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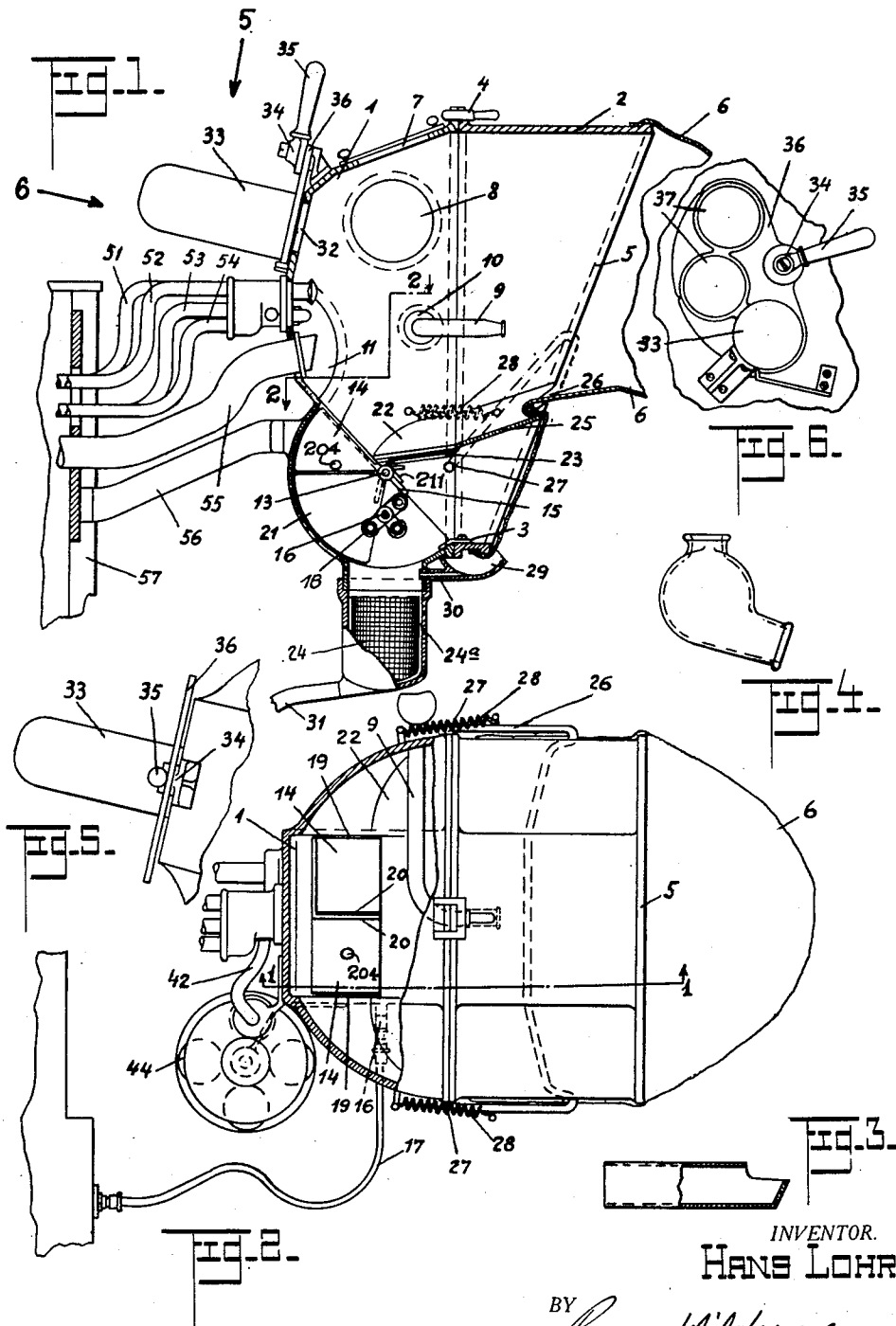
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2,099,744

METHOD OF AND MEANS FOR EXTERIOR BODY TREATMENTS

Filed July 16, 1930

7 Sheets-Sheet 1



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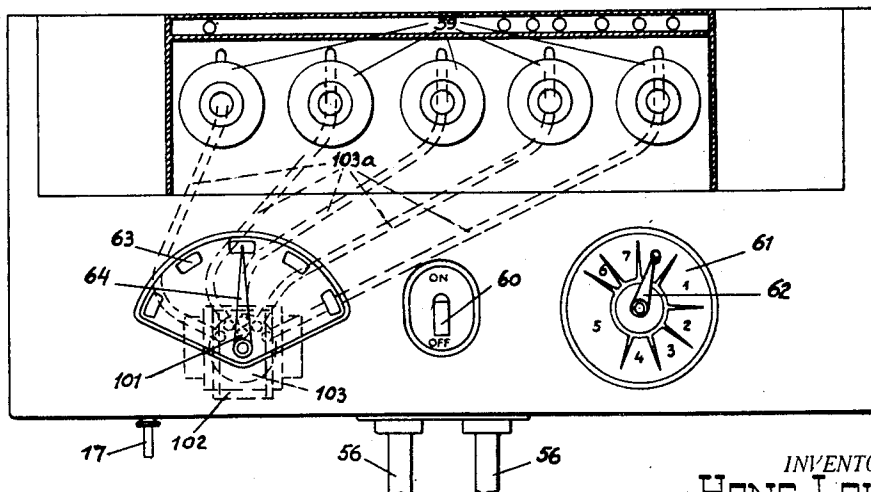
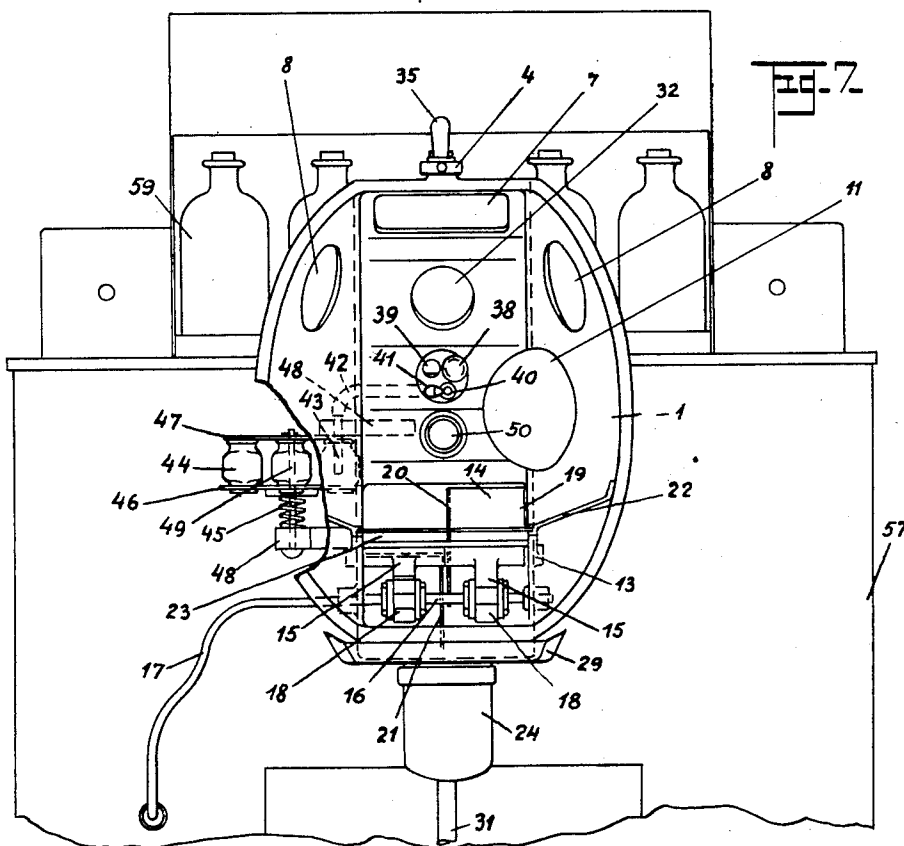
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METHOD OF AND MEANS FOR EXTERIOR BODY TREATMENTS

