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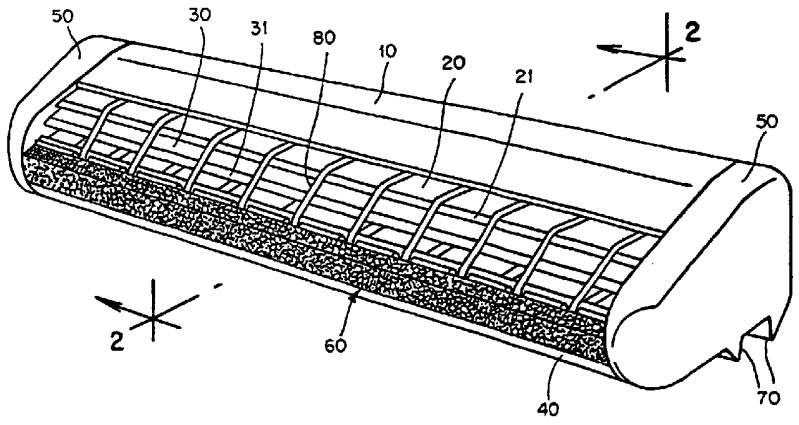



(57) Abstract

A shaving system comprising a support, at least one blade (20) and a skin-engaging element comprising a skin-engaging resilient foam material (60). In a preferred embodiment, the skin-engaging element is attached to a guard (40) and comprises a resilient foam material and a shaving aid. Also, disclosed is a method for making a razor head having a skin-engaging resilient foam material.

# SHAVING SYSTEMS WITH FOAM SKIN-ENGAGING ELEMENT

The present invention is directed to razor heads and, more particularly, to razor heads comprising a foam skin-engaging material.

## BACKGROUND OF THE INVENTION

Previously disclosed shaving systems typically utilize relatively rigid materials, such as polypropylene, polystyrene or ABS, for certain skin-engaging elements which contact a person's skin during shaving. For example, safety razors are now common in which a guard is disposed forwardly of the cutting edge of a blade while a cap follows the blade or a trailing blade of a multi-blade shaving system. The guard and cap control the angle at which the skin meets the cutting edge of the blade.

It is believed that convention guards formed of rigid materials exercise limited control over the skin surface being shaved prior to contact with the blade edge. For example, rigid materials commonly used with safety razors have a relatively low coefficient of friction with wet skin. It would therefore be desirable to provide a resilient skin-engaging element having a higher coefficient of friction than conventional rigid materials to improve the control of the skin as it approaches a blade, and also to improve the position of the hair prior to contact with a blade as it passes across the skin surface.

Another disadvantage with conventional guards is that they tend to push shaving cream, including any desirable active ingredients present in the shaving cream, away from the skin prior to contact with the blade edge. It would therefore also be desirable to provide a resilient skin-engaging element capable of delivering desirable active ingredients to the surface being shaved.

Any discussion of the prior art throughout the specification should in no way be considered as an admission that such prior art is widely known or forms part of common general knowledge in the field.

**SUMMARY OF THE INVENTION**

In a first aspect, the present invention provides a shaving system comprising:

a support and at least one blade; and

a skin-engaging element attached to said support, wherein at least a portion of said skin-engaging element comprises a foam material having a higher coefficient of friction than conventional rigid materials.

Unless the context clearly requires otherwise, throughout the description and the claims, the words 'comprise', 'comprising', and the like are to be construed in an inclusive sense as opposed to an exclusive or exhaustive sense; that is to say, in the sense of "including, but not limited to".

For the purpose of this specification the term "skin engaging" is used to describe the positive control over the user's skin by a skin engaging element and does not merely refer to physical contact alone between the element and the skin. This engagement and control is such that the beard whiskers are presented to the razor blade in a more uniform manner allowing a smoother, closer shave. Also, the skin is introduced to the blade in a more constant manner thereby reducing the likelihood of nicks or cuts.

In a second aspect, the present invention provides a shaving aid comprising:

a resilient foam material having a higher coefficient of friction than conventional rigid materials and having a skin engaging surface; and at least one active ingredient, wherein a portion of said active ingredient is disposed below said skin engaging surface.

In another aspect, the present invention provides a method of foaming a razor head comprising the steps of :

providing a support;

providing a skin-engaging element comprising a skin-engaging resilient foam material having a higher coefficient of friction than conventional rigid materials and at least one self-adhesive surface;

contacting said self-adhesive surface with said support.

The various embodiments of the present invention comprise shaving systems including razor heads, and methods of manufacturing razor heads which comprise a resilient skin-engaging element for enhancing the control of the skin surface, and thus, delivering close, comfortable shaves.

Advantageously, at least in a preferred form, the present invention may provide a foam material to be utilized in the construction of a skin-engaging element of a razor. For example, a guard bar comprising a resilient foam material which has a higher coefficient of friction between the skin-engaging element of the razor head and the skin surface being shaved will cause the skin to stretch slightly and better position the skin and the hairs thereon prior to contact with a blade, as well as prevent accidental, uncontrolled movements that might lead to nicks.

