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(54) Container, in particular for cosmetics products, with a removable mirror holder insert.

(57) A container with removable modular elements, in particular for containing cosmetics or other products, comprising a lower base part (11) and an upper cover part (12) connected together by a hinge formed from a pin (13) rigid with a first of said two parts (11, 12) and a freely removable snap-positionable connection element (15, 16) allowing it to rotate rigidly with the other of the two parts (12, 11). A modular insert element (21) provided with a mirror can be housed within said upper part (12) and be snap positioned by means of a freely removable connection element (24, 25) which enables it to rotate, and by means of at least one portion (26) of the insert element (21) which is inserted into a seat (20) in the upper part (12).

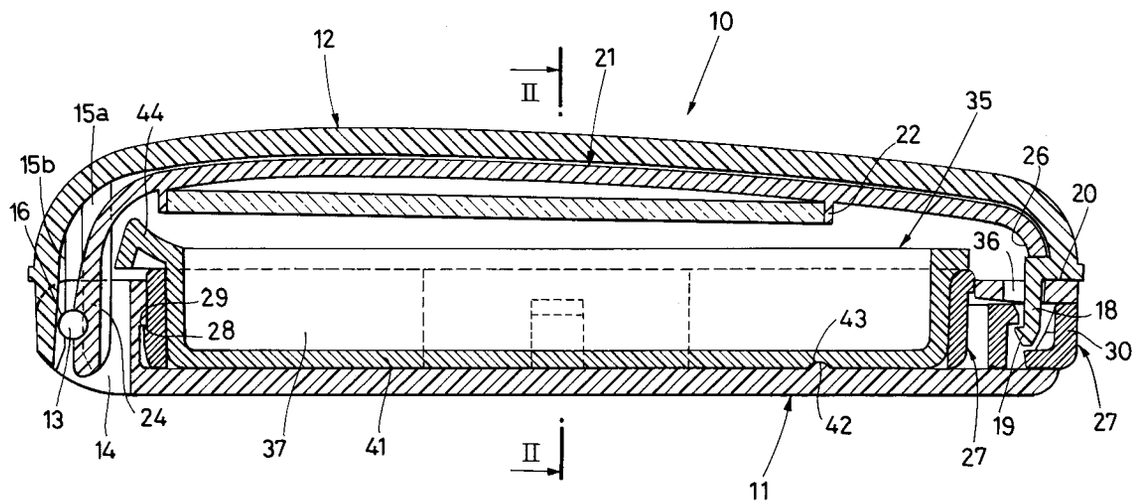

Fig.1

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This invention relates to a container with removable modular elements, particularly for containing cosmetics products.

Currently used containers consist of a lower part and an upper part connected together by a hinge provided within a narrow region of the two parts, so as to form a containing box element.

Containers of this type generally contain cosmetics products such as eye shadow, blusher, face powder, lipstick and the like; and possibly other products not of cosmetics type.

These products are all either located directly in a seat in the container, usually provided in its lower part, or in an interchangeable insert element housable in the same seat.

In this case the insert element has to be both easily positionable in and easily removable from its seat, for example by having snap-coupling elements associated with it.

An example of such a container is the subject of the patent DE-A-42 13 239.

In addition the upper part of the container usually carries, fixed rigidly thereto for example by adhesive, a mirror which can be used both as an aid when applying cosmetics products and for any other purpose.

In the case of a transparent container the positioning of the mirror hinders the view of the product and/or of its colour within the container, or the product may be able to be only partly seen from the outside. In addition the glued region of the mirror is visible, so detracting from the overall appearance.

With containers of this type, as collection of refuse on a sorted basis becomes increasingly more widespread, the mirror must firstly be removed before disposing of the consumed container.

This also applies if plastics containers are to be salvaged for recycling with an aim to totally satisfy all ecological problems connected with poorly degradable materials.

An object of the invention is to obviate the aforesaid drawbacks by providing a container which can receive any type of insert and internally hold a mirror, while at the same time being structurally simple, of low cost and of easy construction.

A further object is to provide a container satisfying all ecological requirements or regulations, so allowing differential salvaging of its materials.

These objects are attained by a container having the characteristics described in the accompanying claims.

The structural and functional characteristics of the invention and its advantages compared with the known art will be more apparent from the following description, given with reference to the accompanying drawings which show one embodiment of a container incorporating the innovative principles of the invention. On the drawings:

Figure 1 is a vertical cross-section through the container of the invention on the line I-I of Figure 2;

Figure 2 is an elevation half in full view and half in section taken on the line II-II of Figure 1;

Figures 3a and 3b are two exploded views respectively of the upper cover part and of the lower base part which form the container of the invention;

Figure 4 is a top plan view of the lower base part of the container according to the invention;

Figure 5 is a plan view showing the interior or an insert element for supporting a mirror according to the invention;

Figure 6 is a front elevation shown half in full view and half in section, of the insert element shown in Figure 5;

Figure 7 is a plan view showing the interior of the upper or cover part of the container according to the invention;

Figure 8 is a front elevation shown half in full view and half in section, of the cover element shown in Figure 7;

Figure 9 is a top plan view of an internal insert element for supporting an insert element for containing products;

Figure 10 is a section on the line X-X of Figure 9;

Figure 11 is a top plan view of an insert element for containing products such as eye shadow, blusher, etc.;

Figure 12 is a section on the line XII-XII of Figure 11.

With reference to the figures, a container according to the invention is indicated overall by 10 and structurally comprises a lower base part 11 and an upper cover part 12, both of plastics material shaped to half-box form and connected together by a hinge, which material can also be transparent.

The connection and articulation hinge comprises a pin 13 (which can either be formed integrally or added) positioned within a recess 14 provided along a region of the perimeter of the lower part 11, so as to be external to the rear part of the container 10.

The remainder of the hinge consists of two pairs of spaced-apart appendices 15 projecting downwards from the upper or cover part 12 of the container 10.

Each of the two pairs of appendices 15 comprises two facing arms 15a and 15b which are spaced apart and elastically yieldable so as to be able, in a region thereof provided with an intermediate widening recess 16, to snap-receive and house the pin 13 rigid with the lower part 11. In the

separation region between the two pairs of appendices there is provided an appendix comprising only one arm 17, which extends from the outer surface of the container cover part 12 to form a covering continuity by being inserted into the recess 14 in the lower part 11.