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7 Sheets-Sheet 2



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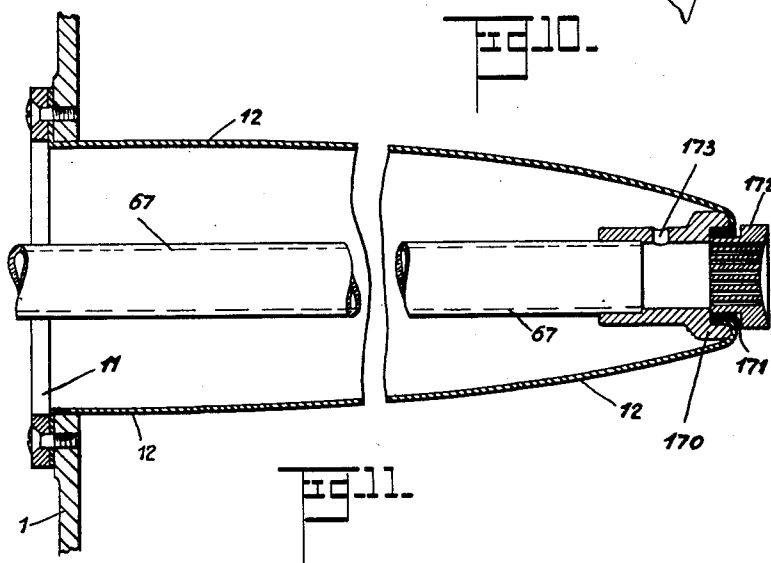
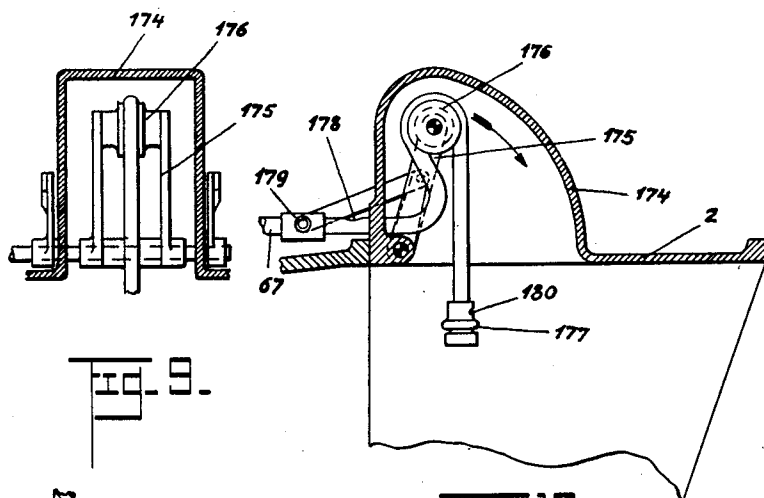
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METHOD OF AND MEANS FOR EXTERIOR BODY TREATMENTS

Filed July 16, 1930

7 Sheets-Sheet 3



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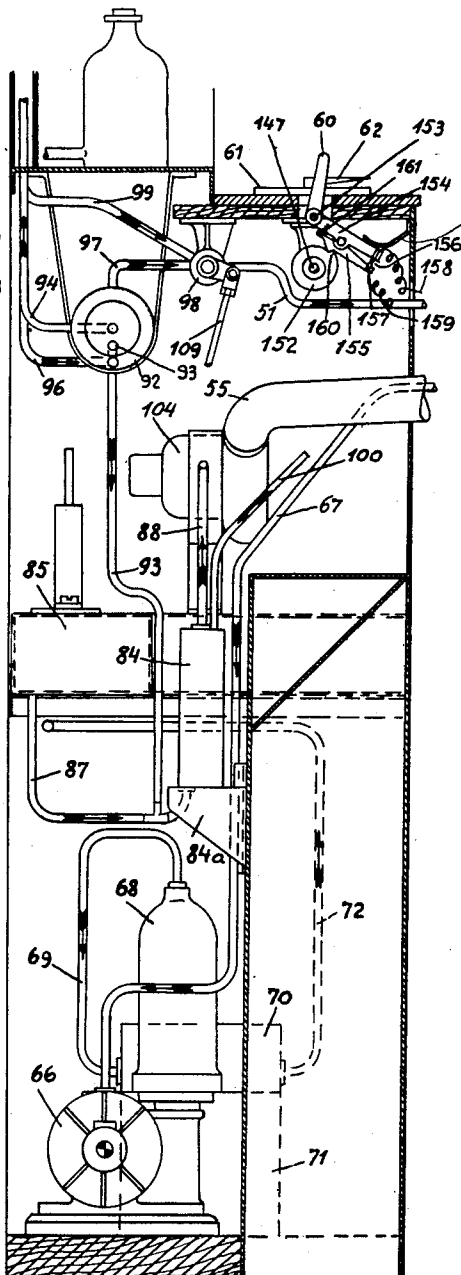
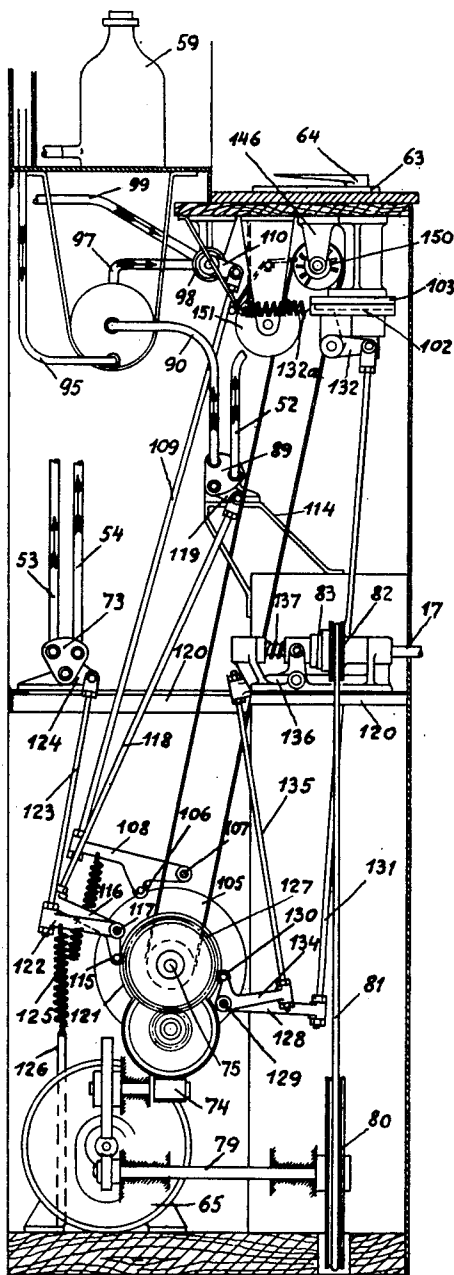
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METHOD OF AND MEANS FOR EXTERIOR BODY TREATMENTS

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7 Sheets-Sheet 4



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METHOD OF AND MEANS FOR EXTERIOR BODY TREATMENTS

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7 Sheets-Sheet 6

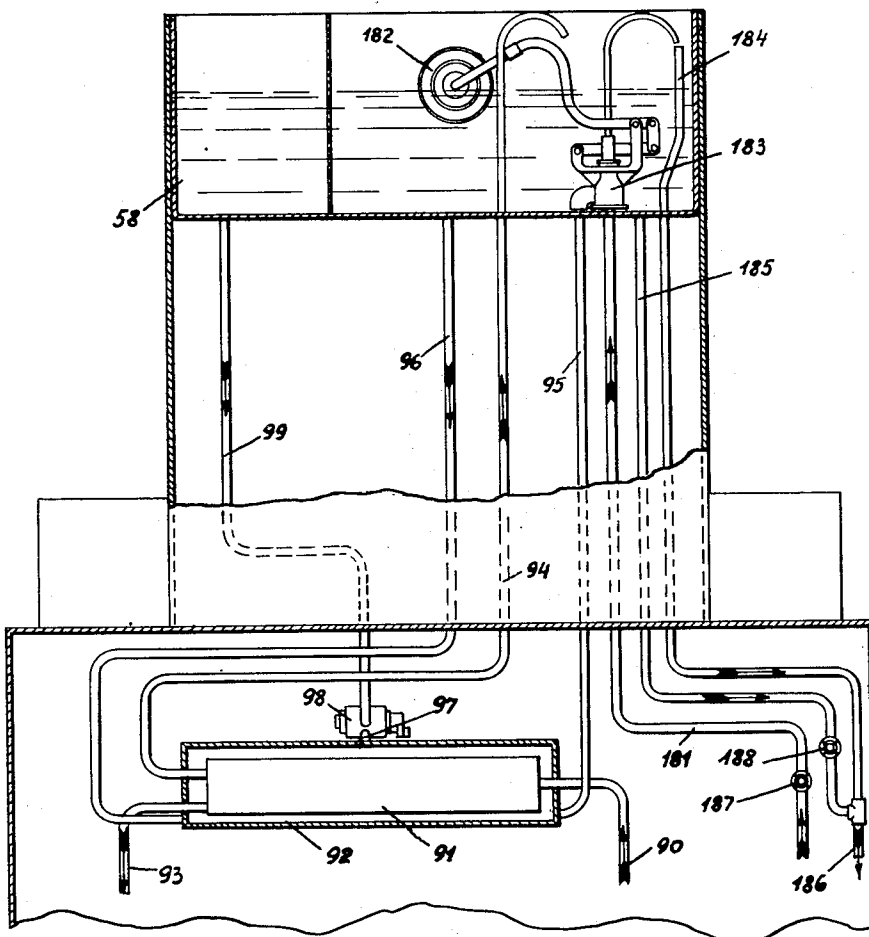


Fig. 15.

