

(No Model.)

L. E. EVANS.  
TRAVELING BOX FOR DOGS.

No. 315,925.

Patented Apr. 14, 1885.

Fig. 1.

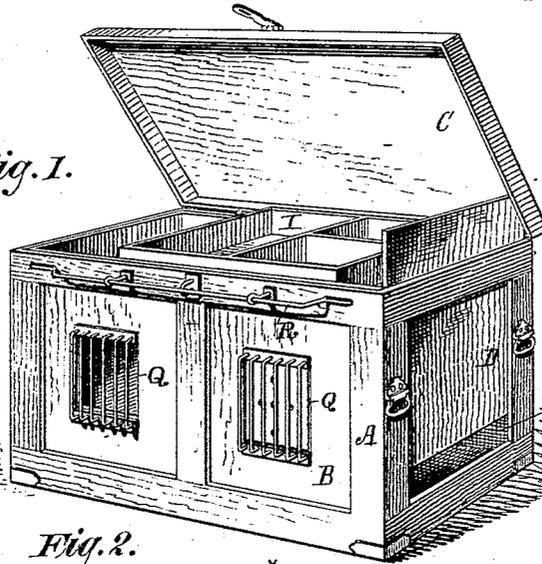


Fig. 5.

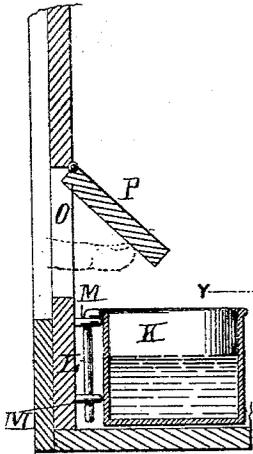


Fig. 2.

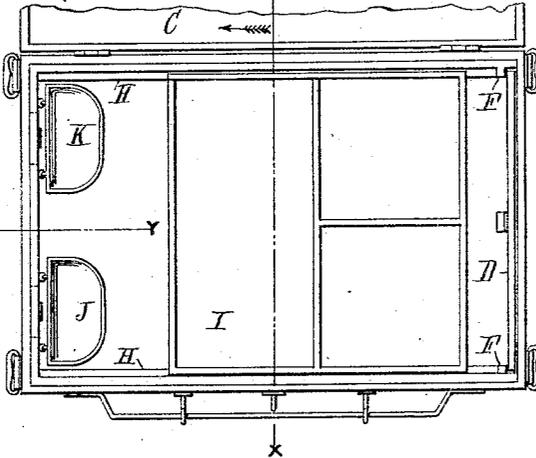


Fig. 6.

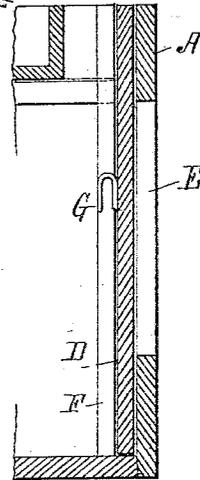


Fig. 3.

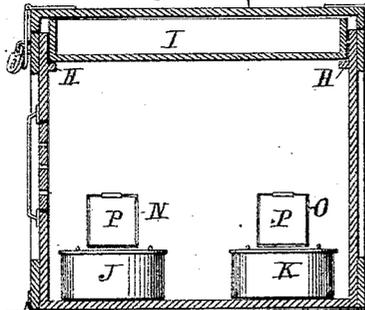
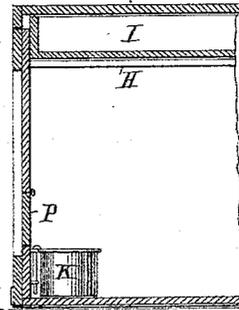


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ANDREW EPPLER, JR., OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE  
BOOT AND SHOE SOLE LAYING COMPANY, OF PORTLAND, MAINE.

## SOLE-LAYING MACHINE.

SPECIFICATION forming part of Letters Patent No. 315,924, dated April 14, 1885.

Application filed February 11, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW EPPLER, JR., of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Sole-Laying Machines, of which the following is a specification.

This invention relates to machines for pressing cement-coated outer soles to lasted boot or shoe upper, and holding the soles in contact with the upper while the cement is hardening.

