

E. F. Shaw,

Sole Machine.

No. 103244.

Patented May 17. 1870.

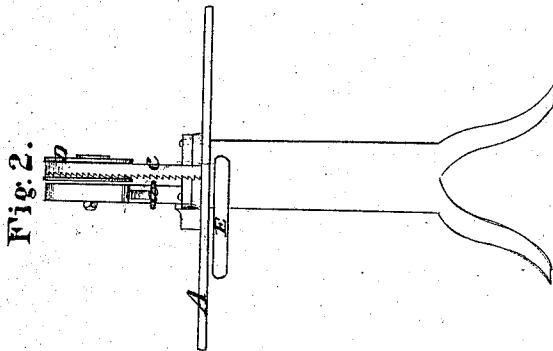


Fig. 2.

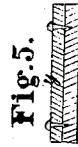


Fig. 5.

Fig. 6.

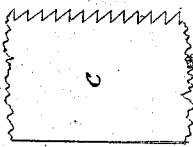


Fig. 7.

Fig. 3.

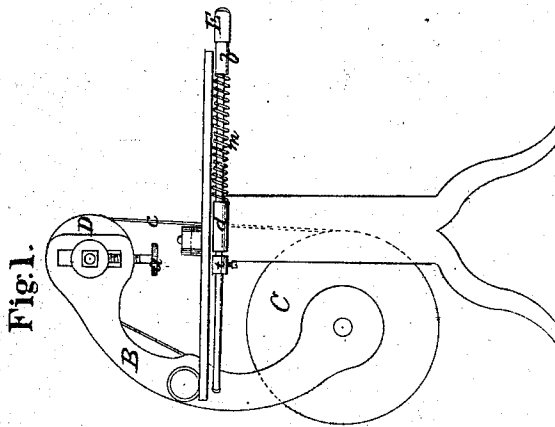
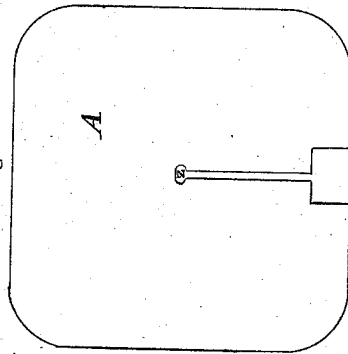


Fig. 1.

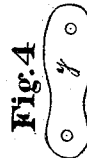


Fig. 4.

Witnesses.

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United States Patent Office.

EDGAR F. SHAW, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 103,244, dated May 17, 1870.

IMPROVED BOOT AND SHOE-SOLE CUTTER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDGAR F. SHAW, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and valuable Improvement in Band Cutters for the Soles of Boots, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side view of my invention.

Figure 2 is a front view of the same.

Figures 3, 4, 5, and 6 are details.

My invention relates to means for cutting leather into suitable shapes for the soles of shoes, and for other purposes, and consists in the construction and novel arrangement of devices designed to facilitate the cutting of leather into divers shapes, and arranged to impart thereto, at will, a perpendicular or beveled edge, or both combined.

The letter A of the drawings designates a table or plate, supported, at a convenient height, upon a hollow column, or other suitable standard.

To the rear of the plate A is centrally pivoted the bent lever B, which is so arranged that its upper arm will swing over the plate, while its lower arm hangs underneath the same.

To the end of the lower arm is attached the driving-pulley C, to which a rotary motion is imparted by means of a treadle or other suitable attachment.

D is an adjustable pulley, pivoted to a sliding block arranged to move up or down in a slot in the upper arm of the bent lever B. It is adjusted by means of the set-screw *a*.

The pulleys C and D are connected by an endless band cutter, *c*, having one of its edges serrated and the other smooth to operate as a knife, or it may be constructed with both edges smooth or both serrated.

The front or descending portion of the band cutter passes transversely through the material downward through an aperture, Z, in the center of the plate A, the place where the material is cut or formed.

E designates a pressure-plate, connected to the lower arm of the bent lever by the rod *b*, and arranged to be operated by the pressure of the body of the workman as he stands in front of the table to operate the machine.

The rod *b* passes through a guide-tube, *d*, fixed to the under part of the plate A.

That portion of the rod *b* in front of the guide-tube *d* is encircled by a coiled spring, *m*, which operates to draw the drive-pulley inward until its forward edge is directly under the aperture Z in the center of the table. At the same time the front edge of the upper pulley is directly over the aperture Z, so that the descending portion of the band cutter, which connects the front edges of these two pulleys, is perpendicular.

The rod *b* is prevented from being carried too far forward by means of the check-block *t*, secured to the rod by means of a set-screw.

By moving this check-block to the rear the band cutter may be set to operate at any desired angle.

In cutting a leather sole, however, while some portions of the edge require to be cut with a bevel, others must be cut perpendicularly. Hence the check-block is usually set for the perpendicular, and the required varying bevels given by pressure upon the plate E.

Metallic patterns *y* are usually employed with this machine to insure uniformity of size and shape when duplicates are required.

Spurs are attached to these patterns for the purpose of holding the material in place while the band cutter is operating around the edge thereof.

That this machine is adapted to cutting other materials than leather will readily be perceived.

I do not desire to claim a machine for the manufacture of leather, nor to the precise mode of constructing the different parts thereof.

Sometimes I design to arrange the plate A upon a pivot, in such a manner as to incline the material instead of the band cutter in forming the beveled edges.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the band cutter *c*, reciprocating pulleys C and D, lever B, pivoted at or about its center to the table-plate, in combination with the stomach-presser E, designed to regulate the inclination of the band cutter in forming the variably-beveled edges of the soles of shoes, substantially as and for the purposes specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

Witnesses:

EDGAR F. SHAW.

W. F. PATTERSON,
E. C. CARSON.