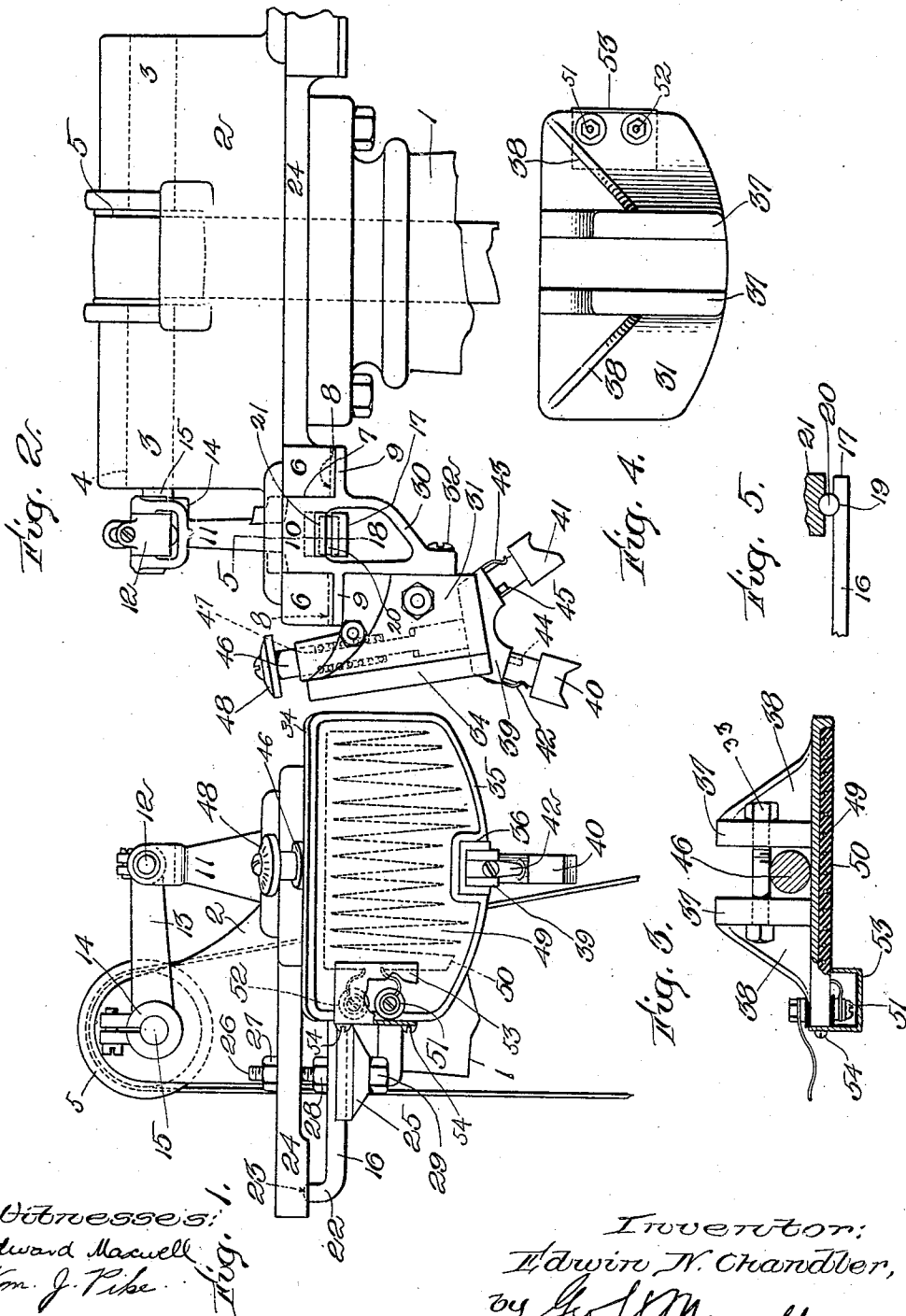


E. N. CHANDLER.
EDGE SETTER AND FINISHER.
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977,510.

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Witnesses:
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UNITED STATES PATENT OFFICE.

EDWIN N. CHANDLER, OF BROCKTON, MASSACHUSETTS, ASSIGNOR TO SIMPLEX ELECTRIC HEATING COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

EDGE SETTER AND FINISHER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWIN N. CHANDLER, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented an Improvement in Edge Setters and Finishers, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The present invention relates to machines for burnishing or finishing the edges of the soles of boots and shoes, such machines being generally known to the trade as edge setting machines.

The object of the invention is to produce a machine of this character of simple and effective construction, and to provide means whereby the tools may be conveniently heated by electricity, and to so construct the tool carrier as to provide for a relatively large heating body close to the tools whereby the heat will be stored and delivered by conduction direct to the tools.

To the above ends the present invention consists of the devices which will be hereinafter described and claimed.

The present invention is shown in the accompanying drawings in which:—

Figure 1, shows the machine in front elevation. Fig. 2, shows a side view. Fig. 3 is a view in top plan looking at the upper edge of the heater, partly broken away and sectioned to show the internal construction and adjacent parts. Fig. 4, shows a back view of the heated head or block and Fig. 5, shows a sectional detail of the spring support for the rocking carrier at the point indicated by the dotted line 5, Fig. 2.

Similar reference characters will be employed to designate corresponding parts.

