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(54) **STRUCTURAL ARRANGEMENT APPLIED TO PACKAGING**

(57) The present description relates to a structural arrangement applied to packaging, in particular plastic, paper, cardboard, aluminum and glass packaging, especially for disposable packaging for ketchup, vinegar, oils, perfumes, soap, honey, butter, detergent, lotions, gel and toothpaste, or packaging for any other powder, liquid, cream, etc. product, that achieves highly advantageous practical, safe and functional results. It is to be used in the packaging sector. The packaging comprises a hermetically sealed body (I) with a small tear (2) in the upper face, close to the extremity, that forms a detachable body (3) with a small flap (4) that, when pulled upwards, opens and detaches the detachable body (3), which has a detachable lower face, enabling the packed product to be accessed via the channel (5).

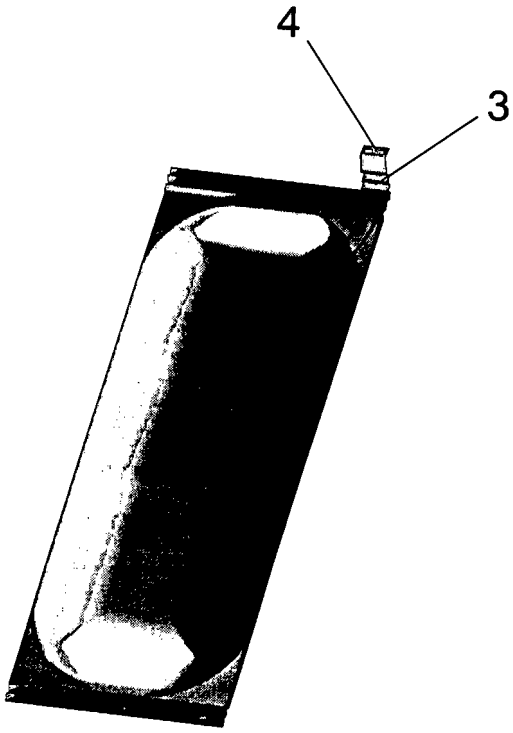

Figure 9

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Description

[0001] The present utility model specification is directed to a structural arrangement applied to packaging, more particularly plastic, paper, cardboard, aluminum, glass packaging, mainly for disposable packaging of ketchup, vinegar, oils, perfumes, soap, honey, butter, detergent, creams, gel, toothpaste or for packaging any other powder, liquid, creamy products, and the like, that may bring forth highly advantageous practical, safe and functional results.

FIELD OF APPLICATION

[0002] The present field of application is generally the packaging field.

STATE OF THE ART

[0003] As a parameter in the marketplace, we have traditional packaging such as the sachets for conditioning vinegar, sauces, olive oil, several oils, mayonnaise, ketchup, mustard, and the like. However, all of such sachet type packaging are not practical when the user has to open same and access the packed product, mainly at night or if he/she has any visual disability. One usually spends a long time to find the "probable" opening spot and finally finishes the task by using his/her teeth, a knife, a blade or scissors after getting literally "smeared" with the product to be extracted from the sachet. In spite of that, when the user bites the sachet he/she may break a tooth or a dental filling, as has already occurred with several users, thus being exposed to a number of bacteria.

[0004] It should be pointed out that a local law that obliges bars, snack houses and restaurants to use scissors for opening sachets is now effective in the city of Cachoeiro do Itapemirim-ES.

[0005] The law project was voted and approved by the Chamber of Councilmen of Cachoeiro do Itapemirim, in the Southern part of the State of Espirito Santo.

[0006] Nowadays a couple of tools for opening sachets can be found in the market. One of the tools is a sachet piercing device made of acrylic and the other one is a box provided with blades for cutting sachets. However, such objects are not hygienic and accumulate debris, since they touch both the external and internal portions of the container at the same time, thus infecting the product with bacteria, besides the source of bacteria from the product that are stuck to the piercing or cutting device itself. Further, the user cannot always have the blade box or the piercing device in his/her car, at the beach or across the field, since it is not practical to carry such devices in the pocket.

DESCRIPTION OF THE INVENTION

[0007] After a number of studies and research aiming to solve the above mentioned problems and inconveniences, a structural arrangement applied to packaging was developed, which arrangement is already provided in the factory with several options to access the packed product, without the need to wipe any trace of contamination or use devices for opening the sachet or pack.

[0008] As can be seen, the object of the present application is to attain functionality and practicability when opening any packaging such as boxes, containers, sachets, and the like. The sealing provided in the orifice is visible not only because of the color, but also a small rib/protuberance or semi-spherical ribs that identify the pulling part precisely, so that the seal shall be removed immediately and a user may access the product inside the packaging without having to touch or contact the packed product that will then be used in a clean, safe and hygienic way. The rib/protuberance or small semi-spherical ribs can be used and applied in order to make it easy for the user to access the product, in any other opening system in sachets disclosed in this application and/or any other packaging of different patterns and materials, including milk, dairy cream, tomato sauce/pulp, juice, oil, perfume, cream containers, and the like.

[0009] It is comprised of a basic pattern and fifteen constructive variants.

[0010] In order to have a clear visualization of the novel structural arrangement applied to packaging, the accompanying drawings are given below, wherein references are made in order to better elucidate the detailed description below:

Figure 1 represents the perspective view of the novel structural arrangement applied to packaging, particularly applied to a basic sachet pattern;

Figure 2 represents the upper view of the basic sachet pattern;

Figure 3 represents the front view of the basic sachet pattern;

Figure 4 represents the back view of the basic sachet pattern;

Figure 5 represents the left side view of the basic sachet pattern;

Figure 6 represents the right side view of the basic sachet pattern;

Figures 7, 8, 9, 10, 11 and 12 represent the opening sequence of the basic sachet pattern;

Figure 13 represents the perspective view of the first constructive variant applied to a sachet;

Figure 14 represents the upper view of the first constructive variant applied to a sachet;

Figure 15 represents the front view of the first constructive variant applied to a sachet;

Figure 16 represents the back view of the first constructive variant applied to a sachet;

Figure 17 represents the left side view of the first constructive variant applied to a sachet;

Figure 18 represents the right side view of the first constructive variant applied to a sachet;

Figures 19, 20, 21, 22 and 23 represent the opening sequence of the first constructive variant applied to a sachet;

Figure 24 represents the perspective view of the second constructive variant applied to a sachet;

Figure 25 represents the upper view of the second constructive variant applied to a sachet;

Figure 26 represents the front view of the second constructive variant applied to a sachet;

Figure 27 represents the back view of the second constructive variant applied to a sachet;

Figure 28 represents the left side view of the second constructive variant applied to a sachet;

Figure 29 represents the right side view of the second constructive variant applied to a sachet;

Figures 30, 31, 32 and 33 represent the opening sequence of the second constructive variant applied to a sachet;

Figure 34 represents the perspective view of the third constructive variant applied to a sachet;

Figure 35 represents the upper view of the third constructive variant applied to a sachet;

Figure 36 represents the front view of the third constructive variant applied to a sachet;

Figure 37 represents the back view of the third constructive variant applied to a sachet;

Figure 38 represents the left side view of the third constructive variant applied to a sachet;

Figure 39 represents the right side view of the third constructive variant applied to a sachet;

Figures 40, 41, 42, 43 and 44 represent the opening sequence of the third constructive variant applied to a sachet;

Figure 45 represents the perspective view of the fourth constructive variant applied to a sachet;

Figure 46 represents the upper view of the fourth constructive variant applied to a sachet;

Figure 47 represents the front view of the fourth constructive variant applied to a sachet;

Figure 48 represents the back view of the fourth constructive variant applied to a sachet;

Figure 49 represents the left side view of the fourth constructive variant applied to a sachet;

Figure 50 represents the right side view of the fourth constructive variant applied to a sachet;

Figures 51, 52, 53, 54 and 55 represent the opening sequence of the fourth constructive variant applied to a sachet;

Figure 56 represents the perspective view of the fifth constructive variant applied to a sachet;

Figure 57 represents the upper view of the fifth constructive variant applied to a sachet;

Figure 58 represents the front view of the fifth constructive variant applied to a sachet;

Figure 59 represents the back view of the fifth constructive variant applied to a sachet;

Figure 60 represents the left side view of the fifth constructive variant applied to a sachet;

Figure 61 represents the right side view of the fifth constructive variant applied to a sachet;

Figures 62, 63, 64, 65 and 66 represent the opening sequence of the fifth constructive variant applied to a sachet;

Figure 67 represents the perspective view of the sixth constructive variant applied to a sachet;

Figure 68 represents the upper view of the sixth constructive variant applied to a sachet;

Figure 69 represents the front view of the sixth constructive variant applied to a sachet;

Figure 70 represents the back view of the sixth constructive variant applied to a sachet;

Figure 71 represents the left side view of the sixth constructive variant applied to a sachet;

Figure 72 represents the right side view of the sixth constructive variant applied to a sachet;

Figures 73, 74, 75 and 76 represent the opening sequence of the sixth constructive variant applied to a sachet;

Figure 77 represents the perspective view of the seventh constructive variant applied to a sachet;

Figure 78 represents the upper view of the seventh constructive variant applied to a sachet;

Figure 79 represents the front view of the seventh constructive variant applied to a sachet;

Figure 80 represents the back view of the seventh constructive variant applied to a sachet;

Figure 81 represents the left side view of the seventh constructive variant applied to a sachet;

Figure 82 represents the right side view of the seventh constructive variant applied to a sachet;

Figures 83, 84, 85, 86 and 87 represent the opening sequence of the seventh constructive variant applied to a sachet;

Figure 88 represents the perspective view of the eighth constructive variant applied to a sachet;

Figure 89 represents the upper view of the eighth constructive variant applied to a sachet;

Figure 90 represents the front view of the eighth constructive variant applied to a sachet;

Figure 91 represents the back view of the eighth constructive variant applied to a sachet;

Figure 92 represents the right side view of the eighth constructive variant applied to a sachet;

Figure 93 represents the left side view of the eighth constructive variant applied to a sachet;

Figures 94, 95, 96 and 97 represent the opening sequence of the eighth constructive variant applied to a sachet;

Figure 98 represents the perspective view of the ninth constructive variant applied to a sachet;

Figure 99 represents the upper view of the ninth constructive variant applied to a sachet;

Figure 100 represents the front view of the ninth constructive variant applied to a sachet;

Figure 101 represents the back view of the ninth constructive variant applied to a sachet;

Figure 102 represents the right side view of the ninth constructive variant applied to a sachet;

Figure 103 represents the left side view of the ninth constructive variant applied to a sachet;

Figures 104, 105 and 106 represent the opening sequence of the ninth constructive variant applied to a sachet;

Figure 107 represents the perspective view of the tenth constructive variant applied to a sachet;

Figure 108 represents the upper view of the tenth constructive variant applied to a sachet;

Figure 109 represents the front view of the tenth constructive variant applied to a sachet;

Figure 110 represents the back view of the tenth constructive variant applied to a sachet;

Figure 111 represents the left side view of the tenth constructive variant applied to a sachet;

Figure 112 represents the right side view of the tenth constructive variant applied to a sachet;

Figures 113 and 114 represent the opening sequence of the tenth constructive variant applied to a sachet;

Figure 115 represents the perspective view of the eleventh constructive variant applied in plastic packaging with closing in plastic or aluminum;

Figure 116 represents the side view showing the lid positioned upwards from the eleventh constructive variant applied to plastic packaging;

Figure 117 represents the side view showing the lid positioned downwards from the eleventh constructive variant applied to plastic packaging;

Figure 118 represents the upper view of the eleventh constructive variant applied to plastic packaging;

Figure 119 represents the lower view of the eleventh constructive variant applied to plastic packaging;

Figure 120 represents the front view of the eleventh constructive variant applied to plastic packaging;

Figure 121 represents the back view of the eleventh constructive variant applied to plastic packaging;

Figures 122, 123, 124, 125, 126; 127, 128, 129, 130, 131, 132, 133, 134, 135, 136 137, 138 and 139 represent the opening sequence of the eleventh constructive variant applied to plastic packaging;

Figure 140 represents the perspective view of the twelfth constructive variant applied to plastic packaging;

Figure 141 represents the side view showing the lid positioned upwards from the twelfth constructive variant applied to plastic packaging;

Figure 142 represents the side view with the lid positioned downwards from the twelfth constructive variant applied to plastic packaging;

Figure 143 represents the upper view of the twelfth constructive variant applied to plastic packaging;

Figure 144 represents the lower view of the twelfth constructive variant applied to plastic packaging;

Figure 145 represents the front view of the twelfth constructive variant applied to plastic packaging;

Figure 146 represents the back view of the twelfth constructive variant applied to plastic packaging;

Figures 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161 and 162 represent the opening sequence of the twelfth constructive variant applied to plastic packaging;

Figure 163 represents the perspective view of the thirteenth constructive variant applied to plastic packaging;

Figure 164 represents the side view showing the lid positioned upwards from the thirteenth constructive variant applied to plastic packaging;

Figure 165 represents the side view showing the lid positioned downwards from the thirteenth constructive variant applied to plastic packaging;

Figure 166 represents the upper view of the thirteenth constructive variant applied to plastic packaging;

Figure 167 represents the lower view of the thirteenth constructive variant applied to plastic packaging;

Figure 168 represents the front view of the thirteenth constructive variant applied to plastic packaging;

Figure 169 represents the back view of the thirteenth constructive variant applied to plastic packaging;

Figures 170, 171, 172 and 173 represent the opening sequence of the thirteenth constructive variant applied to plastic packaging;

Figure 174 represents the perspective view of the fourteenth constructive variant applied to plastic packaging;

Figure 175 represents the side view showing the lid positioned upwards from the fourteenth constructive variant applied to plastic packaging;

Figure 176 represents the side view showing the lid positioned downwards from the fourteenth constructive variant applied to plastic packaging:

Figure 177 represents the upper view of the fourteenth constructive variant applied to plastic packaging;

Figure 178 represents the lower view of the fourteenth constructive variant applied to plastic packaging;

Figure 179 represents the front view of the fourteenth constructive variant applied to plastic packaging;

Figure 180 represents the back view of the fourteenth constructive variant applied to plastic packaging;

Figures 181, 182, 183, 184, 185, 186, 187 and 188 represent the opening sequence of the fourteenth constructive variant applied to plastic packaging;

Figure 189 represents the perspective view of the fifteenth constructive variant applied to plastic packaging;

Figure 190 represents the side view showing the lid positioned upwards from the fifteenth constructive variant applied to plastic packaging;

Figure 191 represents the side view showing the lid positioned downwards from the fifteenth constructive variant applied to plastic packaging;

Figure 192 represents the upper view of the fifteenth constructive variant applied to plastic packaging;

Figure 193 represents the lower view of the fifteenth constructive variant applied to plastic packaging;

Figure 194 represents the front view of the fifteenth constructive variant applied to plastic packaging;

Figure 195 represents the back view of the fifteenth constructive variant applied to plastic packaging;

Figures 196, 197, 198, 199, 200 and 201 represent the opening sequence of the fifteenth constructive variant applied to plastic packaging.

[0011] According to Figures 1 through 12, the structural arrangement applied to packaging comprises a hermetically sealed body (1), provided on the upper face thereof with a small tear (2) close to the end that forms a detachable body (3) provided with a small flap (4) that, when pulled upward, opens and detaches the detachable body (3) whose lower face can be detached, thus making it possible to access the packed product through a channel (5).

[0012] According to Figures 13 through 23, in a first constructive variant, the detachable body (3) is positioned in the central region.

[0013] According to Figures 24 through 33, in a second constructive variant, the detachable body (3) is provided with a small flap (4) that, when pulled aside, opens and detaches the detachable body (3). According to Figures 34 through 44, in a third constructive variant, the detachable body (3) is "L"-shaped and provided with a horizontal extension (6) that makes it easy to handle same and makes it possible to detach the body (3) when pulled aside.

[0014] According to Figures 45 through 55, in a fourth constructive variant, the detachable body (3) is provided with a vertical extension (6) that makes it easy to handle same and makes it possible to detach the body (3) when pulled upward.

[0015] According to Figures 56 through 66, in a fifth constructive variant, the body (1) is provided with a round face (7) and the detachable body (3) is positioned in the central region.

[0016] According to Figures 67 through 76, in a sixth constructive variant, the detachable body (3) is trapezoidal and its lower face can be detached diagonally.

[0017] According to Figures 77 through 87, in a seventh constructive variant, the detachable body (3) is provided with triangular flaps (8; 8') on both faces and its side can be detached diagonally.

[0018] According to Figures 88 through 97, in an eighth constructive variant, the detachable body (3) is triangular, provided with semi-spherical ribs (9), whose inner face (10) is curved and provided in the center and diagonally with a tubular channel (11) that makes it possible to access the packed product when disrupted.

[0019] According to Figures 98 through 106, in a ninth constructive variant, the detachable body (3) is a semicircle positioned aside close to the upper vertex and provided with semi-spherical ribs (9) whose inner face (10) is curved and provided in the center and horizontally with a tubular channel (11) that makes it possible to access the packed product when disrupted.

[0020] According to Figures 107 through 114, in a tenth constructive variant, the channel (5) is a tubular channel (11).

[0021] According to Figures 115 through 139, in an eleventh constructive variant, the packaging comprises a rigid plastic body (20) having a plastic or aluminum closure (21), provided on the upper face thereof with a detachable "U"-shaped peripheral strap (22) provided with small flaps (23) at the ends thereof, which flaps detach the peripheral strap (22) when pulled upward, thus allowing the central closure to be raised by the flap (24).

[0022] According to Figures 140 through 162, in a twelfth constructive variant, the flap of the rigid plastic body (20), in the center and aside the base of the detachable "U"-shaped peripheral strap (22), comprises a semi-circular body (25) provided with semi-spherical ribs (26) whose inner face (27) is curved and provided in the center and perpendicularly with a detachable extension (28) that is attached to said detachable strap (22), thus making it possible to detach same and allowing the central closure to be raised by the flap (24).

[0023] According to Figures 163 through 173, in a thirteenth constructive variant, the semicircular body (25) is attached to the detachable "U"-shaped peripheral strap (22) that can only be detached in the external perimeter, thus allowing the body (25) itself to raise the closure (21) in the central portion.

[0024] According to Figures 174 through 188, in a fourteenth constructive variant, the body (25) is positioned at the corner of the flap of the rigid plastic body (20), thus being coincidental with one of the corners of the detachable "U"-shaped peripheral strap (22), and can only be detached in the external perimeter, thus allowing the body (25) itself to raise the closure (21) in the central portion.

[0025] According to Figures 189 through 201, in a fifteenth constructive variant, the detachable "U"-shaped peripheral strap (22) can only be detached in the external perimeter and the central portion of the closure (21) is raised only by the flap (24).

