

(No Model.)

F. J. FREESE.
TRIMMER GUIDE.

No. 547,344.

Patented Oct. 1, 1895.

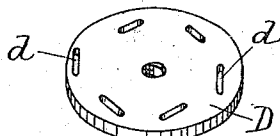


Fig. 1.

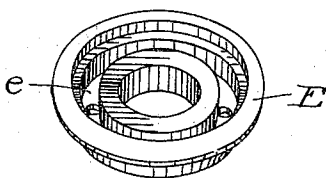


Fig. 2.

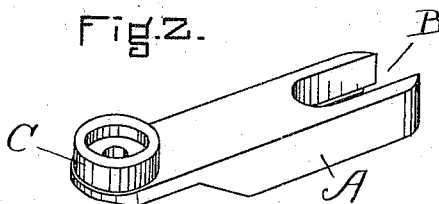


Fig. 3.

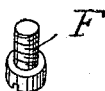


Fig. 4.

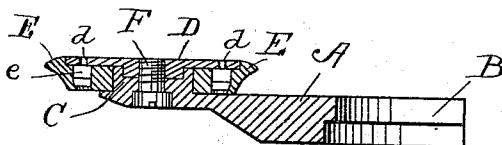


Fig. 5.

WITNESSES.

Matthew M. Blunt.

Samuel P. Phrasher

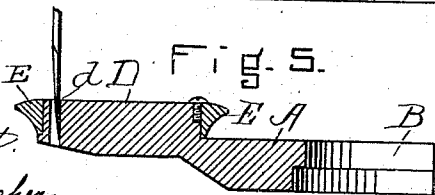


Fig. 6.

INVENTOR.

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ATT'Y.

UNITED STATES PATENT OFFICE.

FRANCIS JOSEPH FREESE, OF LOWELL, MASSACHUSETTS.

TRIMMER-GUIDE.

SPECIFICATION forming part of Letters Patent No. 547,344, dated October 1, 1895.

Application filed February 23, 1895. Serial No. 539,329. (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 cutter-guide for the reciprocating knives of trimming-machines or like mechanism where it is desired to cut away marginal material at a defined distance from a given line.

The especial purpose to which I have first applied my invention is as a guide for the reciprocating blade of a sole-edge-trimming machine where the leather is to be cut at a uniform distance from the in-seam of the lasted shoe.

In one form of machine constructed by me and embodying other features of my invention I not only trim away the waste stock from the edge of the sole, but also by another knife channel the bottom of the sole, the two cutting operations being simultaneous and controlled or guided by the position of the in-seam. Said machine constitutes the subject-matter of an application for Letters Patent of the United States filed by me simultaneously herewith.

My present invention consists in a cutter-guide having a suitably-supported disk or plate held stationary and slotted to receive the tip of a reciprocating knife which works in a plane at right angles thereto, in combination with a rotatable rim or marginal collar extending beyond the peripheral edge of said slotted disk and free to move around it when the shoe under treatment is pressed against such rim. This rim is preferably integral with a cup-shaped body extending beneath the disk. By making a succession of slots at varying distances from the edge of the disk and then readjusting its position by a partial rotation I adapt the device for trimming at such distances from the in-seam as the slot chosen is from the periphery of the rim. These and other features of my improvement are hereinafter more fully de-

scribed, and especially referred to in the appended claims.

In the drawings, Figures 1, 2, 3, and 4 show in perspective the several parts detached. Fig. 5 is a central section through the device, and Fig. 6 is a modification showing also the tip of the trimming-knife.

A represents a rigid arm or support extending horizontally or otherwise from the portion of the machine to which it is to be attached. An open recess B is shown at one end of the arm with an offset or shoulder to receive the bolt or screw which holds it firmly in position, permitting its adjustment from time to time, as required. A boss C is formed on the upper side of the arm at its forward end to receive the disk D and rim E, and is perforated centrally to admit the binding-screw F. The relation of the parts when assembled is well shown in Fig. 5. The disk D has a central hub on its under side fitting a countersunk recess in the upper side of the boss C and threaded to engage the threaded tip of the screw F. The cup-shaped body of the rim E has a central opening large enough to receive the boss, and its upper and outer edges extend beyond the periphery of the disk, which is sunken to about their level. The parts are so formed that the rim E is free to rotate when the shoe or article being trimmed is pressed against and moved along its edge. The shape shown in Fig. 5 is adapted to fit in edgewise between the upper and sole edge and to guide the cutter from the in-seam.

The disk D is represented in Fig. 1 as formed with six slots *d*, located near to but at different distances from its edge to receive the tip of the reciprocating knife, and there will be such number of these slots as will provide for the several distances from the edge of the guide at which it is desired to have the cutter operate. The disk may be adjusted to any of these positions by loosening the binding-screw F and giving the disk a partial rotation when the knife is raised, then introducing the knife-tip in the proper slot and tightening the screw. In its reciprocation the tip of the knife does not come out of the slot, but bears against one of its edges, and as the stock to be cut projects somewhat beyond the slot the face of the disk adjacent thereto

acts as one blade of a pair of shears. An annular recess *e* is shown in the cup of the rim E, affording space for the reciprocating movement of the knife-tip while the rim rotates.

5 Openings will be preferably formed in the bottom of this recess to permit escape of fibers or particles of the leather which may enter through the slots *d*. The bottom of this recess forms a guide in setting the knife which,
10 at the lowest part of its stroke, must not touch such bottom.

In the modification shown in Fig. 6 the disk or central body D is shown integral with the arm A and formed with a single slot in which
15 the tip of the trimming-knife is seen in working position. The rotatable rim surrounds this single-slotted disk and will be kept in place in any suitable way. Two or more of these complete guides will be provided when
20 it is desired to trim at other distances from the edge.

I claim as my invention—

1. In a cutter guide, a central disk or body held stationary and slotted to receive the
25 knife tip, in combination with a rotatable rim extending outwardly beyond the periphery of said disk and suitably connected thereto, substantially as set forth.

2. In a cutter guide, a projecting, supporting arm, a circular disk or body fixed thereon
30 and slotted to receive the tip of the reciprocating knife, in combination with a rotatable rim extending beneath and projecting beyond the edges of said disk or body, substantially as set forth.

3. In a cutter guide, an adjustable, circular disk or body formed with a succession of slots at different distances from its edges, to receive the tip of a reciprocating cutter, in combination with a rotatable rim inclosing the
40 periphery of said disk or body, and a binding screw to hold said parts in working position when adjusted, substantially as set forth.

4. In a cutter guide a projecting arm A formed with a terminal boss C, and a cup-
45 shaped rim E having an annular groove, in combination with a circular disk D covering said cup or groove and having a succession of slots at different distances from its edge, over said groove, and with a binding screw
50 adapted to secure said disk to said arm, leaving the rim free to rotate, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of
55 two subscribing witnesses, on this 27th day of December, A. D. 1894.

FRANCIS JOSEPH FREESE.

Witnesses:

A. H. SPENCER,
CHARLES D. KEYES.