

C. S. DUNBRACK.

Boot and Shoe-Channelling-Machines.

No. 143,561.

Patented Oct. 14, 1873.

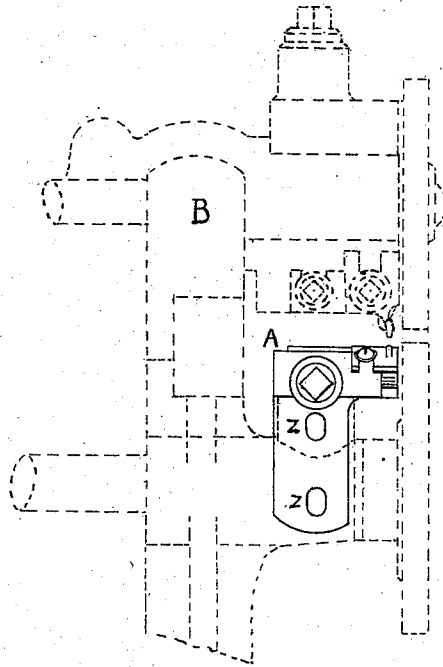


Fig. 1.

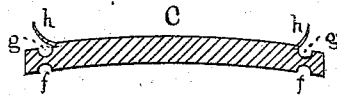


Fig. 5.

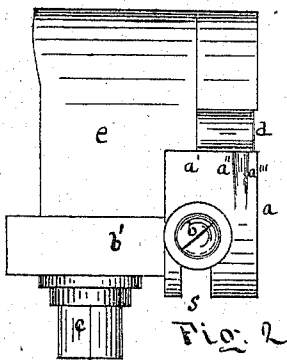


Fig. 2.

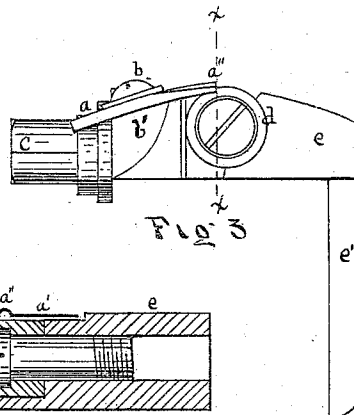


Fig. 3.

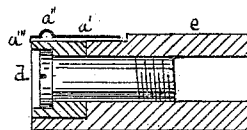


Fig. 4.

WITNESSES.

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CHARLES S. DUNBRACK, OF SWAMPSCOTT, MASSACHUSETTS.

IMPROVEMENT IN BOOT AND SHOE CHANNELING-MACHINES.

Specification forming part of Letters Patent No. **143,561**, dated October 14, 1873; application filed July 21, 1873.

To all whom it may concern:

Be it known that I, CHARLES S. DUNBRACK, of Swampscott, in the county of Essex and State of Massachusetts, have invented a Channeling and Feather-Edging Machine for Boots and Shoes, of which the following is a specification:

The object of the invention is, by the aid of another device hereinafter to be referred to, to channel and feather-edge both faces or surfaces of the sole of a boot or shoe at the same time, preparatory to stitching the same to the upper. The process of channeling and feather-edging both surfaces of the sole at the same time consists in the use of well-known machinery, or equivalent mechanism or device, to cut the lip-channel on the grain side of the sole, in connection with my invention or machine, which consists of an irregular shave or cutter, operated by suitable machinery, and combining in one device the channel-cutter and the two feather-edging cutters on either side of the channel-cutter. This shave or cutter channels and smooths the edges of the channel on the flesh side of the sole opposite the channel on the grain side. The cutters are adjustable, and by the aid of the said device hereinafter to be referred to, both surfaces of the sole may be channeled at the same time, or only one surface, at pleasure.

Figure 1 is an elevation of my device, in connection with parts of a known machine, represented in said figure by dotted lines. Fig. 2 is a plan view of my invention. Fig. 3 is a side view of the same. Fig. 4 is a cross-section of Fig. 3 in line *x x*. Fig. 5 is a section of a sole channeled.

The same letters represent like parts.

The letter A represents my invention; B, parts of the machine referred to by dotted lines, not herein claimed; C, a channeled sole; *a*, the adjustable shave, composed of its feather-edging cutters *a'* *a'''*, and its channeling-cutter *a''*, having also a slot, *s*, through which passes a screw, *b*, in the adjustable block *b'*. *d* is a roller adjusted to the bed-plate by a screw, just beneath the edge of the channeling and feather-edging shave. *e* is the bed-plate, having a projection, *e'*, which is fastened to part of the machine represented by dotted lines. *ff* and *g g* are channels cut, and *h h* lips of

channel; *z z*, elongated holes for screws to adjust the device A to the machine; (see dotted lines, &c.)

Fig. 1 represents in general the outlines of a known machine for channeling the grain side of the sole, having an upturned lip, as seen in Fig. 5 at *g g* and *h h*, which is covered by patent of date July 28, 1863, and my machine, A, which is secured to the frame of said machine B. Fig. 2 is a plan view of the several parts of the channeling and feather-edging cutter; its part *a* is the shave, having convex cutting-surfaces, viz., the parts *a'* and *a'''* feather-edge the channel and the raised part *a''* cuts the channel, as seen in 5 at *ff*. The lip on the part *a'''* will be observed; this smooths the surface edges. Its part *e* is the bed-plate, to which are fastened the adjustable block *b'* by the clamp-screw *c*, and the roller *d* by a screw or other fastening. The part *e'* of the bed-plate *e* has elongated holes *z z*, (see Fig. 1,) so that the machine A can be raised or lowered by screws attaching it to the parts of machine B, represented by dotted lines. Its part *b'* is an adjustable block, having a slotted opening on the under side, (not seen in drawings,) through which passes the clamp-screw *c*, so that the block carrying the channel-cutter *a* can be raised or lowered on the bed-plate, as desired; its roller *d*, (see Figs. 4 and 5,) is designed to lessen friction in channeling and feather-edging the sole, though it is not essential and may be dispensed with, its place being filled out solidly by the bed-plate. These several parts are made of iron or suitable metal, the cutters, of course, being made of steel. There is also a gage adjusted to the bed-plate *e*, (not represented in the drawings,) to determine the distance of the channel from the edge of the sole.

There have been various devices for channeling and also feather-edging soles, but none combining, as in mine, the two devices. I claim only the parts of A as constructed and combined.

Hitherto no machine or combinations of machines or devices have been invented or constructed which would channel both surfaces of the sole at the same time. My machine will channel and feather-edge the flesh side of the sole when adjusted to any well known and proper machinery which will accomplish the

work, and, in connection with the above-mentioned machine for cutting channel and lip, will channel and otherwise prepare the sole for adjustment to the upper at the same time.

It will be observed that the upper when drawn into the channel, as at *f f*, will be so fastened that the stitches cannot be disclosed.

I claim—

In a machine for channeling and feather-

edging, the combination of the knife *a a' a² a³*, and the adjustable block *b'* with the bed-plate *e*, all constructed substantially as set forth, and for the purposes specified.

CHARLES STORY DUNBRACK.

Witnesses:

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