

(No Model.)

2 Sheets—Sheet 1.

J. J. MABRAY.

CUTTER FOR TRIMMING SOLES OF BOOTS OR SHOES.

No. 530,699.

Patented Dec. 11, 1894.

Fig. 1.

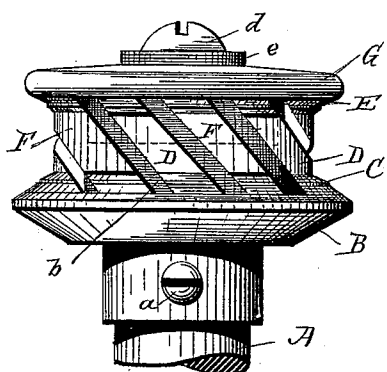


Fig. 2.

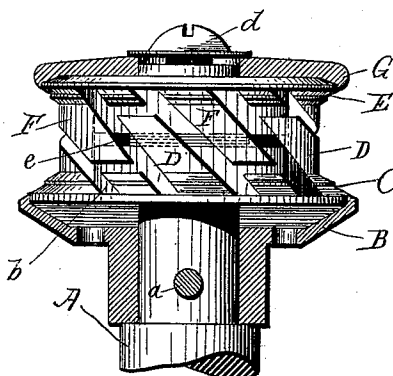


Fig. 3.

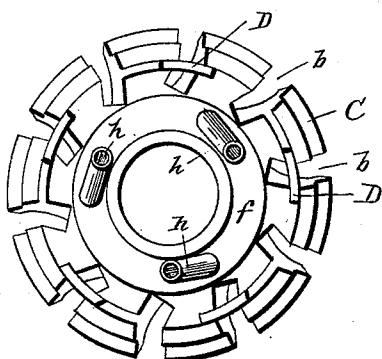
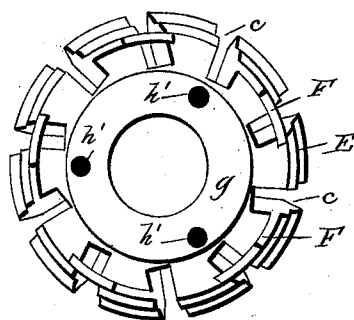


Fig. 4.



Witnesses

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Fig. 5.

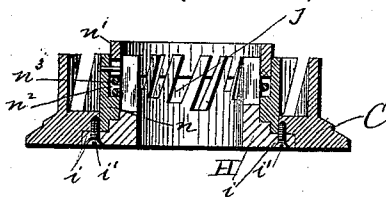


Fig. 6.

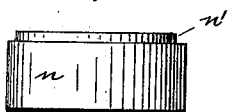


Fig. 7.

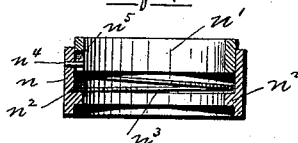


Fig. 8.

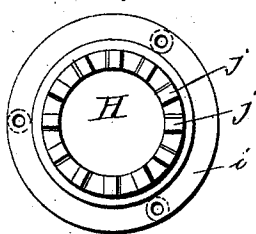


Fig. 9.

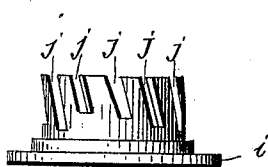
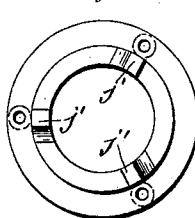


Fig. 10.

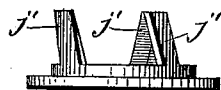


Fig. 11.

Witnesses

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UNITED STATES PATENT OFFICE.

JAMES J. MABRAY, OF WORCESTER, MASSACHUSETTS.

CUTTER FOR TRIMMING SOLES OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 530,699, dated December 11, 1894.

Application filed June 24, 1886. Serial No. 206,178. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. MABRAY, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Cutters for Trimming Soles of Boots or Shoes, of which the following is a specification, accompanied by drawings illustrating a cutter embodying my invention, in which—

Figure 1 represents one of my improved cutters in its smallest size, or adapted to thin soles. Fig. 2 shows the cutter expanded to adapt it to thicker soles, and with the "shields" shown in section. Figs. 3 and 4 show inside views of the two halves of the cutter proper. Fig. 5 is a sectional view of one of the halves forming the cutter proper. Fig. 6 is a view of the telescopic tube, or shield, for preventing leather chips from entering the interior of the cutter. Fig. 7 is a sectional view of the same. Figs. 8 and 9 show interior views of the devices for maintaining the halves of the cutter at different distances apart and Figs. 10 and 11 are side views of the same.

