

United States Patent [19]
Yamamoto

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[54] FACE STEAMER

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[52] U.S. Cl.....128/368

[51] Int. Cl.....A61h 33/00

[58] Field of Search.....128/367, 368, 184, 185;
219/271

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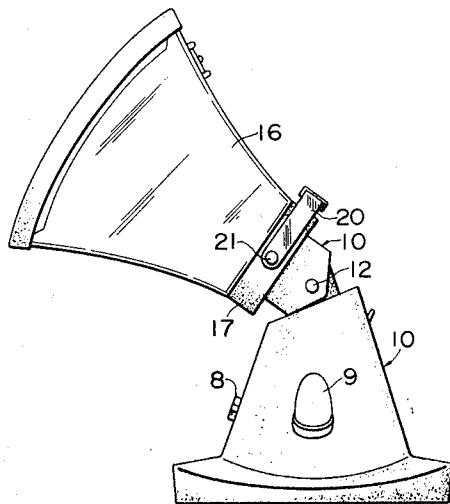
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Primary Examiner—Lawrence W. Trapp
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[57] ABSTRACT

A face steamer which applies steam to the skin to open pores of the skin, so as thereby to remove foreign matters and simultaneously encourage metabolism and further to enhance the effect of a skin treatment or make-up. A hood to be applied to the hand, face or other portion of the body for confining steam therein and a main body having a steam generator disposed therein are fabricated in similar shapes, so that the former may be put over the latter to render the face steamer compact in shape when said face steamer is not in use.

3 Claims, 8 Drawing Figures



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FIG. 1

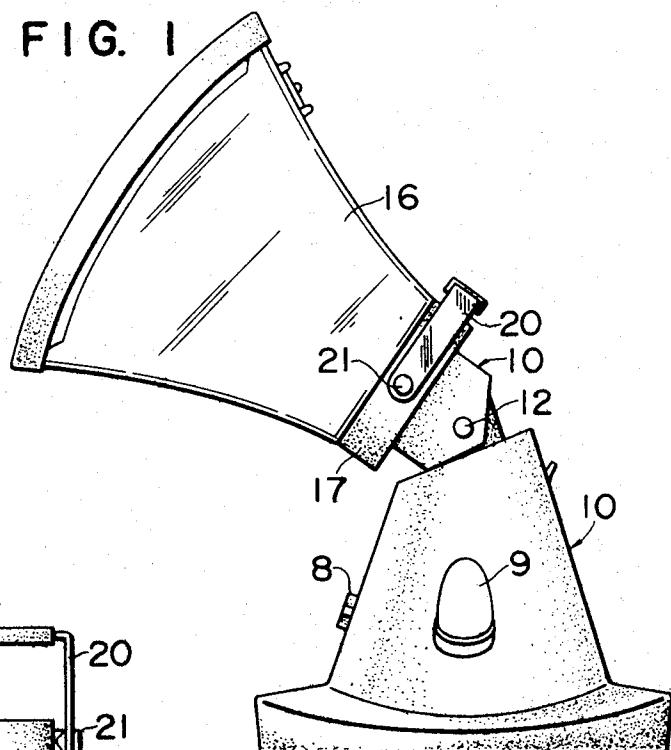


FIG. 2

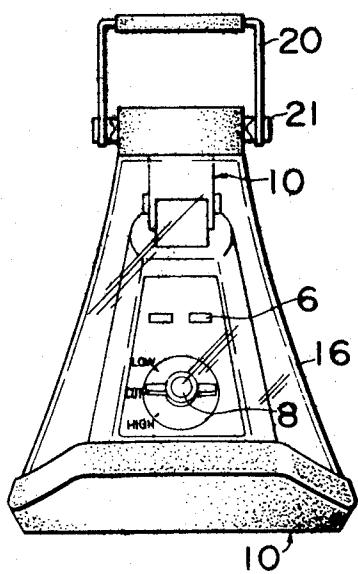
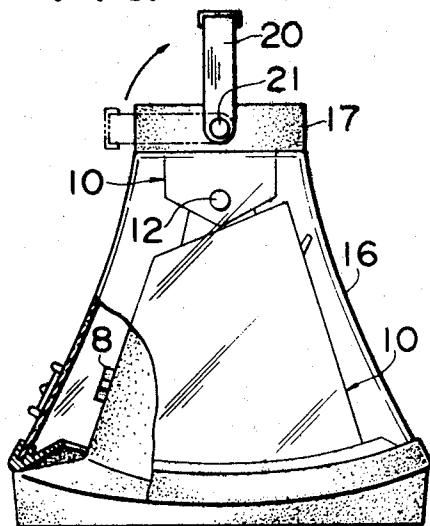


