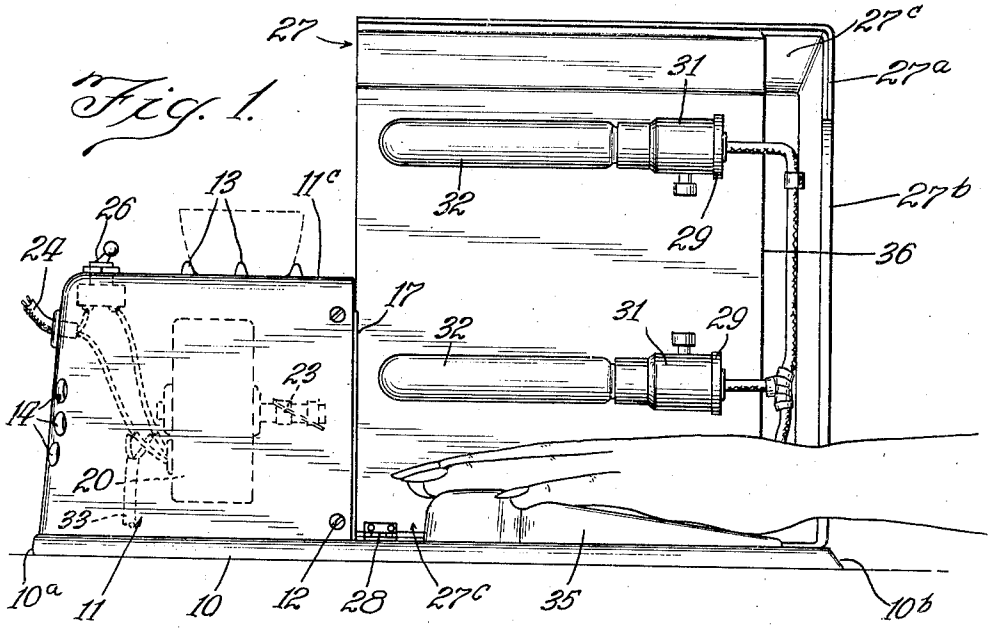
Nov. 11, 1941. E. FINGERLIN 2,262,274

FINGERNAIL DRYING DEVICE

Filed July 8, 1939 2 Sheets-Sheet 1

Fig. 1.



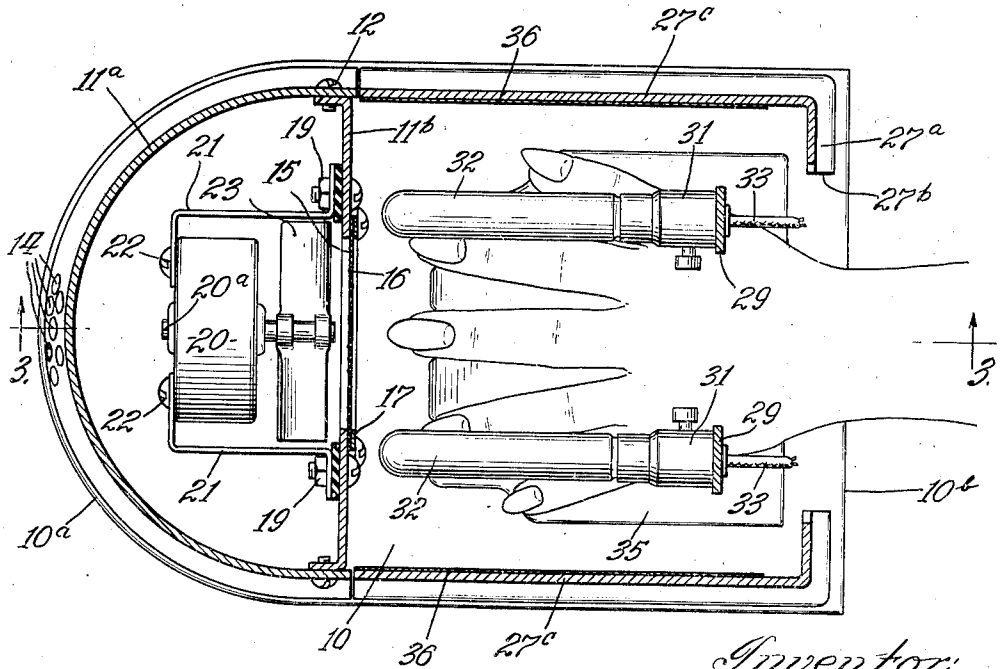


Fig. 2.