The object of the invention is, first, to provide certain improvements in the construction of the bed or support which bears against the sole when the latter is pressed against the upper, and, secondly, to provide certain improvements in the jack or holder for the lasted boot or shoe, whereby the latter may be adjusted so as to vary its longitudinal inclination.

To these ends my invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of a sole-laying machine embodying my invention. Fig. 2 represents a section on line *x x*, Fig. 1. Fig. 3 represents a sectional view of a modification.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a a a* represent a series of pads or sections collectively forming a sole-support, which is curved longitudinally to conform to the curvature of the bottom of the last on which the boot or shoe is supported while the outer sole is being pressed against it. The pads or sections are adapted to yield independently in a vertical direction, each pad being supported by a rod, *b*, attached to it, and adapted to slide vertically in an arm or support, *c*, on a standard, *c'*, and a spring, *d*, interposed between a shoulder on the rod and a supporting surface or bearing on the support *c*. Each pad is composed of a metal holder or flanged plate, 2, to which the rod *b* is rigidly attached, and a strap, 3, of any suitable flexible material, attached at its ends to ears or flanges on the plate 2. The straps are

enabled to yield or be pressed into the space between the ears to which they are attached when the sole is pressed against them. I prefer to interpose a block, *f*, of yielding rubber between each plate and the central portion of the strap attached thereto, as shown in Fig. 2. Said blocks prevent the straps from yielding too freely at their central portions, and thus insure uniformity of pressure across the sole.

If desired, each strap may be attached to its supporting-plate by means of springs *g g*, as shown in Fig. 3, the springs being attached to the ends of the straps and to ears on the plates, and permitting the straps to yield freely.

The jack or support for the lasted upper is composed of two arms or standards, *h i*, provided, respectively, with a toe-rest, *j*, and with a spindle, *k*, to enter the spindle-socket in the rear portion of the last, and a slide, *l*, to which said arms are attached. Said slide is adapted to move on a segmental track or guide, *m*, which is the arc of a circle having its center at the bottom or shank portion of the last about midway between the toe and heel, the location of said center being shown at *n*, Fig. 1. This arrangement enables the last to be inclined so as to raise the heel and depress the toe, or vice versa, without varying the height at the central portion, thus enabling the last to be readily adjusted as may be desired.

The segmental guide *m* is formed on a lever, *p*, which is pivoted at *q* to the standard *c'*, and is connected by a link, *r*, to an arm, *s*, on a treadle-lever, *s'*, said arm *s* and link *r* being arranged to form a toggle-joint, which is straightened by the depression of the lever *s'*, and caused to turn the lever *p* on its pivot and press the jack downwardly, thus pressing the lasted upper against the cement-coated outer sole. A suitable notched retaining-bar, *t*, holds the lever *s'* so as to retain the pressure on the sole while the cement is setting or hardening.

I do not limit myself to the employment of the above-described sectional sole-support in connection with a jack which is movable toward and from the sole-support, for, if desired, said support may be movable toward

and from the jack, the latter being fixed, as shown, for example, in my pending application for Letters Patent for sole-laying machine, filed December 18, 1884, Serial No. 150,638.

5 I claim—

1. In a sole-laying machine, a sole-support composed of a series of flexible straps, and a corresponding series of independently-adjustable holders for said straps, whereby the straps  
10 may be adjusted independently, as set forth.

2. In a sole-laying machine, a series of independently-yielding sections or pads collectively forming a sole-support, each being composed of a spring-supported plate having ears  
15 or flanges, and a flexible sole-supporting strap secured thereto, as set forth.

3. The sole-supporting sections or pads, each composed of a plate having ears or flanges, a flexible strap secured thereto, and a yielding  
20 block or spring interposed between the plate and the central portion of the strap, as set forth.

4. In a sole-laying machine, a jack or last-holder combined with a segmental track, on which said last-holder is movable to vary the inclination of the last, as set forth. 25

5. In a sole-laying machine, the combination, with the yielding sole-support, of the jack, the lever *p*, having the segmental guide, on which the jack is adjustable to vary its inclination, and devices, substantially as described, for applying pressure to said lever,  
30 as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 7th day of February, 1885. 35

ANDREW EPPLER, JR.

Witnesses:

C. F. BROWN,  
A. L. WHITE.