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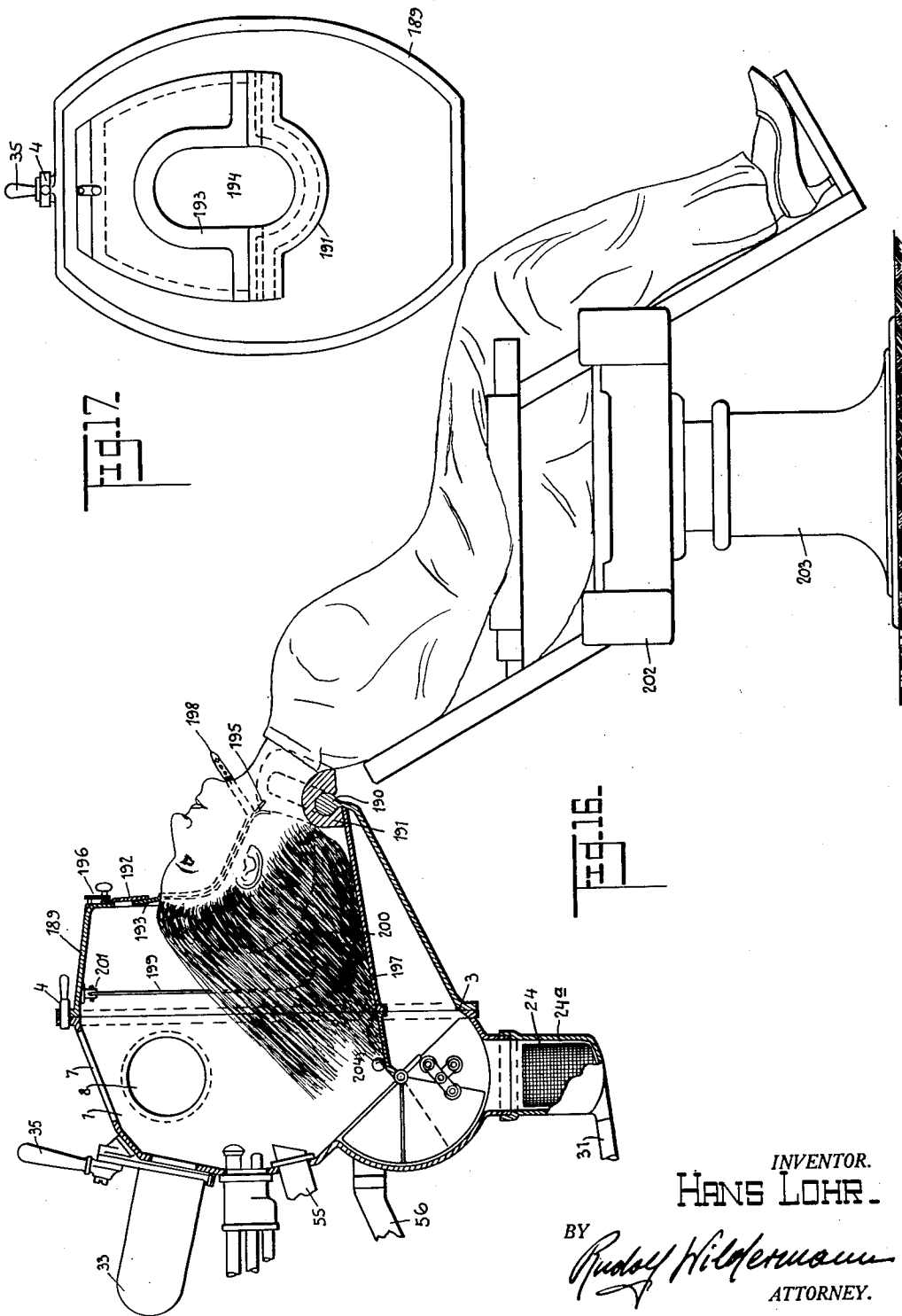
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METHOD OF AND MEANS FOR EXTERIOR BODY TREATMENTS

Filed July 16, 1930

7 Sheets-Sheet 7



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UNITED STATES PATENT OFFICE

2,099,744

METHOD OF AND MEANS FOR EXTERIOR
BODY TREATMENTSHans Loehr, Jackson Heights, N. Y., assignor to
Fillor Famous Facial Corporation, Long Island
City, N. Y., a corporation of New YorkApplication July 16, 1930, Serial No. 468,237
In Germany July 17, 1929

36 Claims. (Cl. 128—172)

My invention concerns a method of and means for technically performing, medical-cosmetic treatments of the skin, face, scalp, hair, and hair roots.

5 One of the objects of my invention is to seal the part of the body to be treated to a treatment chamber, into which the various means for skin and body treatment are introduced.

10 Another object of my invention is to treat a certain part of the human body in an enclosure and to have a sequence of specific treatments which may follow each other without any loss of time; whereas such loss of time would otherwise be required for rearranging the apparatus.

15 A further object of my invention is to enhance the effectiveness of two or more treatments by providing for their alternating, overlapping or simultaneous application.

20 Another object of my invention is to compound various treatments of the skin of the body under seclusion from the outer air, the results of such treatments being greatly intensified by coactive blending.

25 A further object of my invention is to fully control the atmosphere to which the part of the body to be treated is exposed, while a variety of treatments are applied, so that chills and colds may be overcome or avoided. The climax of a combination of treatments may therefore be carried much further and it may be followed by suitable steps in the treatment, which finally allow the treated part of the body to be again exposed to the free air, without danger to the health of the patient, or without causing him or her discomfort or fatigue.

35 Another object of my invention is to combine a series of treatments in a predetermined medically approved schedule, which is automatically performed and adhered to, and which may be adjusted according to the sensitiveness and requirements of the skins of the various patients to be treated. Uncertainty and hazards in respect to the intensity and duration of the treatments are thus avoided and the hygiene of the treatment may be carried to an extreme by entirely eliminating manual treatments, or even a contact of the hands of the operator with the parts and ingredients used for the treatment.

50 The important part of the apparatus of my invention is a treatment chamber into which, open the pipes and tubes which serve to introduce steam, fluids, pressure, vacuum and rays as required for the treatment, and which also serve to drain from the chamber the fluids after the performance. Likewise, that chamber is provided

with mechanical and automatic means for the performance of massaging, bombarding and other operations by which the body is to be treated.

My apparatus also comprises generators, converters and mixers for the vapors, fluids and rays which are used in the treatment chamber, motive and propelling means for bringing the various means of treatment into active engagement with the body of the user and means for automatically operating and timing the various devices for the different treatments and automatic means for changing from one treatment to the other.

The various treatments which may be combined in my invention do not necessarily have to be brought into operation in each instance of use, nor do all means of treatment have to be provided in each modification of my invention.

For special purposes, and under peculiar operating conditions, one or the other means of treatment may be dispensed with, and the arrangement of the apparatus as a whole is subject to a great variety of modifications.

A compact arrangement of the various parts of my invention is attained by providing the accessories in a chiffonier-like enclosure. The lower cabinet of the chiffonier primarily contains power, control and conditioning means. Upon the outside of this cabinet are provided the means for manually selecting the treatments, for setting the machine into operation, and indicators showing the various steps of the treatment, as it proceeds.

The chiffonier is provided with a superstructure extending above the said cabinet, in which are stored the various liquids, so that they can readily be introduced into the apparatus by gravity. From the cabinet frontwardly extends, or may be extended, the treatment chamber, in a position convenient for connection to the body to be treated. The treatment chamber preferably consists of two parts, of which one is fixedly or substantially fixedly arranged, and represents a substantially rigid hood; whereas the other, preferably flexible part, a skirt, may be adapted to the shape of the part of the body to be treated, may be sealed thereagainst, and may be exchanged or replaced, according to requirements. The skirt as the part which comes into touch with the body, is detachably mounted on the hood, so that it may readily be subjected to disinfection and sterilization between the treatments. The fixedly arranged hood may be assembled from one or more parts, and may be provided with suitably sealed observation windows.

To facilitate breathing in the treatment cham-

ber without disaccommodating the user by steam or other ingredients introduced into the chamber, mouth pieces are provided for, which are shaped to receive filters or filtering material, like cotton, through which the user breathes while the nose may be suitably closed. To adduce outside air to the user, under prolonged or complicated treatments, a tube may be movably and adjustably carried sealedly through the wall of the hood and may be provided with a mouth piece on the inside of the hood. For this purpose, the breathing tube extends through a rubber bushing in the wall of the hood by means of which the air on the outside is secluded from the chamber, but which allows the rotation and lateral movement of the tube in respect to the chamber. This also allows a replacement of the tube between treatments for hygienic purposes. The outer end of the breathing tube may be enlarged, and the enlarged part may receive filtering means which may be saturated with stimulating substances.

Under particular circumstances, for the purpose of enhancing the filtration action, special filters may be provided for, which are attached to the outer or inner end of the breathing tube.

A bombarder is incorporated in the treatment chamber by means of which bodies of suitable size, which are preferably round and made of elastic material, are thrown from the hood end of the treatment chamber towards the skirt and impinge upon the body, face or scalp of the user. The bombarder consists of a table which is reciprocatably arranged at a low point of the hood so that the bodies roll on to it and are thrown against the body of the user when the table cyclically is rapidly moved in the chamber. To allow a more rapid operation of the bombarding, two or more tables may be provided for, which are pressed by tensil means into the chamber. Such tables are alternately withdrawn from the chamber, and are, in rotation, snapped thereinto, throwing the bodies, which during the withdrawing have rolled onto said tables. To prevent the bodies from jamming in and between the moving tables, the tables are provided with flanges upon the abutting sides, which move parallel with each other in opposite directions, while the tables reciprocate.

Normally, the tables and their flanges completely close the bottom of the hood and the adjoining sides are arranged on an incline from which the bodies roll onto the tables. This end is suitably attained by providing a false bottom in the hood, the sides of which decline towards the bombarding table so that the treatment chamber proper is completely separated from the space below. In that lower space is arranged a cam shaft actuating means of the bombarding mechanism; part of the false bottom consists of a slide, a trap door, by the operation of which the bodies used in the bombarding operation drop into the bottom space of the chamber, where they rest upon a grate or a suitably shaped strainer, from which they may be withdrawn for sterilization and may be manually or automatically reinjected in the chamber. The drain proper of the treatment chamber connects to the bottom space of the treatment chamber, below said strainer, and the waste is carried away from the chamber therethrough.

