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(54)

A package as well as a slide suitable for such a package

(57)

A package comprises a housing and a slide which is slidably accommodated in the housing in a sliding direction in and out of at least a front opening of the housing. The slide comprises a bottom wall, side walls connected to the bottom wall, as well as at least one flange-shaped upper edge spaced from the bottom wall which flange-shaped upper edge is connected to the side walls. The flange-shaped upper edge comprises at least one part that extend parallel to the sliding direction, wherein said at least one part is provided with at least one hook-shaped element. The housing comprises at least one side wall provided with at least one recess in which the at least one hook-shaped element connected to the slide can be positioned for at least locking the slide in position in the housing. The at least one hook-shaped element can be moved out of the at least one recess against spring force, after which the slide can be moved in the sliding direction in and out of the front opening of the housing. The flange shaped upper edge comprises at least one side part connected at an inner side to one of the side walls of the slide. The side part is provided at an outer side thereof with a flap extending in a direction towards a plane of the bottom wall. The flap is connected at a distance of the side part to the slide. The flap closes the front opening of the housing when the slide is locked in position in the housing.

A package as well as a slide suitable for such a package

FIELD OF THE INVENTION

5 The invention relates to a package comprising a housing and a slide which is slidably accommodated in the housing in a sliding direction in and out of at least a front opening of the housing, which slide comprises a bottom wall, side walls connected to the bottom wall, as well as at least one flange-shaped upper edge spaced from the bottom wall which flange-shaped upper edge is connected to the
10 side walls, wherein the flange-shaped upper edge comprises at least one part that extends parallel to the sliding direction, wherein said at least one part is provided with at least one hook-shaped element, whilst the housing comprises at least one side wall, wherein the side wall of the housing is provided with at least one recess in which the at least one hook-shaped element connected to the slide can be
15 positioned for at least locking the slide in position in the housing, which at least one hook-shaped element can be moved out of the at least one recess against spring force, after which the slide can be moved in the sliding direction in and out of the front opening of the housing, whilst the flange shaped upper edge comprises at least one side part connected at an inner side to one of the side walls of the
20 slide.

The invention also relates to a slide suitable for such a package.

BACKGROUND OF THE INVENTION

25 Such a package, which is known from EP3016883B1, is suitable for use as a child resistant, senior-friendly package.

By the package known from EP3016883B1 the housing is provided with a flap and flap portion to close a front opening of the housing. It has turned out that when children try to open the package, they will open the flap and put their fingers
30 in a space between the housing and the side wall of the slide and the side part

connected to the side wall of the slide. Subsequently, they will try to tear the housing apart.

Furthermore, children can use the flaps to get hold on the package which facilitates the tearing apart thereof.

5 Tearing apart of the housing can be avoided by using tear-resistant cardboard and if this is not sufficient stronger cardboard but that will result in more costs and more material. Such tear-resistant cardboard is made from paper with a plastic laminate. To protect the environment the use of plastic and more material is not desirable.

10 Removing the side part of the slide from the side wall, which side part is located near the front opening of the housing, would reduce the space at the front opening of the housing but will result in a side wall which can easily be bent and may provide access to the content in the slide. Furthermore, removal of the side part would reduce the desired distance to the content positioned in the slide.

15 Removing the flaps (tuck-in and dust flaps) of the housing would mean that one side of the package seems 'open' to a child. This will have a negative effect on the child resistant testing as the additional barrier that the flaps form is gone, which usually consumes a portion of the available time in the child resistant test to figure out. Furthermore it directs the child to that side of the package immediately,
20 as the slide can be seen. By the known package the tight fit of the slide in the housing becomes extra important as children will use such opening to gain access to the package. So, the gap between slide and housing must be minimal.

Furthermore, if the slide is located too deep into the housing, and the housing extends too far out, then children can use that to start tearing the housing.

25

SUMMARY OF THE INVENTION

At least one of the objects of the invention is to provide a package being child resistant and senior-friendly, whereby the risk of tearing apart of the housing
30 is being reduced.

This object is accomplished with the package according to the invention in that the side part is provided at an outer side thereof with a flap extending in a direction towards a plane of the bottom wall, which flap is connected at a distance of the side part to the slide, which flap closes the front opening of the housing
5 when the slide is locked in position in the housing.

By connecting the flap at a distance of the side part to the slide, the flap has a fixed position with respect to the side wall.

Since the flap closes the opening of the housing, there is no or not enough space bounded by the housing and the flap in the locked position of the slide for
10 fingers of a child to get grip on the housing for tearing it apart.

At the same time the flap as well as the side walls, bottom wall and the flange-shaped upper edge can all be made of relatively thin material, whereby due to amongst others the flange-shaped upper edge, the slide is sufficiently rigid. The thickness of the relatively thin material can be the same in all parts of the slide so
15 that the amount of material needed for the slide can be relatively low.

A further advantage is that the housing does not need to be provided with flaps (tuck-in and dust flaps) so that the risk that the housing can be torn apart is highly reduced. This also means that a larger choice of material from which the housing can be made is available. For example, the housing can be made only from carton
20 without an additional plastic foil, so that the housing can easily be recycled.

An embodiment of the package according to the invention is characterized in that the slide is made of thermoformed plastic, thermoformed pulp or moulded pulp.

By making the slide of thermoformed plastic thermoformed pulp or moulded
25 pulp the slide can be made as a whole into one single component from one material, whereby only the flap needs to be folded against the side wall and needs to be connected to the side wall or bottom wall of the slide.

Another embodiment of the package according to the invention is characterized in that the flap is connected to the side wall provided with the side part of the
30 flange shaped upper edge.

This connection can be realised by means of glue, by mechanical means like protrusions connected to the flap and inserted into holes in the side wall or vice versa or by other means. By connecting the flap to the side wall, a child will not be able to get a grip on the flap to be able to pull on the flap and the slide connected thereto.

Another embodiment of the package according to the invention is characterized in that the flap is provided at a side remote of the side part with an extension extending in a direction parallel to the plane of the bottom wall, which extension is connected to the bottom wall.

This has the advantage that independent of the distance between the flap and the side wall, the length of the extension can be made so long that it will extend under the bottom wall and can subsequently be connected thereto. This has furthermore the advantage that the extension will close the gap near the bottom wall between the flap and the side wall so that also the risk that a child can put his finger into this gap is avoided.

Another embodiment of the package according to the invention is characterized in that the bottom wall is provided with an indentation, wherein the extension is located inside the indentation.

By placing the extension in the indentation, the bottom wall and the extension can be located in the same plane so that the transition between the extension and the bottom wall will not hinder sliding of the slide in and out of the housing.

Another embodiment of the package according to the invention is characterized in that the flap is provided with two notches directed towards the side wall provided with the side part of the flange shaped upper edge.

The notches can be used as finger grips for pulling the slide out of the housing when simultaneously the at least one hook-shaped element is being moved out of engagement with the at least one recess against spring force.

Another embodiment of the package according to the invention is characterized in that the flap is connected to the side wall at the location of the notches.

Walls of the notches can abut against the side wall and can easily be connected to the side wall by means of an adhesive, or another form of clamping or locking mechanism as part of the slide side wall.

Another embodiment of the package according to the invention is characterized
5 in that the slide comprises two of said side parts with flaps connected thereto, wherein when the slide is locked in position in the housing said one flap closes the front opening of the housing, whilst the other flap closes a rear opening of the housing.

