

W. G. LERCH & C. P. WHISLER.
HEEL TRIMMER.
APPLICATION FILED NOV. 6, 1917.

1,268,477.

Patented June 4, 1918.

Fig. 1.

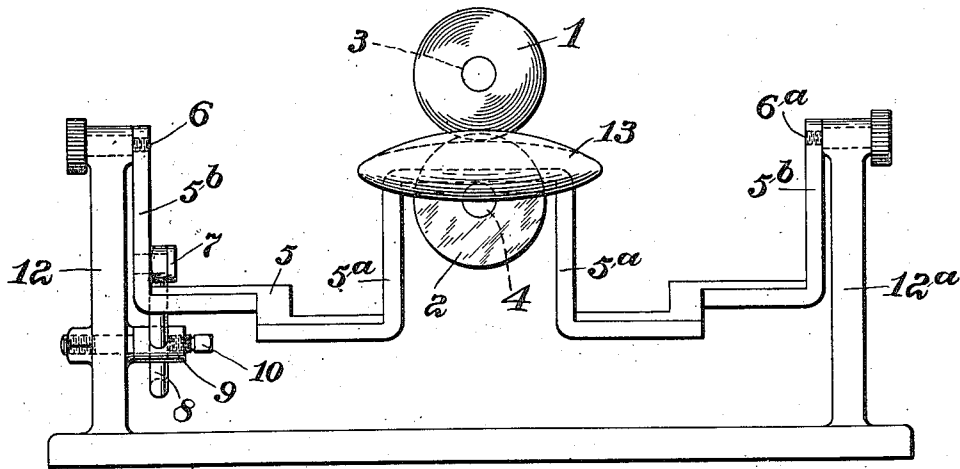


Fig. 2.

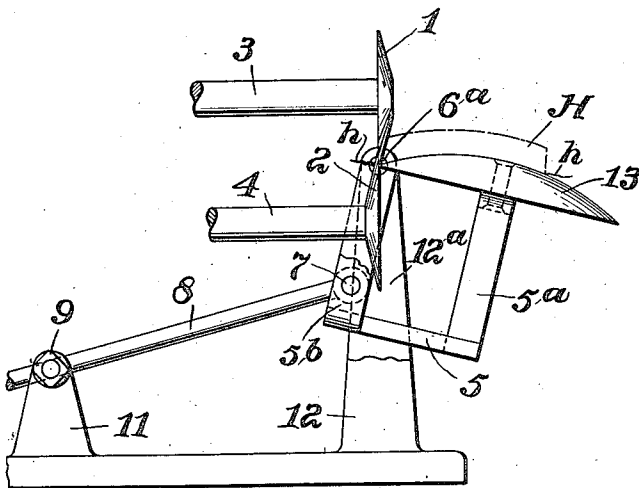
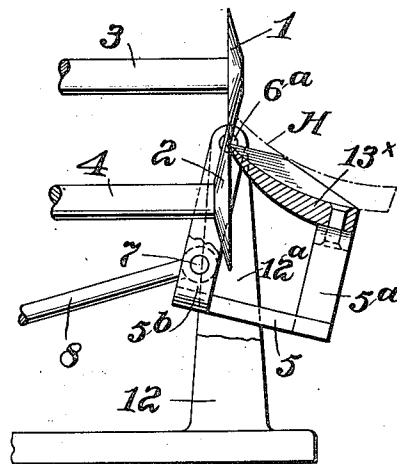


Fig. 3.



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UNITED STATES PATENT OFFICE.

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HEEL-TRIMMER.

1,268,477.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WILLIAM G. LERCH and CHAUNCEY P. WHISLER, citizens of the United States, and residents of Akron, Ohio, have invented certain new and useful Improvements in Heel-Trimmers, of which the following is a specification.

Our present invention relates to an improved device or apparatus for trimming the rind, lip, or flange from the edge of molded heels and it is designed more especially for use in connection with the form of heel, which is molded with a concave surface for fitting accurately the bottom surface of the shoe to which the heel is applied.

In the manufacture of these heels they are formed in molds with a concave surface to fit the bottom of the shoe and an opposite and convex wearing surface, the curvature of each surface being approximately the section of a sphere.