According to another aspect of the present invention, a skin-engaging element may further comprise a resilient foam material having a hardness similar to that of facial skin so that the contact between the resilient material and skin may provide a more pleasant sensation compared to materials having a hardness greater than facial skin.

According to another aspect of the present invention, a skin-engaging element may further comprise a resilient foam material comprising a shaving aid material. Particularly, a guard element which may be impregnated with a shaving aid as described in greater detail below. Advantageously, a skin-engaging element can be formed with an open cell foam material and a shaving aid material. It will be appreciated that the pressure applied between the guard and the skin surface may effect the amount of shaving aid material deposited on the skin.

Another advantageous aspect of embodiments of the present invention lies in the ease in which these embodiments can be manufactured, for example, utilizing a self-adhesive resilient foam material which can reduce the time, labor and/or expense required for manufacture.

These and other embodiments of the present invention are described below with reference to the figures.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of one embodiment of the present invention for a razor head.

FIG. 2 is an enlarged cross-sectional view taken along lines 2-2 of FIG. 1.

FIG. 3 is an enlarged cross-sectional view taken along lines 2-2 of FIG. 1 showing one kin-engaging element of the present invention compressed under typical shaving forces.

FIG. 4 is a cross-sectional view of one preferred embodiment of the present invention.

FIG. 5 is a cross-sectional view of the preferred embodiment shown in FIG. 4 showing a skin-engaging element compressed under typical shaving forces.

FIG. 6 is an enlarged cross-sectional view of the skin-engaging element shown in FIGS. 4 and 5.

FIG. 7 is a cross-sectional view of an alternative embodiment of a skin-engaging element and a guard.

FIG. 8 is an enlarged view of the skin-engaging element shown in FIG. 7.

FIG. 9 is a cross-sectional view of another embodiment of a skin-engaging element and a guard.

FIG. 10 is an enlarged view of the skin-engaging element shown in FIG. 9.

FIG. 11 is a cross-sectional view of a foam skin-engaging element of an alternative embodiment of the present invention.

FIG. 12 is a front view of a foam skin-engaging element of a still further embodiment of the present invention.

FIG. 13 is a top view of a segmented, foam skin-engaging element of the present invention.

FIG. 14 is a front view of a foam skin-engaging element of another embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is directed to novel shaving systems, such as razor heads and methods of forming razor heads with a skin-engaging element comprising a skin-engaging resilient foam material.

FIGS. 1-3 illustrate one embodiment of the present invention in which a razor head comprises a foam skin-engaging element positioned proximate to a guard element. Specifically, the razor head shown in FIGS. 1-3 comprises a cap 10, a cap blade 20, seat blade 30, and a guard 40 positioned between sidewalls 50.

Attached to guard 40 is a skin-engaging element 60. As illustrated in FIG. 1, it is most preferable that element 60 extends across substantially the entire width of the razor head.

While the illustrated razor head is in the form of a cartridge adapted to be connected to a separate razor, the advantages of the present invention are equally applicable to other razor heads and other shaving systems. As used herein, the term "razor head" is meant to include both the operative section of disposable razors as well as disposable cartridges designed for attachment to a separate razor.

As shown in FIGS. 2 and 3, guard 40 is generally L-shaped, comprising a vertical leg 42 having a vertical surface 43 and a substantially horizontal leg 44 having a generally horizontal surface 45. Preferably, guard 40 is fabricated from a rigid material such as the type generally used in fabricating razor heads, e.g., polypropylene. However, compared to a conventional guard, guard 40 is preferably reduced in size and cross-section to a minimum required to suitably support element 60 thereon.

Element 60 preferably comprises a skin-engaging resilient foam material 62 and a pressure sensitive adhesive 68. Resilient foam material 62 of this illustrated embodiment is rectangular in cross-section having an attachment surface 63 to which is attached a pressure sensitive adhesive 68. Outer surfaces 64 and 65 of resilient foam material 62 provide a skin-engaging surface as further described below. Most desirably, element 60 comprises

a self-adhesive layer so that skin-engaging element 60 is readily adhered to a razor head using conventional automated equipment.

Preferably, as illustrated in FIGS. 1-3, resilient foam material 62 comprises an open cell foam material. However, the resilient foam material can also be a closed cell foam or a combination of open and closed cell foams. The resilient foam material, whether comprising open or closed cell foams, may be fabricated from polyurethane, polyethylene, and mixtures of natural and nitrile rubber and the like. Desirably, resilient foam material 62 is at least 1.0 mm thick, preferably about 0.5 mm to about 1.7 mm thick and most preferably about 0.8 mm to about 1.2 mm thick. Also, resilient foam material 62 preferably has a hardness of about 5 Shore OO to about 75 Shore OO which is similar to facial skin.

