

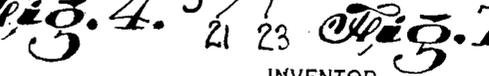
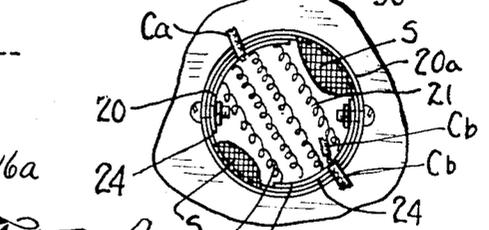
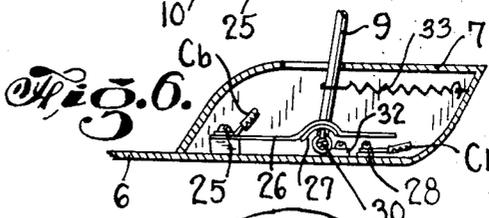
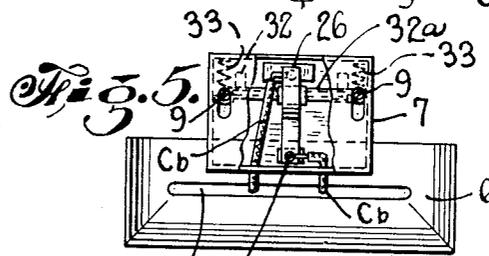
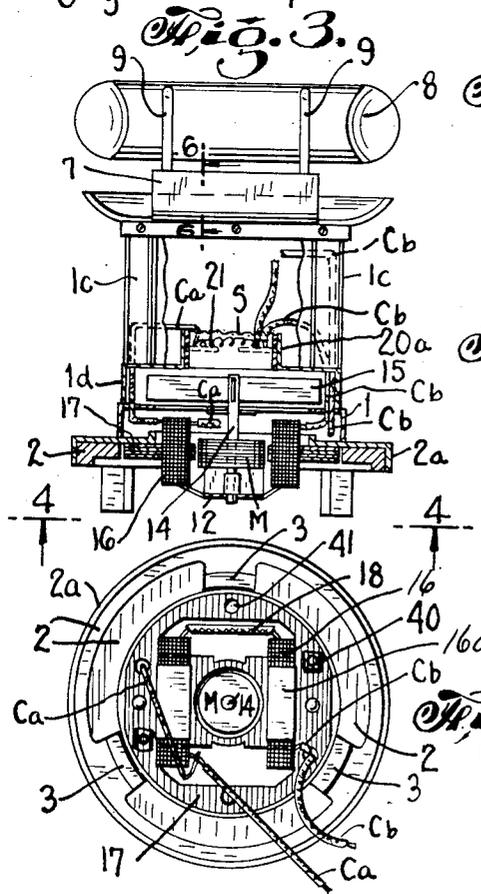
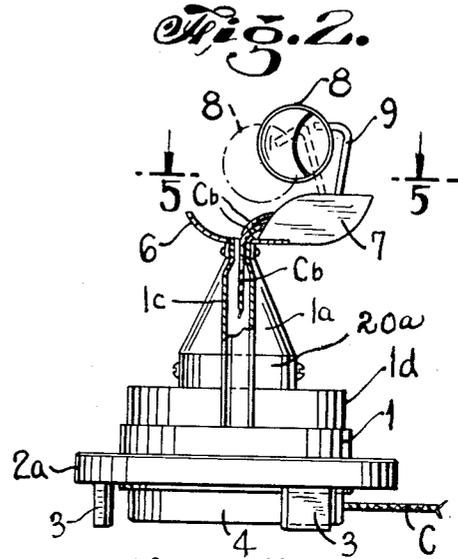
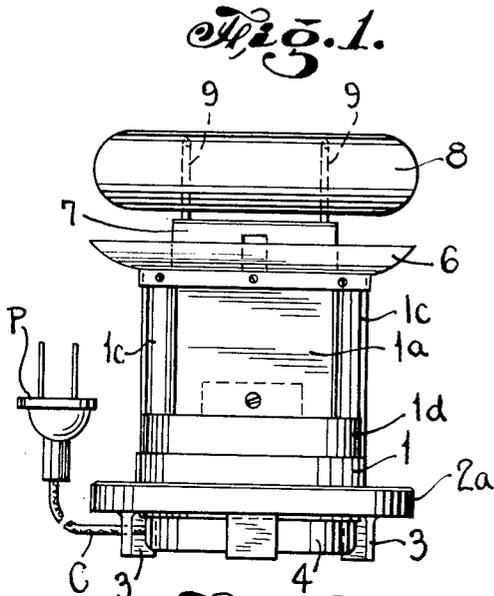
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2,090,371

FINGER DRYING DEVICE

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FINGER DRYING DEVICE

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7 Claims. (Cl. 34—26)

My invention relates to a new and improved device for drying finger nails.

One of the objects of the invention is to provide a simple device which includes a heater and a blower, whereby a nail lacquer or other liquid or wet toilet preparation can be rapidly dried, after said lacquer or the like has been applied to the nails.

