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(54) **FACIAL MASK**

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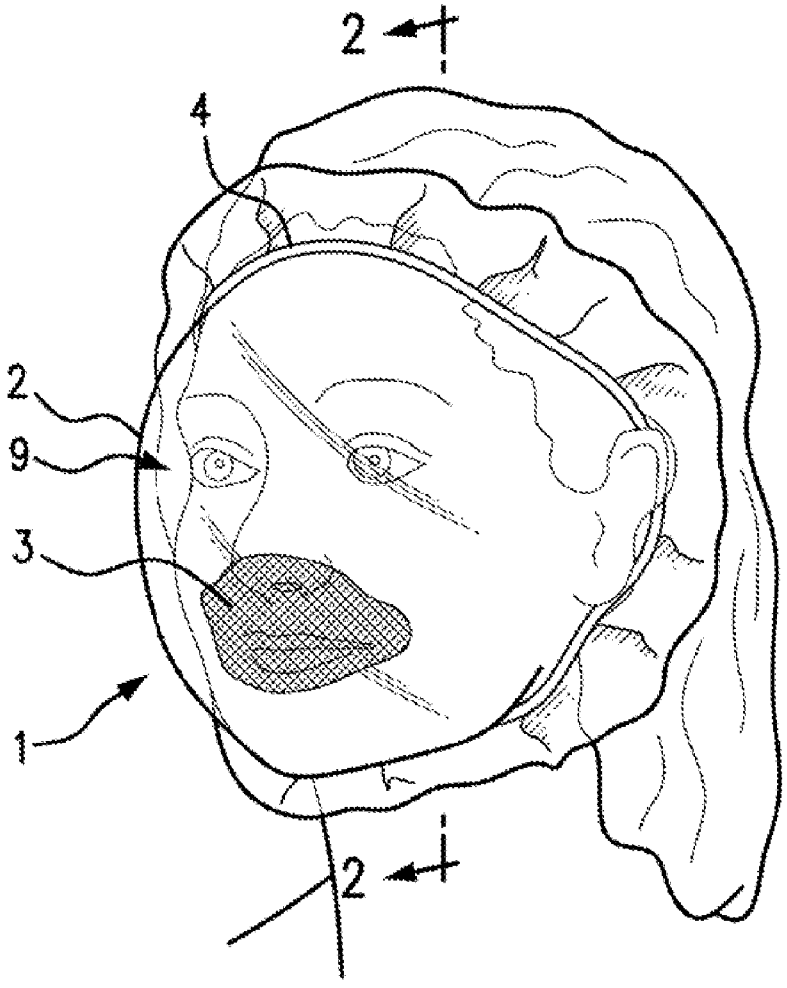
(57) **ABSTRACT**

A facial mask for in protecting the facial region from water or other elements said mask comprising a mask body and a team or closure moans.



