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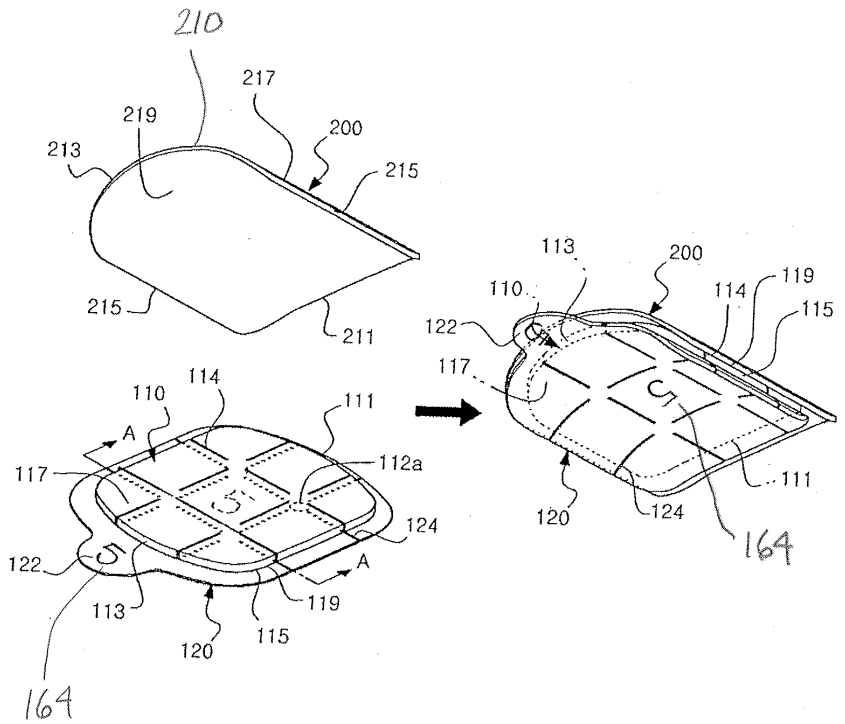
(54) **ARTIFICIAL NAIL HAVING SIZE INDICATION**

(57) An artificial nail for attachment to a natural nail includes a nail body having a bottom surface sized and shaped to be attachable to the top surface of the natural nail, a pressure sensitive adhesive disposed on the bottom surface of the nail body and a releasable backing film covering the pressure sensitive adhesive, wherein the releasable backing film has indicia indicating a size of the nail body.

FIG. 5



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Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates generally to artificial nails that are applied to natural nails with an adhesive, and more particularly to an artificial nail having size indicia for aiding the selection and application of an appropriate size artificial nail to the natural nail.

[0002] Artificial nails have been used for many years to enhance the cosmetic appearance of the fingers. Some individuals opt to use artificial nails because their own nails are too weak to grow to a desirable length without breaking. Others choose artificial nails because they are considerably stronger and more durable than natural nails, and because nail polish adheres better to the artificial nail surface. Some individuals are unhappy with the shape and contour of their natural nail and opt to use an artificial nail to improve the appearance of their nails.

[0003] It has been known in the art of adorning the hands to provide ornamental fingernail accessories made from thin, molded plastic members manufactured generally in the shape of a fingernail. Indeed, numerous artificial fingernail manufacturers have provided a variety of combinations of materials, arrangements, and colors in fingernail accessories. For example, many conventional pre-designed fingernails often include a decorative design stenciled or air-brushed on a top surface thereof.

[0004] With the advent of such artificial fingernail accessories, the wearer could now have intricately pre-designed fingernails that are attached to the natural fingernail and then later easily removed. The pre-designed artificial nail is typically glued to the surface of the natural nail by applying an amount of a liquid bonding adhesive to the bottom surface of the artificial nail and/or the top surface of the natural nail to affix the accessory to the nail. In this case, the wearer must wipe or trim away any excess adhesive and then wait several moments until the adhesive dries to ensure that the accessory is secured to the nail. An overlay is then typically applied to the entire top surface of the artificial nail. The overlay is usually transparent or translucent so that the decorative design is visible on the top surface of the artificial nail. Once the overlay sets, the artificial nail is shaped as desired.

[0005] One drawback with artificial nails, however, is that the application process can be cumbersome and messy. In particular, in attaching an artificial nail, it is necessary to grasp the artificial nail itself and apply glue to the bottom side of the nail. The artificial nail is then turned over so the glued bottom side faces downward whereby the artificial nail can be positioned on the natural nail. Once the artificial nail is properly placed, a slight pressure must be placed on the nail so that the glue sufficiently secures the artificial nail to the natural nail. Because the artificial nail is being held between the fingers of the opposite hand during this entire process, the applied glue often comes in contact with the fingers. Not only may this detrimentally alter the adhesive bonding characteristics of the glue, but it also makes handling of the artificial nail difficult. Cleaning the glue from the fingers between each nail application also makes the process more time consuming.

