(No Model.)

J. G. ROSS.

TOOL FOR CHANNELING SOLES OF BOOTS OR SHOES.

No. 331,214. Patented Nov. 24, 1885.

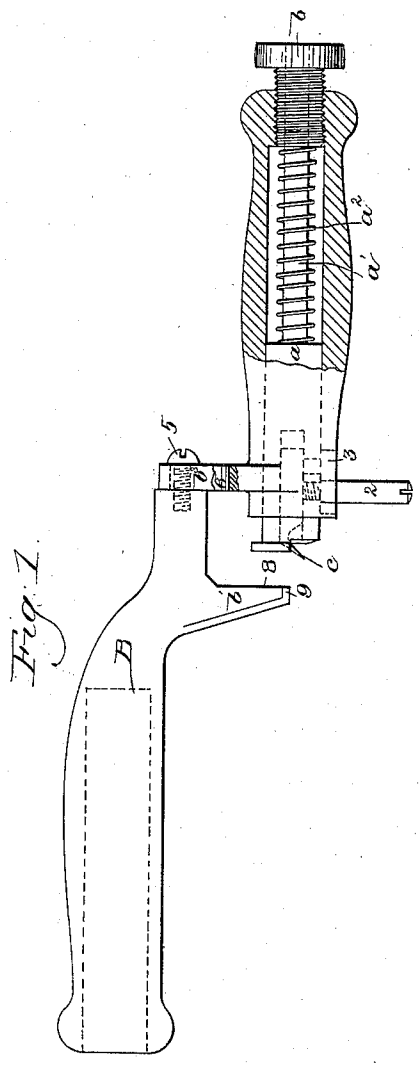


Fig. 1

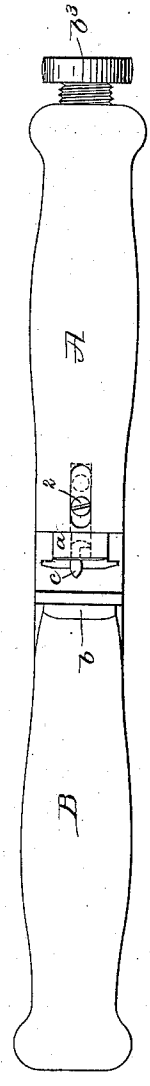


Fig. 2

Witnesses.
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UNITED STATES PATENT OFFICE.

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TOOL FOR CHANNELING SOLES OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 331,214, dated November 24, 1885.

Application filed July 22, 1885. Serial No. 172,307. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. ROSS, of Wakefield, county of Middlesex, and State of Massachusetts, have invented an Improvement in Tools for Channeling Soles of Boots and Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to produce a small hand tool or device whereby a sole of a boot or shoe may be effectually channeled after the same has been lasted in the usual manner, the welt sewed thereon, and the sole tacked or otherwise secured thereto.

The invention consists, essentially, of a tool containing a main hand-piece, a channel-cutter adjustable therein, and an auxiliary hand-piece adjustably connected with the main hand-piece, the latter having a guide fixed to bear against the upper side of the projecting edge of the welt or sole and against the upper of the boot or shoe drawn over the last.

As both hands are required to operate the tool herein to be described, the boot or shoe lasted in the usual manner will be firmly held upon or by any suitable jack.

Figure 1 shows in elevation and partial longitudinal section a tool for channeling boots and shoes in accordance with this invention, and Fig. 2 an under side view thereof.

The main hand-piece A, bored longitudinally, receives a cutter-carrying block, *a*, and attached spindle *a'*, the cutter-carrying block being of sufficient diameter to slide freely in the hand-piece. The spindle *a'* is encircled by a spiral spring, a^2, one end of which bears against the cutter-carrying block, while its other end bears against the face of an adjusting-screw, *b*, screwed into the open end of the main hand-piece A, said adjusting-screw being bored longitudinally to receive the end of the spindle *a'*, the rotation of the screw in one or the other direction increasing or decreasing the tension of the spring a^2.

