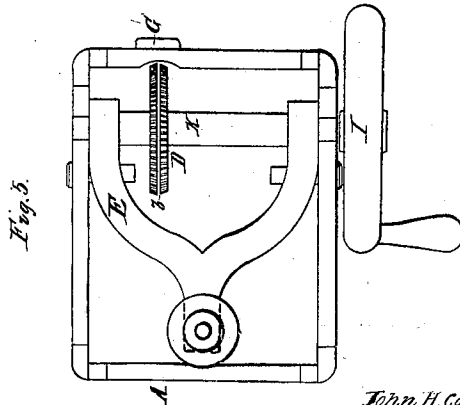
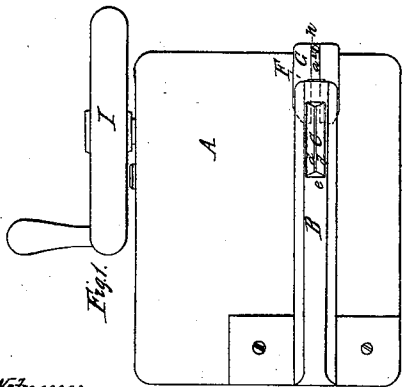
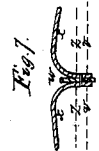
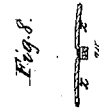
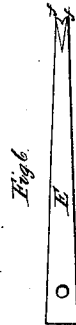
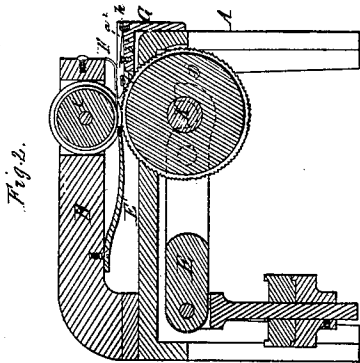
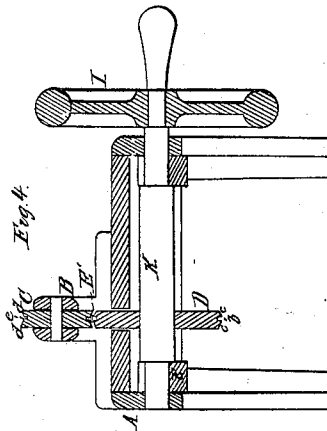
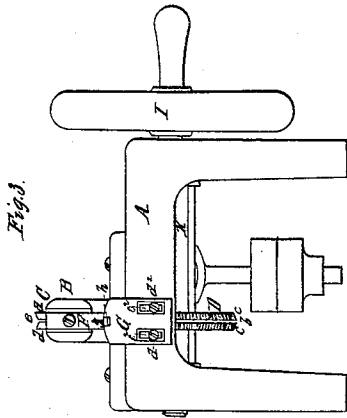


J. H. Cole,

Boot Liner Mach.

No. 88,276.

Patented Mar. 30, 1869.



Witnesses
S. K. Piper
A. P. Spalding

John H. Cole,
by his attorney
R. M. Lundy

United States Patent Office.

JOHN H. COLE, OF NORTH BRIDGEWATER, MASSACHUSETTS.

Letters Patent No. 88,276, dated March 30, 1869.

IMPROVED WELTED-SEAM-FINISHING OR REDUCING MACHINE.

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

To all persons to whom these presents shall come:

Be it known that I, JOHN H. COLE, of North Bridgewater, in the county of Plymouth, and State of Massachusetts, have invented a new and useful Welled-Seam-Finishing, or Reducing Machine; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

- Figure 1 is a top view;
- Figure 2, a longitudinal section;
- Figure 3, a front elevation;
- Figure 4, a transverse section; and
- Figure 5, an under-side view of such machine.

The purpose of the machine is to trim, or remove from the welt of a welted seam, the surplus leather, and flatten, or press down the joined parts on each side of the welt, and close to the latter. Also, to trim, or even the edges of the said parts and welt.

In the drawings—

A denotes a frame, or table, provided with an arm, or standard, B, extending above and over it, in manner as represented.

This arm, at or near its upper end, supports the axle, or journals of a pressing-wheel, C.

Underneath the wheel C, and projecting up through the top of the frame, is a feeding-wheel, D, whose shaft, K, is supported in a lever, E, arranged below the table-top, and pivoted to the table, as shown at *a a*.

