

C. H. PARTRIDGE.
HEEL SEAT TRIMMING MACHINE.
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988,501.

Patented Apr. 4, 1911.

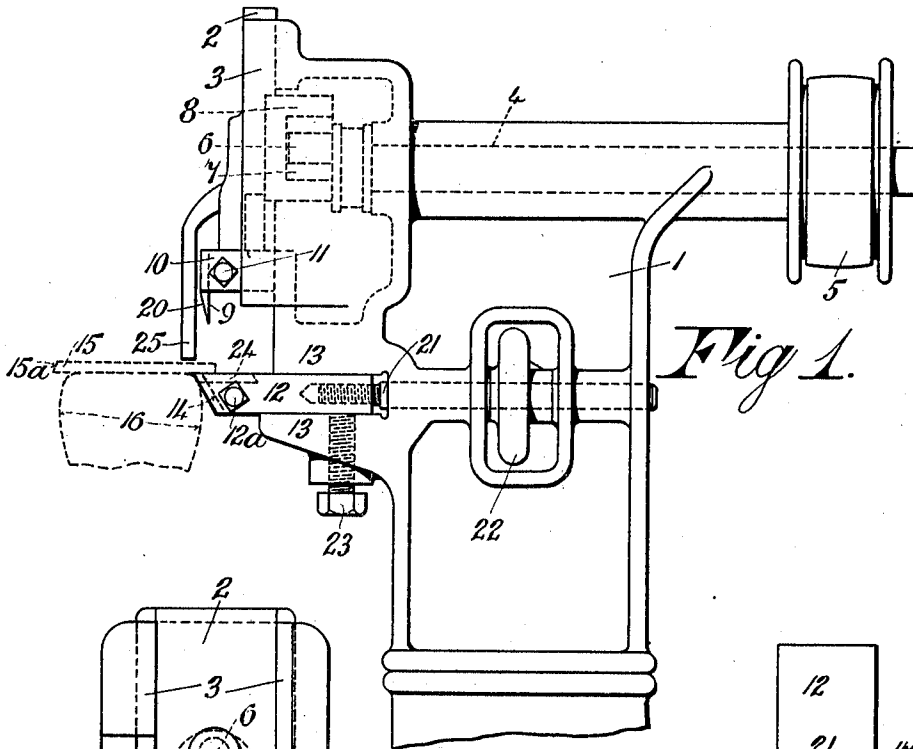


Fig 1.

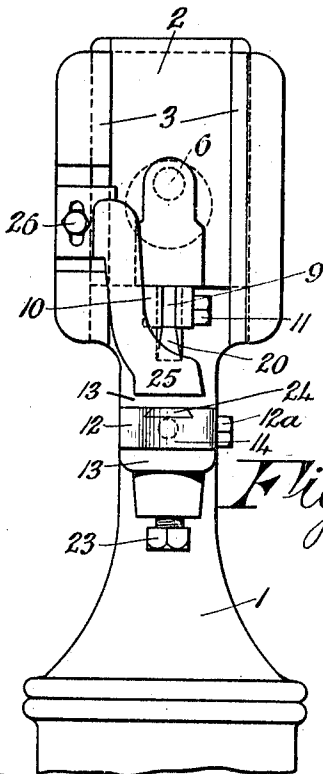


Fig 2.

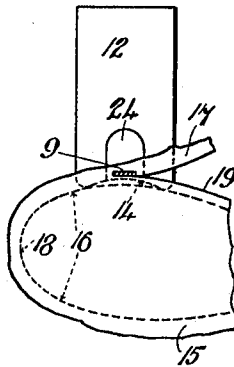


Fig 3.

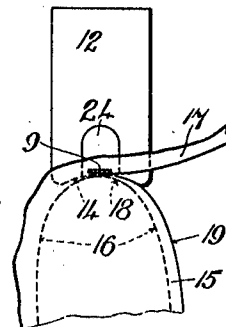


Fig 4.

Witnesses:-

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UNITED STATES PATENT OFFICE.

CHARLES HERBERT PARTRIDGE, OF LONG BUCKBY, ENGLAND, ASSIGNOR TO GIMSON & COMPANY (LEICESTER) LIMITED, OF LEICESTER, ENGLAND.

HEEL-SEAT-TRIMMING MACHINE.

988,501.

Specification of Letters Patent.

Patented Apr. 4, 1911.

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To all whom it may concern:

Be it known that I, CHARLES HERBERT PARTRIDGE, a subject of the King of Great Britain, residing at Long Buckby, in the county of Northampton, England, have invented new and useful Improvements in or Relating to Heel-Seat-Trimming Machines, of which the following is a specification.

This invention relates to machines to be employed in the manufacture of boots and shoes for trimming heel-seats.

The invention comprehends a simple and cheap machine which will trim the heel-seats of boots and shoes more expeditiously than heretofore, an important feature of the improved machine according to this invention, being that a heel-seat of graduated width may be produced so that the trimmed edge is taken closer in at the back of the heel than at the sides.

The machine comprises a vertically reciprocating knife combined with which is a work support upon which the heel-seat to be trimmed is rested.

In contradistinction to previous heel-seat trimming machines, the work is presented to the machine of the present invention with the heel-seat facing upward *i. e.* the upper of the boot or shoe is turned downward and the projecting face or edge of the heel-seat rests upon the work support. The reciprocating knife is located above the work support and cuts downward into the heel-seat to trim off the edge thereof as the boot or shoe is moved around by the operator.

