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METHOD OF TREATING THE SKIN AND
DEVICE THEREFOR

Andrew J. Fisk, Serres, Greece

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7 Claims. (Cl. 128—297)

This invention relates to the treating of the skin and pertains particularly to a method of cleansing the skin and a device for use in carrying out the method.

5 The primary object of the present invention is to provide a new method of removing creams and greases from the skin in the treatment thereof.

10 In beauty treating methods as at present followed cleansing of the skin is effected by rubbing, vibrating and applying muds, etc., and the creams and lotions which are also used are removed by the use of towels or cleaning tissues. The present invention eliminates these operations by drawing or sucking the creams and lotions from the surface of the skin by means of an especially designed device.

A further object of the invention is, therefore, to provide a method of cleansing the skin by suction.

20 A still further object of the invention is to provide a device which will automatically operate when applied to the surface of the skin to draw creams, lotions and impurities from the pores and surface of the skin by suction.

25 The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawing but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:—

Figure 1 illustrates the complete apparatus employed for carrying out the present skin cleansing method;

40 Figure 2 is a detailed view of the suction or cleaning device which is applied directly to the skin, the same being partly in section and partly in elevation;

45 Figure 3 is a view partly in elevation and partly in section of a modified form of the skin cleaning element;

Figure 4 is a detailed sectional view of a modified form of head-piece for the cleaning element.

Referring now more particularly to the drawing wherein like numerals of reference indicate corresponding parts throughout the several views, the numeral 1 indicates the portion of the present device which will hereinafter be referred to as the suction cleaner. This suction cleaner is 50 connected by a suitable flexible tube 2 with a receiving receptacle 3 which in turn is connected with a receptacle 4, by means of a suitable pipe or tubing 5, in which a reduced pressure is maintained by means of the suction pump which is indicated generally by the numeral 6.

60 The receptacle 3 is preferably provided with a series of baffles 7 which will interfere with the direct passage of creams or lotions and other matter taken up from the skin by the vacuum cleaning device 1, passing directly into the reduced pressure tank 4. It will, of course, be obvious that the pipe line 2 may be connected directly with the tank 4, but it is preferred that the intermediate collecting receptacle be employed.

70 The vacuum cleaning device 1 consists of a head which is indicated generally by the numeral 8 and a handle 9 which is in the form of a tubular body, and which has mounted thereon a hand grip 10. In the preferred form the tubular handle 9 has its forward end turned laterally as indicated at 11 and there is mounted therein a valve element 12 which has a suitably positioned head 13 upon which the finger or thumb of the operator may be conveniently pressed for opening the passage through the handle.

75 The outer face of the portion 14 of the cleaner head is provided with a number of longitudinally directed slots 16 and these slots receive the inwardly extending pins 17 which are carried by the reciprocable portion 18 of the head into which the inner portion 14 extends in the manner shown. This reciprocable portion 18 has a reduced outer end 19 which is exteriorly threaded and at a point substantially midway between its ends it is formed to provide the interior shoulder 20 against which is positioned a gasket 21. As will be seen the pins 17 prevent the turning of the reciprocable portion 18 upon the inner portion 14 and also limit its outward movement and when the portion 18 is moved inwardly the gasket 21 will be brought to bear against the forward end of the inner portion 14.

80 The outer end of the head 8 is covered by the cap 22 which is provided with a threaded flange 100 which engages about the reduced end 19 of the portion 18, thus securing the cap over the outer end of this portion and a suitable gasket 23 is interposed between the flange of the cap and the opposing surface of the portion 18 to which it is secured. This cap 22 is provided with a plurality of relatively fine apertures or passages 24 through which air is drawn when the device is in use and also the creams, lotions and other matter which is removed from the skin being 110

treated. The cap 22 is shown as having a concave face.

This is one of a number of forms of caps which may be employed, as for example, in Figure 4 there is shown another form which is indicated by the numeral 25 in which the surface is convex. It will be readily apparent that other caps may be employed having flat surfaces or having surfaces which are curved to a greater or lesser degree than the surfaces of the caps 22 and 25.

Mounted for oscillation within the inner or fixed portion 14 of the head, is a bar 26. This bar is so located that one end thereof is disposed above the end of the turned portion 11 of the handle 9 and it is connected by means of a link 27 with a valve plug 28. This valve plug 28 positions upon a suitable seat 29 located in the end of the handle and at the inner end of the plug there is mounted within the handle the guide 30 through which extends pin 31 which projects from the longitudinal center of the adjacent end of the plug.