A suitably bent rod forms a frame which is hinged upon the sides of the hood and it is provided with a cross member which stretches the material of the skirt at a suitable angle in front of the hood, when said frame is in an operating

position. The frame is shaped in such manner, that it causes the skirt to extend at an angle corresponding to the sides of the false bottom of the treatment chamber whereby the bombarding bodies and waste fluids are collected at the lowest points of the false bottom or the bottom space of the treatment chamber, respectively.

On the back wall of the hood, which faces the opening of the hood and the skirt extended over the latter, are provided the inlets for the means of treatment to be used in the chamber. I there provide an opening for the entrance of steam, a spray for the introduction of hot and cold water under pressure, an atomizer and an opening for the introduction of hot air.

The atomizer comprises a tube for the introduction of the liquid to be atomized and a jet supplying compressed air for atomization. When the tube supplying the liquid to be atomized is disconnected, the compressed air jet may, by itself, introduce fresh or treated air, according to the requirements. The tube supplying the liquid to the atomizer connects, upon the outside of the treatment chamber, to a multiple selective valve gear, by means of which said tube may be connected to containers which supply various liquids. These containers are arranged upon a rotatable support and tensionally abut at their open ends against a stationary valve disk. The valve disk is provided with a suction tube extending there-through and flexibly connecting to the atomizer tube in the treatment chamber. When the suction tube is withdrawn, the support, upon which the containers are arranged, may be rotated and any desired container may be brought into alignment with the opening in the valve disk through which the suction tube extends. The compressed air issuing from the jet of the atomizer sucks the liquid from the container which is thus connected to the atomizer and sprays or atomizes the liquid into the treatment chamber. This arrangement allows immediate emptying from the suction tube of the liquid contained therein and a rapid change of the treatment from the contents of one of said containers to those of another.

Upon the outside of the back wall of the hood a lamp is mounted, the rays of which project through a suitable opening into the treatment chamber and onto the part of the body to be treated. Between the lamp and the treatment chamber various light filters may be introduced, which allow a modification of the intensity of the radiation to which the human body, connected to the treatment chamber, is exposed. The light filters are arranged in a circle in a flat disk which may be rotated by means of a handle, thus allowing various filters alternately to be interposed between the lamp and the treatment chamber.

Suction means are connected with the treatment chamber in such manner that they may be adduced to any part of the section of the body connected to the treatment chamber. When an operator is to control the suction means, the flexible suction tube is introduced into the chamber from the back wall of the hood through a sleeve, one end of which seals against the periphery of an opening in the treatment chamber, and the other end of which is sealed onto the suction means, by being clamped by an annular member around the suction terminal. The suction means are provided with a replaceable mouth piece which may be exchanged according to requirements and for the purpose of sterilizing said mouth piece.

If the operation of the apparatus is to be fully automatic, the suction tube is sealedly introduced into the treatment chamber and suspended therein in such manner that the suction piece is mechanically thrust forth by the operating mechanism at a predetermined point of time of the treatment. For this purpose a flexible suction hose is carried over a roller and from that roller it is automatically lowered onto the skin to be treated. The free end of the suction means may then be manipulated by means of a sleeve passing through the wall of the treatment chamber, in the manner heretofore disclosed, or the suction hose may be universally supported in such manner that it may be swung in front of the part of the body to be treated, and a lever arrangement, which automatically directs the application of suction, may be balanced by counterweights in such manner, that the operation proper may be performed in an efficient manner. The sleeve, which is provided for manual operation of the suction means, may also be arranged in such a manner, that the user himself may pass his arm and hand therethrough into the treatment chamber and may manipulate the suction piece himself. After the use of the suction means for a predetermined time interval, they are automatically swung out of range.

The suction means are connected to the intake of a pump, the outlet of which supplies the compressed air. To provide free entry of air to the pump when the suction means are not in use, an opening is provided upon the suction hose outside of the treatment chamber which is automatically closed during the period of use of the suction means. If the suction means are to be operated manually only, the by-pass opening is provided right below the suction mouth piece, which is closed by a finger of the operator or user during manipulation, whenever suction is to be applied through the mouth piece. This opening also affords simple means for regulating the suction while it is being applied, and a cap may be provided over the by-pass opening which affords a sensitive control of the air entering upon the suction means through the by-pass opening.

The air pump may also be provided with a valve at the intake which automatically allows entry of air into the pump when a predetermined vacuum has been created in the suction means, and while such a vacuum is maintained.

The compressed air issuing from the pump serves for the operation of the atomizer, mentioned above, and it is also used for introducing steam into the treatment chamber. For this purpose the means carrying the compressed air are branched off at a two-way valve, which allows the compressed air either to enter directly upon the treatment chamber through the atomizer, or to pass, by means of a suction jet, into the steam conduit, just before the latter enters upon the chamber.

For the purpose of improving the compressed air introduced into the treatment chamber I provide an ozone generator to which is connected a reservoir, in which the ozone collects and is mixed into the compressed air which passes through said reservoir into the treatment chamber. The hot air required for drying and treatment purposes is preferably generated by an apparatus of the type of construction well known to those acquainted with the respective art, in which electric propelling and heating means are combined.

The steam is also generated by electricity, an electric coil being arranged in the water to be

evaporated. All steam conduits are arranged in such manner, that they drain by gravity into the steam generator. The steam condensed in the treatment chamber is of course carried out of said chamber by means of the drain provided for in the lower space of the chamber. By thus arranging the steam generator at the lowest point of the steam distributing system I not only prevent disturbance of the functions of the steam system, but I also prevent the accumulation of hot water in pockets. Such condensation water, if ejected from the steam jet issuing upon the treatment chamber, might severely burn the skin of the user.

Although I thus prevent an actual bombardment of the person to be treated by hot water, I also specially shape the end of the steam jet in the chamber, by closing the front of said jet, the steam entering from the jet through a lateral opening upon the treatment chamber. The steam jet is detachable for replacement purposes.

The steam conduit issuing from the steam generator is also provided with a two-way valve from which one branch leads to the treatment chamber, the other one to a hot water heater. Therefore, I also provide for the generation of steam during the period when such steam is not actually used in the treatment chamber. The steam from the generator, during a predetermined interval before or after actual steam treatments, is diverted by said two-way valve into said hot water heater, the said two-way valve being automatically operated from a master cam shaft. The steam generator is supplied with water from a separate reservoir which is located at such heights, as to feed water to the steam generator at all times. This reservoir is separately filled with distilled or otherwise prepared water. To prevent a shortage of water, the reservoir is provided with a float which, in turn, operates an electric alarm.

The water spray arranged in the treatment chamber may be supplied with hot as well as with cold water. The hot water and cold water conduits merge for that purpose in a two-way control valve, which is operated from the master cam shaft. Sudden changes of the temperature of the water ejected into the treatment chamber are avoided by suitably dimensioning the length and diameter of the connecting tubes or pipes between the hot water generator and the two-way valve, and between the latter and the treatment chamber. The speed at which a change is brought about from a hot water to a cold water treatment may thus be carefully and predeterminedly controlled.

During steam treatments, it is often necessary to introduce some ingredients into the steam which serve for the protection and preservation of the skin. Such ingredients are introduced, in drops, into the steam generator. For this purpose, a conduit pipe with a narrow outlet at the end opens into the steam generator; the conduit pipe connects to a multiple selective valve, which, in turn, connects to the various containers in which the ingredients to be introduced into the steam are stored in liquid form. By a rotation of the selective valve the container in which is stored the particular ingredient to be used is connected to the steam chamber. The multiple selective valve may preferably be a slide valve, the rotation of which brings about alternative connection of the containers to the conduit pipe; whereas, the disk of said slide valve is laterally shifted when the containers are to be shut off

altogether. The selective valve is partly manually operated and a pointer, which at the same time serves as an operating handle, is connected to said valve and is arranged on top of a suitably marked dial.

As motive means for my apparatus a single electric motor may be provided. But it also may be driven by separate motors; thus, for instance, the hot air generator may be self-contained. The electric wiring is arranged to connect to a source of power by a single connecting plug. The driving motor is connected to a timing device which controls the various electric lines as well as the valves and the clutches. For this purpose the main motor is connected by reduction gearing to a master cam shaft which revolves once during the period of one complete treatment. This master cam shaft is also connected to indicating devices which show to the operator of the machine the position of the master cam shaft. A friction clutch is introduced at some step of the positive gearing connecting the motor to the master cam shaft, so that the master cam shaft may be reset at the starting point or may be retarded by manipulation of an extension thereof, when a treatment is to be interrupted or to be prolonged.

An alarm is provided for which is sounded by the master cam shaft whenever one part of the treatment is completed and the next one is begun.

The cam shaft which serves for the operation of the bombarding mechanism, may be connected to the main motor by a flexible shaft and a clutch may be provided in connection with said shaft which is operated by the master cam shaft and which starts and stops the bombarding mechanism at predetermined time intervals. But the bombarding mechanism may also be self-contained, and a separate motor provided thereon may be started and stopped by suitable contactors provided upon the master cam shaft. In order to terminate the operation of the mechanism after a full treatment has been given, a master switch is opened at the end of the treatment. The mechanical connections between the master cam shaft and the various valves and contactors may, of course, be replaced by electrical contactors which control the various operations by means of relay circuits. The art of electric switches provides a large number of automatic and semi-automatic circuit breakers or mercury switches which may be adapted for safely accomplishing this purpose.

