(No Model.)

T. NOLAN.

CHANNELING MACHINE FOR BOOTS OR SHOES.

No. 262,689. Patented Aug. 15, 1882

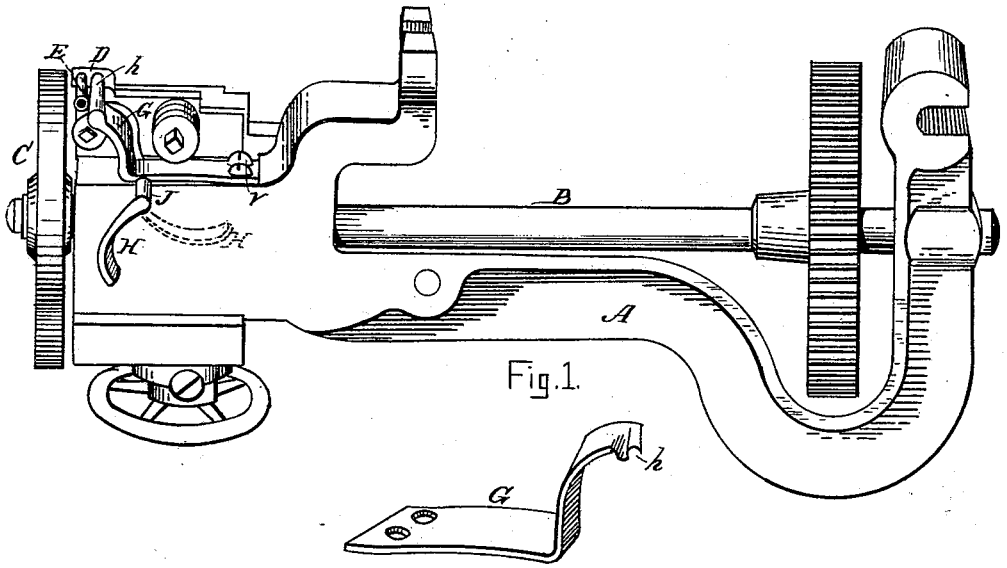

Fig. 1.

Fig. 2.

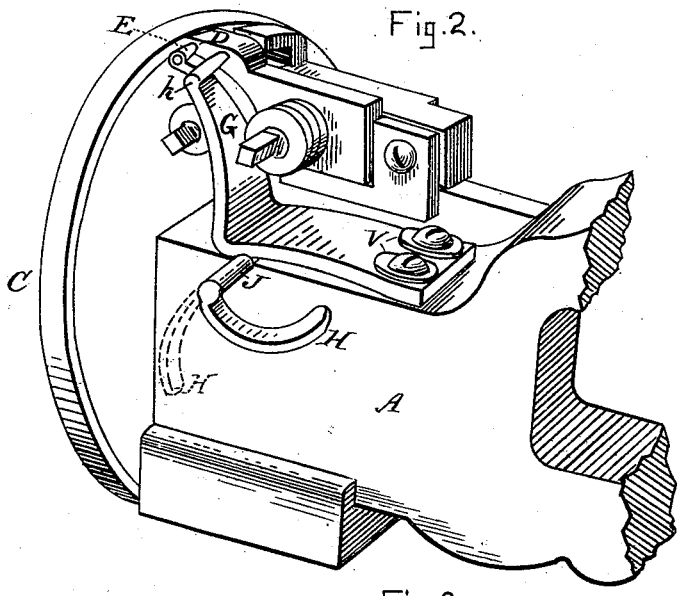

Fig. 3.

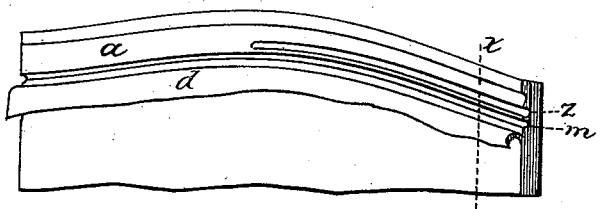

Fig. 4.

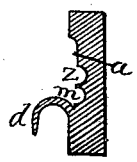

Fig. 5.

Witnesses:
Alfred Hewett
Jamy M. Palmer

Inventor
Thomas Nolan,
per C. A. Shaw
Atty.

UNITED STATES PATENT OFFICE.

THOMAS NOLAN, OF BROCKTON, ASSIGNOR TO CHARLES ALBERT SHAW, OF BOSTON, MASSACHUSETTS.

CHANNELING-MACHINE FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 262,689, dated August 15, 1882.