FIG. 3



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FIG. 4

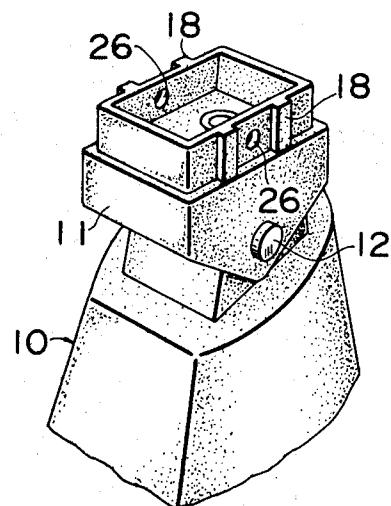
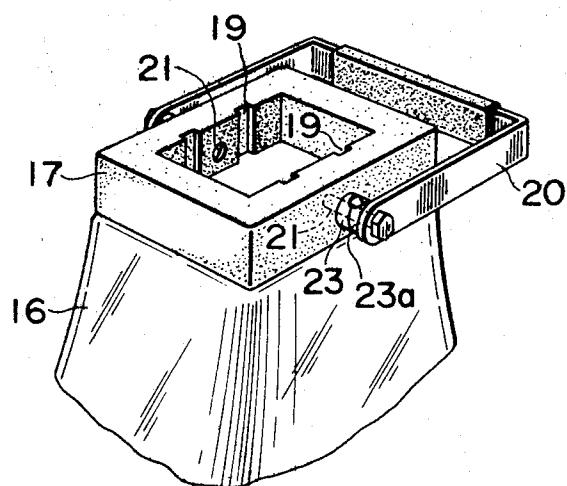


FIG. 5



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FIG. 6

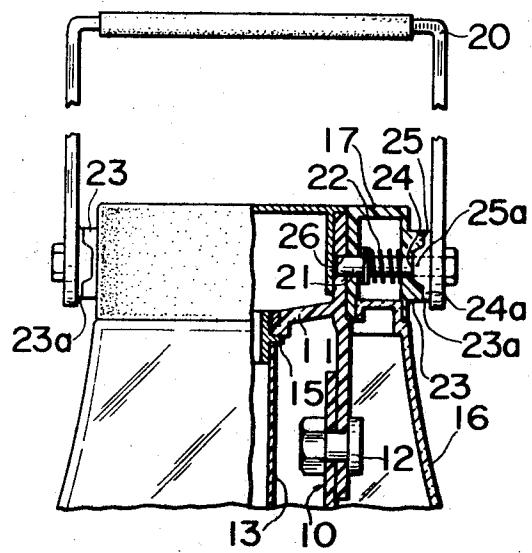
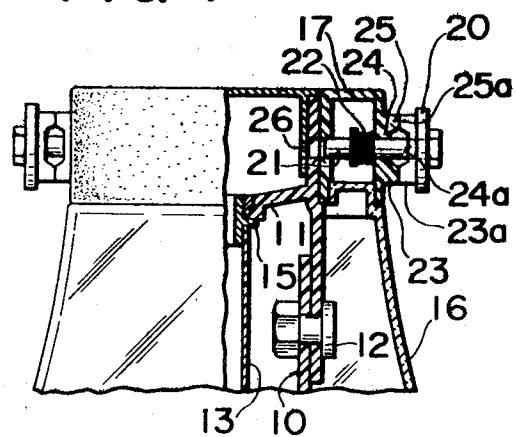