Another object of the invention is to provide a simple and inexpensive and convenient device for said purpose.

Another object of the invention is to provide a device having an electric motor and an electric heater, the circuit of said motor and said heater being controlled by a hand-operated switch, so that the pressure of the hand can close the circuit of the motor and of the heater, while the fingers of said hand are located in the path of the current of heated air.

Other objects of my invention will be set forth in the following description and drawing, it being understood that the above statement of the objects of my invention is intended generally to explain the same without limiting it in any manner.

Fig. 1 is a front elevation showing the improved device.

Fig. 2 is a side elevation, partially in section.

Fig. 3 is a rear elevation of the device shown in Fig. 1, partially in section, the representation of part of the device having been broken away in order to illustrate the parts more clearly.

Fig. 4 is a bottom plan view on the line 4—4 of Fig. 3, part of the device having been removed so as to illustrate the other parts more clearly.

Fig. 5 is a sectional view, partially in elevation, on the line 5—5 of Fig. 2.

Fig. 6 is a sectional view on the line 6—6 of Fig. 3.

Fig. 7 is a detail plan view, which diagrammatically shows the heating coil and the connections thereto.

The housing of the device comprises superposed metal shells 2*a*, 1, and 1*d*, which are suitably connected to each other, by means of soldering or the like.

As shown in Fig. 3, the bottom shell 2*a* encloses a base 2, which has integral depending feet 3, so that the device can be mounted upon a table or other suitable support, with the bottom shell 2*a* spaced from said support.

The device is also provided with an electric motor for operating a blower. Said motor includes the usual laminated field, which is made of a plurality of metal rings 17. The rings 17

are connected to the top horizontal flange of the shell 1, by means of vertical screws. Nuts 40 are mounted at the bottom ends of said vertical screws so as to clamp the metal rings 17 and the shell 2*a*, to the shell 1.

As shown in Fig. 3, the shell 2*a* has a horizontal flange which extends inwardly of the vertical face of the shell 1, and said vertical screws pass through the horizontal flange of the shell 2*a*. The base member 2 can have a tight fit between the rings 17 and the vertical face of the shell 2*a*, so that the base member 2 is clamped in position.

The base member 2 can be connected to the shell 2*a* in any suitable manner.

For convenience the device is described with reference to the vertical position which is illustrated in the drawing although it can be used in any other position.

The shell 1*d* can be connected to the shell 1 by soldering or in any suitable manner.

The electric motor is provided with the usual field coils, which are wound around inner extensions of the metal rings 17, and it is also provided with the usual armature M. The shaft 14 of the armature of the motor is mounted in a bearing member 12, which is connected to one or more of the rings 17, by means of screws or other suitable connecting devices, which pass through the holes 41 which are shown in Fig. 4.

A blower having blades 15 is fixed to the upper end of the shaft 14, above the horizontal flange of the shell 1. Since the horizontal flange of the shell 1 is perforated, the blower will operate to force a current of air upwardly through the shells 2*a*, 1, and 1*d*.

As shown in Fig. 3, the shell 1*d* is provided with a horizontal flange, which is provided with an integral and upstanding ring 20*a*.

As shown in Fig. 7, a series of heating coils 21 are connected to bus-bars 20 and 23, which are held spaced from the metal ring 20*a*, by means of an intermediate ring 24, which is made of any suitable insulating material. The bus-bars 20 and 23 are suitably connected to the supporting ring 20*a* by any suitable means which will prevent electrical contact between said bus-bars and said supporting ring 20*a*.

A metal screen S is connected to the ring 20*a* above the heating coils 21. The shell 1*d* is provided with vertical extensions 1*c*, and said extensions are of substantially rectangular cross section. Said extensions are connected by a tapered web 1*a*, which has a general conical shape, so that the upwardly moving air current is forced through a relatively narrow and substan-

tially rectangular slot which is provided for this purpose at the top of the shell 1*d*.

A pan 6 is connected to the top of the shell 1*d*, to serve as a finger rest. Said pan has a slot 10, which has substantially the same shape as the air-outlet slot which is provided in the top of the casing 1*d*, and the walls of said slots are connected to each other, so that all the air is blown upwardly through the slot 10, so as to contact with the fingers of the user.

The pan 6 is provided with an extension 7.

Referring to Fig. 2, a hollow member 8, which operates the control switch of the device, is turnably connected to the extension 7 by means of 15 rods 9.

As shown in Fig. 6, the rods 9 are integral with a lateral rod 30. Fig. 5 shows a bearing sleeve 32*a*, in which the rod 30 is turnably located, and said bearing sleeve 32*a* is suitably connected to 20 the pan 6.

As shown in Fig. 6, the metal rod 30 is provided intermediate its ends, with an upstanding portion which can contact with an insulating member 27, made of asbestos or other suitable material, which lines a curved portion of the resilient switch blade 26. Said resilient switch blade 26 is made of any suitable metal and one end thereof is fixed to the contact 25, which is connected to a suitable insulating support, which is fixed 30 to the pan 6.

