(No Model.)

C. T. STETSON.

MACHINE FOR CHANNELING AND TRIMMING BOOT OR SHOE SOLES.

No. 263,616. Patented Aug. 29, 1882.

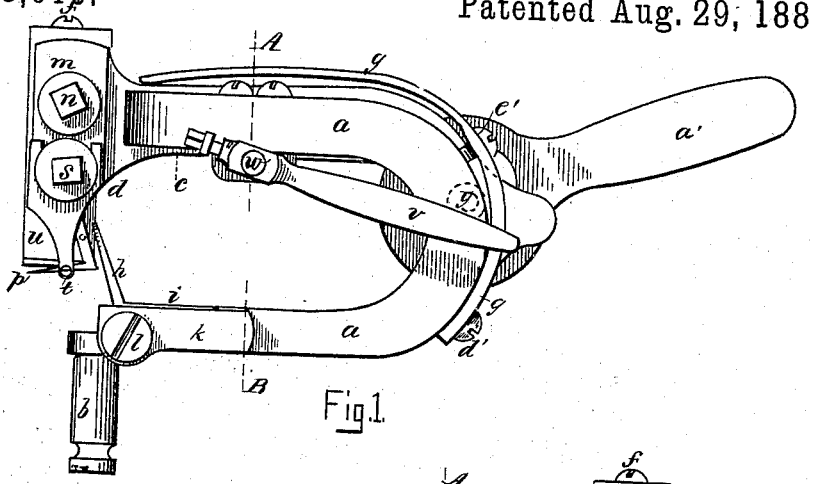

Fig. 1.

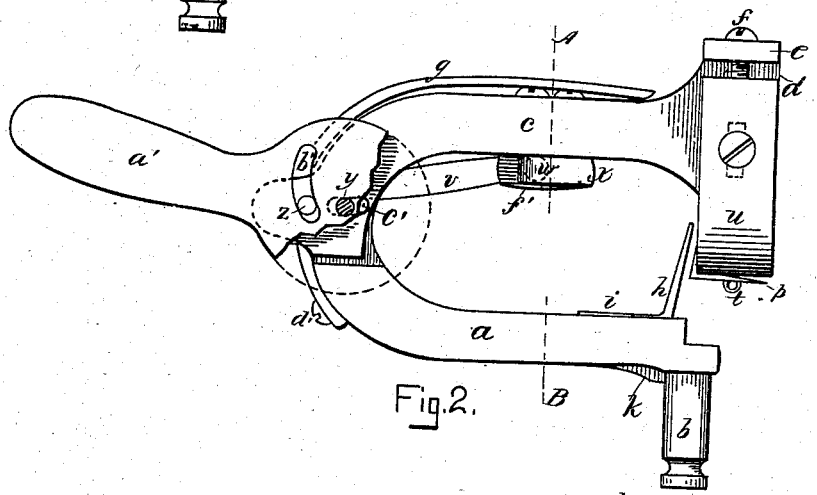

Fig. 2.

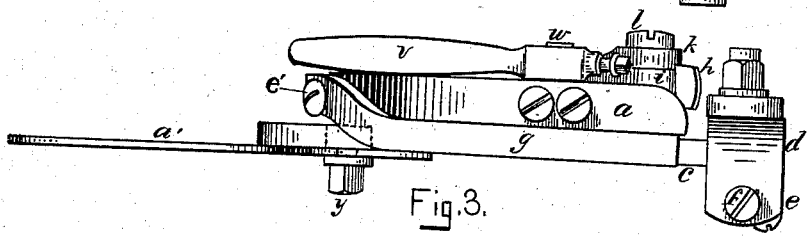

Fig. 3.

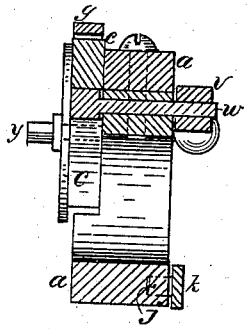

Fig. 4.

Witnesses
W. J. Dudley.
H. C. Lettenay

Inventor.
Charles T. Stetson
By Potter & Hutchinson
Attys.

UNITED STATES PATENT OFFICE.

CHARLES T. STETSON, OF ROCKLAND, MASSACHUSETTS.

MACHINE FOR CHANNELING AND TRIMMING BOOT OR SHOE SOLES.

SPECIFICATION forming part of Letters Patent No. 263,616, dated August 29, 1882.

Application filed September 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. STETSON, of the town of Rockland, State of Massachusetts, have invented an Improvement in Boot or Shoe Sole Fitting and Channeling Machines, of which the following is a specification.

