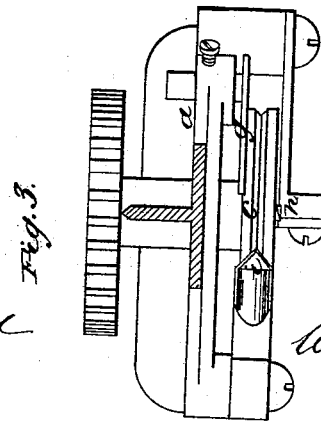
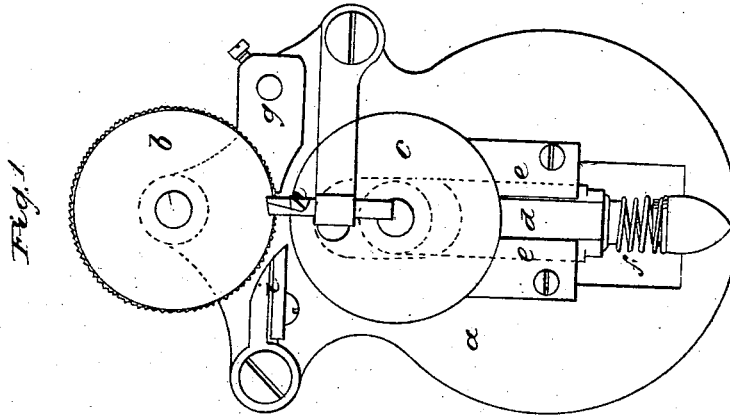
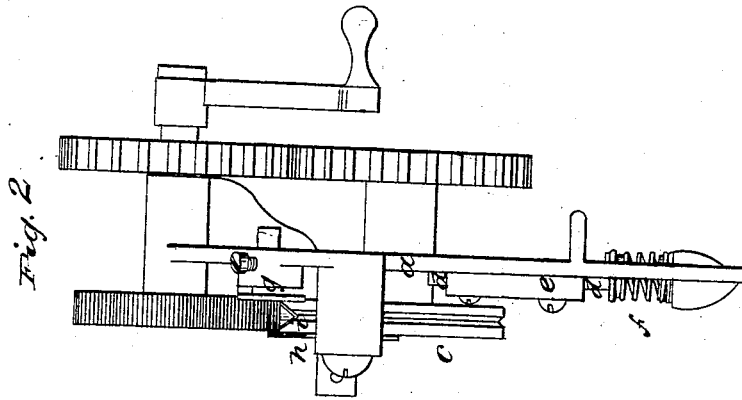


W. H. Kimball,
Shoe-Sole Machine,
N^o 46,805. Patented Mar. 14, 1865.



Witnesses
Francis Gould
W. B. Gleason

Inventor.

Wm H. Kimball
by his Atty
W. B. Crosby

UNITED STATES PATENT OFFICE.

WILLIAM H. KIMBALL, OF LYNN, MASSACHUSETTS.

SHOE-SHANKING MACHINE.

Specification forming part of Letters Patent No. **46,805**, dated March 14, 1865.

To all whom it may concern:

Be it known that I, W. H. KIMBALL, of Lynn, in the county of Essex and State of Massachusetts, have invented an Improvement in Manufacturing Shoe-Shanking; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention, sufficient to enable those skilled in the art to practice it.

This invention relates to the manufacture of what is known to shoe-manufacturers as "shoe-shanking"—i. e., pieces of leather triangular in section, which are used to fill or round up and stiffen the shank part of boots and shoes. In the heavier classes of boots and shoes these pieces are cut out by hand to the irregular shape required to fill up the shank upon either side of the center of the sole; but in the lighter grades of shoes a triangular strip is laid upon and lengthwise with the inner sole, and the outer sole drawn over and lasted, leaving the strip in the center between the two soles. These strips are generally cut by hand from scraps of sole-leather left in cutting out soles, &c. The strips so cut, however, are irregular in thickness and in width, and it is desirable in manufacturing shoes of similar style and size to have a perfect uniformity in all parts of each strip, and in separate strips relatively to each other; and it is the object of my invention to cut such uniform strips, however irregular may be the scrap from which the shanking is made.

The invention consists in the arrangement of an angular knife or cutter in connection with feed-rolls and a guide in such manner as to cut shanking of uniform width and triangular in section.

Figure 1 of the drawings represents a front elevation of a mechanism embodying my invention; Fig. 2, a side elevation thereof; Fig. 3, a top view of the knife, the lower feed-roll, and the adjacent mechanism.

a denotes the frame-work; *b*, the upper feed-roll, shown as serrated and mounted upon a shaft turning in a stationary bearing; *c*, the

lower roll, mounted upon a shaft turning in a bearing fixed upon the top of a plate, *d*, which slides freely up and down in ways *e*, and is pressed up by a spring, *f*. A gear upon the shaft of the upper roll meshes into and communicates motion to a similar gear upon the shaft of the lower roll, and a guide, *g*, is placed at the entering side of the rolls, it being so attached to the frame *a* that it may be moved forward and back in the plane of the rolls, and at the outer side of the rolls a knife, *h*, may be placed to cut off the outer edge of the scrap before it reaches the angular knife, which is seen at *i*. The point of this knife is placed in a horizontal plane below the lower surface of the upper roll a distance equal or approximate to the thickness required for the shanking, and from this point the sides of the knife incline at equal angles.

The strip is fed through with the outer side of the leather against the upper feed-wheel; and it will be obvious that while the surface of this wheel gages the depth of cut or the thickness of shanking cut, the lower wheel will yield to the inequalities in thickness of the stock, and that whether or not the knife *h* be employed, the guide *g*, against which the stock is held, will cause it to be properly presented to the knife *i*, and in such manner that a triangular strip of uniform width and thickness will be cut out from the stock.

The shanking of full size is of the form in section shown at *A*, the upper point being cut at the angle of the knife, the sides by the inclined cutting edges of the knife, while the lower surface is that which is fed in by contact with the surface of the upper feed-roll.

I claim—

The combination of the feed-rolls, angular knife, and guide, when arranged to operate together substantially as set forth.

In witness whereof I have hereunto set my hand this 21st day of January, A. D. 1865.

WILLIAM H. KIMBALL.

Witnesses:

J. B. CROSBY,
FRANCIS GOULD.