FIG. 7

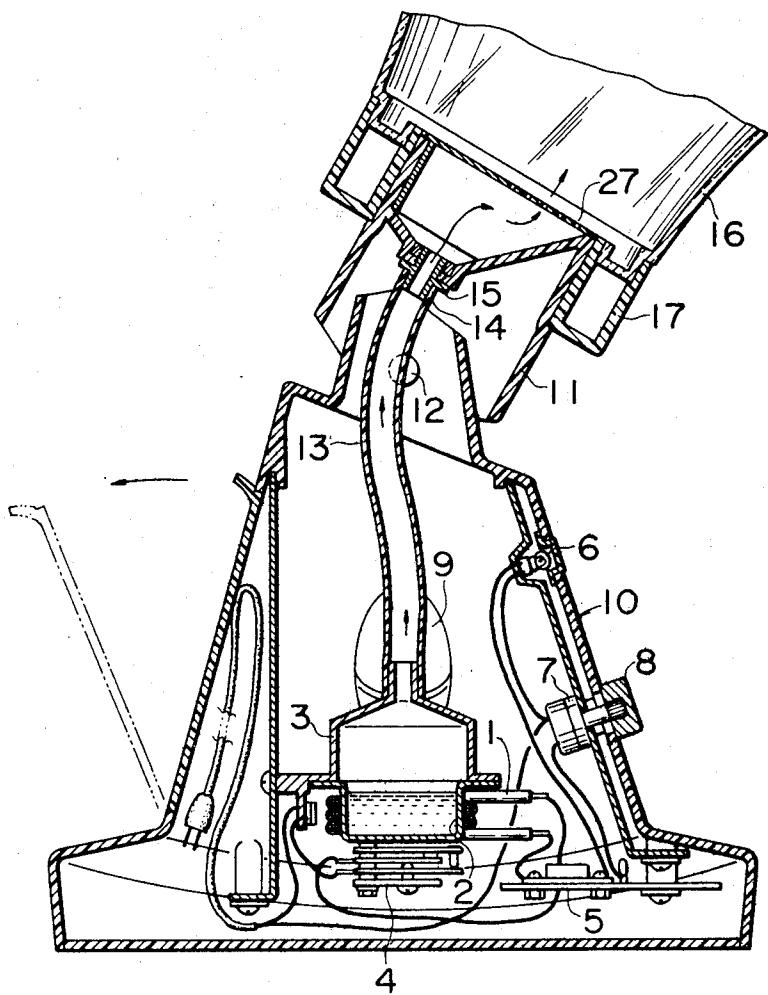


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FIG. 8



FACE STEAMER

This invention relates to a face steamer which applies steam to the hand, face or other portion of the body to open pores of the skin, so as thereby to remove foreign matters and simultaneously encourage metabolism and further to improve the result of a skin treatment or make-up.

Face steamers generally comprise a main body having a steam generator disposed therein and a generally frusto-conical hood connected to the top of said main body in communication with a steam nozzle provided in the main body. The conventional face steamers of the type described, however, have had the hood fixed to the main body and, therefore, the entire size thereof has been unchangeable between when the face steamer is in use and when it is not in use, requiring a large space for storage and rendering the transportation inconvenient.

Other types of conventional face steamers include one in which the hood is detachably connected to the main body. In this type, while the entire height of the face steamer could be reduced when said face steamer is not in use, by demounting the hood from the main body, the size of the face steamer has been still the same per. se. and a large space has also been required for the storage of the face steamer. In addition, care must have been exercised during transportation of the face steamer so as to prevent disconnection of the hood from the main body.

The face steamer of the present invention eliminates the such defects of the conventional face steamers as set forth above.

An object of the present invention is to provide a face steamer of the type having a hood and a main body, in which the hood can be put over the main body when the face steamer is not in use, whereby the entire size of the face steamer is reduced and hence the storage space is reduced and the transportation is facilitated.

Another object of the invention is to provide a face steamer of the character described above, in which the hood is provided with a handle and, when put over the main body, is locked to the main body by locking means which is placed in a locking position at a certain rotational angle of said handle, whereby the transportation of the face steamer is facilitated.

Still another object of the invention is to provide a face steamer of the character described above, in which an arrangement is made such that said locking means is placed in the locking position when the handle is put into a vertical position for the transportation of the face steamer, so as to ensure that the hood is always locked to the main body at the time of transportation.