[0006] One prior art attempt to alleviate such handling problems is disclosed in U.S. Patent No. 6,892,736 to Chang et al. This patent discloses an artificial nail for attachment to a natural nail, which includes a nail body having a proximal end sized and shaped to be attachable to the top surface of the natural nail and a distal end opposite the proximal end. Extending outwardly from the distal end of the nail body is an application tab which is adapted to be grasped during attachment of the nail body to the natural nail.

[0007] Another prior art solution to such handling problem is disclosed in U.S. Patent No. 8,528,570 to Chang. The '570 Chang patent discloses a one-touch artificial nail having a nail body provided with a pressure-sensitive adhesive on an underside thereof. In use, a release tape that covers and protects the pressure-sensitive adhesive prior to application is removed to expose the adhesive layer, and the nail body is pressed against the natural nail to secure the artificial nail thereto. The release tape is provided with a handling tab that can be grasped to facilitate removal of the tape from the adhesive.

[0008] While these patents disclose solutions to the handling problem, there also exists the problem with respect to selecting and applying an appropriately sized artificial nail to the natural nail. Because nail size varies from person to person, it is virtually impossible to design a single artificial nail that will universally fit every fingernail.

[0009] To address this problem, artificial nail sets have been provided with multiple artificial nails of varying size. For instance, in a typical package of artificial nails, there may be two or more different sizes provided for each finger, wherein the size of each nail is provided on the nail body, or, as in the case of the above-mentioned '736 patent to Chang et al., on the application tab.

[0010] However, one drawback in providing the size indicia on the nail body is the fact that such indicia may still be visible after application of the artificial nail to the natural nail resulting in an undesirable aesthetic appearance. Even when the size indicia is provided on the removable application tab, there still exists the added complexity and expense of a specially designed mold having provisions for forming the indicia into the nail body during the plastic injection molding process. In other situations, the indicia molded into the nail body or the application tab is often difficult to see before application of the product.

[0011] Accordingly, it would desirable to provide an artificial nail that can be easily applied to the natural nail without the aforementioned drawbacks. It would also be desirable to inexpensively provide size indicia to the artificial nail that can be clearly seen.

SUMMARY OF THE INVENTION

[0012] The present invention is an artificial nail for attachment to a natural nail which includes a nail body having a bottom surface sized and shaped to be attachable to the top surface of the natural nail, a pressure sensitive adhesive disposed on the bottom surface of the nail body and a releasable backing film covering the pressure sensitive adhesive, wherein the releasable backing film has indicia indicating a size of the nail body.

[0013] In a preferred embodiment, the releasable backing film includes a tab portion extending beyond an edge of the nail body for facilitating removal of the film from the pressure sensitive adhesive, and the indicia is provided on the tab portion.

[0014] The indicia can be formed by lines cut into the releasable backing film or the indicia can be printed on the releasable backing film. The pressure sensitive adhesive and the releasable backing film can include cutting lines formed through the adhesive and the film. The indicia further preferably indicates a curvature of the nail body.

[0015] In another aspect of the invention, a set of artificial nails for attachment to natural nails is provided. The set generally includes a plurality of differently sized nail bodies, wherein each nail body has a bottom surface sized and shaped to be attachable to the top surface of a correspondingly sized natural nail. The set further includes a pressure sensitive adhesive disposed on the bottom surface of each nail body and a releasable backing film covering the pressure sensitive adhesive of each nail body, wherein the releasable backing film of each nail body has indicia indicating a size of the nail body to which the film is applied. A supporting structure including a plurality of frangible stems is also provided, wherein each stem is detachably connected to a nail body for temporarily supporting the nail body thereon.

[0016] "Artificial nail", as used herein also includes fingernail extensions, referred to in the trade as "tips". Thus, the artificial nail may be a full cover, wherein the proximal end of the nail body is sized and shaped to substantially correspond to the full nail bed of the natural nail, or the artificial nail may be a nail tip, wherein the proximal end of the nail body is sized and shaped to be attachable to only the distal end of the natural nail.

[0017] As a result of the present invention, an artificial nail having an inexpensively applied and easy to see indication of the size of the nail provided.

[0018] Other objects and features of the present invention will become apparent from the following detailed description considered in conjunction with the accompanying drawings. It is to be understood, however, that the drawings are designed as an illustration only and not as a definition of the limits of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019]

Figure 1 is a top perspective view of an artificial nail having size indicia according to the prior art.

Figure 2 is a top perspective view of an artificial nail having size indicia on an application tab according to the prior art.

Figure 3 is a bottom plan view of an artificial nail having size indicia according to the present invention.