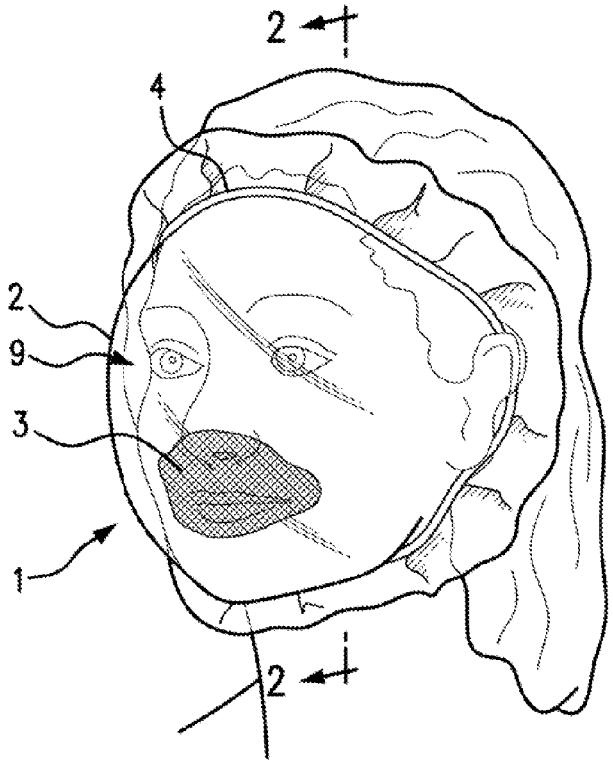


FIG. 1

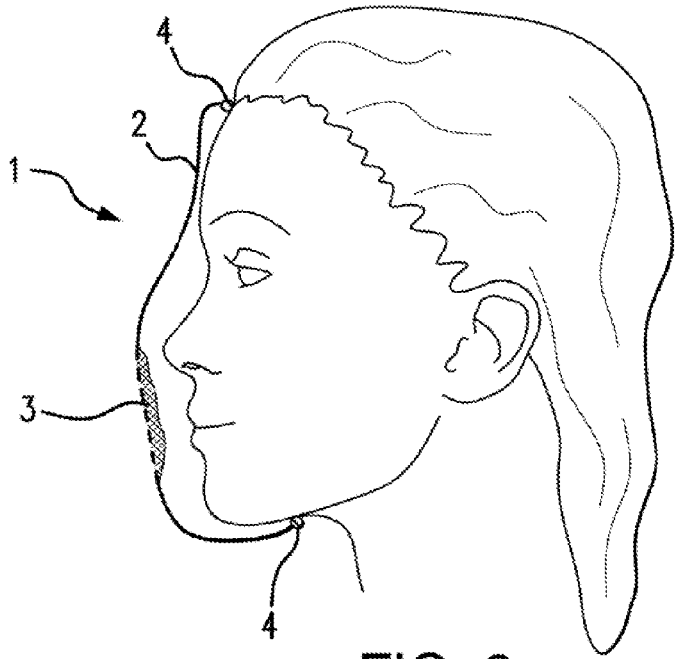


FIG. 2

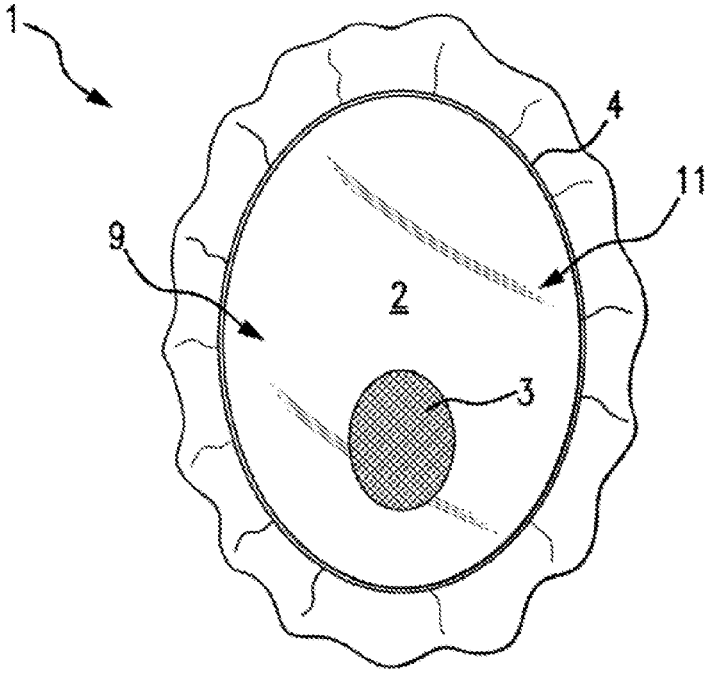


FIG. 3A

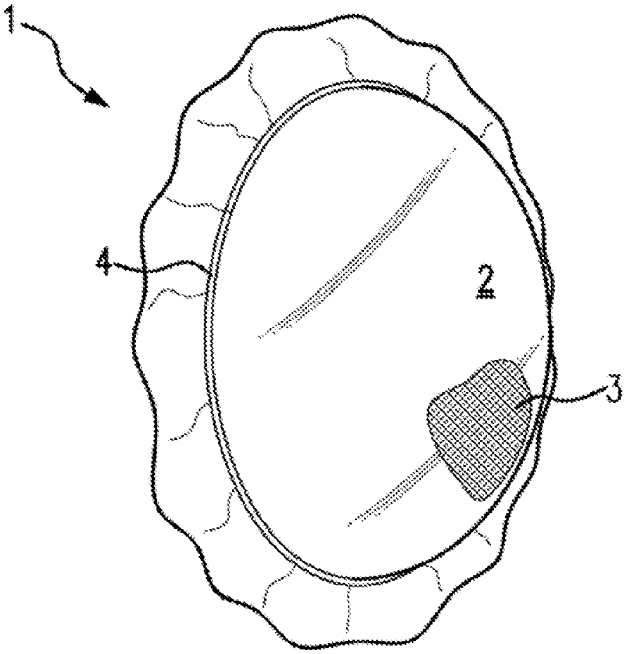


FIG. 3B

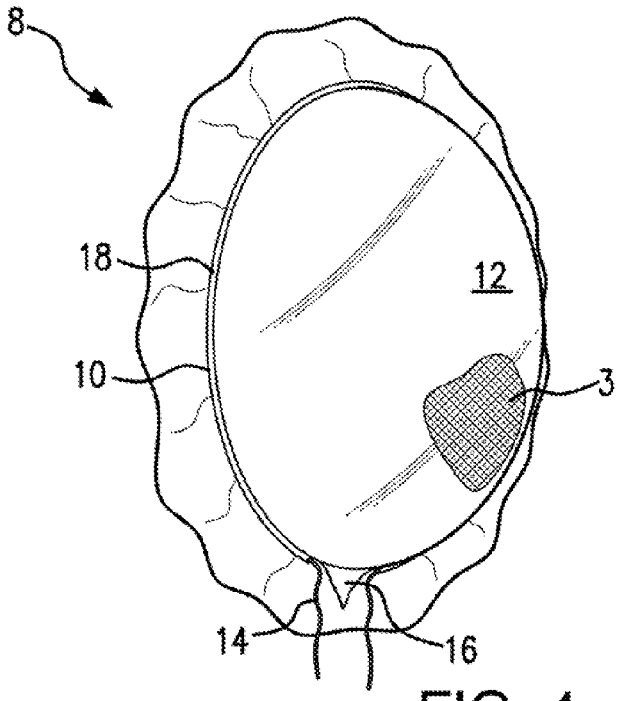


FIG. 4

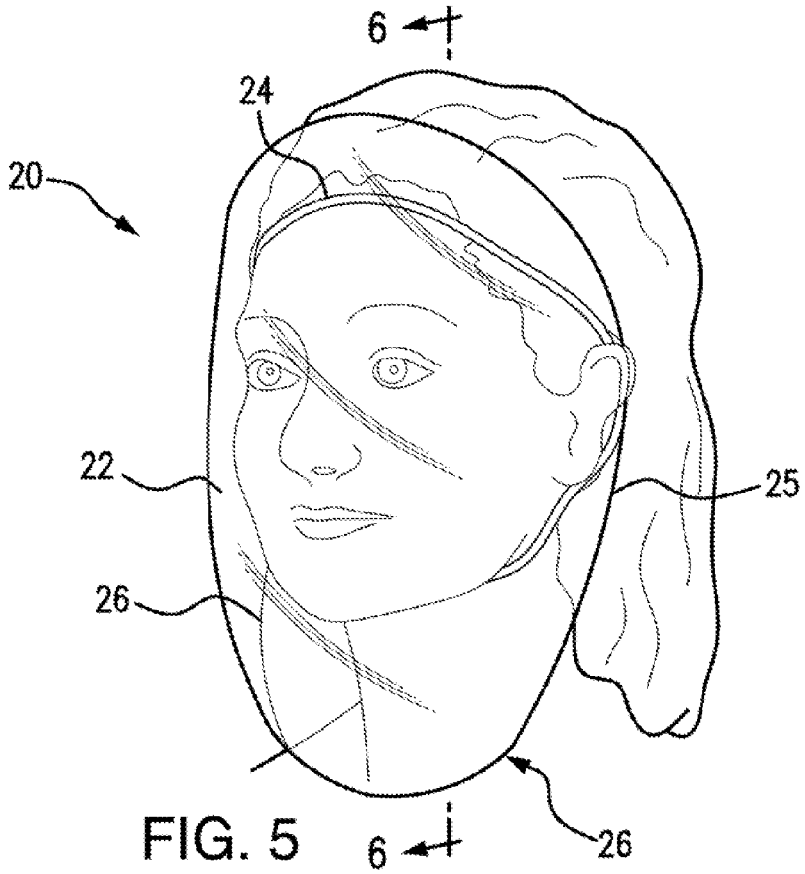


FIG. 5

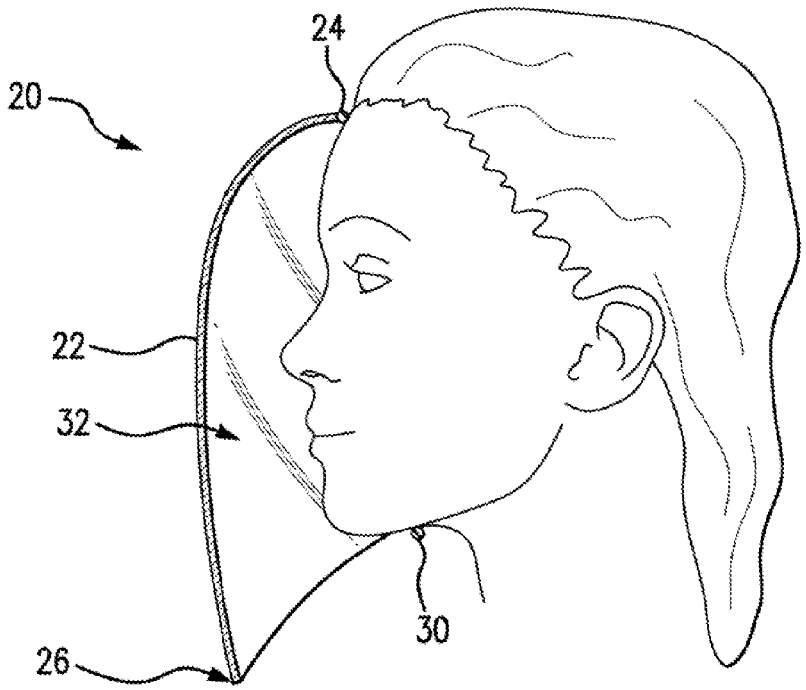


FIG. 6

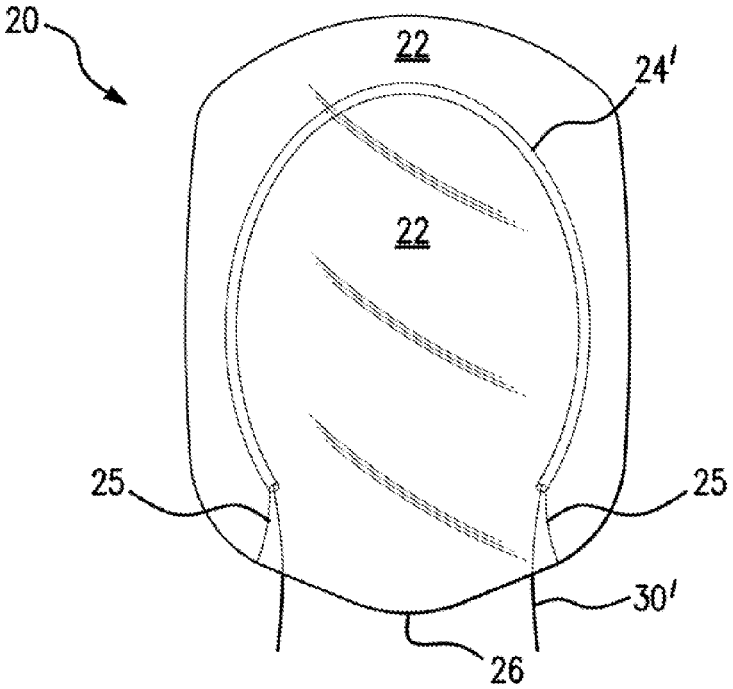


FIG. 7

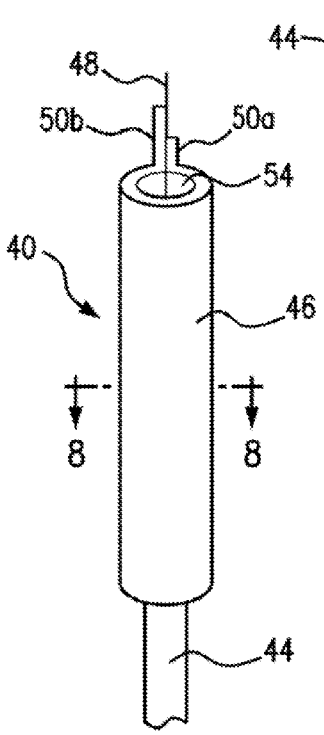


FIG. 8A

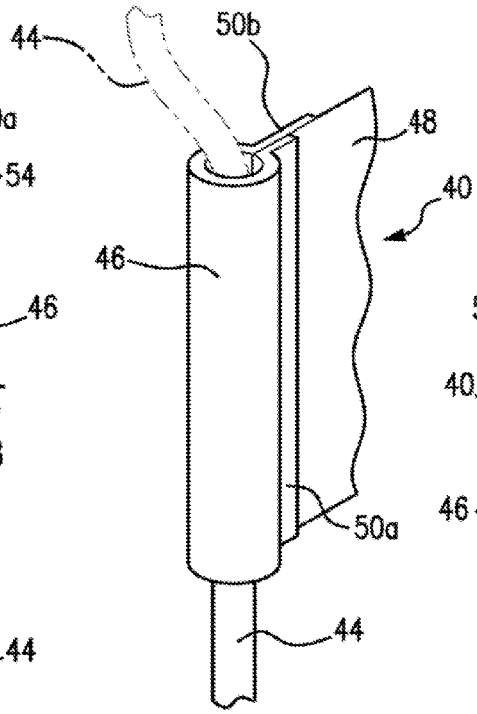


FIG. 8B

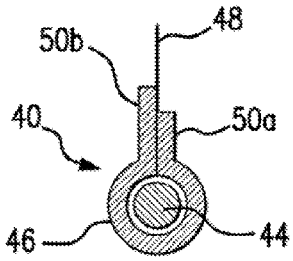


FIG. 8C

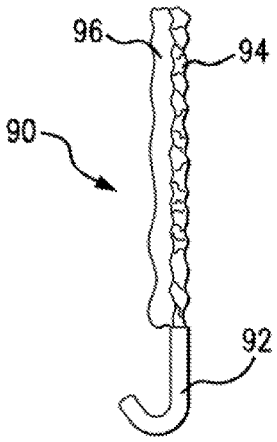


FIG. 9

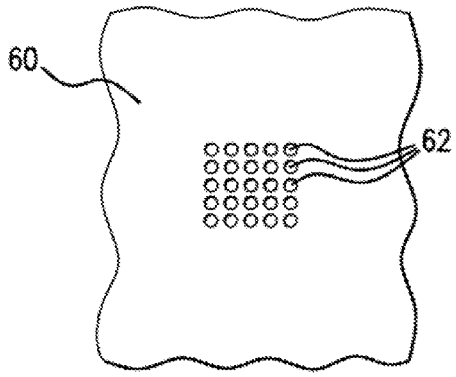


FIG. 10

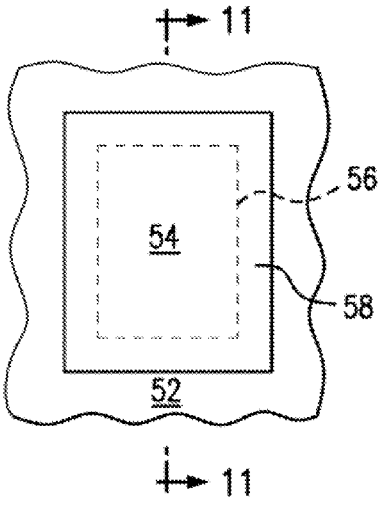


FIG. 11A

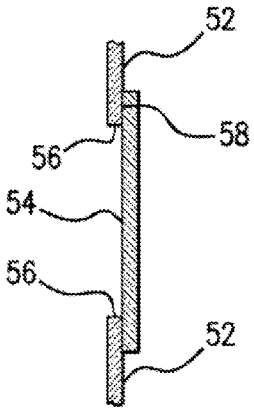


FIG. 11B

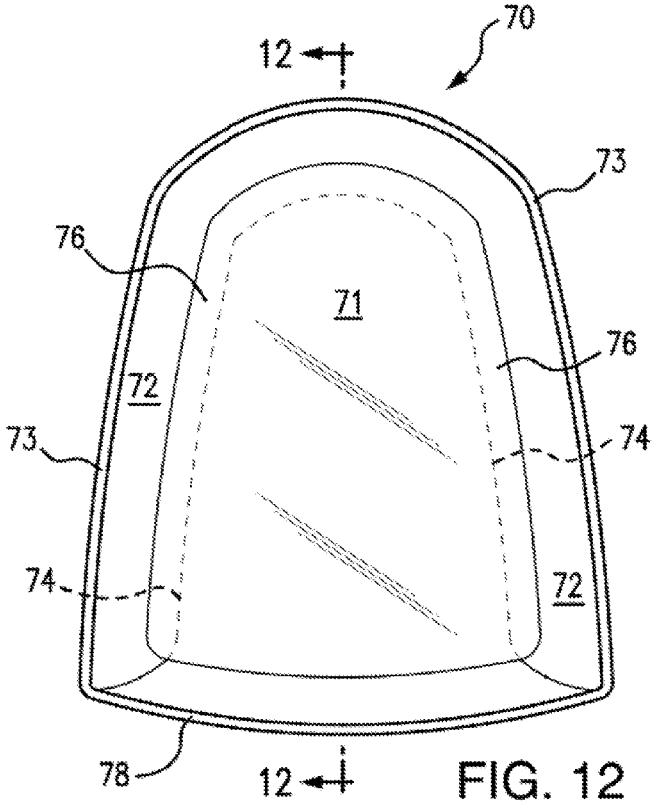


FIG. 12

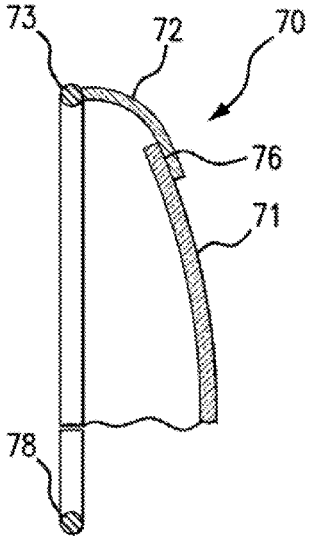


FIG. 13

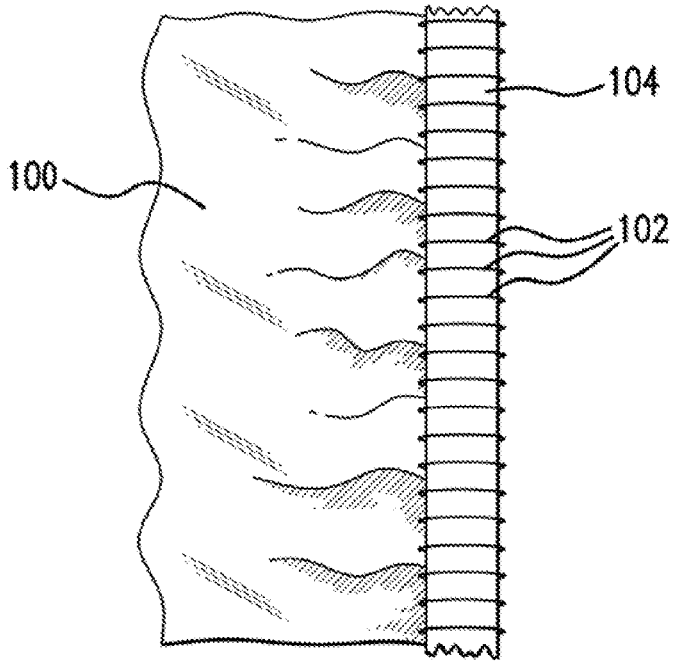


FIG. 14A

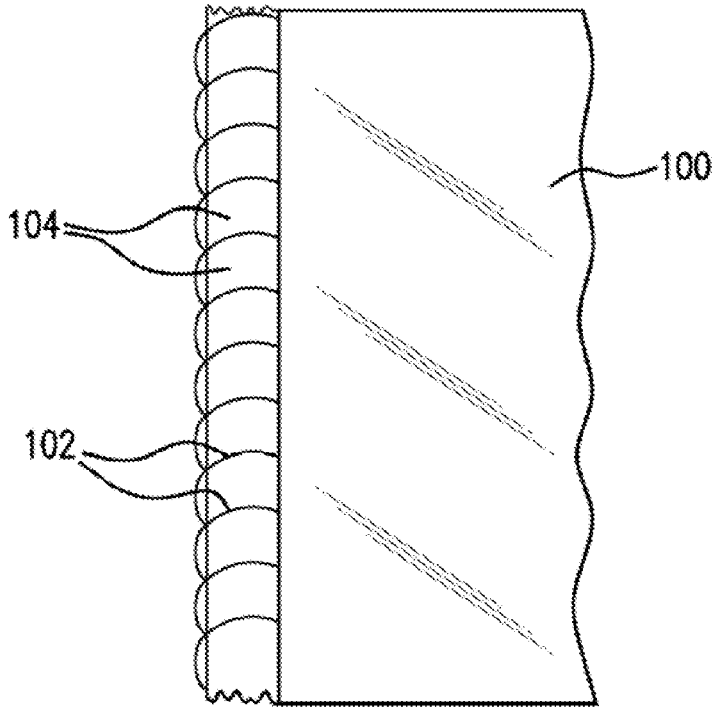


FIG. 14B

FACIAL MASK

[0001] The present application relates to a mask for use in isolating one's face from the environment, especially for protecting one's make-up, protecting areas treated with medicament but without bandages. protecting bandages or exposed wounds, and the like. For example, the novel mask allows one to shower and/or wash one's hair without allowing water to cascade over one's face, Specifically, there is provided a water impermeable facial mask, most notably a polymer film, having an elastic band or drawstring which securely, and preferably in a watertight manner, holds the facial mask in place so as to enable one to take a shower and/or wash one's hair while keeping water away from the face.

BACKGROUND

[0002] Numerous articles have been developed for protecting various portions of the body from exposure to water so that the remaining exposed areas of the body can be washed. Perhaps the most commonly known and simplest of these articles are shower caps which are designed to prevent one's hair from getting wet while showering.

[0003] Conversely, there are also many times when one desires to wash one's hair without exposing any other areas of the body to the flow of water. To that end, a number of visor type shields have been developed for use in salons and other instances where another person is washing the wearer's hair over a sink. These articles block and redirect the water along the visor edge and away from the face and into the wash sink. Examples of such devices are shown in, e.g., Thompson—US 2010/0138979 A1; Shao—US 2010/0154100 A1 and Matthews—U.S. Pat. No. 5,940,885. However, these articles are not suitable if one is intending to wash one's own hair or shower generally.