Other objects, features and advantages of the invention will become apparent from the following detailed description when taken in conjunction with the accompanying drawings. In the drawings,

FIGS. 1 to 8 show an embodiment of the face steamer of the invention, of which

FIG. 1 is a side elevational view of the face steamer in use;

FIG. 2 is a front elevational view of the face steamer ready for storage, with the hood put over the main body;

FIG. 3 is a side elevational view of the face steamer looking in the other direction, with a portion of the hood cut away;

FIG. 4 is a perspective view of only the upper portion of the main body;

FIG. 5 is a perspective view of only the lower portion of the hood in an inverted state;

5 FIG. 6 is a fragmentary view of the face steamer when the hood is put over the main body and the handle is in a vertical position with said hood being locked to said main body by locking means, the left half side being in elevation and the right half side being in section;

10 FIG. 7 is a fragmentary view, similar to FIG. 6, of the face steamer when the hood is put over the main body but the handle of the hood is in a horizontal position with the locking means being released; and

15 FIG. 8 is an enlarged vertical sectional view of the face steamer showing the main body and a portion of the hood.

Referring to the drawings, particularly to FIG. 1, the main body 10 of the face steamer comprises a steam generator including a heater 1 and a metallic water container 2, a thermostat 4, an electronic circuit 5 and a switch 7. The water container 2 has a cover 3 and has the heater 1 wound around the outer peripheral surface thereof. The water in the water container 2 is heated by the heater 1 and generates steam. The thermostat 4 is connected to the outer surface of the bottom of the water container 2 to flash an indicator lamp 6 through the electronic circuit 5, indicating the presence or absence of water in the container 2. The switch 7 is provided for the purpose of adjusting the steam temperature and has a knob 8 mounted thereon. Water is supplied from a water supply opening 9 into the water container 2 through a pipe not shown.

20 35 A joint member 11 consisting of a hollow body having a rectangular cross section is pivotally connected to the top of the main body 10 by means of a pivot pin 12 for pivotal movement in a vertical plane. A flexible pipe 13 made of a heat resistant material is connected 25 to the cover 3 of the water container 2 at one end, with the other end 14 thereof connected to a nozzle 15 provided within the joint member 11. Thus, it will be understood that the steam generated in the water container 2 passes in the pipe 13 and is injected into the 30 joint member 11.

40 45 A hood 16 generally frusto-conical in shape has a connecting portion 17 and detachably connected to the joint member 11, with the latter received in the connecting portion 17 of the former. The hood 16 is made 40 of a transparent material and has a shape slightly larger 50 than the main body, so that when not in use, it may be demounted from the main body upon disengaging the connecting portion 17 from the joint member 11 and put over the main body in the manner shown in FIGS. 2 55 and 3. Ribs 18 are provided on the outer surfaces of the opposite walls of the joint member 11, while complementary grooves 19 are formed in the confronting inner surfaces of the connecting portion 17 of the hood 16, so that said connecting portion 17 may be engaged 60 with or disengaged from the joint member 11, with said ribs 18 being guided by said grooves 19. A handle 20 made of an elastic material is pivotally connected to the connecting portion 17 of the hood 16 at the opposite ends thereof by means of lock pins 21 as best shown in 65 FIG. 5. Each of the lock pins 21 is biased inwardly of the connecting portion 17 by a spring 22, and a pair of cams 23, 23a are interposed between each end of the

handle 20 and the connecting portion 17 of the hood 16 as shown in FIGS. 6 and 7. The cam 23 is secured to the outer surface of the connecting portion 17 and the cam 23a is secured to one end of the handle 20. The contacting surfaces of the cams 23, 23a are formed with a recess 24 and projections 25, and a recess 24a and projections 25a respectively with an angular phase difference of 90° relative to each other. Reference numeral 26 designates locking holes formed in the joint member 11 for receiving the respective lock pins 21, and 27 designates steam discharge holes formed in the upper wall of the joint member 11.