In this manner, the housing can be a simple sleeve being open at the front as
10 well as the rear, whereby the front opening as well as the rear opening are closed by means of flaps.

Another embodiment of the package according to the invention is characterized in that the flange-shaped upper edge comprises two parts that extend parallel to the sliding direction, wherein each part is provided with at least one hook-shaped
15 element, whilst the housing comprises two side walls, wherein each side wall is provided with at least one recess, the recess and the hook-shaped element located at a first of said side walls are staggered, seen in the sliding direction, relative to the recess and the hook-shaped element located at a second of said side walls.

When the slide is pulled at, without the hook-shaped elements being pressed
20 out of the recesses, the hook-shaped elements will prevent the slide from being moved out of the housing.

The provision of a hook-shaped element that can be positioned in a recess on either side of the package makes it difficult for a child to open the package, because both hook-shaped elements must be removed from the respective recesses
25 simultaneously before the slide can be moved in the sliding direction.

Moreover, because the hook-shaped elements are staggered, it will be virtually impossible for a young child of about 4 years old to place its fingers so that both staggered hook-shaped elements are removed simultaneously, against spring force, from the likewise staggered recesses.

Another embodiment of the package according to the invention is characterized in that the slide is provided with a box being connected to the bottom wall of the slide, which box comprises walls located at a distance from the side walls of the slide, whereby the walls of the box bound a box opening being sealable by means of a foil.

Since the box is connected to the bottom wall of the slide it can not be separated from the slide so that it will always automatically be located again in the housing, when the slide is moved back into the housing.

Furthermore, since the walls of the box are located at a distance from the side walls of the slide, the walls of the box will not hinder the hook-shaped elements provided on the parts of the flange-shaped upper edge, to be moved out of the recesses in the housing against spring force. Amongst others the flange-shaped upper edge as well as the walls of box can be optimized for its individual purpose.

For example, if a foil would be directly sealed to the flange-shaped upper edge, the flange-shaped upper edge should have a certain width to obtain a desired seal. Such width should be larger than the width needed for the parts of the flange-shaped upper edge to be able to move the hook-shaped elements against spring force of the parts. By the present invention the width of the edge of the box for sealing the foil can be optimized for its sealing function whilst the width of the parts of the flange-shaped upper edge can be optimized for its desired movement against spring force.

Due to the foil the content in the slide is protected against air. Furthermore, in case that small articles like powder are located in the slide, the powder is maintained safely within the slide by the foil.

BRIEF DESCRIPTION OF THE DRAWINGS

The package according to the invention will further be explained with reference to the drawings, wherein,

figures 1A 1B and 1C are a perspective view and and two cross sections of a part of a first embodiment of the package according to the invention in a opened position,

figures 2A and 2B are a perspective view and a cross section of a part of a
5 second embodiment of the package according to the invention in a opened position,

figure 3 is a perspective view of at third embodiment of the package according to the invention in a opened position,

figure 4 is a perspective view of the package of figures 1A, 2A and 3 in a
10 closed position,

figures 5A and 5B are a perspective front view and a a perspective rear view of a fourth embodiment of the package according to the invention in a opened position,

figure 6 is a perspective view of the package of figure 5A and 5B in a closed
15 position.

In the drawings, like reference numerals refer to like elements.

DESCRIPTION OF PREFERRED EMBODIMENTS

20 Figures 1A, 1B and 1C show a first embodiment of a package 1 according to the invention. The package 1 comprises a cardboard housing 2 and a slide 3 of thermoformed plastic thermoformed pulp or moulded pulp, which is slidably accommodated, in the direction indicated by double arrow P1, in the housing 2. The housing 2 comprises a bottom wall 4, side walls 5, 6 extending transversely to
25 the bottom wall 4, a rear wall 7 extending transversely to the bottom wall 4 and the side walls 5, 6, an upper wall 8 extending parallel to the bottom wall 4. The rear wall 7 closes a rear opening of the housing 2. At a front side a rectangular front opening 9 is bounded by the bottom wall 4, side walls 5, 6 and the upper wall 8.

The housing 2 is provided with two recesses 10, 11, which extend through the
30 side of the side walls 4, 5 that faces the upper wall 8 and the sides of the upper wall

8 that face the side walls 4, 5. The part of the recesses 10, 11 that is provided in the side walls 4, 5 is rectangular in shape. The part of the recesses 10, 11 that is provided in the upper wall 8 is arcuate in shape. The recess 10 is located relatively close to the rear wall 7, whilst the recess 11 is located relatively close to the front opening 9.

5 The recesses 10, 11 are staggered seen in the sliding direction indicated by the arrow P1.

The slide 3 comprises a bottom wall 13 and side walls 14, 15, 16, 17 extending along the circumference of the bottom wall 13, which each include an angle slightly greater than 90 degrees with the bottom wall 13. The slide 3 further comprises a
10 flange-shaped, endless upper edge 18, spaced from the bottom wall 13, which is connected to the side walls 14, 15, 16, 17. The upper edge 18 comprises two parts 19, 20 extending parallel to the sliding direction indicated by the double arrow P1, as well as two side parts 21, 22 extending transversely to the sliding direction indicated by the arrow P1. Side part 21 is not visible.

15 The parts 19, 20 each comprise a hook-shaped element 23. The hook-shaped elements 23 are staggered in the sliding direction indicated by the double arrow P1, similarly to the recesses 10, 11 of the housing 2. In a direction transversely to the bottom wall 13, the hook-shaped element 23 has the same thickness as the upper edge 18. The hook-shaped elements 23 and the recesses 10, 11 are dimensioned so
20 that the hook-shaped element 23 fits in the recesses 10, 11.

The package 1 described so far is known from EP3016883B1 of the same applicant of the present application.

By the package 1 according to the invention the side part 22 is provided at an outer side thereof with a flap 24 extending in a direction towards a plane
25 parallel to the bottom wall 5 of the housing 2 and the bottom wall 13 of the slide 3.

The flap 24 is provided with two notches 25 directed towards the side wall 17 provided with the side part 22 of the flange shaped upper edge 18. Between the notches 25 a wall 26 is present. As can be seen in figure 1B the flap 24 is connected to the side wall 17 at the location of the notches 25.

As can be seen in figure 4, in the position wherein the slide 3 is located inside the housing 2, the flap 24 of the slide 3 closes the opening 9 of the housing 2. In the closed position, the hook-shaped elements 23 of the slide 3 are located in the recesses 10, 11 of the housing 2, whereby the slide 3 is locked inside the housing 2.

5 To move the slide 3 out of the housing 2, a user must push simultaneously with fingers of one hand on both hook-shaped elements 23 and also pull simultaneously with fingers of his other hand on the wall 26 by inserting his fingers in the notches 25. The slide 3 will hereby be moved out of the housing 2. For a young child these combined actions are too difficult to perform so that a young
10 child will not be able to open the package 1.

Figures 2A and 2B show a second embodiment of the package 31 according to the invention in an opened position. The package 31 differs from the package 1 in that it comprises a different slide 33. The slide 33 differs from slide 3 in that the flap 24 is provided at a side remote of the side part 22 with an extension 34
15 extending in a direction parallel to the plane of the bottom wall 13. The bottom wall 13 is provided with an indentation 35, wherein the extension 34 is located inside the indentation 35. The extension 34 is connected to the bottom wall 13 at the indentation 35 by means of protrusions on the extension 34 which protrusions are located in passages in the bottom wall 13 at the indentation 35.