[0026] As can be seen in the illustrations, the packaging is provided with a small "duct", "channel", "pipe", "conduct" or "passage" with several angles, shapes and diameters for the purpose of directing the "product" precisely in the right direction set out by the user, thus preventing the need or requirement of the consumer to tear the pack in several places and disperse the packed product as occurs with the old traditional sachet and/or other types of boxes and packaging that require scissors, knifes or teeth to open the container.

[0027] Therefore, the novel structural arrangement applied to packaging fully attains the proposed objects and fulfills the aimed functions in a practical efficient way, providing a series of advantages inherent to its applicability, thus being provided with both unique innovative characteristics and basic requirements of novelty neces-

sary to provide the Utility Model protection.

Claims

1. A structural arrangement applied to packaging, **characterized by** comprising a hermetically sealed body (1), provided in the upper face thereof with a small tear (2), close to the end, that forms a detachable body (3) provided with a small flap (4) that, when pulled upward, opens and detaches the detachable body (3) whose lower face is detachable, thus making it possible to access the packed product through a channel (5).

2. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable body (3) is positioned in the central region, in a first constructive variant.

3. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable body (3) is provided with a small flap (4) that, when pulled upward, opens and detaches the detachable body (3), in a second constructive variant.

4. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable body (3) is "L"-shaped and provided with a horizontal extension (6) that makes it easy to handle same and makes it possible to detach the body (3) when pulled aside, in a third constructive variant.

5. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable body (3) is provided with a vertical extension (6) that makes it easy to handle same and makes it possible to detach the body (3) when pulled upward, in a fourth constructive variant.

6. The structural arrangement applied to packaging according to claim 1, **characterized in that** the body (1) is provided with a round face (7) and the detachable body (3) is positioned in the central region, in a fifth constructive variant.

7. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable body (3) is trapezoidal and whose lower face can be detached diagonally in a sixth constructive variant.

8. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable body (3) is provided with triangular flaps (8; 8') on both faces and whose side can be detached diagonally, in a seventh constructive variant.

9. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable body (3) is triangular, provided with half-spherical ribs (9), whose internal face (10) is curved and provided in the center and diagonally with a tubular canal (11) that makes it possible to access the packed product when disrupted, in an eighth constructive variant.

10. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable body (3) is a semicircle positioned aside close to the upper vertex and provided with semi-spherical ribs (9), whose inner face (10) is curved and provided in the center and horizontally with a tubular channel (11) that makes it possible to access the packed product when disrupted, in a ninth constructive variant.

11. The structural arrangement applied to packaging according to claim 1, **characterized in that** the channel (5) is a tubular channel (11), in a tenth constructive variant.

12. The structural arrangement applied to packaging according to claim 1, **characterized in that** the packaging comprises a rigid plastic body (20) provided with a plastic or aluminum closure (21), provided on the upper face thereof with a detachable "U"-shaped peripheral strap (22), provided in the ends thereof with small flaps (23) that, when pulled upward, detach the peripheral strap (22), thus allowing the central closure to be raised by the flap (24), in an eleventh constructive variant.

13. The structural arrangement applied to packaging according to claim 1, **characterized in that** the flap of the rigid plastic body (20), in the center and aside the base of the detachable "U"-shaped peripheral strap (22), comprises a semicircular body (25) provided with semi-spherical ribs (26), whose inner face (27) is curved and provided in the center and perpendicularly with a detachable extension (28) that is attached to said detachable strap (22), thus allowing same to be detached and the closing central closure to be raised by the flap (24), in a twelfth constructive variant.

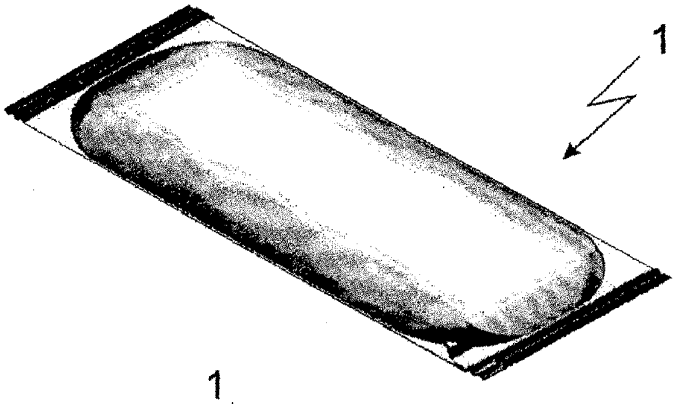
14. The structural arrangement applied to packaging according to claim 1, **characterized in that** the semicircular body (25) is attached to the detachable "U"-shaped peripheral strap (22), that can only be detached in the external perimeter, thus allowing the body (25) itself to raise the closure (21) in the central portion, in a thirteenth constructive variant.

15. The structural arrangement applied to packaging according to claim 1, **characterized in that** the body

(25) is positioned at the corner of the flap of the rigid plastic body (20), thus being coincidental with one of the corners of the detachable "U"-shaped peripheral strap (22), and can only be detached in the external perimeter, thus allowing the body (25) itself to raise the closure (21) in the central portion, in a fourteenth constructive variant.

16. The structural arrangement applied to packaging according to claim 1, **characterized in that** the detachable "U"-shaped peripheral strap (22) can only be detached by the external perimeter and the central portion of the closing (21) can only be raised by the flap (24), in a fifteenth constructive variant.

Figure 1



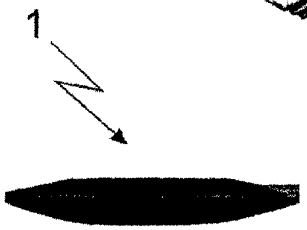


Figure 2

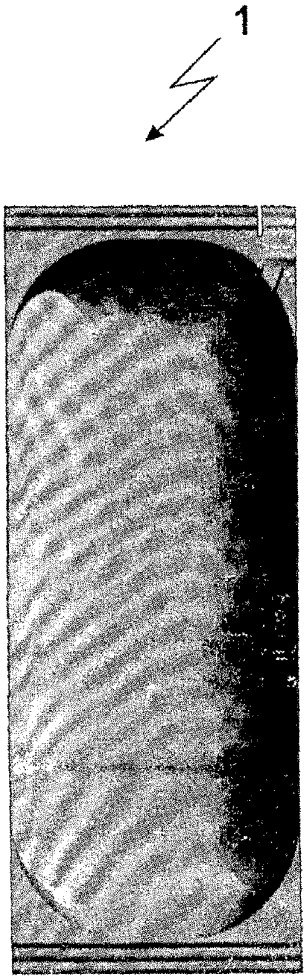


Figure 3

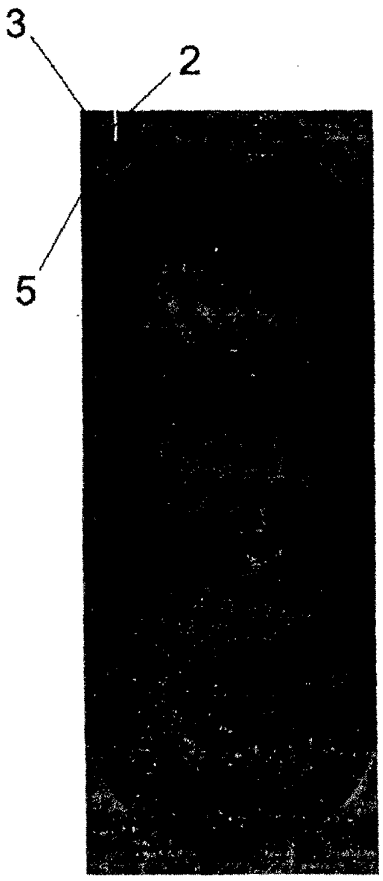


Figure 4

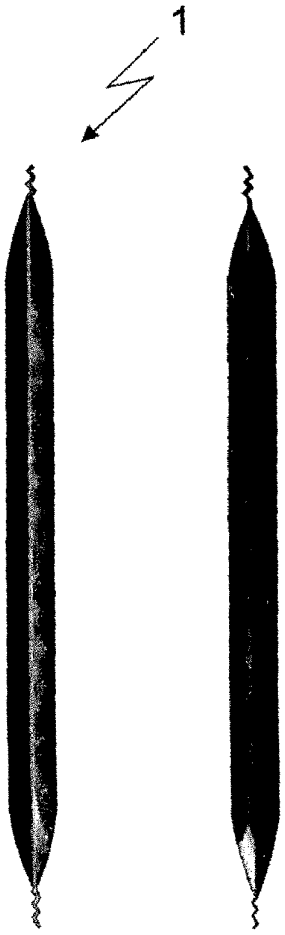


Figure 5

Figure 6

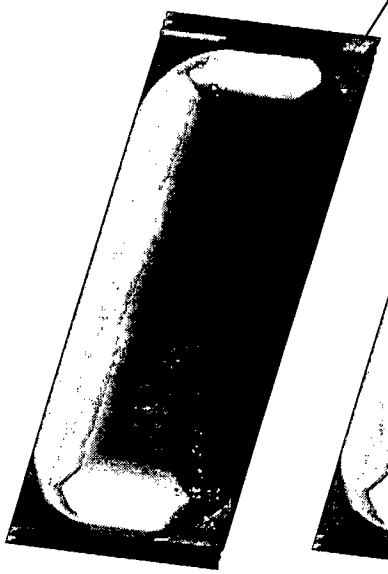


Figure 7

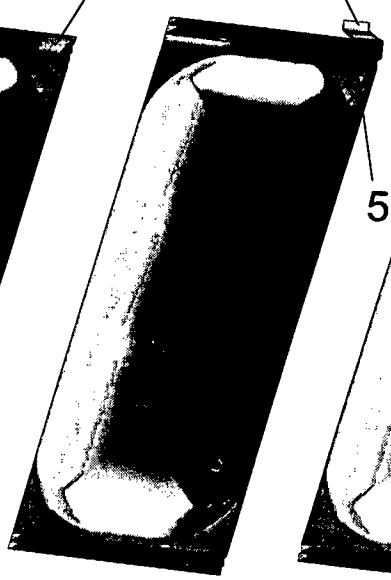


Figure 8

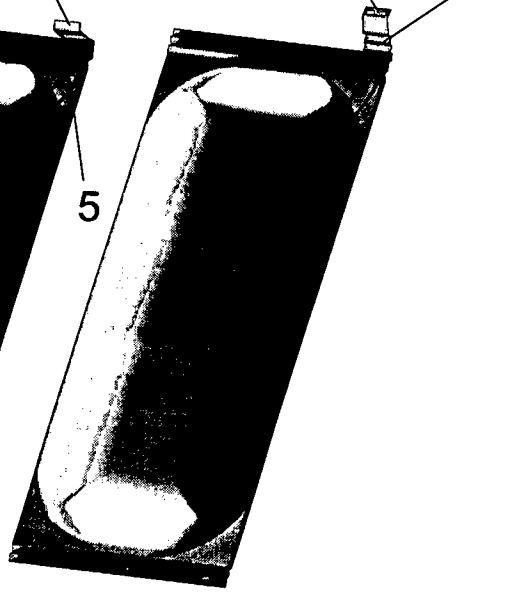


Figure 9

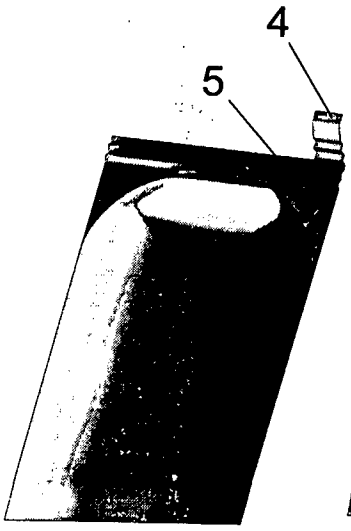


Figure 10

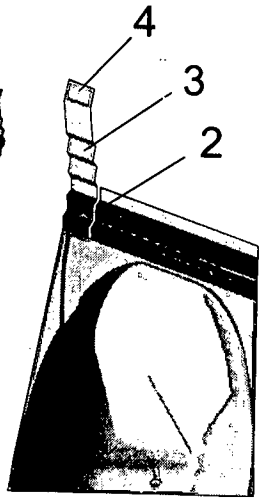


Figure 11

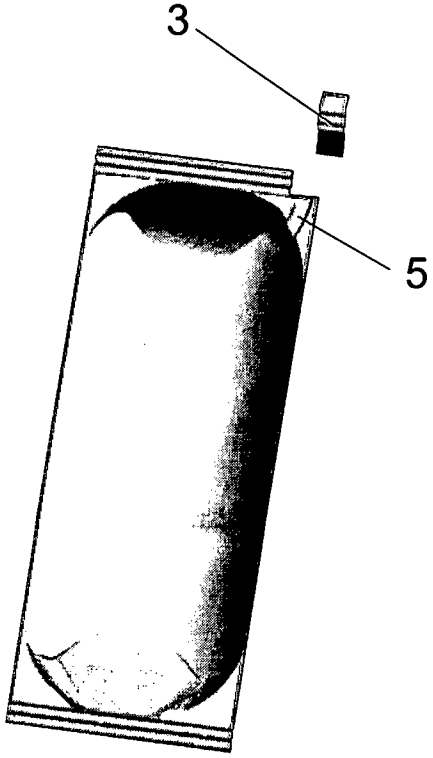
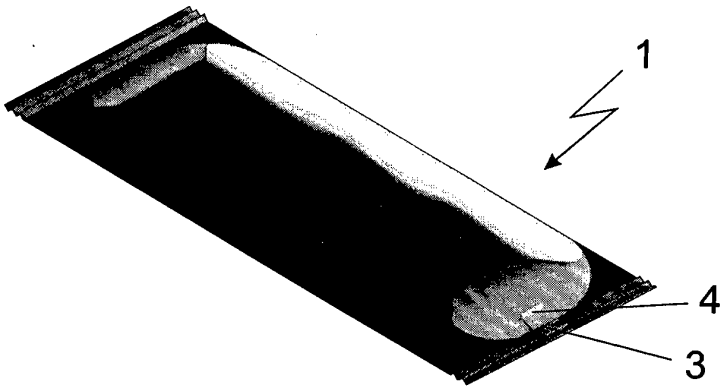


Figure 12

Figure 13



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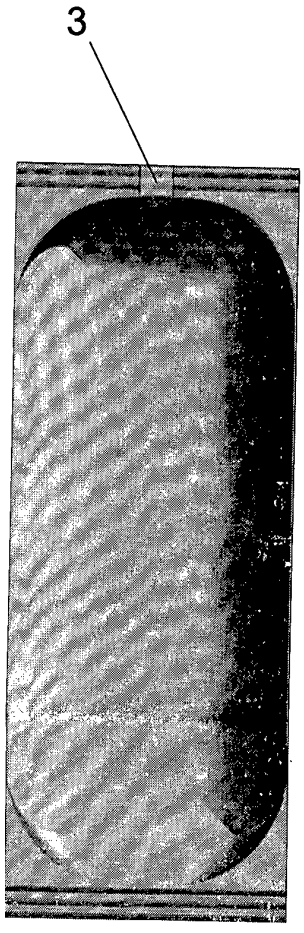

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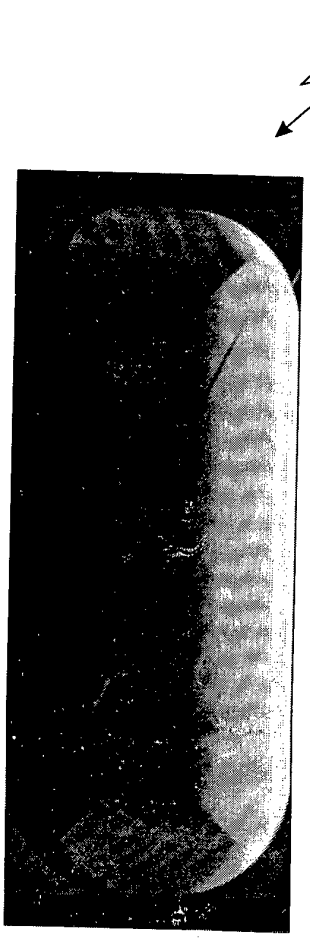

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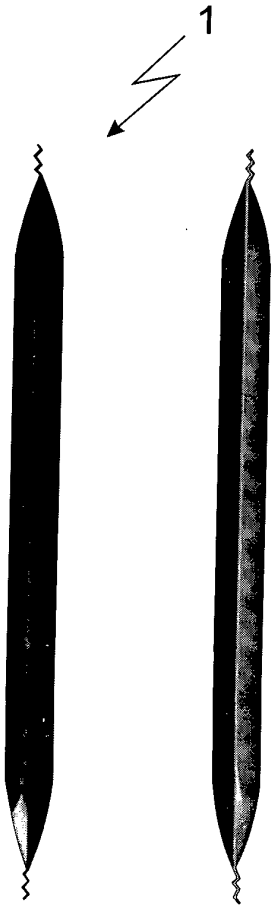

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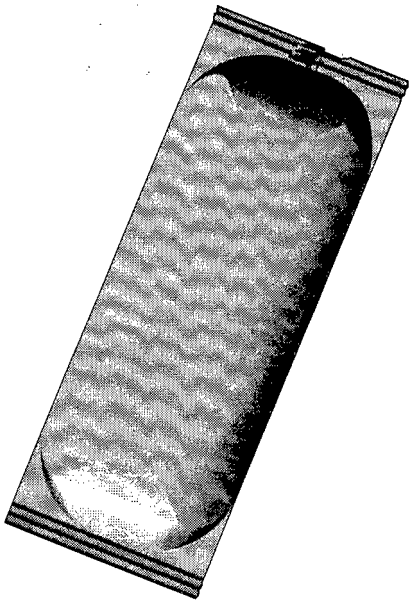

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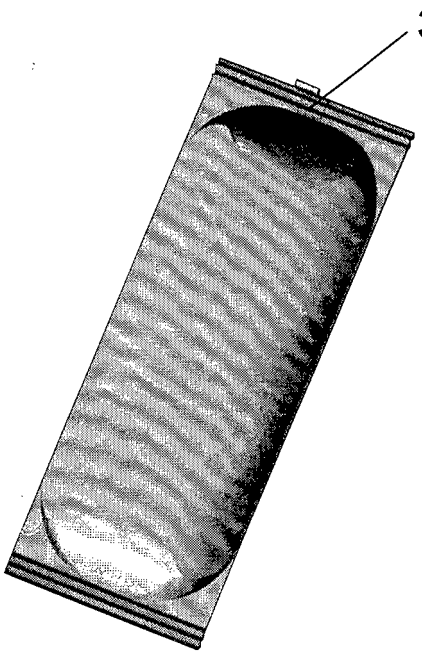

