

PATENT SPECIFICATION

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DRAWINGS ATTACHED

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(54) MANICURING ATTACHMENT FOR AN ELECTRIC DRY SHAVER

(71) We, SPERRY RAND CORPORATION, a corporation organized and existing under the Laws of the State of Delaware, of 1290 Avenue of The Americas, New York, New York 10019, United States of America, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to manicuring attachments suitable for replacing the cutter heads of electric dry shavers.

Manicuring attachments for electric dry shavers are well-known. In some instances the attachments comprise manicuring units adapted to be substituted as needed on the shaver in place of the cutter head. These units usually include a driven member having an abrasive substance secured thereto and which abrasive substance is exposed for contact by a fingernail as the driven member is moved in a rotary, reciprocatory, or like path of travel. In use the means for imparting motion to the driven member is the same means used to drive the movable cutter of the cutter head when the latter is mounted on the shaver. In other similar devices the abrasive element has either been an integral part of a shaver or of a like power operated appliance.

These known manicuring devices and attachments present various problems in use in that in addition to requiring relatively complex mechanisms various restrictions are present in that known devices do not provide for freedom of movement of the finger in positioning the fingernail or in filing the rear and side edges of a fingernail. As a result difficulties are encountered by the user in completing a filing operation in a fast and efficient manner.

The present invention consists in a manicuring device comprising a support, a driven member disposed on the support for reciprocating movement in a linear path of travel, a working surface on said driven member having

an abrasive portion thereon and an inclined portion on the said support disposed to support a finger with the nail in operative relation to the abrasive portion.

The support preferably includes a body member having a cavity therein, the driven member being arranged for movement in the cavity with the abrasive portion projecting from the said cavity. The body member may also include a second cavity spaced from and parallel to the first cavity and a second driven member with buffing means thereon. It is a feature of the invention to combine the aforesaid manicuring device with an electric shaver from which the cutter head has been removed.

To illustrate the present invention and show how it may be carried out, reference will now be made, by way of example, to the accompanying drawing in which:—

Figure 1 is a plan view of an electric dry shaver having mounted thereon a manicuring attachment;

Figure 2 is a sectional view taken on the line 2—2 of Figure 1;

Figure 3 is a sectional view taken on the line 3—3 of Figure 1; and

Figure 4 is a sectional view taken on the line 4—4 of Figure 1.

An upper portion of an electric dry shaver casing 10 is indicated by the reference numeral 12 in Figures 2 and 4. The casing 10 is of a conventional type having a receptacle 11 in the upper portion thereof for receiving therein a cutter head (not shown). In the casing, the means for driving the cutters of the cutter head, when operated as a shaver, also drive the manicuring implements when operated with the manicuring attachment and may comprise a pair of oscillator arms 13 and 14 (Fig. 4) which extend upwardly from a motor (partially shown and diagrammatically indicated at 15 in Figure 2) in compartment 16 in the casing 12 for oscillation in a well-known manner in direction indicated by the arrows A and B.

The manicuring attachment is generally indicated by the reference numeral 18 and is shown as disposed in the cutter head receptacle 11 of the casing 12 after the cutter head has been removed. Manicuring attachment 18 comprises a body member or support 19 of suitable moulded plastics material having a top wall 20, and a pair of spaced side walls 21 and end walls 22 depending from the top wall 20.

Guide means for purposes to be hereinafter explained include a wall portion or guide bar 24 which extends from the rear edge portion 20a of top wall 20 outwardly and upwardly at an angle to the top wall. The guide has a finger locating wall 24a. A pair of cavities 26—27 are provided in member 19 at each side of a central interior wall portion 28 and to which wall portion 28 is secured a rectangular base plate 29 by means of screws 30. Rectangular shaped openings 32 and 33 are provided in top wall 20 to cavities 26 and 27 and which openings 32—33 are in alignment with a pair of openings 35—36 in base plate 29 through which project oscillator arms 13—14 (Figure 4).