A weight, applied to a rod hung on the rear end of the said lever, serves to press the feed-wheel toward the wheel C.

The said feed-wheel D has a groove, *b*, formed in it, at and around the middle of its periphery, the said periphery being bevelled on each side of the groove, in manner as shown in fig. 4.

Each bevelled surface *c c* is provided with teeth, cut in it, and in form are analogous to those of a file.

The periphery of the pressing-wheel, C is also bevelled, in reverse of that of the feed-wheel D, as shown at *d d*, and also is grooved, as shown at *e*, the groove running around such periphery.

In rear of the said wheels, and extending between them, in manner as represented in fig. 2, is a welt-trimming furcated knife, E, it being formed as represented in the drawings, and particularly as shown in Figure 6, which is a top view of it.

The base, *e*, of the opening between the prongs *f f* of the knife, is a cutter, or has a chisel-edge, which is arranged in a vertical plane, passing through the grooves of the wheels C and D.

In advance of the said wheels, and arranged in other respects with them, in manner as represented, are two stationary guides, F G, which are grooved, as shown at *g h*, so as to receive the welt, and the edges of the pieces of leather sewed to it, and direct the said parts properly to the grooves of the feed and pressing-wheels C D.

A knife, or chisel, H, arranged in manner as repre-

mented, serves to dress, or trim the lower edges of the welt, and parts, or pieces of leather sewed to it.

This knife is fixed to the lower groove-guide, G, and extends obliquely across its groove.

In rear of the knife is a gauge-spring, *a*², which has, screwed upward into the guide G, a screw, *b*², that serves to regulate the distance to which the spring may be depressed. The spring and its screw thus answer to gauge the thickness of shaving to be removed by the knife.

Furthermore, the gauge G is adjustable vertically, that is, it has slots, *c*² *c*², made through it, to receive clamp-screws, *d*² *d*², which screw into the table, or frame of the machine.

In Figure 7 is represented a transverse section of a welted seam, as it is preparatory to being introduced into the machine for being trimmed and pressed by it.

Figure 8, a similar section of it, after it is trimmed, and pressed, or finished.

In such figs. 7 and 8, the welt is shown at *w*, the two portions, or pieces of leather sewed to the welt, being shown at *x x*.

The upper of the knives trims the welt down to the red line, *z*, and the lower knife trims up to the line *v*, the lower edges, or parts of the welt, and those of the pieces sewed to the welt.

A crank, I, fixed on the end of the shaft K of the feed-wheel D, serves to enable a person to revolve the feed-wheel.

By introducing a welted seam between the guides, with the welt within their grooves *g h*, and pressing it forward between the feed and pressing-wheels C D, and revolving the feed-wheel, the sewed part will be drawn through the machine by the action of the feed-wheel; the surplus of the welt, and the edges of the leather parts sewed to it, being trimmed in the meantime by the knives; and the parts sewed to the welts will also be pressed out laterally, in directions from the welt, the bevelled surfaces of the wheels C D operating to draw out and so press the said parts.

This machine is of much utility for trimming the welts and edges of the leather used in making side-seams of boot-legs, or the back, or heel-seams of shoes.

In the said machine, I claim, as my invention, the following; that is to say—

I claim the combination, as well as the arrangement, of the peripheral-grooved feed-wheel D, the peripheral-grooved, or pressing-wheel C, the two slotted, or grooved guides F G, and the welt-cutter E, the whole being to operate together substantially as specified.

Also, the combination and arrangement of the inside-edge trimming-knife H, with the peripheral-grooved feed-wheel, the peripheral-grooved, or pressing-wheel, the slotted guides, and the welt-cutter, arranged and applied so as to operate together, as specified.

Also, the feed and smoothing-wheels, as made, not only with the welt-receiving grooves, extending around

their peripheries, but with the arrangement, as described, of bevelled surfaces on opposite sides of the said grooves, such being for stretching the leather laterally from the welt, as set forth.

Also, the combination and arrangement of the gauge a^2 , and the adjusting-screw b^2 , with the gauge G and the knife H, combined with the guide F, the feeding and pressing-wheels C D, and the knife E, arranged to operate as set forth.

Also, the application of the guide G and the knife H to the frame, so as to be adjustable vertically with respect to the feed-wheel, as may be necessary to adapt the machine to operate on leather of any particular thickness.

Witnesses:

R. H. EDDY,
SAMUEL N. PIPER.

JOHN H. COLE.