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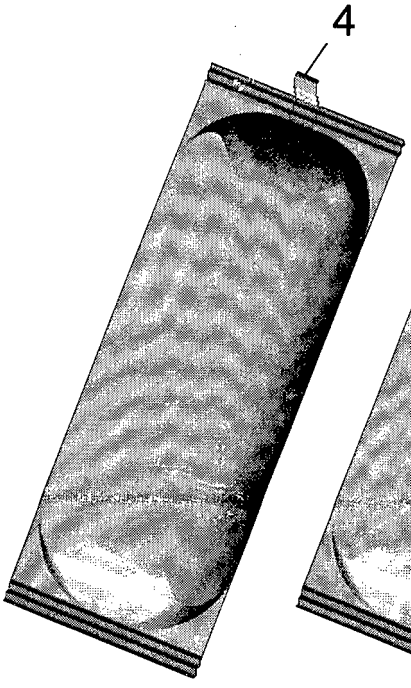

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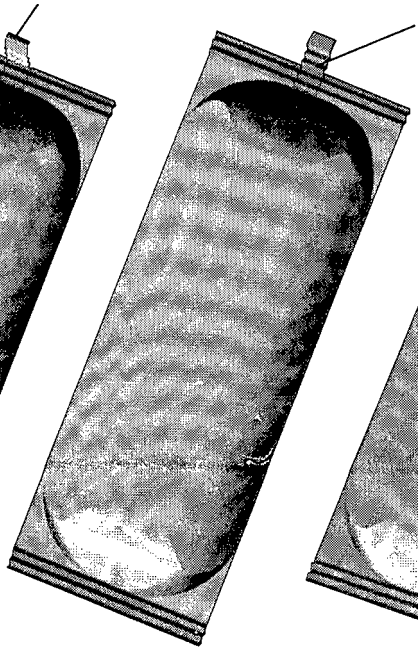

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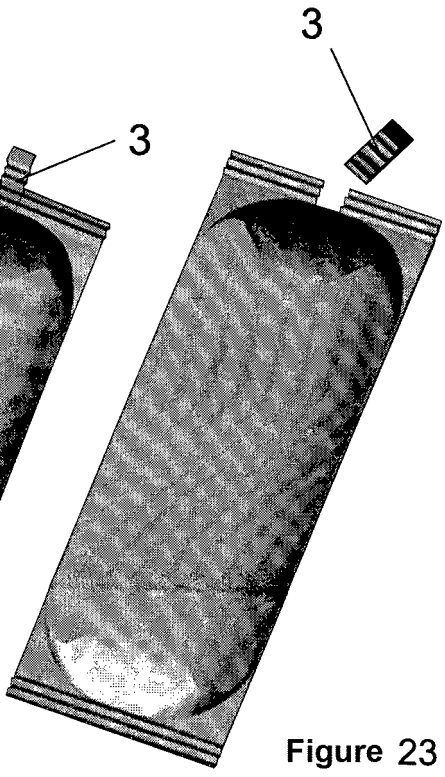
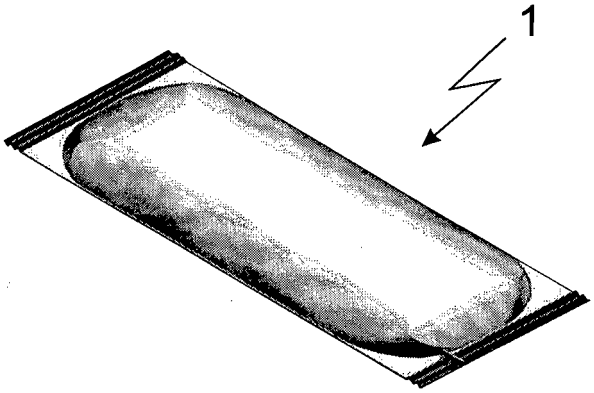


Figure 23

Figure 24



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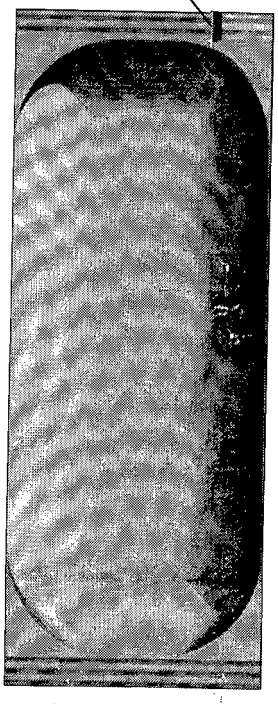

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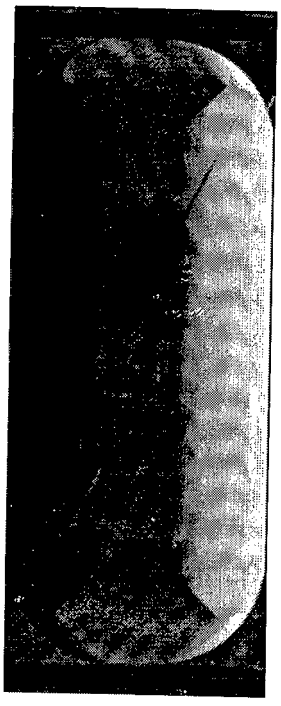

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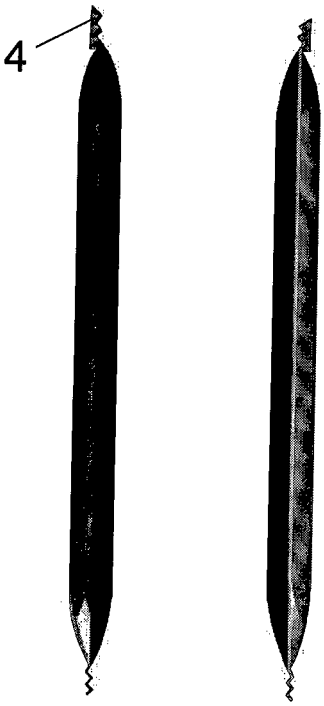
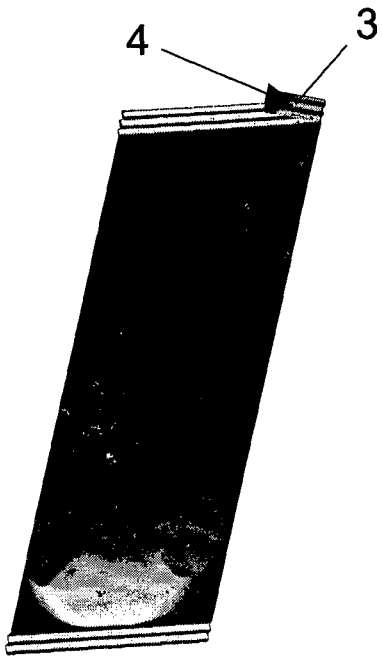


Figure 28 Figure 29



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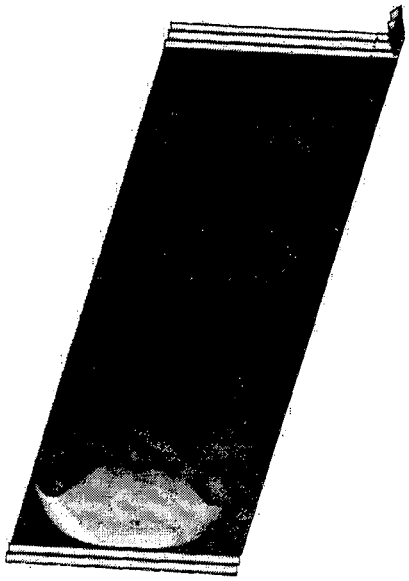

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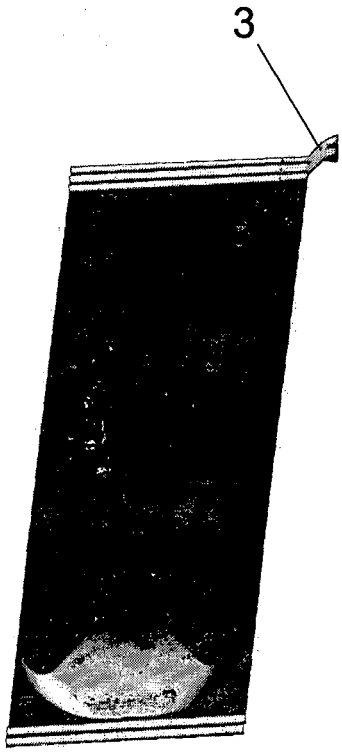

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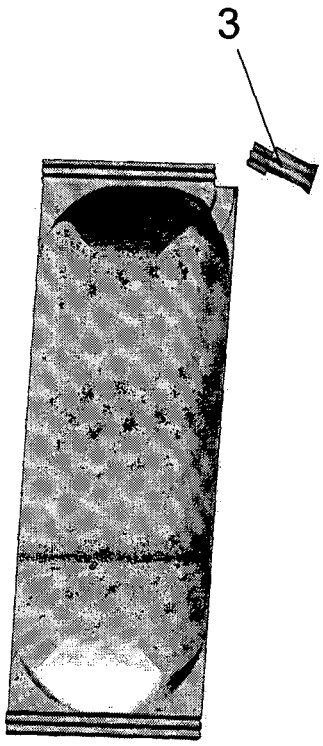
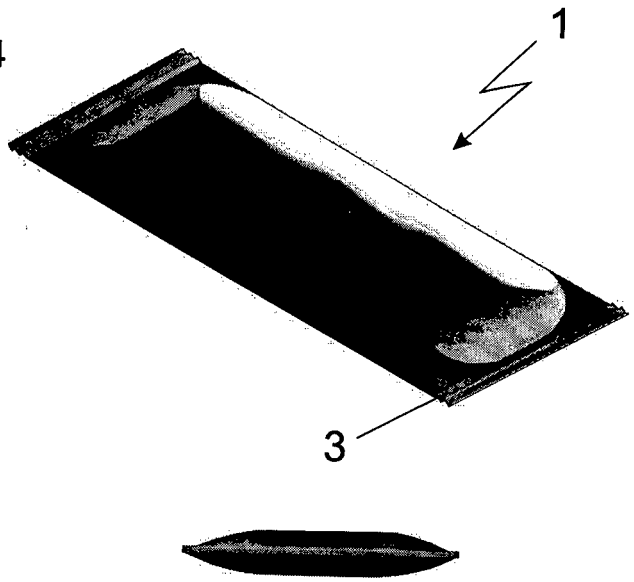


Figure 33

Figure 34



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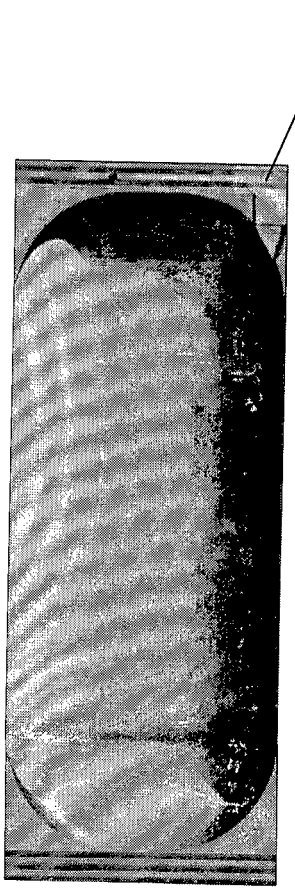

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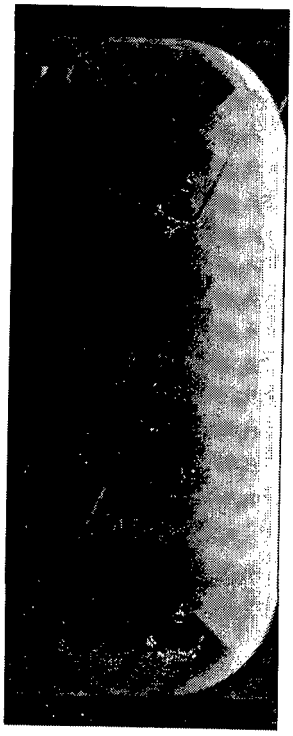

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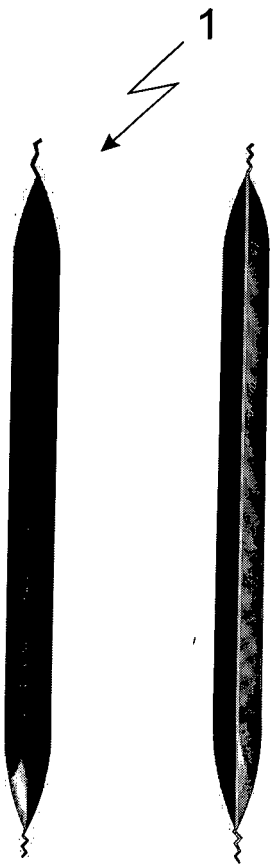

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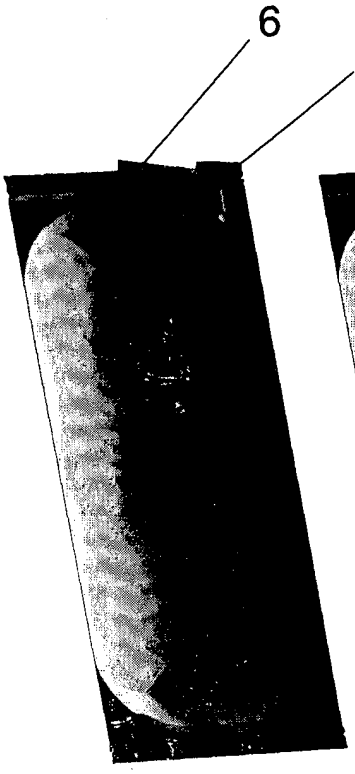
Figure 39



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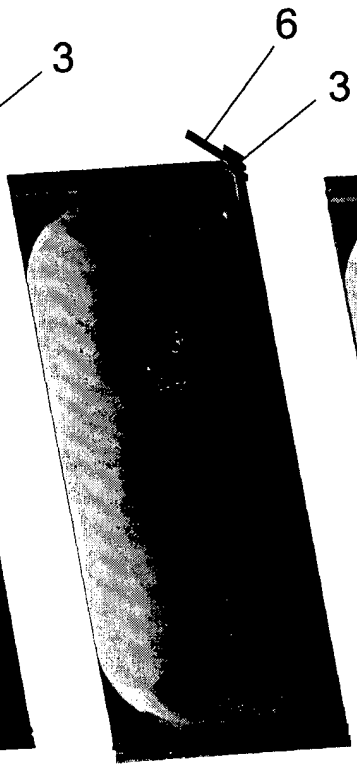

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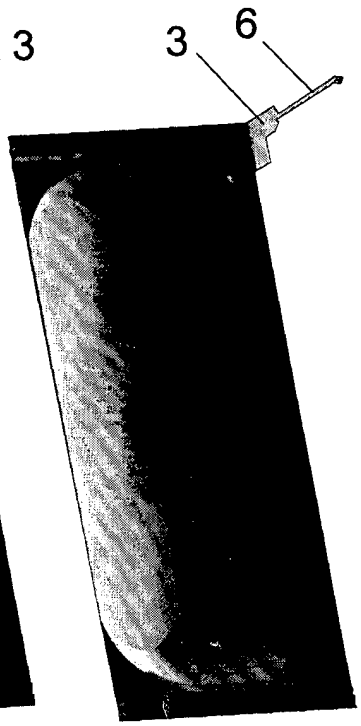

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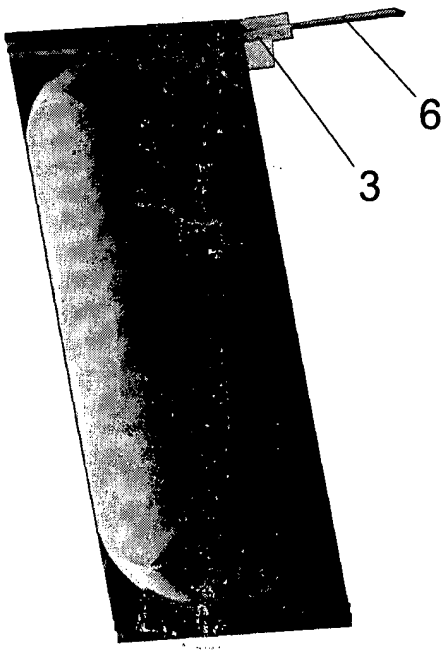

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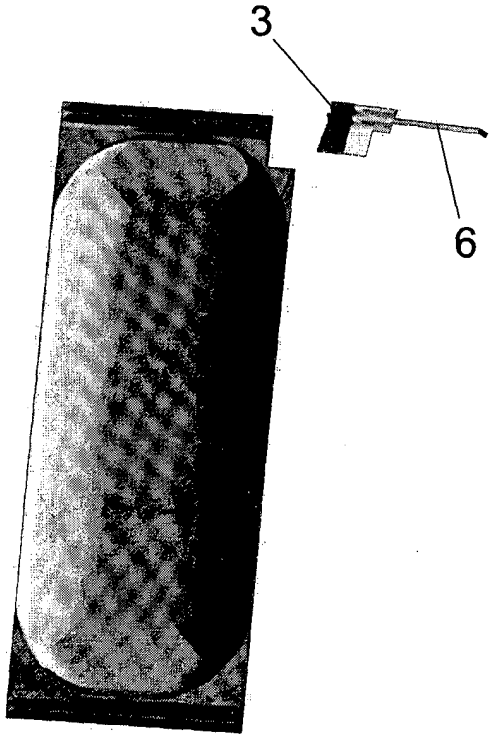

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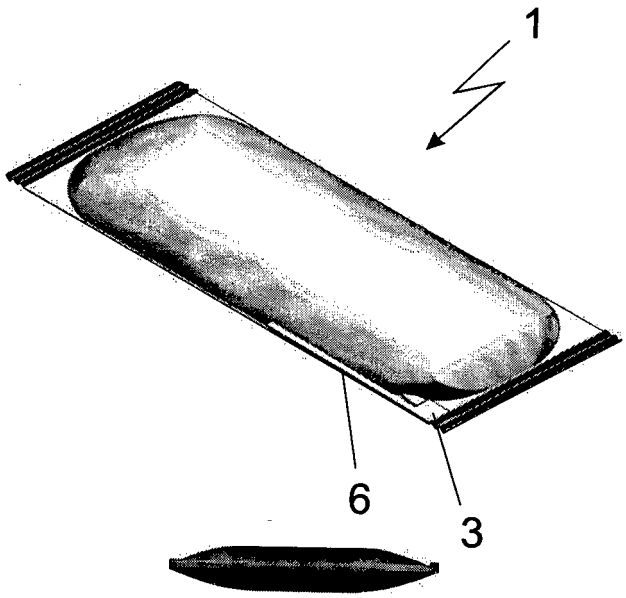