Desirably, pressure sensitive adhesive 68 is mechanically and chemically suitable for attaching resilient material 62 to guard 40. In particular, emulsifiers in some shaving preparations can attack the adhesive layer causing it to swell and become gel-like which can dramatically reduce the adhesive's mechanical strength. Preferably, adhesive 68 is able to withstand a shear stress of about 10 kPa to about 100 kPa. Suitable pressure sensitive adhesives are manufactured and available from Lohmann GmbH and Co. of Neuwied, Germany, in particular, acrylic pressure sensitive adhesives, DUPLOTAC 160 and DUPLOCOLL 3701. Advantageously, such suitable pressure sensitive adhesives allow adhesive 68 to be applied as a layer

comprising a thickness of about 0.01 mm to about 0.2 mm, preferably about 0.05 mm to 0.1 mm thick.

In FIG. 3, resilient foam material 62 is illustrated in a configuration which could result under normal shaving forces. The deformation of the resilient foam material is advantageously designed to provide a skin-engaging surface 67 and to slightly stretch the skin due to resilient foam material 62 having a higher coefficient of friction as compared to conventional rigid materials. In addition, skin-engaging surface 67 reduces the deformation typically experienced by the beard hairs from contact with a guard member comprising a rigid material. After contact with the skin, resilient foam material 62 returns substantially to its original configuration as shown in FIG. 2.

Though not illustrated in detail in FIGS. 1-3, the illustrated shaving cartridge is also provided on its lower side with suitable connecting members 70 for attachment to a razor. The materials used for forming the various elements of the razor head may include a wide variety of materials. For example, it is known in the art to use thermoplastics which are particularly suited for injection molding and which have excellent durability and shelf life in the environments typically encountered during shaving, shipping and storing.

As shown in the FIG. 1, a plurality of fencing elements 80 prevent a plurality of discrete, spaced portions of cutting edges 21 and 31 of blades 20 and 30, respectively, from contacting the

skin surface being shaved. It is also within the scope of the present invention to utilize a skin-engaging element with shaving systems which do not have fencing elements.

It is also within the scope of the present invention to provide a shaving system, such as a razor head, with a skin-engaging element positioned at a location other than as a guard. For example, it is within the scope of the present invention to provide any of the skin-engaging elements of the present invention on or proximate to a cap, on one or more of the side walls, on a fencing element, or between blades.

FIGS. 4 and 5 illustrate one preferred embodiment of the present invention in which a razor head comprises a foam skin-engaging element attached to a guard. In this embodiment, as shown in FIG. 4, the skin-engaging element comprises a skin-engaging resilient foam material having a surface disposed substantially parallel to and above a surface which is located tangent to the upper surfaces of the guard and the cap. In FIG. 5, the skin-engaging element is particularly illustrated in a configuration which could result under normal shaving forces.

More specifically, the razor head illustrated in FIGS. 4 and 5 comprises a cap 110, a cap blade 120, seat blade 130, a guard 140, and sidewalls 150 only one of which is shown. Attached to guard 140 is a skin-engaging element 160. As with the razor head illustrated in FIG. 1, skin-engaging element 160 of FIGS. 4 and 5 preferably extends across substantially the entire width of the

razor head, however, the foam skin-engaging elements of the present invention can also be segmented or can extend across less than a major portion of the razor head.

Guard 140 is generally configured as an L-shaped support comprising a vertical leg 142 having a vertical surface 143 and a generally horizontal leg 144 having a generally horizontal surface 145. Desirably, surface 145 is angled slightly so as to be about parallel to a surface tangent to the top of guard 140 and cap 110 which is represented in FIG. 4 as line 190.

As shown in FIG. 6, skin-engaging element 160 comprises a resilient foam material 162, a first adhesive 164, a stiffener 166, and a second adhesive 168. Desirably, resilient foam material 162 is rectangular in cross-section having an upper skin-engaging surface 161 and a lower attachment surface 163. Preferably, resilient foam material 162 comprises an open cell foam. However, the resilient foam material can also be a closed cell foam or a combination of open and closed cell foams.

With reference again to FIGS. 4 and 5, locating surface 145 of guard 140 approximately parallel to a surface which is tangent to the upper surfaces of guard 140 and cap 110, facilitates a smooth shave and helps to maintain the foam resilient material 162 forwardly of the guard element 140. Furthermore, as best can be appreciated from Figure 4, this design enables fabricating a constant thickness skin-engaging element 160. Desirably, skin-

engaging surface 161 of resilient foam material 162 extends between 0.0 mm and 0.2 mm above a surface which is located tangent to the upper surfaces of guard 140 and cap 110.

It will be appreciated that the skin-engaging element can include additional layers, e.g., two or more resilient foam material layers, two or more resilient coplanar foam materials, a varying density resilient foam material, and can include a shaving aid material as explained in greater detail below.