20 It is also possible that the extension 34 is completely flat and is glued to the bottom wall 13.

Figure 3 shows a third embodiment of the package 41 according to the invention in a opened position. The package 41 differs from the packages 1, 31 in that it comprises a different slide 43.

25 The slide 43 differs from slide 33 in that the slide 43 is provided with a box 44 being connected to the bottom wall 13 of the slide, which box 44 comprises walls located at a distance from the side walls 14-17 of the slide, whereby the walls of the box 44 bound a box opening 45 being sealable by means of a foil. A slide comprising such a box 44 is known from US20190382155A1 of applicant.

Figure 4 shows the position wherein the slide 3, 33, 43 is located inside the housing 2, whereby the flap 24 of the slide 3, 33, 43 closes the opening 9 of the housing 2.

Figures 5A and 5B show a fourth embodiment of the package 51 according to the invention in a opened position. The package 51 differs from the package 41 in that it comprises a different slide 53. The slide 53 differs from slide 43 in that the flap 24 is complete flat and does not comprises notches 25. The housing 2 is at a rear side provided with an opening 54. To remove the slide 53 from the housing 2, a user inserts his finger into the opening 54 and pushes at the slide 53, whilst simultaneously pushing the hooks 23 of the slide 53 out of the recesses 10, 11 of the housing 2.

Figure 6 shows the position wherein the slide 53 is located inside the housing 2, whereby the flap 24 of the slide 53 closes the opening 9 of the housing 2.

The flap 24 must be connected to the side wall 17 or bottom wall 13 of the slide 3, 33, 43, 53 at such a distance from the side part 22 that a child will not be able to pull on the flap 24 other than by means of the notches 25.

The flap 24 is connected to the side wall 17 provided with the side part 22 of the flange shaped upper edge 18 and/or is connected via the extension 34 to the bottom wall 13.

The slide 3, 33, 43, 53 is preferably made of a plastic material, such as PVC, ABS, PE, PET, PS and PP, or pulp to be deformed by means of a thermoforming process of made by pulp moulding. After thermoforming of the slide 3, 33, 43, 53 has taken place, the hook-shaped elements 23 are punched into the upper edge 18. The bottom wall 13, the side walls 14, 15, 16, 17 and the upper edge 18 are relatively thin, so that the parts 19, 20 of the upper edge 18 that are provided with the hook-shaped elements 23 can be moved toward each other against the spring force of the material of the slide 3.

The dimensions of the cardboard housing 2 can vary from, for example, a width in Y-direction of 40 to 250 mm, a height in Z-direction of 12 to 80 mm and a

length in X-direction of 50 to 400 mm. The wall thickness of the housing 2 can vary from 400 to 1000 micron, for example.

The dimensions of the slide 2 can vary from, for example, a width in Y-direction of 39 to 249 mm, a height in Z-direction of 11 to 79 mm and a length in X-direction of 49 to 399 mm. The wall thickness of the slide 3 can vary from 200 to 1000 micron, for example. The slide 3, 33, 43, 53 needs to be slightly smaller than the housing to be able to slide smoothly in and out of the housing 2. The dimension of the flap 24 of the slide is so that it fully closes the front and/or rear opening of the housing 2.

It is also possible that each side part 21, 22 comprises flaps 24, wherein when the slide 3, 33, 43, 53 is locked in position in the housing 2 the flap 24 of the side part 22 fully closes the front opening 9 of the housing 2, whilst the flap 24 of the side part 21 fully closes a rear opening of the housing 2. In such a case the housing 2 does not comprises a rear wall 7 and forms a simple sleeve.

It is also possible that the front opening or rear opening of the housing does not have a rectangular shape and/or is not located perpendicular to the bottom wall 5 and the upper wall 8 but has another shape, like trapezium shaped or oval shaped or has other orientation for example in case that the bottom wall has another length than the upper wall. In all cases the flap of the slide has the same dimensions and orientation as the respective front opening or rear opening of the housing to be able to close the respective opening.

LIST OF REFERENCE SIGNS

25	1	package
	2	housing
	3	slide
	4	bottom wall
	5	side wall
30	6	side wall

	7	rear wall
	8	upper wall
	9	front opening
	10	recess
5	11	recess
	13	bottom wall
	14	side wall
	15	side wall
	16	side wall
10	17	side wall
	18	upper edge
	19	part
	20	part
	21	side part
15	22	side part
	23	hook-shaped element
	24	flap
	25	notch
	26	wall
20	31	package
	33	slide
	34	extension
	35	indentation
	41	package
25	43	slide
	44	box
	45	box opening
	51	package
	53	slide
30	54	opening

P1 arrow

Conclusies

1. Verpakking (1, 31, 41, 51) omvattende een behuizing (2) en een slede (3, 33, 43, 53) die verschuifbaar is ondergebracht in de behuizing (2) in een schuifrichting (P1) in en uit ten minste een voorste opening (9) van de behuizing (2), welke slede (3, 33, 43, 53) een bodemwand (13), zijwanden (14, 15, 16, 17) verbonden met de bodemwand (13), alsmede ten minste een flensvormige bovenrand (18) op afstand van de bodemwand (13) omvat, welke flensvormige bovenrand (18) is verbonden met de zijwanden (14, 15, 16, 17), waarbij de flensvormige bovenrand (18) ten minste een deel (19, 20) omvat dat zich parallel aan de schuifrichting (P1) uitstrekt, waarbij het ten minste ene deel (19, 20) is voorzien van ten minste een haakvormig element (23), terwijl de behuizing (2) ten minste een zijwand (5, 6) omvat, waarbij de zijwand (5, 6) van de behuizing (2) is voorzien van ten minste een uitsparing (10, 11) waarin het ten minste ene haakvormige element (23) verbonden met de slede (3, 33, 43, 53) gepositioneerd kan worden voor ten minste het in positie in de behuizing (2) vergrendelen van de slede (3, 33, 43, 53), welk ten minste ene haakvormige element (23) tegen veerkracht uit de ten minste ene uitsparing (10, 11) kan worden verplaatst, waarna de slede (3, 33, 43, 53) in de schuifrichting (P1) in en uit de voorste opening van de behuizing (2) kan worden verplaatst, terwijl de flensvormige bovenrand (18) ten minste een zijdeel (21, 22) omvat dat aan een binnenzijde is verbonden met een van de zijwanden (16, 17) van de slede (3, 33, 43, 53), met het kenmerk, dat het zijdeel (21, 22) aan een buitenste deel daarvan is voorzien van een flap (24) die zich in een richting naar een oppervlak van de bodemwand (13) uitstrekt, welke flap (24) op een afstand van het zijdeel (21, 22) is verbonden met de slede (3, 33, 43, 53), welke flap de voorste opening (9) van de behuizing (2) sluit als de slede (3, 33, 43, 53) in positie is vergrendeld in de behuizing (2).

2. Verpakking (1, 31, 41, 51) volgens conclusie 1, met het kenmerk, dat de slede (3) is vervaardigd van thermogevormd kunststof, thermogevormd pulp of gevormd pulp.

- 5 3. Verpakking (1, 31, 41, 51) volgens conclusie 1 of 2, met het kenmerk, dat de flap (24) is verbonden met de zijwand (14, 15, 16, 17) voorzien van het zijdeel (21, 22) van de flensvormige bovenrand (18).