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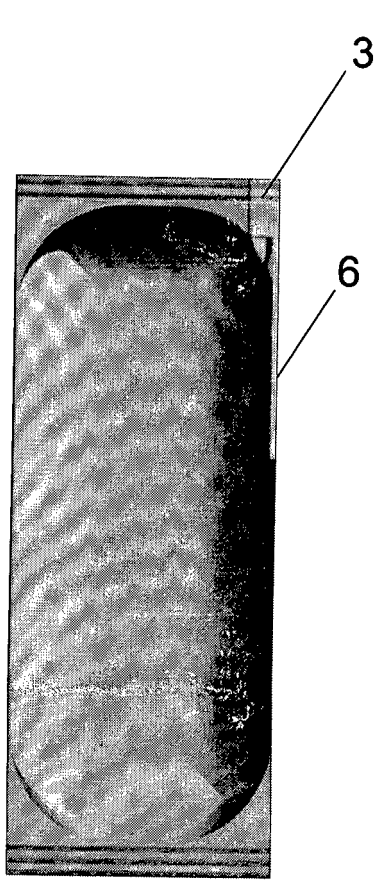

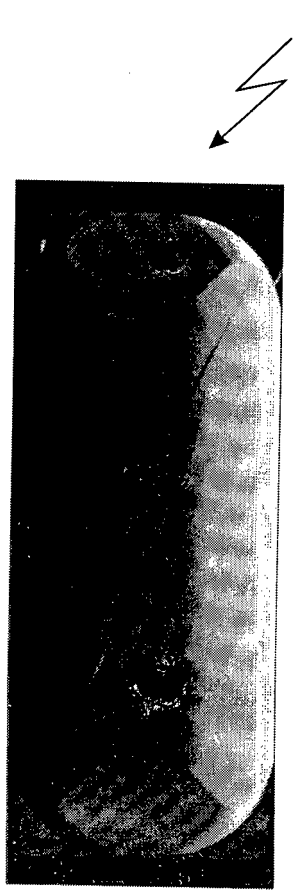

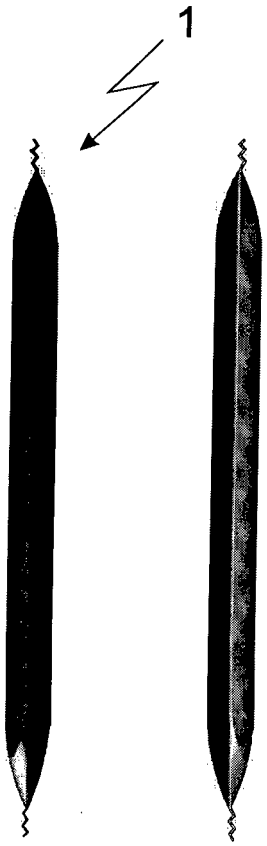

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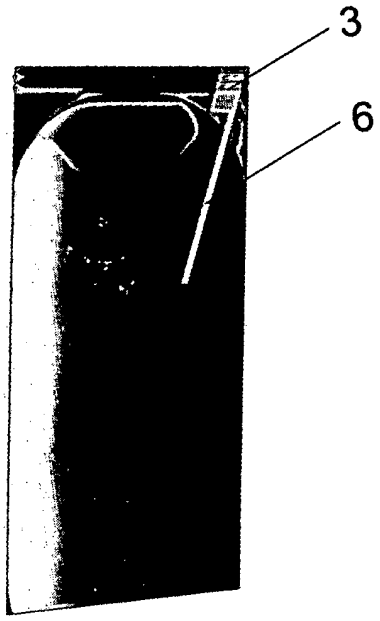
Figure 50



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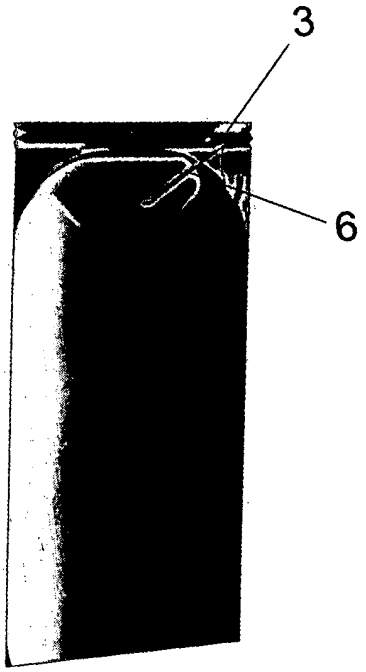

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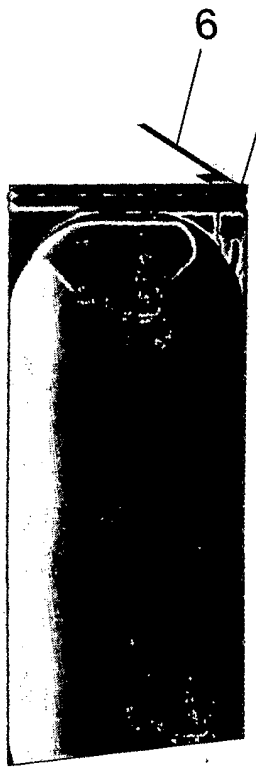

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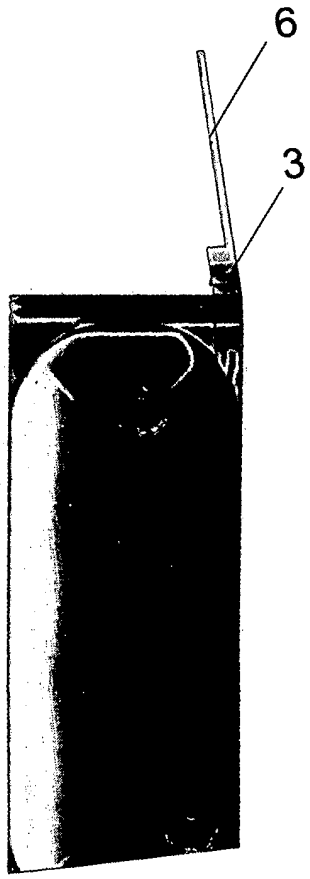

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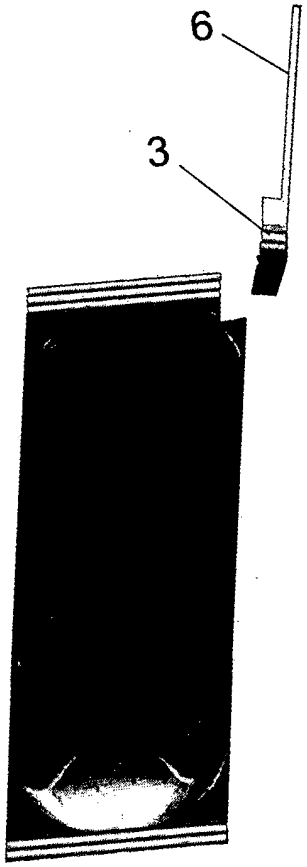

Figure 55

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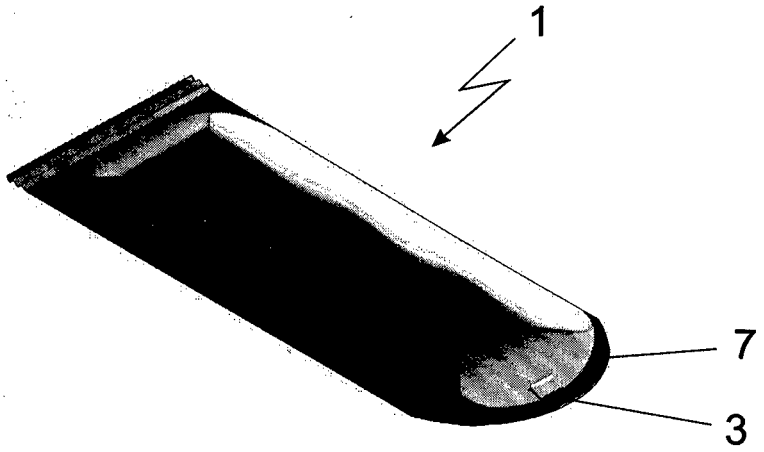

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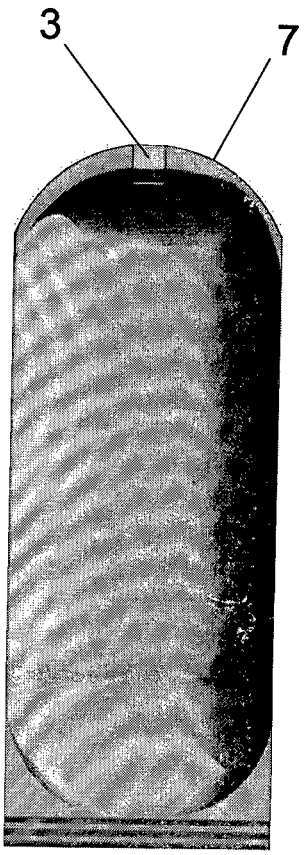

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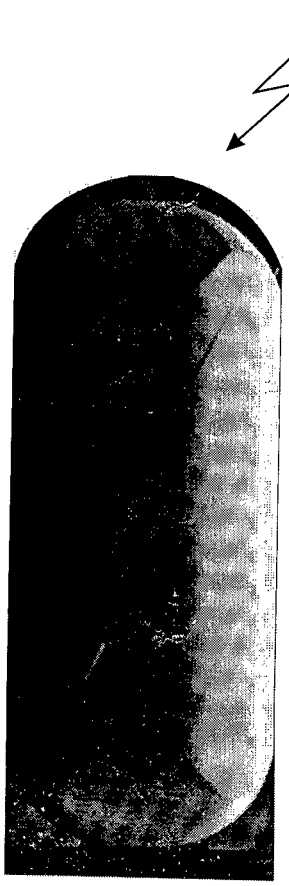

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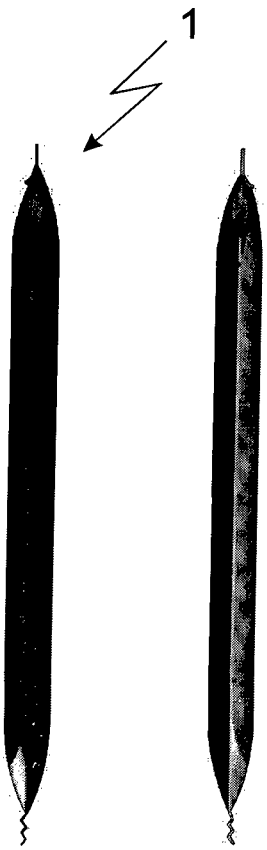

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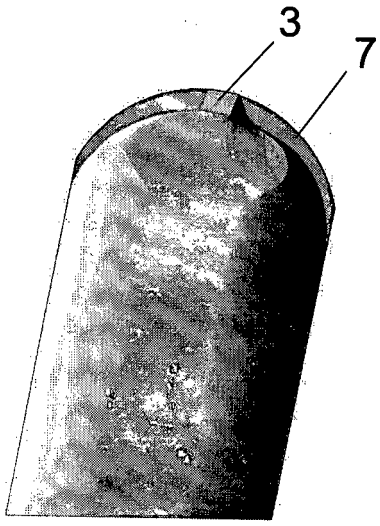
Figure 61



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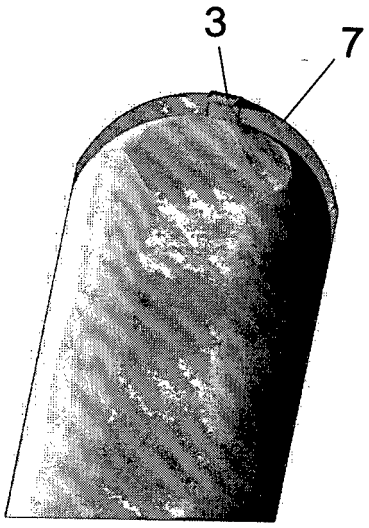

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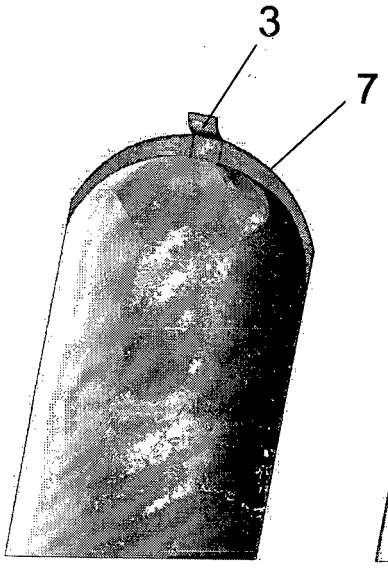

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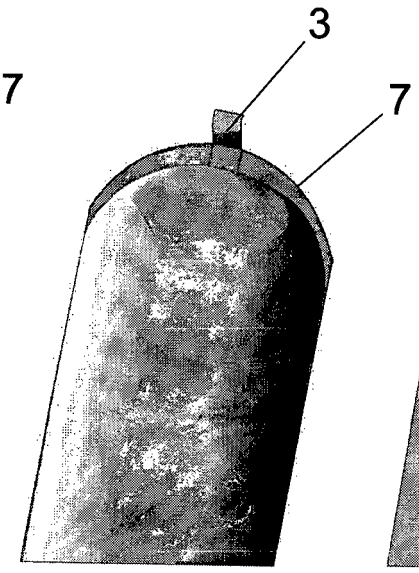

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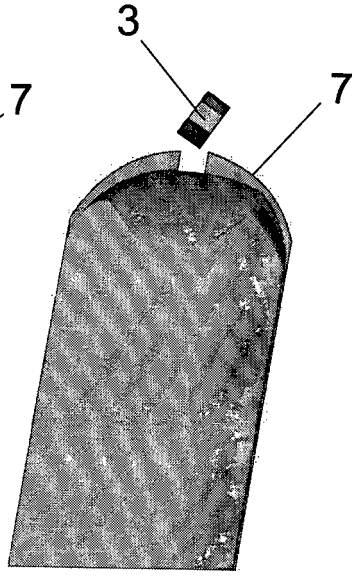

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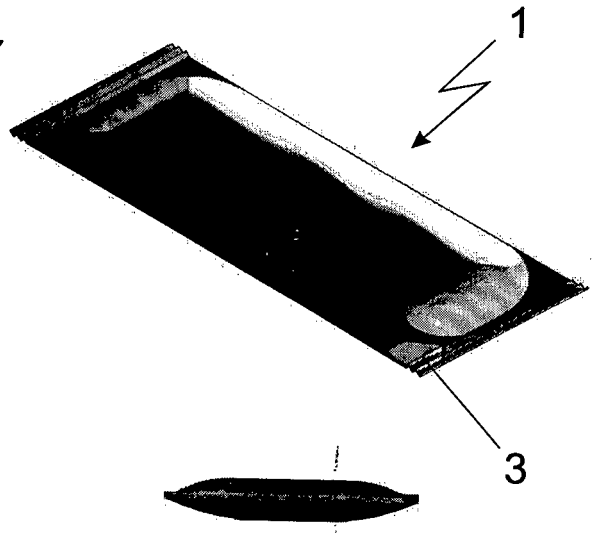
Figure 67



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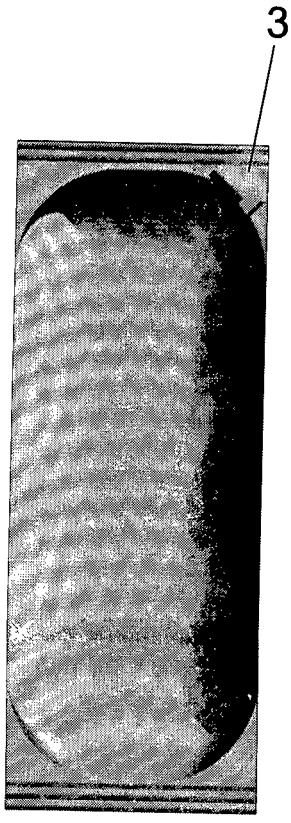

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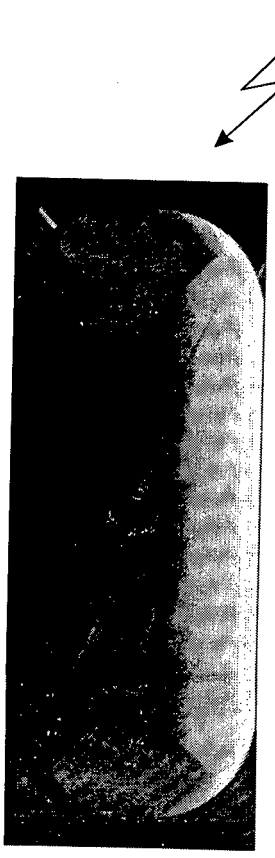

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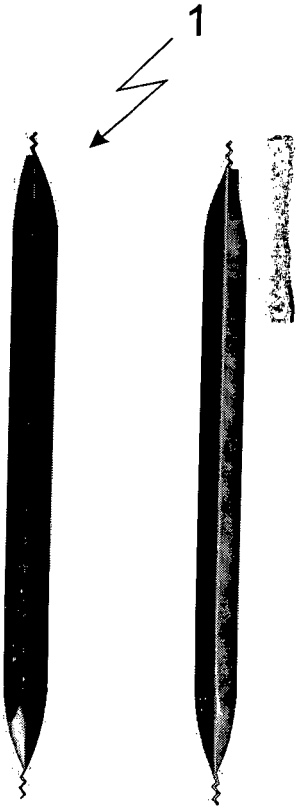
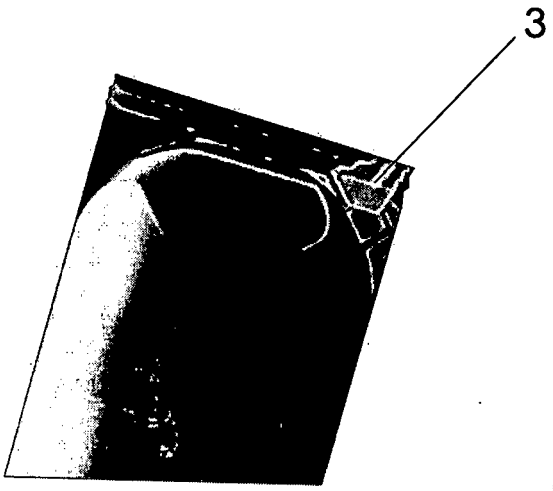


Figure 71 Figure 72



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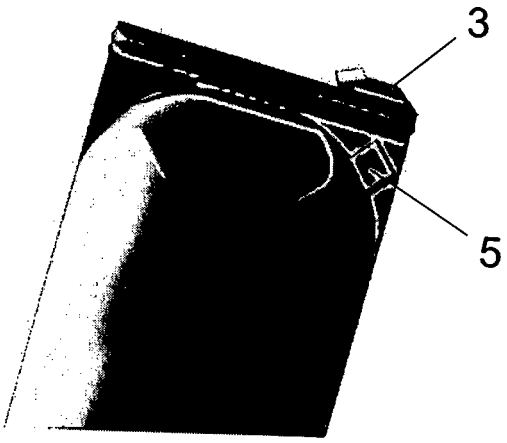

