

(No Model.)

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

No. 579,206.

Patented Mar. 23, 1897.

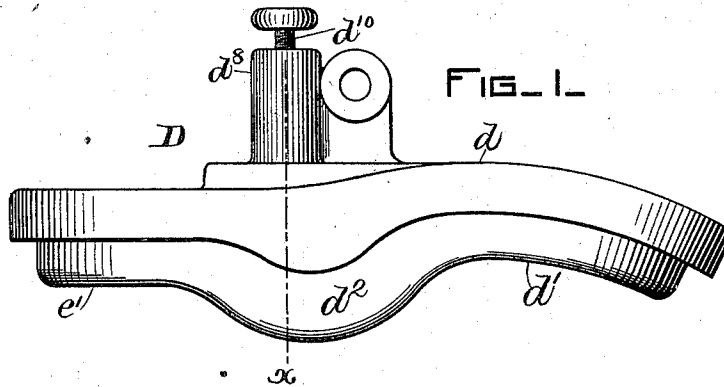


FIG. 2_

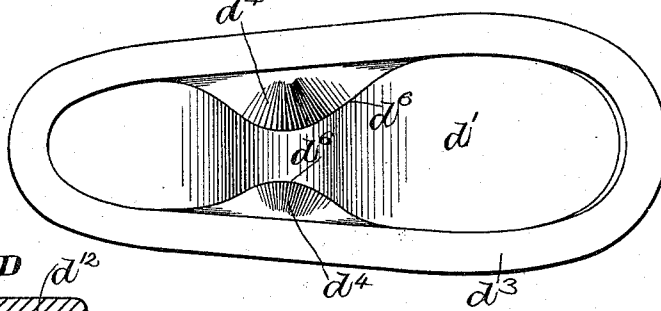


FIG. 5_

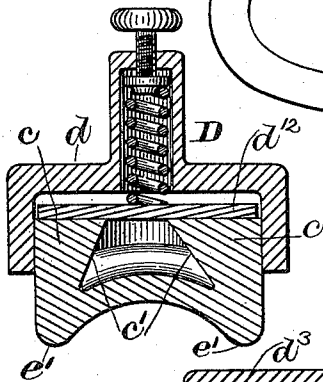


FIG. 3_

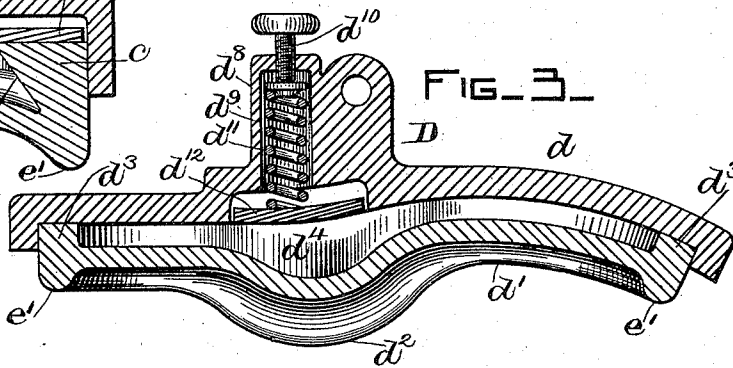
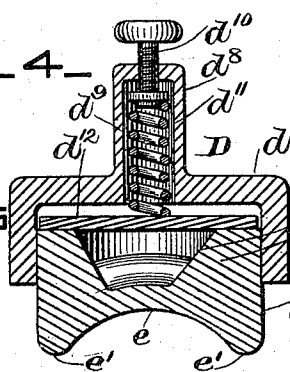


FIG. 4_



WITNESSES

A. G. Clifford
A. C. Cline

INVENTOR

E. E. Winkley
By his attorney
Phillips & Henderson

UNITED STATES PATENT OFFICE.

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

FORM FOR SOLE-LAYING MACHINES.

SPECIFICATION forming part of Letters Patent No. 579,206, dated March 23, 1897.

Application filed August 6, 1896. Serial No. 801,933. (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 State of Massachusetts, have invented certain new and useful Improvements in Forms for Sole-Laying Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to sole-laying machines, and more particularly to an improved sole-pressing form for such machines. In practice these forms are made of rubber or some equivalent yielding material, and they are provided along their margins with reinforced edge-pressing portions and at the shank with a projected shank portion and with a shank-block, whereby additional pressure is secured around the edge of the sole and at the shank.

The shank-block has heretofore been made of metal and is adjustable in order to obtain a more or less projected shank portion, whereby the form is made to conform to the shank of the sole under pressure, and thereby to approximately shape and mold the shank of the sole during the sole-laying operation.

The form as above described is the one disclosed in Letters Patent of the United States No. 557,744, dated April 7, 1896, issued to the Goodyear Shoe Machinery Company, as assignee, upon an invention made by me. The construction disclosed in said patent, while giving good results in operation, is open to the objection that the downwardly-projected edges of the metal shank-block exert great pressure upon the rubber pressing-pad of the form at the shank and in time wear and cut through the same, thus rendering the pad worthless.

Another objection to the metal shank-block is that to secure the best results it must approximate the size and shape of the last at the shank in order to properly lay the sole at this point, and therefore it is necessary to have a number of such blocks on hand and to change the same in the form when operating upon various sizes of shoes.