- 10 4. Verpakking (1, 31, 41, 51) volgens conclusie 1, 2 of 3, met het kenmerk, dat de flap (24) op een zijde verwijderd van het zijdeel (21, 22) is voorzien van een uitbreiding (34) die zich in een richting parallel aan het vlak van de bodemwand (13) uitstrekt, welke uitbreiding (34) is verbonden met de bodemwand (13).

- 15 5. Verpakking (1, 31, 41, 51) volgens conclusie 4, met het kenmerk, dat de bodemwand (13) is voorzien van een inkeping (35), waarbij de uitbreiding (34) is gelegen binnen de inkeping (35).

- 20 6. Verpakking (1, 31, 41, 51) volgens een der voorgaande conclusies, met het kenmerk, dat de flap (24) is voorzien van twee uitsparingen (25) gericht naar de zijwand (14, 15, 16, 17) voorzien van het zijdeel (21, 22) van de flensvormige bovenrand (18).

- 25 7. Verpakking (1, 31, 41, 51) volgens conclusie 6, met het kenmerk, dat de flap (24) is verbonden met de zijwand (14, 15, 16, 17) bij de locatie van de uitsparingen (25).

8. Verpakking (1, 31, 41, 51) volgens een der voorgaande conclusies, met het kenmerk, dat de slede (3) twee van de zijdelen (21, 22) omvat met flappen (24) daaraan verbonden, waarbij als de slede (3, 33, 43, 53) is vergrendeld in positie in de

behuizing (2) de ene flap (24) de voorste opening (9) van de behuizing (2) sluit, terwijl de andere flap (24) een achterste opening van de behuizing (2) sluit.

9. Verpakking (1, 31, 41, 51) volgens een der voorgaande conclusies, met het
5 kenmerk, dat de flensvormige bovenrand (18) twee delen (19, 20) omvat die zich
parallel aan de schuifrichting uitstrekken, waarbij elk deel is voorzien van ten
minste een haakvormig element (23), terwijl de behuizing (2) twee zijwanden (5, 6)
omvat, waarbij elke zijwand (5, 6) is voorzien van ten minste een uitsparing (10,
11), de uitsparing (10) en het haakvormige element (23) gelegen op een eerste van
10 de zijwanden (5) zijn verschoven, gezien in de schuifrichting, ten opzichte van de
uitsparing (11) en het haakvormige element (23) gelegen op een tweede van de
zijwanden (6).

10. Verpakking (1, 31, 41, 51) volgens een der voorgaande conclusies, met het
15 kenmerk, dat de slede (3, 33, 43, 53) is voorzien van een doos (44) die is verbonden
met de bodemwand (13) van de slede, welke doos (44) wanden omvat gelegen op
een afstand van de zijwanden (14, 15, 16, 17) van de slede (3, 33, 43, 53) waarbij de
wanden van de doos (44) een doos opening begrenzen die afsluitbaar is door
middel van een folie.