Inventor:
Eugene Fingerlin
By: John H Bregna
Atty.

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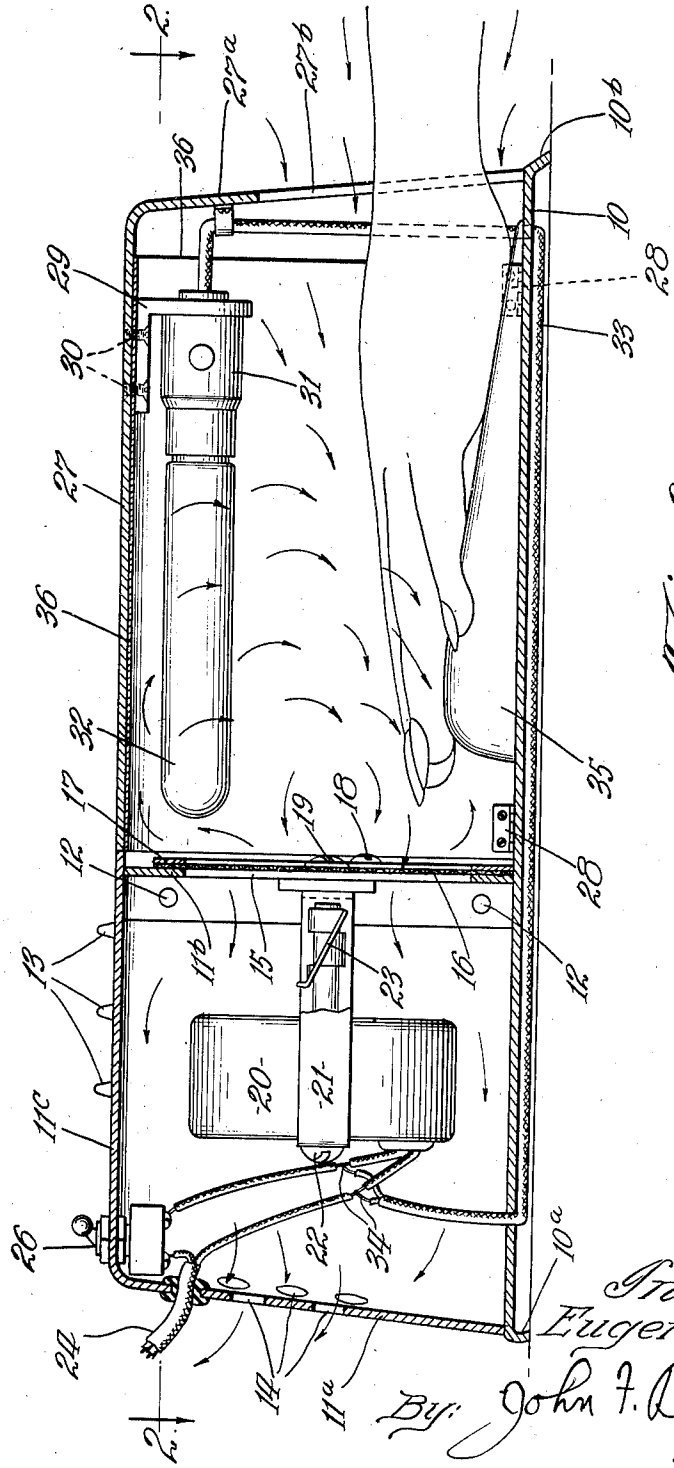


Fig. 3.

Inventor:
Eugene Fingerlin
By: John F. Brezina
Atty.

