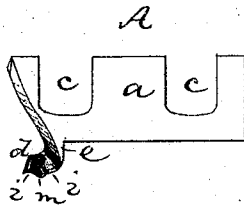
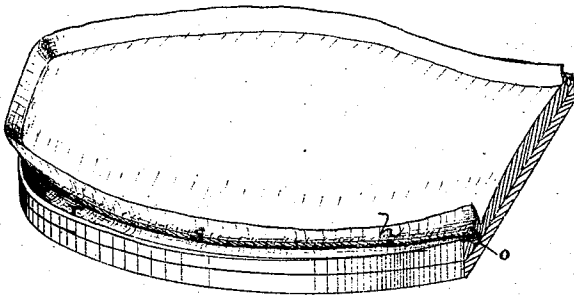
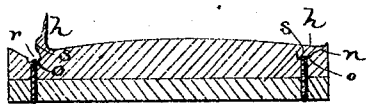


L. R. Blake.
Impr in Channelling Soles.

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PATENTED JUL 11 1871



Witnesses. { M. W. Frothingham.
L. H. Latimer.

L. R. Blake.
By his Atty.
Crosby & Gould.

UNITED STATES PATENT OFFICE.

LYMAN R. BLAKE, OF FORT WAYNE, INDIANA.

IMPROVEMENT IN CHANNELING SOLES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 116,921, dated July 11, 1871.

To all whom it may concern:

Be it known that I, LYMAN R. BLAKE, of Fort Wayne, in the county of Allen and State of Indiana, have invented an Improvement in Channeling Soles; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In soling boots and shoes by McKay sewing-machines it is customary to lay the outer stitches or chain of stitches in a channel cut in the sole. To cover the channel and the stitches this channel is made under a flap cut at the edge of the sole, and to cut the flap-slit and the channel or groove under it, or at its angle, a straight knife or cutting-edge is employed in connection with a tubular knife or cutter, the straight knife forming the slit, and the tubular knife cutting out a piece of leather to form the groove or channel. The stitches lie, or tend to lie, nearly flat in this groove, and when the flap is laid down and the sole is surface-finished by hard rubbing, boning, or other condensing manipulations, the leather sinks down into the groove, (over the stitches,) making an irregular hollow, and, of course, marring the finish.

My present invention relates to such a construction of a slit-cutting and channel-cutting tool as shall form the straight slit, and at the bottom surface of the slit the groove or channel by simple displacements of the leather, or without removing the core of leather. To accomplish this I make the cutter-blade with a slitting-edge, in which is a grooving-bend, that cuts a groove below the slit, or as a deflection from the slit, without removing the material, the leather being simply displaced with and forming part of the flap. When the channel is thus made, and the sole is united to the upper, and the flap pressed down, the ridge on the flap will enter the groove on top of the stitches, but the pressure of the condensing or rubbing-tools compacts the leather into the channel, so that the sole may be finished

with a smooth flush surface and without any depression or projection in the line of the seam. My invention consists in the construction of the channeler-knife, and in the method of channeling the sole, and a sole so channelled.

The drawing represents a channeled sole and the channeling-tool embodying my invention.

a denotes the cutter-stock, having suitable slots *c*, by which it is adjustably fastened to the arm of the machine. From this stock extends the vertical shank *e* of the cutter *d*, the front and bottom of this shank being a cutting-edge, and running into the cutting-edge *i* as shown at *A*. In this edge *i* is formed the depression or bend *m*, running from the edge *i* back, and terminating in the thick end or heel of the cutter-shank. The edge *i* of the cutter cuts the slit *n* in the sole, with the curve *o*, which curve, when the flap *h* is raised, leaves the groove *r*, and forms on the flap *h* the projection or ridge *s*.

It will be readily understood that, when the slit and groove and the flap and ridge are thus formed, and the stitches are embedded in the groove *r*, the pressure of the sole-finishing tools will force the ridge *s* down into the groove so as to leave the outer surface of the sole with a flush and smooth finish.

I claim—

1. A sole-channeler knife having the straight cutting-edge *i* and curved groove-cutting edge *m*, formed as one edge, substantially as shown and described.

2. The method of forming and filling the channel, consisting in cutting the slit with the groove below it, leaving the ridge on the flap, and compressing the ridge into the groove against the stitches, substantially as described.

3. A channeled sole in which the flap is formed with the displaced leather from the groove, substantially as described.

LYMAN R. BLAKE.

Witnesses:

FRANCIS GOULD,
M. W. FROTHINGHAM.