The member 26 is the control switch of the device and it closes the circuit when it touches the contact 28, which is also mounted upon a suitable insulating support, which is fixed to the 35 member 6.

Springs 33 are connected to the rods 9 and to the inner wall of the member 7, and said springs normally hold the rods 9 in the position illustrated in Fig. 6, in which the switch 26 is 40 held in the circuit-opening position. However, by rocking the member 8 and the rods 9 from the full line position indicated in Fig. 2, to the broken line position indicated in said figure, the rod 30 is also turned so that its upward extension is turned sufficiently to permit the resilient switch blade 26, to touch the contact 28.

The sleeve 32*a* may be provided with extension lugs 32, which are connected to the pan 6 by screws or the like. The heating coils 21 are 50 connected in parallel to the motor circuit so that the supply of electric current to the motor and also to said heating coils is controlled by the switch 26.

The electric current, either alternating or direct, is supplied through the line wires Ca and Cb, which form part of a cable C which is provided with the usual plug P. The line wire Ca is directly connected to the bus-bar 20, and to one of the terminals of the electric motor. The 60 line wire Cb has two separated sections. The section which is connected to the plug P is connected to bus-bar 23 and to contact 28. The other section has one end thereof connected to contact 25, and the other end thereof connected 65 to the second terminal of the motor. Hence the circuit of the coils and motor is controlled by switch 26.

The motor can be of any conventional type and since the connection of a heating coil in parallel with the motor is well known per se, the details thereof are not shown in the drawing.

When the device is operated, the user rests the palm of her hand upon the member 8 and pushes the same downwardly until the finger nails of the 75 user are directly above the slot 10 of the pan 6.

The movement of hand-rest 8 turns rods 9 and the rod or shaft 30, so that switch 26 can close the circuit.

An ascending current of heat or air is therefore provided which rapidly dries the lacquer or other wet toilet preparation which has been applied to the finger nails of the user.

The device is extremely simple and compact and the use thereof is extremely convenient.

I have shown a preferred embodiment of my invention, but it is clear that numerous changes and omissions can be made without departing from its spirit.

I claim:

1. In combination, first electrically operated means for producing a current of air, second electrical means for heating said current of air, said first electrically operated means and said second electrical means having a circuit which is controlled by a single control switch, means adapted to normally hold said control switch in the inoperative position, and a movable hand rest adapted to control the position of said control switch so that said control switch is moved to the circuit-closing position when the hand rest is actuated to a predetermined position, the fingers of the hand being in contact with said air current when the hand rest is in said predetermined position.

2. In combination, electrically operated means for producing a current of air, electrical means for heating said current of air, a movable hand rest operative to control the circuit of said electrically operated means and of said electrical means so that said circuit is closed when said movable hand rest is moved to a predetermined position, said hand rest being sufficiently close to the path of said air current when said hand rest is in said predetermined position, so that the air current can then dry the fingers of the user.

3. A finger-drying device comprising a housing having an opening, an electric motor located within said housing and having a blower connected thereto, said housing having an air-outlet slot at the upper end thereof through which an air-current can be forced by said blower, electric heating means located within said housing, said electric heating means and said motor being connected in a circuit having a common control switch, a top member connected to the upper end of said housing, said control switch being connected to said top member and being located above the top wall of said top member, a first contact and a second contact connected to said top member and located above the top wall of said top member, said switch comprising a resilient blade which is fixed to the first contact, a turnable member connected to said top member and operative to hold said blade spaced from the second contact when said turnable member is in a predetermined position, said turnable member having rod means extending upwardly therefrom, spring means connected to said rod means and to said top member and operative to hold said rod means in a position in which said turnable member holds said blade spaced from the second contact, and a movable hand rest connected to said rod means and located adjacent said air outlet slot, said hand rest being movable to an operative position in which said turnable means release said blade to touch the second contact and close said circuit, said hand rest being sufficiently close to said slot in said operative position, so

that the air current can dry the finger-nails of the user.

4. A finger-drying device comprising a housing having an opening, a movable hand rest located above said opening, air-heating means located within said housing capable of producing a current of hot air escaping through said opening in said housing, the pressure of the hand upon said hand rest actuating the air-heating means in said housing.

5. A finger-drying device comprising a housing having an opening therein, electrical means for heating air located in said housing, said heated air escaping through said opening, a movable finger rest located above said opening so that the current of air in escaping therefrom will impinge upon the fingers, said finger rest having actuating means for controlling the supply of hot air from

said housing, said actuating means being controllable by pressure upon said finger rest.

6. A finger-drying device comprising a housing having an opening therein through which a current of hot air is transmissible, means for producing said current of hot air, said means being connected with said housing, a finger rest located above said opening, the amount of hot air coming through said opening being controllable by pressure of the hand upon said finger rest.

7. In a finger-drying device, the combination of a housing having a slotted opening therein, means for propelling heated air through said opening, a finger rest above said opening, the supply of heated air from said opening being controllable by pressure upon said finger rest.

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