[0004] In other instances, there is a need to keep water from one's face when showering, particularly where the individual has had a medical procedure or endured a wound which must stay dry, e.g., eye surgery. To that end, a number of face shield type articles have been developed and are commercially available for enabling one to wash one's hair while keeping the area under the shield dry. These articles comprise a plastic shield with an adhesive edge which allows the user to bond the shield to the forehead and along the temple region to create a water-tight seal. Exemplary articles are shown in, e.g., Forbes—U.S. Pat. No. 4,856,535; Vega et. al.—U.S. Pat. No. 7,272,860 B2; and Kayerod—US 2008/0066209 A1. One of the better known, commercially available articles is sold under the tradename StayDry FaceShield (www.staydryfaceshield.com).

[0005] While each of the foregoing articles achieves its intended objective, none of these articles is capable of allowing an individual to wash one's hair without compromising their make-up or without soaking bandages or exposed wounds and/or washng away a medicament that has been applied to the face. As noted above, the visor-type articles do not allow the user to wash their own hair, and are certainly not appropriate for use in a shower. The face shields, on the other hand, do not protect the whole of the face and, more critically, involve the use of adhesive strips on the shield which is directly applied to the forehead and temple region. Accordingly, these devices would have a difficult time properly adhering to make-up covered skin and, more importantly, would in any event adversely affect, if not result in the removal of, the pre-applied make-up. Furthermore, many people have sensitivities to various adhesive products and/or their constituents and, hence, the use of these materials may lead to irritancy, edema, and the like on the skin of the user at the site of the adhesive band

[0006] It is not uncommon for some women to spend upwards of thirty minutes or more applying make-up in the morning. Should they have an engagement later that day or evening for which they desire to shower and freshen up, their options are to just shower the lower part of their body or take a full shower, with loss of the previously applied make-up and go through the full exercise of reapplying the make-up.

[0007] Thus, there is a need for an article which allows a user to take a shower, preferably showering and washing one's hair, without compromising or adversely affecting make-up that has previously been applied to one's face or soaking bandages or exposed wounds and/or washing away medicaments that have been applied to the face.

[0008] Furthermore, there is a need for such a device that is light-weight and compact so that it can be placed in one's purse and carried to the gym, health facility, tennis club, golf club, the office, etc., where one may, have access to a shower so as to be able to freshen up before going on to other activities.

[0009] Similarly, there is a need for such an article that is inexpensive and disposable so that one does not have to worry about carrying around the wet article; rather, it can be seen as a throw-away article. Indeed, there is a need that hotels, clubs, pools, etc., can make available and/or give away with minimal cost to the facility.

[0010] Furthermore, there is a need for an article which allows a user to take a shower, and preferably wash one's hair, while keeping the face or portions thereof dry, without the need for adhesives for securing the article to one's skin,

