APPARATUS FOR THE THERAPEUTIC TREATMENT OF THE SKIN

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Interposed between the port 28 and the applicator 10 there is provided a tank 32, to which a suitable pressure gauge is connected and an adjustable valve 34, for regulating the maximum degree of vacuum that will be available at the applicator opening.

Another valve 38, may be interposed between the applicator and the tank 32, to avoid losing the reduced pressure effect within the tank when the use of the applicator is temporarily discontinued. The tubular stem or handle 22 is provided with a vent 40, set in the wall thereof in position to be closed or partially closed by a finger of the operator.

Thus, when the applicator head 12 is applied to the surface of the skin and the suction pump set into operation and connected with the operating head 12 and the vent 40, or completely closed by the finger of the operator, the full effect of the suction will be applied to the skin of the subject through the opening 14 of the applicator. Where the applicator head is formed of transparent material or has a transparency set therein, the operator can continuously observe the effect of the suction upon the area of the skin surface to which it is applied. After the desired effect has been obtained, the operator may remove, wholly or partially, the finger from the opening, and discontinue the suction over that area or the section to which it had been applied.

Set into the roof of the applicator head 12 is an infra-red, heat-ray-producing device, such as an infra-red lamp 42, which is set into a socket 44, held in the wall of the applicator head 12, and connected to the roof of the applicator head 12, surrounding the man body by means of suction and by the simultaneous application of heat thereto, as by means of infra-red heat rays.

It is also an object of the present invention to provide therapeutic apparatus, of the character described, whereby the exposure of the body surface to the therapeutic heat rays may be pre-set for automatic as well as for manual control.

It is a further object of the present invention to provide therapeutic apparatus, of the character described, which is of relatively simple construction; relatively economical to produce, and simple and easy to use and apply to the surface of the human body.

The foregoing and other objects and advantages of the therapeutic apparatus of the present invention will become more readily apparent to those skilled in the art from the embodiment thereof shown in the accompanying drawings, 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 more or less schematic, elevational and partly sectional view of one embodiment of the therapeutic apparatus of the present invention; and

FIG. 2 is a diagram of an electric circuit that may be used with the apparatus.

Referring now to the apparatus illustrated in the drawings, the same is shown to comprise an applicator, generally designated 10, consisting of an inverted more or less cup-shaped head 12, having the bottom opening 14, defined by an edge 16, conforming more or less to the surface of the human body. The hollow head is provided at one end with a reduced neck 20, by which it is joined to a tubular stem or handle 22, whose free end may be connected to one end of a flexible tube 26, whose other end connects with an inlet port 28, of a suction pump 30.

The present invention relates to a therapeutic apparatus, particularly for the treatment of the surface of the human body, and is an extension and improvement over the similar apparatus described and claimed in my co-pending Pat. No. 2,397,966, dated May 27, 1952.

In my said patent, I have described and claimed an apparatus for the treatment of the surface of the human body by the application of suction thereto, in which regulation of the force of the suction is entirely within the control of the operator. The present invention is directed to apparatus for the treatment of the surface of the human body by means of suction and by the simultaneous application of heat thereto, as by means of infra-red heat rays.

It is also an object of the present invention to provide therapeutic apparatus, of the character described, whereby the exposure of the body surface to the therapeutic heat rays may be pre-set for automatic as well as for manual control.

It is a further object of the present invention to provide therapeutic apparatus, of the character described, which is of relatively simple construction; relatively economical to produce, and simple and easy to use and apply to the surface of the human body.

The foregoing and other objects and advantages of the therapeutic apparatus of the present invention will become more readily apparent to those skilled in the art from the embodiment thereof shown in the accompanying drawings, 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.

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construction and relatively economical to produce and use.

The foregoing and other objects and advantages of the therapeutic apparatus of the present invention will become more readily apparent to those skilled in the art from the embodiment thereof shown in accompanying drawings 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.

What I claim is:

1. In therapeutic apparatus for the treatment of the body surface comprising a substantially cup-shaped applicator body having an opening formed therein with an edge adapted to make snug contact with the body surface and controllable means connected to said applicator body for providing sub-atmospheric pressure therewithin when applied against a body surface, an electrical source for producing infra-red heat rays secured within said applicator body, said source connected in an electric circuit, and means connected within said circuit responsive to the temperature within said applicator body for breaking said circuit at a predetermined temperature within said applicator body.

2. The therapeutic apparatus of claim 1, wherein said infra-red-ray producing means comprises an electric lamp.

3. The therapeutic apparatus of claim 1, wherein a heat reflector is provided within said body around said infra-red-ray-producing element.

4. The therapeutic apparatus of claim 1, wherein said heat-responsive means is adjustable for breaking said circuit at varying selected temperature levels.

5. The therapeutic apparatus of claim 1, wherein said heat-responsive means comprises a bi-metallic element and a terminal in said circuit, said bi-metallic element being connected at one end within said circuit with its other end normally in contact with said terminal, and arranged to move away from said terminal to break said circuit.

6. The therapeutic apparatus of claim 5, wherein said bi-metallic element is flexible and is adjustable from the exterior of said body to contact said terminal with selected variable pressure.

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