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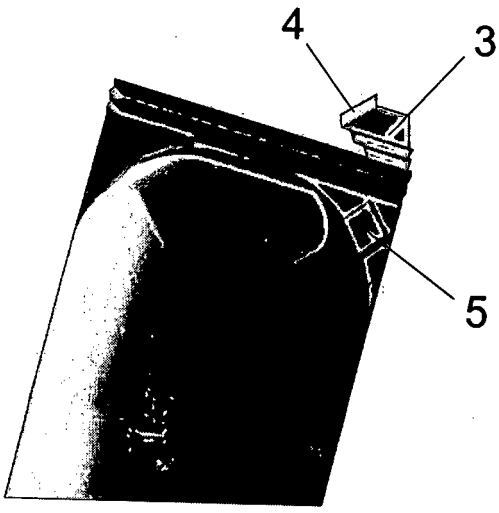

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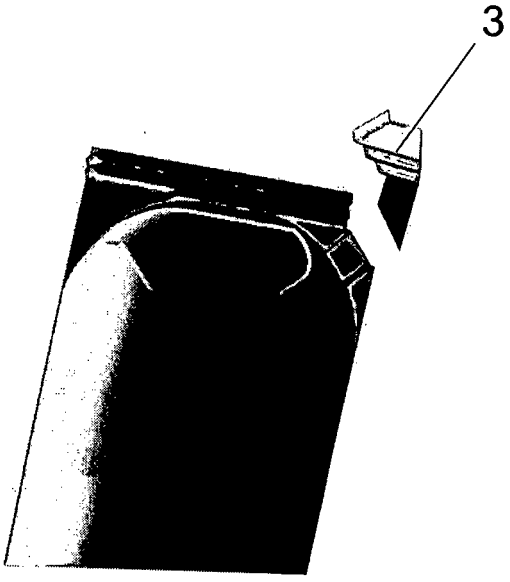
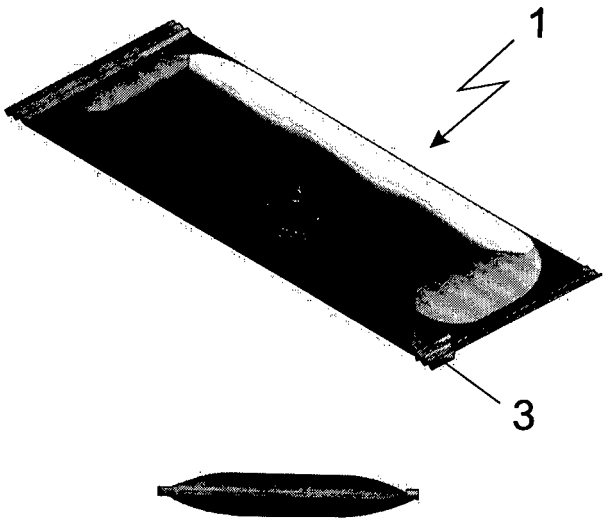


Figure 76

Figure 77



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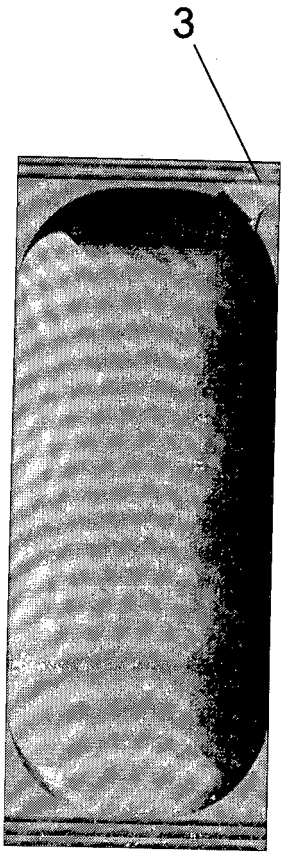

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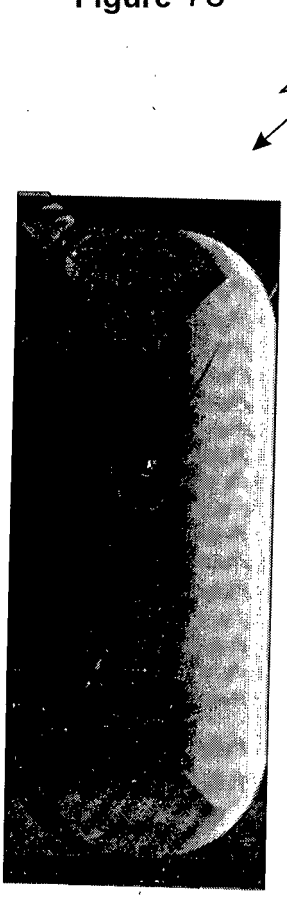

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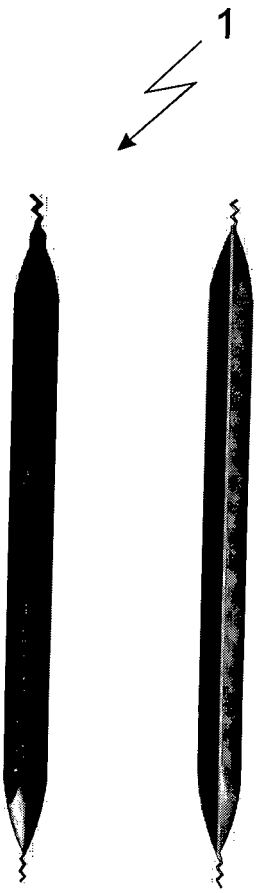
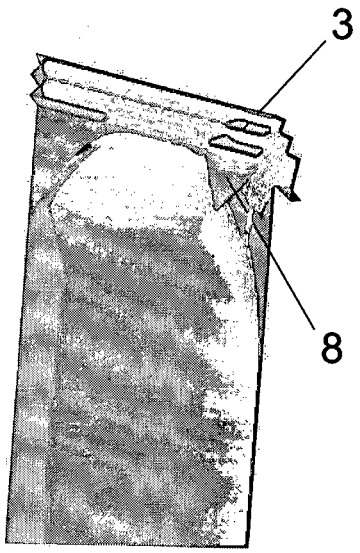


Figure 81

Figure 82



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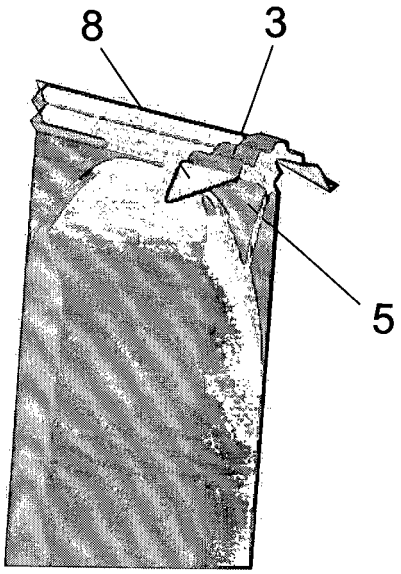

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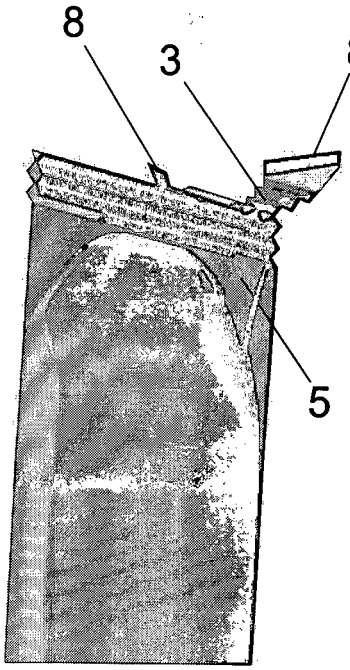

Figure 85

Figure 86

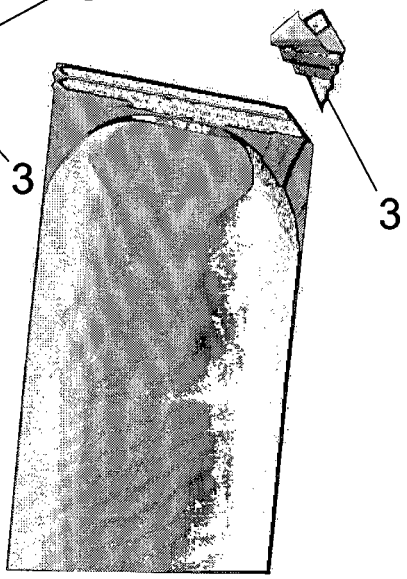

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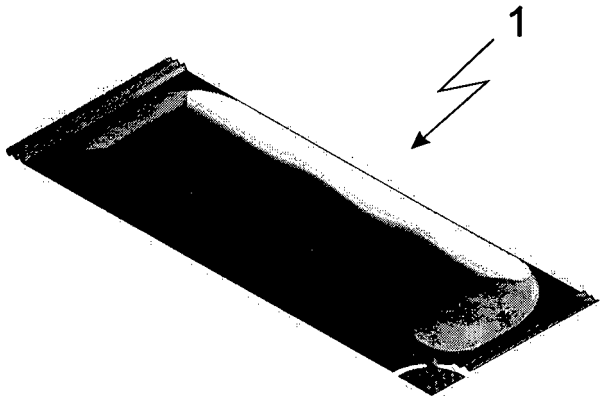
Figure 88



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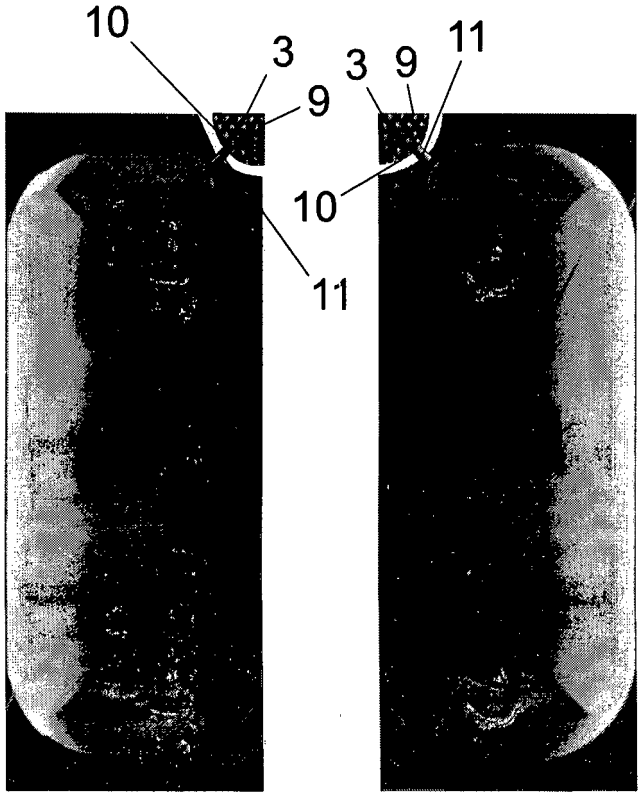


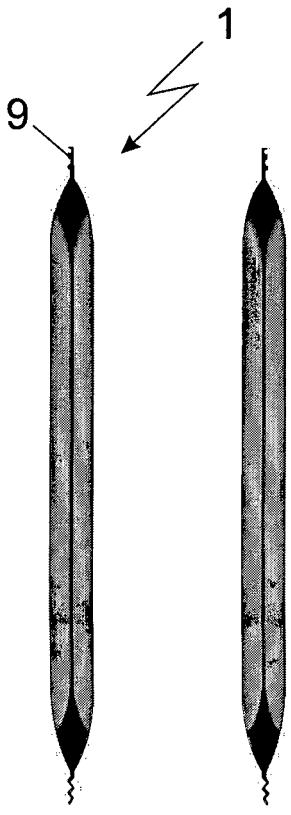
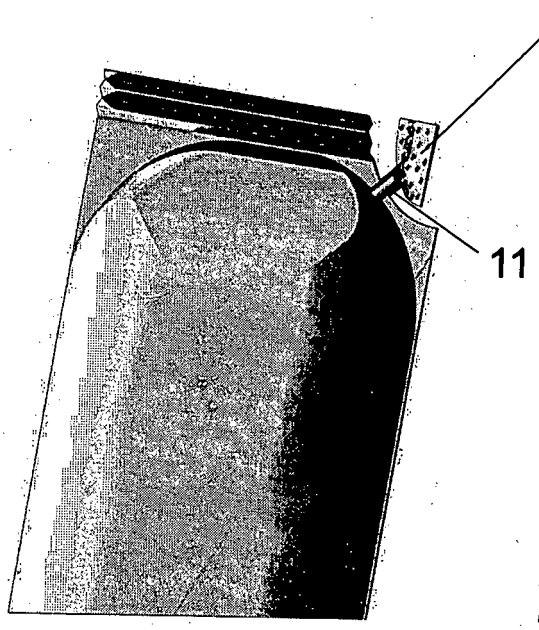


Figure 90 Figure 91 Figure 92 Figure 93



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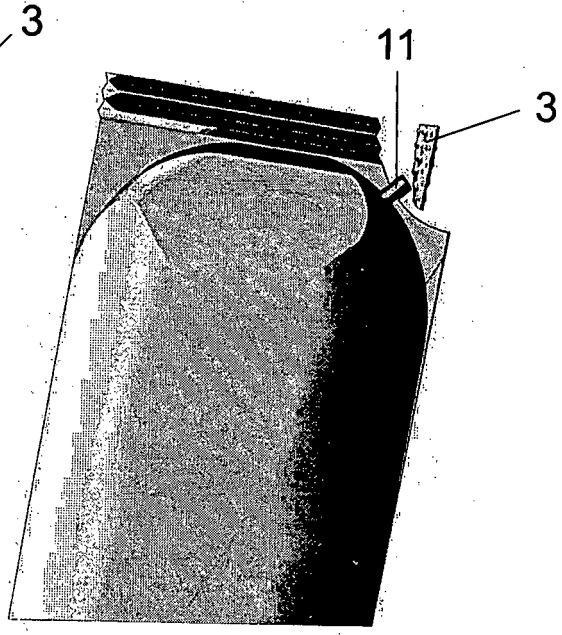

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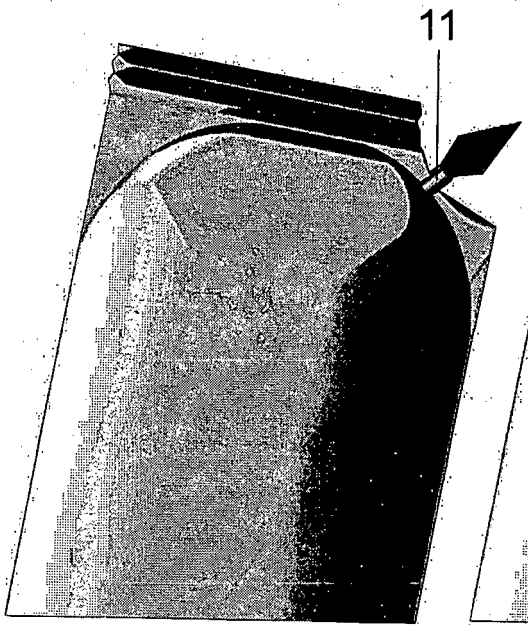

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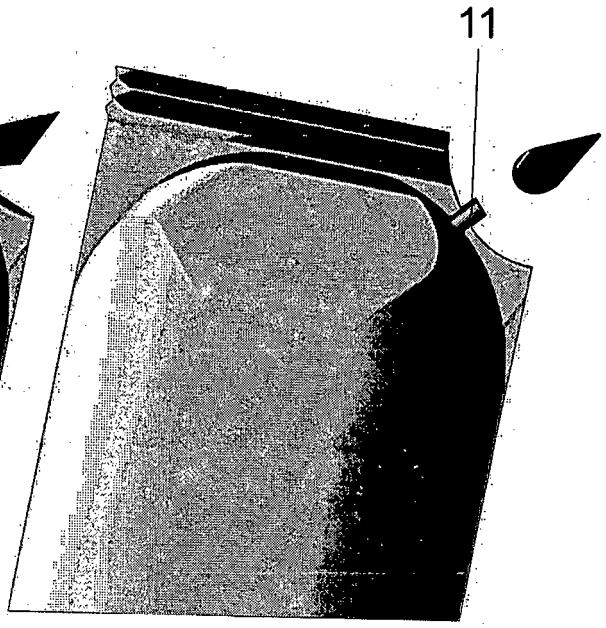

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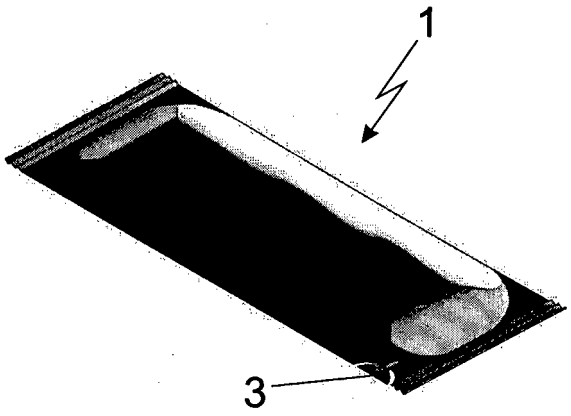

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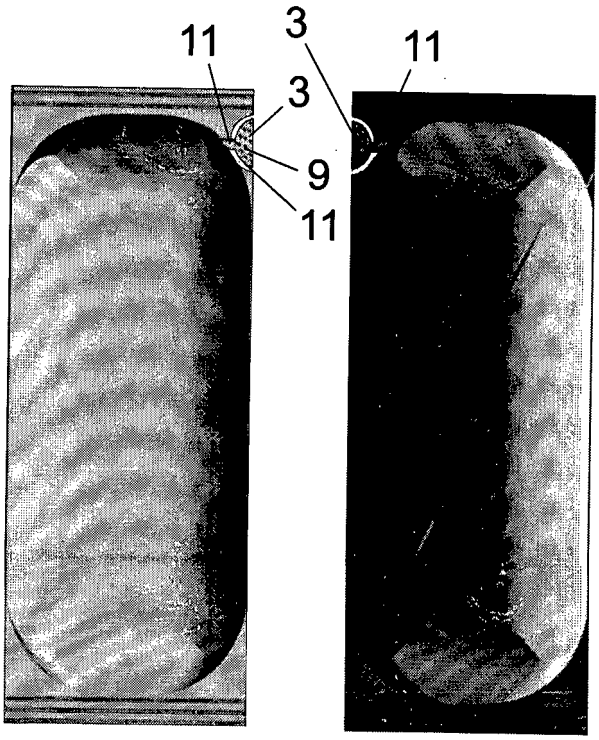

