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AUTOMATIC FINGER NAIL EMERY BOARD AND BUFFER

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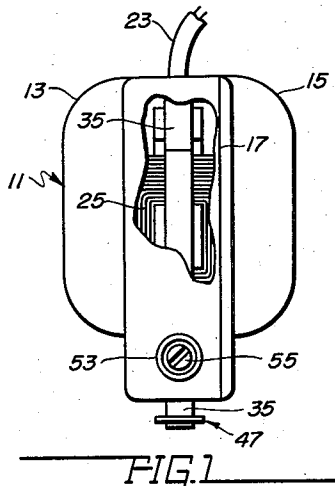


FIG. 1

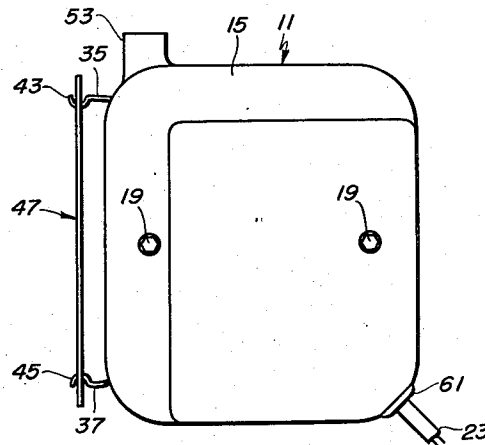


FIG. 4

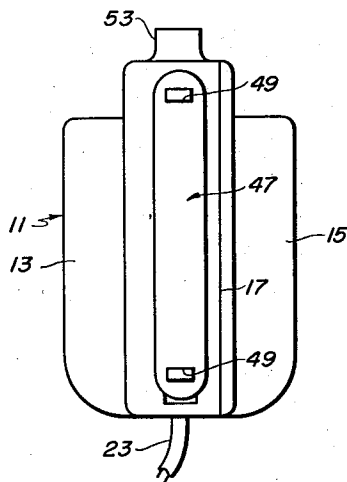


FIG. 2

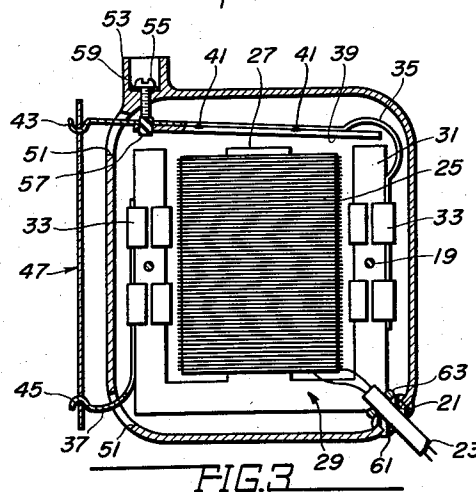


FIG. 3

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AUTOMATIC FINGERNAIL EMERY BOARD AND BUFFER

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1 Claim. (Cl. 132—73.6)

My invention relates to electro-magnetically operated fingernail emery boards and buffers and, more specifically, has as one of the principal objects thereof the provision of a device of the above-described character so constructed and arranged whereby the emery board or buffer elements are quickly attachable to and detachable from means operable for reciprocating said elements.

Another object of my invention is to provide a device of the above-described character equipped with adjustment means for varying the distance of reciprocation of the elements, thereby adjusting the rate at which the fingernail or the object being operated on is improved in appearance.

Another object of my invention is to provide a device of the character described equipped with means for attaching the elements in such a way as to provide for the edge of the elements to operate on the underside of the front part as well as the exposed edge of the fingernail.

An important object of my invention is to provide an automatic fingernail device which is simple in construction, durable in use, efficient in operation and economical in manufacture.

With the foregoing objects in view, together with such other objects and advantages as may subsequently appear, the invention resides in the parts and in the combination, construction and arrangement of parts hereinafter described and claimed and illustrated by way of example in the accompanying drawing, in which:

Figure 1 is a top plan view of my invention.

