

April 15, 1941.

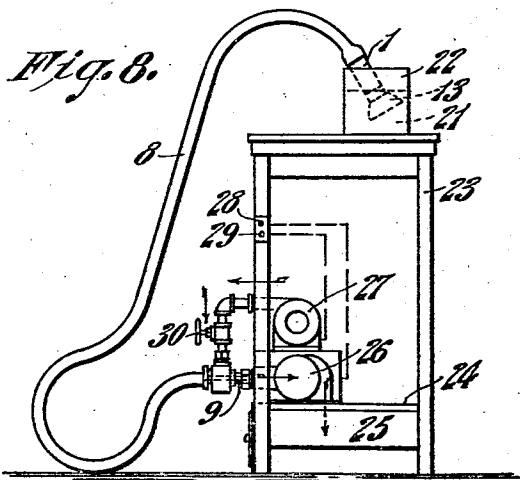
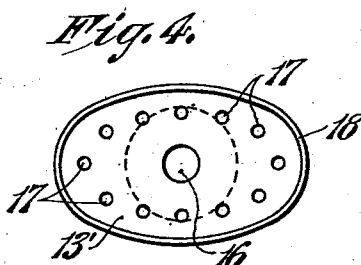
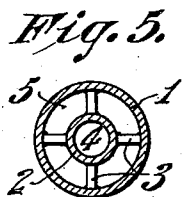
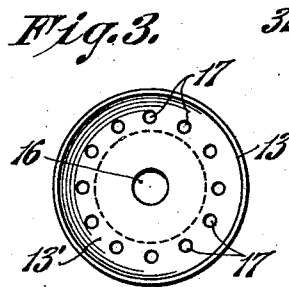
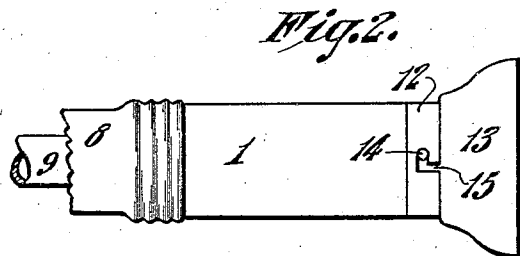
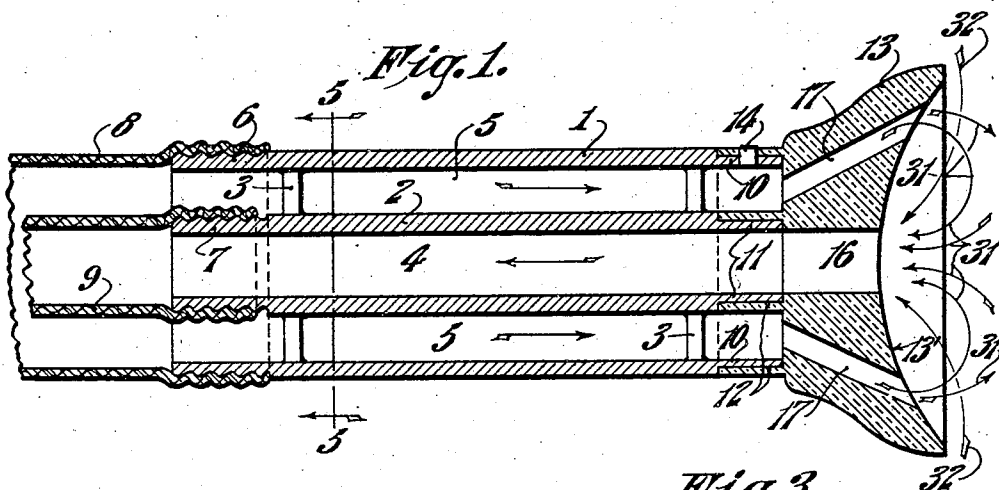
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2,238,541

CLEANING AND MASSAGING DEVICE

Filed March 20, 1940.

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 6.

