L. GODDU.

Sole-Channeling Machine.

No. 167,523. Patented Sept. 7, 1875.

Fig. 1.

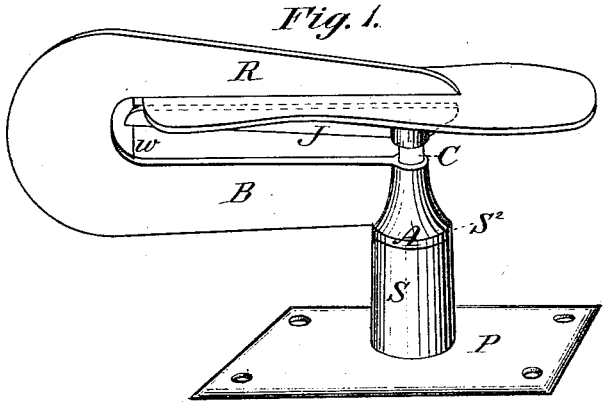


Fig. 2.

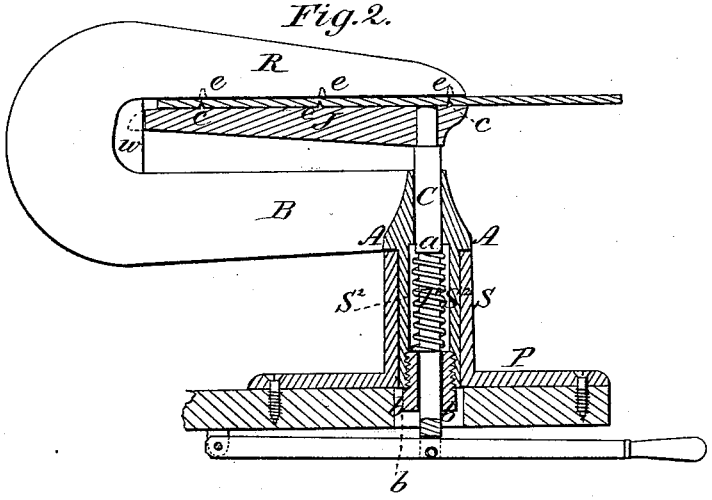


Fig. 3.

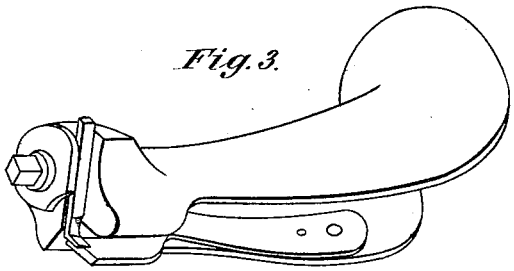
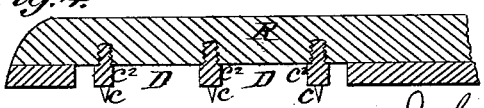


Fig. 4.



Witnesses:
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J. H. Rutherford

Inventor:
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By Johnson and Johnson
his Attorneys.

UNITED STATES PATENT OFFICE

LOUIS GODDU, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE AMERICAN CABLE SCREW WIRE COMPANY, OF SAME PLACE.

IMPROVEMENT IN SOLE-CHANNELING MACHINES.

Specification forming part of Letters Patent No. **167,523**, dated September 7, 1875; application filed August 25, 1875.

CASE B.

To all whom it may concern:

Be it known that I, LOUIS GODDU, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Revolving Sole-Holder for use in Channeling; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

Channeling the soles of boots and shoes is cutting up a surface-lip around the edge of the sole for the purpose of hiding the stitches or fastenings. This has been done by a hand-knife. Machines have also been adopted for this work.

My invention consists of a simple bench device, in which the sole is clamped and held by pivoted goose-neck, which is seized at the bend by one hand of the operator and turned, while with a hand-tool he channels the sole by drawing the knife along the edge of the sole in a direction opposite to its movement in revolving the goose-neck. The goose-neck is provided with a sleeve projecting at right angles from the end of the base-branch, and supported in a socket having a suitable base, by which it is secured to a bench or table. The upper branch of the neck returns in a plane parallel to the base-branch and extends just beyond its swiveling-point. The space between the base and return branch of the neck is wide enough to receive and allow of the proper play of a clamp-jaw for varying thicknesses of leather, and by which the sole is held fast against the return-branch in line with the neck, and with the toe part projecting slightly beyond the pivot, to give freedom for the action of the knife round the toe, and from one side to the other. The clamping-jaw is carried by a stem passing through the pivot-sleeve, and which stem constantly exerts an upward force by means of a coil-spring within the sleeve, to hold the clamp-jaw always in position against the return-branch, whereby it may be opened when desired to clamp the sole in place.

This sole-clamping device may be operated by treadle or hand lever; but in either case it is maintained by the spring in its closed position.

I do not wish to confine myself in the use of this device to any particular channeling-tool, but prefer the one shown, and which forms the subject of a separate patent.

In the accompanying drawings, Figure 1 represents a view in perspective of my pivoted sole-clamp for channeling; Fig. 2, a vertical section thereof, and Fig. 3 a hand channeling-tool used in connection with my sole-clamp.

