T. P. YOUNG.

Sole-Edge Burnishing-Machine.

No. 212,342. **Patented Feb. 18, 1879.**

Fig. 1.

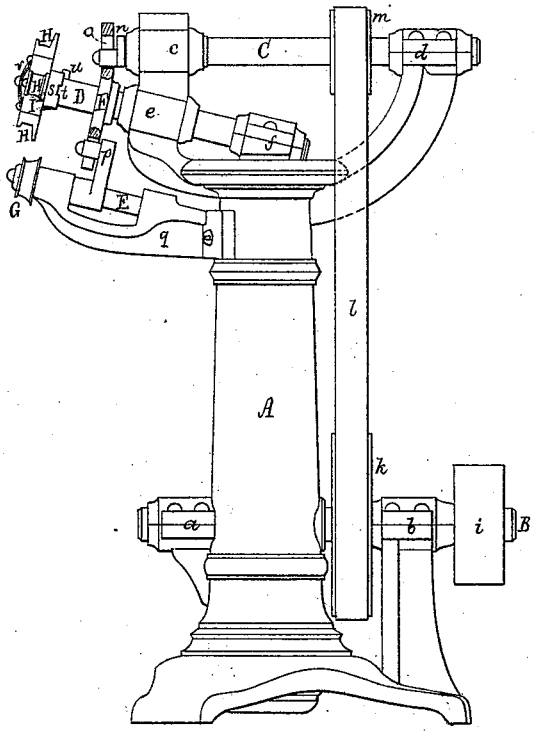


Fig. 2.

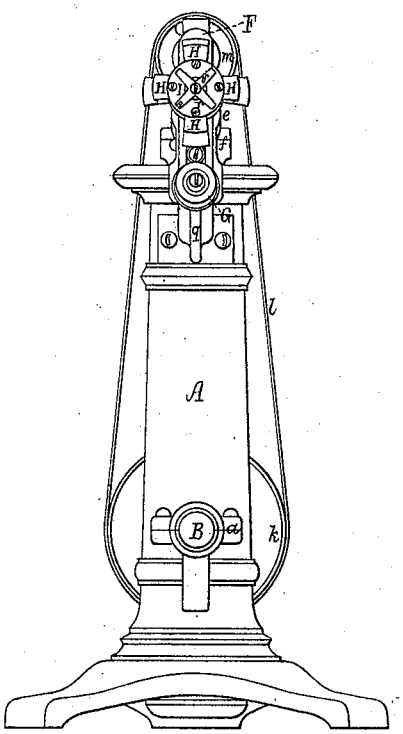


Fig. 3.

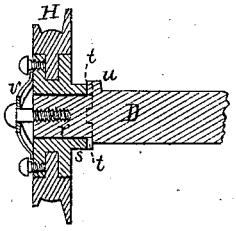
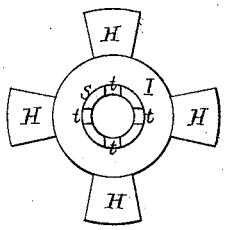


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS P. YOUNG, OF LYNN, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND EDWARD HEFFERNAN, OF SAME PLACE.

IMPROVEMENT IN SOLE-EDGE-BURNISHING MACHINES.

Specification forming part of Letters Patent No. **212,342**, dated February 18, 1879; application filed January 2, 1879.

To all whom it may concern:

Be it known that I, THOMAS P. YOUNG, of Lynn, of the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Machinery for Burnishing or Setting the Edges of Shoe or Boot Soles; and do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, and Fig. 2 a front view, of a sole-edge setting or burnishing machine embracing my invention. Fig. 3 is a vertical section of its reciprocating tool-carrier and its spindle, Fig. 4 being a rear view of such carrier.

My present invention may be viewed as an improvement with reference to the machine described in Letters Patent No. 195,069, dated September 11, and granted to me.

Instead of arranging the shank-edge burnisher on the same shaft with and in rear of the tool or tools adapted to burnish what is termed the "fore-part edge" of the sole, I now arrange the shank-edge burnisher below the tool or set of tools for finishing the fore-part edge; and I also arrange or fix the said shank-edge burnisher on an auxiliary shaft, and provide such shaft with a crank to co-operate with a furcated and slotted lever fixed on the shaft of the other tool or set of tools, all being substantially as represented in the drawings, in which—

A denotes a standard or column, supporting in suitable boxes *a b c d* two horizontal shafts, B C, and in other boxes, *e f*, one of two inclined shafts, D E, arranged as shown.

The lowest of the said four shafts—viz., that marked B—is the driving-shaft of the machine, it being provided with two pulleys, *i k*. An endless belt, *l*, extends around the pulley *k*, and another pulley, *m*, on the shaft C; and there is fixed on the front end of such shaft C a short crank, *n*, whose wrist enters a slot, *o*, in the upper arm of a lever, F, fixed on the shaft D. The lower arm of the lever F is notched or furcated to receive the wrist of another crank, *p*, fixed on the shaft E, whose boxes or bearings are supported by an arm, *q*, projecting from the standard A, and below the shaft D, in manner as represented. There is fixed on the forward end of the shaft E the circular tool G, for burnishing the shank edge of a sole, a set of the other edge-finishers being shown at H H H H as projecting radially from a rotary carrier or wheel, I, that is supported on a pivot or journal, *r*, projecting axially from the shaft D. The hub *s* of this wheel is provided with four notches, *t*, arranged at equal distances apart, and there extends from the shaft D a small tooth or stud, *u*, to enter either of the notches when the wheel is pressed back by a stellated spring, *v*, fixed to the end of the pivot, and bearing against the carrier, in manner as shown.

On drawing the wheel forward and revolving it ninety degrees of a circle, and next allowing the spring to press the wheel back, we can at any time bring and support a fresh tool into position for acting on the sole edge.

On putting the driving-shaft in revolution a reciprocating rotary motion will be imparted to each of the tool-shafts, and, as a consequence, to their tools.

By having the shank-burnisher arranged below the other tool or tools, and on a separate shaft, as shown, a sole-shank, while being finished or burnished on its edge, can be seen and worked or manipulated to much better advantage than by the arrangement of such tools as shown in my said patent.

What, therefore, I claim as my present invention is as follows, viz:

1. The shank-burnisher and the fore-edge burnishing-tool carrier applied to separate shafts D E, in combination with the secondary shaft C and the two cranks *n p*, and the slotted and furcated lever F, all being arranged and to operate essentially as set forth.

2. The rotary tool-carrier, notched in its hub, and the shaft thereof provided with the tooth, and the stellated spring arranged with the tool-carrier, in manner and to operate therewith as set forth.

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Witnesses:
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