

(No Model.)

F. J. FREESE.
TRIMMER GUIDE.

No. 570,392.

Patented Oct. 27, 1896.

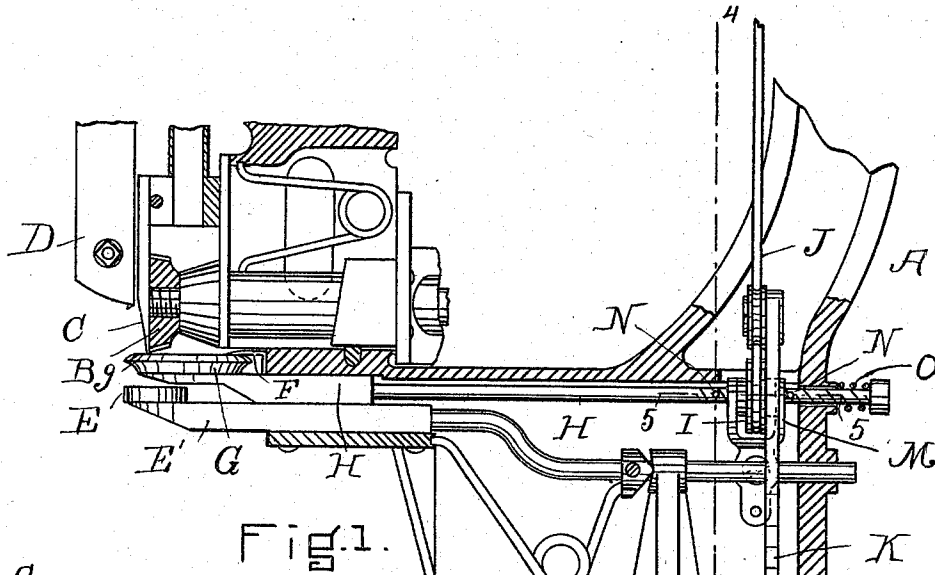


Fig. 1.

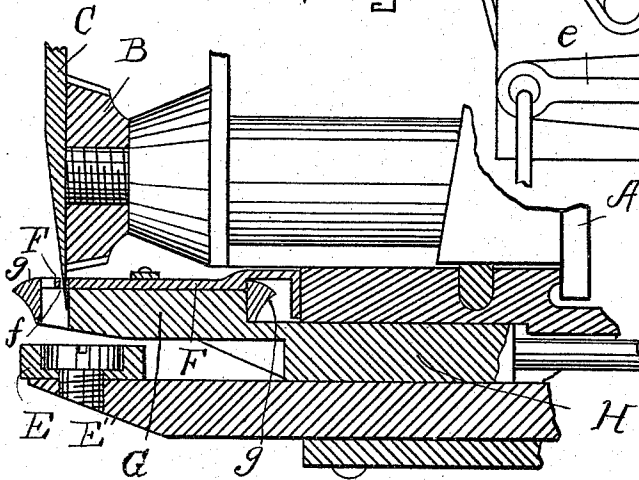


Fig. 2.

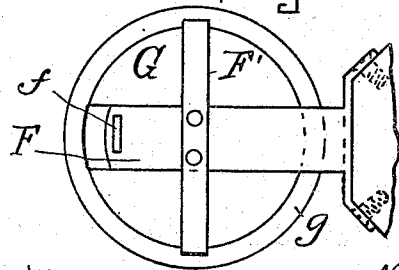


Fig. 3.

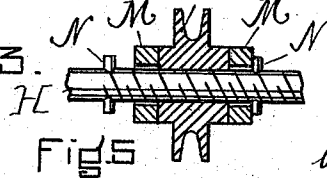


Fig. 5.

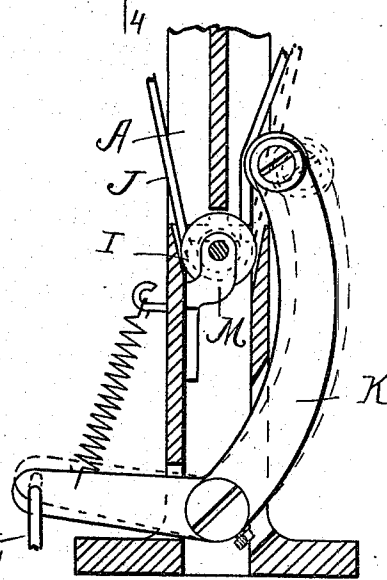


Fig. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

FRANCIS JOSEPH FREESE, OF LOWELL, MASSACHUSETTS.

TRIMMER-GUIDE.

SPECIFICATION forming part of Letters Patent No. 570,392, dated October 27, 1896.

Application filed March 23, 1896. Serial No. 584,412. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS JOSEPH FREESE, of Lowell, in the county of Middlesex and State of Massachusetts, temporarily residing in Montreal, Canada, have invented certain new and useful Improvements in Trimmer-Guides, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of this invention is to provide an improved edge-guiding device for sole-trimming or trimming and channeling machines, such device being capable of adjustment at the will of the operator in trimming around the fore part of a shoe in order to vary the width of the projecting sole in shoes having, for example, the extension edge or so-called "half-scotch edge" broader in one part than in another.