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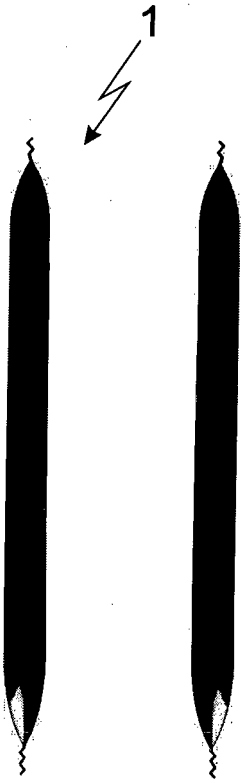
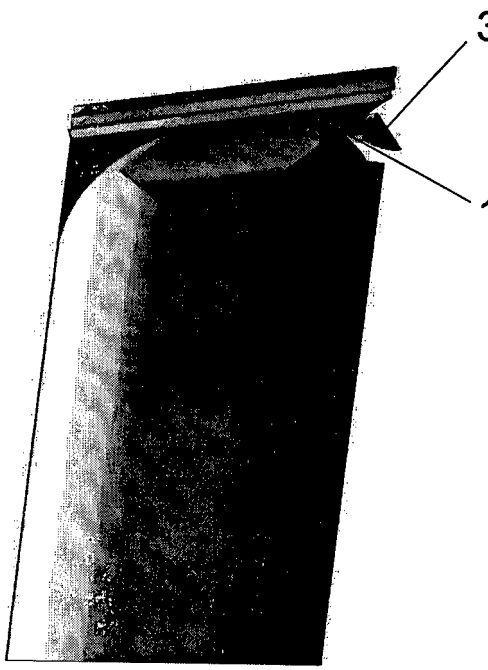


Figure 102 Figure 103



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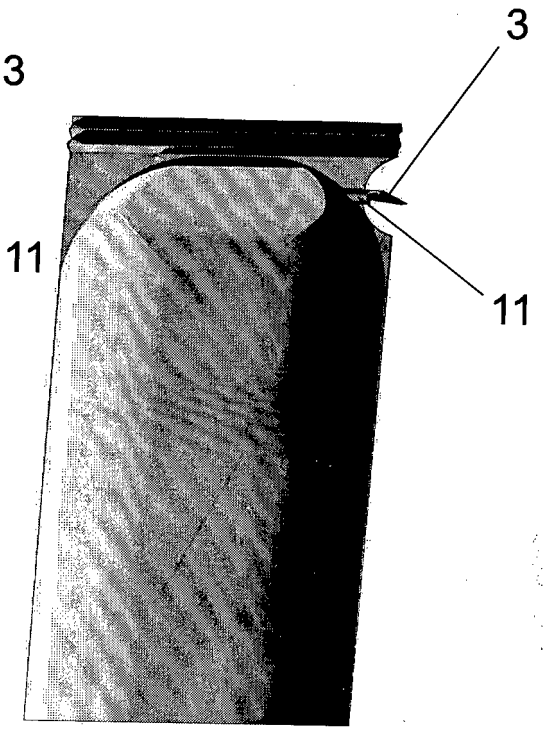

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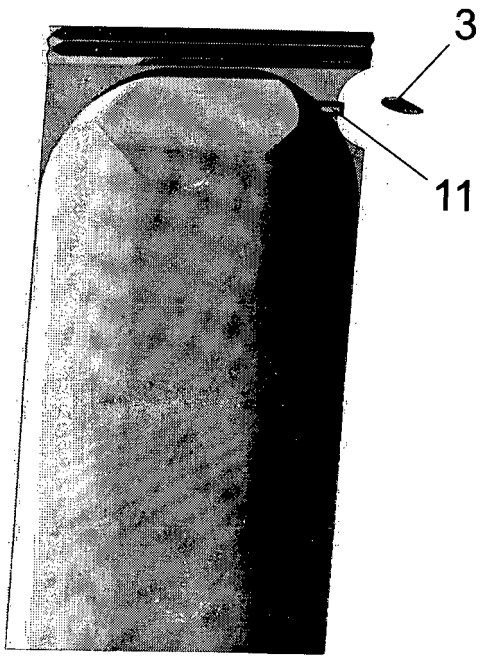

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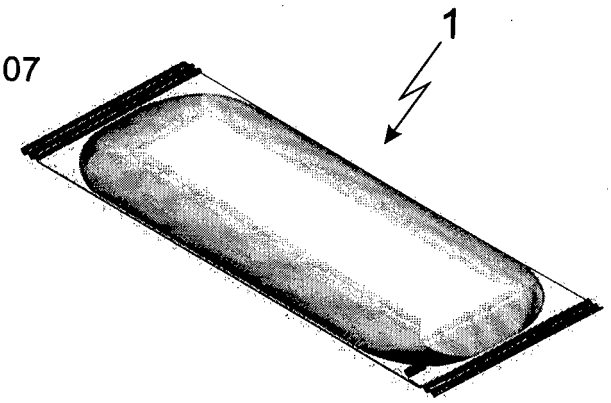
Figure 107



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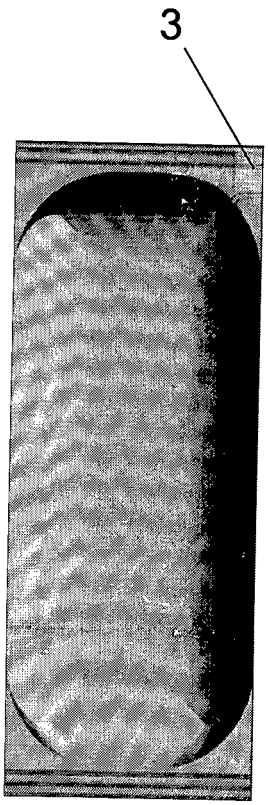

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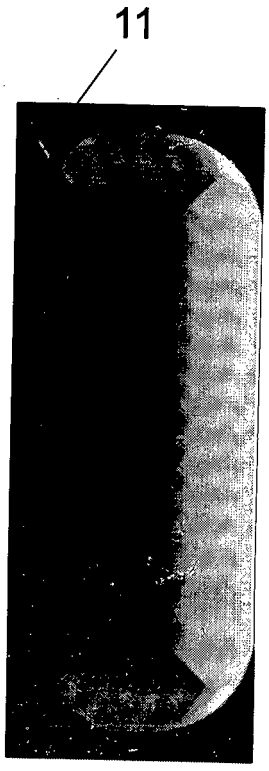

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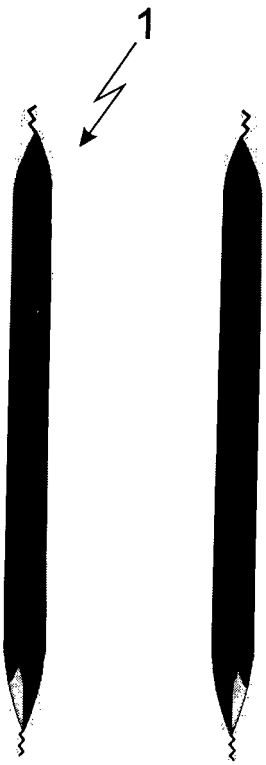

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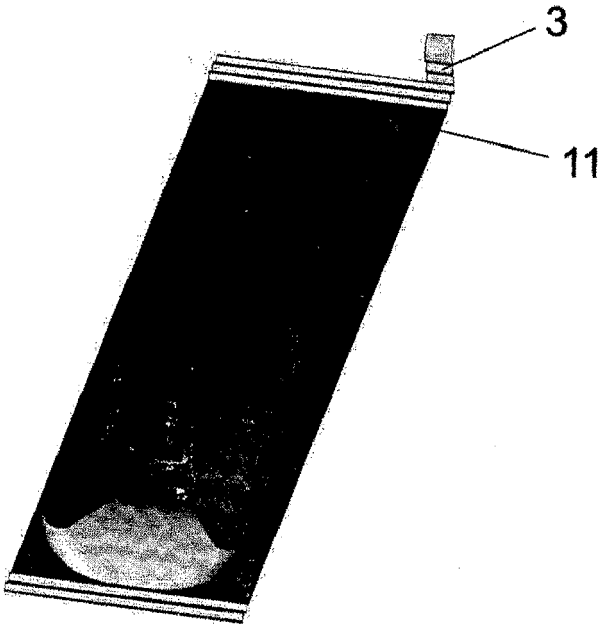

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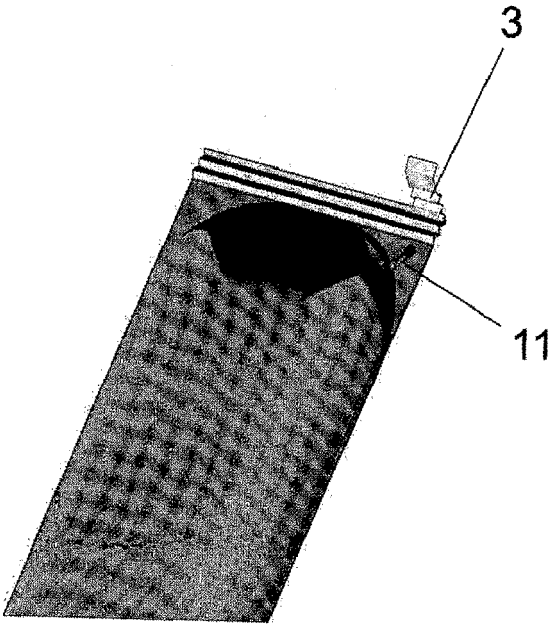

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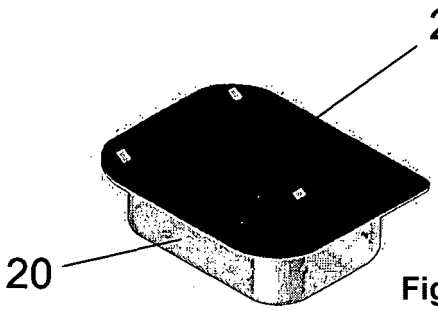

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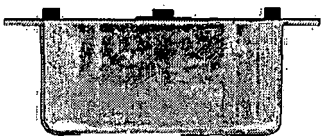

Figure 116

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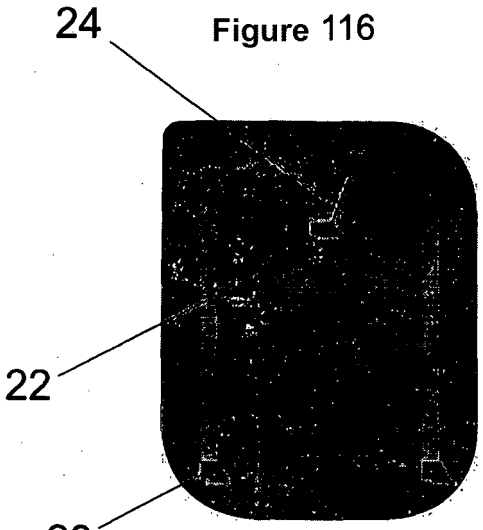

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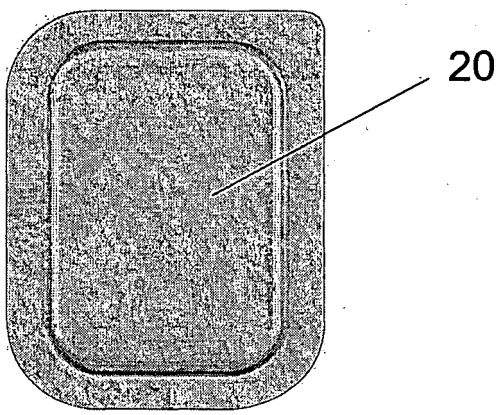

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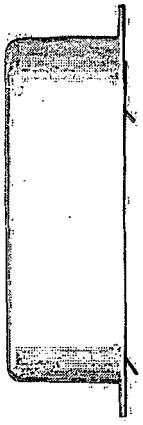

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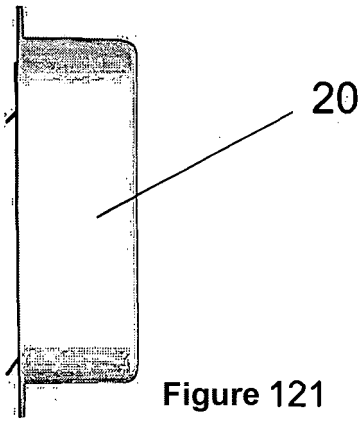

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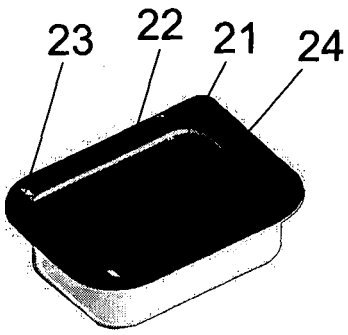

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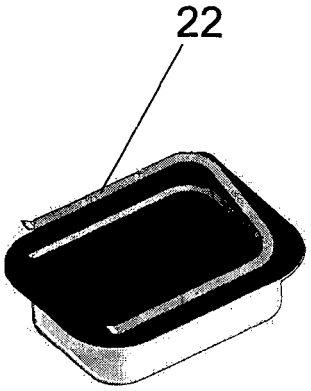

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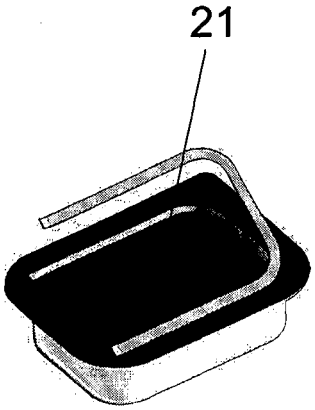

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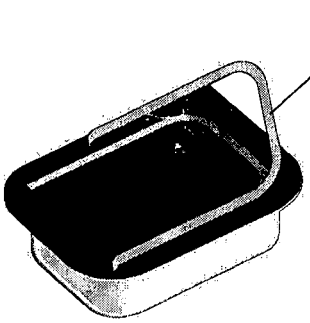

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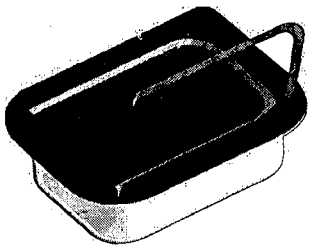

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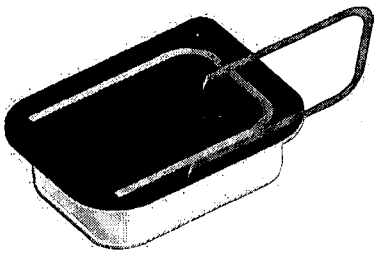

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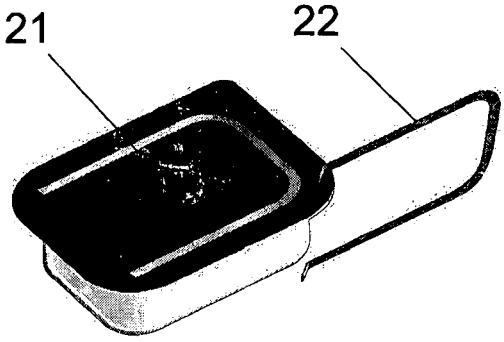

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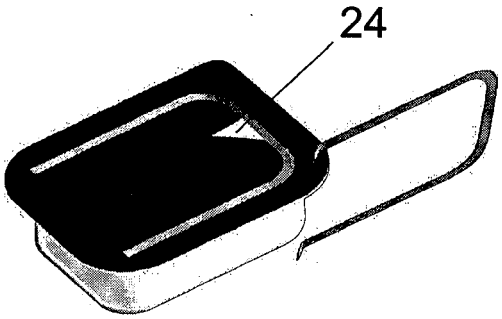

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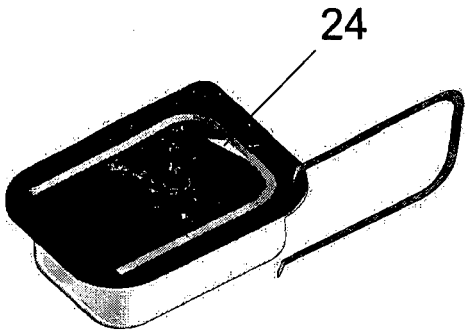
Figure 130



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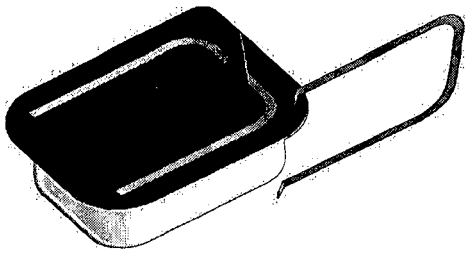
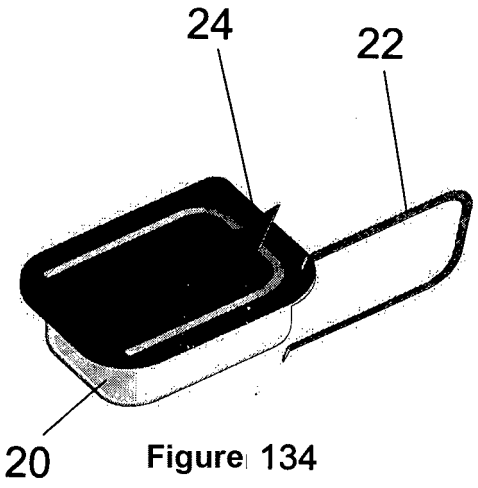


Figure 132

Figure 133



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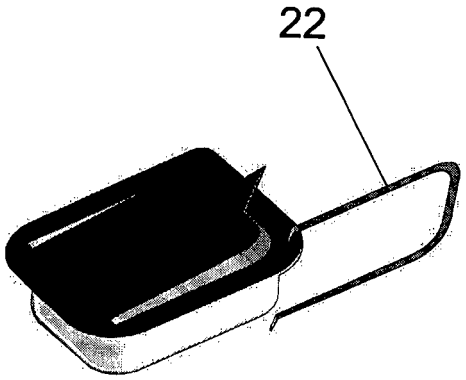

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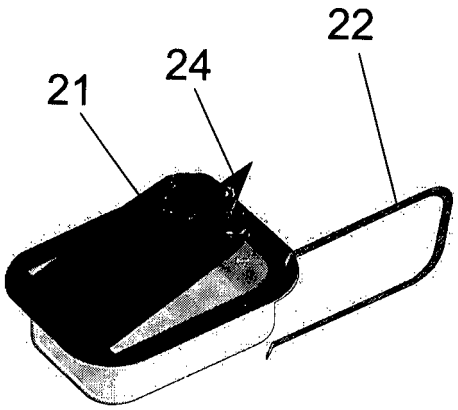

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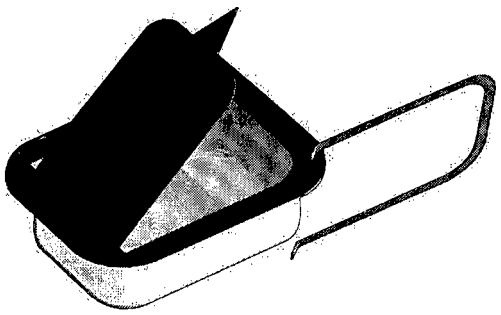