SUMMARY OF THE INVENTION

[0011] According the to the present invention there are provided facial masks which allow one to shower and/or wash one's hair, whether in a shower, over a sink, or elsewhere, while maintaining the facial region dry and without the need or use of adhesives in order to secure the facial mask to the user's facial region. Most beneficially, there are provided facial masks which allow one to shower and wash one's hair without compromising one's previously applied make-up.

[0012] According to a first embodiment of the present invention there is provided a facial mask comprising a pliant plastic film and an elastic rim or band associated with or affixed to the circumferential edge of the plastic film, and interior cavity and an opening for receiving a person's face, which mask, when worn by the user, isolates the facial region of the user from shower water and/or water that may be used to wash one's hair. The plastic film used to make the mask will have an air permeable region which, in use, preferably overlays the nose and/or mouth, to allow the inflow of fresh air into the volume of the mask. Air permeability may be attained by placing a plurality of perforations, especially micro-perforations, in the plastic film. Alternatively, one may incorporate a patch or region or an air permeable or breathable plastic or fabric into the plastic film, preferably, again, about that area that, in use, will overlay the nose and/or r outh of the user.

[0013] According to a second embodiment of the present invention there is provided a facial mask in the form of a veil comprising a pliant or semi-rigid; plastic film and an elastic rim or band associated with or affixed to a substantial portion of its circumferential edge and either a continuation of the elastic band or the addition of a length of a non-elastic strip, lace, tie, or the like material extending between the two points at which the elastic band is associated with or affixed to the circumferential edge of the plastic film so as to form or serve as a chin strap which, in use, will be secured under the chin. Alternatively, the extra lengths of the elastic band or non-elastic strip, lace, tie, or the like material extending may simply hang freely as ties from the point at which it is attached, generally at or near the point where the elastic rim or band ends, which ties are of sufficient length to allow the user to tie the two ends together under the chin: thereby securing the facial mask in place. As with the first embodiment, the film and elastic band or rim define an interior cavity with the elastic band or rim further defining an opening through which the user inserts their face into the interior cavity. With this embodiment, the lower edge of the plastic film merely hangs down from the forehead to a point below the chin, so that the bottom area between the lower edge of the plastic film and the individual is open to readily allow for the inflow of air.