Patented Nov. 11, 1941

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UNITED STATES PATENT OFFICE

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FINGERNAIL DRYING DEVICE

Eugene Fingerlin, Tulsa, Okla.

Application July 8, 1939, Serial No. 283,412

5 Claims. (Cl. 34—202)

My invention relates to a new and improved device for drying finger nails, and particularly for quickly and conveniently drying polishes applied thereto.

An important object of my invention is the provision of a relatively inexpensive, compact and portable finger nail drying device which is provided with air propulsion means and heating means in a separate compartment whereby the heated air will be drawn from areas adjacent to the heating elements away from the person's hand and be expelled on the opposite side of the device.

A further object of my invention is the provision of a portable finger nail polish drying device consisting principally of two separate sections and compartments, one thereof being openable for the convenient positioning of the user's hand and also containing suitable heating units such as lamp sockets, and the other compartment communicating with said heating compartment containing a suitable electric motor and propeller adapted to draw the heated and dry air from the area about said heating elements over and in contact with the finger nails and to then expell same on the opposite sides of the device.

A further object of my invention is the provision of a portable device for drying finger nails adapted for use in beauty shops and the like which in addition to including air propulsion means, includes a hingedly mounted hood having a large opening at one end and which has mounted in the adjacent inside upper surfaces thereof suitable electrical heating elements, which is hinged with respect to the base of the device and when open permits convenient positioning of the user's hand and which when closed permits the air to be drawn in at the end opening of the hood, heated by said heating elements and passed over the ends of the user's fingers and drawn into and expelled from the adjacent motor compartment.

Other and further important objects of my invention will be apparent from the following description and claims.

This invention (in preferred form) is illustrated in the following description.

Fig. 1 is a side elevational view of my finger nail drying device with the hood upraised and showing both the lamp heating elements and a portion of the user's hand in normal operative position.

Fig. 2 is a cross section view taken on a horizontal plane with the hood in closed position and showing the internal parts.

Fig. 3 is a vertical cross section view of the device taken on line 3—3 of Fig. 2, except showing the user's hand and blocks in side elevation.

Referring to the drawings, reference numeral 10 designates a suitable base which may be made of metal, plastic, or equivalent material and which is preferably defined at one end by the arcuate edge 10*a* and at its other end preferably by a straight end edge 10*b* as illustrated in Fig. 2. Reference numeral 11 designated a hood which may be of metal, plastic or other suitable material and which is of substantially semi-cylindrical cross section, being defined by the substantially semi-circular wall 11*a* which is preferably slightly inclined outwardly at its lower end as indicated in Figs. 1 and 3, and by a vertically extending metal partition wall 11*b* whose opposite flanged ends are secured by suitable rivets 12 or equivalent fastening elements to the vertically extending side wall 11*a* as indicated in Fig. 2. The top portion 11*c* is formed substantially flat and integral with the arcuate wall 11*a* as clearly shown in Fig. 3 and is provided with a plurality of spaced apart struck out integral projections 13 which are adapted to retain a suitable finger bowl upon the device for convenient use of the user. A plurality of spaced apart apertures are formed in the end portion of the arcuate wall 11*a* and which form air exhaust ports 14, as clearly shown in Figs. 2 and 3.

The transversely extending partition wall 11*b* is provided with relatively large substantially central apertures 15 which forms the communication between the compartment formed by the hood 11 and the heating compartment. This opening or aperture 15 is provided with a suitable screen 16 which is secured by means of an annular valve ring 17 which metal ring is in turn secured to the partition wall 11*b* by suitable threaded screws 18. This screen serves as a guard against accidental insertion of the user's fingers.