The face steamer of the invention is used in the following manner: Namely, when the connecting portion 17 is mounted on the joint member 11, with the grooves 19 being guided by the ribs 18, the hood 16 is supported by the joint member 11 and held in a position easy to use as determined by the preset angle of inclination of said joint member. Then, the opening of the hood 16 is applied to a face or other portion of the body to be treated. The steam generated from the steam generator flows from the water container 2 into the hood 16 through the pipe 13, the nozzle 15 and the steam discharge holes 27 and steams the face skin. Thus, the pores of the skin are opened to provide for removal of the foreign matters therefrom and encourage metabolism of the skin.

When the face steamer is not in use, the hood 16 is demounted from the main body 10 by disengaging the connecting portion 17 from the joint member 11, and put over the main body 10 in an inverted state as shown in FIGS. 2 and 3. By so doing, the entire height of the face steamer can be substantially reduced to the height of the main body 10. Therefore, the face steamer does not require a large space and can be stored in a simple manner.

After the hood 16 is put over the main body 10 as shown in FIG. 3, the handle 20 is pivoted 90° upwardly from the position indicated by the dotted line in FIG. 3 or the position shown in FIG. 7 to the position indicated by the solid line in FIG. 3 or the position shown in FIG. 6, as indicated by the arrow in FIG. 3. In this case, the projections 25a of the cam 23a resting on the projections 25 of the cam 23 rotate together with the lock pins 21 and move into the recess 24 of said cam 23, while the recess 24a of the cam 23a receives the projections 25 of the cam 23, and further the lock pins 21 are moved inwardly under the biasing forces of the spring 22 and received in the locking holes 26 in the joint member 11.

Therefore, the connecting portion 17 of the hood 16 is fastly locked to the joint member 11 of the main body 10 and the main body 10 will not drop from the hood 16 even if the hood 16 is hoisted by the handle 20 standing upright. This enables the face steamer in storage to be transported by one hand with much convenience.

As stated, the handle 20 of the face steamer is in interlocking relation with the locking mechanism consist-

ing of the cams 23, 23a, the lock pins 21 and the locking holes 26, and the main body 10 and the hood 16 put over said main body are interlocked by the movement of said handle. Therefore, when the handle is erected upright as shown in FIGS. 3 and 6, for the transportation of the face steamer, the cams 23, 23a are brought into interlocking engagement with each other and the lock pins 21 are locked in the locking holes 26 respectively, whereby the main body 10 and the hood 16 are automatically connected with each other. The handle 20 is naturally erected upright when the face steamer is hoisted for transportation and, therefore, the main body 10 and the hood 16 put over the main body are automatically interlocked by the locking mechanism actuated by said handle, without the necessity of deliberately intentionally actuating the locking mechanism. This is highly convenient in handling the face steamer.

When the service of the face steamer is desired, the hood 16 put over the main body 10 in an inverted state is released from interlocking engagement with said main body and mounted on the main body by telescoping the connecting portion 17 thereof over the joint member 11. In this case, the interlocking engagement between the hood 16 and the main body 10 by the locking mechanism can be released by pivoting the handle 20 90° from the position indicated by the solid line in FIGS. 2, 3 and 6 to a horizontal position.

Namely, when the handle 20 is laid down to a position parallel to the connecting portion 17 of the hood 16, the projections 25a of the cam 23a move out of the recess 24 of the cam 23 and ride on the projections 25 of the same. The lock pins 21 move slidingly outwardly against the biasing forces of the spring 22 while rotating and are disengaged from the locking holes 26 in the joint member 11, respectively. Thus, the hood 16 is disengaged from the main body 10 and then said hood is mounted on said main body as shown in FIG. 1.

What is claimed is:

1. A face steamer comprising a main body having a steam generator disposed therein, a joint member provided at the top of said main body and provided with steam discharge holes, a hood detachably mounted on said joint member at a connecting portion thereof in communication with said steam discharge holes and being so shaped that it may be put over the main body in an inverted state, a handle provided at the connecting portion of the hood and locking means for interlocking said main body and said hood when the latter is put over the former in an inverted state.

2. A face steamer as defined in claim 1, wherein said locking means operates in association with the pivotal movement of said handle to interlock said main body and said hood or release them from the interlocking engagement.

3. A face steamer as defined in claim 1, wherein said locking means operates in association with the pivotal movement of said handle and interlocks said main body and said hood when said handle is erected upright.

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