The cutter-carrying block *a* is recessed to receive the channel-cutter *c*, preferably adjustably held therein by a screw, 2, (see Fig. 1,) which passes through a slot, 3, in the main hand-piece A, and also through the cutter-carrying block *a*. This screw 2 has an extended shank, as will be seen in Fig. 1, which serves as a thumb-piece, by means of which the cutter-carrying block *a* may be moved in opposition to and to compress the spring a^2 when the tool is being applied to the edge of the welt or sole.

The main hand-piece A, near one end, is provided with a projection or ear, b^3, preferably integral therewith and slotted at 6, and to this projection by screw 5 is adjustably attached the auxiliary hand-piece B, the latter extending in a plane substantially parallel with the main hand-piece A, the screw 5 passing through a slot, 6, in the said projection or ear and permitting adjustment of the parts to channel the sole at the desired distance from its center in conformity to the last. The auxiliary hand-piece B is provided with a lug or projection, *b'*, extended therefrom at right angles in proximity to the cutter-carrying block *a*. The lug or projection *b'* serves as a guide for the sole to be channeled, the face 8 of the said projection bearing against the upper side of the projecting edge of the welt, while the end 9 of the said projection bears against the upper of the boot or shoe, the latter being drawn tightly over the last.

In operation the boot or shoe to be channeled being suitably fixed upon a jack, the operator grasps both hand-pieces A B, compresses the cutter-carrying block *a* by the screw or stud 2, applies the tool to the edge of the boot or shoe until the end 9 of the guide *b'* bears against the upper and the face 8 upon the upper side of the projecting edge of the welt, and then the screw 2 is released, permitting the channel-cutter to enter the sole, and the tool is then passed around the boot or shoe, cutting the channel.

The auxiliary hand-piece B being made adjustable permits the channel to be cut more or less distant from the edge of the sole; and the channel-cutter being made adjustable, the channel may be cut of any desired depth, the cutter-carrying block *a* yielding to the action of the spring a^2, thus allowing the tool to be passed over a sole of varying thickness with ease.

It is obvious that the parts may be made

rigid; but in such case several tools would be required, according to the thickness of sole and size of the boot or shoe; also, it is obvious that a groover may be employed in place of the channel-cutter, or that both may be employed.

I claim—

1. In a tool for channeling the soles of boots and shoes, the main hand-piece and spring-controlled channel-cutter mounted therein, combined with the auxiliary hand-piece connected with the main hand-piece, and the guide b', arranged to co-operate with the channel-cutter, all substantially as described.

2. In a tool for channeling the soles of boots and shoes, the main hand-piece and channel-cutter adjustably mounted therein, combined with the auxiliary hand-piece adjustably connected with the main hand-piece, and the guide b', arranged to co-operate with the channel-cutter, all substantially as described.

3. In a tool for channeling the soles of boots and shoes, the main hand-piece, the spring-controlled cutter-carrying block, and cutter adjustably mounted therein, and means, substantially as described, to compress the said cutter-carrying block, combined with an auxiliary hand-piece adjustably connected with the main hand-piece and having a guide, b', as set forth.

4. In a tool for channeling the soles of boots and shoes, the auxiliary hand-piece and guide b', combined with the main hand-piece connected with the auxiliary hand-piece, the yielding cutter-carrying block and cutter mounted therein, and screw 2, to retain the cutter and compress the cutter-carrying block, substantially as described.

5. In a tool for channeling the soles of boots and shoes, the auxiliary hand-piece and guide b', combined with the main hand-piece connected with the auxiliary hand-piece, the cutter-carrying block and cutter mounted therein, spindle a', spring a^2, adjusting-nut b, and screw 2, all substantially as described.

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

JOHN GILBERT ROSS.

Witnesses:

G. W. GREGORY,

B. J. NOYES.