

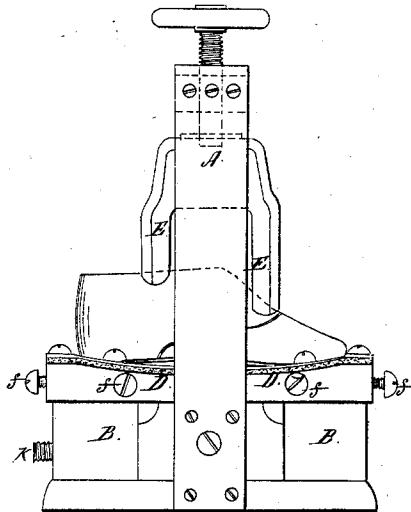
*J. Jenkins,*

*Shoe-Sole Machine,*

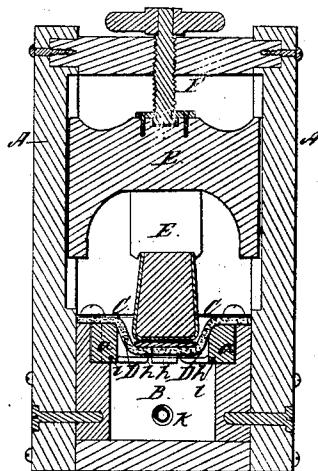
*N<sup>o</sup> 21,424.*

*Patented Sep. 7, 1858.*

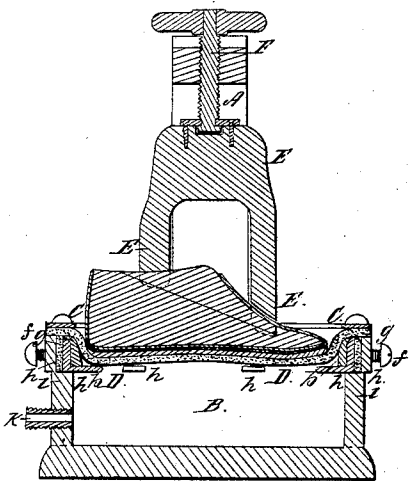
*Fig. 1.*



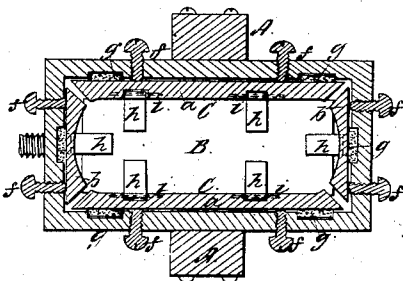
*Fig. 3.*



*Fig. 2.*



*Fig. 4.*



# UNITED STATES PATENT OFFICE.

JACOB JENKINS, OF CHARLESTOWN, MASSACHUSETTS.

## APPARATUS FOR APPLYING SOLES TO BOOTS AND SHOES.

Specification of Letters Patent No. 21,424, dated September 7, 1858.

*To all whom it may concern:*

Be it known that I, JACOB JENKINS, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented an Improved Press or Apparatus for the Application of Soles to Boots or Shoes; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, is a side elevation. Fig. 2, is a longitudinal and vertical section, Fig. 3, a vertical and transverse section and Fig. 4 a horizontal section of such apparatus, the latter section being taken through the adjustable sides and ends of the "sole adjusting cavity" to be hereinafter described.

In the drawings above mentioned, A denotes a vertical frame raised above and so as to embrace the tank or cistern, B, in whose top or upper part is arranged what may be termed a sole adjusting cavity, C, such being a space or passage formed through the top of the box and corresponding in shape with but being somewhat larger than the sole of a shoe of the size for which the cavity may be calculated.