Figure 4 is a bottom plan view of an alternative embodiment of an artificial nail having size indicia according to the present invention.

Figure 5 is a perspective exploded view of another alternative embodiment of an artificial nail according to the present invention.

Figure 6 is a top perspective view of a set of differently sized artificial nails according to the present invention, as shown in Figure 3.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0020] Figures 1 and 2 show artificial nails 10 of the prior art. In each case, the artificial nail 10 includes a one-piece molded body 12 having a distal end 14 and a proximal end 16 opposite the distal end. The proximal end 16 and, more particularly, the bottom surface adjacent the proximal end is sized and shaped to be attachable to the top surface of a natural nail. The distal end 14 may be sized to extend beyond the end of the natural nail when the artificial nail is attached thereto or it may be sized to coincide with the end of the natural nail.

[0021] The nail body 12 can be rounded or it can be straight and it is not limited to any particular dimensions. In other words, the artificial nail 10 can be applied to fingernails and/or toenails and can be made in a variety of sizes and shapes. For instance, the proximal end 16 of the nail body 12 may substantially correspond in size and shape to the full nail bed of a natural fingernail, whereby the artificial nail is termed a full nail cover that is applied over the full nail bed of a natural fingernail. Alternatively, the proximal end 16 may be attachable to only the distal end of a natural fingernail, that is, for example, it may correspond in size and shape to only the distal end of the natural nail bed, whereby the artificial nail is termed a nail tip that is applied to the end of the natural fingernail. Once properly applied, however, it is often difficult to distinguish a tip from a cover.

[0022] Figure 2 shows an embodiment of an artificial nail disclosed in commonly owned U.S. Patent No. 6,892,736 to Chang et al. In this embodiment, an application tab 18 extends outwardly from the distal end 14 of the nail body 12, which is adapted to be grasped between the thumb and the forefinger to aid in attachment

of the artificial nail 10 to a natural nail. The application tab 18 typically includes a frangible portion 20 adjacent the distal end 14 of the nail body 12 for detaching the application tab from the nail body at a separation line 22.

[0023] As discussed above, it is known in the art to provide indicia 24, indicating the size of the nail 10, on the nail body, as shown in Figure 1, or on the application tab, as shown in Figure 2. The indicia 24 is typically molded or etched into the nail body 12 or the application tab 18. However, when molded into the nail body or the application tab, the indicia is often difficult to see in the pre-applied nail. Efforts to improve the visibility only result in the indicia being visible after application of the artificial nail to the natural nail resulting in an undesirable aesthetic appearance. Even when the size indicia is provided on the removable application tab, there still exists the added complexity and expense of a specially designed mold having provisions for forming the indicia into the nail body during the plastic injection molding process.

[0024] Turning now to Figures 3 and 4, an artificial nail 50, which solves these problems, is shown. The artificial nail 50 of the present invention is similar in many respects to the artificial nail 10 described in Figures 1 and 2. For example, the artificial nail 50 includes a one-piece molded body 52 having a distal end 54 and a proximal end 56 opposite the distal end, wherein the proximal end 56 and, more particularly, the bottom surface 58 adjacent the proximal end is sized and shaped to be attachable to the top surface of a natural nail.

[0025] However, according to the present invention, a pressure sensitive adhesive 60 is applied to the bottom surface 58 and a releasable backing film 62 is applied over the pressure sensitive adhesive to protect the adhesive prior to application of the nail. Indicia 64, indicating the size of the nail 50 is provided on the releasable backing film 62. The indicia 64 is preferably provided on a tab portion 66 of the backing film, as shown in Figure 3. Alternatively, the indicia 64 can be provided anywhere else on the backing film 62 so as to be visible from the bottom side of the nail.

[0026] In a variant of the present invention, as shown in Figure 5, the artificial nail can also be provided with features disclosed in commonly owned U.S. Patent No. 8,528,570 to Chang. Here, a one-touch artificial nail according to the present disclosure generally includes an artificial nail unit 200 having a nail body 210, a double-sided adhesive tape body 110 used for attaching the artificial nail unit 200 to the nail, and a release tape 120. A first cutting line 114 and a second cutting line 124 are respectively formed at the double-sided adhesive tape body 110 and the release tape 120. The first cutting line 114 and the second cutting line 124 are respectively formed through the double-sided adhesive tape body 110 and the release tape 120.

[0027] Therefore, when the double-sided adhesive tape body 110 and the release tape 120 having a planar shape are attached to the nail body 210 having a curved shape, air located between the nail body 210 and the double-sided adhesive tape body 110 is discharged out through the first cutting line 114 and the second cutting line 124. Further, since the first cutting line 114 and the second cutting line 124 are formed with a linear shape, the rigidity of the double-sided adhesive tape may be maintained. In other words, during a process where the release tape 120 is detached from the double-sided adhesive tape body 110, it is possible to prevent the double-sided adhesive tape body 110 from being torn. In addition, since the area of the release tape 120 is greater than the area of the double-sided adhesive tape body 110, it is possible to prevent impurities from being stuck to the double-sided adhesive tape.