The molds are three-part molds which leave a rind or lip at the edge of the concave spherical surface, and also one at the edge of the convex spherical surface, and the present machine is designed to afford a simple, economical, and efficient device by which these rinds or flanges may be expeditiously and smoothly trimmed.

The invention includes the novel features of construction and arrangement and combination of parts hereinafter described and particularly defined by the appended claims.

An embodiment of our invention is illustrated in the accompanying drawings, in which,

Figure 1 is a front elevation.

Fig. 2 is a side elevation partly broken away.

Fig. 3 is a view of a modification.

Referring by reference characters to this drawing the numerals 1 and 2 designate co-acting cutting disks or shear cutters, which are designed to trim the flange or rind from the heel, said heel being indicated in trimming position at H, in Fig. 2, and the projecting rind at h. The rotary cutting disks or knives 1 and 2 are mounted upon parallel shafts 3 and 4, which may be supported and driven in any convenient manner, not necessary to be disclosed herein. The heel H during the trimming operation is supported upon a table 13 having a part spherical surface corresponding in curvature to the curvature of the face of the heel. This

table 13 is supported upon a swinging frame 5, which has its side arms 5^b connected by suitable pivots 6 and 6^a to the supporting uprights 12 and 12^a carried by a suitable base. The axes 6 and 6^a are arranged in axial alinement with the meeting edges of the cutters and the edge of the table indicated at h' is also brought into close proximity to the meeting edge of the cutters, as clearly shown in Figs. 1 and 3. By reason of this arrangement the frame 5 and with it the table may be shifted to any convenient angle with relation to the cutters while at the same time the edge of the table is maintained at exactly the same distance from the working edge of the cutters or in other words in the same desired close proximity to the cutting point.

In order to maintain the frame in any position to which it may be adjusted we connect to a suitable part of the frame 5, as for instance one of the arms 5^b by a suitable pivot connection 7, a rod 8, which rod extends through a pivoted boss 9 carried by a standard part or post 11. The rod can be released to slide in the boss for the adjustment of the frame, and be locked to hold the frame in its adjusted position by means of the set screw 10.

The table 13 is supported upon a portion of the frame of substantially inverted U-shape as indicated at 5^a, the side portions 5^a being spaced widely enough apart to clear the lower cutter 2.

In trimming the rind from the molded heel the frame 5 carrying the table 12 is swung to such a position that the included angle formed by the conical face of the cutter 1 and the convex face of the table 13 is equal to the included angle of the concave face of the heel and the edge of the heel, so that at all times the heels will be presented to the cutters so as to properly trim the rind or flange close to the body of the heel without cutting into the heel or damaging the same. When the frame has been properly adjusted it is locked in position by the rod 8 and thereafter the operator places the heel upon the table, rotates and slides the heel over the same in such a manner as to present the heel rind or flange progressively to the cutters.

For trimming the flange from the convex edge of the heel we employ a table having a convex seat as indicated at 13^x in Fig. 3

and in this form of table we prefer to make it of only part circular form as being more convenient for the manipulation of the heel.

What we claim is:

5 1. In a device of the class described a pair of co-acting cutters, a table having a smooth unobstructed surface curved slightly in all directions, over which an article hav-
10 ing a corresponding face may be freely moved in all directions, and means for adjustably supporting said table and main-
15 taining its edge in close proximity to the meeting point of said cutters.

2. In a device of the class described a
15 pair of co-acting rotary cutters, a frame pivoted on an axis coincident with the meet-
ing point of the cutters, a table having a curved surface terminating in a narrow
20 edge in close proximity to said meeting point of the cutters and means for adjust-
ing said frame about its pivotal axis.

3. In a device of the class described a pair of co-acting rotary cutters, a frame

having arms pivoted on an axis coincident with the meeting point of the cutters, a sup- 25
porting table carried by said frame having a curved surface terminating in proximity to said meeting point, a rod pivotally con-
nected to said frame, and a stationary part to which said rod is adjustably connected. 30

4. In a device of the class described, a
30 pair of superposed rotary coacting cutters, a frame pivoted on an axis coincident with the meeting point of the cutters, said frame comprising arms depending from their
35 pivots and horizontal portions and a portion of inverted U-shape supported by the horizontal portions, said inverted U-shaped portion being of greater width than and in
40 alinement with the lower cutter and a table supported by said inverted U-shaped por-
tion.

In testimony whereof, we affix our signa-
tures.

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