(No Model.)

Z. T. FRENCH.

CHANNELING MACHINE.

No. 453,999. Patented June 9, 1891.

Fig: 1.

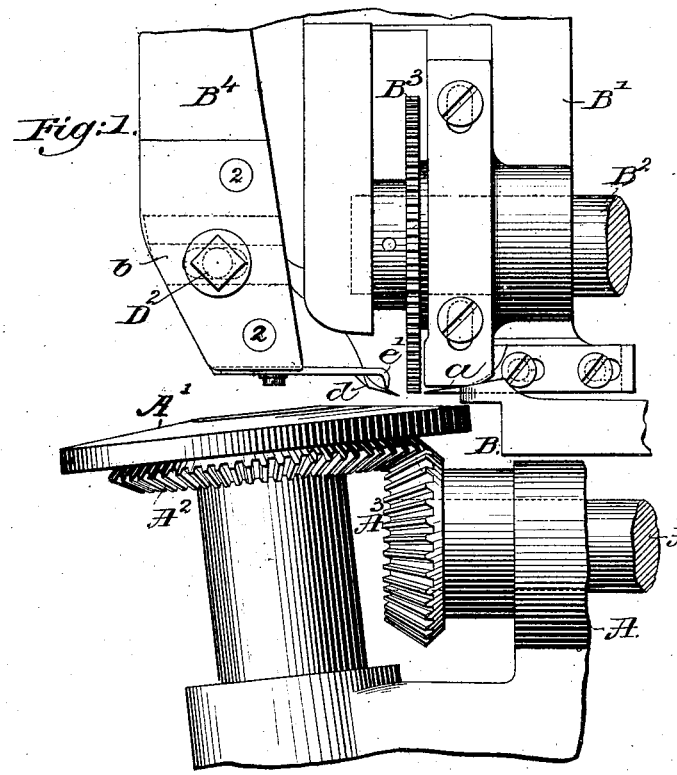


Fig: 2.

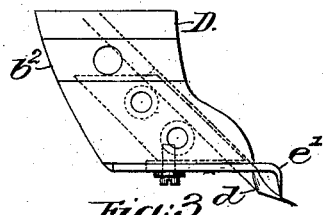


Fig: 3.

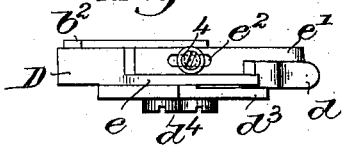


Fig: 4.

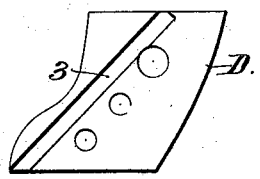


Fig: 5.

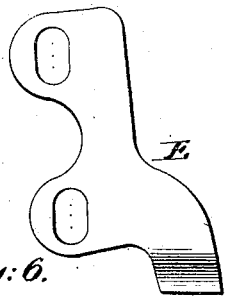
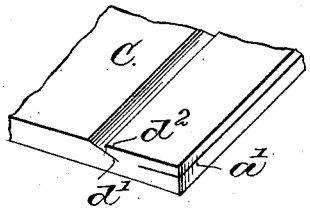


Fig: 6.



Witnesses.
Fred. L. Gruenbaum
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Attys

UNITED STATES PATENT OFFICE.

ZACHARY T. FRENCH, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE GOODYEAR SHOE MACHINERY COMPANY, OF HARTFORD, CONNECTICUT.

CHANNELING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 453,999, dated June 9, 1891.

Application filed November 20, 1890. Serial No. 371,981. (No model.)

To all whom it may concern:

Be it known that I, ZACHARY T. FRENCH, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Channeling-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention in channeling-machines has more especially for its object an improved construction and combination of knives therewith, whereby the depth of the inner lip of the outer sole and the amount of the lip which is to be trimmed off may be regulated at will.

My invention consists, essentially, in the combination-gage, feeding mechanism, a lever, and a knife-carrier having at its rear side a diagonal groove and grooved upon its under side to form a shoulder, of a channel-knife adjustable in said diagonal groove, a clamp therefor, and the longitudinally-slotted trimming-knife placed against the shoulder of the carrier and held in adjusted position by a set-screw extended through said slot to cut a lip in the sole and trim the edge of the lip, substantially as will be described.

Figure 1 in elevation shows a sufficient part of a channeling-machine with my improvements added to enable my invention to be understood, the usual presser-foot which bears on the upper side of the material having been omitted to better show the knives behind it. Fig. 2 shows the knife-carrier detached, but with the knives thereon; Fig. 3, an under side view of the knife-carrier and its knives. Fig. 4 shows the rear side of the carrier. Fig. 5 shows the presser-foot detached, and Fig. 6 shows a piece of sole as it will appear after having been passed through the machine.

The frame-work A, the rotating table or work-support A′, the gears A^2 A^3, the shaft A^4, the edge-gage B, the edge-slitting blade *a* (see Fig. 1) to cut the slit *a′* in the edge of the sole C, the head B′, having the shaft B^2, carrying the feed-wheel B^3, and the knife-carrying lever B^4 are and may be all as usual in channeling-machines now in use. The holes 2 2 in practice receive bolts by which to secure to the lever B^4 the usual presser-foot E, (see Fig. 5,) which bears on the upper side of the material to be channeled. The lever B^4 has at its rear side (see dotted lines, Fig. 1) a groove *b*, in which enters a rib b^2 on a knife-carrier D, which is secured to the lever B^4 by a set-screw D^2. This knife-carrier (see Fig. 4) is provided at its rear side with a groove 3, in which is laid the shank of the channel-knife *d*, which cuts the slot *d′* in the sole for the production of the inner lip d^2, the shank of the said blade being acted upon by a clamp d^3, held in place by the screws d^4. The knife *d* is made adjustable in the direction of its length, so that it may cut a slot which shall extend into the sole and toward its face side to the desired point. The under side of the knife-carrier is grooved to leave a shoulder *e*, against which is placed one edge of the shank of the lip-trimming blade *e′*, employed to trim off the edge of the lip formed by the knife *d*, leaving the said lip with a uniform edge, as shown in Fig. 6. The shank of the knife *e′* is slotted, as at e^2, for the reception of a set-screw 4, by which to hold the said knife in adjusted position, the said knife being made adjustable horizontally in the direction of its length, to thereby enable more or less of the thin edge of the lip *d′* to be cut off, the removal of the said lip leaving more room for the stitch and obviating the formation of a ridge.

Prior to my invention I am aware that a sole has been split in from its edge, and that part of one of the lips so formed has been trimmed or cut off, as in United States Patents No. 254,612 and No. 68,094; but prior to my invention I am not aware that the inner channel-lip has ever been trimmed as it is formed.

I claim—

The combination, with a work-support, a gage, feeding mechanism, a lever, and a knife-carrier having at its rear side a diagonal groove and grooved upon its under side to form a shoulder *e*, of a channel-knife *d*, adjustable in said diagonal groove, a clamp

therefor, and the longitudinally-slotted trimming-knife *e'*, placed against the shoulder *e* of the carrier, and held in adjusted position by a set-screw extended through said slot, to cut a lip in the sole and trim the edge of the lip, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ZACHARY T. FRENCH.

Witnesses:
AUGUSTA E. DEAN,
EDWARD F. ALLEN.