[0028] The nail body 210 includes a distal end 211 to be located at a free edge side of the nail, a proximal end 213 to be located at a cuticle side of the nail, lateral sides 215 and an adhesive surface 219 formed at a location facing the nail. The double-sided adhesive tape body 110 includes a plurality of non-connecting portions formed by cutting a plurality of first cutting lines 114, and a connecting portion 112a formed between the first cutting lines 114 so that the plurality of non-connecting portions are not separated from each other.

[0029] The release tape 120 has a greater area than the double-sided adhesive tape body 110 and the double-sided adhesive tape body is attached to the upper portion of the release tape 120 so that the double-sided adhesive tape body 110 is not deviated from the release tape 120. The release tape 120 further preferably includes a grip 122 connecting to and protruding from the outer circumference at one end 211 of the nail body 210.

[0030] The release tape 120 may be made of any one of PE, EVA, PP, POE, and PET, or their copolymers or blends. In addition, the release tape 120 preferably has a tensile strength of 5 kg/cm^2 or above. When the release tape 120 is made of the above materials, the thickness of the release tape 120 is preferably 30 μm to 300 μm.

[0031] The double-sided adhesive tape body 110 is preferably formed to have a thickness of 150 to 800 μm. The peeling strength of the double-sided adhesive tape body 110 is preferably 300 gf/10 mm or above. The double-sided adhesive tape body 110 applied to the one-touch artificial nail according to the present disclosure may be provided in a single layer or a laminate structure where a plurality of layers is laminated.

[0032] As described above, indicia 164, indicating the size of the nail, is provided on the release tape 120. The indicia 164 is preferably provided on the grip 122, but can be applied anywhere else on the release tape 120. The indicia 164 can be formed as cutting lines during the stamping or cutting process to make the release tape. Specifically, the stamping or cutting die used to form the release tape can include raised portions to impress or cut the indicia into the release tape. Alternatively, the indicia 164 can be printed onto the release tape in a subsequent printing process, or can be otherwise applied using any known technique.

[0033] The indicia 64, 164 may indicate the size of the

nail body 52, 210 in terms of width, such as by industry recognized sizes ranging from #1 (largest) to #15 (smallest). Alternatively, or preferably in addition to, the indicia 64, 164 may indicate the size of the nail body 52, 210 in terms of lateral and/or longitudinal curvature of the nail. For example, it has been found that because the natural nails vary in both lateral and longitudinal curvature from person to person, it is preferable to provide artificial nails to accommodate these variances. Thus, the nails can be provided with lateral curvatures ranging from extra flat (EF), flat (F), regular (R), high (H) and extra high (EH). Similarly, the nails can be provided with longitudinal curvatures of medium (M) and curved (C). In this manner, a #5 width nail having a flat lateral curvature and a medium longitudinal curvature would include a release tape having indicia reading "F-M #5" as similarly shown in Figure 2.

[0034] Figure 6 illustrates a typical set 26 of artificial nails 10 formed in accordance with the present invention. The set 26 is preferably fabricated by injection molding as a unitary part including a plurality of spaced differently sized nails 10 connected to a supporting structure 28, such as a central tree. Each of the nails 10 includes a nail body 12, a pressure sensitive adhesive (not shown) applied to an underside of the nail and a release tape 62 covering the pressure sensitive adhesive. In this embodiment, the grip 66 of the release tape 62 for each nail is provided with indicia 64 so that the user can readily see the respective sizes of the nails. As can be seen in Figure 6, the indicia 64 is different for each nail. Preferably, the nails 10 are arranged on the supporting structure 28 in an aesthetically pleasing, as well as a functional pattern. In particular, the nails 10 are preferably arranged in order of size and are positioned side-by-side along the supporting structure 28. Since all the nails 10 are molded integrally with the supporting structure 28, the entire set of nails is rendered relatively easy to manufacture and to handle for subsequent packaging and use.

[0035] When it is desired to attach the artificial nails 10, the user may first select the desired nail size based on the indicia 64 shown on each nail's respective release tape 62. The user may then grasp the nail body 12 of the selected nail 10 between the thumb and forefinger and easily detach the nail from the supporting structure 28. In this regard, the supporting structure 28 preferably includes a frangible or breakable stem 30 connected to the proximal end 16 of each nail body 12, which enables the nails 10 to be manually snapped off the tree without damaging the nail bodies 12.

[0036] Once the nail is removed from the tree, the release tape is removed to reveal the pressure sensitive adhesive. The adhesive side of the nail is then positioned on the natural nail and, with slight pressure, the nail can be conveniently fixed to the natural nail.