Similar letters refer to similar parts in the several views.

My invention relates to a revolving cutter employed in trimming the edges of the soles of boots or shoes, which shall admit of a change in size so as to adapt it for soles of different thicknesses, and it consists in the construction of the cutter by which leather chips are prevented from entering the recesses in the cutter as hereinafter described and pointed out in the annexed claims.

A denotes the end of a revolving spindle to which the cutter is attached.

B is a shield plate attached to the spindle A by the set screw *a*, and recessed to receive the lower cutting plate C, which is shown detached in Fig. 3, and consists of a circular plate with its edge shaped to form the desired bead, or bevel, on the corner of the sole and with the slits *b b* to form cutting edges.

Extending upward from the plate C are the blades D with their cutting edges coincident with the cutting edges formed by the slits *b*.

The blades D are attached to each alternate section formed by the slits *b*. The plate C is placed on the spindle A and rests in the recess of the plate B. A similar cutter is

formed by a plate E with slits *c* and blades F. When the plates C and E are placed upon the spindle A the blades D and F overlap each other; the blades upon each plate entering the spaces between the blades of the opposite plate.

A shield plate G, whose edge is brought against the upper in the operation of cutting or trimming the sole, is then placed over the cutting plate E. The shield plate is recessed to overlap the edge of the cutting plate and prevent the contact of the cutting edges with the upper. A screw *d* enters the end of the spindle, retaining the shield G and cutting plates C and E against the shield B.

As the plates are drawn apart, the blades D and F overlap each other with their outer surfaces lying in the same cylindrical plane. The cutting plate C is held in the recess of the shield plate B; and one method of holding the cutting plate E at the desired distance from the cutting plate C is shown in Fig. 2 and it consists in transferring one or more of the washers *e* from beneath the screw *d* and placing them between the bosses *f, g*, on the plates C and E. Pins *h*, Fig. 3, having the same inclination as the blades D, extend upwardly from the boss *f* on the plate C, entering holes *h'* in the boss *g* on the plate E. The method, however, which I prefer to employ is illustrated in Figs. 5 to 11 inclusive. In place of the boss *f* and pins *h* I form a boss *h*, either of the same piece, as the cutting plate C, or as shown in Figs. 5, 8, and 10, of a separate piece and attached by the flange *i* and screws *i'* to the cutting plate C. In the face of the boss I form a series of recesses *j*, of varying depth to receive the teeth *j'* projecting from the flanged ring I. The teeth are equidistant and are preferably three or four in number and the number of recesses *j* should be a multiple of the number of teeth.

Whenever the cutter is to be used in its smallest dimension the teeth *j'* are placed in the deepest of the recesses *j*, which allow the ends of the cutting blades F and D to nearly approach the opposite plates C and E. By withdrawing the teeth *j'* and turning the cutting plate E and placing each of its blades F in the next contiguous space the teeth *j'* are brought into recesses of a less depth; which will hold the plates farther apart. With

three teeth and twelve recesses four different positions of the plate E can be obtained, giving four different sizes of cutters.

In order to prevent leather chips from entering the recesses *j* I place the telescopic tube composed of the two parts *n* and *n'* concentrically around the recesses *j* and teeth *j'*. The part *n* is attached to the plate C, and is provided with an internal shoulder *n*² upon which a spiral spring *n*³ rests, acting against the edge of the tube *n'* pressing its opposite end against the under side of the plate E.

When the plate E is removed the tube is held in place by the pin *n*⁴ entering the slot *n*⁵ and as the plate E is returned to its place the tube *n'* is pressed downward, compressing the spiral spring *n*³. The construction of the recessed boss, and telescopic tube, and their mode of attachment to the plate C is clearly shown in Fig. 5, but I do not confine myself to any special form of construction, nor to any special means for maintaining the two cutting plates at the desired distance apart.

The ring carrying the teeth *j'* may be made

in a separate piece as shown in the drawings, or it may be made a part of the cutting plate E.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an expansible cutter for trimming the soles of boots, or shoes, a pair of telescopic tubes for protecting the interior of the cutter and a spring by which one of said tubes is pressed out of the other, substantially as described.

2. In a rotary cutter for trimming the soles of boots or shoes, composed of two halves capable of being expanded as described; the tubes *n* and *n'* and spring *n*³ combined with said halves.

3. The combination in a cutter for trimming the soles of boots or shoes, of the tubes *n* and *n'* spring *n*³ and pin *n*⁴ in the tube *n* and entering a slot in the tube *n*².

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Witnesses:

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