Figure 2 is a front plan view of my invention.

Figure 3 is a sectional view taken on line 3—3 of Figure 2.

Figure 4 is a side plan view of my invention.

In order to understand clearly the nature of the invention, and the best means for carrying it out, reference may now be had to the drawings, in which like numerals denote similar parts throughout the several views.

Referring to Figure 1, the numeral 11 designates a hollow casing or housing formed in two parts 13 and 15 and secured together at 17 by means of bolts 19. The housing is convex in shape so that it may be gripped or held within the hand. The bottom rear corner of the housing 11 is provided with an opening 21 through which extends one end of an electrical conduit 23 which is connected to a coil 25 mounted on the center leg 27 of a conventional E-shaped magnet 29 formed of standard laminations and constitutes the magnetic path of the power means of a vibratory-type electric motor. The other end of the electrical conduit 23 terminates with a standard electrical plug (not shown) which can be attached to any A.C. electrical outlet.

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The laminations 31 are held together by a pair of split felt or rubber-backed clamps 33 which also hold the flat-type main drive spring or arm 33 and the flat-type lower holding or mounting spring or arm 37 in position, as is clearly shown in Figure 3 of the drawing. The armature 39 is secured to the main drive spring 35 by spot welds 41 or other suitable means. The armature is positioned or spaced in close proximity to the exposed or free ends of the E-shaped magnet. The free ends of the springs 35 and 37 terminate in hooks 43 and 45, respectively, thereby providing means for attaching an elongated abrasive element or a buffing element 47 having slots 49 adjacent each end thereof whereby the element 47 is held in tension between the springs 43 and 45, respectively.

The casing 11 is provided with openings 51 in the front portion for the projection therethrough of the main drive spring 35 and the lower mounting spring 37. The reference numeral 53 designates a hollow boss or shield for the gap adjusting screw 55 which is threadedly mounted in the casing and controls the travel of the main drive spring 35 and armature 39. The gap adjusting screw 55 butts against the quieter 57 which is constructed of a rubber-like material mounted in tension around the armature 39 and the spring 35 and functions to prevent armature chatter when increasing or decreasing the air gap and/or travel of the armature 39. The reference number 59 designates a gasket which serves to hold the screw in the adjusted or predetermined position. The hollow boss also protects the screw from being accidentally disturbed or disrupted.

A grommet 61 of conventional material is provided for the opening 21 to protect the electrical conduit 23 from chafing and a wire cord holder 63 is twisted around the electrical conduit 23 within the casing to protect the connections to the coil 25 from pulling loose or preventing other damage due to normal operation of the device.

In operation the emery board or buffer element 47 is connected to the hooks 45 and 43, respectively, by slightly compressing the spring 35 with the hand and inserting the hooks through the slots 49 provided in the element 47. The fingernail or other object to be worked on by the device is then placed in contact with the element 47 after the power means or motor is energized with a source of alternating current which causes the armature 39 and the main drive spring 35 to reciprocate, thereby operating the emery board or buffer element 47 in synchronism with the fluctuations of the A.C. current.

It should be noted that a salient feature of the device is in the mounting of the emery board or buffer element between the flexible or resilient mounting means 35 and 37 which will function to prevent any injury to the fingers of the user when contact is made between the element and the hand of the user.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention, the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claim.

I claim:

65 A fingernail device comprising, in combination, a

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compact hollow casing having a motor mounted therein, said motor comprising an E-shaped magnet, said casing having a pair of spaced openings, an elongated abrasive member, a first resilient arm and a second resilient arm extending through the spaced openings for supporting the abrasive member so that it is accessible for engagement with a fingernail, said first resilient arm being mounted on one outer leg of the E-shaped magnet and said second resilient arm being mounted on the other outer leg of the E-shaped magnet, an armature connected to the second arm, said second resilient arm adapted to support the

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armature in operative proximity to said motor so that the abrasive member will be reciprocated when the motor is energized.

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