[0037] While there has been described what is presently believed to be the preferred embodiments of the invention, those skilled in the art will realize that various changes and modifications may be made to the invention without departing from the spirit of the invention, and it is intended to claim all such changes and modifications as fall within the scope of the invention.

Claims

1. An artificial nail for attachment to a natural nail, the artificial nail comprising:

   a nail body having a bottom surface sized and shaped to be attachable to the top surface of the natural nail;
   a pressure sensitive adhesive disposed on the bottom surface of the nail body; and
   a releasable backing film covering the pressure sensitive adhesive, the releasable backing film having indicia indicating a size of the nail body.

2. The artificial nail as defined in Claim 1, wherein the releasable backing film comprises a tab portion extending beyond an edge of the nail body for facilitating removal of the film from the pressure sensitive adhesive, the indicia being provided on the tab portion.

3. The artificial nail as defined in Claim 1, wherein the indicia comprises lines cut into the releasable backing film.

4. The artificial nail as defined in Claim 1, wherein the pressure sensitive adhesive and the releasable backing film comprise cutting lines formed through the adhesive and the film.

5. The artificial nail as defined in Claim 1, wherein the indicia is printed onto the releasable backing film.

6. The artificial nail as defined in Claim 1, wherein the indicia indicates a curvature of the nail body.

7. A set of artificial nails for attachment to natural nails, the set comprising:

   a plurality of differently sized nail bodies, each nail body having a bottom surface sized and shaped to be attachable to the top surface of a correspondingly sized natural nail;
   a pressure sensitive adhesive disposed on the bottom surface of each nail body;
   a releasable backing film covering the pressure sensitive adhesive of each nail body, the releasable backing film of each nail body having indicia indicating a size of the nail body to which the film is applied; and
   a supporting structure including a plurality of frangible stems, each stem being detachably connected to a nail body for temporarily support-

ing the nail body thereon.

8. The set of artificial nails as defined in Claim 7, wherein each releasable backing film comprises a tab portion extending beyond an edge of the nail body for facilitating removal of the film from the pressure sensitive adhesive, the indicia being provided on the tab portion.

9. The set of artificial nails as defined in Claim 7, wherein the indicia comprises lines cut into the releasable backing film.

10. The set of artificial nails as defined in Claim 7, wherein the pressure sensitive adhesive and the releasable backing film comprise cutting lines formed through the adhesive and the film.

11. The set of artificial nails as defined in Claim 7, wherein the indicia is printed onto the releasable backing film.

12. The set of artificial nails as defined in Claim 7, wherein the indicia indicates a curvature of the nail body.

FIG. 1
(PRIOR ART)

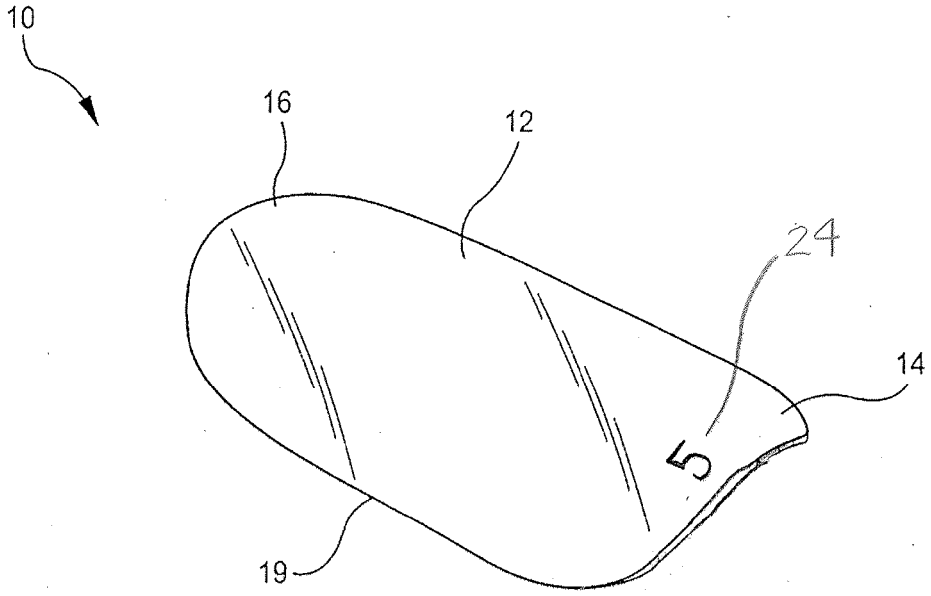

FIG. 2
(PRIOR ART)