In a position diametrically opposite that of the pairs of appendices 15 there is provided a downwardly projecting curved hook element 18 arranged to engage in a complementary seat provided in the other half of the container 10.

The hook element 18 has a thickened end 19 for the engagement, and upperly defines within the cover part 12 a step-shaped seat 20 the size of which is limited at most to the space available between the pairs of appendices 15.

The container cover or upper part 12 (Figure 7) is curved and arranged to receive a first insert element or removable modular element indicated overall by 21 (Figures 5 and 6). The outer shape of the insert element 21 is complementary to the inner shape of the cover part 12 in which it is located.

Centrally, the element 21 comprises a raised-perimeter housing 22 for positioning a mirror (not shown). In a rear region the element 21 is provided with two recesses 23 which penetrate into its profile and are spaced apart about the axis of the cover part 12, in a manner complementary to that of the two pairs of appendices 15, to enable them to pass.

Between the two recesses 23 there is provided a single arm-shaped appendix 24 with an intermediate widening recess 25, which faces outwards to be able to be snap-positioned on the pin 13. When in this position the single appendix 24 faces the one-arm appendix 17 extending from the upper part 12.

The appendix 24 can also be provided with a second recess 25a below the recess 25 to facilitate disengagement of the element 21 from the cover part 12.

That shaped end 26 of the first insert element 21 distant from the appendix 24 is inserted into the step-shaped seat 20 provided in the cover part 12.

The cooperation between the shaped end 26 and the shaped appendix 24 snap-positioned on the pin 13 results in stable positioning of the insert element 21 within the cover part 12 of the container.

Both the pairs of appendices 15 with their relative widening recess 16 and the single appendix 24 with its widening recess 25 represent freely removable snap-positionable connection elements which allow the lower part and upper part to rotate relatively.

In the illustrated embodiment, an internal insert element indicated by 27 (Figures 9 and 10) can be inserted into the lower base part 11 (Figure 4). The internal insert element 27 comprises a step 28 which is inserted into an undercut 29 inwards of the recess 14 in the lower base part 11.

A further shaped and recessed portion 30 is provided diametrically opposite the step 28 in the internal insert element 27, and is insertable into a complementarily shaped seat 31 in the lower base part 11 of the container.

In two inner lateral facing regions almost in proximity to the edge, the internal insert element 27 comprises pairs of ribs 32 facing towards the interior of the element and spaced apart by an aperture 33.

The aperture 33 is provided for the passage of a tooth 34 which, as will be apparent hereinafter, is rigid with an interchangeable insert element indicated overall by 35 (Figures 11 and 12) which is positionable within the lower part 11 and carries the cosmetics or non-cosmetics product to be used (see DE-A-42 13 239).

The lower part 11 also comprises, in a frontal region opposite the recess 14, a passage 36 for receiving a closure hook element 18 projecting downwards from a complementary region of the upper part 12 of the container.

The insert element 35, of interchangeable type, comprises a depressed central region 37 for containing the product, and from which there upperly extends a perimetral flat rim 38. On outer lateral walls 39 on opposite sides of the depressed central region 37 there are provided said teeth 34 for engaging below the ribs 32 of the internal insert element 37 positioned within the lower base part 11.

There is also provided a further engagement aiding more stable mutual positioning of the parts, which again in this case can be likened to removable modular elements.

There are in fact provided projections 42 internally on a bottom 40 of the base part 11 and indentations 43 externally in the bottom 41 of the interchangeable insert element 35 to interact with each other as stable mounted positioning elements, additional to the teeth 34 and the ribs 32.

An upper end of the insert element 35 is provided with an outwardly, ie upperly, extending appendix 44 which facilitates extraction of the element 35 after it has been located within the lower part 11.

Alternatively, the lower base part 11 can comprise a simple raised-perimeter housing such as that already indicated by 22, to contain the product or an interchangeable tray containing the product.

A container according to the invention is therefore sold with its lower and upper parts (which can be transparent or non-transparent) closed and containing the internal and interchangeable insert ele-

ments containing the cosmetics or non-cosmetics product. Alternatively, as stated, the product can be contained directly in a housing in the lower base part.

The insert element with the mirror can also be separate to enable the product, its colour etc. to be seen.

This also makes the container of elegant presentation, while being able to be easily and quickly fitted into its correct position.

Likewise, at the end of its life the insert element carrying the mirror can be separated to allow sorted salvage collection as desired, or be reinserted into a new container.

Claims

1. A container with removable modular elements, in particular for containing cosmetics or other products, comprising a lower base part (11) and an upper cover part (12) connected together by a hinge formed from a pin (13) rigid with a first of said two parts (11, 12) and a freely removable snap-positionable connection element (15, 16) allowing it to rotate rigidly with the other of said two parts (12, 11), characterised in that a modular insert element (21) provided with a mirror can be housed within said upper part (12) and be snap positioned by means of a freely removable connection element (24, 25) which enables it to rotate, and by means of at least one portion (26) of said insert element (21) which is inserted into a seat (20) in said upper part (12).

2. A container as claimed in claim 1, characterised in that said connection element for said insert element (21) provided with a mirror consists of an appendix (24) with an intermediate recess (25) positionable on said pin (3).

3. A container as claimed in claim 1, characterised in that said connection element for said other part comprises two spaced-apart pairs of downwardly projecting appendices (15) defining elastically yieldable facing arms (15a, 15b).

4. A container as claimed in claim 3, characterised in that between said facing arms (15a, 15b) there is a widening recess (16).

5. A container as claimed in claim 3, characterised in that said two pairs of appendices (15) extend from said upper part (12) and receive said freely removable connection element (24, 25) for said modular insert element (21) between them.

6. A container as claimed in claim 1, characterised in that said seat (20) consists of a step-shaped recess provided on the opposite side to said hinge.