Application filed June 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS NOLAN, of Brockton, in the county of Plymouth, State of Massachusetts, have invented a certain new and useful Improvement in Channeling-Machines for Boots and Shoes, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view, showing the under side of the arm of the channeler and the mechanism attached to the same, the auxiliary cutter being elevated; Fig. 2, a perspective view of the auxiliary groove cutter or gouge detached; Fig. 3, an isometrical perspective view, showing the head of the machine reversed or from the under side, with the auxiliary cutter depressed; Fig. 4, a sectional view of a shoe-sole channeled by my improved machine, and Fig. 5 a vertical transverse section taken on the line *x x*, Fig. 4.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention is designed as an improvement on the boot and shoe channeling machine now in extensive use and known as the "McKay," "Goodyear and McKay," or "Vrooman" channeler; and it consists in the employment of an auxiliary groove cutter or gouge for cutting a stitch-groove in the bottom of the channel in the sole, in combination with mechanism for operating the same to bring it into and throw it out of contact with the sole whenever desired, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

In "fair-stitch" work it is not always desirable to carry more than one row of stitches around the shank of the shoe, the fore part of the sole being sewed or stitched with two rows. Therefore in grooving the bottom of the channel in the soles of such shoes one of the grooves should be discontinued at the shank, so that there will be but one stitch-groove in the channel at that point. My invention, which will be readily understood by the following description, enables this to be done with greater facility and more perfectly than it has heretofore been accomplished.

In the drawings, A represents the arm of the machine; B, the shaft; C, the guide or presser wheel; D, the knife for cutting the channel *a* and producing the flap *d*, and E the cutter or gouge for forming the stitch-groove *m*. These parts, being all common and well known, need not be more particularly described.

G is the auxiliary cutter or gouge employed for cutting or forming the stitch-groove *z* in the sole-channel *a*. This cutter is attached to the under side of the arm A by the screws *v*, and provided with the eccentric-shaft J, having the handle or lever H, by which it may be raised or lowered as the eccentric is turned in its bearings in the arm beneath the cutter. The free end or gouge proper of the cutter G is formed as seen at *h* in Fig. 2, and the body, or that portion lying on the arm A, being of steel, yields or springs sufficiently when acted upon by the eccentric (not shown) on the shaft J to permit the part *h* to rise above or fall below the knife D, as required.

In Fig. 1 the gouge *h* is represented as elevated or in position for cutting the groove *z*, the lever H being in juxtaposition with the wheel C.

In Fig. 3 the gouge *h* is represented as depressed or out of contact with the sole, the lever H being swung into a position opposite that shown in Fig. 1, or as far as possible from the wheel C.

It should be remembered that Figs. 1 and 3 represent the arm A and its attached parts reversed or upside down, and that when it is stated that the gouge *h* is "elevated" in Fig. 1 and "depressed" in Fig. 3, the statement has reference to the position of the gouge in these figures only, as the gouge has in reality to be depressed to be brought into contact with the sole, and elevated to be thrown out of contact therewith.

In the use of my improvement the gouge *h* is

arranged in the position indicated in Fig. 1 by moving the lever H toward the wheel C, and the two grooves *m z* cut around the fore part of the sole. When the cutters arrive at the shank or that portion of the sole where but one groove is required the lever H is moved away from the wheel C and the gouge *h* thrown out of contact with the sole in a manner which will be readily understood by all conversant with such matters without a more elaborate description.

It will be obvious that the cutter G may be operated or raised and lowered by other means than the crank J and lever H, if desired; also, that the gouge *h* may be connected to a slide or arm and operated by a treadle and various mechanical devices without departing from the spirit of my invention.

It will also be obvious that in some classes of work where but one stitch-groove is required in the bottom of the channel the fixed cutter or gouge E may be dispensed with; also, that two or more cutters or gouges so constructed and arranged as to be moved into and out of contact with the sole may be employed, if desired, either with or without the fixed gouge E.

I am aware that in many wood, iron, and leather working machines in which more than one cutter are employed it is common to so arrange one of them that it may be thrown out of use during the process of cutting whenever desired without interfering with the operations of those left in use, and therefore do not claim such an arrangement, broadly; but,

Having thus described my improvement, what I claim is—

1. In a machine for channeling the soles of boots and shoes, the cutter G, eccentric-shaft J, and lever H, in combination with the knife D and arm A, substantially as specified.

2. In a machine for channeling the soles of boots and shoes, a cutter or gouge for forming a stitch-groove in the bottom of the channel, adapted to be moved into and out of contact with the sole and its operating means, in combination with a knife for cutting the channel and forming the channel-flap, substantially as set forth.

THOMAS NOLAN.

Witnesses:
E. C. HEATH,
ALFRED FAWCETT.