20

11. Slede (3, 33, 43, 53) geschikt voor een verpakking (1, 31, 41, 51) volgens een der
voorgaande conclusies.

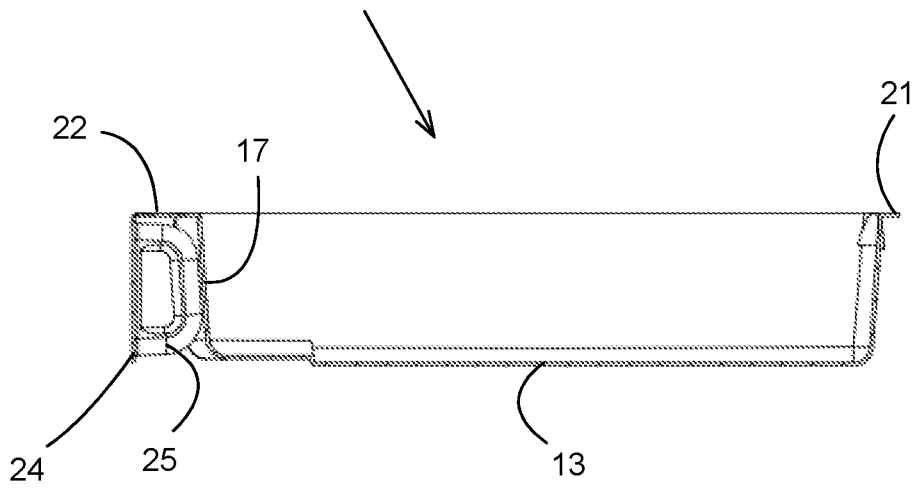


Fig. 1B

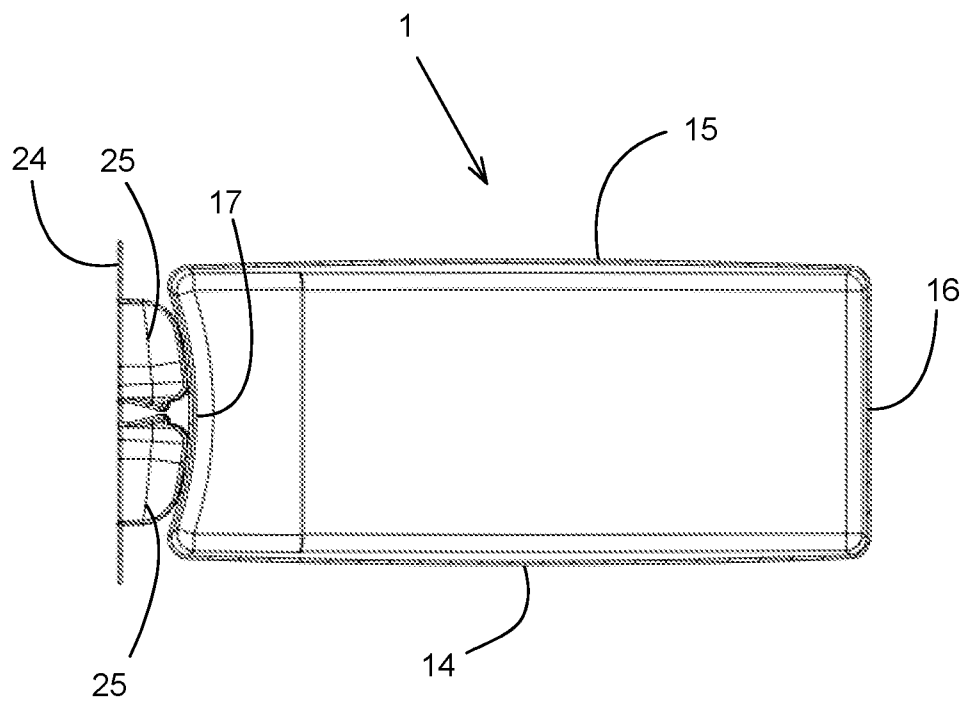