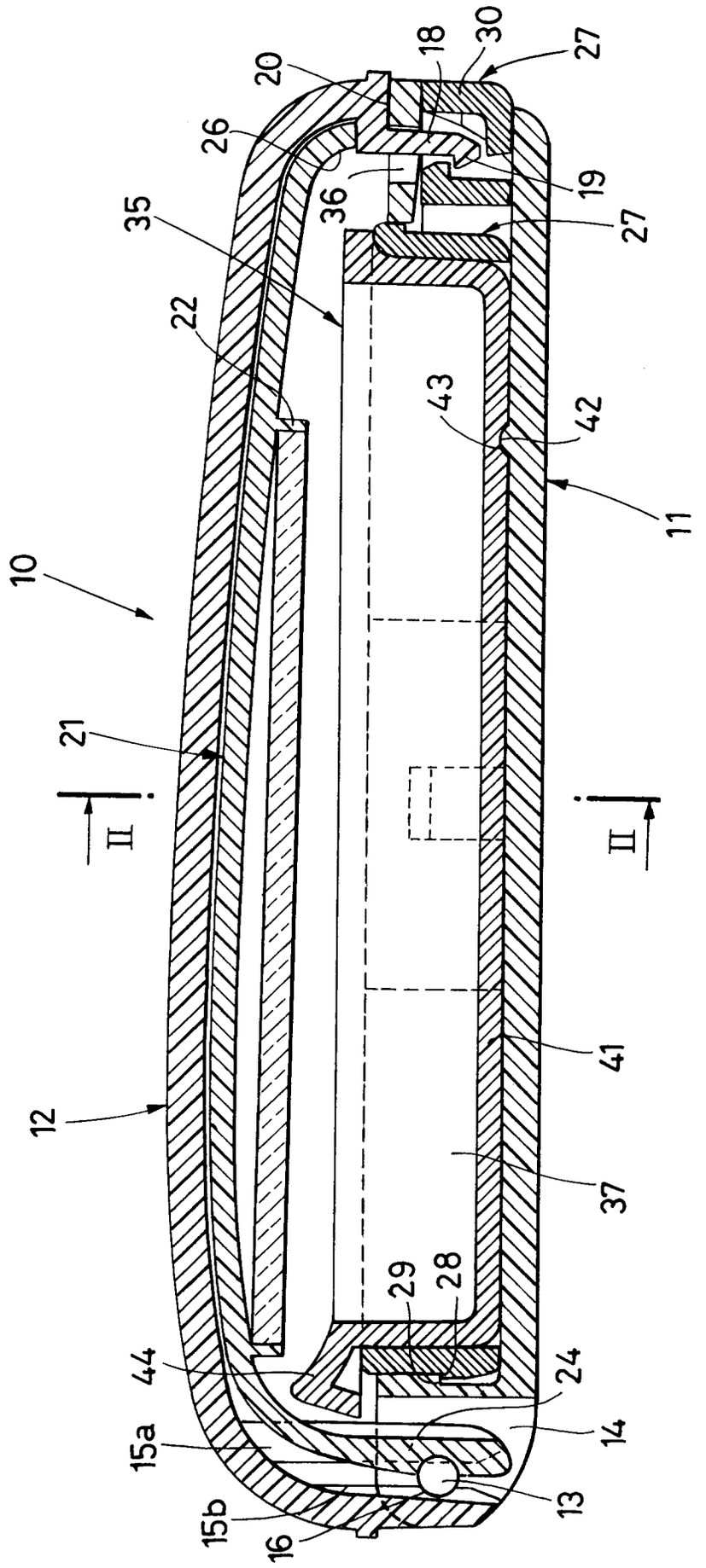
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Fig.1