[0014] According to a third embodiment of the present invention there is provided facial mask comprising a pliant or semi-rigid plastic film, preferably with a curvature thereto which defines an interior cavity, having an elastic rim or band associated with a substantial portion of its circumference and defining an opening through which the use inserts their face, as described in the prior embodiment, but with two rigid "J-shaped" elements attached to each end of the elastic rim or band which "J-shaped" elements are configured to catch under the ear of the user to thereby hold the mask in place.

[0015] According to a fourth embodiment of the present invention there is provided a facial mask similar to those of the first two embodiments except that instead of the elastic band or element, a seam is associated with or sewn into the circumferential edge of the plastic film or that portion thereof consistent with the embodiments which seam forms a passage along the edge of the plastic film for the length that, in the prior embodiments has the elastic rim the passage having an opening or a discontinuity or gap with end openings, and a drawstring threaded through the length of the passage and each end of the drawstring extending out of the opening(s) of the passage such that when the mask is worn, the user pulls the drawstrings taut and ties them under the chin so as to secure the mask over one's face. The discontinuity or gap in the seam may simply be a cut or opening in the seam or it may represent a small gap along the periphery of the plastic film as in one iteration of the first embodiment or it will coincide with that portion of the periphery that is free of the elastic band or element in the second embodiment, In the latter, the seam will be of such a length as to allow it, in use to extend from the area at or below one ear, over the forehead and ending at the area at or below the other ear.

[0016] Finally, according to another embodiment, each of the foregoing embodiments may employ a plastic film body which is a construction of at least two different film materials, one a rigid or semi-rigid material and the other a flexible or pliant material. Here, the center region of the mask is made of a rigid or semi-rigid material and the periphery of the mask is formed of a pliant or flexible material, at least that portion of the periphery of the mask having associated therewith or integrated therein the elastic band or the seam. For example, with the first embodiment, the pliant or flexible film will completely encircle the rigid or semi-rigid film whereas in the case of the second embodiment, the pliant or flexible film need only encircle that portion of the semi-rigid film corresponding to the length of the integrated elastic band or seam.

BRIEF DESCRIPTION OF THE FIGURES

[0017] FIG. **1** is a perspective view of a full face mask with an elastic band.

[0018] FIG. **2** is a cross-sectional view of the full face mask of FIG. **1** taken along the line **2-2**

[0019] FIG. **3**A is a plan view of the full face rr ask of FIG. **1** lookinlooking through the opening into the cavity of the facemask.

[0020] FIG. **38** is a plan view of the full face mask of FIG. **3**A rotated 45°.

[0021] FIG. **4** is a perspective view of a full face mask having a drawstring band.

[0022] FIG. **5** is s perspective view of a veil type face mask.

[0023] FIG. **6** is a cross-section view of the veil type face mask of FIG. **5** taken along line **6-6**.

[0024] FIG. **7** is a plan view of the veil type face mask looking through the outer surface of the face mask.

[0025] FIG. **8**A is a partial view of a drawstring type closure band.

[0026] FIG. **88** is a partial view of the drawstring type closure band of FIG. **8**A rotated 45°.

[0027] FIG. **8**C is a cross-sectional view of the drawstring closure band of FIG. **8**A taken along line **8-8**.

[0028] FIG. **9** is a partial view of an ear hook attachment to an elastic closure band.

[0029] FIG. **10** is a partial view of face mask body having a microporeus region.

[0030] FIG. **11**A is a partial view of a face mask body having a patch of a porous material overlaying an opening in the face mask body.

[0031] FIG. **11**B is a cross-sectional view of the face mask, body of FIG. **11**A taken along line **11-11**.

[0032] FIG. **12** is a perspective view of a hybrid veil type face mask having flexible and less or non-flexible regions.

[0033] FIG. **13** is a cross-sectional view of hybrid veil type face mask of FIG. **12** taken along line **12-12**.

[0034] FIGS. **14**A and **148** are partial views of a face mask with an elastic band in a relaxed and extended state, respectively.

DETAILED DESCRIPTION OF THE INVENTION

[0035] According to the present specification there are provided facial masks for protecting the face from contact with various elements in the environment depending upon where an individual is, For convenience, the discussion herein is presented with respect to the use of the mask in preventing water contact, especially while showering or while washing one's hair, or both. However, it can also be used to protect bandages or exposed wounds and medicaments applied to the face from being soaked or washed

away, respectively, or while showering or washing one's hair. Furthermore, its use is not limited to showering or washing hair as it is likewise useable in the event of a sudden cloudburst or downpour, in situations where a worker is creating a lot of dust and want to keep the dust from the face, protecting make-up, medicament, exposed wounds or bandages from contact with clothing as one is putting on and taking off articles of clothing over one's head, etc. Hence, the term "facial mask" as used herein and the appended claims refers generally to the articles disclosed and claimed herein regardless of whether actually used or intended for use in a shower setting, over a sink, in a stream, and regardless of what they are protecting one's make-up, bandages, wounds, medicaments or the like. Additionally, it is to be understood that Applicant's use of the terms periphery and circumference, and variants of each, is a common use and refers to that region of the specified film or film element at and/or near its outer edge. Furthermore, when speaking of an element substantially encircling or being associated with substantially all of the edge or periphery of the film, it is to be appreciated that it is associated with at least 50%, preferably at least 60%, more preferably at least 70% of the periphery or edge of the film. Finally, the phrase "substantially impermeable to water" and similar phrases means that shower water or rain water hitting the outside of the mask will not, under normal circumstances, penetrate through the mask surface in an amount that will adversely affect ones make-up, wash away any medicament, soak any bandage, etc, Indeed, if there is any penetration through the mask surface, it is likely to just drip down the inside surface of the film.

[0036] The facial masks according to the present invention comprise two critical elements: the mask body of the facial mask which defines an interior cavity and the seal and closure means or elements mask which define an opening through which the user inserts their face into the interior cavity. The mask body comprises a single piece of a plastic film or a construction of two or more pieces of aplastic film. The seal and closure means may comprise a single element, such as an elastic band associated with or affixed to the circumferential edge of the mask body or a plurality of elements associated with all or substantially all of the periphery of the mask body for creating a water tight, or nearly so, seal at the interface between the mask edge and the face of the user and for securing the facial mask to the wearer: all as more clearly described below,

[0037] As noted, the mask body comprises a single piece of, a plastic film or a construction of two or more pieces of a plastic film. Most preferably, the mask body may comprise a single piece of water impermeable or substantially water impermeable, low water absorbing polymer film which is both pliable and most preferably transparent or translucent. Alternatively, the mask body may comprise a construction of two or more films, preferably two films, one formed of a rigid or semi-rigid material and the other of a flexible or pliable material. Here, the center region of the mask body is made of the more rigid material and the periphery of the mask is formed of the pliable material: the two materials being bonded to one another by an adhesive, a fusion bond, or the like, with the pliable material completely or substantially encircling the outer edge of the more rigid film: much like a halo would encircle ones head. This feature is shown in FIG. **12**, which is discussed in greater detail below.

[0038] Suitable polymers from which the films may be formed include natural, synthetic and biodegradable polymers: the latter being especially desirable for disposable facial masks, Exemplary polymeric materials from which the films, pliable and rigid or semi-rigid, may be made include cellulose: polyolefins such as polyethylene, including low density polyethylene (LOPE), linear low density polyethylene (LLDPE), and high density polyethylene (HOPE), polypropylene, including oriented polypropylene (OPP), and ethylene-propylene copolymers; polyvinyl chloride; polyamides; polyvinylidene chloride; polystyrene; polyesters, especially the biodegradable polyesters, especially the aliphatic polyesters like polycaprolactone and copolymers incorporating the same and/or various starches into the polymer chain and/or polymer composition, non-biodegradable polyesters like polyethylene terephthalate; polyimides; and the like, All of which are well known as is the method of making films therefrom.

