provided with a correspondingly-threaded bearing in the bed A. To permit the ball d^6 to be inserted in the socket d^5 , the upper plate 3 is formed of two sections 5 and 6, the perforation 7, which receives the bolt d^7 , being formed partially in each. The sections 5 and 6 are bolted or otherwise suitably secured to the plate 4 to form the block d^4 . The lugs 2 2 are projected above the plates d , d' , and d^2 , to which they are secured, and engage the sides of the bed A, acting to prevent any lateral movement of the plates d , d' , and d^2 . From opposite ends of the bed A are projected the downwardly-extending lugs a^3 a^3 , through threaded bearings in which extend the correspondingly-threaded bolts e e , the inner ends of which bear against the vertical shoulders d^{10} d^{10} , secured, respectively, upon the supporting-plates d and d^2 .

The above-described arrangement is such that by turning the bolts d^7 d^7 the plates d , d' , and d^2 and the pad-section b , b' , and b^2 carried thereby may be tipped longitudinally and set at any desired angle, and then by turning the bolts e e the plates d d' d^2 and their supported pad-sections may be moved longitudinally to approximate their adjacent ends, the blocks d^4 sliding in the slots d^5 , or, if the change of inclination brings the sections b , b' , and b^2 too closely together, the bolts e e may be turned in an opposite direction and the sections b , b' , and b^2 allowed to move apart. I desire to say in this connection that while I prefer to have all the pad-sections movable, as hereinbefore described, such arrangement is not essential to the present invention, and good results can be secured by arranging the toe and heel sections, or even the toe-section alone, to be movable, as hereinbefore described, while the other sections are arranged in the usual manner.

In practice I provide in each of the lugs a^3 a slot a^4 , which receives the shoulder d^{10} , so that said shoulder further acts to steady and guide the plate to which it is attached.

I would further say that in practice I provide a projected shank-section b' , and in connection therewith a spring-supported shank-block f , which bears upon the projected shank portion with a yielding pressure, which may be regulated by means of the adjusting-bolt f' . I do not, however, consider a detailed description of the shank-block and its controlling mechanism necessary in the present application, as the same is shown and fully described in another application filed January 14, 1896, Serial No. 575,491. I may say, however, that when the shank-block f is used the plate d' is cut away at f^2 (see Fig. 6) to receive the upper portions of the same, and the sides of the shank-block f are projected between the plate d' and the pad-section b' .

Having thus described my invention and its

mode of operation, I claim as novel and desire to secure by Letters Patent of the United States—

1. In a pressing-form for sole-laying machines the combination, with a suitable support therefor, of an elastic pad comprising heel and shank sections, and an independent toe-section, arranged to tip longitudinally to vary its longitudinal inclination, and movable longitudinally toward and from the shank-section, substantially as described.

2. In a pressing-form for sole-laying machines the combination with a suitable bed, of a series of independent supports on said bed, a series of independent elastic pad-sections mounted upon said supports, and an elastic reinforcing-strip interposed between each section and its support and covering substantially the edge-pressing portion of each section, substantially as described.

3. In a pressing-form for sole-laying machines the combination, with a suitable support therefor, of a series of independent pad-sections, means for tipping said sections to adjust their longitudinal inclination, and means for longitudinally moving said sections to approximate or separate their adjacent ends, substantially as described.

4. In a pressing-form for sole-laying machines the combination with a suitable bed, of a series of supporting-plates supported from said bed, a series of hollow elastic pad-sections mounted upon said plates, means for tipping the plates to adjust their longitudinal inclination, and means for longitudinally moving the plates to approximate or separate their adjacent ends, substantially as described.

5. In a form for sole-laying machines the combination with a suitable bed, of a series of independently-movable supports secured to said bed, independent toe and heel pressing sections and a projected shank-pressing section mounted upon said supports, and a yieldingly-supported shank-block interposed between the shank-pressing section and its support, substantially as described.

6. In a pressing-form for sole-laying machines the combination, with a suitable support therefor of an elastic pressing-pad, comprising an independently-movable section, and a longitudinally tipping and sliding support for said section, substantially as described.

7. In a pressing-form for sole-laying machines the combination, with a suitable bed, of an elastic pressing-pad comprising an independently-movable section, an independent support for said section, and a sliding and tipping connection between said support and bed, substantially as described.

8. In a pressing-form for sole-laying machines the combination, with a suitable bed, of an elastic pressing-pad comprising an independently-movable section, a longitudinally-slotted plate supporting said section,

and connections between the plate and bed arranged to reciprocate along the slotted portion of the plate and having provision for a tipping movement of the plate, substantially as described.

9. In a pressing-form for sole-laying machines the combination, with a suitable bed, of a series of independently-movable supporting-plates supported from said bed, a series of elastic pad-sections including a projected shank-section mounted upon said plates, and an elastic reinforcing-strip covering substantially the edge-pressing portions of said pad-sections, substantially as described.

10. In a pressing-form for sole-laying ma-

chines, the combination, with a suitable bed, of a pressing-pad comprising an independently-movable section, and a support for said section interposed between the same and the bed, and lugs on said support arranged to engage opposite sides of the bed, substantially as described.

In testimony whereof I have hereunto set my hand, in the presence of two attesting witnesses, this 7th day of February, 1896.

ERASTUS E. WINKLEY.

Witnesses:

BENJAMIN PHILLIPS,
A. E. WHYTE.