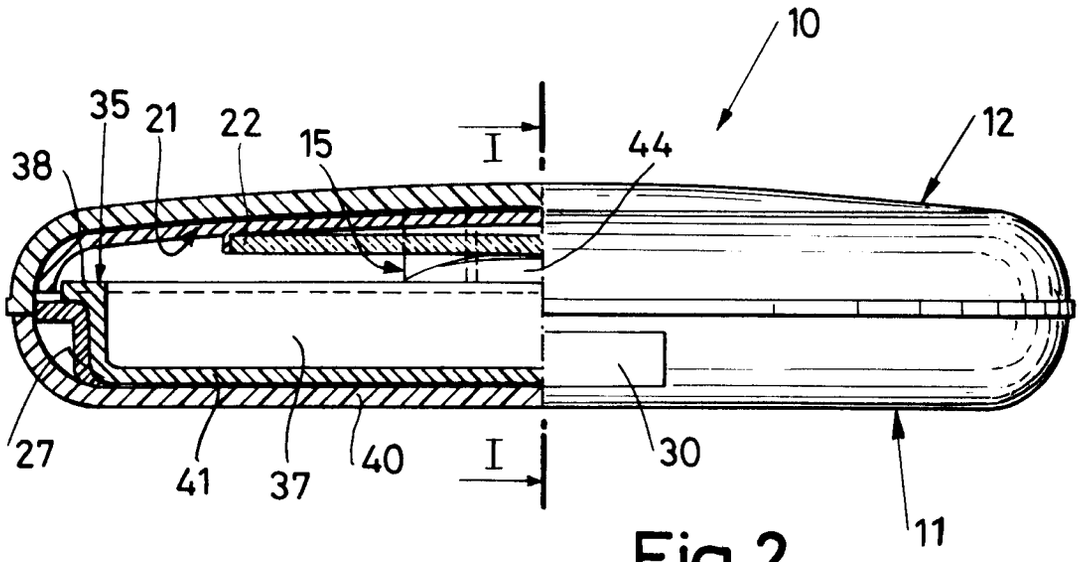

Fig.2

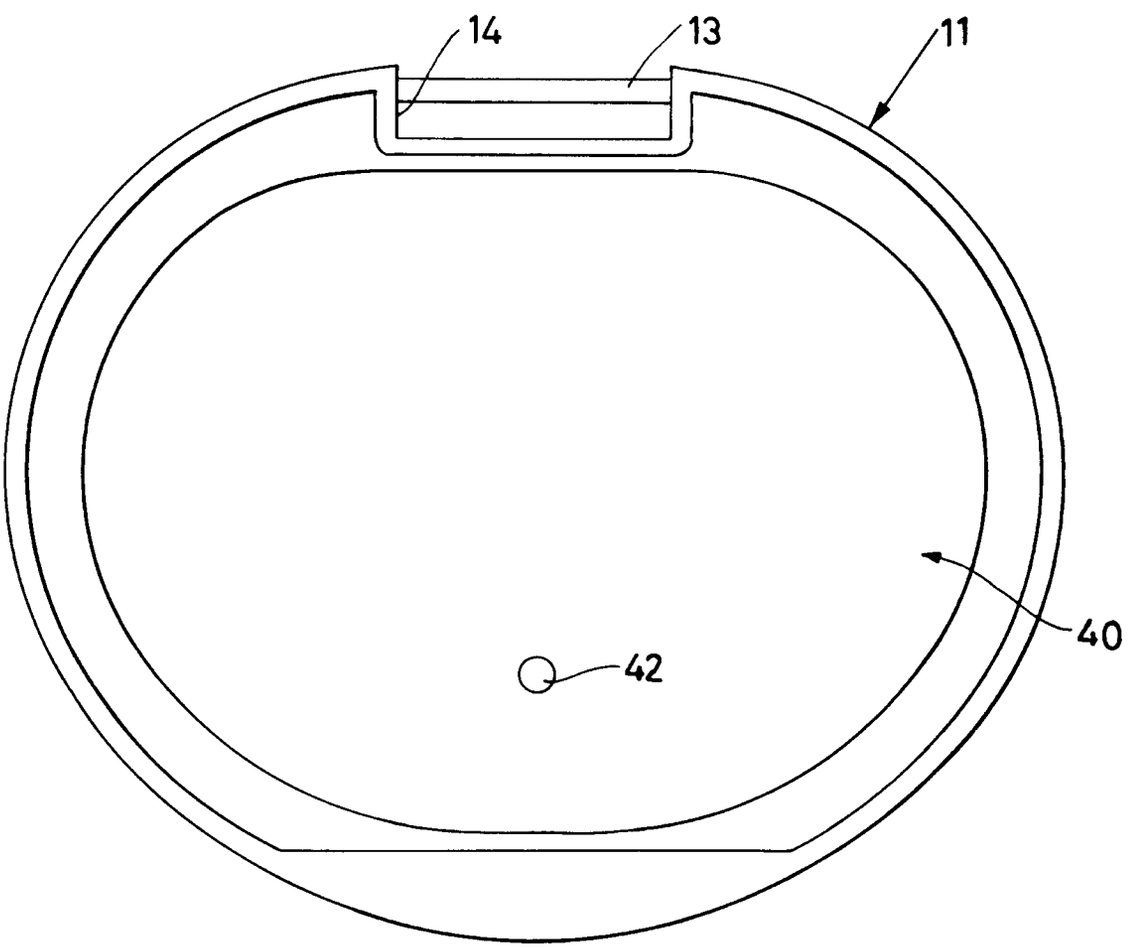

Fig.4

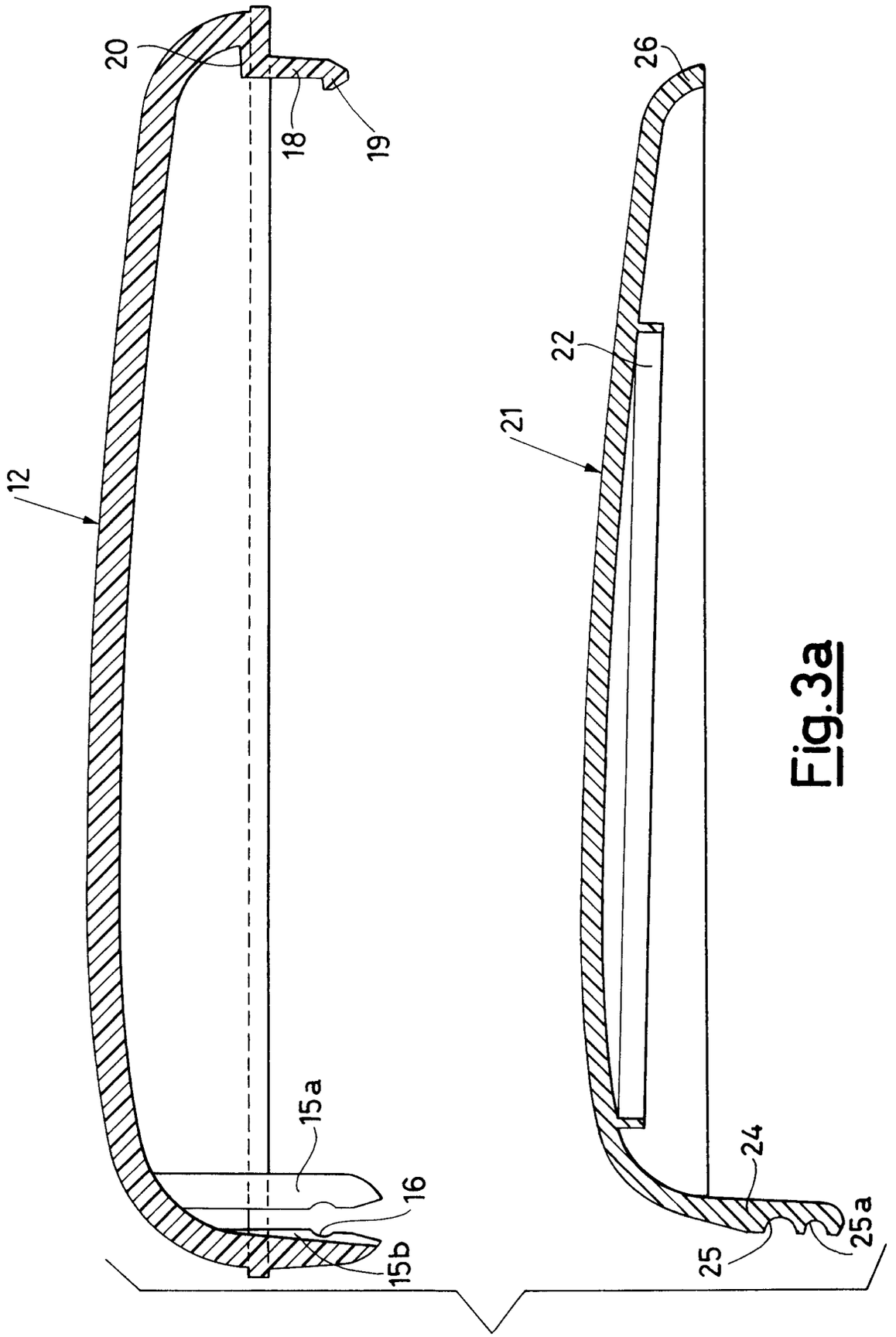

Fig.3a

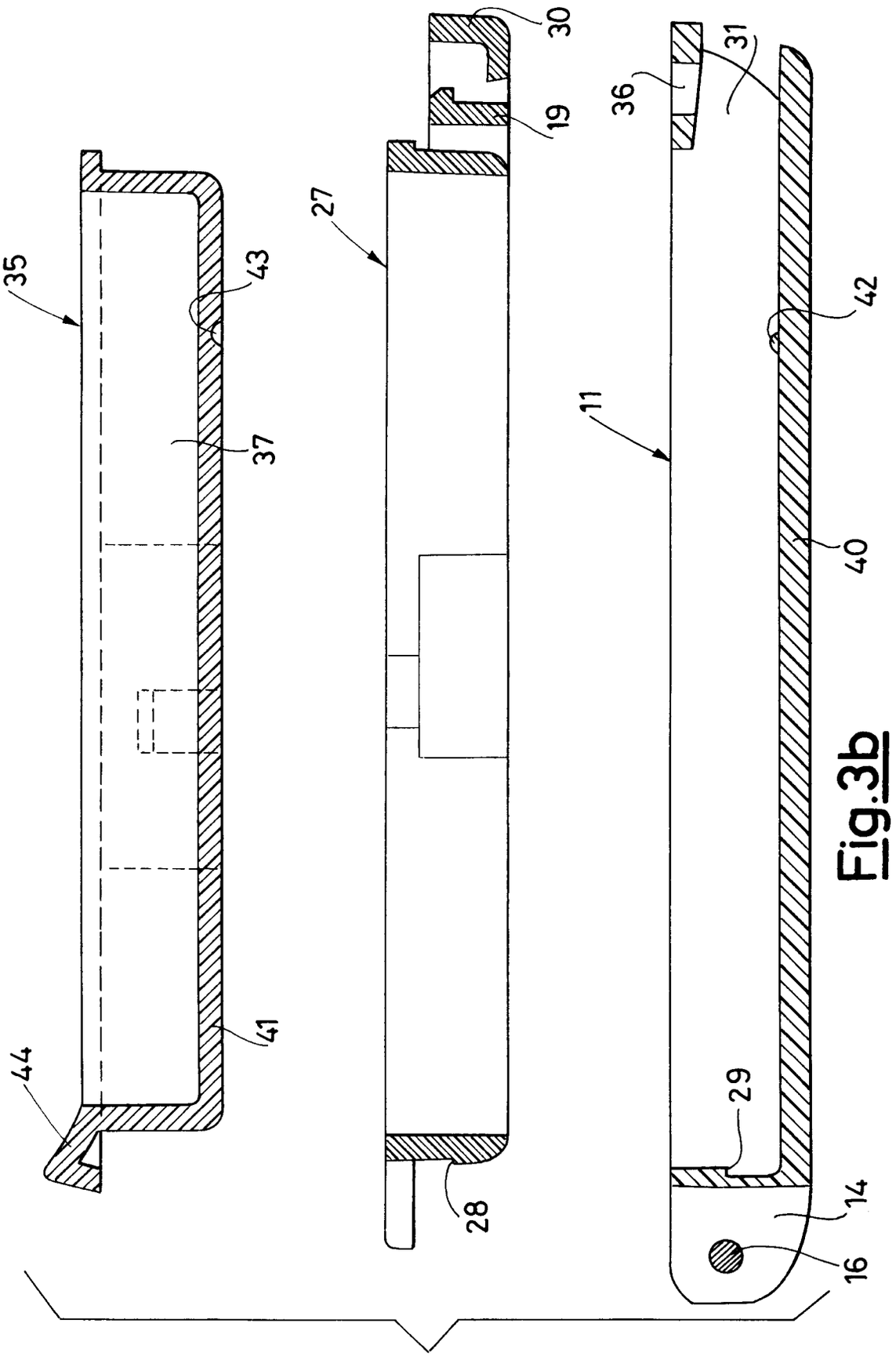

Fig.3b

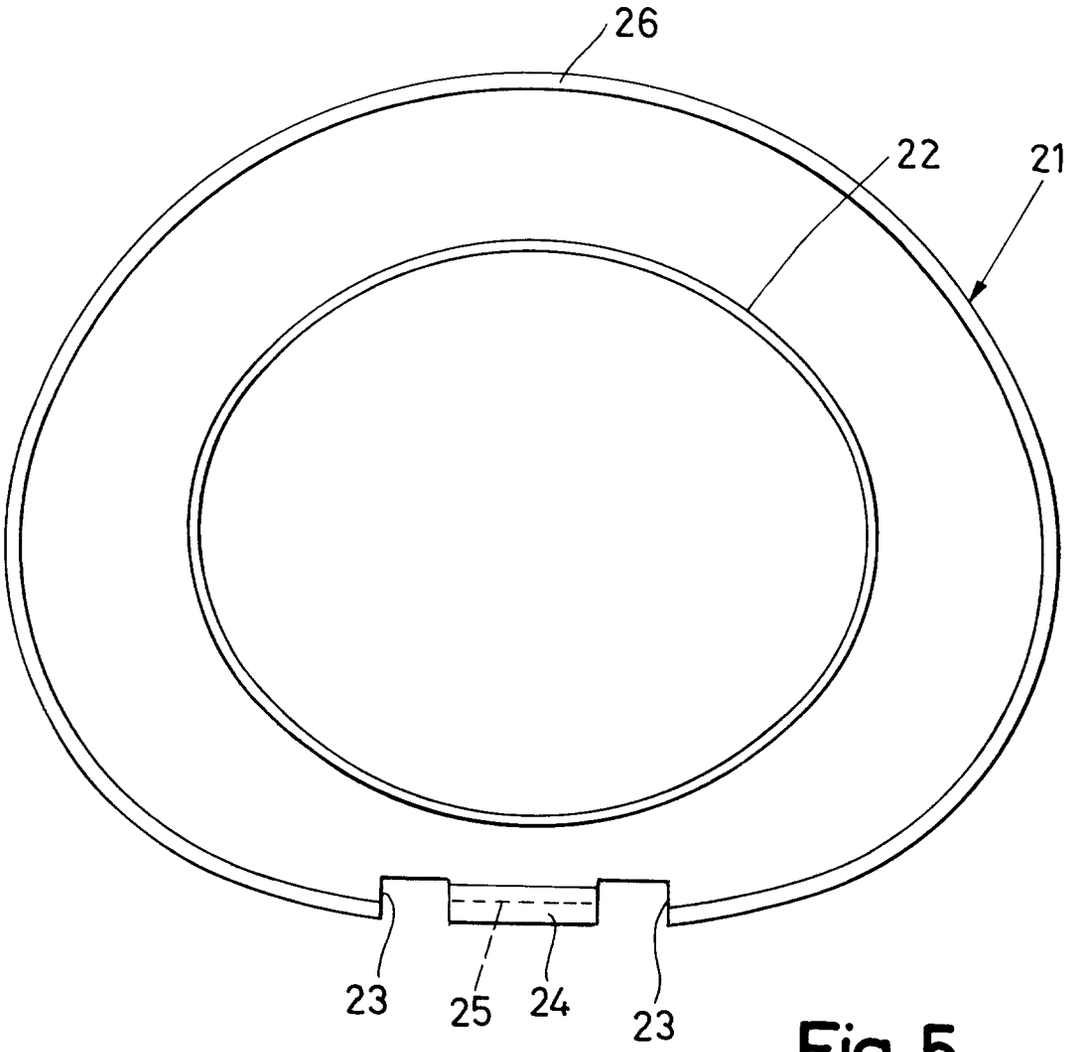

Fig.5