A sleeve, S, rises from a suitable bed-plate, P, which is fastened to a bench or table, and receives a hollow pivot-stem, S^2, projecting from the end of the base-branch B of a goose-neck, and upon which said neck has freedom to be turned upon a shoulder, A, resting upon the base-sleeve. The return-branch R of the goose-neck has its under edge parallel to the base, and extends slightly beyond the pivot S^2 thereof. Within the space formed by the goose-neck a movable clamp-jaw, J, is arranged to have a vertical adjustment in relation to the return-branch R to clamp the sole firmly in position to be channeled. It is confined within the goose-neck space by means of of a stem, C, fixed to its outer ends and passing through the hollow stem S^2 of the goose-neck, while its inner end is forked and rides over a ribway, *w*, at the inner bend of the goose-neck, so that the jaw-clamp is kept in line with goose-neck; but is free to be raised or lowered to clamp and release the sole. The normal condition of the clamp-jaw J is against the return-branch R, and is kept in such position by means of a spiral spring, T, which, bearing upon a shoulder, *a*, on the clamp-stem C, and upon a screw-nut, *b*, at the lower end of the goose-neck stem S^2, constantly presses the jaw-clamp J up, and holds it against the return-branch R until opened to receive the sole, between which it is then firmly held for channeling. To hold the sole from moving or

twisting from a straight line with the goose-neck while the channel is being cut, and the neck is being turned upon its pivot, the jaw-clamp is provided with holding-pins *c*, projecting slightly above the surface of the jaw, and which, entering the sole when the latter is clamped in place, effectually prevent its movement between the clamping-surfaces. Indentations *e* are made in the surface of the return-branch, into which the pins *c* pass, to prevent them striking the solid surface when the sole is out, and the jaw is forced against the neck. Similar pricks can be put in the upper stationary jaw, with corresponding indentations in the jaw-clamp, if found necessary to more firmly hold the sole.

In channeling, the jaw-clamp J is depressed by the treadle or hand lever, which is connected with the clamp-stem C, and the sole inserted between the jaws and clamped. The operator by one hand seizes the goose-neck at the bend and brings it in line with him. Then taking the hand-tool in the other hand he applies the cutter at or near the heel, and drawing the tool toward him, at the same time slightly turning the goose-neck in an opposite direction to the line of cut, until the channel is cut round the toe, during which the sole has been turned through a half-revolution, and the heel is brought to the position first occupied by the toe, when further turning is unnecessary; but the knife is drawn toward the operator to the heel opposite the point of starting.

The jaw-clamping parts are made narrow, to allow room for the channeling-tool to cut the shank, which in some cases is very narrow. The clamp-jaws are made long enough to take in the longest sole.

By this revolving clamp soles can be channeled with great facility and speed, and with comparative ease, as the goose-neck gives the advantages of a feeding device, a holder and support for the sole, and an operating-lever against the cut of the hand-tool, whereby very little strength is required to channel the sole, and the work done fully as rapidly as by an organized machine.

The hand-tool which I use is specially adapted for work with the revolving goose-neck, because it has a drawing cut, and receives the edge of the sole within itself, and thereby allows the knife to cut the channel at the sharp curve of the shank, and round the toe, which could not well be done without the curved handle open on its inner surface. As this device, however, is made the subject of another application a description of it here is deemed unnecessary.

Fig. 4 represents a section of the return-branch R of the jaw, in which it is shown as adapted to soles having very narrow shanks, and in which the projecting-pins *c* in the jaw are removably fastened to studs c^2, of suitable diameter. These studs stand about half-inch beyond the jaw-face, and form the clamping-surface, and as many bearings for the sole as desired, while the space D between them is left unsupported, to allow of channeling the sole, however narrow the shank may be, for the cutter-head of the hand-tool can then pass in between the jaw and the sole at the shank, and not strike the side of the jaw and push the tool off, which would be the case with a narrow sole and closed jaw. These studs may be attached to any place along the jaw-face by a screw or otherwise, and that one opposite the shank taken out to leave the open space in the jaw-face for channeling narrow soles.

I claim—

1. A pivoted goose-neck holder and clamping device for holding, supporting, and turning the soles of boots and shoes during the channeling process, substantially as herein set forth.

2. The combination, with the pivoted goose-neck, of an intermediate vertically movable clamping-jaw J adapted to clamp and support the sole, so as to admit of the circuit of a channeling-tool, substantially as described.

3. The combination, with a rotary clamping sole-holder having a fixed and movable jaw, R J, of a socketed support, S, upon which the sole-holder rests and turns, substantially as herein set forth.

4. The combination, with the vertically-movable clamp-jaw J, of the stem C, and the spiral spring T, whereby the clamp-jaw is constantly pressed upward, and the sole clamped between the jaws.

5. The jaw R, having an open face, D, and provided with removable clamping pinned studs $c\ c^2$, for the purpose set forth.

In testimony that I claim the foregoing I have affixed my signature in presence of two witnesses.

LOUIS GODDU.

Witnesses:
F. O. TOBEY,
J. W. NUTTER.