Although, as illustrated in FIG. 5 element 160 is generally rectangular in cross-section, under typical shaving forces element 160 could be compressed to have a rhomboid configuration. Specifically, under typical shaving forces, attachment surface 163 will remain secured to surface 145 of leg 144 of guard 140 while skin-engaging surface 161 could move downwardly and toward vertical surface 143 of guard 140. After removal of contact with the skin, resilient foam material 162 returns substantially to its original configuration as shown in FIG. 4.

In the fabrication of element 160, resilient foam material 162 can first be laminated to stiffener 166 by adhesive layer 164. For example, stiffener 166 can be fabricated from a PET foil. From the description, those skilled in the art will appreciate that other forms of stiffeners can also be utilized without departing from the scope of the present invention. The resilient foam material 162 and stiffener 166 laminate is provided with an adhesive layer 168 for attachment or mounting to

surface 145 of guard 140 (FIGS. 4 and 5). Desirably, adhesive 164 and 166 are a suitable pressure adhesives as described above.

More specifically, a large laminated planar sheet can be formed comprising a layer of resilient foam material, an adhesive layer, a stiffener, and a self-adhesive layer which is disposed on the outer surface of the stiffener. Using conventional label making technology, a planar sheet comprising a resilient foam material and a backing film can be slit and coiled. The coils can then be cut so that a "ladder-shaped" portion can be removed to provide coils having a plurality of discrete portions or individual labels on a continuous backing film. However, it is apparent that this process has a relatively low yield due to the discarded "ladder-shaped" portion. It is appreciated that this process can be improved by cutting individual labels directly from the coil prior to attaching the label to a razor head on the assembly line, thereby increasing the yield. By this method, the individual labels may be generally rectangular in cross-section, as described in FIG. 4-6, but may also be parallelogram or trapezoid-shaped as explained below with a slight decrease in yield.

FIGS. 7-10 illustrate two alternative embodiments of skin-engaging elements and guard of the present invention. Specifically, FIG. 7 shows a guard 240 having a surface 245 which attached to a skin-engaging element 260. As shown in FIG. 8, skin-engaging element 260 has a parallelogram-shaped cross-sectional configuration. FIG. 9 shows a guard 340 having a

surface 345 which attaches to a skin-engaging element 360. As shown in FIG. 10, skin-engaging element 360 has a trapezoid-shaped cross-sectional configuration. It is appreciated that these configurations, compared to the configuration shown in FIGS. 4-6, require less applied force when compressed under typical shaving forces thereby reducing the reaction force from the skin's surface and providing less discomfort. In addition, the configurations shown in FIGS. 7-10 provide a larger skin-engaging surface thereby increasing the friction and skin sensation.

Other configurations of foam skin-engaging elements can be utilized without departing from the scope of the present invention. FIG. 11 is a cross-sectional view of an alternative foam skin-engaging element 460 comprising a rear surface 462, in lower surface 464 and a curved skin-engaging surface 466. Either or both of rear surface 462 and lower surface 464 can be attached to a support surface of a razor head. FIG. 12 is a front view of another skin-engaging element 560 which comprises raised portions 562 extending further upwardly than other portions of this foam skin-engaging element. It is also within the scope of the present invention to extend portions of a foam skin-engaging element further in other directions, such as forwardly, rearwardly, downwardly, or combinations thereof without departing from the scope of the present invention. A still further embodiment of a foam skin-engaging element 760 is shown in FIG. 13 wherein discrete sections 762 are arranged in spaced relation for contact with the surface being shaved. FIG. 14 illustrates a

still further configuration of a foam skin-engaging element 660 wherein portions 662 are separated by slits. While the illustrated slits actually create a space between separate portions 662, it is also within the scope of the present invention to utilize foam having slits which, after cutting, do not leave visible spaces between neighboring sections of the foam skin-engaging element due to the natural resiliency of the foam. Nonetheless, such slits will enhance relative movement between such portions during shaving. While the illustrated slits extend only a minor portion of the extent of the foam skin-engaging element, it is also within the scop of the present invention to make such slits either much shallower or deeper into the skin-engaging element 660. The various skin-engaging elements of the present invention can be attached to any suitable surface of the shaving system in one or more of the manners described herein, or in other ways without departing from the scope of the present invention.

Another preferred embodiment of the present invention comprises a skin-engaging element in which the element comprises a resilient foam material and a shaving aid material. The shaving aid material may be either a separate layer or integral disposed within a resilient foam material such as an open cell foam.

A number of different materials have been suggested for use as shaving aids. The term "shaving aid", as used herein, refers equally to either the active ingredient combined within a

delivery system, such as a water-insoluble micro-porous matrix structure or to the active ingredient alone. Previously suggested active ingredients include those disclosed in U.S. Patent No. 4,170,821 to Booth, which is hereby incorporated by reference. A shaving aid may comprise one or various combinations of the following:

A. A lubricating agent for reducing the frictional forces between the razor and the skin, e.g., a micro-encapsulated silicone oil.