Fig. 1C

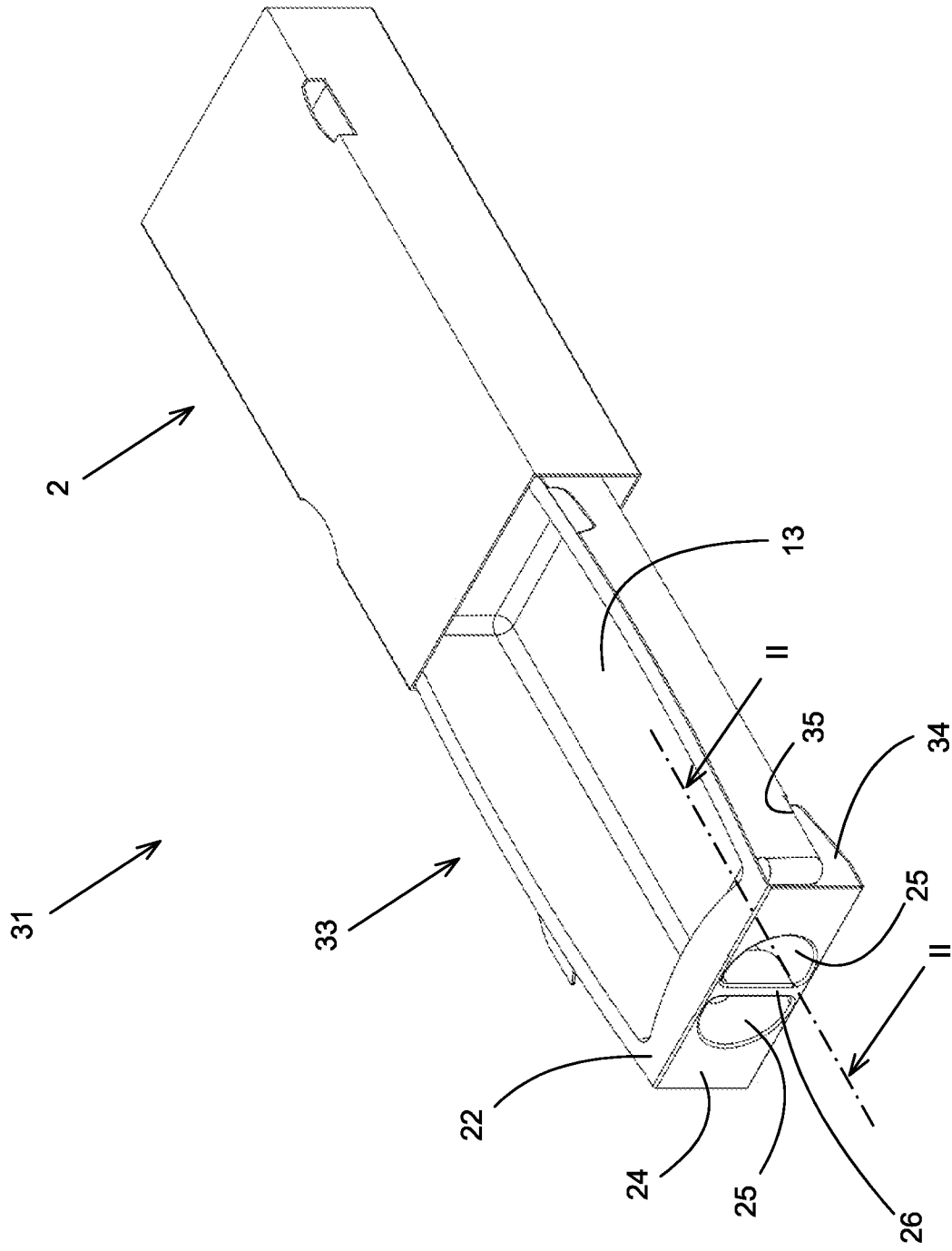


Fig. 2A

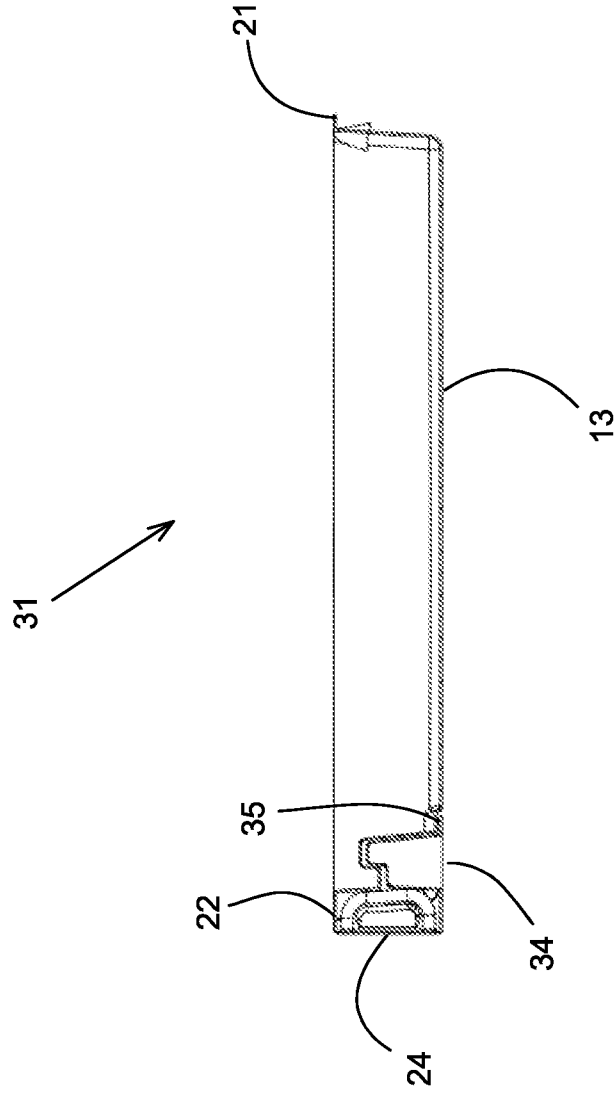


Fig. 2B

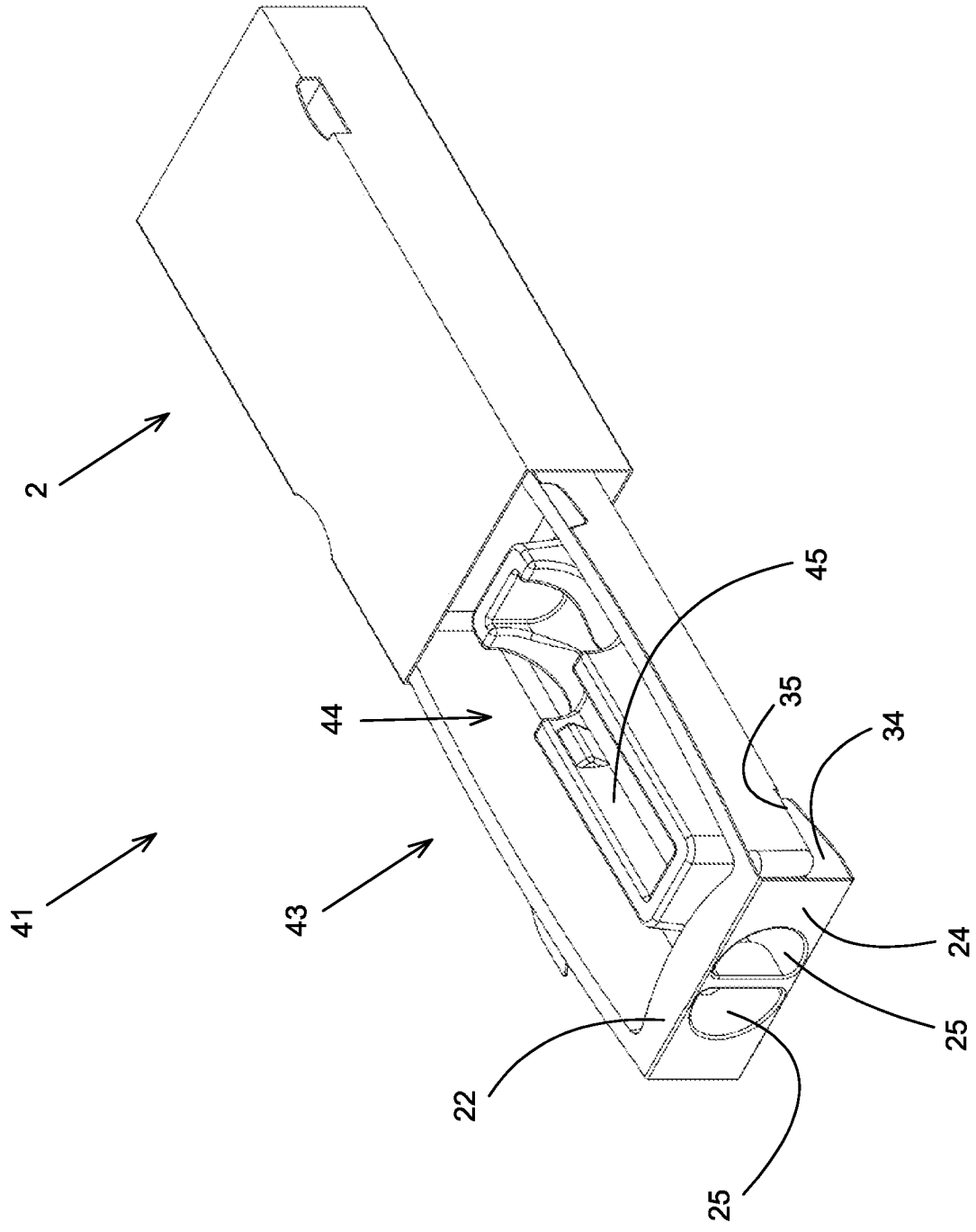


Fig. 3

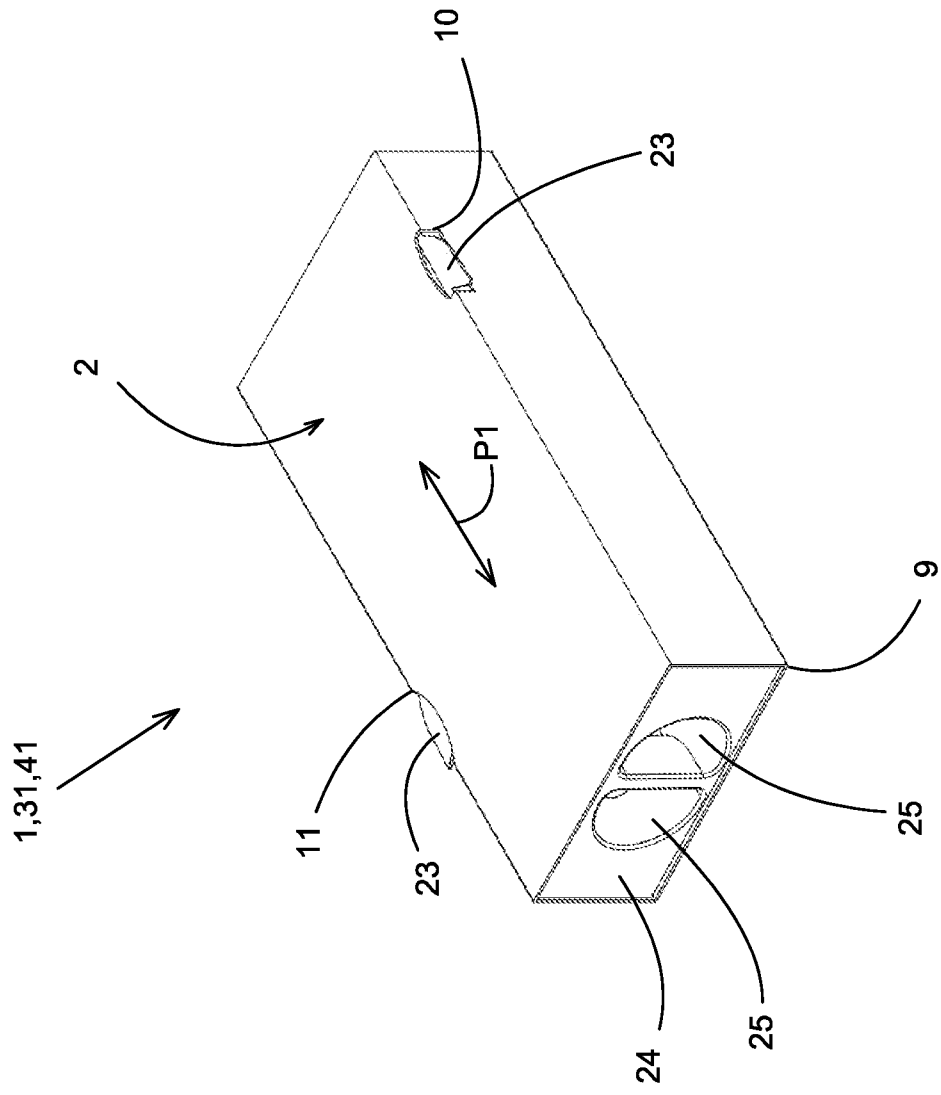


