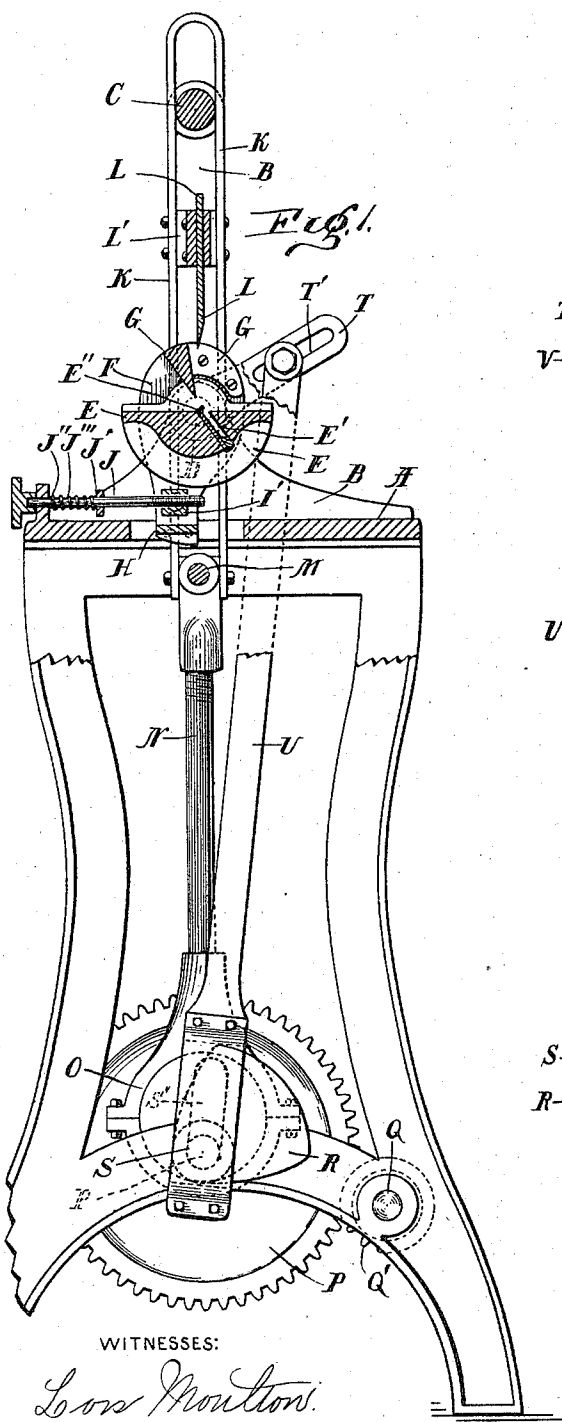


(No Model.)

J. H. GIFFORD.
BEVELING MACHINE.

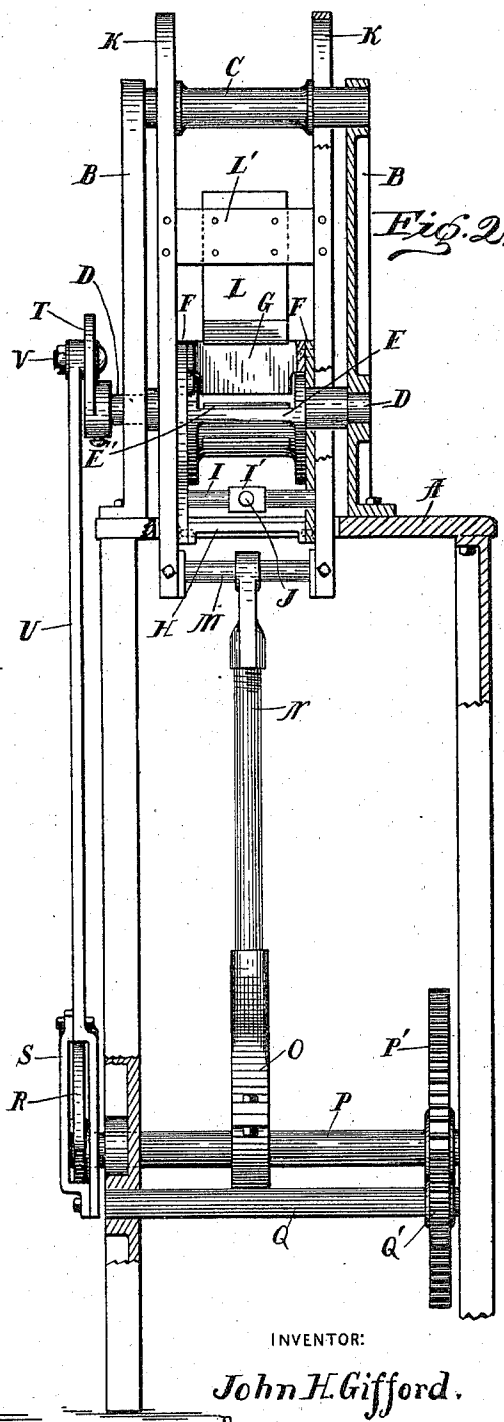
No. 580,390.

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WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. GIFFORD, OF GRAND RAPIDS, MICHIGAN.

BEVELING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 580,390, dated April 13, 1897.

Application filed April 27, 1896. Serial No. 589,240. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GIFFORD, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Beveling-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in beveling-machines, and more especially to machines for beveling the layers of leather for shoe-heels; and its object is to provide the same with certain new and useful features hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is an end elevation of a machine embodying my invention with parts broken away to show construction, and Fig. 2 is a side elevation of the same with parts broken away.

Like letters refer to like parts in both of the figures.

