This invention relates to devices for massaging the skin of a patient, and in particular a device for drawing air from the surface of the skin, heating the air and returning or discharging the heated air upon the surface of the skin.

The purpose of the invention is to provide a massage device wherein both suction and pressure are applied to the skin of a patient simultaneously.

Various types of massaging devices have been provided and heating elements have been used in some devices of this type; however, for certain applications it has been found desirable to apply suction, heat and pressure to the surface of the skin of a patient in a single application.

With this thought in mind, this invention contemplates a massaging apparatus having a shield with a fan in combination with an electric heating element wherein air drawn through perforations in one part of the device is heated and discharged through perforations in another part of the shield.

The object of this invention, therefore, is to provide means for incorporating a blower in combination with an electric heating element in a massage device whereby air drawn through perforations in one part of the device may be heated and discharged through corresponding perforations in another part of the device.

Another object of the invention is to provide a massaging apparatus that provides suction, pressure and heat, in which the device is adapted to be held in one hand and is self-contained.

A further object of the invention is to provide an applicator for applying suction, heat and pressure to the skin of a patient in which the device is of a simple and economical construction.

With these and other objects and advantages in view, the invention embodies a tubular handle having a motor driven fan in a shield or head at one end with a heating element in combination with the fan and with suction and discharge passages positioned whereby air drawn from the surface of the skin may be heated and discharged or returned to the surface of the skin.

Other features and advantages of the invention will appear from the following description taken in connection with the drawing, wherein:

Figure 1 is a side elevational view showing the improved massaging applicator.

Figure 2 is a view similar to that shown in Figure 1 showing a longitudinal section through the device.

Figure 3 is a cross-section through the head of the device taken on line 3-3 of Figure 2.

Figure 4 is an end elevational view looking toward the extended end of the handle showing the massaging applicator in which the head is circular or spherical and in which the parts are shown on an enlarged scale.

Figure 5 is a view similar to that shown in Figure 4 showing a modification wherein a rectangular-shaped head is used.

Figure 6 is a plan view of a portion of the device showing a button for starting and stopping and also for controlling the speed of the fan of the applicator, the ends of the handle and head being broken away.

As illustrated in the drawing, the device may be provided with an elliptical shaped head as shown in Figures 1 and 2, a circular head as shown in Figure 4, or with a rectangular shaped head as shown in Figure 5.

The handle, motor, fan, heater and perforated areas are the same throughout the different designs.

In the design illustrated in Figures 1 and 2 a cylindrical portion 10 of the head is connected to an inner tubular section 11 of a handle with a frusto-conical shape section 12 and an outer shield 13 having a perforated pressure area 14 on the lower surface and a perforated suction area 15 between the surface 14 and the cylindrical portion 10. The head is provided with a fan 16, carried and actuated by a motor 17 and positioned to draw air through perforations in the area 15 over a spiral electric heating element 18, whereby with the motor operating air is drawn by the fan 16 through perforations in the portion 15 over the electric heating element and is discharged by the fan, as indicated by the arrows 19, through perforations in the area 14 of the face of the shield or head.

Current is supplied to the motor and electric heating element through an electric cord 20 having a plug 21 on the extended end and, as shown in Figure 2, one wire 22 of the cord is connected to one terminal of the electric heating element 18 with the opposite terminal of the element connected by a wire 23 to a terminal 24 of a switch having a button 25; and the opposite wire 26 is connected, through suitable means, to terminals 27 positioned to be contacted by the button 25 for completing circuits to the motor and electric heating element whereby the speed of the motor is controlled.

The tube 11 of the handle of the massage device is covered with a sleeve 28 and the electric cord or conduit 20 extends through an opening 29 in a nipple 30 on the extended end of the sleeve.

The shield 13 is provided with a partition 31 that separates the perforated areas 14 and 15 and this partition is used in the designs shown in Figures 2, 4 and 5.

The shield is adapted to be made of an elliptical shape, as shown in Figures 1 and 2, of a circular or spherical shape, as shown in Figure 4, or of a rectangular shape, as shown in Figure 5.

The fan 16 is mounted directly on the motor shaft 32 and the wires 22 and 23 are extended beyond the ends of the fan blades.

With the parts assembled as shown and described, the device is held in one hand whereby the button 25 is adapted to be actuated by the thumb of the hand gripping the handle and by this means circuits may be completed to the motor and also to the electrical heating element whereby the electric heating element provides the heat as air is circulated by the fan.

Air drawn inwardly through the perforations 33 in the area 15, as indicated by the arrows 34, is drawn over the heating element 18 and discharged through the upper edge of the partition 31 whereby the air follows the arrows 19 and is discharged through perforations 35 in the extended portion 14 of the shield.

In the device shown in Figure 4 a circular shield 36 is carried by a head 37 at the end of a handle 38 and the device is provided with a button 39, and in the device shown in Figure 5 a rectangular shaped shield 40 is carried by a head 41 on the end of a handle 42 and this device is provided with a button 43. The head may also be provided in other shapes or designs.

It will be understood that other modifications, within the scope of the appended claim, may be made in the
design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

In a massage device, the combination which comprises a tubular handle having a head extended from one end, a shield having perforated skin contacting surfaces carried by the head, a transversely disposed partition in the shield dividing the perforated contacting surfaces, a motor mounted in the handle and having a shaft extended into the head, a fan mounted on the motor shaft and positioned to draw air into the head through perforations of a section of the shield on one side of the partition and adapted to discharge the air through perforations in the section of the shield on the opposite side of the partition, an electric heating element mounted in the shield and positioned in the section thereof through which air is drawn into the shield, and a button actuated switch connected in a circuit to the motor and electric heating element.

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