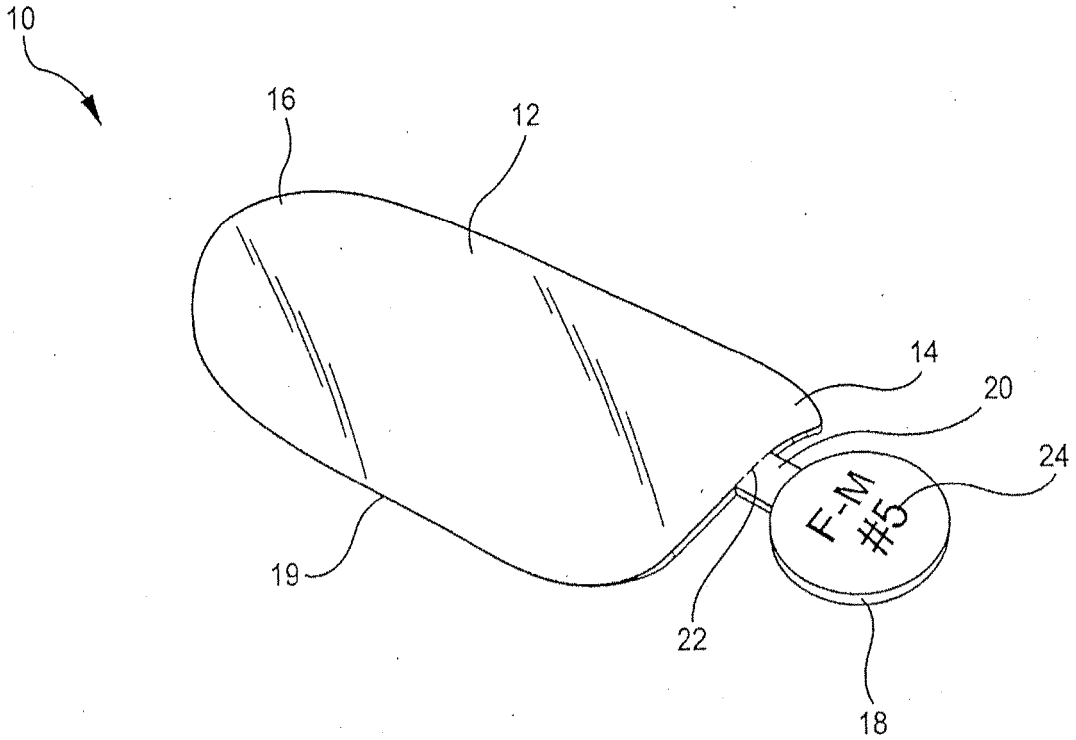

FIG. 3

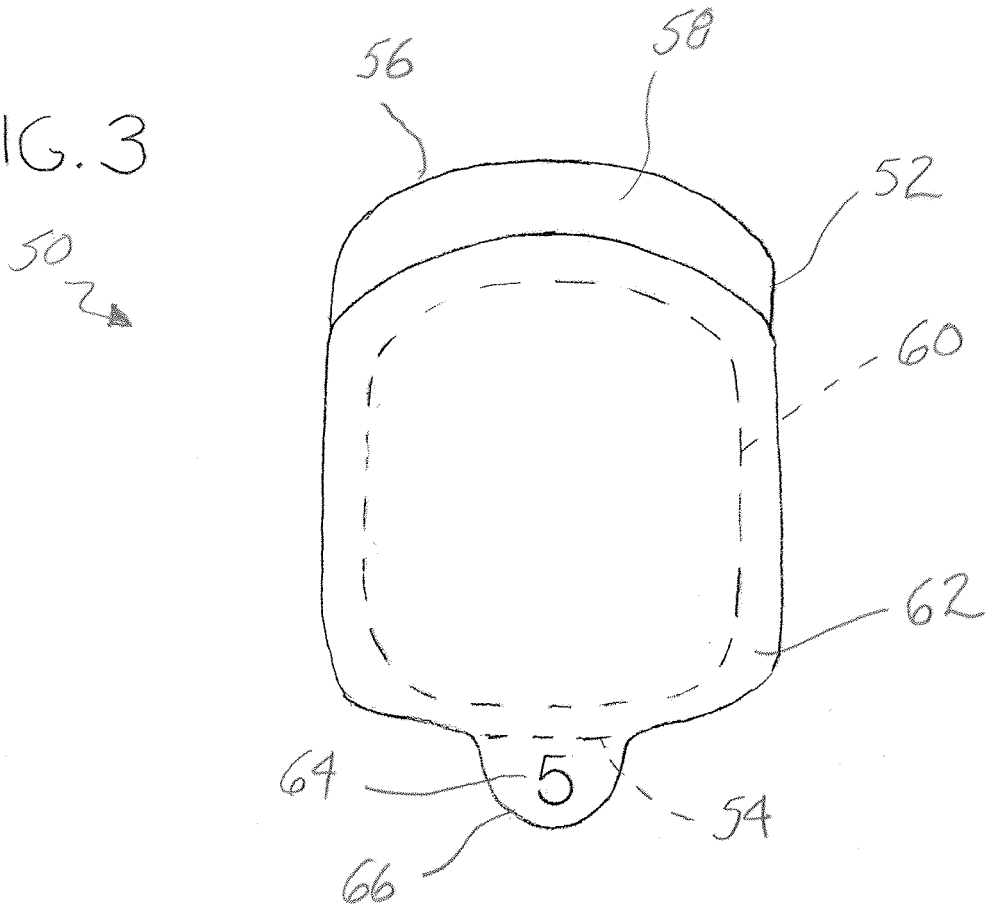

FIG. 4

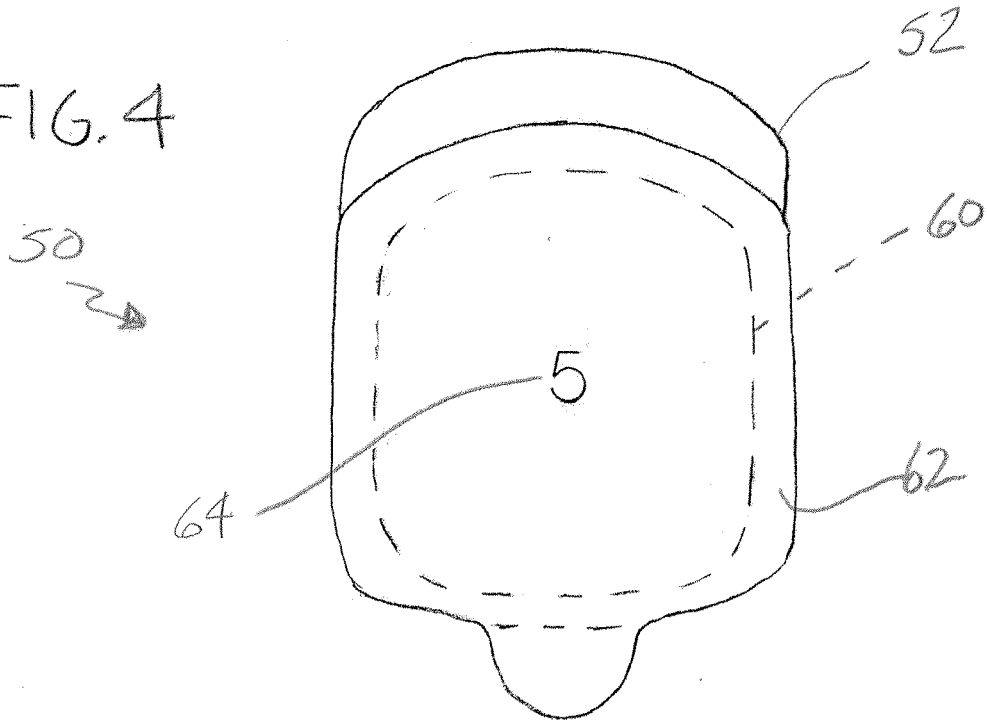

FIG. 5

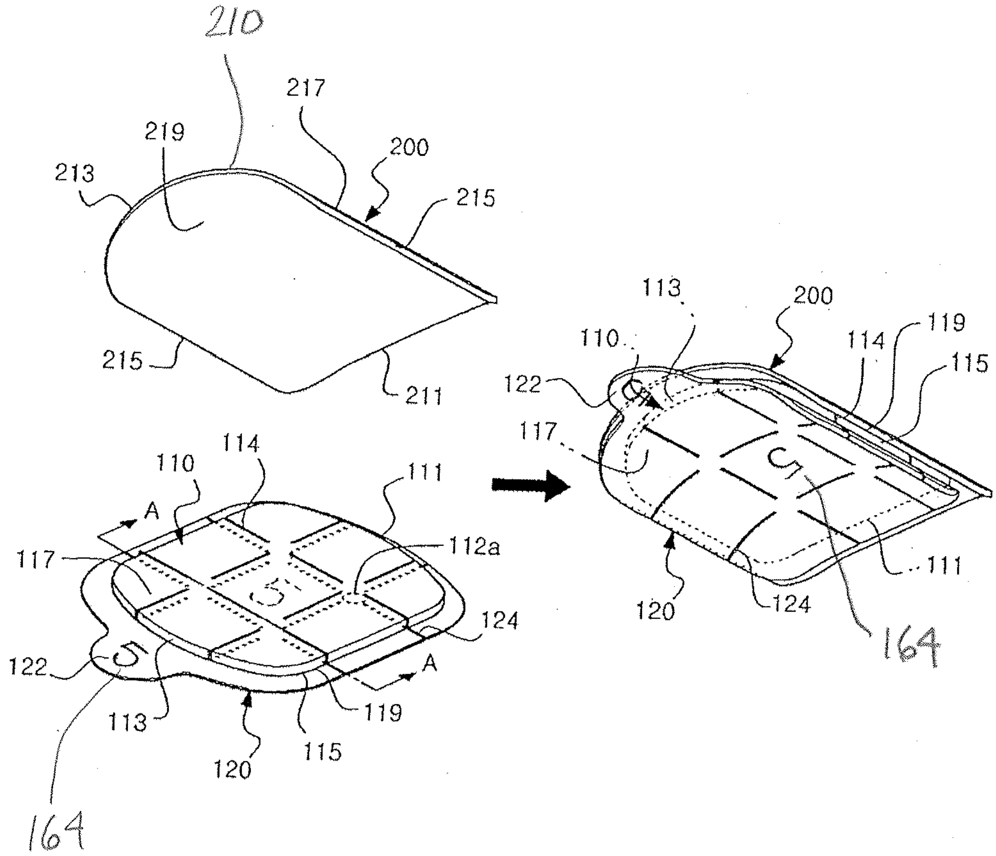
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