[0039] The piece of polymer film from which the facial mask is made may be round, elliptical, oblong or any other suitable shape so as to be capable of readily and comfortably encasing the face, and is preferably round or elliptical. The facial masks may be made in any number of sizes, most preferably, the polymer films will be cut to a set number of standard dimensions so that one mask will fit a select grouping of individuals with similarly sized heads and facial regions: much in the way gloves come in multiple standard sizes. The goal is to provide a facial mask which is easily placed upon and removed from the individual and comfortable while being worn.

[0040] As noted above, the mask body is most preferably comprised of a single piece of a pliable polymer film and, thus, is readily able to fit over the individual's face. Pliability arises from both the polymer used and the thickness of the polymer film, Generally speaking, the thickness of the pliable polymer film will be on the order of from about 0.25 to 6 mils, preferably from about 0.35 to 3 mils, most preferably from about 0.4 to 1.5 mils. It will be appreciated that thicker films are also useful and may give more rigidity to the mask body so as to prevent the facial mask from readily collapsing against the face as one shower.

[0041] Though likely too expensive for wide commercial acceptance, as noted above, it is also contemplated that the mask body may be, comprised of a plurality of polymer films, preferably two films one a more pliable film about the periphery of the mask body and the other a stiffer material over the face itself. Both pieces of film may be made of the same polymer, in which case the thickness of the more rigid film is considerably greater than that of the outlying pliable film. Alternatively, and most likely, the two pieces are each made of a different polymer so as to maintain a common, or nearly so, thickness and light weight of the facial mask. In one method of its production, especially if the more rigid material is only semi-rigid, a single film may be formed of the two polymers, e.g., by co-extrusion, The so formed film will have an A:B:A cross section as follows: pliable:semi-rigid: pliable. Even though this film is actually a single film of the two polymers in a side-by-side relationship, for the purpose of this disclosure, the film is deemed a construction of two films.

[0042] Alternatively, and preferably, as shown in FIGS. **12** and **13** and discussed in greater detail below, one could bond a halo of a more pliable film along the outer periphery, or a substantial portion of the outer periphery, especially in the

case of a veil type facial mask, of a stiffer mask body element. In this embodiment, one could employ a rigid or semi-rigid polymer central portion which, optionally, could be thermoformed to be generally contoured to the shape of the face. This rigid central portion allows the wearer to have a more transparent view, as with a diver's face mask, than attainable with a billowy, pliable film. At the same time, the readily pliable film forming the outer periphery of the facial mask body allows for the securing of the facial mask to the face without the formation of gaps which would likely occur as the rigid material could not adjust to contours in the features of the individual's face and forehead,

[0043] The second key element of the shower face mask according to the present specification is the seal and closure mechanism. This is the portion of the facial mask responsible for securing the facial mask in place in a water tight or substantially water tight manner. Several options exist for the seal and closure mechanism depending upon the style of facial mask to be made, encasing or veil type, and whether one desires a tie closure or an elastic resistance closure.

[0044] The encasing facial mask is one in which the full face is to be encased within or placed in the interior cavity or volume of the mask. The seal and closure mechanism of the encasing facial mask runs along the forehead (generally along the hairline), down behind the ears, under the jawbone and chin, The seal may be continuous or there may be a small gap in the seal under the chin depending upon the specific closure mechanism employed. In the case of a small gap, as will be discussed below, the closure mechanism, which is integrated into or associated with the periphery of the plastic film, is not so integrated for a small portion of the periphery of the mask, generally less than 10%, preferably less than 5%, more typically on the order of a few inches or so (e.g., 1 to 6, preferably 2 to 3 inches or so) and the closure mechanism has free ends that can be tied to secure the mask in place.

[0045] Typically, with the encasing facial mask two types of closure mechanisms are contemplated. The first is a band, strip, string, or the like having elastic properties, hereinafter the elastic band. The elastic band may be a continuous ring, like a typical rubber band, or a length of an elastomeric material and is most typically made of a rubber, The elastic band, whose circumference, in the case of the continuous ring, or length in its relaxed state is much smaller than the outer circumference of the plastic film. Here, the elastic band is sewn into the outer edge or circumference of the film element using stitching which allows the elastic band to move relative to the plastic film, This allows for a bunching up of the film along the band in its relaxed state; yet, also allows one to increase the circumference of the opening into the volume of the mask body owing to the stretchable nature of the elastic band, the loose stitching and the excess film in the mask body. With the facial mask in place, the individual releases their hold on the elastic band and the tension of the elastic band pulls the circumference of the mask body into a sealing, taut relationship with the individual's skin.

[0046] The second type of closure mechanism is the drawstring type mechanism. In this embodiment, the circumferential edge of the plastic film has associated therewith or sewn therein a seam or pliable tubular element which forms a passage along at least a substantial portion, preferably at least 60%, more, preferably at least 70%, of the edge of the plastic film, the passage having an opening at each end, A drawstring is threaded through the length of the passage and each end of the drawstring extending out of the openings of the passage such that when the mask is worn, the user pulls the drawstrings taut and ties them under the chin so as to secure the mask over one's face.

[0047] The most economical embodiment of the drawstring mechanism is that wherein the outer edge of the film comprising the mask body is folded over onto itself so as to form an area of overlap along the peripheral edge of the film. The overlapped, outer edge of the film is bonded or sewn along the edge so as to create a channel within the overlap region along the outer circumference of the mask body. A small area of overlap is not bonded or sewn so as to create and opening to allow fora drawstring to be inserted into and through the entire length of the channel, emerging out the other end of the channel. In the case of a circular film, the placement of the opening it not an issue; however, in the case of an elliptical or oblong shaped mask body, the opening will be placed in that area which corresponds, in use, to the region that would be under the chin. In this embodiment, the discontinuity in the seam may be nothing more than a cut through the seam which allows the drawstring to effectively enter and exit the seam at the same point on the periphery of the facial mask body or there may a small gap, perhaps an inch or two, which gap closes up, or substantially so, when the drawstring is pulled taut. In the latter instance, a "V" shaped cut out of the mask body may be made at the point of the gap so as to prevent interference of the bunched up film with efforts to tie the drawstring during use.

[0048] Because the entire face is within the volume of the face mask of the encasing type facial mask in use, it is important to ensure proper ventilation for breathing: plastic films otherwise being a known suffocation hazard. Thus, it is important to modify the mask body to enable air flow, especially or preferably in the central region of the film, i.e., that region of the film which, in use, overlays the nose and/or mouth. This may be readily accomplished by introducing a plurality of perforations into the film. The perforations may be formed by any known method including mechanical puncture, high energy perforation, laser perforation, thermal perforation, hot needle perforation, and the like, The perforations will be of minimal dimension/diameter so as to prevent or minimize water penetration into the volume of the face mask. Typical diameters of the perforations will be on the order of a millimeter or so and less: generally providing hole patterns of about 25, more preferably about 50, or more holes per square inch. upwards of 160 or more per square inch. The perforations could also be micro-perforations whose hole patterns are on the order of up to 5000 holes per square inch.

[0049] Alternatively, one may introduce an air permeable element into the mask body. Here a portion of the mask body is removed and replaced with a patch of an air permeable, water impermeable material. Typically, a hole of perhaps about one to two square inches is removed and a large patch of the air permeable material placed to overlay the hole, The patch could be a woven or non-woven fabric, especially one that is naturally or treated to be water repellant. Most preferably, the patch is made of a polymeric material in which air permeability has been imparted to the film. In either case, the patch is sewn, adhered, heat bonded, etc., as appropriate for the chose patch material, to the mask body.

[0050] Other means, e.g., inserts, may be employed to add ventilation to the encasing mask, all as will be readily

appreciated by those skilled in the art; however, with current technology, it is most preferred to merely add the perforations directly to the mask body as first discussed above.