In the drawing 1 indicates the upper portion of a standard upon which is mounted a casting or frame 2. The frame 2 carries bearings 3 in which is mounted a shaft 4 carrying a belt pulley 5 driven by a belt from any suitable source of power. The frame 2 has at its ends the downwardly extending projections 6 with the intermediate space 7, the projections 6 being rounded upon their under surfaces as at 8 to afford a rocking bearing for the arms 9 of a carrier 10, which rocker arms 9 are held in contact therewith and form a rocking support or bearing for the rocking carrier.

The rocking carrier 10 has an upwardly extending arm 11 which at its upper end is pivotally connected at 12 to one end of a link 13, the opposite end of the link 13 carrying a bearing 14, which is mounted upon a crank pin 15 projecting eccentrically from the end of the shaft 4. The rotation of the shaft 4, through the link 13 will impart rapid vibrations to the rocking carrier 10.

The rocking carrier 10 is supported with its rounded arms 9 in contact with the rounded faces 8, by means of a strong bar spring 16, which at its inner end 17 projects within the opening 18 of said carrier, where it has a seat 19 receiving a roll or pin 20, which pin is also received in a seat 21 formed in the top of the space 18 in the rocking carrier. The spring 16 at its outer end is upturned as shown at 22 and engages a recess 23 in a table or projection 24, and between the end 22 and its inner end 17 said spring is engaged by a grooved block 25 mounted on a threaded bolt 26, and supported, held and adjusted, by means of the nuts 27, 28 and 29. The block 25 and its adjustable connection with the table 24 supports the spring 16 and regulates the force by which its inner end presses the rocking carrier or its rounded arms 9 against the cooperating rounded surfaces 8 of the downward projections 6. Thus it will be seen that the rocking carrier is yieldingly supported and has imparted thereto rapid vibrations. At its lower end the rocking carrier 10 carries a bracket 30, and within the angle formed by the front of the bracket 30 and the under surface of the arm 9 at the front is secured the tool carrying block 31 which is adapted to be heated and which supports the tool carrier and tools which are heated by conduction from the block 31.

The block 31 is shown detached in Fig. 4, and consists of a comparatively large and heavy casting secured to the vibrating carrier 10 by means of a screw 32 and a bolt 33. The block 31 has a front plate 34 bounded by a marginal flange 35 and at its lower edge at the center it has a seat or notch 36. At the back of the plate 34 there are provided the heavy vertically extending walls 37 and the inclined webs 38 (see Fig. 4). Between the walls 37 the tool holder 39 is adapted to fit and also project into the notch 36, whereby the tool holder is confined and held directly in contact with the heated walls 37

and the heated plate 34, and the stored up heat conducted directly to the tool holder 39 and the tools 40 and 41 supported thereby. The tools 40 and 41 are removably connected to the tool holder 39, by any suitable means, as by the spring latches 42 and 43 and pins 44 and 45 engaging the shanks of the tools, and they are angularly disposed with relation to each other, and when in operative position are prevented from turning by the seating of the tool holder 39 in the notch 36 and between the heated walls 37, but the tool holder may be depressed and then turned to bring the desired tool to the front. The tool holder 39 has a stem 46 which is supported in the block 31 between the walls 37 and is normally held elevated by means of a spring 47 which keeps the tool holder seated in the notch 36 and between the walls 37, and at its upper end said stem 46 has a head 48 by means of which it may be depressed as stated above when it is desired to turn the tool holder.

For the purpose of heating the block 31 and the walls 37 and thus conduct heat directly to the tool holder and tools a resistance wire 49 is secured in the front of the plate 31 said wire being embedded in insulation, as in vitreous enamel 50 which is placed in the recess formed by the projecting flange. The ends of the wire 49 are connected to the binding posts 51 and 52, which will also be connected when the machine is in use to conductors from any suitable source of electricity. The binding posts are located near one edge of the plate 31 and are protected by a box or casing 53 secured in place by screws 54.

It will be noted that I have provided a simple heating means for the tools and that the plate 31 and the walls 37 comprise a comparatively large and heavy heating body directly at the work region, and that the tool holder being confined in contact with the plate 31 and between the heated walls

37, the heat is brought close to the tools to which it is transmitted by conduction.

Having described my invention I claim as new and desire to protect by Letters Patent of the United States.

1. An edge-setting machine, comprising an edge-setting tool, a unitary holder and heater therefor mounted for vibration, said holder consisting of a relatively heavy mass of metal having a plate and tool-embracing walls all contacting with and arranged to freely conduct heat to the tool, and means for supplying electric heating energy to said plate.

2. An edge-setting machine, comprising an edge-setting tool, a unitary holder and heater therefor mounted for vibration, said holder consisting of a relatively heavy mass of metal having a plate, tool-embracing walls, and a front flange, all contacting with and arranged to freely conduct heat to the tool, and an electric resistance device mounted on said plate and confined by said flange.

3. In an edge-setting machine, a combined holder and heater mounted for vibration, the same consisting of a flat plate, parallel walls projecting from the rear thereof to receive the tool, and an electric resistance device mounted at the front of said holder.

4. In an edge-setting machine, a combined holder and heater mounted for vibration, the same consisting of a relatively heavy mass of metal in the form of a transverse plate provided with parallel rearwardly extending walls and a socket to receive a tool, a flange forwardly extending from said plate, and an electric resistance device held by said plate and flange.

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

EDWIN N. CHANDLER.

Witnesses:

EDWARD MAXWELL,
M. J. SPALDING.