Oscillator arm 14 in cavity 27 is connected to an elongated channel section frame member 37 which carries finger manicuring means which move in a linear path of travel. A leaf spring 38 is provided to interconnect frame member 37 to oscillator arm 14 and which spring has its opposite arms secured to the bottom web 43 of frame 37 in any suitable manner such as by projection 39 fitting in appropriate slots in the interconnected frame member 37. The frame member 37 and leaf spring 38 form a driven member. An intermediate bow portion 40 of the spring 38 is seated on arm 14. Abrasive means or element 41 is mounted to the top of a metal frame 42 to form a working surface and comprises a strip of any suitable filing substance, as for example steel file, emery board, sandpaper or similar type material. The metal frame and abrasive strip form a means for manicuring fingernails through frictional abrasion. As seen in Figure 4 the top surface of frame 42 is arranged in a plane which is inclined to the top of channel section frame member 37 and is spaced from and substantially parallel to the inclined wall 24a of main body member 19. The finger locating wall and abrasive means are sloped in the same direction. Frame 42 (Figures 3 and 4) is provided with depending appropriate tab projections inserted in corresponding slots in the top wall 43 of frame member 37 to secure abrasive strip 41 thereto. The driven member, frame member 37 and strip 41 form an abrasive implement.

A buffing means or implement is provided in cavity 26 of manicuring attachment 18 and includes a channel section carrying frame 45 and to the top web 44 of which is secured

an arcuate frame 46 (Figure 2). A buffing pad 47 of suitable soft material is attached to the upper surface of frame 46. A leaf spring 48 is secured to the bottom web of frame 46 and has a bow portion 49 seated on oscillator arm 13.

Manicuring attachment 18 is maintained within shaver 10 in a known manner as by manually manipulatable latch members 52 on casing 12 and which latch members 52 are provided with hooks 53 engaging resilient fingers 51 on base plate 29 of attachment 18. Latch members 52 are maintained in engaged position by spring plate 54 positioned at the base of receptacle 11 in a known manner and are operable to release attachment 18 from shaver 10 by manual depression from outside shaver 10 as desired.

In accordance with the above description, the manicuring attachment 18 is mounted on the casing 12 and the operation of motor 15 will cause oscillator arms 13 and 14 to oscillate in the directions indicated by the arrows A and B in Figure 2. Frame members 37 and 45 are thereby driven in a reciprocatory path by their associated leaf springs 38 and 48 respectively.

If it is desired to file one's fingernail, the finger is placed on guide bar 24 with the under-surface of the extended fingernail positioned thereby on the reciprocatory abrasive strip 41 as indicated in Figure 4. The positions of the tips of a finger and of a fingernail is diagrammatically illustrated by the broken lines in Figures 3 and 4. A slight rotative rocking effects efficient filing of the undersurface and side edges of the fingernail. When the nail has been filed the same may then be cleaned and buffed by placing the nail on the buffing pad 47 as the same is reciprocated.

It will be apparent from the foregoing description that the manicuring attachment as described has many advantages in use. One advantage amongst others is that the pre-selected position of guide bar 24 in a parallel plane to that of the abrasive strip permits proper positioning of the finger on attachment 18. A further advantage is that the inclination of abrasive strip 41 allows for the filing of the side edges and under-surface of the fingernail in an effective and more efficient manner than previously known.

Although one embodiment of the present invention has been illustrated and described in detail it is to be expressly understood that the invention is not limited thereto.

WHAT WE CLAIM IS:—

1. A manicuring device comprising a support, a driven member disposed on the support for reciprocating movement in a linear path of travel, a working surface on said driven member having an abrasive portion thereon and an inclined portion on the said support

The manicuring attachment is generally indicated by the reference numeral 18 and is shown as disposed in the cutter head receptacle 11 of the casing 12 after the cutter head 11 has been removed. Manicuring attachment 18 comprises a body member or support 19 of suitable moulded plastics material having a top wall 20, and a pair of spaced side walls 21 and end walls 22 depending from the top wall 20.

Guide means for purposes to be herein-after explained include a wall portion or guide bar 24 which extends from the rear edge portion 20a of top wall 20 outwardly and upwardly at an angle to the top wall. The guide has a finger locating wall 24a. A pair of cavities 26—27 are provided in member 19 at each side of a central interior wall portion 28 and to which wall portion 28 is secured a rectangular base plate 29 by means of screws 30. Rectangular shaped openings 32 and 33 are provided in top wall 20 to cavities 26 and 27 and which openings 32—33 are in alignment with a pair of openings 35—36 in base plate 29 through which project oscillator arms 13—14 (Figure 4).