B. An agent which reduces the drag between the razor parts and the shaver's face, e.g., a polyethylene oxide in the range of molecular weights between 100,000 and 6,000,000; a non-ionic polyacrylamide; and/or a natural polysaccharide derived from plant materials such as guar gum.

C. An agent which modifies the chemical structure of the hair to allow the razor blade to pass through the whiskers very easily, e.g., a depilatory agent is one example.

D. A cleaning agent which allows the whisker and skin debris to be washed more easily from the razor parts during shaving, e.g., a silicon polyethylene oxide block copolymer and detergent such as sodium lauryl sulphate.

E. A medicinal agent for killing bacteria, or repairing skin damage and abrasions.

F. A cosmetic agent for softening, smoothing, conditioning or improving the skin.

G. A blood coagulant for the suppression of bleeding that occurs from nicks and cuts.

H. An astringent for constricting blood vessels thereby stemming the flow of bodily fluids such as lymph, which may exude from skin which has been irritated during shaving.

Alternatively, the shaving aid may comprise one or more of the shaving aids disclosed in U.S. Patent No. 5,056,221 to Thoene, U.S. Patent No. 4,044,120 to Rowsell et al., U.S. Patent No. 5,095,619 to Davis et al., or Japanese Patent Application No. Hei 7 [1995] - 24156 to Miyazaki, et al. which are also hereby incorporated by reference.

Other active ingredients may include various pigments, e.g., titanium dioxide, fragrances, aloe vera, flavoring agents, mineral oils, essential oils and other oils derived from plants. In addition to one or more active ingredients, the shaving aids of the present invention may also comprise other compounds or blends of compounds such as water-insoluble polymers such as polystyrene and polypropylene.

Another embodiment of the present invention comprises methods for forming a razor head. One such method comprises the steps of providing a support such as a razor head, providing a skin-engaging element comprising a self adhesive resilient foam

material comprising at least one self-adhesive surface, and contacting the self-adhesive surface with the support. Such a self adhesive resilient foam material is ideally suitable to being die-cut to the required dimensions and contacted to the razor head using conventional automated equipment. Preferably, the support comprises providing a forwardly facing portion and the step of contacting the self-adhesive surface comprises contacting the self-adhesive surface with the forward facing portion. Desirably, the step of providing a skin-engaging element comprises providing a resilient foam material and a shaving aid material such as those described above.

**THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:**

1. A shaving system comprising:

a support and at least one blade; and

a skin-engaging element attached to said support, wherein at least a portion of said skin-engaging element comprises a foam material having a higher coefficient of friction than conventional rigid materials.

2. A shaving system according to claim 1 wherein said foam material is resilient.

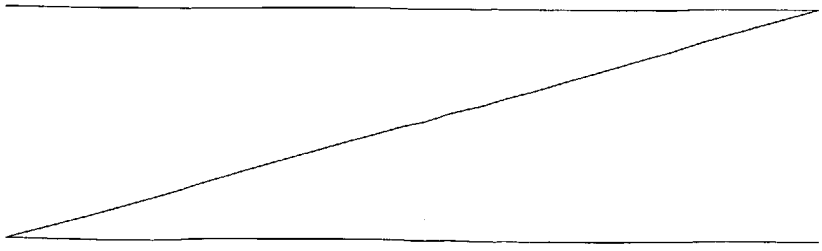
3. A shaving system according to claim 2 wherein said resilient foam material comprises a closed cell foam.

4. A shaving system according to claim 2 wherein said resilient foam material comprises an open cell foam.

5. A shaving system according to claim 2 wherein said resilient foam material comprises a polyurethane foam.

6. A shaving system according to claim 2 wherein a major portion of said skin-engaging element comprises a skin-engaging resilient foam material.

7. A shaving system according to claim 2 wherein substantially all of said skin-engaging element comprises a resilient foam material.



8. A shaving system according to claim 2 wherein a portion of said element is disposed forwardly of said blade.

9. A shaving system according to claim 2 wherein a portion of said support comprises a guard comprising a generally vertical surface and wherein said element is attached to said vertical surface.

10. A shaving system according to claim 2 wherein said support comprises a guard comprising a generally horizontally disposed surface and wherein said element is attached to said horizontal surface.

11. A shaving system according to claim 2 wherein said support comprises a cap and a guard, said guard comprising a horizontal surface disposed generally parallel to a surface tangent to upper surfaces of said cap and said guard.

12. A shaving system according to claim 11 wherein said element is attached to said horizontal surface so that a portion of said skin-engaging resilient foam material is disposed parallel to a surface tangent to upper surfaces of said cap and said guard.

13. A shaving system according to claim 12 wherein a portion of said skin-engaging resilient foam material extends between about 0.0 mm and about 0.2 mm above a

surface tangent to upper surfaces of said cap and said guard.