In the super-structure of my apparatus, I provide a large water reservoir which is directly supplied from a water main, and which is always filled with a certain amount of water by means of a float valve. The water reservoir is arranged at such heights as to provide a sufficient pressure head for the operation of the spray. The cold water is carried directly from the reservoir to the spray in the treatment chamber, whereas the hot water is drawn from the hot water heater, which, in turn, is supplied from the main reservoir. The hot water heater may be heated by steam as indicated, or directly, by an electric coil, with thermostatic control.

When my apparatus is made fully automatic the breathing tubes may be arranged upon the circumference of a rotatable drum and a new breathing tube may be swung into operative position for each new treatment, by part rotation of said drum. The breathing tubes are sterilized or disinfected by passing the drum carrying said tubes through a suitable bath.

A coin operated slot mechanism may be used for starting the operation of my apparatus. The treatment chamber may provide for the insertion of the whole head of the user, for connecting the face of the user thereto, or various parts of the body may be connected to the chamber by special adapters. But the treatment of the head may also be performed in two halves; a treatment of the face, and a treatment of the scalp. For this purpose, a suitable chair is arranged in front of the apparatus which allows the user to extend the back of his or her head into the treatment chamber, and which also may be rotated through 180° to allow insertion of the head frontwardly below the hood of the chamber. The hood or detachable parts thereof and the skirt connecting the hood to the part of the body to be treated may be shaped differently according to circumstances. For the treatment of the scalp a support, which fits the nape of the neck, may be provided as a lower extension upon the treatment chamber, and it may be made detachable for cleaning purposes. Such a support for the head may be connected with a skirt which encloses the scalp in the treatment chamber, but which excludes the face of the user therefrom. The extension by which the head is supported in the nape of the neck may protrude so far from the hood as to allow the treatment of the hair, which, in that case, extends in its full length into the chamber.

The control mechanisms may provide alternative settings for facial or for scalp or hair treatments. Thus, the timing device of my apparatus may provide for separate treatments, each of which is automatic in itself, and which is different from the others, in respect to duration of the various steps, as well as in respect to the ingredients used, and to the operation performed.

Some details are disclosed herein, which are protected in my companion patent application, Serial No. 530,034, of April 14th 1931, entitled Method of and means for facial treatment.

In the drawings, I show an exemplary mode of execution of the apparatus of my invention. The operation of this apparatus is semi-automatic.

In the drawings:—

Fig. 1 is a longitudinal section of the hood, showing part of the skirt extending therefrom. The section is indicated in Fig. 2 by line 1—1.

Fig. 2 shows a corresponding partly sectioned top view. The section is indicated in Fig. 1 by line 2—2.

Fig. 3 shows the partly sectioned end of the steam jet.

Fig. 4 shows a side view of a mouth piece for breathing purposes.

Fig. 5 shows a side view of the lamp in the direction indicated in Fig. 1.

Fig. 6 shows an end view of the lamp taken in the direction indicated in Fig. 1.

Fig. 7 shows a front view of the hood of the treatment chamber, and, in the background, part of the chiffonier to which the treatment chamber is attached.

Fig. 8 shows a top view of the cabinet from which the super-structure is sectioned away.

Fig. 9 shows, in a sectional sectioned front view, part of the suction means and support.

Fig. 10 shows a corresponding sectional, sectioned side view.

Fig. 11 shows the sectional, sectioned view of an opening in a treatment chamber through which the suction means are sealed.

Fig. 12 shows a right end side view of the main cabinet. The end wall of the cabinet has been sectioned away to exhibit the interior thereof.

Fig. 13 shows another sectioned side view of the cabinet. This section is taken along the line indicated in Fig. 14.

Fig. 14 shows a rear view of the cabinet-part of the chiffonier, after the back wall has been removed.

Fig. 15 shows a schematic lay-out of the water distribution covering the respective parts accommodated in the upper section of the cabinet and in the superstructure.

Fig. 16 shows, in a sectioned side view, a modified treatment chamber, and a user seated in a chair in front of said chamber.

Fig. 17 shows a front view of the modified chamber of Fig. 16. The drain pipe is omitted in this view.

Similar numerals refer to similar parts throughout the various views.

The hood (Figs. 1, 2 and 7) consists of the two rigid parts 1 and 2, which are hinged together at 3 and which are locked upon each other by the clamp 4 at the upper ends, in such fashion, that these two parts may be readily detached from each other. The front rim 5 of part 2 is reinforced so as to offer means over which the skirt 6 may be strapped and fastened. The openings 7 and 8 in the hood are provided with windows, which permit the observation of the inside of the treatment chamber, when in use.

The breathing tube 9 extends through the rubber bushing 10 which is mounted in the side of the hood. Fig. 4 shows the breathing mouth piece, which may be attached to the tube 9, which serves for breathing upon the inside of the treatment chamber, and which may be filled with a filtering material. Upon the back wall of the hood, I provide an opening 11 to which is fitted the sleeve 12 and through which is introduced the tubing 67 of the suction means of Fig. 11.

In the space at the bottom of the treatment chamber, the two bombarding tables 14 are rotatably mounted upon a rod 13. Each one of the tables 14 is provided with a lug 15 radially extending in respect to the rod 13. Below the rod 13 I arrange the shaft 16 which is driven from the outside of the treatment chamber by the flexible shaft 17. The shaft 16 carries the two cams 18 which are disposed at 180° in respect to each other and which are adapted to engage upon the lugs 15 when the shaft 16 is rotated. The tables 14 are provided with tension means (e. g. coiled springs 211 on the fulcrum rod 13 and reacting between the side walls and the lugs 15) which tend to retain these two tables in their highest possible position. Said tension means are counteracted by the cams 18 when they engage upon the lugs 15 and press the tables 14 down. When the cams 18 slide off the ends of the lugs 15 the tension means upon the tables 14 cause said tables to snap upwardly into their highest position and thus throw the bombarding bodies or missiles, which have rolled onto them, towards the opening in the skirt which is sealed around the face of the user.

The outer edges 19 of the bombarding tables 14 move along the walls of the hood which is disposed vertically downward at its lower end. The inner edges 20 of the bombarding tables 14 are provided with sectors 21 which are disposed at right angles to the tables and to the rod 13. These sectors 21 slide past each other during the

swinging movements of the bombarding tables and close the space of the treatment chamber in a downward direction, so that none of the missiles may enter into the space below the tables where they might cause the tables to jam.

The space upon the sides of the bombarding tables 14 is closed by a false bottom 22 which is arranged at substantially the same level therewith. In the false bottom 22, a slide 23 is arranged, which represents a trap door and by the opening of which the bombarding bodies are allowed to drop into the container 24 below. The false bottom 22 with the slide 23 has a forward extension 25 arranged in part 2 in such a manner, that all missiles falling thereon roll towards the bombarding tables.

The frame 26, which is journaled upon the sides of the hood at 27, may be swung up and down. In its raised position the frame 26 pulls the skirt 6 onto the hood, in an operative, stretched, slanted position. When swung downwardly the frame is completely removed, the skirt is loosened and may be suitably arranged upon the head of the user. The frame 26 is tensioned up or down by springs 28.

Below the lower front edge of the hood a trough 29 is provided to drain fluids, which accidentally leak out of the treatment chamber, through the tubing 30 to the container 24. The waste pipe 31 drains the waste from the container 24, which contains a removable strainer or wire basket 24a for the bombarding bodies 204.

On the back wall of the hood I provide the lamp 33 in alignment with the opening 32 in the hood. This lamp is shown in Figs. 5 and 6 in the directions indicated in Fig. 1. Fig. 6 shows the sector 36 containing the filter panes 37. The sector 36 may be swung around the fulcrum 34 by means of the lever handle 35.

Below the hole 32 are arranged the inlet openings 38 and 39 for water and steam respectively. Fig. 3 shows the detachable steam jet 39. The water inlet 38 is provided with a suitable spray. Below the water inlet 38 I arrange the nozzle 40 for compressed air. Angularly disposed in respect to that nozzle the atomizing tubing 41 is introduced into the hood.

The atomizing tubing 41 is connected to the suction tube 43 by the rubber tubing 42. The suction tubing 43 extends into one of the containers 44. The containers 44 are arranged in a circle upon the support 46 which is upwardly tensioned by the spring 45. The upper ends of the containers are closed by the valve disk 47 which is supported by the arms 48 and the rod 49. The arms 48 are mounted upon the outside of the hood.

Below the nozzle 40, I arrange in the hood the opening 50, through which enters hot air. The water for the spray is adduced to the openings 38 by the hose 51; the steam is carried to the jet 39 by means of the hose 52. The branch 53 of the compressed air conduit opens into the steam conduits, whereas the hose 54 carries the compressed air directly to the nozzle 40. The hot air is introduced by the tubing 55. The hood is fastened upon the front wall of the cabinet part 57 of the chiffonier by the brackets 56.

An open rear view of the cabinet 57 is shown in Fig. 14. Above the cabinet rises the superstructure of the chiffonier which contains the water reservoir 58 shown in Fig. 15. Above the cabinet 57 and below the water reservoir 58 I provide a space upon said cabinet in which are arranged the bottles 59 which contain the ingre-

dients to be introduced into the steam. The top view (Fig. 8) of the cabinet 57 also shows the main switch 60 and the dial 61. The hand 62 is arranged above the dial 61 and serves to indicate the steps as the treatment proceeds. Upon the top of the cabinet is also arranged the dial 63 of the selective switch which is provided with the pointer 64. The pointer 64 is combined with a handle, and operation of that handle allows the connection of one of the bottles 59 into the steam system.