Secured to the top of a suitable table A are the standards B, which are connected at the top by the guide-shaft C and furnish bearings for the studs D, which project from the sides of the clamping-jaw E and form a pivot for the same. Said jaw has a flat upper surface in the plane of its axis and downwardly-extending semicircular-shaped ends, the line of the axis of the lugs D crossing the middle of said upper surface. An inclined slot E' extends from said axial line downward through the flat portion of said jaw, and in said slot is secured a flat spring E'', which projects slightly beyond the upper surface of said jaw, said projecting end being slightly turned away from the side of the groove. Ob-long plates F, loosely journaled on said studs D and in close proximity to the sides of the jaw E, extend downward and are connected above the jaw E by a cross-bar G, which serves as the other jaw of the clamp. Said plates F are also connected at their lower ends by the bar H, and journaled in said plates just above said bar H is the rock-shaft I, having the square portion I', in which is a

screw-threaded opening to receive a screw-threaded rod J, which rod passes through a lug J'' on the table A and has a milled head on its outer end and a collar J' near its middle, which latter is engaged by a spring J''', said spring also engaging the lug J'' and holding said milled head in contact with the lug J''. Slides K, to which the cutting-knife L is attached by means of the cross-bars L', engage the guide-shaft C near their upper ends and, passing downward through the table A at each side of the described clamp, are connected by the rock-shaft M. To said rock-shaft is secured one end of the connecting-rod N, and the other end of said rod is connected to the eccentric-strap O on an eccentric mounted on the shaft P, which shaft is driven by a large gear P', engaging a small gear Q' on the driving-shaft Q. Secured to the end of the shaft P is the cam R, for which is provided a suitable yoke S, having a slot S' in its inner side, through which the shaft P passes to permit said yoke to move longitudinally when the cam is revolved.

An arm T, having a slotted opening T', is adjustably secured to the projecting end of one of the studs D and is connected to the cam-yoke S by the connecting-rod U. A bolt V, passing through the opening T', adjustably secures said rod to said arm.

The operation of my device is as follows: The machine is set in motion and the piece of leather to be beveled is placed upon the flat surface of the jaw E with one side against the spring E'''. The cam R immediately begins to move the crank T downward, thus moving the jaw E toward the jaw G and clamping the leather between the same. During this operation the knife is descending, actuated by the eccentric O', which operates to reciprocate the slides K. As soon as it has completed the stroke and cut the bevel the cam R immediately opens the clamp and leaves the leather free to be removed and another piece inserted. By turning the rod J in or out by means of the milled head the plates F are turned on the studs D, thus changing the pitch or slant of the bevel, and by adjusting the bolt V in the slot T' and adjusting the arm T the throw of the jaw E may be increased or decreased and adjusted to

correspond. To accommodate stock of variable thickness, the spring J''' will yield and allow the plates F to turn a short distance as the leather is passed against the jaw G. The spring E'' serves as a stop against which the leather is placed when put into the machine, and as the knife descends and cuts the bevel the portion cut off serves as a wedge to force said spring outward and let the knife descend.

When the knife rises, said spring returns to place, the scrap of leather just cut off being carried up and over the spring by the knife.

Having thus fully described my invention, what I claim is—

1. In a beveling-machine, the combination with the reciprocatory knife, of a clamp, embodying an inclined jaw, pivoted between its ends, a spring-pressed rod engaging the lower end of said jaw and operating to adjust the same and hold it in adjusted position, said jaw constituting the stationary member of the clamp, and a jaw movable toward and from the inclined jaw, to clamp the leather against the same.
2. In a beveling-machine, the combination with the reciprocatory knife, of a clamp, embodying an inclined jaw pivoted between its ends, a spring-pressed rod engaging the lower end of said jaw and operating to adjust and hold the same, said jaw constituting the stationary member of the clamp, a jaw movable toward and from the inclined jaw to clamp the leather against the same, and means for operating said movable jaw, the throw of said operating means being adjustable for the purpose specified.
3. In a beveling-machine, the combination with the reciprocatory knife, of a clamp, one jaw of which is formed with an opening, and a spring projecting from said opening, substantially as described and for the purposes specified.
4. In a beveling-machine, the combination with the reciprocatory knife, of a clamp having an inclined jaw and a movable jaw, said movable jaw being formed with an opening, and a spring projecting from said opening,

substantially as described and for the purpose specified.

5. In a beveling-machine, in combination with a reciprocating knife and means for operating the same, a clamp consisting of a movable jaw journaled in the plane traversed by said knife, and having a plane surface, in the plane of its axis, and an adjustable jaw journaled on the journals of the movable jaw, an adjusting-screw for said adjustable jaw, and a spring yieldingly engaging the adjusting-screw, substantially as described.

6. In a beveling-machine, in combination with reciprocating slides, having a cross-head, and knife attached and a shaft-eccentric and connecting-rod to operate said knife, an adjustable jaw, pivoted in the plane traversed by said knife, a movable jaw, having journals in said plane, and a plane surface, cutting the axis of said journals, a slotted arm attached to said movable jaw, a cam on said shaft, a yoke engaging said cam and shaft, and a connecting-rod, attached to said yoke, and adjustably attached to said slotted arm, substantially as described.

7. In a beveling-machine, in combination with a knife, attached to reciprocating slides, a shaft-eccentric and connecting-rod to operate said slides, a movable jaw journaled in the plane traversed by said knife, having a plane surface in the plane of its axis, an arm attached to said jaw, a connecting-rod adjustably attached to said arm, a slotted yoke engaging said shaft, a cam on said shaft, engaging said yoke, plates journaled on the axis of the movable jaw, a jaw connecting said plates, near one end, a bar connecting said plates near the other end, a longitudinally-movable screw engaging said bar, a collar on said screw and a spring engaging said collar, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. GIFFORD.

Witnesses:

LUTHER V. MOULTON,
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