14. A shaving system according to claim 2 wherein said element further comprises an adhesive for adhering said resilient foam material to said support.

15. A shaving system according to claim 14 wherein said adhesive is a layer of about 0.01 mm thick to about 0.2.

16. A shaving system according to claim 15 wherein said adhesive comprises a layer of about 0.05 mm thick to about 0.1 mm thick.

17. A shaving system according to claim 14 wherein said adhesive is a pressure sensitive adhesive.

18. A shaving system according to claim 17 wherein said adhesive comprises an acrylic pressure sensitive adhesive.

19. A shaving system according to claim 2 wherein said skin-engaging resilient foam material is rectangular in cross-section.

20. A shaving system according to claim 19 wherein said resilient foam material is about 0.5 mm thick.

21. A shaving system according to claim 20 wherein said resilient foam material is about 0.8 mm thick to about 1.2 mm thick.

22. A shaving system according to claim 2 wherein said skin-engaging resilient foam material has a parallelogram-shaped cross-section.

23. A shaving system according to claim 2 wherein said skin-engaging resilient foam material has a trapezoid-shaped cross-section.

24. A shaving system according to claim 2 wherein said element further comprises a shaving aid material.

25. A shaving system according to claim 24 wherein said shaving aid material is selected from the group consisting of a lubricating agent, a medicinal agent, a vitamin, a cosmetic agent, a coagulant, an astringent, a cleaning agent, a skin conditioner, and blends thereof.

26. A shaving system according to claim 2 wherein said element further comprises a stiffener material attached to said resilient foam material and wherein said stiffener material is attached to said support.

27. A shaving system according to claim 2 wherein said foam material comprises a hardness of about 5 Shore 00 to about 75 Shore A.

28. A shaving aid comprising:

a resilient foam material having a higher coefficient of friction than conventional rigid materials and having a skin engaging surface; and at least one active ingredient, wherein a portion of said active ingredient is disposed below said skin engaging surface.

29. A shaving aid according to claim 28 further comprising an adhesive layer attached to said resilient foam material.

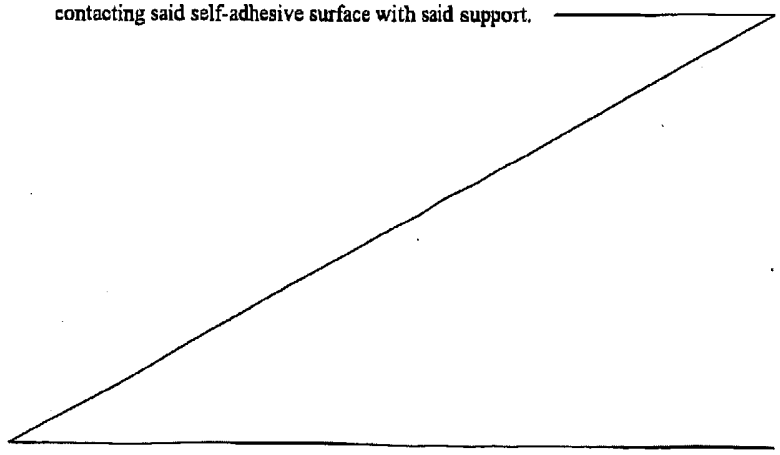
30. A shaving aid according to claim 28 further comprising a stiffener material attached to said resilient foam material.

31. A method of foaming a razor head comprising the steps of :

providing a support;

providing a skin-engaging element comprising a skin-engaging resilient foam material having a higher coefficient of friction than conventional rigid materials and at least one self-adhesive surface;

contacting said self-adhesive surface with said support.



32. A method according to claim 32 wherein said step of providing a support comprises providing a forward facing portion.

33. A method according to claim 33 wherein said step of contacting said self-adhesive surface comprises contacting said self-adhesive surface with said forward facing portion.

34. A method according to claim 32 wherein said step of providing a skin-engaging element comprises providing a shaving aid material.

35. A method according to claim 32 wherein said step of providing a skin-engaging element comprises providing a stiffener.

36. A shaving system according to claim 2 wherein said skin-engaging element has a curved skin-engaging surface.

37. A shaving system according to claim 2 wherein said foam portion of said skin-engaging element comprises first portions and second portions, and wherein said first portions extend further upwardly than said second portions.

38. A shaving system according to claim 2 wherein said foam portion of said skin-engaging element comprises at least one slit extending at least partially there through.

39. A shaving system according to claim 2 further comprising a plurality of foam skin-engaging elements.

40. A shaving system substantially as herein described with reference to any one of the embodiments of the invention shown in the accompanying drawings.

41. A shaving aid substantially as herein described with reference to any one of the embodiments of the invention shown in the accompanying drawings.

42. A method of forming a razor head substantially as herein described with reference to any one of the embodiments of the invention shown in the accompanying drawings.

