April 22, 1952 M. GRUNWALD 2,593,875

FACIAL IRON AND VIBRATOR

Filed May 14, 1949

FIG. 1

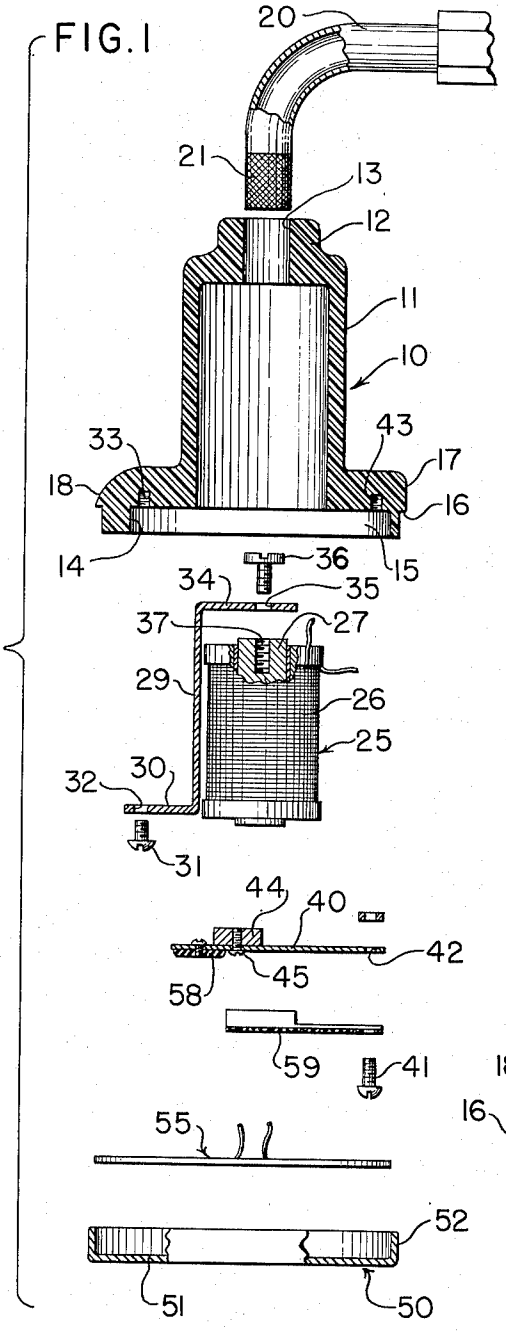


FIG. 2

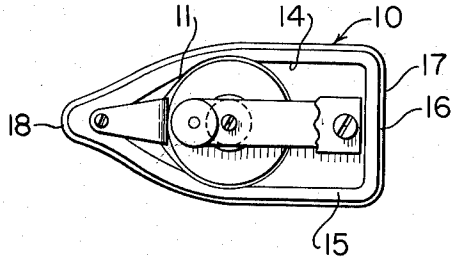


FIG. 3

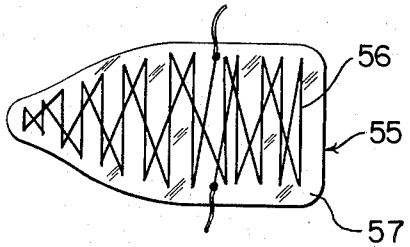


FIG. 4

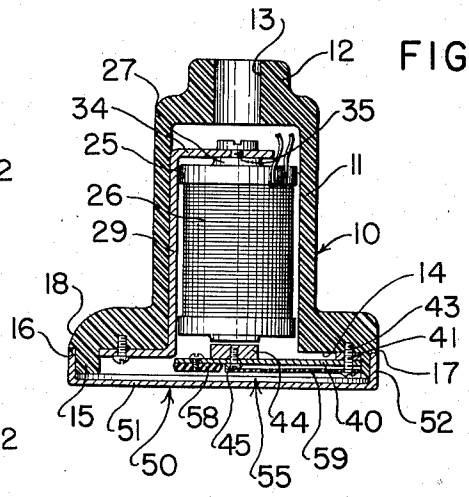
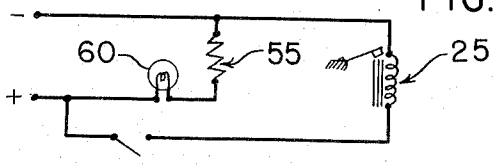


FIG. 5



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FACIAL IRON AND VIBRATOR

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6 Claims. (Cl. 128—41)

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The present invention relates to a device for the treatment of the facial skin, and more particularly, to a combined facial iron and vibrator whereby the skin may be simultaneously vibrated, massaged and heated to iron out its wrinkles and to invigorate it and give it a feeling and appearance of well being.

