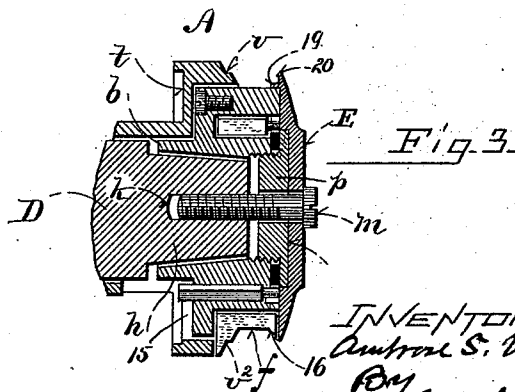
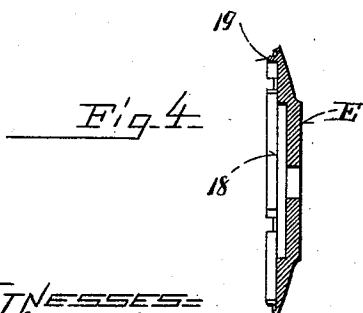
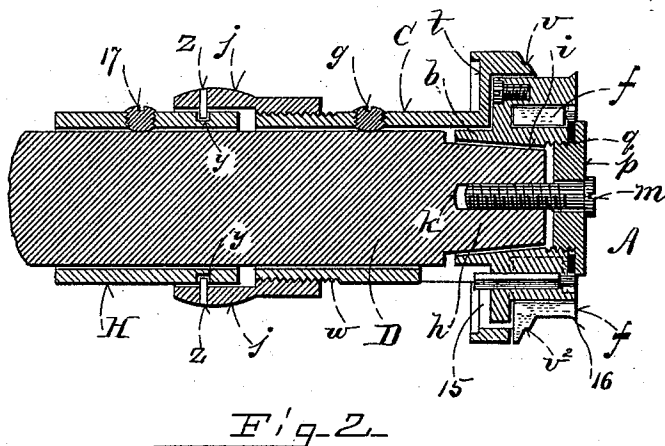
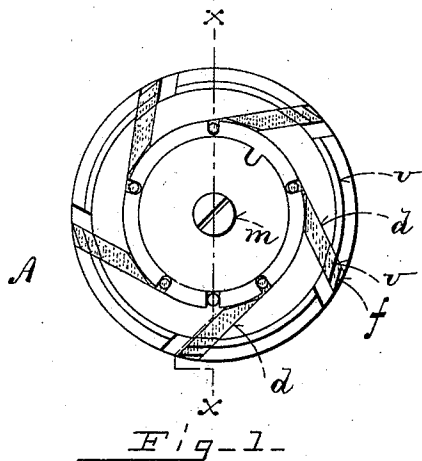


(No Model.)

A. S. VOSE.
ROTARY TRIMMER.

No. 528,311.

Patented Oct. 30, 1894.



WITNESSES=
E. Kimball
E. K. Peters-

INVENTOR=
Amos S. Vose,
By *Chas. Shaw*
ATTY-S.

UNITED STATES PATENT OFFICE.

AMBROSE S. VOSE, OF BOSTON, MASSACHUSETTS.

ROTARY TRIMMER.

SPECIFICATION forming part of Letters Patent No. 528,311, dated October 30, 1894.

Application filed January 11, 1894. Serial No. 496,482. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE S. VOSE, of Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Rotary Trimmers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of a trimmer-head embodying my improvement. Fig. 2 is a vertical longitudinal section of the same taken on line, *x, x*, in Fig. 1; Fig. 3, a like view showing the application of the end cap or guard, the shaft being represented as broken off and Fig. 4, a vertical transverse section of said guard.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to an improvement in heel and sole trimmers for boots and shoes, it being designed particularly as an improvement on the device shown and described in my United States Letters Patent numbered 457,386, dated August 11, 1891.

The object of my present invention is to improve the method of mounting the trimmer-head and to render the device applicable for receiving knives of different sizes, thus avoiding the necessity of providing a separate head for each set of knives.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the head or wheel of the trimmer which is provided on one face with a hub, *b*, and with inclined throats, *d*, in which the knives, *f*, are mounted. As the general construction and arrangement of this head are the same as that shown in the Letters Patent referred to and are not herein specifically claimed it is deemed unessential that the same be particularly described.

A guide or adjusting sleeve, C, is mounted on the shaft, D, and when suitably adjusted as hereinafter described may be locked against rotation by means of a set-screw, *g*.

The shaft, D, is reduced at its end forming a spindle, *h*, tapering outwardly and the spindle opening, *i*, of the head, A, is shaped to conform to said taper. The spindle is tapped and threaded centrally at, *k*, and the head, A, is secured thereto by a screw, *m*, passing through a flanged nut, *p*, inserted in the spindle-socket of the head, a washer or ring, *q*, 60 being interposed and overlapping the knives. The sleeve, C, has an annular-cap flange, *t*, for receiving the head, A, which it overlaps and serves as a guide. The outer face or edge of said flange is provided with an annular 65 shoulder, *v*, which registers with the shoulder, *v*², formed in the knives, *f*, in the head shown in the patent referred to. The inner end of the sleeve, C, is exteriorly screw-threaded at, *w*. The knives, *f*, have cutting lips, 16, at the outer ends of the cutting edges which trim the soles on the inner edges adjacent the stitches. A collar, H, is held on the shaft by a set-screw, 17. Said collar is provided with an annular groove, *y*. A nut, *j*, is fitted to rotate on said collar and is held against longitudinal movements by pins, *z*, which project into said groove, *y*. The nut is interiorly screw-threaded to receive the threaded end of the sleeve. The head, A, being mounted 80 on the spindle, *h*, by turning the nut, *j*, the sleeve can be moved on the shaft adjusting by means of its cap-head or flange the breadth of cut of the knives, *f*, in a manner which will be readily understood by all conversant 85 with such matters without a more explicit description. The flange, *t*, is provided with openings, 15, through which the chips pass from the knives.

By means of the screw, *m*, and the tapering spindle the wear on the head may be readily taken up preventing the same from chattering. After adjustment the sleeve, C, can be held by the set screw, *g*. To regulate the cut of the knife-flange, 16, I provide the cap-guard, 95 E, socketed at, 18, to receive the nut, *p*, and having an annular flange, 19, which overlaps the head, A. The guard is held by the screw, *m*, passing centrally through it. Its outer edge has a guide-flange, 20, which enters between the upper and sole. The flange, 19, 100 gages the cut of the knife at this point.

Having thus explained my invention, what I claim is—

1. The combination with the shaft and cutter-head of the fixed collar on said shaft provided with an annular groove, a nut fitted to rotate on said shaft and having a projection
5 entering said groove; the threaded sleeve on said shaft turned into said nut and provided with the cap flange overlapping said head.

2. The combination with the cutter-head and knives, of the shaft, nut, the nut turned
10 into said head; the screw connecting said nut and shaft; and the flanged guide-cap held by

the screw and overlapping said head, substantially as and for the purpose set forth.

3. The shaft and cutter-head in combination with the detachable knives having lips, 15
16; the cap, E, provided with flanges, 19, and, 20, and mechanism for securing said cap and head to the shaft.

AMBROSE S. VOSE.

Witnesses:

O. M. SHAW,
HATFELDT COLBURN.