Secured by a pair of bolts 19 which pass through apertures on the opposite sides of aperture 15 are a pair of substantially Z shaped angular metal brackets 21 having opposite apertured ends projecting towards each other and upon which a suitable electric motor 20 is mounted in substantially the position illustrated in the drawings. Screws 22 connect said angular brackets 21 and the said electric motor. The electric motor includes the shaft 20*a*, the end of which projects as illustrated and which shaft has suitably mounted upon it a propeller 23 which is adapted to draw the air through the inlet port 15 and expel the same through air outlet port

14. Numeral 24 designates a negative and positive wiring of conventional form including the negative and positive wire connected to the inner and outer poles of the electric motor 20, and which wiring circuit is controllable by suitable control switch 26 which is mounted in a suitable aperture in the upper wall 11c of the metal housing.

I will now proceed to describe the hingedly mounted hood designated generally by the reference numeral 27 which includes the substantially flat integral top portion, the vertical end wall 27a provided with a relatively wide and large aperture 27b, and including the vertically extending opposite side walls 27c all of which are formed as a single stamping or molded unit. As indicated in Fig. 1 the side wall 27c has a pair of hinges 28 secured thereto whereby said hood is hingedly connected to the base 10 adjacent one edge thereof, the same being shown in open position in Fig. 1. The opening 27b is of a size sufficiently large to permit insertion and withdrawal of the average user's hand and to permit entry of air between the arm and the hood.

The mounting means for the heating elements consist of a pair of substantially right angled brackets 29 which are secured on the adjacent inside surface to the top of the hinged hood 27 by means of pairs of screws 30 which thread into suitable threaded apertures in the hood 27 as clearly indicated in Fig. 3. The projecting portions of the brackets 29, which are preferably two in number, are suitably apertured and have secured thereto sockets 31 respectively into which heating type electric globes 32 are removably mounted. The position of said electrical heating globes 32 is such that they lie in the upper portion of the hood and are not subject to accidental contact of the user's hand. The sockets 31 and globes 32 are electrically joined through suitable wiring 33, only a fragment of which is shown, and which wiring is connected in circuit with the wiring leading to the electric motor, as indicated at 34 of Fig. 1. The control switch 26 thereby starts and stops the electric motor and simultaneously lights and extinguishes the heating lamps or globes 32.

Numeral 35 designates a removable block forming a convenient hand rest and which is preferably formed of material of low heating conductivity and which is also provided with a plurality of spaced apart grooves 35a which are so positioned as to conveniently receive the spread apart fingers of the user's hand. This block also aids in positioning the ends of the fingers and finger nails in a position where a substantial part of the heated air drawn into the inlet opening 15 of partition wall 11b will pass over and contact the finger nails and portion thereon to dry and "bake" the polish applied to the nails.

Reference numeral 36 designates an inner heat reflecting metal wall of substantially U-shaped cross section, the sides of which are secured adjacent and against the vertically extending side walls 27c of the hinged hood, this inner refractory and reflecting wall being preferably of a smooth metal surface to minimize to the greatest possible extent friction with the circulating air and to thereby promote relatively easy air circulation and air movement.

An important and advantageous feature of my invention is the fact that the combination structural features with the hingedly mounted hood and other parts causes the air to be drawn in and from the room at points through the aperture 27b and surrounding the user's hand and circulated about and in contact with the heating globes 32, and passed about and in contact with the finger nails of the user's hand before being drawn through the exhaust port 15 by the propeller 22 and outwardly through the exhaust port 14. This prevents heated air from being blown against the person using the machine as is the case with drying units such as used for the hair etc. Use of my device keeps the user comfortable and shortens the period of drying and baking the polish on the finger nails to an average of about two minutes, as distinguished from presently known drying periods ranging from 15 minutes and upward.

It has been the common experience of beauty shop operators that the drying of finger nail polish by merely allowing the customers to wait during normal time requires the customer to remain in the shop for unnecessary periods of time, and "clogging" operation upon busy days. It is well known that getting the respective operations completed with quickness as well as with satisfaction saves time both for the customer, beauty operator and shop owner, and permits more customers to be handled by any particular shop facilities in a given time. Experience has found that use of hood type hair dryers for drying the finger nail polish not only wastes considerable time but creates discomfort and dissatisfaction, and my invention has eliminated these various objectionable features as well as provided a means for insuring that the polish will be sufficiently dry or baked upon the finger nail before the patron leaves the shop, it being well known that beauty shop patrons frequently use their hands too soon and before the polish is properly dried after which they complain that the polishing job was unsatisfactorily performed.