Facial irons whereby the skin was massaged under moderate heat to smoothen it have heretofore been known. Likewise, vibratory massaging devices for application to the skin have also heretofore been known. However, no way has been known to the time of the present invention for combining the action of both such devices in a single operative unit to simultaneously produce their benefits upon the human skin.

It is the object of the present invention, therefore, to provide a device which will simultaneously warm and smooth the skin and invigorate it under vibratory action.

It is another object of the present invention to provide a facial iron and vibrator of the character described which is of compact arrangement and, therefore, may be used with great convenience and facility.

It is also an object of the present invention to provide a combined facial iron and vibrator of the character described which is strong and sturdy and durable and will not readily be damaged or put out of order during use.

It is a further object of the present invention to provide a facial iron and vibrator of the character described which is of simple construction and may be produced and assembled at low cost.

It is a still further object of the present invention to provide a facial iron and vibrator of the character described which is of neat and attractive appearance and which is designed for convenient handling and manipulation during use as well as convenient storage and disposal when out of use.

The foregoing and other advantages and superiorities of the combined facial iron and vibrator of the present invention will become apparent to those skilled in the art from the embodiment thereof shown in the accompanying drawing and from the description following. It is to be understood, however, that such embodiment is shown by way of illustration only, to make the principles and practice of the invention more readily comprehensible, and without any intent of limiting the invention to the specific details therein shown.

In the drawings:

Fig. 1 is a blown view, partly in vertical section of the combined facial iron and vibrator of the present invention with the parts arranged in sequence of assembly;

Fig. 2 is a bottom plan view of the device with the heating element and ironing cover removed;

Fig. 3 is a plan view of the heating element of the device;

Fig. 4 is a vertical section through the device of the present invention; and,

Fig. 5 is a diagrammatic illustration of the electric circuit through the device.

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Referring more specifically to the accompanying drawings, the device of the present invention comprises a housing, generally designated as **10**, of a non-conductive, insulating material such as a synthetic plastic, and consists of a cylindrical housing portion **11**, having a top wall **12**, provided with an axial opening **13**. The bottom of the housing **10** may be flared in diametrically opposed directions to provide a relatively shallow enlarged housing portion **14** of elongated shape, having walls **15**, which are externally reduced in thickness, to provide a shoulder **16**. The housing enlargement **14** may be of the conventional sad-iron shape having one flat end **17** and a tapered opposed end **18**.

A tubular handle **20** is secured to the housing **10**, as by force-fitting its end **21** into the opening **13** in the top wall **12** of the housing; the hollow interior of the handle **20** serving to receive and lead the connecting wires (not shown) into the interior of the housing **10**.

An electromagnet, generally designated as **25**, and consisting of a coil, **26**, and a magnet core, **27**, fixed at its center, is disposed within the cylindrical portion **11** of the housing **10** and is secured in place as by means of a bracket, **29**, running parallel to the wall of the cylindrical housing portion and having an offset bottom end, **30**, which extends under the roof of the housing enlargement **14**, and is secured thereto as by means of a screw, **31**, passing through an aperture, **32**, formed in the bracket end **30**, and engaged in the tapped recess, **33**, in the roof of the housing portion **14**. The bracket **29** is provided at its other end with an oppositely offset portion, **34**, formed with an aperture, **35**, through which may be passed a screw, **36**, which engages in the tapped recess, **37**, formed in the end of the magnet core, **27**.

A vibrating arm, **40**, is secured in horizontal position in the housing enlargement **14**, as by means of a screw, **41**, passing through an aperture, **42**, formed in one end of the vibrator **40** and setting into a second tapped recess, **43**, formed

in the roof of the housing enlargement 14. The vibrator 40 is arranged to pass below the core 27, in spaced relation thereto, and may be provided on the surface contiguous to the core 27 with a contact stud, 44, which may be secured thereto by means of a screw, 45.

A metallic cover, generally designated as 50, and having a bottom operating wall, 51, with a smooth exterior surface serving as the ironing surface of the device and a flange, 52, may be fitted over the wall 15 of the housing enlargement 14 and secured thereto, as by cementing.

A heating unit, generally designated as 55, and consisting of a resistance element, 56, disposed between two insulating layers, 57, as of mica, is arranged within the cover 50 upon the operating bottom wall 51 thereof, its edges being engaged under the edge of the wall 15. The element, 56, has two terminal ends passing through the upper insulation layer 57, for connection in the electric circuit.

To protect the unit 55 against the vibrator, 40, a resilient buffer, 58, may be secured at the end of the vibrator arm 40 on the face contiguous to the heating element 55. In addition a shield, 59, may be interposed between the vibrator 40 and the heating unit 55 and may be held in place by the same screw, 41 which holds the vibrator 40 in place.