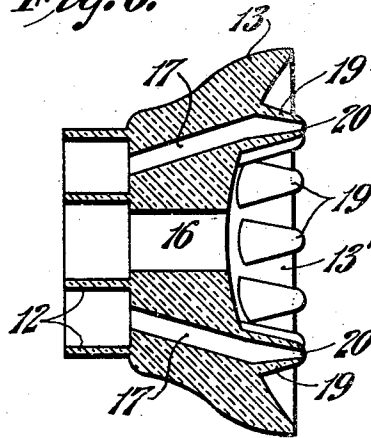
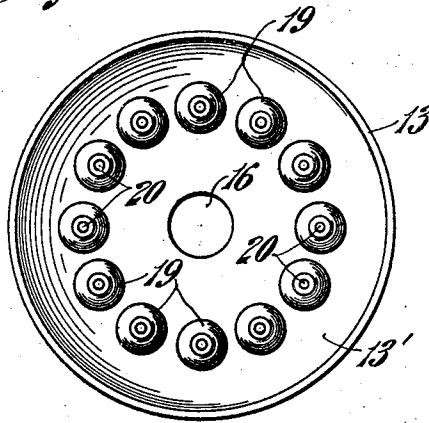


Fig. 7.



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UNITED STATES PATENT OFFICE

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CLEANING AND MASSAGING DEVICE

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Application March 20, 1940, Serial No. 324,969

2 Claims. (Cl. 15-14)

This invention relates to improvements in cleaning and massaging devices.

The invention is particularly directed to a cleaning and massaging device for use in barber shops and hair dressing establishments, for massaging the scalp and skin of a person, and at the same time removing dust, hair clippings, dandruff, or other matter from the skin, hair, and clothing of the person. It is customary in the art as now practiced, to use a brush for removing hair clippings, dust, or the like, from the hair, skin, and clothing of the customer. This practice is objectionable for several reasons. The same brush is used repeatedly, without cleaning, and is, therefore, a direct agent in the transmission of germs and skin diseases from one person to another. It is impracticable, if not impossible, to provide means for sterilizing the soft brushes now in general use. The skin of the customer is, in nearly all cases, coated with, or moist from, perspiration, which causes small particles of hair, dust, etc., to cling to the skin. The brush is ineffective in removing such particles.

It is also customary to massage the scalp and neck of a customer after clipping the hair. The devices used for this purpose are not designed for cleaning or sterilization, and are, therefore, in many cases and uses, as objectionable, relative to sanitation, as the brush.

It is an object of this invention to provide a combined cleaning and massaging device which will perform the operations of cleaning and massaging simultaneously, and which may be sterilized or aseptitized after each individual use, thereby entirely eliminating the possibility of the transmission of undesirable conditions from one customer to another.

Another object of this invention is to provide, in such a device, a nozzle or head of material impervious to sterilizing temperatures, and easily removable from the handle of the device, whereby the head may be removed and placed in a sterilizer, and a second, sterile, head replaced on the handle.

Still another object of this invention is to provide a head or nozzle, in cooperation with a handle, with passages for the transmission of air, both outwardly and inwardly, thereby providing a circulation of air for drying the skin and removing particles of hair, dust, and foreign matter from the skin of a person.

A fourth object of this invention is to provide a cleaning and massaging device utilizing, in combination, a circulation of air with a smooth contacting surface to produce a soothing, cool-

ing effect during the operation of cleaning and massaging.

These, and other objects and advantages of this invention, will be clearly and concisely disclosed in the following specification, the accompanying drawings, and the appended claims.

Broadly, this invention comprises an open ended, hollow handle provided with an axial tube spaced from the walls of the handle to provide an axial air passage and a separate, annular air passage means for securing air conductors to one end of the handle and one end of the axial tube, a nozzle or head removably secured on the opposite end of the handle and tube and provided with air passages communicating with the axial air passage and the annular air passage in the handle, the head being formed of material which is impervious to high temperatures such as are used in sterilization, and which may be finished with a smooth, hard surface, such as glass, porcelain, or suitable plastic compounds, such as "bakelite."

Preferred embodiments of this invention are illustrated in the accompanying drawings, in which

Fig. 1 is a longitudinal sectional view through the handle and head, or nozzle;

Fig. 2 is an elevational view of the device illustrated in Fig. 1;

Fig. 3 is an end view of the nozzle or head,

Fig. 4 is a view similar to Fig. 3, illustrating a modified form of head or nozzle,

Fig. 5 is a cross sectional view taken on the line 5-5 of Fig. 1,

Fig. 6 is a sectional view through a modified form of head,

Fig. 7 is an end elevational view of the head shown in Fig. 6, and

Fig. 8 is a diagrammatic view illustrating a convenient method for servicing the device.