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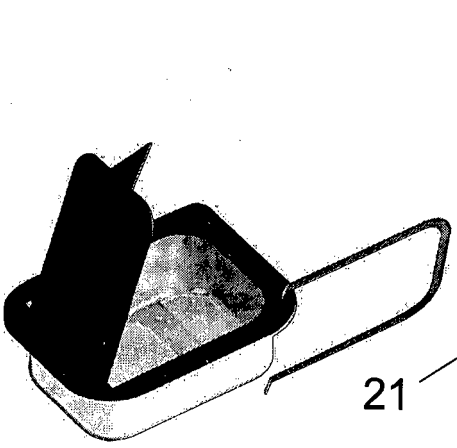

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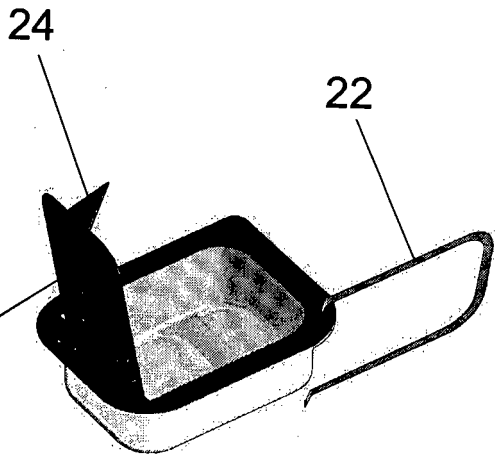

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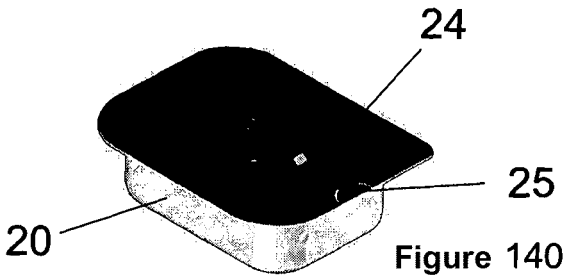

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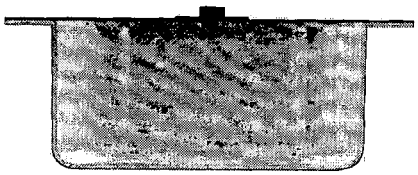

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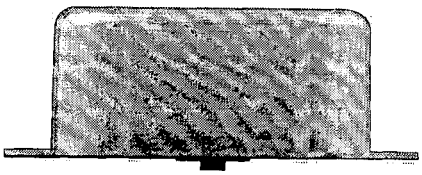

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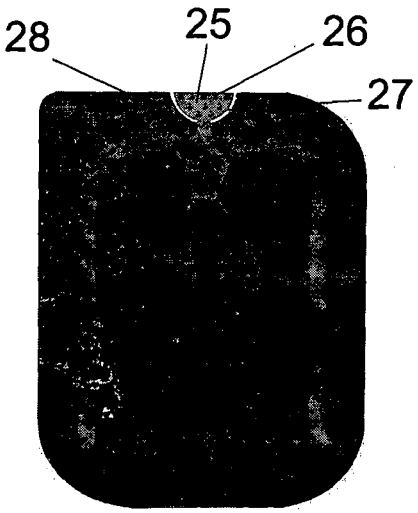

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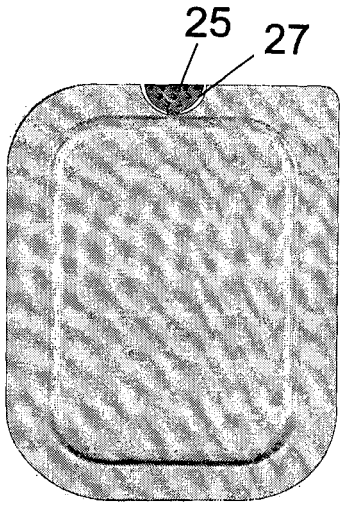

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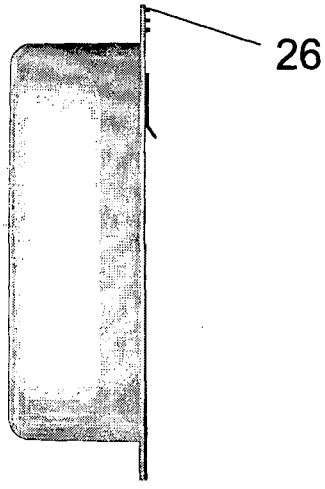

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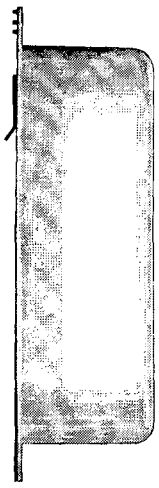

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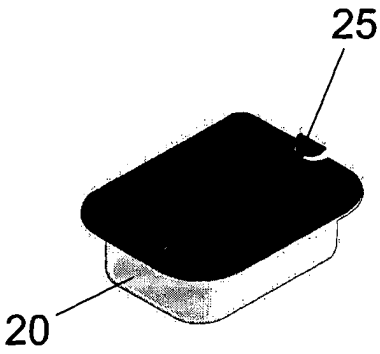

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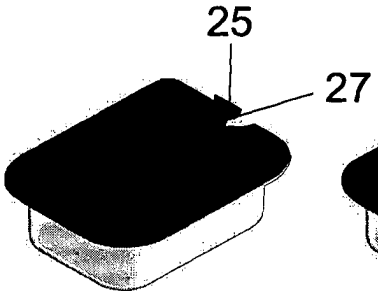

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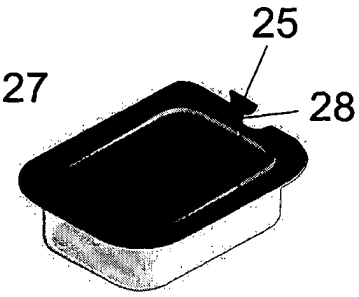

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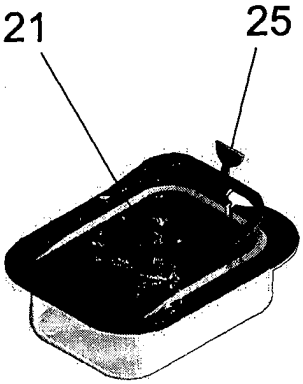

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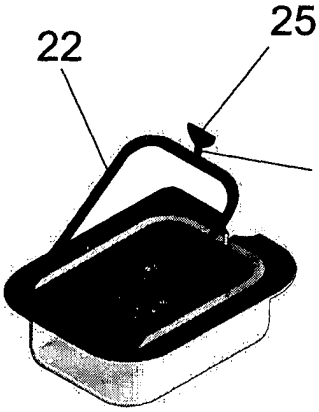

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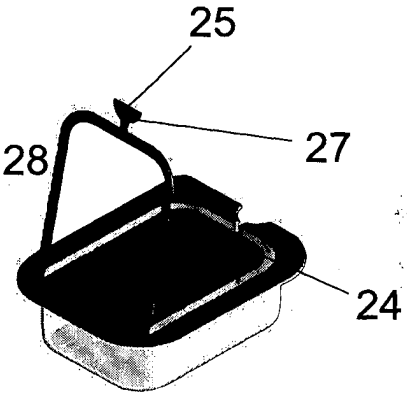

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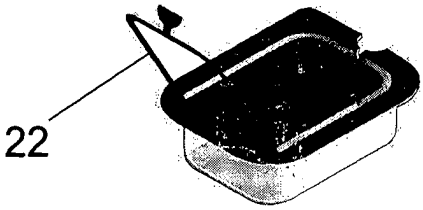

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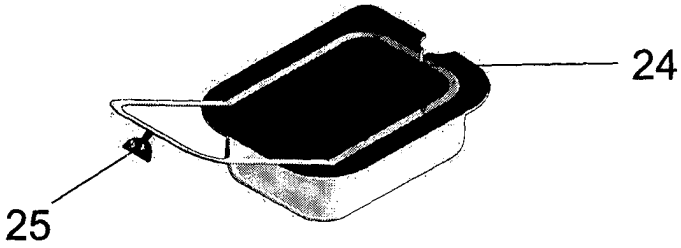

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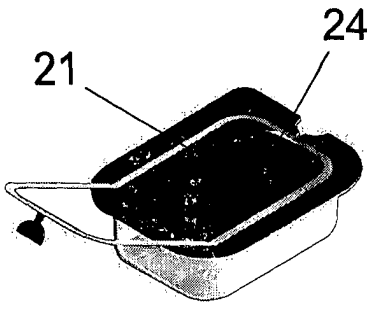

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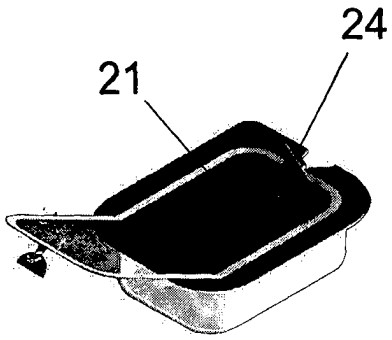
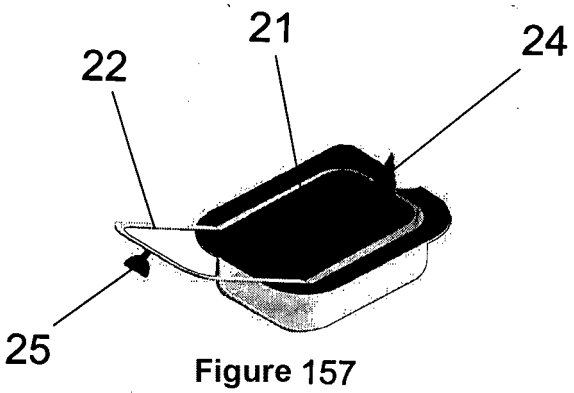


Figure 156



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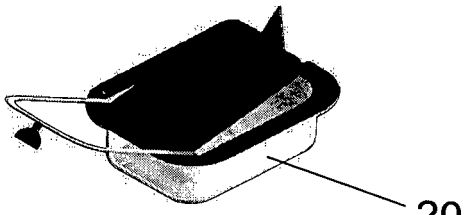

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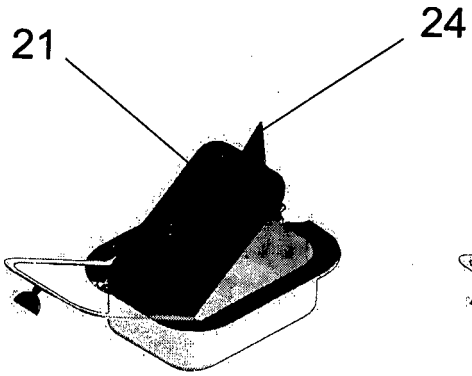


Figure 159

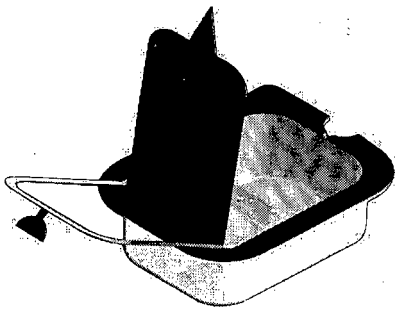


Figure 160

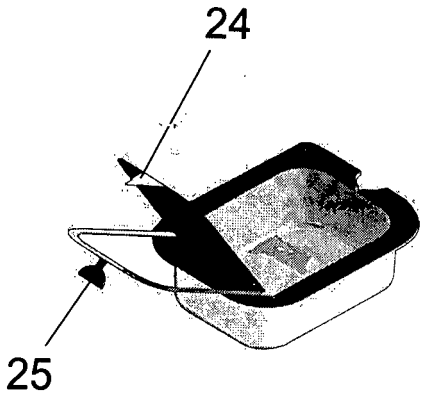
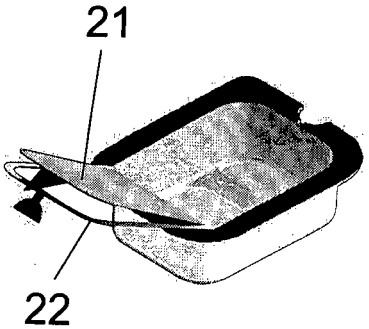


Figure 161



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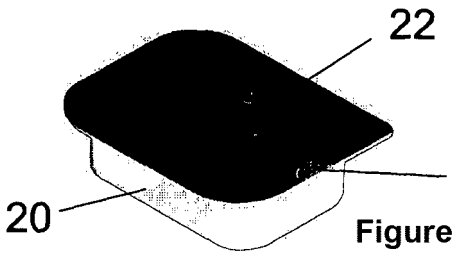


Figure 163

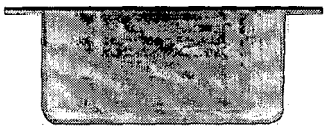
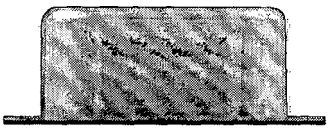


Figure 164



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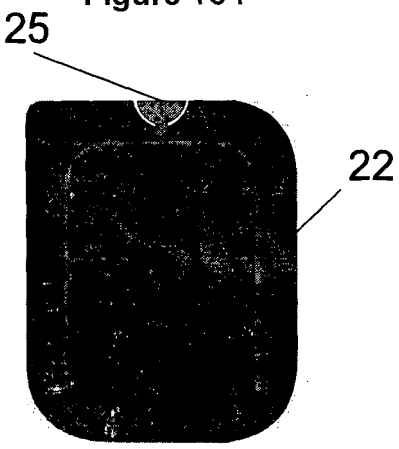


Figure 166

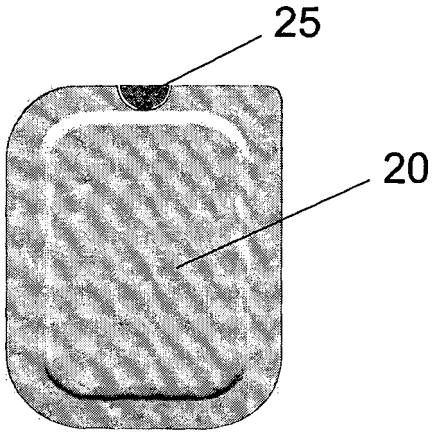


Figure 167

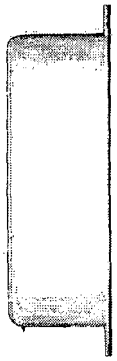
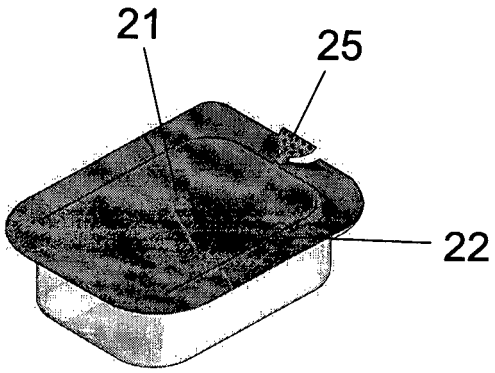


Figure 168

Figure 169



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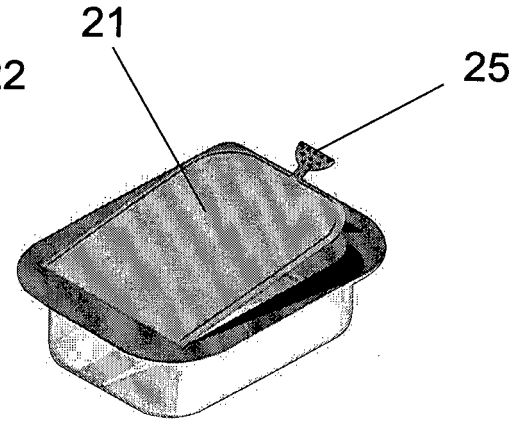

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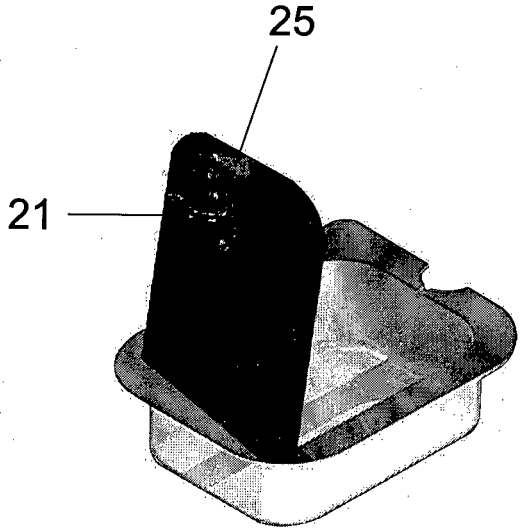


Figure 172

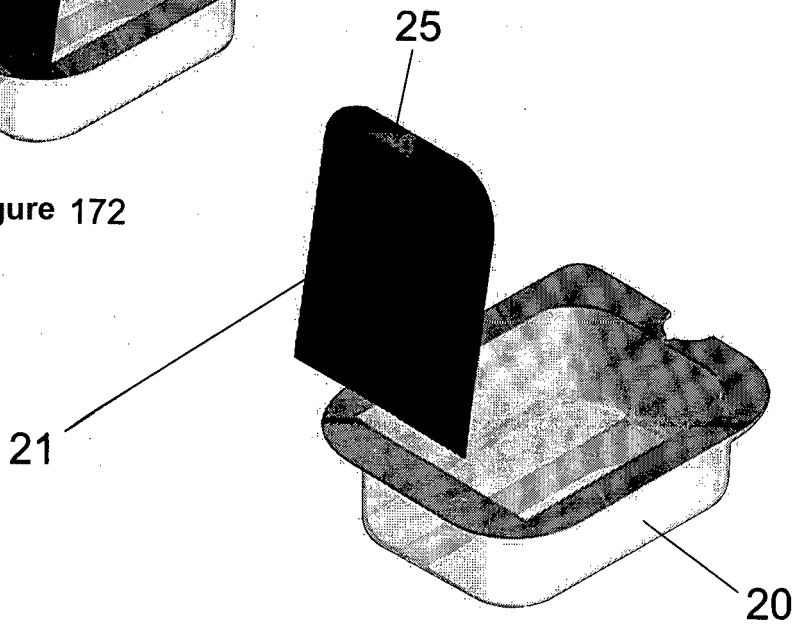
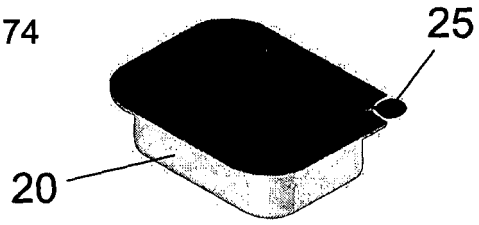
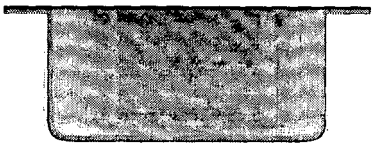