The motor 65 is mounted upon the bottom of the cabinet 57. The air pump 66 is directly connected to the motor 65. Air is taken into the pump through the rubber tubing 67, which also is the suction tubing for the suction means. The mouth piece of the suction tubing is shown in Fig. 11, which also shows the means used for connecting the suction means to the hood by the use of a sleeve 12. The mouth piece consists of a hard rubber bushing 170, in the open end of which the sleeve 12 is fastened by means of the ring 171. In the ring 171 is mounted the suction piece proper 172. This suction piece is preferably made of soft rubber and is replaceable so that suction pieces with perforations of different sizes may be used according to requirements. The bushing 170 has a by-pass opening 173 by means of which air may enter upon the suction line and may be taken in by the pump. The view of Fig. 11 shows the sleeve 12, which is fastened upon the hood by means of the clamping ring 11 turned into the hood. The hand of the operator passes into the sleeve and grips the bushing 170, and, by means of a finger of the operator, the by-pass opening 173 may be controlled.

By way of the air dome 68 the compressed air passes from the pump through the conduit 69 into the dome 70 of the ozone generator 71 and from there passes through the conduit 72 into the two-way valve 73 from which extend the two branches 53 and 54.

The motor shaft drives the master cam shaft 75 by means of the reduction gearing 74 which is mounted in the brackets 76, 77 and 78. The ratio of reduction of the gearing is such that the master cam shaft makes one revolution during the period of one complete treatment.

The intermediary shaft 79 of the reduction gearing 74 carries a pulley 80 which drives a pulley 82 by means of a belt 81. The pulley 82 is mounted upon the fixed end of the flexible shaft 17, where the latter extends into the cabinet. A friction clutch 83 is interposed between the pulley 82 and the flexible shaft 17. These parts are mounted upon a shelf 120; and the clutch 83 is operatively connected to the master cam shaft 75, which thereby controls the periodic operation of the bombarding mechanism. The steam generator 84 is mounted upon a bracket 84a. It contains a heating coil. Water is supplied to the steam generator by means of the conduit 87 from the reservoir 85. The reservoir may be filled through an opening 86 in the cabinet 57. The reservoir is not provided with water from the main water supply because distilled or otherwise specially prepared water is preferably used therein.

The steam passes from the generator through the pipe 88 to the two-way valve 89 from which one branch 52 leads to the treatment chamber, whereas the other branch 90 passes into the inner chamber 91 of the hot water heater 92. Fig. 15 shows the hot water heater 92 suspended from the top of the cabinet 57. The water which is condensed in the chamber 91 is returned to the con-

duit 87 by means of the conduit 93 and is thus returned to the steam generator. That steam, which is not condensed in the chamber 91, passes through the pipe 94 into the water reservoir 95, where it ends above the water level. The hot water heater 92 is fed with water from the water reservoir 95 by means of the two pipes 95 and 96 which enter upon the heater 92 at opposite ends thereof. The hot water is withdrawn from the heater by means of the pipe 97 connected to the heater at the center thereof. The hot water pipe 97 connects to the two-way valve 98 which is mounted below the top of the cabinet 57. The valve 98 is also directly connected to the water reservoir 95 by means of the pipe 99. The two-way valve 98 is connected to the treatment chamber by means of the rubber tubing 51. The ingredients which are to be introduced into the steam enter upon the steam chamber by means of the pipe 100, the end of which is provided with such a small opening that the liquid passes there-through in drops only. The upper end of pipe 100 connects to the opening 101 of slide 102 (Figs. 8 and 12). The slide 102 is operatively connected with the master cam shaft 75 and it rests in slidable abutment upon the perforated disk 103. The various perforations of the disk 103 are arranged upon a circle and are each connected with one of the bottles 59 by means of a conduit 103a. The disk 103 may be rotated by means of the pointer 64 so that, alternatively, each of the openings in the disk 103 may be brought into alignment with the opening 101 in the slide 102. When the slide is actuated from the master cam shaft, the opening 101, in the slide, is caused actually to register with the respective opening in the disk 103, and the liquid of that bottle 59, to which the registering opening in the disk 103 connects, is thereby connected to the steam generator. The hot air generator is indicated as an independent unit 104 which has its own motor and from which the hot air is conducted to the treatment chamber by means of the pipe 55.

The various valves, electrical contactors and clutches are operated by the master cam shaft 75, which is shown, in Figs. 12 and 14, to be provided with a number of cams for that purpose. The cam 105 serves to operate the two-way valve 98 supplying hot or cold water to the spray in the hood. The roller 106 rests upon the face of the cam and is mounted upon the lever 108 which is rotatably mounted upon the rod 107 and which connects with the lever 110 of the valve 98 by means of the connecting rod 109. The rod 107 is mounted in the brackets 77 and 78. The cam 105 also serves to make and break the electric circuits of the hot air generator, the ozone generator and the lamp 33, since these three means operate simultaneously in the particular modification of my invention shown in the drawings. The cam is provided, for this purpose, with two insulated sectors 111 which operate the circuit breaker 112 when passing in front thereof.

The cam 113 operates the valve 89 which is mounted upon the shelf 114. The lever 116 is rotatably mounted upon the rod 117 which is held in the brackets 76, 77 and 78. The roller 115 which is mounted upon the lever 116 is engaged upon the cam 113. The lever 116 is connected to the lever 119 of the valve 89 by means of the connecting rod 118.

The two-way valve 73 on the compressed air system is mounted upon the bracket 120 and is operatively connected with the cam 121 by means of the lever 124, the connecting rod 123 and the

lever 122 which is fulcrumed upon the rod 117.

The springs 125 serve to tension the rollers against the various cams. These springs extend from the respective levers to the hooks 126. The cam 127 operates the slide 102, which controls the admission of ingredients to the steam. The roller 130 is engaged upon the cam 127 and is supported by the lever 128 which is fulcrumed upon the rod 129. Rod 129 is mounted upon the brackets 76, 77 and 78. The lever 128 is connected to the lever 132 on the slide by means of the connecting rod 131. The spring 132a serves to pull the slide to the left side as shown in Fig. 12, and the action of said spring at the same time causes the roller 130 to rest in engagement upon the cam 127.

The cam 133 is engaged by the roller of the lever 134, which in turn is connected by the rod 135 to the lever 136. The latter serves to operate the clutch 83 located upon the shelf 120. The roller is in this instance tensioned against the cam by the spring 137 which serves to press the slidable part of the clutch into operative engagement when the roller is released by the cam. The reducing gearing or transmission 74 between the motor and the master cam shaft 75 also includes the friction clutch 138. The part of the clutch which carries the gear 139 idles upon the shaft 135, whereas the part 140 is slidably engaged upon the shaft by a key, so that it rotates with the shaft. The spring 141 presses the part 140 against the idler part which is driven from the motor so that the clutch is normally in a position of engagement and the motor is operatively connected with the master cam shaft. But if sufficient torque is applied to the cam shaft, the friction of the clutch may be overcome and the cam shaft may be rotated independent of the transmission or of the motor. This is brought about by a crank 142 which may be engaged upon the end of the master cam shaft through an opening in the wall of the cabinet 57, and the master cam shaft may thereby be shifted at any time by the operator into the starting position or into any other position of treatment.

A sprocket 143, which is mounted upon the cam shaft 75, is connected by a chain 144 to a similar sprocket 145, which is mounted upon the shaft 147. This shaft, which is mounted in the bearings 146, rotates at the speed of the master cam shaft 75, and also at the speed of the shaft which carries the hand 62 and which is geared to the shaft 147 by the miter gears 148. Whereas the hand 62 permits the rotation of the master cam shaft to be observed upon the respective dial which is mounted on top of the cabinet, that rotation may also be observed upon a dial mounted upon the side of the cabinet 57, which is provided with a hand 149 mounted upon the end of the shaft 147.

The shaft 147 also carries the disk 150 which is provided with cam vanes for the actuation of the gong 151. The cam vanes are arranged in such manner that the gong is sounded shortly before the beginning of each step in the treatment.

Upon the shaft 147 is also mounted a circuit breaker disk 152 which actuates the main switch 153. The main switch comprises a switch lever 60, and a lever 154, upon which the lever 155 is journaled. The free ends of the two levers 154 and 155 are provided with electric contacts 156 and 157 which are connected into the main circuit by the wires 158, 159. Fig. 13 shows the contacts 156 and 157 apart, so that the main circuit is broken. The contacts 156 and 157 are retained in

an open position by means of the lug 160 of the cam 152.

When my apparatus is to be started the lever 155 is released from the lug 160 by manually operating the switch lever 60, and the contacts 156 and 157 are closed by the action of the spring 161. This energizes the motor 65, and, in turn, the shaft 147, which carries the cam 152, starts to rotate. At the end of one revolution of the shaft 147 which extends over the period of a full treatment, the lug 160 again engages upon the lever 155 and returns the component parts to the position shown in Fig. 13, i. e., the circuit is broken.

As a protection for the reservoir 85, which supplies the steam generator, I provide a float 162. A rod 163 extends vertically upward from the float 162 and is carried in the bracket 164. When the float 162 reaches its lowest position, contact is made between the contacts 165 and 166, which closes the circuit of the battery 167 and the electric bell 168 is sounded, calling the attention of the attendant to the shortage of water.