Stretching over the sole adjusting cavity C, and confined with a water tight joint to the top of the tank B is an elastic bed D, which may be made from a plate or piece of vulcanized india rubber or other suitable elastic material. The sides as well as the ends of the sole adjusting cavity C may be formed of pieces of wood, metal or other material as shown at *a, a, b, b*, separate from the tank, and they may be placed and supported in the tank by rabbets formed in the same as shown in the drawings. Each of the said sides should rest against two or any other suitable number of adjusting screws *f, f*, extending horizontally through the sides of the tank as shown in Fig. 4. If desirable, india rubber or other suitable springs *g, g*, may be placed between each adjustable part *a* and *b* and the adjacent side of the tank. Furthermore, one or more bent lever clamps formed as shown at *h, h*, in Fig. 3, may be applied to each of the adjustable parts *a, a*, each of such clamps being made to turn in a vertical plane and on a fulcrum *i*, arranged at the vertex of its angle. To such clamps may also be applied to the two ends of the tank respectively or arranged in the tank and with respect to the parts *b, b*, as shown in the drawings.

A tank so constructed and being provided with a pipe *k*, leading from some means of supplying the tank with water, either hot or cold, or of forcing air into the tank, has arranged above it and within the frame A a sliding bearer E, supported by a screw F, and arranged within the frame A so as to be capable of moving vertically or of being either raised by the screw or forced downward thereby and upon a last and shoe on the said last during the process of pressing and adjusting a sole on the shoe after such sole may have been covered more or less with cement and placed with its cemented surface against the lower surface of the insole and upper of the shoe.

In operating with the above described machine, a shoe on a last and having a cemented sole placed against the under side of its insole as described, should be arranged on the top surface of the elastic bed D, and directly over the sole adjusting cavity. This having been accomplished, the screw F should be turned around so as to force the bearer E down upon the shoe and the last and cause them to be firmly pressed against the elastic bed D, and into the adjusting cavity C, the elastic bed at the same time being crowded into the adjusting cavity and down upon the horizontal arms of the clamps *h, h*. By continuing to depress the shoe and last, the clamps will be so caused to act as to adjust the sole to its proper position on the insole, such adjustment having partially taken place by the action of the sole adjusting cavity C. The completion of the adjustment of the sole or in other words the certainty of such is effected by the clamps and they serve to properly maintain it in position or keep it from slipping laterally on the insole while the cement is setting. The elasticity of the bed under the pressure of the sole upon the bed will cause every part of the said sole on which the cement may be placed to be forced into complete contact with or closely against the insole and such parts of the shoe against which the outer sole of the shoe usually rests. Water, either cold or warm, or air, either heated or not, may be forced into the tank in order to act against the under surface of the elastic bed, and facilitate the cementing operation.

One great advantage of the elastic bed is to be found in its readily accommodating itself to a sole however the latter may vary in thickness, the sole adjusting cavity C, by

its operation with the elastic bed, serving not only to hold the last and leather firmly in place under the action of the press but to aid in the adjustment of the sole with respect to the upper of the shoe. Furthermore the elastic bed acting in conjunction with the sole adjusting cavity presses the sole along its edge close up to the shoe.

My improved apparatus constructed and operated as described greatly facilitates the process of cementing soles to boots and shoes. By making the parts *a, a*, and *b, b*, adjustable the apparatus will not only operate to better advantage, but can be employed in cementing soles to shoes varying in size.

I claim—

1. The combination of the elastic bed D, and the sole adjusting cavity or space C, arranged in a press and so as to operate together substantially as specified.

2. I also claim constructing such sole adjusting cavity C, with adjustable sides *a, a*, or adjustable ends *b, b*, or both its sides and ends made adjustable substantially as set forth.

3. I also claim the combination of the lever clamps *h, h*, with the adjusting cavity C, and the elastic bed and so as to operate therewith substantially as described.

4. I also claim the combination and arrangement of the tank B, with the elastic bed D, and the sole adjusting cavity C.

In testimony whereof I have hereunto set my signature this 26th day of July A. D. 1858.

JACOB JENKINS.

Witnesses:

R. H. EDDY,  
F. P. HALE, Jr.