The electric circuit through the device, illustrated in Fig. 5 of the drawings shows that the electro magnet 25 and the heating unit 55 are connected in parallel in the same electric circuit, with additional resistance such as an electric lamp, 60, interposed in front of the heating element, to avoid its overheating, and a separate switch arranged in the electro magnet circuit. The lamp 60 in addition to its function as a resistance, also serves to indicate that the apparatus is in use.

In operation, the device is plugged in, by suitable connections not thought necessary to be shown, into an electric circuit of the alternating current type. When the lamp is lit the switch in the vibrator circuit is thrown and the device may then be put to use. It will be apparent that the device may also be modified for use with a direct current by altering the circuit through the vibrator with suitable installations of the electric bell type that are well known in the art for making and breaking the circuit through the electro magnet and vibrator.

This completes the description of the device of the present invention. It will be apparent that the device of the present invention will enable the simultaneous application of a double massaging treatment of smoothing and vibrating under mild heat to the facial skin and that it may also be used to apply only a heating and smoothing treatment thereto.

It will further be apparent that numerous variations and modifications may be made in the device of the present invention by anyone skilled in the art, in accordance with the principles of the invention hereinabove set forth and without the use of any inventive ingenuity. I desire, therefore, to be protected for any and all such variations and modifications that may be made within the spirit of the present invention and the scope of the claims hereto appended.

What I claim is:

1. In a vibrating massaging device, a housing of non heat conducting material, an electric vibrator in the housing, a substantially thin metal operating wall for the housing, the outer surface of said wall being smooth and adapted to be placed on the skin to be treated and to be used for ironing the same, a vibrator member proper actuated by said electric vibrator and adapted to successively and repeatedly tap the inside of said operating wall, and an electric heating unit over said wall adapted to raise its temperature to a desired degree.

2. In a vibrating massaging device, a housing of non heat conducting material, an electric vibrator in the housing, a substantially thin metal operating wall for the housing, the outer surface of said wall being smooth and adapted to be placed on the skin to be treated and to be used for ironing the same, a vibrator member proper actuated by said electric vibrator and adapted to successively and repeatedly tap the inside of said operating wall, and an electric heating unit over said wall adapted to raise its temperature to a desired degree, said housing having an open portion, said wall closing said open portion and said electric heating unit being secured on the inside of said wall.

3. In a vibrating massaging device, a housing of non heat conducting material, an electric vibrator in the housing, a substantially thin metal operating wall for the housing, the outer surface of said wall being smooth and adapted to be placed on the skin to be treated and to be used for ironing the same, a vibrator member proper actuated by said electric vibrator and adapted to successively and repeatedly tap the inside of said operating wall, and an electric heating unit over said wall adapted to raise its temperature to a desired degree, said housing having an open portion, said wall closing said open portion and said electric heating unit being secured on the inside of said wall, a cylindrical portion in said housing for said vibrator adapted to serve as a grip for the device, and an enlarged portion communicating therewith and having the opening for said wall opposite said vibrator.

4. In a vibrating massaging device, a housing of non heat conducting material, an electric vibrator in the housing, a substantially thin metal operating wall for the housing, the outer surface of said wall being smooth and adapted to be placed on the skin to be treated and to be used for ironing the same, a vibrator member proper actuated by said electric vibrator and adapted to successively and repeatedly tap the inside of said operating wall, and an electric heating unit over said wall adapted to raise its temperature to a desired degree, said housing having an open portion, said wall closing said open portion and said electric heating unit being secured on the inside of said wall, a cylindrical portion in said housing for said vibrator adapted to serve as a grip for the device, and an enlarged portion communicating therewith and having the opening for said wall opposite to said vibrator, said vibrator including a cylindrical electro-magnet and said vibrator proper member being in the form of a resilient arm secured in the enlarged portion of the housing over said operating wall, and an annular bracket in the cylindrical portion, one end secured on the enlarged portion of the housing, and the other carrying said magnet.

5. A combination massaging, ironing and heating device for the human skin, comprising a cylindrical housing of substantially electric and heat insulating material, an enlarged open end portion for said housing, a resilient thin metal operating wall closing said opening, said wall having a smooth outer surface adapted to be used

for ironing the skin, a cylindrical electromagnet in the cylindrical portion of the housing, an electric heating unit secured on the inside of said wall, a resilient magnetically reacting arm secured on one side of said enlarged portion of the housing and interposed between said wall and said magnet, whereby the device may be placed on the skin to be treated by said operating wall, said wall heated to a desired temperature by said unit and vibrated by taps of said arm caused through the action of the magnet.

6. In a device, as set forth in claim 5, said heating unit being in the form of a plate secured on the inside of said wall.

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