Fig. 4

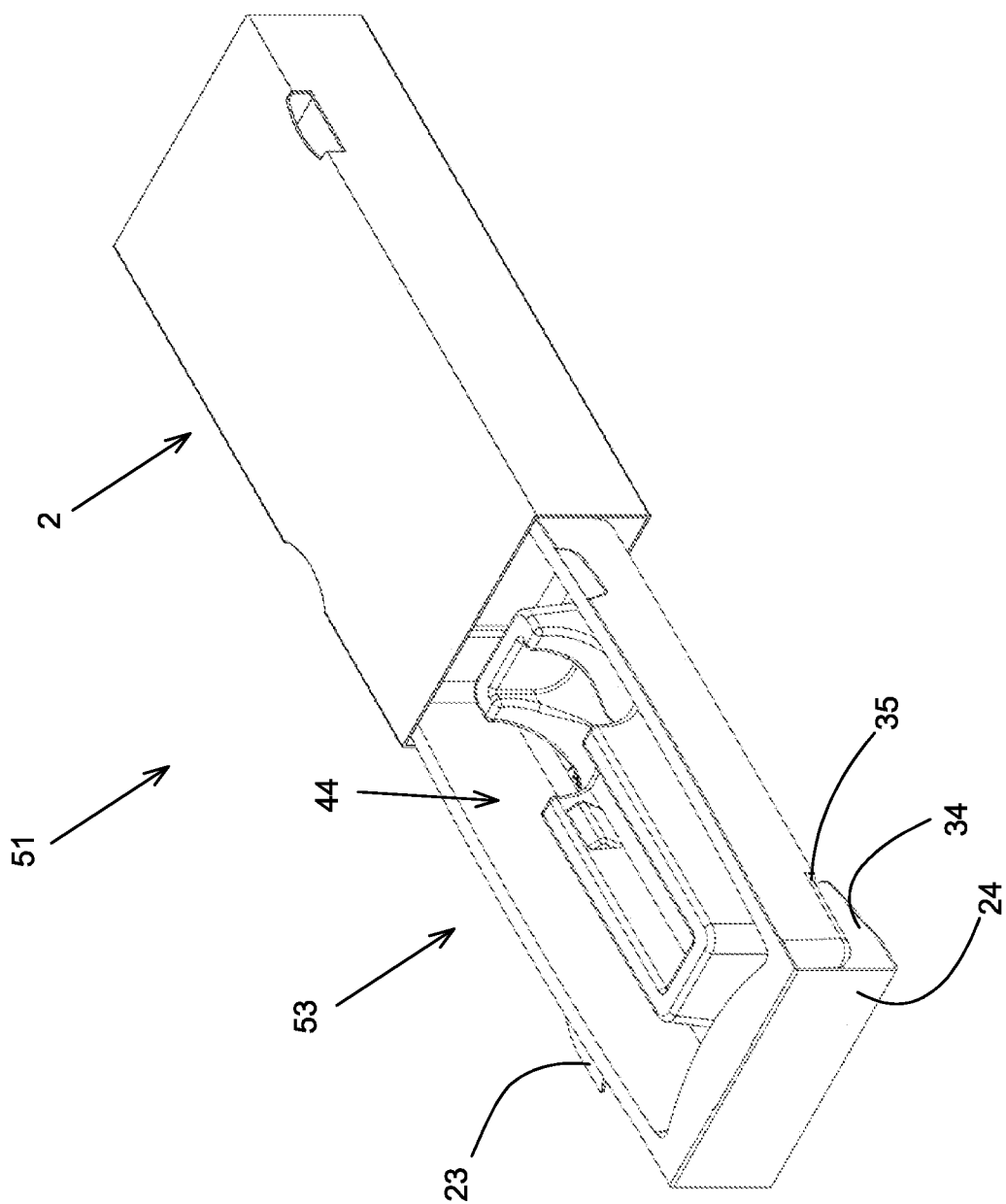


Fig. 5A

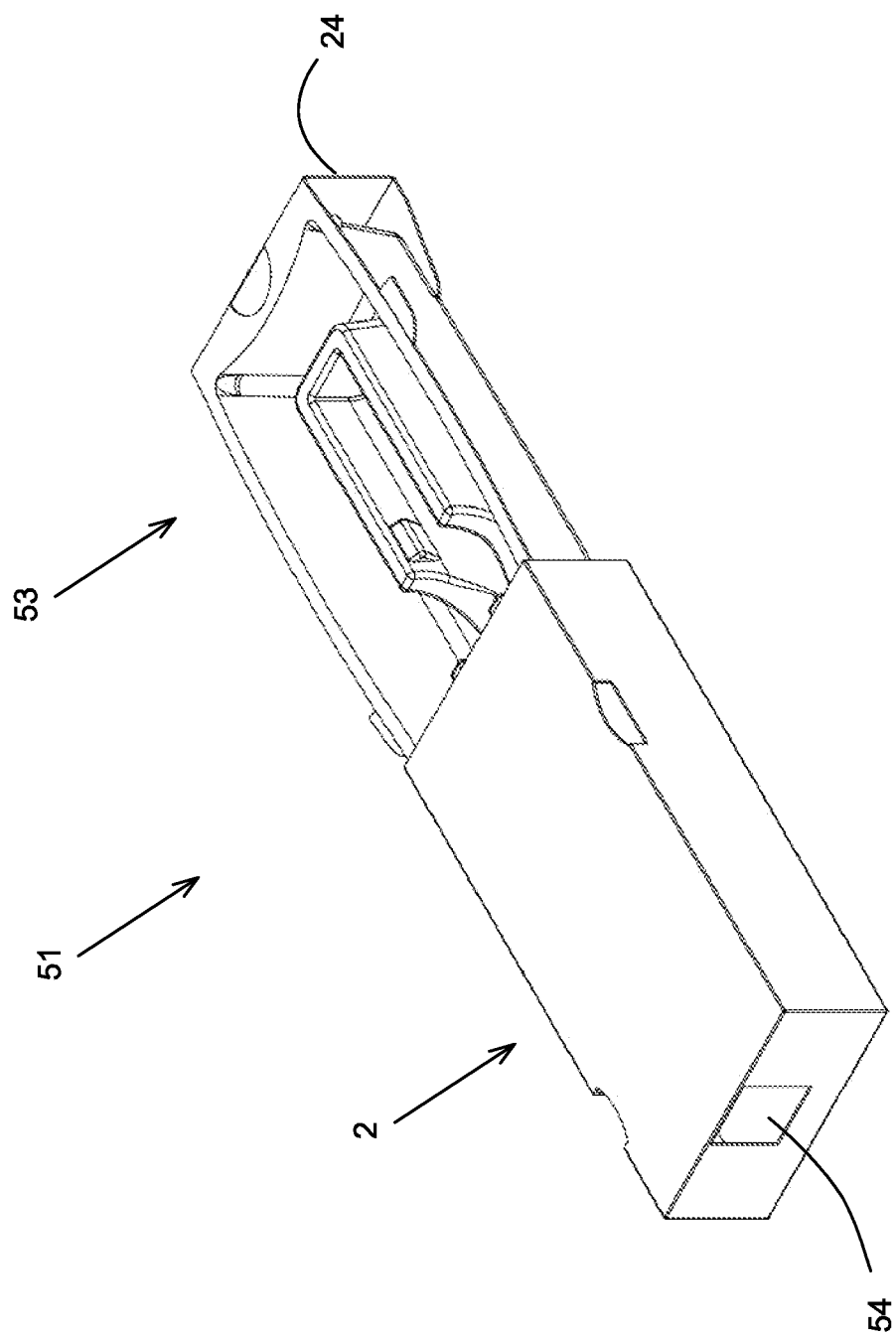


Fig. 5B

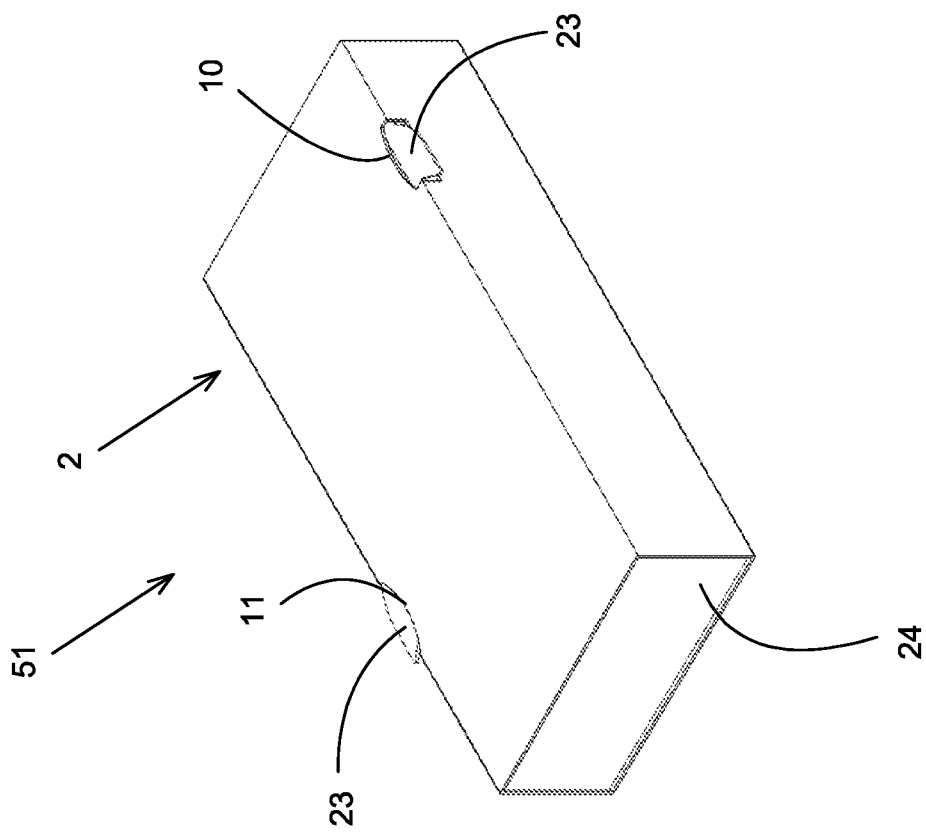


Fig. 6

SAMENWERKINGSVERDRAG (PCT)