I am aware that numerous details of the construction of my invention may be varied without departing from the principle of my invention, and I do not desire to have my invention limited to the illustrations herein shown and described.

I claim as my invention:

1. A drying device for finger nails and the like comprising a housing having an inlet port and outlet ports, at its opposite ends, a base on which said housing is connected; a motor driven propeller in said housing for air propulsion; a manually operable circuit breaking means for controlling said motor; a tiltable hood of substantially inverted U-shaped cross section hingedly mounted along one of its edges to said base and so that its end opening normally rests adjacent to the inlet port of said housing; said hood and base when closed together forming a drying compartment communicating with said housing inlet port, said hood having an opening in its opposite end permitting positioning of the hand within said hood; a plurality of electrical heating elements mounted in the upper portion of the area defined by said tiltable hood and connected in circuit with said electrical circuit of said motor, said motor driven propeller being adapted to draw air through the hood inlet opening into said drying compartment defined by said tiltable hood and circulate same in heat exchange contact with said electrical heating elements and in circuitous paths in said drying compartment and to then expel said circulated air through said housing.

2. A finger drying device comprising a substantially flat elongated base, a housing on one end of said base and having inlet and outlet

openings therein; a tiltable hood having an inlet opening at one end and hingedly connected to said base and when closed upon said base forming an air heating compartment having one end in communication with interior of said housing, said inlet opening forming both an air inlet and a hand insert opening; heating elements mounted adjacent said hood and within said heating compartment; a hand support within said heating compartment; electrically driven air propelling means for circulating air within and through said heating compartment and for expelling said air through said housing.

3. A finger drying device comprising a base, a housing mounted on one end of said base and having inlet and outlet openings therein; a tiltable hood hingedly connected to said base and forming an air heating compartment in communication with interior of said housing; said hood having an inlet opening for air and for insertion of a hand; electrical heating elements mounted within said hood and within said heating compartment; a motor driven fan in said housing for circulating air through said heating compartment and for expelling said air through said housing; and circuit control means for controlling the operation of said fan.

4. A finger nail drying device having an elongated substantially flat base; a shell on one end of said base forming a housing having inlet and outlet openings on substantially opposite sides thereof; a screen guard over said inlet opening; an electric motor in said housing; a propeller driven by said motor; a circuit control switch for controlling said motor; a hood on the other remaining portion of said base forming a heating compartment in communication with said housing, said hood being of substantially inverted U-shaped cross section and including a substantially flat top wall and downwardly extending integral side walls terminating in longitudinally extending edges which engage said base, said hood having an opening in its outer end wall smaller than the area of such end wall and of a size to permit positioning of the hand within said heating compartment and to also permit inflow of air; angular brackets on the interior of said hood top wall; electrical heating elements mounted on said brackets and longitudinally within said hood, the circulating and propelled air being adapted to be heated by said heating elements and passed in circuitous paths within said hood and in contact with the fingers and nails of a hand resting within said hood and expelled through said housing.

5. A finger nail drying device comprising a base, a housing on one end of said base having an air inlet aperture and air outlet apertures at opposite ends thereof, an electric motor in said housing; an air propeller in said housing and driven by said motor; a switch controlled electric circuit connected to said motor; a screen on said housing inlet opening; a hood pivotally connected along one of its longitudinal edges and on said base having an open end coincident with one end of said housing and having a relatively large recess opening in its opposite end providing an air inlet and an opening for entrance of a hand; electrical heating elements mounted in the upper portion of the compartment formed by said hood; means for mounting said heating elements with respect to the upper portion of said hood; said compartment formed by said hood being adapted to receive the user's hand through said relatively large recess, said air propeller being adapted to draw air through said recess inlet in said hood and to circulate same in contact with said heating elements and in circuitous contact with the finger nails of hand positioned therein and to expel the same through said housing.

EUGENE FINGERLIN.