[0051] The second type of facial mask is the veil type mask. In this embodiment, the seal between the outer periphery of the facial mask and the user's face does not continue down under the jawbone, and typically ends at or just below the ears. The closure mechanism will, however, continue under the jawbone and chin. In this manner, the lower portion of the mask body hangs free and open so that ample ventilation is allowed into the volume of the facial mask while the closure mechanism still provides the necessary tautness to hold the facial mask in place.

[0052] As noted, both the elastic band and drawstring type closures and seals are employed with the veil type facial mask: the difference here being that the elastic band is only sewn into a portion of the outer circumference of the mask body, the remainder being free to serve as a chin strap. Similarly, the seam through which the drawstring passes in the case of the drawstring closure ends at or below each ear so that the drawstrings themselves are much further exposed, but still tie under the chin. All is will be more clearly shown in the figures, to be discussed below.

[0053] Yet an alternative to the elastic band seal and closure mechanism is one wherein the elastic band ends at the point where it is no longer to be sewn into or affixed to the periphery of the mask body. Here, two rigid "J-shaped" elements are sewn into, affixed to or otherwise attached to each end of the elastic band or the seam containing the same: the "J-shaped" elements intended to hook under each ear. The positioning of the "J-shaped" elements and the length of the elastic band are such that when the "J-shaped" elements are hooked under each ear and released, there is still sufficient tension or elastic memory in the elastic band to secure the facial mask in place and create the water tight or substantially water tight seal along the elastic band. Alternatively, instead of the "J-shaped" elements, drawstrings may be sewn into, affixed to or otherwise attached to each end of the elastic band or the seam containing the same which drawstrings are then used to tie the facial mask in place. Again, in these embodiments, as in all the veil type embodiments, the film of the mask body will continue to a point below the jawbone, preferably to a point an inch or two or more below the chin.

[0054] Having generally discussed the nature of the facial mask and its make-up, attention is now drawn to the figures which more clearly depict the various embodiments of the facial mask and their use.

[0055] FIGS. **1** thru **4** depict an encasing type facial mask **1** wherein the mask covers the full face, In essence, this particular embodiment is similar to a traditional shower cap with the exception that instead of wearing it on one's head with one's hair within the volume of the cap, here the user's face lies within the volume or interior cavity **9** of the mask body **2**, Specifically, the facial mask is worn so that the elastic band **4**, which provides an opening **11** in the facial mask for insertion one's face into the interior cavity, encircles the face beginning with the forehead, preferably at the hairline, passing down behind each ear and then under one's chin. The elastic band is sufficiently taut that a watertight, or nearly so, seal is formed between the elastic band and the skin. As shown in FIGS. **14**A and **146**, an elastic band **104** is sewn onto the outer perimeter of the plastic film forming the mask body **100** by a plurality of stitches **102**. In the relaxed state of the elastic band (FIG. **14**A), the stitches appear close together and the film is bunched up, as depicted by the squiggly lines in the mask body **100**. However, when that same length of elastic band is stretched to its full extent (FIG. **14**B), the stitches are much more distant from one another and the film is mostly taut or flat, though some, comparatively minor, bunching up is still likely.

[0056] A structural feature distinguishing the present facial masks from a typical shower cap is the presence of an air permeable region **3** about that portion of the mask body that will overlay the mouth and/or nose. The air permeable region ensures that the wearer will be able to breath in fresh air while showering. Of course, the air permeable region could be located elsewhere on the mask body, for example under the chin, along the jaw bone, or the whole the facial mask could be formed of a water impermeable, air permeable material, However, for cost effectiveness, ease of producing, and comfort/piece of mind for the wearer, its location about the mouth and nose is most desirable.

[0057] FIGS. **10**, **11**A and **11**B depict two different embodiments of the air permeable region. In FIG. **10** the air permeable region is one in which a plurality of holes, especially micro-perforations, **62** have been place in the film of the face mask **60**. Alternatively, FIGS. **11**A and **11**B show an embodiment wherein a patch of an air permeable material **54** has been placed over an opening **56** in the body of the face mask **52** with the air permeable material being affixed to the face mask in the overlapping region **58**. The affixing of the two along the region of overlap may be accomplished by use of an adhesive, a solvent which causes one or both materials of the, patch and the mask to soften and become tacky so that they bond before the solvent is evaporated, or they may be welded together, e.g., by a heat weld, ultrasonic weld, or the like, The patch may be formed of a breathable fabric, especially one that has been treated with a water repellant, or it may be another plastic film in which perforations or holes have been made.

[0058] A second embodiment of an encasing type facial mask is shown in FIG. **4**. Like the previous embodiment, this embodiment employs a mask body **12** which covers and envelopes the user's face in an interior cavity or volume, However, here, instead of the continuous loop band, a drawstring type mechanism **10** is employed to hold and seal the facial mask to the face. Specifically, this embodiment employs a tubular seam **18** having a drawstring **14** within the seam. The tubular seam may be formed from the outer perimeter of the face mask body, e.g., by rolling the outer edge or the face mask body over onto itself and sewing or sealing the edge to create the tubular perimeter. Alternatively, the perimeter may be formed of a separate tubular or tubular forming element that is sewn onto the outer perimeter of the mask body. The tubular seam **18** is not continuous and a gap **16** is present in that region of the face mask that would lie under the chin. As shown in FIG. **4**, the gap is moderate in length, generally about an inch or so; but it could also be nothing more than a simple cut through the tubular seam **18**. Where the gap **16** is moderate or large, a "V" section may be cut out of the mask body, as shown in FIG. **4**, to avoid too much bunching up which may interfere with one's effort to pull the drawstring taut and tie the ends of the drawstring.

[0059] FIGS. **8**A, BB and **8**C depict one version of a drawstring-type mechanism **40**. Here a strip **46** of a water

repellant fabric or a heavier gauge plastic film (thicker than that used for the mask body **48**) is rolled to form a tube with the longitudinal edges of the strip **46** folded over and overlapping one another. The outer perimeter of the mask body is clasped or sandwiched between the opposing longitudinal edge flanges **50***a* and **50***b* and the set-up sewn or sealed along the mated flanges, but leaving an open channel **54** along the length of the fold. Sealing maybe accomplished by an adhesive action, i.e., use of an adhesive or a solvent that causes the material of the strip **46** and/or the mask body **48** to become tacky and adhere to one another before the solvent evaporates. Sealing may also be accomplished by a conventional heat seal or welding technique. Once the seal and channel are formed along the full length of the fold, a drawstring **44** is then threaded though the channel.

[0060] Although the embodiment shown in FIGS. **8**A, **8**B and **8***c* shows an offset of one flange portion **50***a* to the other **50***b* , whereby one edge flange extends past the other, it is to be appreciated that both edge flanges could end at the same point. It is shown as presented to help accentuate the fact that the film of the mask body is sandwiched between the two flanges. Also, it is to be appreciated that a separate strip element **46** need not be used and that the tubular seam may be formed directly into and out of the outer perimeter of the mask body so long as the durability of the plastic film of which it is made has sufficient strength and integrity to allow for proper and efficacious use of the drawstring closure process in pulling taut the face mask around the face.

[0061] A veil type facial mask **20** is shown in FIGS. **5**, **6** and **7**. Like the embodiment of FIG. **1**, this embodiment also employs an elastic band **24**/**30**; however, here the elastic band is only sewn into or affixed to the periphery of the mask body **22** to a point at or just below each ear and either the ends of the elastic band are allowed to hang freely or a non-elastic strip, lace, tie, or the like if fixed to the rim at the point where the elastic band ends and is allowed to hand freely as a tie element **30**. In use the ties are then used to tighten and secure the veil type facial mask in place. Alternatively, as noted above, the elastic band may be a continuous (loop) band where that portion which is free of the mask body serves as a chin strap to be tucked under the chin and hold the facial mask in place. The seal, then, is formed across the forehead hairline and down behind the each ear and ending at or just below each ear, establishing an opening into which the user inserts their face. The mask body **22**, however, will continue to extend downward and ending at a lower edge **26** which, in use, falls below the chin, preferably at least about two or three inches below the chin. Even from the point where the elastic band **30** is no longer affixed to the mask body **22**, the mask body will continue to extend below the ear for about an inch or two **25** where it will meet with the lower edge **26**. The lower edge **26** of the mask body generally follows the shape of the, jawbone, as more clearly seen in FIG. **5**, but below the jawbone, preferably a couple or a few inches or so below the jawbone. As with the prior embodiments, the mask body defines a cavity **32** in which the face of the user resides in use.