The metal block is comparatively expensive to make, and therefore the necessity of hav-

ing a number of such blocks adds greatly to the expense of the forms.

The object of the present invention is to overcome the objections above noted and to generally improve the construction and operation of devices of this nature.

To this end the present invention consists of a sole-pressing form provided with a pad having integral reinforcing-abutments at the shank; and it further consists of the devices and combination of devices which will be hereinafter described, and pointed out in the claims.

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

Figure 1 represents a side view of a sole-pressing form with the improved pad secured thereto. Fig. 2 is a plan view of the upper side of the pad. Fig. 3 is a longitudinal section of Fig. 1. Fig. 4 is a section through the shank portion upon line *x x*, Fig. 1; and Fig. 5 is a similar view of a modified form of the device.

In the drawings, D represents my improved sole-pressing form, of which *d* represents a rigid bed or frame having the general longitudinal contour of the shape of the bottom of the last, and to which is suitably secured my improved pressing-pad *d'*.

The pressing-pad *d'* is formed of a continuous block of rubber or other suitable elastic material and provided with a projected shank portion *d''* and a reinforcing-strip *d'''*, covering, substantially, the edge-pressing portions of the pad, substantially as shown in my patent hereinbefore referred to.

For the purpose of reinforcing the pressing-pad *d'* at the shank portion, and thus causing it to give an increased pressure on the sole at this point, and thus to cause the shank portion of the sole to conform to the curvature of the shank portion of the last, I have provided the abutment *d''*, located upon each side of the medial line of said shank and extending along the same a distance approximating the length of the shank portion of a shoe. As shown in Fig. 2, these reinforcing-abutments *d''* are formed integral with the pad, and each has the inclined or beveled face *d'''*, which extends from the inner face of the pressing-pad *d'* to the surface of the reinforcing edge-pressing strip *d'''*. The edges

d^6 of the abutments d^4 are preferably curved, as shown, and project downwardly into the projecting shank portion d^3 . By thus forming the abutments d^4 I am enabled to obtain a differential or graduated pressure along the shank and a pressure which is distributed in a manner to produce the best results.

It will be observed that the greatest pressure will be at the outer shank portions about at the center of the abutments and the reinforcing edge-pressing strip d^3 , and that from such point the pressure gradually decreases toward the outer edges of the abutments and toward each end, and it will be further noted that by means of such construction the pressing-pad will readily conform to the shank of the sole under pressure.

For the purpose of adjusting the projected shank portion of the pressing-pad I have provided the following mechanism: Upon the bed d is formed a boss d^8 , in which is formed a chamber d^9 , which extends through the bed d . A threaded bolt d^{10} is fitted to a correspondingly-threaded bearing in the boss d^8 and bears at one end upon a coiled spring d^{11} , which acts upon a plate d^{12} , bearing upon the top of the reinforcing edge-pressing portions d^3 at the shank, the construction being such that the shank portion can be projected more or less, as desired.

In the present invention the sole-pressing pad is curved or concaved at the shank, as shown at e , in order to conform to the curvature of the shoe-shank. The pressing-pad d may be provided with the external bead or rib e' , extending around the edge, which is located directly in line with the edge-pressing strip d^3 , thus augmenting the pressure of the pad at the edge portion.

In Fig. 5 I have shown a modification of the device in which the abutments c are each provided with the inwardly-inclined face c' , the construction in other respects being the same as hereinbefore described.

The operation of my invention has been sufficiently set forth in connection with the foregoing description of its construction, and further explanation is deemed unnecessary.

Having fully described my invention and its mode of operation, I claim as new and desire to protect by Letters Patent of the United States—

1. In a sole-pressing form for sole-laying machines, a pressing-pad provided with integral reinforcing shank-abutments having inclined faces, substantially as described.

2. In a sole-pressing form for sole-laying machines, a pressing-pad provided with integral reinforcing shank-abutments curved at their base edges, substantially as described.

3. In a sole-pressing form for sole-laying machines, a pressing-pad having a projected shank portion provided with a reinforcing marginal strip and integral reinforcing-abutments, in combination with means to adjust said projected shank, substantially as described.

4. A pressing-pad for sole-laying forms, having an integral marginal bead or rib upon its pressing-face extending entirely around the edge of the pad, substantially as described.

5. A pressing-pad for sole-laying forms provided with a marginal reinforcing pressing-strip upon its rear face, and an integral marginal bead or rib upon its pressing-face extending entirely around the edge of the pad, substantially as described.

6. A pressing-pad for sole-laying forms provided with a projected concave shank portion, and an integral reinforcing strip and abutments at said shank portion, substantially as described.

7. A pressing-pad for sole-laying machines provided with a projected concave shank portion, and an integral continuous marginal bead or rib upon its pressing-face, substantially as described.

8. A pressing-pad for sole-laying forms having integral reinforcing-abutments at the shank, said abutments having inwardly-inclined faces, substantially as described.

9. A pressing-pad for sole-laying machines provided with a marginal reinforcing-strip, a projected shank portion and integral reinforcing-abutments extending into such projection, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ERASTUS E. WINKLEY.

Witnesses:

T. HART ANDERSON,
A. G. CLIFFORD.