DATED this 28th day of July, 2000

WARNER-LAMBERT COMPANY

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Fellow Institute of Patent Attorneys of Australia
of BALDWIN SHELSTON WATERS

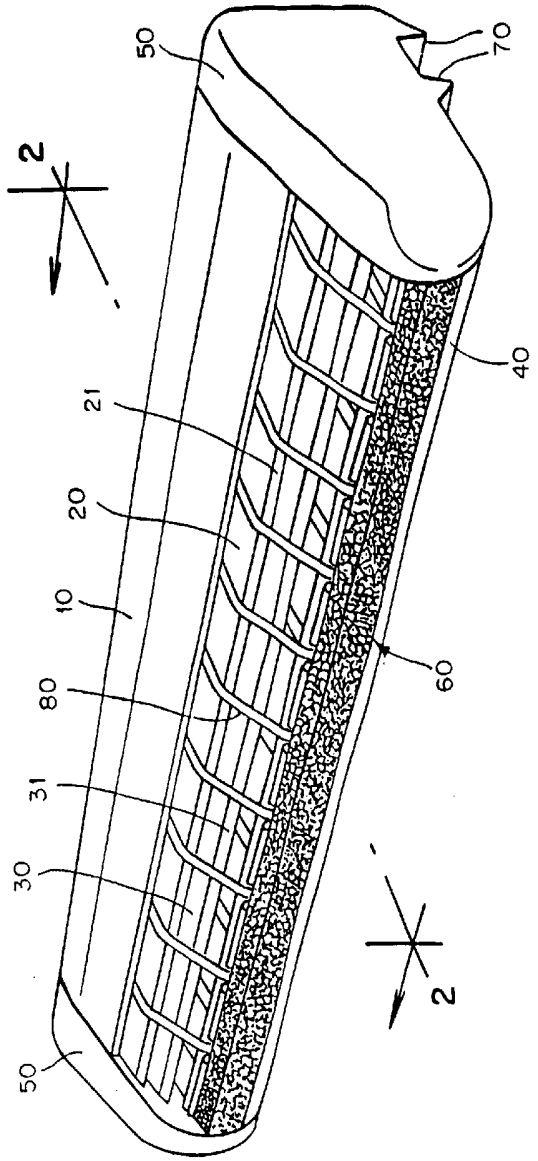


FIG. 1

FIG. 2

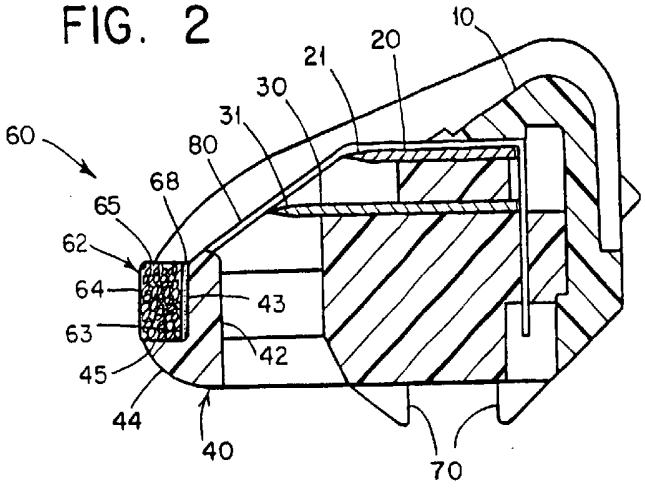
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FIG. 3

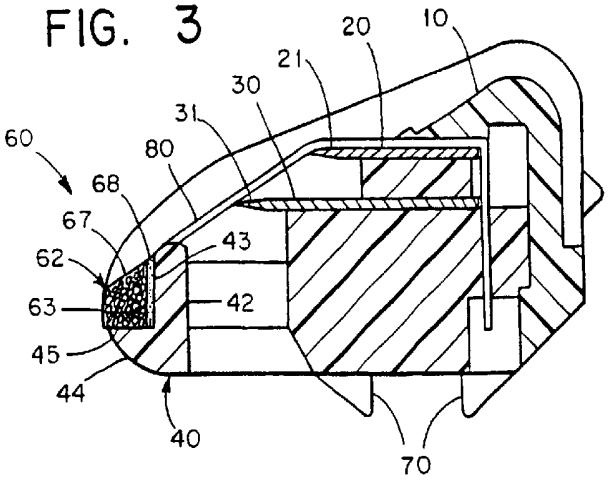
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FIG. 4

