(No Model.)

J. N. MOULTON.

SKIVING MACHINE.

No. 590,934. Patented Sept. 28, 1897.

Fig. 1.

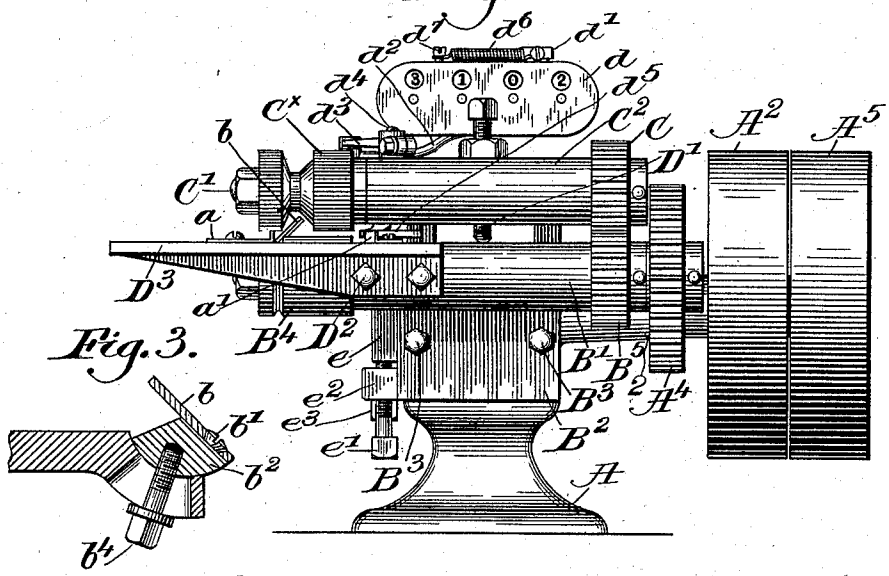


Fig. 3.

Fig. 4.

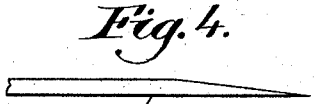


Fig. 5.



Fig. 2.

Fig. 6.

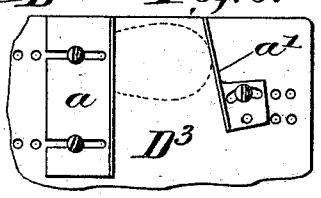
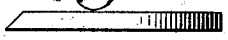


Fig. 7.



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UNITED STATES PATENT OFFICE.

JAMES N. MOULTON, OF HAVERHILL, MASSACHUSETTS, ASSIGNOR TO FRANK F. STANLEY, PRINCIPAL TRUSTEE, OF SWAMPSCOTT, MASSACHUSETTS.

SKIVING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 590,934, dated September 28, 1897.

Application filed July 30, 1896. Serial No. 601,028. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. MOULTON, of Haverhill, county of Essex, State of Massachusetts, have invented an Improvement in Skiving-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object the production of a novel skiving-machine more especially adapted to skive heel-lifts or spring-heels.

In accordance with my invention I have mounted the skiving blade or knife on a holder which may be turned more or less in or on a circular seat, so that the inclination of the bevel to be cut may be readily changed.

Figure 1, in front elevation, represents a skiving-machine embodying my invention; Fig. 2, a left-hand side elevation thereof; Fig. 3, a partial section in the line x, Fig. 2; and Figs. 4 and 5 show the cutting ends of the blades or knives which may be used in my machine. Fig. 6 shows the gage a' and part of the table, and Fig. 7 shows a heel-lift with its end skived.

The framework A has at one side a projecting hub 2, (shown in Fig. 1,) which receives a stud on which turns the sleeve of a pulley A^2, said sleeve having a pinion A^3, (shown by dotted lines,) which engages a larger toothed gear A^4, fast on the end of a shaft B, extended through a hollow sleeve-like bearing B′ at the upper end of a plate B^2, fixed to the frame A by suitable bolts B^3, the left-hand end of said shaft carrying a feed-roll B^4, which is rotated at speed. The stud on which the fast pulley rotates is extended far enough to also sustain a loose pulley A^5, it being kept from slipping off the end of said stud in any usual way.