The object of my invention is to effect certain improvements in machines for fitting, (outlining,) channeling, and grooving boot or shoe soles; and the invention will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

Figure 1 is a side elevation of that portion of a machine in which my improvements are directly embodied. Fig. 2 is a reverse view or elevation of the same. Fig. 3 is a top or plan view thereof; and Fig. 4 is a transverse vertical section taken on line A B, Figs. 1 and 2, and as looking to the right in the first and to the left in the last named of said Figs. 1 and 2.

In said views, *a* represents the body or stock of this part of the machine, which body is usually formed U-shaped, as shown, and upon the lower arm is formed the stud *b*, by means of which it is attached to the sole-clamping and rotating part of the machine, which said devices may be of any of the numerous and well-known kinds. The sole-edge-trimming knife *h* is secured in body *a* by inserting its shank *i* in groove *j* (partly shown in Fig. 4) and clamping the same therein by cap *k* and its securing-screw *l*. An arm or helve, *c*, having a head, *d*, is pivoted to stock *a* at or near the apex of its curve by bolt *y*, as is shown in Figs. 1, 2, 3. Upon said head is secured the channeling-knife *p*, whose angle-shank *o* extends downward from plate *m*, which is secured to said head by clamping-bolt *n*, which is threaded therein; and the groover *t* is by its body secured to said head by bolt *s*, which passes through plate *m* and is threaded in said head. A surfacing-gage, *u*, is secured to head *d* on the side opposite to the channel-cutter *p* and groover *t* by a clamping-screw passing through a slot therein, to admit vertical adjustment, as shown in Fig. 2, while the vertical adjusting-screw *f*, threaded in lip *e* of head *d*, serves to secure said gage from vertical displacement when in use. For the purpose of vertically adjusting said arm *c* by vibrating it on its pivot *y*, and thereby elevating head *d* and its described cutters, a short rock-shaft, *w*, is journaled in a bearing-block, *f'*, formed upon or secured beneath the upper arm of body *a*, and upon one end of said shaft is secured the lever *v*, while upon the opposite end is formed the cam *x*, which is arranged beneath said arm *c*, whereby the depression of the free end of lever *v* serves to elevate head *d*, while the spring *g*, which at its rear end is secured to body *a* by screw *d'* and near its middle by the adjusting-screw *e'*, serves by the force exerted by its free end upon arm *c* to constantly force said arm downward with the requisite force. Arm *c* is formed with a horizontally-elongated slot, *c'*, Fig. 2, through which passes its pivotal and securing bolt *y*, (threaded in body *a*,) which is shown in said figure in transverse section. A pin, *z*, is rigidly secured in said arm adjacent to slot *c'*, and the cam-lever *a'* is pivoted on said bolt *y*, and is formed with a cam-like slot, *b'*, which is oblique to a circular path having said bolt *y* as its center, and with a radius equal to the distance between the centers of said bolt *y* and pin *z*. Consequently when the free end of lever *a'* is depressed arm *c* will be retracted, while the reverse movement of the lever will advance said arm, whereby the path of the channeling-knife *p* and groover *t* may be varied and adjusted in their distance from the edge of the sole, either in their entire path therein or at the shank or any other part thereof, as may be desired; and by arranging a suitable cam or guide bar to actuate said lever *a'* it may be automatically moved to regulate and adjust the position of the channel and thread groove relatively to the edge of the sole in the different parts thereof, as before described.

As the records of the Patent Office show numerous devices for clamping and rotating the sole while it is being channeled and grooved by devices thereto attached and coacting therewith, a further reference to such clamping and rotating devices is not deemed necessary.

I claim as my invention—

1. In a sole-edge fitting and channeling machine, the combination, with an edge-trimming cutter, of a channel-cutter arranged to be ad-

justed in its distance from the edge-trimmer when both are operative, whereby the distance of the channel from the sole-edge may be varied while both are being formed, substantially as specified.

2. In a sole-edge fitting and channeling machine, the combination, with an edge-trimming cutter, of a channel-cutter arranged to be adjusted both in its distance from the edge-trimmer and vertically in relation to the plane of the sole when both said cutters are operative, whereby both the distance of the channel from the sole-edge and the depth of the channel in the sole may be varied while both the sole-edge and the channel are being formed, substantially as specified.

3. The combination of the knife-carrying arm *c*, with its slot *c'* and pin *z*, lever *a'*, with its oblique slot *b'*, and bolt *y*, secured in body *a* and arranged to serve as the pivot of arm *e* and lever *a'*, whereby the vibration of said lever serves to lineally adjust said arm, substantially as specified.

CHARLES T. STETSON.

Witnesses:
T. W. PORTER,
IRA BRYANT.