All the other electric wires, which are shown in Fig. 14 in dotted lines, connect to the electric plug 169. To said plug directly connect the circuit of the heating coil of the steam generator and the motor circuit, which are jointly controlled by the switch 153 and which are set into operation as soon as my apparatus is started.

The circuit of the hot air and ozone generator and of the lamp are not closed for the full period of the operation of my apparatus, but their operation is timed by means of a switch 112.

In the semi-automatic operating mechanism of the suction means, which is shown in Figs. 9 and 10, the suction tubing 67 is sealedly and fixedly introduced into the cap 174 which is mounted upon the hood part 2. The swing lever 175, which is mounted in the cap 174, carries on its free end the roller 176. Over that roller extends the suction tubing 67. The swing lever 175 is operatively connected with the master cam shaft 75. The means to bring about this connection, operate on principles similar and equivalent to those actuating all the other automatic parts of my mechanism, and they are not shown, for the purpose of not obscuring the drawings. At the beginning of the suction treatment, the swing lever 175 is swung frontwardly and downwardly so that the suction piece 177 at the end of the suction tubing 67 is lowered to such an extent that it hangs directly in front of the face of the person to be treated and is also within reach of the sleeve, into which the user or operator may extend his or her hand, grip the suction piece 177 and perform the facial suction treatment.

The suction tubing 67 is provided with an opening 178 upon the outside of the cap 174. That opening is closed by the sleeve 179 which is operatively connected to the swing lever 175, when said swing lever is in its normal position, i. e., swung in counterclockwise direction into the position of Fig. 10. I also provide a by-pass opening 180 upon the suction piece 177, which may be closed by the finger of the operator or user.

Water is fed to the reservoir 58 from a water main through the pipe 181. The inlet of the pipe 181 in the reservoir 58 is closed by a cock 183 which is controlled by the float 182 in a manner well known to those acquainted with the respective art. The reservoir is provided with an overflow 184 and with a drain pipe 185, both of which connect to a waste pipe 186. The pipes 181 and 185 are provided with valves 187 and 188 respectively.

The hood parts and the skirt referred to in the above description relate to an arrangement in which the person to be treated is placed in front of the treatment chamber, facing said treatment chamber, and the skirt is sealed over the face or head, which is laterally extending into the treatment chamber. A modified arrangement of the treatment chamber is indicated in Figs. 16 and 17. This arrangement serves primarily for scalp treatment. The modified hood part 189 is hooked onto the fixedly arranged hood part 1, at 3, and secured thereto by the clamp 4 in the same manner in which the hood part 2 is connected to the hood part 1 in the arrangement of Figs. 1 and 2. The suitably shaped hub 190 extends along part of the front edge of the lower platform 197 of the hood part 189. The hub may be fixedly or adjustably disposed upon said platform. The bolster 191 is shaped in such manner that it may be snapped over the hub 190 by a simple operation. The window part 192 of the skirt is sealedly inserted into a slot 195 in the bolster. It is strapped to the sides and against the upper margin of the hood part 189 and replaceably retained thereon by a clamp 196. A flexible insert 193 is connected to the window part 192 and is shaped to be strapped around the face of the person to be treated and to be securedly retained by the straps 198 which are hooked, clamped or tied around the neck of the user. The lower platform 197 is arranged at an incline so as to allow draining of the waste fluids and to permit the bombarding bodies 204 to roll onto the bombarding table. In line with the description of the first described treatment chamber, the platform 197 forms part of a false bottom arranged in the treatment chamber and a drain space is provided for in the hood below such platform. The extent to which the platform 197 extends from the back part of the hood is determined by the length of the hair, treatment of which is considered in my apparatus. In the view of Fig. 16, the bolster 191 is fitted to the nape of the neck of the user and the user is seated upon a swivel chair 202 which swivels in the base 203 and which may be turned through 180° when the above discussed facial treatments are to be given to the user.

The hood part 189 is provided with a spring support 199 which is suitably arranged so that its free end centrally supports the skull of the user. A padding 200 is provided upon the free end of the support 199. The spring support 199 is clampedly fastened in a hinge 201 which permits the support to be shifted into any desired angular position.

Although I have shown and described several specific forms of embodiment of my invention in detail, yet I do not wish to be limited thereby except as the state of the art and the appended claims may require, for a large range of modifications and changes suggest themselves to the persons skilled in the respective arts, without bringing about a departure from the spirit of my invention.

What I desire to claim is:—

1. In means for exterior body treatments, a treatment chamber into which part of the head is adapted to be sealed, means mounted on said chamber from which the part of the head sealed to said chamber is mechanically bombarded by missiles, and a mechanism actuating said means.

2. In means for exterior body treatments, a treatment chamber into which part of the human body is adapted to be sealed, means in connection with said chamber from which the part of the

body sealed to said chamber is mechanically bombarded by independent bombarding units, and means to catapult said units.

3. In means for exterior body treatments, a treatment chamber into which part of the human head is adapted to be sealed, a plurality of means overlapping supplementarily administering treatments to the part of the head sealed into said chamber, and means relatively timing the starting point and the duration of the operation of said administering units.

4. In means for exterior body treatments, a treatment chamber into which part of the human body is adapted to be sealed, bombarding means mounted in said chamber and adapted to be snapped thereinto, and substantially round resilient bodies adapted to be thrown by said bombarding means.

5. In means for exterior body treatments, a treatment chamber into which part of the human body is adapted to be sealed, a cam shaft rotatably connected with said treatment chamber, bombarding tables swingably mounted in said treatment chamber, said tables being operatively connected with said cam shaft so that they snap into said chamber when said cam shaft is rotated, and elastic bodies adapted to be thrown by said snapping tables against the part of the body sealed to said chamber.

6. In means for exterior body treatments, a treatment chamber into which part of the human body is adapted to be sealed, a cam shaft rotatably connected with said treatment chamber, bombarding tables swingably mounted in said treatment chamber, said tables being operatively connected with said cam shaft so that they snap into said chamber when said cam shaft is rotated, flanges on said bombarding table substantially sealing the sides of said tables against said chamber during the movements of said tables, and elastic bodies adapted to be thrown by said snapping tables against the part of the body sealed to said chamber.

7. In means for exterior body treatments, a treatment chamber into which part of the human body is adapted to be sealed, solid bodies in said chamber, walls on said chamber slanted towards the lowest point in said chamber, bombarding tables swingably mounted in said chamber at said lowest point thereof, and means adapted to snap said bombarding tables into said chamber, said bodies being adapted to roll onto said bombarding tables.

8. In means for exterior body treatments, a treatment chamber into which part of the human body is adapted to be sealed, missiles in said chamber, a false bottom in said chamber slanted towards a low point, bombarding tables swingably mounted in said chamber at said low point, and means adapted to snap said bombarding tables into said chamber so that said missiles drop onto said tables and are projected thereby onto said part of the human body.

9. In means for exterior body treatments, a treatment chamber into which part of the human body is adapted to be sealed, missiles in said chamber, a false bottom in said chamber slanted towards a low point, bombarding tables swingably mounted in said chamber at said low point, means adapted to snap said bombarding tables into said chamber, thereby projecting said missiles into said part of the human body, and a trap-door in said false bottom near said low point through which said missiles may be dropped out of said chamber.

10. In means for exterior body treatments, a treatment chamber into which part of the head is adapted to be sealed, an atomizer arranged in said chamber opposite the point at which the head is sealed thereto, compressed air conduits connecting from the outside through the wall of said chamber to said atomizer, a fluid conduit extending through said wall of said chamber to said atomizer for adding to said atomizer the fluid to be atomized, a plurality of fluid containers, a support for said fluid containers mounted upon the outside of said chamber upon which said fluid containers are arranged in a circle, a valve disk tensioned in abutment onto the outlets of said containers, a tube connected with said fluid conduit withdrawably extending through said valve disk in alignment with the circle in which said containers are supported by said rotatable support, and means to allow a given amount of fluid to pass into said chambers from each container selectively.

11. In means for exterior body treatments, a substantially closed treatment chamber, fluid conduits opening upon said chamber, a flexible skirt upon one side of said chamber adapted to seal part of the human head into said chamber, a swingable support for said skirt, and a drain in said chamber towards which the bottom of said chamber is slanted, said skirt being raised in respect to said drain, so that said fluids flow from said skirt into said drain.

12. In means for exterior body treatments, a substantially closed treatment chamber, fluid conduits opening upon said chamber, an inclined flexible skirt upon one side of said chamber adapted to seal part of the human body into said chamber, reciprocable means mounted in said chamber and adapted to throw missiles upon the part of the human body sealed into said chamber, a drain for fluids in said chamber towards which the bottom of said chamber is slanted, and a strainer in said drain below the slanted bottom of said chamber and adapted to receive and to retain said bodies after bombarding.

13. In combination with means for exterior body treatments, a substantially closed treatment chamber, an opening in said chamber, a skirt upon one side of said chamber adapted to seal part of the human body into said chamber, suction means adapted to be extended into said chamber to be applied to the part of the body sealed into the chamber, and a flexible sleeve sealed at one end upon the periphery of said opening in said chamber and sealed at the other end around said suction means.

14. In means for exterior body treatments comprising massaging means, a substantially closed treatment chamber, a pair of fluid conduits opening upon said chamber, a skirt upon one side of said chamber adapted to seal part of the human body into said chamber, a steam generator connected to one of said conduits, an air pump connected to the second one of said conduits, an injector opening into said steam conduit and disposed therein in the direction of travel of the steam, and a two-way valve in said second conduit, one branch of which is connected to said injector, said two-way valve being adapted complementarily to supply air from said pump to said injector and, through said second conduit, directly to said chamber, the steam and air co-acting to condition the sealed part of the body for massaging.

