

J. H. WALKER.
Machine for Cutting Rands for Boots and Shoes.
No. 133,686. Patented Dec. 3, 1872.

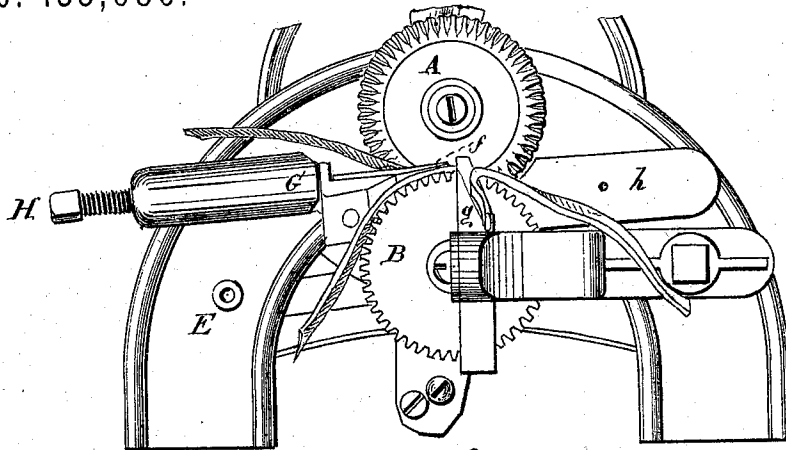


Fig 2.

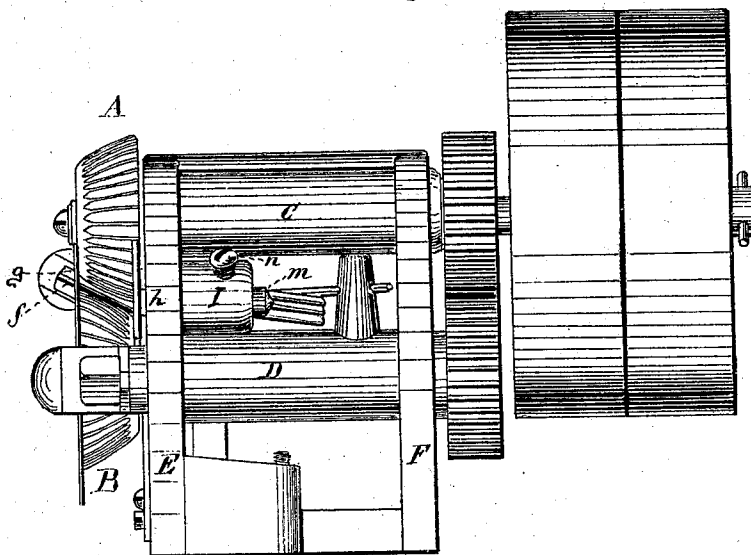


Fig 1.

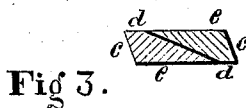


Fig 3.

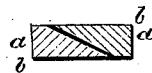


Fig 4.

WITNESSES:

Thos H. Dodge
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JOSEPH H. WALKER, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR CUTTING RANDS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **133,686**, dated December 3, 1872.

To all whom it may concern:

Be it known that I, JOSEPH H. WALKER, of the city and county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Machines for Cutting Rands for Boots and Shoes; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 represents a side view of said machine, and Fig. 2 represents a front or end view, a portion of the pulleys being shown broken off. Fig. 3 represents a cross-section of two rand pieces made by the machine having my improvement applied thereto; and Fig. 4 represents a cross-section of two rand pieces made by the machine originally used.

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

The machine represented in the drawing, aside from my improvements, which will be presently described, is known as "Tripp's Machine," for which Letters Patent were granted to Seth D. Tripp, January 14, 1862. In the use of Tripp's machine in my manufacturing establishment I found it to be a very useful piece of mechanism, but I found that the rand produced was in one essential particular defective, in that the outer edge *a* was perpendicular, and consequently when the rand was applied to the heel the corner *b* had to be cut or trimmed off in order to bring the edge of the heel formed by the rand into the desired taper form with the other portions thereof. This necessitates the loss of much leather and time under the old modes of manufacturing the heels, but by the use of the Bigelow machine, patented July 5, 1870, which I have adopted, the trimming off was in a great measure obviated; but still I found that in making boot-heels the corner referred to, while it was pressed in the extreme upper edge of the heel was not left so smooth and perfect as when the edge *a* was made to conform more nearly to the shape of the heel. This led to experiments which resulted in my present improvements, and which consist in making the feed-

rolls A B of taper form, as shown in the drawing, in lieu of with horizontal or straight faces, as in said Tripp's original machine, the large part of one roll running opposite the small part of the other roll. This change in the form of the feed-rolls produces a great change in the rand. In lieu of the edges *a* being perpendicular they are cut with an incline or bevel, *c*, as shown in Fig. 3, and consequently when the rand is applied to the heel or outer sole the outer edge of the rand is tapered inward, whereby, when the heel is compressed by the Bigelow machine, the entire surface of the rand is pressed smooth clear to the outer sole.

It may be remarked that when the rand is applied to use with the heel the narrow side *d* comes next to the outer sole, while the wide side *e* comes next to the heel-lifts.

A general description of the machine is unnecessary, since the principle upon which it acts and mode of construction are the same as said Tripp's patented machine otherwise than as above explained. It will only be added, therefore, that the shafts of the feed-rolls A B turn in the tubular supports C D, cast with the frame pieces E F. The inclined knife *f* is supported from a frame, G, and can be set in or out by the set-screw H. This knife splits the piece of leather to form two rands, (see Fig. 3,) while the other knife *g* is fastened to cut off the piece from the strip of leather being cut up into rands. A suitable table is to be arranged in front of the feed-rolls for convenience of feeding the leather and cutting the rands.

The material is prevented from entering too far by the guide-plate *h*, attached to an arm, *m*, which can be adjusted in projection I by means of the set-screw *n*.

The operation is as follows: The operator takes the piece of leather to be cut into rands and passes the edge through between the feed-rolls when the edge will be cut off upon an incline by the knife *g*. After this, at each time the leather is passed through, a strip of leather will be cut off and divided into two rands, a cross-section of which is shown in Fig. 3.

It will be evident to those skilled in the art that my improvement is applicable to other

classes and styles of rand cutting-machines than the Tripp machine before referred to.

Having described my improvement in rand-cutting machines, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

The combination, in a rand-cutting machine, with the inclined knife *f* and vertical

knife *g* of the inclined or beveled feed-rolls A B, substantially as and for the purposes set forth.

JOSEPH H. WALKER.

Witnesses:

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FRED. L. GOULDING.