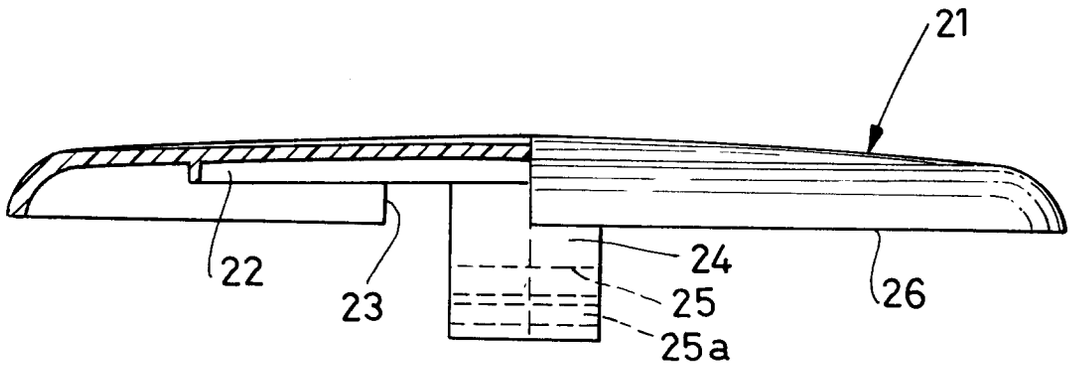

Fig.6

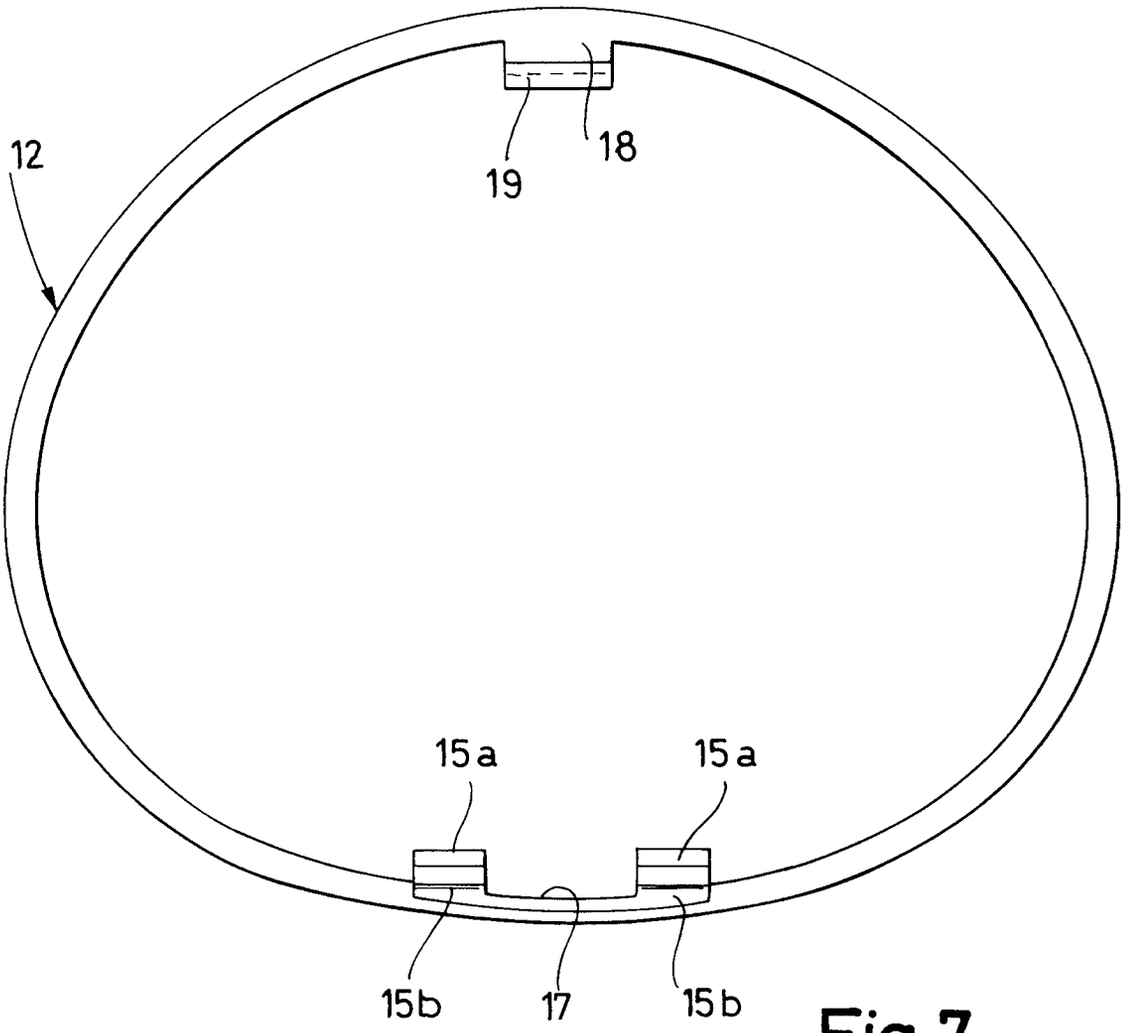

Fig.7

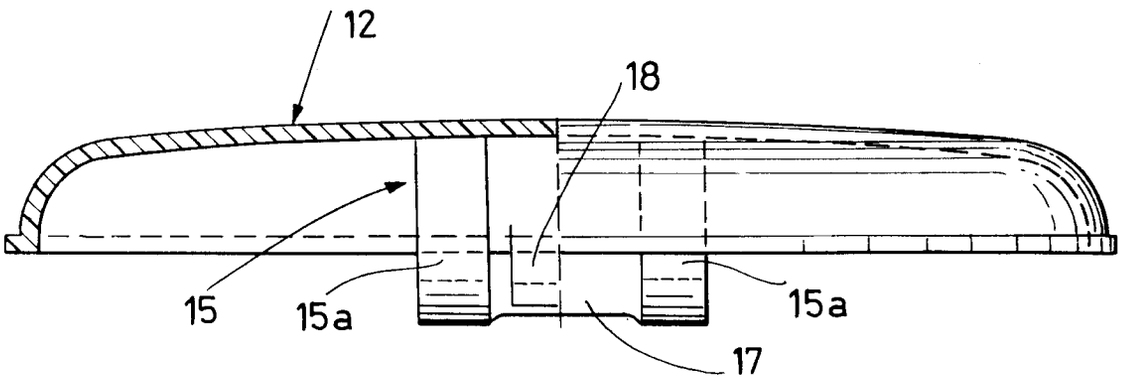

Fig.8

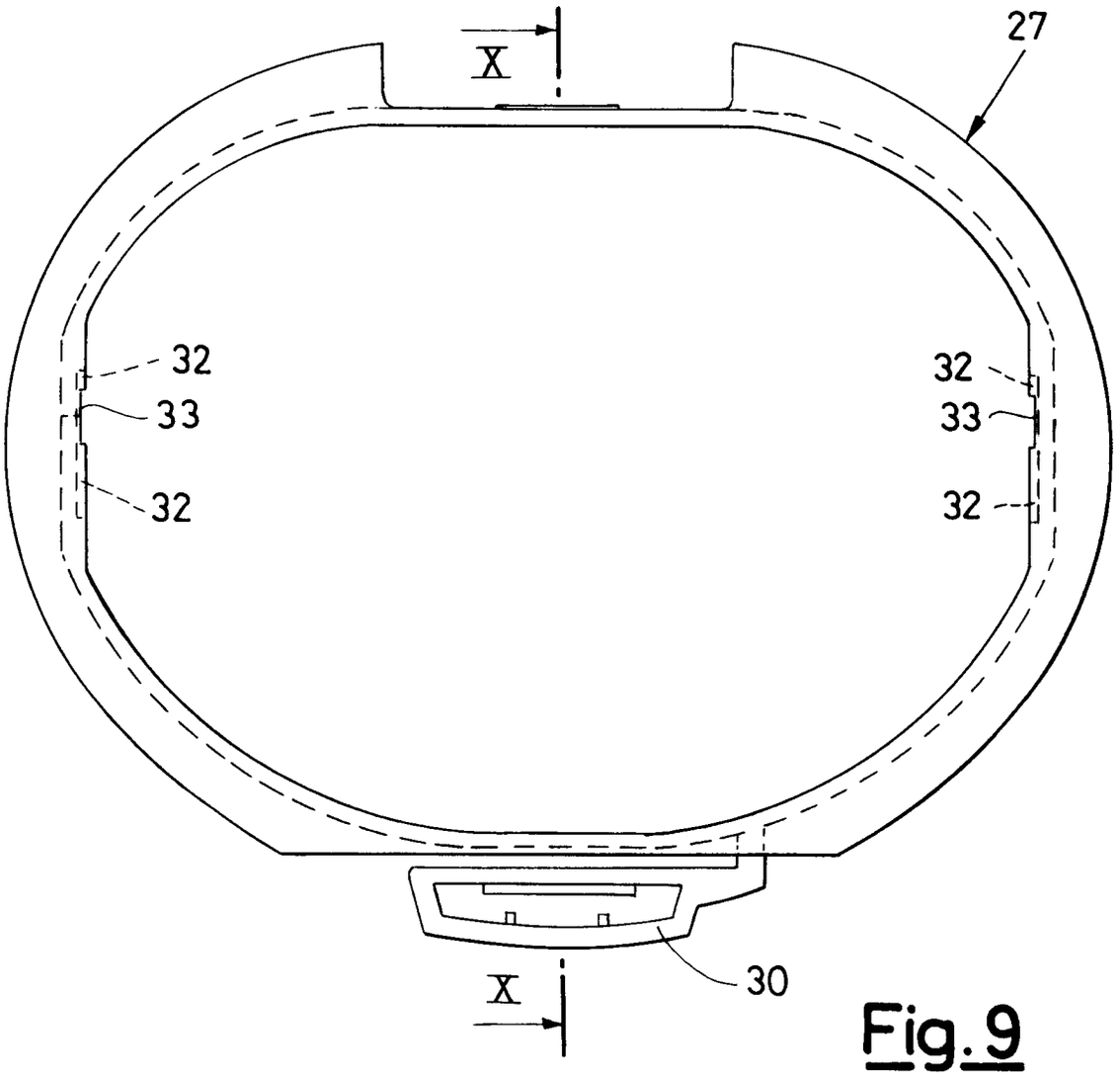

Fig.9

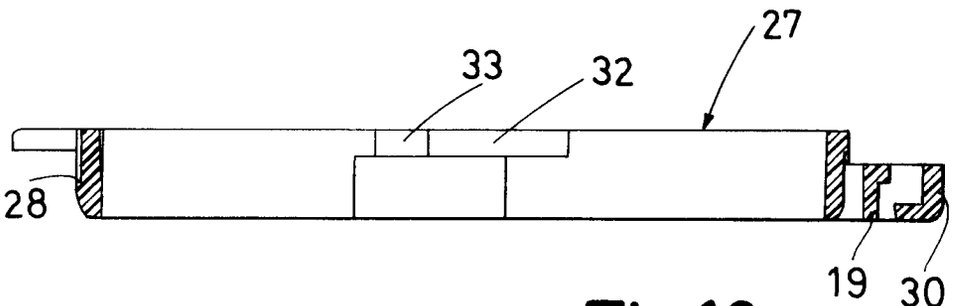

Fig.10