Figure 173

Figure 174





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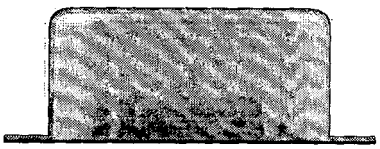
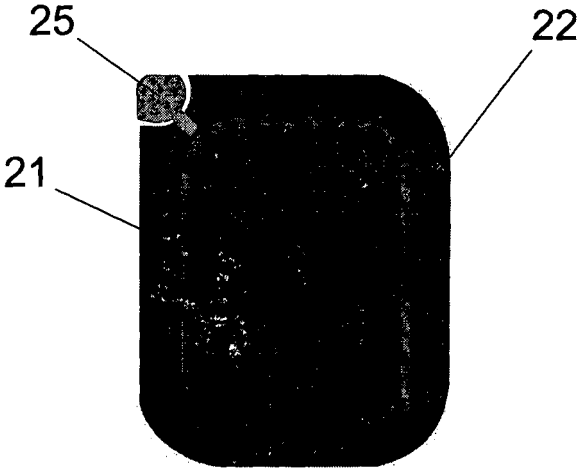


Figure 176



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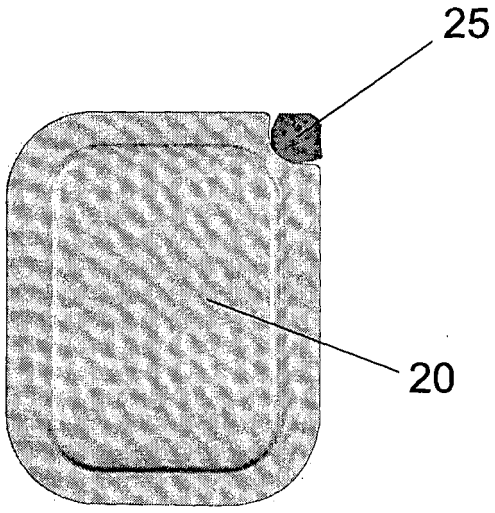

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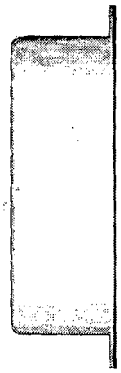


Figure 179

Figure 180

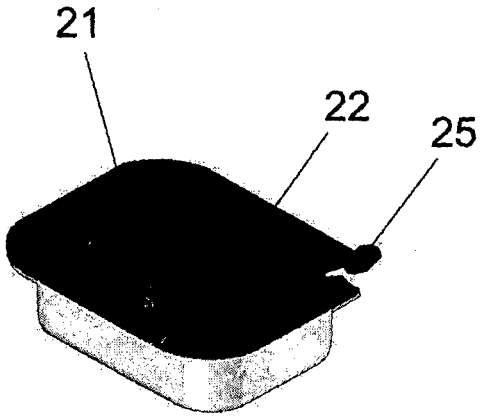
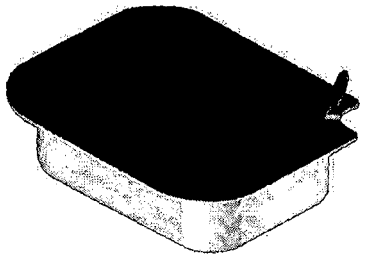


Figure 181



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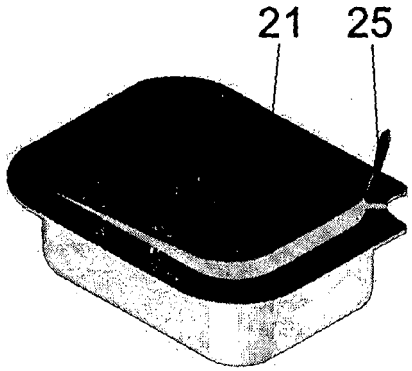

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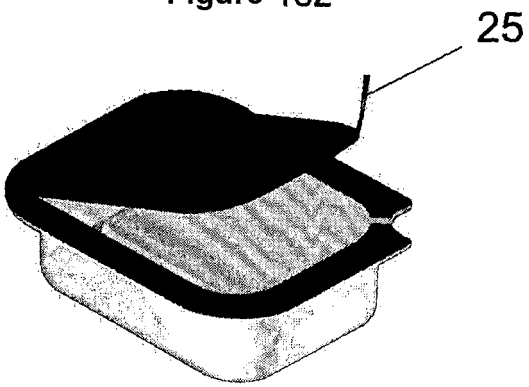

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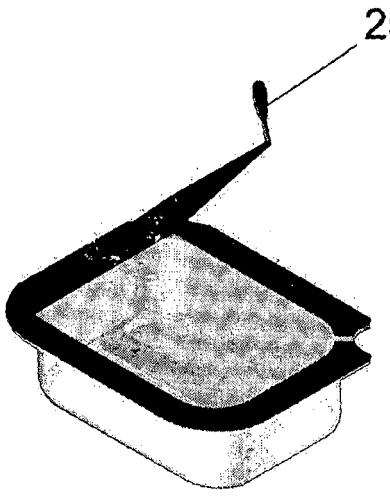

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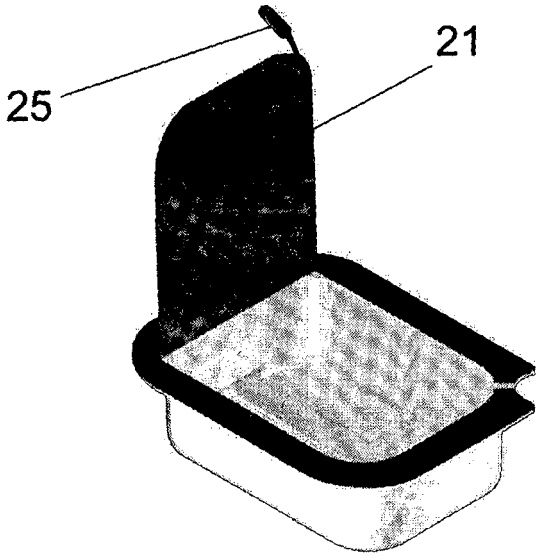

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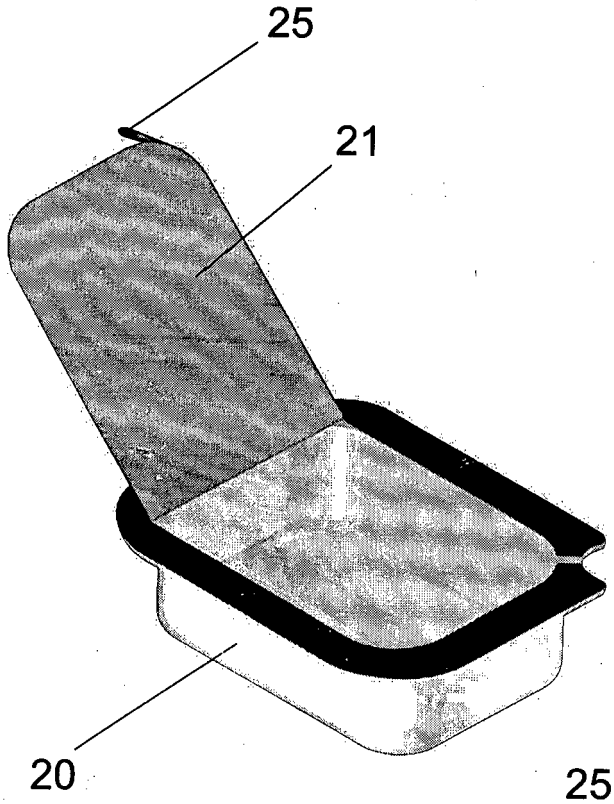

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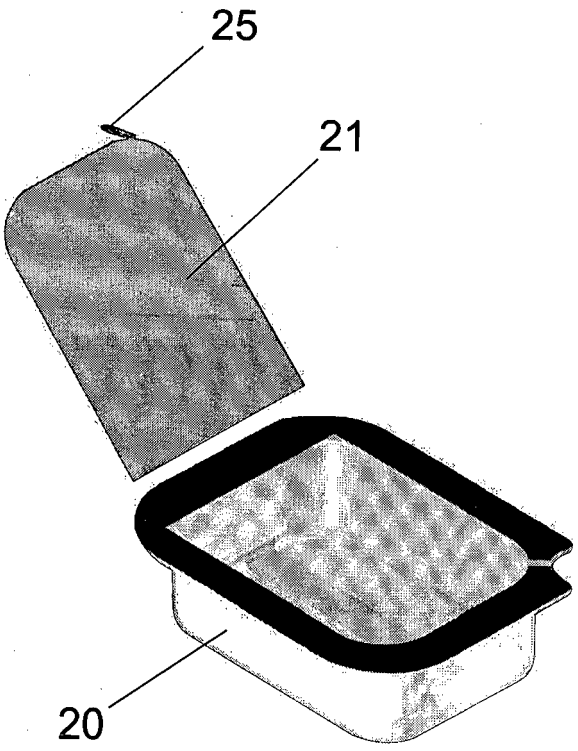

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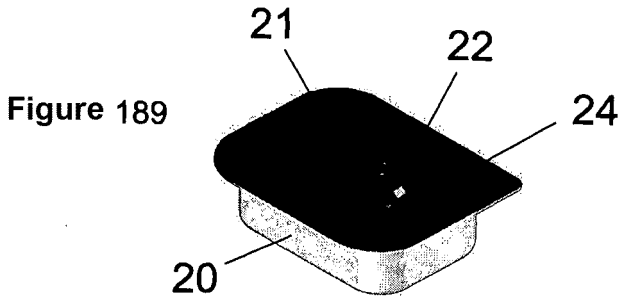

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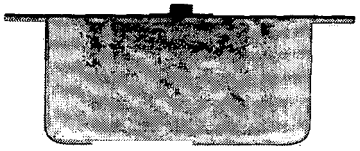

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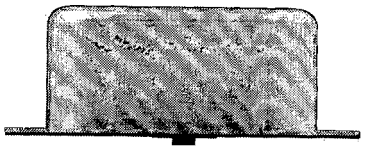

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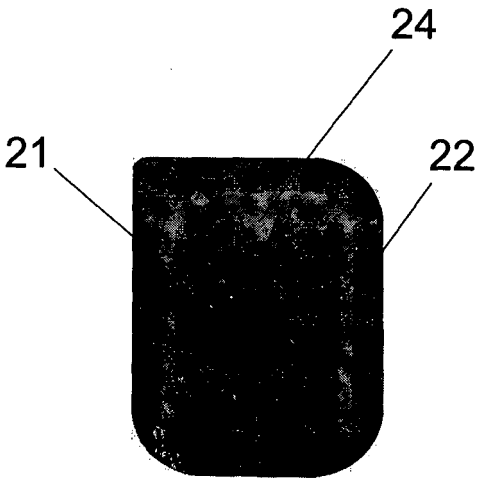
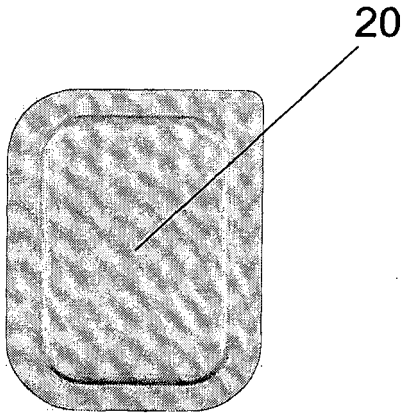


Figure 192



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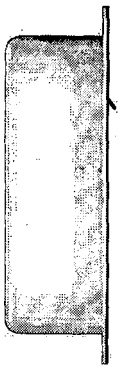

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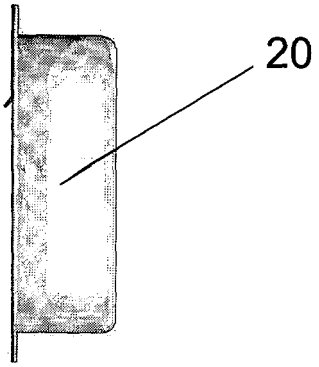

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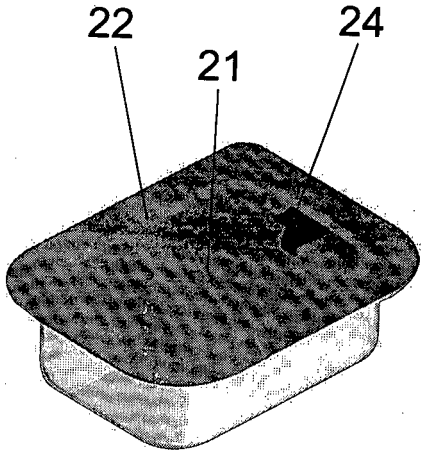

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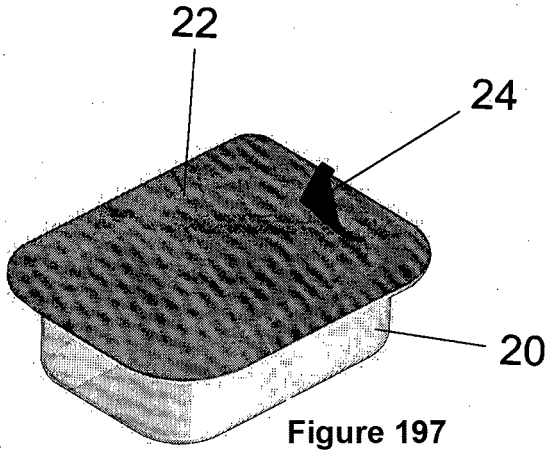
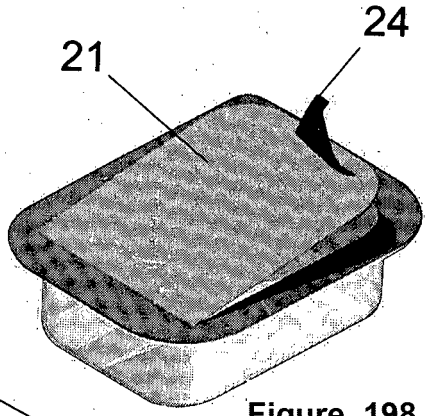


Figure 197



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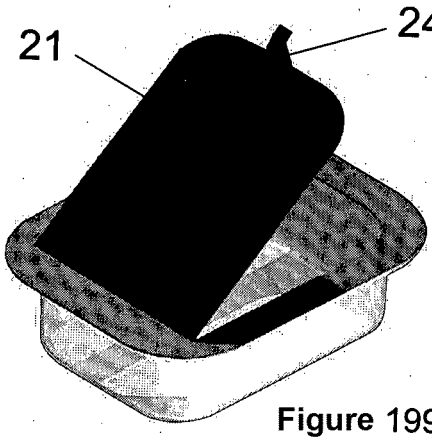

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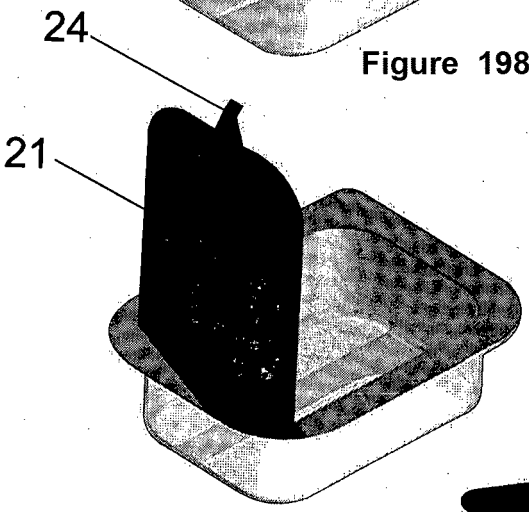

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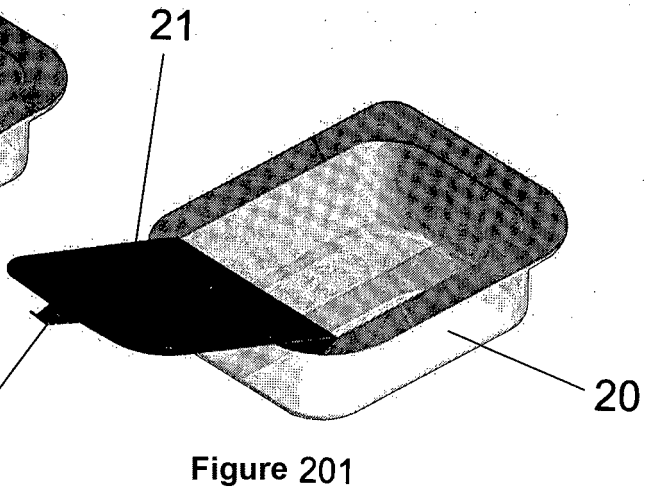

Figure 201

INTERNATIONAL SEARCH REPORT

International application No.
PCT/BR2014/000207

A. CLASSIFICATION OF SUBJECT MATTER

B65D 33/00 (2006.01), B65D 33/16 (2006.01), B65D 75/58 (2006.01), B65D 75/64 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Base de patentes INPI-BR (SINPI)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BR MU8802003 U2 (WOHRLE BERNARDO MARTINI [BR]) 18 may 2010 (2010-05-18) the whole document	1-11
Y	BR MU7802429 U (JOÃO CARLOS SCOPEL [BR]) 06 june 2000 (2000-06-06) the whole document	4, 9-11
Y	EP 0701948 A1 (BOOST DISTRIBUTION C V S C [BE]) 20 march 1996 (1996-03-20) the whole document	1-11
Y	US 6347725 B1 (NESTEC SA [CH]) 19 february 2002 (2002-03-20) (figures)	2

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
08/01/2015	28/01/2015

Name and mailing address of the ISA/	Authorized officer
INSTITUTO NACIONAL DA PROPRIEDADE INDUSTRIAL Rua Sao Bento nº 1, 17º andar cep: 20090-010, Centro - Rio de Janeiro/RJ	**Francisco Fabio Cavalcante Barros**
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Form PCT/ISA/210 (second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/BR2014/000207

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☒ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (2)) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/BR2014/000207

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate of the relevant passages	Relevant to claim No.
Y	WO 2009103771 A1 (SUIRE ISABELLE [FR]) 27 august 2009 (2009-08-27) (figures)	7, 8

Form PCT/ISA/210 (continuation of second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/BR2014/000207

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		RU 2489335 C2	2013-08-10
		US 2010326877 A1	2010-12-30
		US 8251217 B2	2012-08-28

Form PCT/ISA/210 (patent family annex) (July 2009)