My invention is in the nature of an improvement upon that set forth in the Letters Patent of the United States granted to me October 1, 1895, No. 547,344, for a trimmer-guide. In my said patent the slotted guide for the reciprocating trimming-cutter had a rotatable edge, and both were held by the supporting-arm in a given position, the cutter working at a specified distance from the edge of the rotatable part which pressed against the in-seam of the shoe. This distance could be varied by stopping the machine and readjusting the cutter in a slot nearer to or farther from such edge, but this change was not feasible for my present purpose.

By my present improvement the slotted guide for the reciprocating cutter is held fast to the frame of the machine, while the rotatable edge-guide has a slight movement forward and back at the will of the operator, so as to carry the shoe farther from said cutter at the moment when it is desired to widen or extend the sole edge and hence to trim farther from the in-seam. This movement may be effected by any convenient means, such as a treadle and retracting-spring applied directly to the rod which carries the movable guide. I have, however, devised other actuating means, forming part of my improvement, which are herein illustrated and described. Such means include a grooved pulley engaging by an internal screw-thread with a threaded portion of said rod and held from

sidewise movement, in combination with a loose driving-belt and a belt-tightener operated by a treadle to tighten the belt on said grooved pulley, thereby giving endwise movement to the rod carrying the movable guide. Stops prevent too great movement of this guide, the belt slipping on its pulley when the treadle is relieved from pressure. A spring restores the parts to position.

In the drawings, Figure 1 is an elevation, partly in vertical section, of part of a machine embodying my present improvements. Fig. 2 is an enlarged section through the guides, the cutter, and the feed-wheel; Fig. 3, a top plan of the guide; Fig. 4, a section on line 4 4 of Fig. 1, and Fig. 5 a like view of the grooved pulley and the lateral lugs which control it on line 5 5 of Fig. 1.

A represents part of the skeleton frame of a trimming and channeling machine to which my invention is applied.

B is the feed-wheel; C, the vertically-reciprocating trimming-cutter; D, the channeling-knife carrier, and E the heel-seat guide, which is mounted on a reciprocating carrier E', and brought forward, as in Figs. 1 and 2, by a treadle acting on a bell-crank lever e, while trimming around the heel-seat. I make no present claim to this combination of parts.

F is the guide-plate fixed to the frame A and slotted at f to receive the tip of the reciprocating cutter C, as best shown in Figs. 2 and 3. Immediately beneath and surrounding this plate is the edge-guide for the shoe. This guide consists, first, of the circular body G, (recessed to receive the plate F and the tip of the cutter C,) and, second, of the rotatable edge or rim g, against which the inverted lasted shoe is pressed by the workmen, the in-seam coming into immediate contact with such edge or rim. Any tendency of the rim to lift up is resisted by the plate F and its lateral extensions F'. The sole-stock will thus be trimmed at a distance from the in-seam equal to the distance of the cutter-slot f from the periphery of the rim g. According to my present invention this distance may vary at the will of the operator in different parts of the same shoe. The circular body G is mounted upon or forms part of an arm H, to which a slight reciprocating movement is given by any convenient means. Figs. 1, 4,

and 5 illustrate suitable apparatus for this purpose. The arm H is threaded near its end and engages an internally-threaded deeply-grooved pulley I, to which motion is imparted by the belt J only when said belt is tightened. This may be effected by a pivoted lever K, Figs. 1 and 4, connected by a rod L to a treadle. (Not shown.) Tightening the belt J rotates the pulley I. Said pulley is, however, kept from moving laterally by means of fixed bearings or side lugs M. The threaded shaft or arm H is therefore given a slight longitudinal movement when the belt is tightened on pulley I. Stop-pins N on shaft H limit this movement, leaving the belt to slip on the pulley should the treadle-pressure be prolonged. A spring O, Fig. 1, or equivalent device withdraws the shaft H and guide G g from the position shown in the several figures.

I claim as my invention—

1. The improved trimmer-guide described, comprising the fixed guide-plate F f and the horizontally-movable edge-guide G with its rotatable rim g, substantially as set forth.
2. The described trimmer-guide, consisting of the guide-plate F fixed to the frame of the

machine and slotted to receive the tip of the reciprocating cutter, in combination with the edge-guide having the circular body G and the rotatable rim g surrounding said body, and with the arm H supporting said edge-guide and adapted to move it laterally with relation to the guide-plate while the machine is in operation, substantially as set forth.

3. In trimmer-guide mechanism, the guide-plate F fixed in position and slotted to receive the tip of the cutter, and the edge-guide G g having a lateral movement relatively to said guide-plate, in combination with the arm H supporting such edge-guide, and with means controlled by the operator for imparting a slight longitudinal movement to said arm during the trimming and stops limiting such movement, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 9th day of March, A. D. 1896.

FRANCIS JOSEPH FREESE.

Witnesses:

WM. P. O'BRIEN,
THOMAS SCOTT.