

A. M. Howe,

Cutting Shoe Soles.

No. 110,762.

Patented Jan. 3, 1871.

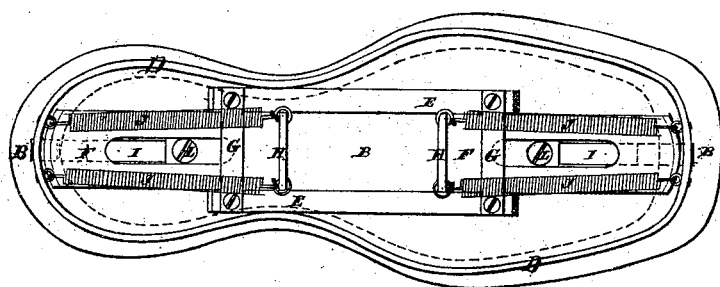


Fig. 1

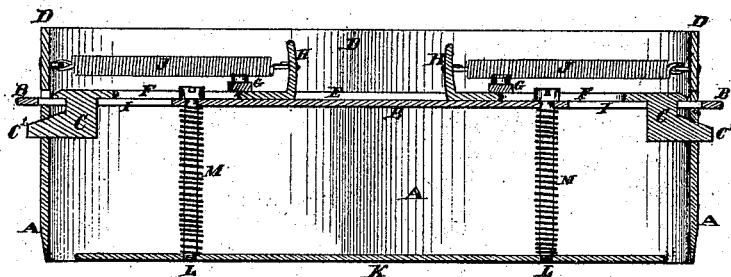


Fig. 2

Witnesses

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ARCHELAUS M. HOWE, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 110,762, dated January 3, 1871.

IMPROVEMENT IN DEVICES FOR CUTTING SOLES FOR BOOTS AND SHOES.

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, ARCHELAUS M. HOWE, of the city and county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Devices for Cutting Soles for Boots and Shoes; and I do hereby declare the following to be full, clear, and exact description of the same, reference being had to the accompanying drawing which forms a part of this specification, in which—

Figure 1 represents a plan view of my improved device for cutting soles for boots and shoes, and

Figure 2 represents a central longitudinal section of the same.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

The nature of my invention consists—

First, in the combination with the cutting-die of a separate pressing-rim with pressing-plate, and a uniting device, as hereafter described.

Second, in the combination, with the cutting-die, pressing-rim, and pressing-plate, of holding-dogs, as hereafter described.

Third, in the combination, with the holding-dogs, of devices for operating the same, as hereafter described.

Fourth, in the combination, with the cutting-die and pressing-plate, of a discharging-plate and springs, as hereafter set forth.

Fifth, in a device for cutting soles for boots and shoes, the parts thereof being constructed and combined, as hereinafter described.

In the drawing, the part marked A represents the cutting-die, consisting of a metallic band, bent into the required form, with its lower edge sharpened to cut the leather, and its upper edge made square and level, to receiving the pressing-plate B, to which it is secured, in this instance, by means of a pair of holding-bolts or dogs C, as hereafter explained.

The pressing-plate B is provided at its upper side with a pressing-rim, D, made in a similar form to the cutting-die A, and rigidly secured to the plate B at its lower edge, while its upper edge, on which the platen of the cutting-press descends, is made level, as shown.

Guides E are secured to the top of the plate B, between which are arranged the slide pieces F that carry the holding-dogs C, by which the cutting-die is held to the plate B.

The slides F are held in place by cross-bars G, secured to the guides E, as indicated.

The inner ends of the slides F are turned up to form thumb-pieces H, by means of which the slides F and dogs C can be readily operated.

The dogs C are secured to the under side of the slides F, near their outer ends, from which they project downward through slots I formed in the plate B, with their ends C' turned outward so as to catch into holes formed in the upper part of the die A, and thereby retain said die in position.

The upper portion of the points C' are made tapering or beveled, so that they draw the upper edge of the die firmly up against the plate B, and also permit the use of various-sized dies with the same pressing-plates B.

Springs J, extend from the thumb H to the pressing-rim D, as indicated, which tend to move the slides F outward, and thereby retain the points C' of the dogs C within the openings in the die A.

A discharging-plate, K, is arranged in the lower part of the die A to prevent the cut soles from remaining in the die.

The plate K is supported by screws L, which project downward from the pressing-plate B.

The screws L are fitted to work loosely through the plate B, their heads being sufficiently large to prevent them from dropping through.

Coiled-wire springs M are placed around the screws or pins L, between the plates B and K, as indicated in fig. 2. These springs are compressed by the rising of the plate K, as the die is forced through the leather, and as the die is raised the expansive force of the spring presses the plate K downward and causes it to immediately throw the cut soles from the die.

The device can be used with a series of different-sized dies, the only requirements being that the pressing-plate B should be as large as the top of the largest-sized die, and the discharging-plate K should be small enough to work within the interior of the smallest-sized die of the series.

The dies can be readily interchanged by simply pressing the thumb-pieces H toward each other, which operation unlocks the dogs C, and releases the die from the plate B.

It will be observed, by those skilled in the art, that my improved device possesses many advantages, inasmuch as the use of the pressing-rim D permits of the die A being made of a narrow band of steel, and consequently the cost of the die is greatly reduced.

The height of the rim D is such that the operator has sufficient space to handle the device, and the projecting edges of the plate B are a great assistance in raising and placing the die in the proper position upon the leather to be cut.

Then again, by the use of my invention, the old narrow dies, used in cutting leather, by the aid of a mallet can be readily changed so as to be conveniently used with the patented power-cutting presses

recently introduced, thus saving a great expense in the construction of dies preparatory to the adoption of such machines.

If preferred, the pressing-plate B and rim D may be rigidly secured to the top of the die by bolts, screws, or other suitable fastenings, although I prefer the plan shown in the drawing.

Having described my improved device for cutting soles for boots and shoes.

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

1. The combination, with the cutting-die, of a separate pressing-rim, with pressing-plate and uniting device, substantially as and for the purposes set forth.

2. The combination, with the cutting-die A, of the the pressing-rim D, plate B, and dogs C, substantially as and for the purposes herein set forth.

3. The combination, with the pressing-rim D, plate B, and dogs C, of the slides F and springs J, substantially as and for the purposes set forth.

4. The combination, with the plate B and cutting-die A, of the discharging-plate K, screws or pins L, and springs M, substantially as and for the purposes herein set forth.

5. A device for cutting soles for boots and shoes, consisting of a cutting-die, A, pressing-rim D, pressing-plate B, holding-dogs C, dog-slides F, discharging-plate K, guide-screws or pins L, and springs J and M, said parts being constructed and combined, as shown in the drawing and herein described.

ACHELAUS M. HOWE.

Witnesses:

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