Oscillator arm 14 in cavity 27 is connected to an elongated channel section frame member 37 which carries finger manicuring means which move in a linear path of travel. A leaf spring 38 is provided to interconnect frame member 37 to oscillator arm 14 and which spring has its opposite arms secured to the bottom web 43 of frame 37 in any suitable manner such as by projection 39 fitting in appropriate slots in the interconnected frame member 37. The frame member 37 and leaf spring 38 form a driven member. An intermediate bow portion 40 of the spring 38 is seated on arm 14. Abrasive means or element 41 is mounted to the top of a metal frame 42 to form a working surface and comprises a strip of any suitable filing substance, as for example steel file, emery board, sandpaper or similar type material. The metal frame and abrasive strip form a means for manicuring fingernails through frictional abrasion. As seen in Figure 4 the top surface of frame 42 is arranged in a plane which is inclined to the top of channel section frame member 37 and is spaced from and substantially parallel to the inclined wall 24a of main body member 19. The finger locating wall and abrasive means are sloped in the same direction. Frame 42 (Figures 3 and 4) is provided with depending appropriate tab projections inserted in corresponding slots in the top wall 43 of frame member 37 to secure abrasive strip 41 thereto. The driven member, frame member 37 and strip 41 form an abrasive implement.

A buffing means or implement is provided in cavity 26 of manicuring attachment 18 and includes a channel section carrying frame 45 and to the top web 44 of which is secured

an arcuate frame 46 (Figure 2). A buffing pad 47 of suitable soft material is attached to the upper surface of frame 46. A leaf spring 48 is secured to the bottom web of frame 46 and has a bow portion 49 seated on oscillator arm 13.

Manicuring attachment 18 is maintained within shaver 10 in a known manner as by manually manipulatable latch members 52 on casing 12 and which latch members 52 are provided with hooks 53 engaging resilient fingers 51 on base plate 29 of attachment 18. Latch members 52 are maintained in engaged position by spring plate 54 positioned at the base of receptacle 11 in a known manner and are operable to release attachment 18 from shaver 10 by manual depression from outside shaver 10 as desired.

In accordance with the above description, the manicuring attachment 18 is mounted on the casing 12 and the operation of motor 15 will cause oscillator arms 13 and 14 to oscillate in the directions indicated by the arrows A and B in Figure 2. Frame members 37 and 45 are thereby driven in a reciprocatory path by their associated leaf springs 38 and 48 respectively.

If it is desired to file one's fingernail, the finger is placed on guide bar 24 with the under-surface of the extended fingernail positioned thereby on the reciprocatory abrasive strip 41 as indicated in Figure 4. The positions of the tips of a finger and of a fingernail is diagrammatically illustrated by the broken lines in Figures 3 and 4. A slight rotative rocking effects efficient filing of the undersurface and side edges of the fingernail. When the nail has been filed the same may then be cleaned and buffed by placing the nail on the buffing pad 47 as the same is reciprocated.

It will be apparent from the foregoing description that the manicuring attachment as described has many advantages in use. One advantage amongst others is that the pre-selected position of guide bar 24 in a parallel plane to that of the abrasive strip permits proper positioning of the finger on attachment 18. A further advantage is that the inclination of abrasive strip 41 allows for the filing of the side edges and under-surface of the fingernail in an effective and more efficient manner than previously known.

Although one embodiment of the present invention has been illustrated and described in detail it is to be expressly understood that the invention is not limited thereto.

WHAT WE CLAIM IS:—

1. A manicuring device comprising a support, a driven member disposed on the support for reciprocating movement in a linear path of travel, a working surface on said driven member having an abrasive portion thereon and an inclined portion on the said support



disposed to support a finger with the nail in operative relation to the abrasive portion.

2. A device as claimed in claim 1 wherein the driven member is adapted to be driven by the drive mechanism of an electric shaver.

3. A device as claimed in claim 1 or claim 2 wherein the support includes a body member having a cavity therein, the driven member being arranged for movement in the cavity with the abrasive portion projecting from said cavity.

4. A device as claimed in claim 3 wherein the body member includes a second cavity spaced from and parallel to the first cavity and a second driven member with buffing means thereon.

5. A device as claimed in claim 4 wherein the buffing means comprises a pad of soft

material bent in an arcuate shape on the second driven member and arranged for movement in a path parallel to that of the first driven member.

6. A device as claimed in any of the preceding claims in combination with an electric shaver from which the cutter head has been removed.

7. A manicuring device substantially as herein described with reference to and as shown in the accompanying drawings.

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