The shaft B has a pinion B^5, which engages a pinion C of corresponding size on and rotates a shaft C′, having a second feed-roll $C^\times$, said shaft lying in a hollow tube-bearing C^2 at the outer end of a lever C^3, mounted on a rod C^4, sustained by ears C^5 of the bed, the outer end of said lever being acted upon by a strong spring D, made adjustable as to its strength, said spring acting to keep the pinions B^5 and C in engagement, yet allowing them to yield slightly, yet keep a firm bight on the piece of leather being passed between them to be skived, the approach of the rolls toward each other being adjusted by an adjusting device D′, shown as a screw carried by the lever C^3.

The front of the machine has attached to it by suitable bolts D^2 a table D^3, on which is laid the leather or material to be skived, said table having on its surface suitable adjustable edge guides a a', the face of the right-hand gage shown in Fig. 6 being beveled inwardly toward the face of the gage a, so as to act on and crowd one edge of the heel-lift or other piece of leather or thing to be skived toward the gage a, so that the feed-rolls will positively engage the same and pull it straight through the machine, forcing it against the acting edge of the blade or knife b, said blade or knife having its front end beveled wholly at one side, as in Fig. 4, or on both sides, as shown in Fig. 5, according to the work to be done.

The shank of the blade or knife is slotted, as shown in Fig. 2, to receive screws b', said screws connecting said blade adjustably to a holder b^2, having one side rounded and set in a seat b^3, a set-screw b^4, connected to said holder and extended through a slot in the seat, enabling the said holder to be turned in a circular path to thereby change the inclination of the front cutting edge of the blade or knife with relation to the surface of the table to change the bevel of the scarf or skived edge to be made by the blade or knife.

The machine has a counting mechanism to indicate the number of skiving cuts made on the machine, said counting mechanism having usual gearing, which will move the marked disks to indicate the number, the gearing being contained in a box d, said box having attached to its rear side a pawl-carrier having a suitable pawl d', which engages one of the ratchet-wheels of the train of gearing in the box, said pawl having connected to it a link d^2, the opposite end of said link being jointed to an arm d^3, fast on a rock-shaft d^4, having fast on its lower end a cam-shaped

arm d^5, which is struck by each lift or piece of leather which is fed between the rolls, the action of the leather on the lever moving it to actuate the pawl-carrier d', a suitable spiral spring d^6, connected to said pawl-carrier and to a fixed stud d^7, acting normally to hold the said arm d^5 in the path of movement of the leather being skived.

The seat b^3 for the holder is shown as a lip projecting laterally from the upper end of a plate e, slotted for the reception of a clamping-screw e^4, by which to hold the plate in position, said plate, when the screw is loosened, being made adjustable by adjusting-screws e', held in a rib e^2 of the frame, a screw e^3 acting as a stop-screw to relieve strain on the screw e^4.

The heel-lifts to be skived at their breast ends are usually employed in spring-heeled shoes, and they are composed of one or more layers of leather suitably pasted together. One of these heel-lifts is shown in Fig. 7.

When a heel-blank of suitable size for one heel is to be beveled, the blade shown in Fig. 4, it having one bevel, will be used; but if the blank is long enough for two lifts then it will be cut centrally between its ends and the blade will have two bevels, as shown in Fig. 5.

One of the feed-rolls is provided with a deep annular V-shaped groove of such depth as to enable the sharp front inclined edge of the blade to enter and act on the leather to be cut close to the line in which the leather is nipped by the feed-rolls.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with feeding mechanism of a skiving-machine, of a blade or knife, a holder therefor, a seat to receive said holder, a plate to which said seat is secured, a horizontal rib on the frame of the machine, and independent adjusting means at opposite ends of said rib engaging said plate, substantially as described.

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

JAMES N. MOULTON.

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