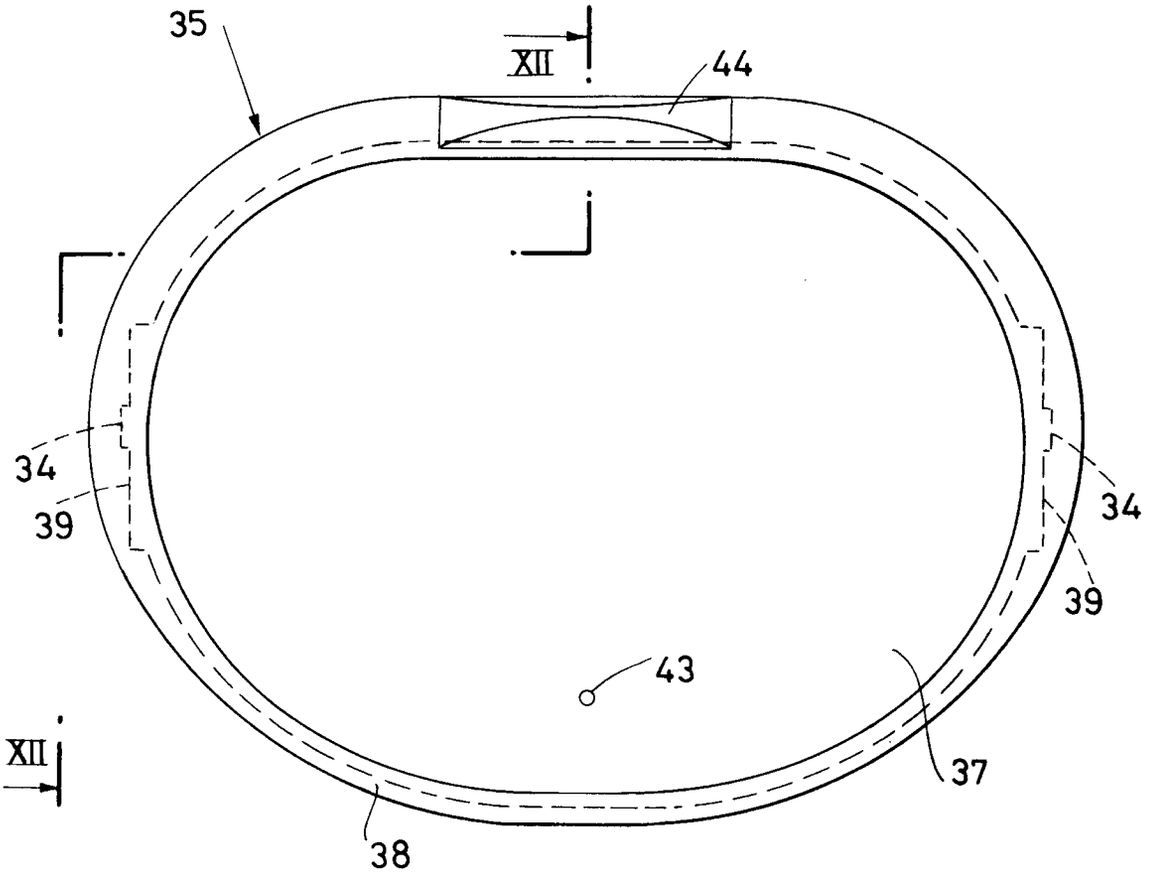

Fig.11

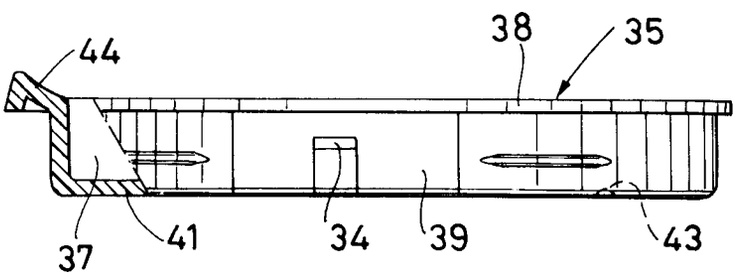

Fig.12

European Patent Office

EUROPEAN SEARCH REPORT

Application Number EP 94201010.9

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	US - A - 2 526 596 (WILLIAMSON) * Fig. 1-3 * --	1	A 45 D 33/26 A 45 D 42/02
A	US - A - 2 570 314 (BRAND) * Fig. 1-7 * --	1	
A	DE - A - 4 022 417 (YOSHIDA INDUSTRY CO., LTD.) * Fig. 1,6 * --	1	
A	DE - A - 3 209 987 (YOSHIDA INDUSTRY CO., LTD.) * Fig. 1-7 * ----		

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

A 45 D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
VIENNA	17-05-1994	PIRKER

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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