15. In means for exterior body treatments com-

prising massaging means, a substantially closed treatment chamber, fluid conduits opening upon said chamber, some of said conduits dispensing liquids into said chamber, a skirt upon one side of said chamber adapted to seal part of the human body into said chamber, an air heater connected to one of said conduits, means to drive the heated air from said heater into said chamber, and means to alternate the flow of each fluid from each conduit to the chamber.

16. In means for exterior body treatments comprising massaging means, a substantially closed treatment chamber, fluid conduits opening upon said chamber, valves on some of said conduits, a skirt upon one side of said chamber adapted to seal part of the human body into said chamber, an electrically heated steam generator connected to one of said conduits and means controlling the generation of steam and its delivery to said chamber and said valves in chronologically fixed relation to each other.

17. In means for exterior body treatments comprising massaging means, a substantially closed treatment chamber, a fluid conduit opening upon said chamber, a skirt upon one side of said chamber sealing part of the human body into said chamber, an electrically heated steam generator connected to said conduit, and means laterally diverting steam issuing from said conduit upon said chamber, so that said part of the body is removed from the immediate sphere of said issuing steam, said conduit being slanted from said means towards said generator to permit the back flow of water condensed in said conduit into said generator.

18. In means for exterior body treatments comprising massaging means, a substantially closed treatment chamber, fluid conduits opening upon said chamber, a skirt upon one side of said chamber adapted to seal part of the human body into said chamber, a two-way valve connected to one of said conduits, a cold water supply connected to one branch of said valve, a hot water heater connected to the other branch of said valve, and a mechanism intermittently actuating said valve in predetermined chronological order.

19. In means for exterior body treatments comprising massaging means, a substantially closed treatment chamber, a fluid conduit opening upon said chamber, a skirt upon one side of said chamber adapted to seal part of the human body into said chamber, a steam generator connected through said conduit to said chamber, a plurality of containers for steam conditioning ingredients, a multiple selective valve connected between said containers and said steam generator and adapted predeterminedly and selectively to admit the ingredients from one of said containers to said steam generator, and a mechanism actuating said valve and said generator in predetermined chronological order.

20. In an apparatus for exterior body treatments, a frame adapted to retain part of the human body in a fixed position, a bombarding table reciprocatably mounted upon said frame, a shaft journaled upon said frame, a member mounted upon said shaft and adapted releasably to engage upon said table and to withdraw said table in a direction away from said part of the human body retained in said frame, means tensioning said table towards said part of the human body and adapted to snap said table towards said human body when said member releases said table, and bombarding bodies adapted cyclically

to be thrown by said bombarding table onto said part of the human body.

21. In an apparatus for exterior body treatments, a frame adapted to retain part of the human body in a fixed position, a bombarding table reciprocatably mounted upon said frame, a shaft journaled upon said frame, a member mounted upon said shaft and adapted releasably to engage upon said table and to withdraw said table in a direction away from said part of the human body retained in said frame, means tensioning said table towards said part of the human body and adapted to snap said table towards said human body when said member releases said table, bombarding bodies adapted cyclically to be thrown by said bombarding table onto said part of the human body, and motive means rotating said shaft.

22. In an apparatus for exterior body treatments, a frame adapted to retain part of the human body in a fixed position, a bombarding table reciprocatably mounted upon said frame, a shaft journaled upon said frame, a member mounted upon said shaft and adapted releasably to engage upon said table and to withdraw said table in a direction away from said part of the human body retained in said frame, means tensioning said table towards said part of the human body and adapted to snap said table towards said human body when said member releases said table, bombarding bodies adapted cyclically to be thrown by said bombarding table onto said part of the human body, and means guiding said bodies back onto said table after they have been thrown thereby.

23. In an apparatus for exterior body treatments, a frame adapted to retain part of the human body in a fixed position, a bombarding table reciprocatably mounted upon said frame, a shaft journaled upon said frame, a member mounted upon said shaft and adapted releasably to engage upon said table and to withdraw said table in a direction away from said part of the human body retained in said frame, means tensioning said table towards said part of the human body and adapted to snap said table towards said human body when said member releases said table, bombarding bodies adapted cyclically to be thrown by said bombarding table onto said part of the human body, motive means, a flexible shaft connecting said motive means to said shaft, a clutch interposed between said motive means and said flexible shaft, and a cam shaft operated by said motive means and operatively connected with said clutch.

24. In an apparatus for exterior body treatments, a frame adapted to retain part of the human body in a fixed position, a bombarding table reciprocatably mounted upon said frame, a shaft journaled upon said frame, a member mounted upon said shaft and adapted releasably to engage upon said table and to withdraw said table in a direction away from said part of the human body retained in said frame, means tensioning said table towards said part of the human body and adapted to snap said table towards said human body when said member releases said table, bombarding bodies adapted cyclically to be thrown by said bombarding table onto said part of the human body, and a trap door in said frame, through which said bombarding bodies are adapted to be removed from said table.

25. An apparatus for exterior body massaging, comprising a cabinet, a substantially closed treat-

ment chamber mounted upon said cabinet, skirting upon said chamber adapted to seal part of the human body into said chamber on one side thereof, a bombarding mechanism mounted upon said chamber and adapted to throw bombarding articles onto said part of the human body sealed into said chamber, fluid conditioning and supply means contained in said cabinet, conduits connecting said means to said chamber and issuing thereinto, motive means in said cabinet operatively connected to said mechanism and operating said conditioning means, and a cam shaft driven by said motive means and adapted to time relatively to each other the operations of said bombarding mechanism, conditioning, supply and motive means to produce a complete massaging cycle.

26. An apparatus for exterior body massaging, comprising a cabinet, a substantially closed treatment chamber mounted upon said cabinet, skirting upon said chamber adapted to seal part of the human body into said chamber on one side thereof, a bombarding mechanism mounted upon said chamber and adapted to throw bombarding articles onto said part of the human body sealed into said chamber, fluid conditioning and supply means contained in said cabinet, conduits connecting said means to said chamber and issuing thereinto, motive means in said cabinet operatively connected to said mechanism and operating said condition means, a cam shaft driven by said motive means and adapted to time relatively to each other the operations of said bombarding mechanism, conditioning, supply and motive means, a superstructure on said cabinet, a water reservoir mounted in said superstructure and adapted to supply water to said chamber, and a float valve in said reservoir adapted to regulate the supply of water thereto.

27. In combination with a treatment chamber into which part of the head is adapted to be sealed, and with treating means acting upon said part of the head, means controlling the action of said treating means, a timing mechanism operating for a predetermined period of time after being started and actuating said controlling means at predetermined time intervals of said period of time, and means starting the operation of said mechanism, so that said part of the head is subjected under the seclusion of said chamber to treatment by said treating means in a predetermined chronological order, if said mechanism is started at a point of time predeterminedly related to the time said part of the head is sealed upon said chamber.

28. In combination with a treatment chamber into which part of the head is adapted to be sealed, and with a plurality of means conditioning the atmosphere contained in said treatment chamber, a timing mechanism controlling each of said means and chronologically separately starting and stopping said means.

29. In combination with a treatment chamber into which part of the head is adapted to be sealed, and with a plurality of dispensing means issuing upon said chamber, a timing mechanism controlling said means and chronologically separately starting and stopping said means.

30. In combination with a treatment chamber into which part of the head is adapted to be sealed, and with a plurality of dispensing means issuing upon and with massage means operatively accommodated in said chamber, a timing mechanism controlling said means and chrono-

logically separately starting and stopping said means.

5 31. In combination with a substantially closed treatment chamber, a flexible part in said chamber, a movable conduit extending through said part into said chamber and opening thereinto, and a lateral opening in said conduit disposed outside of said chamber and adapted to be closed by manipulation.

10 32. In combination with a substantially closed treatment chamber, a flexible part in said chamber, a movable conduit sealedly extending through said part into said chamber and opening thereinto, and a lateral opening in said conduit disposed outside of said chamber and adapted to be closed by manipulation.

15 33. In combination with a cabinet and fluids stored therein, a treatment chamber supported by said cabinet, flexible conduits connecting said fluids with said chamber, valve means controlling the flow of said fluids through said conduits, and a timing mechanism controlling said valve means in a predetermined chronological order, so that treatments are automatically dispensed in said chamber according to a fixed schedule.

20 34. In combination with a cabinet and fluids stored therein, a treatment chamber supported

by said cabinet, flexible conduits connecting said fluids with said chamber, valve means controlling the flow of said fluids through said conduits, and an adjustable timing mechanism controlling said valve means in a predetermined chronological order, so that the treatments are automatically dispensed in said chamber according to a schedule. 5

35. In combination with a cabinet and fluid containers stored in said cabinet, a rigid, frontwardly open housing supported by said cabinet to the front thereof, conduits issuing from said containers through the wall of said housing, an extension sealedly attached to the front of said housing, said extension extending further at the top than at the bottom, and flexible means adjustably closing the inclined front of said extension. 10 15

36. In combination with a cabinet and fluid containers stored in said cabinet, a rigid frontwardly open chamber supported by said cabinet to the front thereof, conduits issuing from said containers, through the wall of said chamber, the opening at the front of said chamber being inclined, and flexible means adjustably closing the front of said housing. 20 25

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