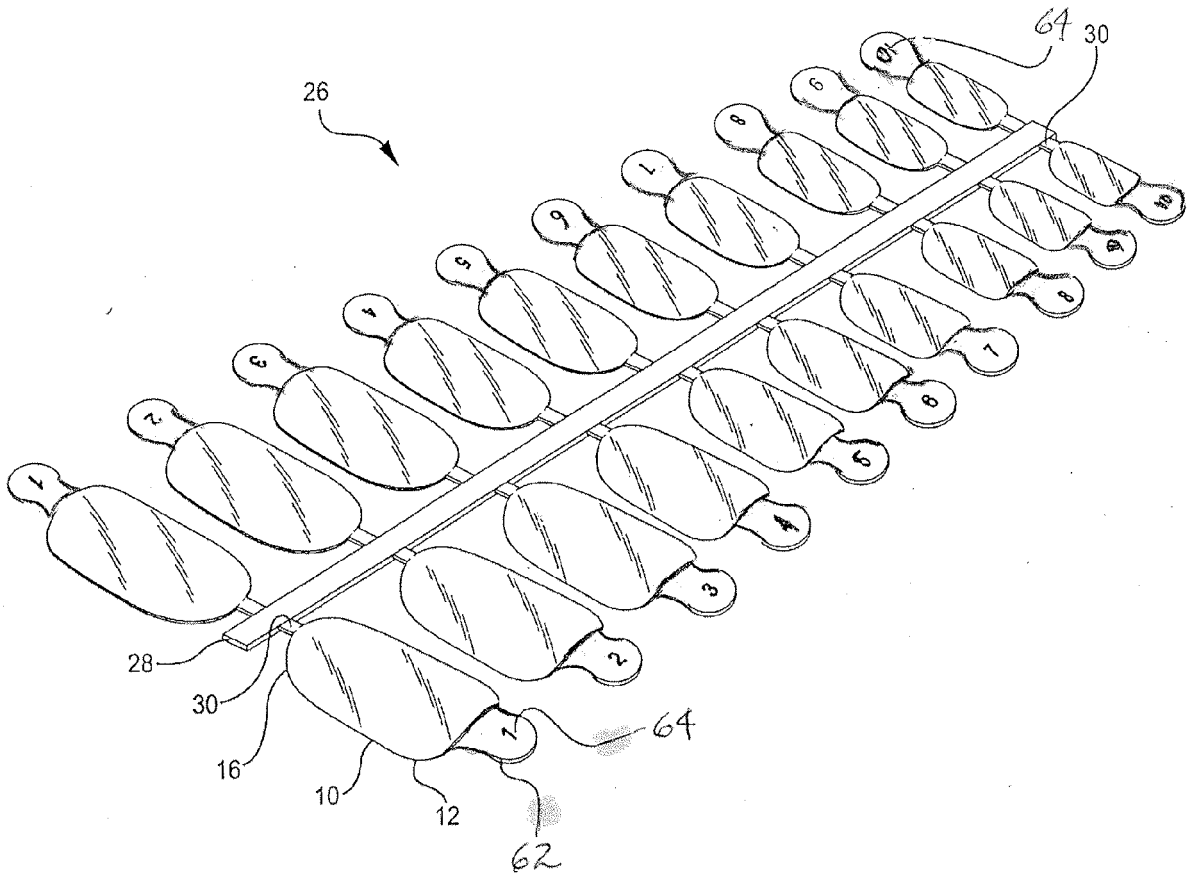
FIG. 6



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EUROPEAN SEARCH REPORT

Application Number
EP 18 17 2782

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TECHNICAL FIELDS SEARCHED (IPC)

A45D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	29 October 2018	Dinescu, Daniela

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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