The other end of the bar 26 is connected by a link 32, with the reciprocable portion 18 of the head as illustrated so that when the outer or reciprocable portion of the head, which carries the cap 22, is moved inwardly the bar 26 will be oscillated and the plug 28 removed from its seat.

In Figure 3 there is shown a slightly modified form of the skin cleaning device. In this form the head, which is indicated as a whole by the numeral 33, is of the same construction as the head 8 but the reduced end of the fixed portion thereof, which is here indicated by the numeral 34, is secured directly in the end of a straight handle which is indicated generally by the numeral 35.

The opposite end of this straight handle 35 is suitably formed to have the suction tube 2 connected therewith.

In the carrying out of the skin cleaning method according to the present invention and in the use of the present device, after the skin has had the usual cleansing creams and lotions applied thereto these are removed together with the deposits in the pores of the skin, by passing over the surface of the skin the apertured face of the cap which forms a part of the head of the suction device. It will be seen that with a reduced pressure in the tank 4 and when the valve 12 has been opened, by pressing the cap of the suction head against the skin surface, the outer or reciprocable part of the head will move inwardly and thus unseat the valve 28 to permit air to be drawn in through the apertures 24. In this manner the substances to be removed from the skin will be drawn in through the head and will pass through the handle of the device and through the tube 2 into the collection receptacle 3. As soon as the head of the cleaner is removed from the surface of the skin the suction will draw the valve 28 to its seat and thus the suction will be shut off.

Having thus described the invention, what is claimed is:—

1. A suction skin cleaner comprising a hollow body having a portion designed to be passed over the surface of the skin, said portion having inlet apertures therethrough, means for coupling a suction apparatus with said hollow body, valve means controlling the passage of air from said body to said suction means, said body having that portion in which the apertures are formed separate from the remainder thereof and movable relative thereto, the said means constituting a unit separate and independent from the sepa-

rate and movable portion of the head, and means operated by the movement of said apertured portion for actuating said valve.

2. A suction skin cleaning device comprising a hollow body formed in two portions, one thereof receiving and sliding upon the other, an apertured head forming a part of the sliding portion and designed to be passed over the surface of the skin, means for coupling a suction device with the other portion of the head, a reciprocable valve element in the body controlling communication between the same and said coupling means and constituting a unit separate and independent from the body portions, and connecting means between said valve and the apertured movable portion of the head whereby movement of said apertured portion will actuate the valve.

3. A suction skin cleaning device comprising a hollow body constituting a head, said body being divided to form a fixed and a movable portion, said movable portion sliding on said fixed portion, an apertured cap forming a part of the movable portion and designed to be passed over the surface of the skin to be treated, an outlet for said fixed portion, a tubular body connected with said outlet and adapted to have a suction element connected therewith, a valve seat in said outlet, a valve body on said seat, and link mechanism connecting said valve with said movable portion of the head whereby inward movement of said movable portion upon the fixed portion will cause the valve to be unseated.

4. A skin cleaning implement comprising a body divided in two parts one of which has a hollow head having an apertured face wall, that part of the head having the apertured wall having movement relative to the other part of the head means for coupling a suction apparatus with the head for reducing the pressure therein, a normally closed valve between the head and said means, and means operated to shift the valve toward said wall and to open position upon the movement of the said face wall through its application to the surface to be cleansed.

5. A skin cleaning implement, comprising a hollow body constituting a head having an apertured face wall, said head being formed in two portions connected for relative movement, means for coupling a suction apparatus to that portion not having the apertured face, a valve in the head controlling the suction of air therefrom by the apparatus, said valve including a movable member, and coupling means between the apertured wall carrying portion of the head and said movable member whereby the latter is moved in opposition to the last mentioned portion to open the valve.

6. A skin cleaning implement, comprising a hollow body formed in two sections which are connected for relative movement, one of said sections having a tubular body connected therewith for the coupling of a suction apparatus with the body, the other of said portions having an apertured face wall, a valve seat formed in said tubular body, a valve plug reciprocable relative to said seat and designed to normally position thereon, and coupling means between the apertured wall carrying portion of the body and the valve plug whereby the movement of the apertured wall portion in one direction will effect the unseating of the valve plug.

7. A skin cleaning implement, comprising a hollow body formed in two sections which are connected for relative movement, one of said sections having a tubular body connected there-

with for the coupling of a suction apparatus with the body, the other of said portions having an apertured face wall, a valve seat formed in said tubular body, a valve plug reciprocable relative to said seat and designed to normally position thereon, an oscillatably mounted element in the head, a link connecting the said element at one side of its pivotal center with said valve plug, and a link connecting said oscillatory element at the other side of its pivotal center with the apertured wall carrying portion of the head.

ANDREW J. FISK.

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