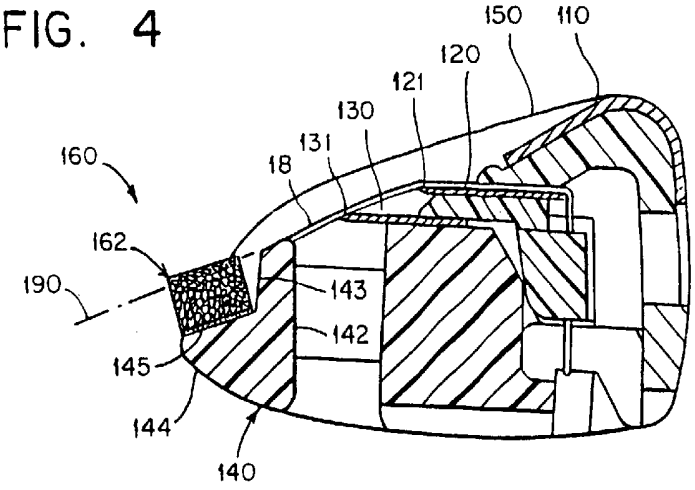


FIG. 5

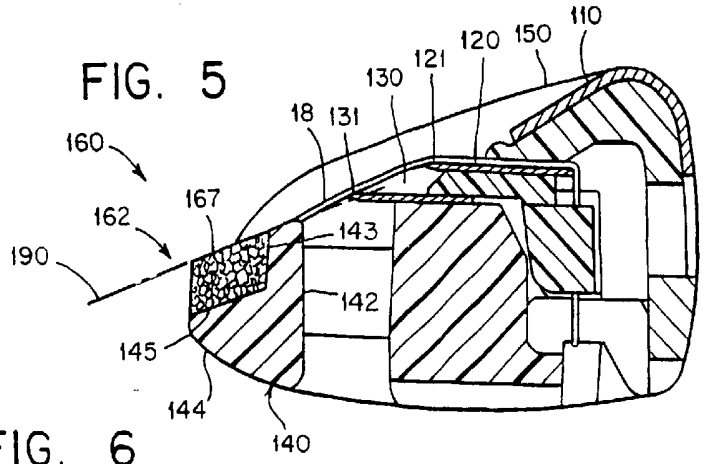


FIG. 6

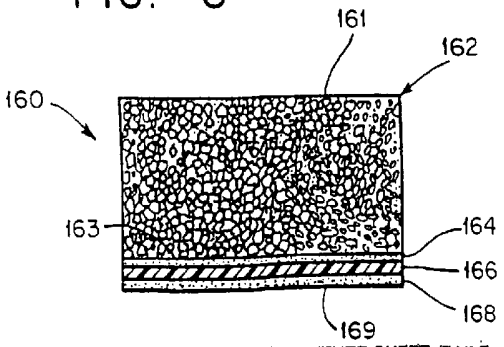

FIG. 7

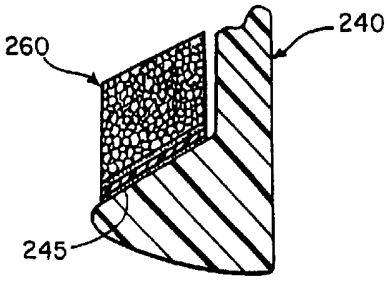


FIG. 8

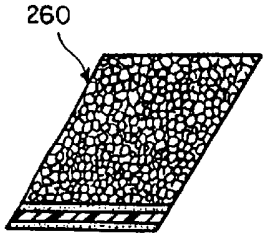


FIG. 9

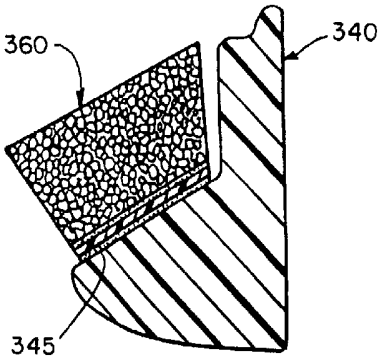


FIG. 10

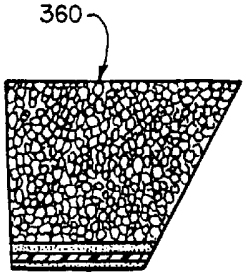

FIG. 11

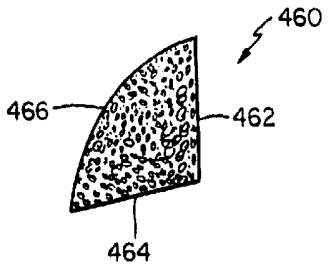


FIG. 12

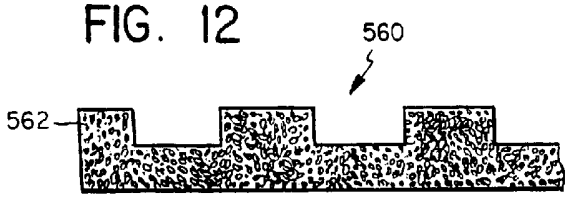


FIG. 14

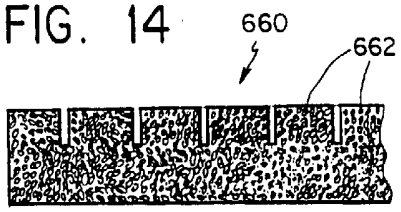


FIG. 13