[0062] FIG. **7** shows a variant of the veil type facial mask wherein the seal, and closure mechanism is of the drawstring type. Here the seal **24'** is a channel forming seam or tubular element having a drawstring **30'** threaded through the channel or tube. Reference again is made to FIGS. **8**A, **8**B and **8**C, as discussed above. Once again, in use the drawstring is drawn taut and tied below the chin, Alternatively, it is to be appreciated that the seal and closure elements could involve an elastic band along the periphery of the mask ending at or below the ear on each side with a drawstring sewn in at or near the point where the elastic band ends, which drawstring is then pulled and tied to hold the mask in place. FIG. **7** also more clearly shows the edge **25** of the, mask body extending from the point where the seal ends to the lower edge of the mask body.

[0063] As noted above, another alternative closure mechanism **90** for the veil type facial mask is shown, in part, in FIG. **9** wherein two rigid "J-shaped" elements **92** are employed to hook under the ear, thereby securing the facial mask to one's head. Specifically, the "J-shaped" elements **92** are sewn into each end of the elastic band **94** or the seam at the point where the elastic band ends: this, corresponds to the point where the elastic band **24**/**30** ceases to be sewn into the mask body **22** in FIG. **5**. Instead of having the elastic band continue as in the embodiment of FIG. **5**, it ends there and the "J-shaped" elements are integrated instead. In use, the, user places the seam containing the elastic band **94** along the upper edge of the hairline across the forehead, then pulls down on and allows the ends of the "J-shaped" elements **92** to catch under the ears. The user then releases the "J-shaped" elements and the tension of the elastic band sewn into the seam keeps the face mask taut against the skin.

[0064] Finally, FIGS. **12** and **13** show a further variant of the veil type facial mask **70**. Here, the mask body comprises two different elements and films. The first element is a rigid or semi-rigid plastic film and forms the central region **71** of the mask body. The second element is a pliable film **72** which forms a halo about the central region. The inner edge **76** of the pliable film **72** overlaps a sufficient edge width **74** of the rigid or semi-rigid film **71** so as to enable the formation of a water-tight and durable bond, typically an adhesive or fusion type bond. The outer edge of the pliable film **72** forms or has associated therewith the seal and closure mechanism, in this case a sewn in elastic band **73**. The elastic band continues from the point where it is no longer sewn into or affixed to the pliable film **72** and servers as a chin strap **78**, similar to that embodiment shown in FIGS. **5** and **6**,

[0065] As noted above, the facial masks according to the present teachings serve, as their fundamental purpose, as a means to keep various environmental factors, most notably water, from one's face. The most common application is for use in a shower or in other settings where one is washing one's hair, but, as noted above, it can be used as a quick protective device in the case of a sudden storm burst or downpour. Alternatively, it need not be limited to water exposure at all as there are situations where one may want to protect open or exposed wounds, areas of the face that have been treated with a topical medication, etc. from exposure to elements in the air, e.g., dust, pollen, etc. and/or to protect against contact of the same, with clothing while putting on and taking off articles of clothing. In addition to its versatility, another benefit and attribute of the facial masks of the present invention is their low cost and durability allowing for reuse, if desired, as well as a single use item that is used and tossed. The latter is especially attractive to hotels, clubs and the like that offer showers to their patrons. Another benefit, as noted above, is the compactness of the facial mask allowing them to be carried without difficulty in one's purse, backpack, computer case, etc., for

use when needed or when the unexpected happens and they are caught in the open during a downpour.

[0066] Although the present invention has been described with respect to specific embodiments and examples, it should be appreciated that other embodiments utilizing the concepts of the present invention are possible without departing from the scope of the invention. Thus present invention is defined by the claimed elements and any and all modifications, variations, or equivalents that fall within thee spirit and scope of the underlying principles set forth herein.

1. A facial mask comprising i) a pliant plastic film as the mask body having a circumferential edge or periphery and a central region and ii) a seal or closure means associated with or affixed to all or all but a small portion of the circumferential edge or periphery of the plastic film which facial mask is adapted to encase the whole of a person's face, said seal or closure means defining an opening for receiving a person's face and said pliant plastic film defining an interior cavity or volume of the mask in which the person's face is to be encased, said plastic film having an area thereof which is permeable to air but substantially impermeable to water so as to allow the user to breath without allowing shower water or rain water to penetrate into the cavity of the mask.

2. The facial mask of claim **1** wherein the closure means is an elastic band or element whose circumference is less than the circumference of the plastic film.

3. The facial mask of claim **2** wherein the elastic band or element is associated with or affixed to the entire periphery of the plastic film.

4. The facial mask of claim **2** wherein the elastic band or element is associated with or affixed to all but a small portion of the periphery of the plastic film and the mask further comprises ties that extend from the point where the elastic band or element ceases to be associated with or affixed to the plastic film.

5. The facial mask of claim **4** wherein the ties are merely a continuation of the elastic band or element.

6. The facial mask of claim **4** wherein the ties are a non-elastic strip, lace, tie, or the like material that is affixed at one end to the pliant plastic film at or near the point where the elastic band or element ends.

7. The facial mask of claim **1** wherein the seam or closure means comprises a passage sewn or integrated into the periphery and a drawstring passing through the length of the passage.

8. The facial mask of claim **1** wherein the mask body comprises a single piece of a water impermeable or substantially water impermeable, low water absorbing polymer film.

9. The facial mask of claim **1** wherein the polymer film is transparent or translucent.

10. The facial mask of claim **1** wherein the air permeable area comprises perforations or holes in the plastic film in its central region.

11. A facial mask comprising i) a mask body comprising a plastic film having a circumferential edge or periphery and a central region and ii) a seal or closure means associated with or affixed to at least a substantial portion of the circumferential edge or periphery of the, plastic film, said seal or closure means defining an opening for receiving a person's face which then is inserted into the interior cavity or volume of the mask defined by the pliant plastic film, said seal or closure means comprising either a) an elastic band or element for at least that portion of the circumferential edge or periphery for which the seal or closure means is associated therewith or affixed thereto and either a continuation of the elastic element or a non-elastic strip, lace, tie, or hook element which extends from the point at which the elastic band or element ceases to be associated with or affixed to the plastic film or b) a passage or seam and a drawstring passing through the passage or seam, said facial mask adapted to have the seal or closure means associated with or affixed to the periphery of the plastic film extend from a point at or below one ear across the forehead and end at a point at or below the other ear and wherein the plastic film, in use, extends to or below the chin of the wearer.

12. The facial mask of claim **11** wherein the seal or closure means is an elastic band or element,

13. The facial mask of claim **12** wherein the elastic band or element ends at the point where the seal or closure means is no longer associated with or affixed to the periphery of the plastic film and a non-elastic strip, lace, tie, or hook element extends from that point on each end of the elastic band or element.

14. The facial mask of claim **13** wherein the non-elastic strip, lace, or tie extends for a sufficient distance to allow the two to be tied together below the chin of the user.

15. The facial mask of claim **13** wherein a hook element is present and is adapted to hook under each ear in use.

16. The facial mask of claim **11** wherein the seal or closure means is a passage or seam through which a drawstring passes, the length of the drawstring being sufficient to allow the user to tie the two ends together under the chin.

17. The facial mask of claim **11** wherein the mask body is a pliable plastic film.

18. The facial mask of claim **11** wherein the mask body is partly made of a rigid or semi-rigid polymer film and a pliable polymer film.

19. The facial mask of claim **18** wherein the central region of the mask body is formed of a rigid or semi-rigid plastic film and the periphery is formed of a pliable plastic film.

20. The facial mask of claim **11** wherein the plastic film is, of an oval shape or, if it contains a rigid or semi-rigid plastic is partially curved.

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