Referring now to the drawings in detail, in which like numerals refer to like parts throughout,

A hollow, open ended, handle 1 is provided with an axial tube 2 which is spaced from the wall of the handle 1 and supported by webs or spokes 3. Cooperation of the handle 1 and tube 2 provides an axial air passage 4 and an annular air passage 5. One end 6 of the handle 1, and the corresponding end 7 of the tube 2, are corrugated or otherwise suitably formed for receiving and gripping flexible air conductors 8 and 9, respectively, as best shown in Fig. 1. At the opposite end of the handle 1 and tube 2, reduced portions 10 and 11, respectively, are provided for receiving

the concentrically socketed end 12 of a head or nozzle 13. A pin 14 on the handle 1 and cooperating bayonet slot 15 in the end 12 provide means for securing and locking the head 13 on the handle 1.

The head 13 is formed with a concave face 13' and provided with a central bore or passage 16 and a plurality of relatively small bores or passages 17 encircling the central passage 16. When the head 13 is secured on the handle 1, the passage 16 in the head 13 communicates with the passage 4 in the handle 1, and the passages 17 in the head 13 communicate with the annular passage 5 in the handle 1, as shown in Fig. 1.

The head 13 is preferably made of a material capable of providing an extremely smooth, impervious surface, and which will also withstand high temperatures, such as are used in sterilizing mediums. The material should also be impervious to the action of antiseptic liquids. Materials which have been found satisfactory for this purpose include glass, porcelain, and plastic compounds such as "bakelite."

In the modified form of head 18, shown in Fig. 4, the head 18 is elliptical in shape, and the passages or ports 17 are arranged substantially parallel to the rim of the head 18.

In the modified form of head 13 illustrated in Figs. 6 and 7, the head 13 is formed with small, cone shaped protuberances 19 provided with ports 20 which communicate with the passages 17. The protuberances 19 project slightly beyond the plane of the rim of the head 13, and add a stimulating effect to the scalp and skin during the massaging operation.

Fig. 8 illustrates, in a diagrammatic way, a simple means and apparatus for servicing the cleaning and massaging device. The head 13 is immersed in an aseptic liquid 21 contained in a tank or bowl 22 supported on a table or stand 23. The table 23 is provided with a shelf 24 and drawer 25. An exhaust fan or pump 26 is supported on the shelf 24 and arranged to discharge into the drawer 25. A blower fan or pump 27 is also supported on the shelf 24. The units 26 and 27 may be individually actuated by electrical energy and controlled by switches 28 and 29. The exhaust unit 26 is connected to the flexible hose 9, and the blower unit 27 is connected to the flexible hose 8. The force of the air blast through the hose 8 may be controlled, or shut off entirely, by means of a valve 30. The air blast and air suction may be used in conjunction, or separately, as desired, as the units 26 and 27 are individually controlled by the switches 28 and 29.

In operation, air is forced outwardly from the passage 5 through the ports 17, against a surface proximate to the face of the head 13, as indicated by arrows 31 in Fig. 1. The air is then drawn inwardly through the port 16 into the passage 4. Preferably, the suction through the port 16 is maintained at a higher volume capacity than the combined volume capacity of the ports 17. Under such operating conditions, air will also be drawn to the port 16 from beyond the rim of the head 13, as indicated by arrows 32 in Fig. 1. The operation of the modified head construction shown in Figs. 4, 6, and 7, is the same. As the head is moved over the skin or scalp in a massaging operation, the combined effect of the smooth surface of the head with the circulation of air gives a pleasant, soothing impression. At the same time, the moisture on the skin is absorbed and withdrawn, and particles of dust, hair, etc., are picked up by the air stream and removed. The device is likewise effective in the removal of dust from the clothing. When the form of head shown in Figs. 6 and 7 is used, added stimulation is provided for the skin and scalp, encouraging blood circulation.

Having thus described my invention, what I claim is:

1. A cleaning device for the hair and scalp comprising a cylindrical handle member provided with an axial air passage and an annular air passage, a nozzle removably secured on an end of said handle and formed with a concave face, said nozzle being provided with a central air port in said concave face and communicating with said axial air passage, said nozzle being also formed with a plurality of conical protuberances projecting from said concave face and provided with air ports communicating with said annular air passage.

2. A cleaning device for the hair and scalp comprising a cylindrical handle member provided with an axial air passage and an annular air passage, a nozzle removably secured on an end of said handle and formed with a concave face, said nozzle being provided with a central air port in said concave face and communicating with said axial air passage, said nozzle being also formed with a plurality of conical protuberances projecting from said concave face and provided with air ports communicating with said annular air passage, the opposite end of said handle member being adapted for connection to a blower device communicating with said annular air passage and an exhaust device communicating with said axial air passage.

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