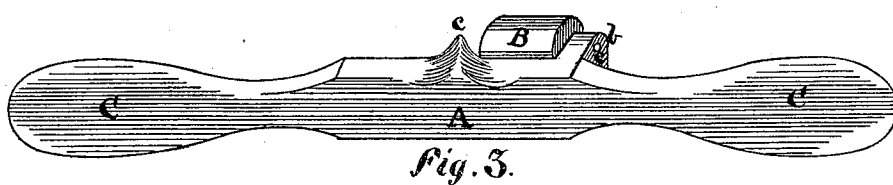
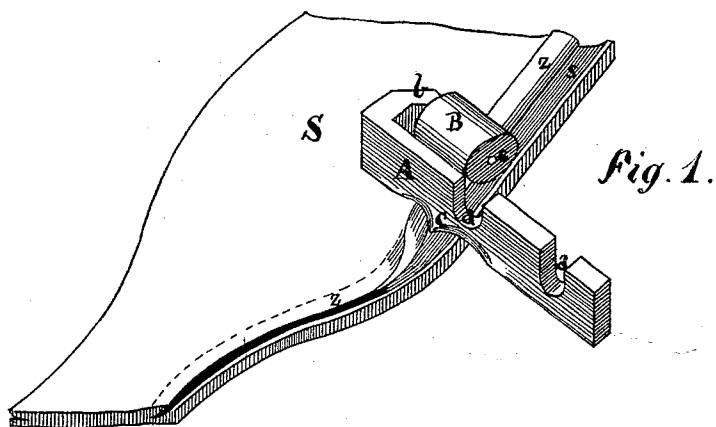


A. E. CHICKERING & H. B. TUTTLE.

Channeling-Machines for Boots and Shoes.

No. 141,693.

Patented August 12, 1873.



Witnesses { William F. Selkirk
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by their attorney
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UNITED STATES PATENT OFFICE.

ALVIN E. CHICKERING AND HENRY B. TUTTLE, OF ALBANY, NEW YORK.

IMPROVEMENT IN CHANNELING-MACHINES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **141,693**, dated August 12, 1873; application filed March 24, 1873.

To all whom it may concern:

Be it known that we, ALVIN E. CHICKERING and HENRY B. TUTTLE, both of the city and county of Albany and State of New York, have invented a new and Improved Device for Turning the Channels in the Soles of Boots and Shoes; and we do hereby declare that the following is a description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon, in which—

Figure 1 represents a perspective view of the device, illustrating its operation with a channel of a sole. Fig. 2 is a vertical view of the same. Fig. 3 is a perspective view of the same arranged to be operated by hand.

Our invention relates to a device for turning the channels of the soles of boots and shoes; and consists in one part in the combination of a projection denominated the plow and a molding-curved surface with a pressing-plate in such a manner that the said plow will enter the already cut channel, and will operate to throw the flap of the same up while the molding-curves will turn said flap over; the object of this part of the invention being to turn over in a perfect and rapid manner the flap cut from the sole of a boot or shoe in the channeling of the same, and prevent any puckering of the same when turning the corners or the toe of the sole. Another part of this invention consists in the combination of a flattening-down roller with the said plow in such a manner that the said roller will immediately follow the molding-curves, and the plow act on the turned-over surface of the flap to press the same flat and close to the surface of the body of the sole, and so lay down the flap as to preserve the channel clear and free; the object of this part of the invention being to cause the flap cut from the channel to be pressed down clear of the said channel, so that the same will be made clear from the turned-over flap, that the sole may be at a future time sewed in a direct vertical manner by a sewing-machine without the stitches being liable to catch on any projecting points, as is usual with soles having their channels turned over by hand.

To enable others skilled in the art to make and use our invention, we will proceed to de-

scribe it in reference to the drawings and the letters of reference marked thereon, the same letters indicating like parts.

In the drawings, A represents a plate made of any suitable metal, such as iron, steel, or bronze, which is to be used with a channel-cutting machine, and is made with attaching-slots *a a*, Figs. 1 and 2. The said plate is provided with a projecting piece, *c*, which we denominate the plow. The said plow is shown in Figs. 1 and 2, and consists of a blunt point having a length of projection from the lower edge of the plate A of about one-eighth of an inch, more or less, as shown in Figs. 1 and 2. Made with the said plate, and in immediate connection with the plow *c*, are the molding-curves *x x'*, which are intended to operate with the plow to turn the flap from the channel when the tool is operated. The manner in which this part of the invention operates is as follows: The plow enters the channel *s*, previously cut by the channeling-machine, and, striking the bottom of the same, will, when the sole is fed along or the tool is moved over the same, lift up and carry to an upright position the flap *z* cut from the channel, when the molding-curve *x* will immediately act to turn over the said flap, substantially as illustrated in Fig. 1.

We also place in rear of the plate A the pressing-roller B, which is properly supported by the bracket *v*, and revolves on any suitable pin, *e*, shown in Figs. 1 and 2. The said roller is preferably placed as near to the plate carrying the plow *c* as possible, having the lowest drop of its periphery about on a plane with the point of the plow, as shown in Fig. 3. This part of the invention is intended to operate with the flap turned over by the plow and molding-curve *x*, and to press it down close to the surface of the sole S, and cause it to lie flat and clear of the channel *s* in every part, as shown in Fig. 1.

This instrument or device is intended to be used with the "McKay Channeling-Machine," in lieu of the knife and groover, after the channeling has been performed, used in the said machine; and it is to be understood that we do not confine ourselves to use it with the said machine or any other particular machine; and it is not to be considered as a part of the

said machine, as it is only used with such machine on account of economy of application and convenience of use in large factories. For small manufacturers not employing a channeling-machine we attach to this device the handles C C, somewhat similar to that of a spokeshave, by which an operator can lay over the flap of the channel in a rapid, even, and clean manner.

By this invention all recourse to a hammer for laying over and down the flap *z* is dispensed with, and the usual puckering of the corners or toes of the channel-flap is avoided, and the said channel will be so cleared of its flap as to permit the needle of the sewing-machine to operate perpendicular with the surface of the sole, instead of at an angle, as is now required with soles having the flaps of their channels turned over by hand.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. For starting up and turning over the flap of the channels of the soles of boots and shoes, the combination of the plow *c* and molding-curved surfaces *x* with the plate A, substantially as shown and set forth.

2. For starting up, turning over, and pressing down the flap of the channels of the soles of boots and shoes, the combination of the plow *c* and molding-curving surface *x* with the pressing-roller B, substantially as shown and set forth.

ALVIN E. CHICKERING.
HENRY B. TUTTLE.

Witnesses:

CHAS. J. SELKIRK,
GEO. A. THOMPSON.