The principal feature of the invention is the combination with the reciprocating knife of a work support having a curved and inclined front face or edge against which the upper of the boot is pressed when trimming the heel seat. The curved front face of the work support allows the back of the heel to approach nearer to the knife as the work is moved around so that the heel-seat is graduated in width.

In further describing the invention reference will be made to the accompanying drawing, wherein:—

Figure 1 is a side elevation of a heel-seat trimming machine constructed according to this invention. Fig. 2 is a front view of the machine. Figs. 3 and 4 are plan views of the work support and show a heel-seat being trimmed at the side and back respectively.

Like parts are designated by the same reference characters in all the figures.

The machine comprises a frame or stand 1 carrying at the front a vertically movable slide 2 adapted to reciprocate in a suitable guide 3. The means for imparting reciprocation to the slide 2 consist of a horizontal spindle 4 carried in the frame 1 and rotated by belt on the driving pulley 5. The forward end of the spindle 4 is furnished with a crank pin 6 having a roller 7 thereon which is located within and moves along a channeled or grooved block 8, attached to the back of the slide 2. When the spindle 4 is rotated the crank pin 6 imparts an up and down movement to the slide 2 through the medium of the roller 7 which travels to and fro in the grooved block 8. The vertically reciprocating slide 2 carries at its lower end the knife or cutter 9 and for this purpose is furnished with a block or holder 10 having a screw 11 by means of which the knife 9 may be clamped and firmly held in the said block but may be detached therefrom when required. The block or holder 10 may be permanently attached to the slide 2 or it may be detachably fastened therein or thereto in any suitable manner. The knife 9 is preferably in the form of a tapered or wedge like blade and depends from its holder block 10 as shown in Fig. 1. Combined with the reciprocating knife or cutter just described is a work support 12 which consists of a rest or block located under the lower cutting edge of the knife and adjustably mounted between two cheeks 13 on the frame 1. The block 12 has a curved *i. e.* concaved front face 14 as shown in Figs. 3 and 4 and said face 14, in order that it may enter the feather of the boot or shoe, is also inclined or formed at an angle with the top of the work support as shown in Fig. 1. The object of this curved formation of the face 14 is to enable the heel-seat to be trimmed so that its width will be varied in the manner previously mentioned and the knife 9 is specially formed as hereinafter described so that at the same time the edge of said seat will receive the requisite amount of angle or incline. The knife or cutter 9 descends at each reciprocation until its cutting edge touches the surface of the work supporting block 12.

In presenting the work to the machine,

the heel-seat 15, facing upward as shown by the dotted lines in Fig. 1, is rested upon the work support 12 and the side 16 of the boot or shoe is pressed up to the curved and inclined front 14 of the said block 12. The work is moved around by the operator so as to carry the heel-seat 15 along under the knife 9 which reciprocates rapidly and trims off the surplus edge 17 of the material as shown in Figs. 3 and 4. When the approximately flat side 16 of the boot or shoe is held up to the concaved front 14 of the work support 12, the edge of the upper *i. e.* the side of the boot, will bridge across the concavity and stand away from the knife or cutter 9 as shown in Fig. 3, but as the work is moved along and the rounded back portion 18 of the boot or shoe passes in front of the work support, the side of the boot will gradually move closer to the knife 9 seeing that the rounded back portion 18 will enter the concavity as shown in Fig. 4. This produces a heel-seat which when trimmed has a face whose width varies, that is to say, the trimmed edge 19 of the heel-seat will be closer in to the upper of the boot or shoe at the back of the heel than it will be at the sides of the heel as shown in Fig. 4. The front face 20 of the knife or cutter 9 is beveled or inclined (Fig. 1) so that when it passes through the heel-seat it will impart thereto an angular or inclined edge such as shown at 15^a in Fig. 1. In order to vary the distance between the front edge 14 of the work support and the knife 9 to produce any required width of heel-seat, said work supporting block 12 is slidable between the cheeks 13 and may be adjusted by means of a rod 21 screwed at one end into said block and adapted to be rotated by a handwheel 22 (Fig. 1). After adjustment the block 12 may be fastened by means of a set screw 23.

For receiving the cut of the knife, the tip of the work support is preferably furnished with a brass plate or cap 24 which, for purposes of renewal, may be dovetailed into the block 12 so as to be slidable in and out thereof. The block 12 may be split and furnished

with a screw 12^a so that the plate 24 may be clamped in place in the block. The work supporting block 12 may also be interchangeable with others having concaved fronts of different curvature and depths to suit various kinds of work.

A guard 26 is preferably provided and is adjustably attached to the frame 1 by means of a screw 26. This guard 26 is located at the front of the machine and protects the operator's fingers from injury by the knife. Additionally the lower end or edge of said guard may serve to prevent the work lifting from the work support with the upward movement of the knife.

The adjustment of the knife or cutter 9 relatively to the face of the work support 12 to take up wear may be effected by lowering the knife in the clamping device or knife holder 10 previously described.

What I claim then is:—

A machine for trimming the heel seats of boots and shoes, having in combination a knife, a beveled front face on said knife to produce an inclined heel seat edge, a holder to adjustably support said knife, a vertically reciprocating slide to carry said holder, a rotating crank to actuate said slide, a block to support the heel-seat under said reciprocating knife, an inclined and concaved guide face on said block to produce a heel-seat face of graduated width, a rotatable screwed rod to slidably adjust the position of the supporting blade under the knife transversely to the direction of the feed to vary the width of the heel-seat face, a set screw to secure the block in its adjusted position, and a stationary guard adjustable in height relatively to the block adapted to prevent the heel-seat rising from the block during the upward travel of the knife, all substantially as herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES HERBERT PARTRIDGE.

Witnesses:

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