RAPPORT BETREFFENDE NIEUWHEIDSONDERZOEK VAN INTERNATIONAAL TYPE

IDENTIFICATIE VAN DE NATIONALE AANVRAGE		KENMERK VAN DE AANVRAGER OF VAN DE GEMACHTIGDE	
Nederlands aanvraag nr. 2029481		Indieningsdatum 21-10-2021	
		Ingeroepen voorrangsdatum	
Aanvrager (Naam) Ecobliss Holding B.V.			
Datum van het verzoek voor een onderzoek van internationaal type 15-01-2022		Door de Instantie voor Internationaal Onderzoek aan het verzoek voor een onderzoek van internationaal type toegekend nr. SN80404	
I. CLASSIFICATIE VAN HET ONDERWERP (bij toepassing van verschillende classificaties, alle classificatiesymbolen opgeven)			
Volgens de internationale classificatie (IPC) Zie onderzoeksrapport			
II. ONDERZOCHE GEBIEDEN VAN DE TECHNIEK			
Onderzochte minimumdocumentatie			
Classificatiesysteem	Classificatiesymbolen		
IPC	Zie onderzoeksrapport		
Onderzochte andere documentatie dan de minimum documentatie, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen			
III.	GEEN ONDERZOEK MOGELIJK VOOR BEPAALDE CONCLUSIES		(opmerkingen op aanvullingsblad)
IV.	GEBREK AAN EENHEID VAN UITVINDING		(opmerkingen op aanvullingsblad)

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Nummer van het verzoek om een onderzoek naar
de stand van de techniek

NL 2029481

A. CLASSIFICATIE VAN HET ONDERWERP

INV. B65D5/38

ADD.

Volgens de Internationale Classificatie van octrooien (IPC) of zowel volgens de nationale classificatie als volgens de IPC.

B. ONDERZOCHE GEBIEDEN VAN DE TECHNIEK

Onderzochte minimum documentatie (classificatie gevolgd door classificatiesymbolen)

B65D

Onderzochte andere documentatie dan de minimum documentatie, voor dergelijke documenten, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen

Tijdens het onderzoek geraadpleegde elektronische gegevensbestanden (naam van de gegevensbestanden en, waar uitvoerbaar, gebruikte trefwoorden)

EPO-Internal, WPI Data

C. VAN BELANG GEACHTE DOCUMENTEN

Categorie °	Geciteerde documenten, eventueel met aanduiding van speciaal van belang zijnde passages	Van belang voor conclusie nr.
A,D	EP 3 016 883 A1 (ECOBLISS HOLDING B V [NL]) 11 mei 2016 (2016-05-11) in de aanvraag genoemd * alineas [0042] - [0076]; figuren 1-16 * -----	1-11
A	US 2020/087020 A1 (TSAI MIKE [US] ET AL) 19 maart 2020 (2020-03-19) * alineas [0051] - [0052]; figuren 12-13 * -----	1-11
A	US 2019/337689 A1 (MAZUREK RICHARD A [US] ET AL) 7 november 2019 (2019-11-07) * alineas [0049], [0064] - [0065]; figuren 1,2,12a,12b * -----	1-11



Verdere documenten worden vermeld in het vervolg van vak C.



Leden van dezelfde octroofamilie zijn vermeld in een bijlage

° Speciale categorieën van aangehaalde documenten

"A" niet tot de categorie X of Y behorende literatuur die de stand van de techniek beschrijft

"D" in de octrooiaanvraag vermeld

"E" eerdere octrooi(aanvraag), gepubliceerd op of na de indieningsdatum, waarin dezelfde uitvinding wordt beschreven

"L" om andere redenen vermelde literatuur

"O" niet-schriftelijke stand van de techniek

"P" tussen de voorrangsdatum en de indieningsdatum gepubliceerde literatuur

"T" na de indieningsdatum of de voorrangsdatum gepubliceerde literatuur die niet bezwarend is voor de octrooiaanvraag, maar wordt vermeld ter verheldering van de theorie of het principe dat ten grondslag ligt aan de uitvinding

"X" de conclusie wordt als niet nieuw of niet inventief beschouwd ten opzichte van deze literatuur

"Y" de conclusie wordt als niet inventief beschouwd ten opzichte van de combinatie van deze literatuur met andere geciteerde literatuur van dezelfde categorie, waarbij de combinatie voor de vakman voor de hand liggend wordt geacht

"&" lid van dezelfde octroofamilie of overeenkomstige octrooipublicatie

Datum waarop het onderzoek naar de stand van de techniek van internationaal type werd voltooid

30 mei 2022

Verzenddatum van het rapport van het onderzoek naar de stand van de techniek van internationaal type

Naam en adres van de instantie

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
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Fax: (+31-70) 340-3016

De bevoegde ambtenaar

Leijten, René

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Informatie over leden van dezelfde octrooifamilie

Nummer van het verzoek om een onderzoek naar
de stand van de techniek

NL 2029481

In het rapport genoemd octrooigeschrift		Datum van publicatie	Overeenkomend(e) geschrift(en)	Datum van publicatie
EP 3016883	A1	11-05-2016	EP 3016883 A1	11-05-2016
			ES 2628254 T3	02-08-2017
			JP 6370897 B2	08-08-2018
			JP 2016527151 A	08-09-2016
			NL 2011090 C2	06-01-2015
			US 2016152373 A1	02-06-2016
			WO 2015000896 A1	08-01-2015

US 2020087020	A1	19-03-2020	CN 210681478 U	05-06-2020
			US 2020087020 A1	19-03-2020
			US 2021053715 A1	25-02-2021

US 2019337689	A1	07-11-2019	GEEN	

WRITTEN OPINION

File No. SN80404	Filing date (<i>day/month/year</i>) 21.10.2021	Priority date (<i>day/month/year</i>)	Application No. NL2029481
International Patent Classification (IPC) INV. B65D5/38			
Applicant Ecobliss Holding B.V.			

This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the application
- ☒ Box No. VIII Certain observations on the application

	Examiner Leijten, René
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WRITTEN OPINION**Box No. I Basis of this opinion**

1. This opinion has been established on the basis of the latest set of claims filed before the start of the search.
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the application as filed.
 - ☐ filed together with the application in electronic form.
 - ☐ furnished subsequently for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty	Yes: Claims	1-11
	No: Claims	
Inventive step	Yes: Claims	1-11
	No: Claims	
Industrial applicability	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

WRITTEN OPINION

Application number
NL2029481

Box No. VIII Certain observations on the application

see separate sheet

Re Item V

1 Reference is made to the following documents:

D1 EP 3 016 883 A1

D2 US 2020/087020 A1

D3 US 2019/337689 A1

2 INDEPENDENT CLAIM 1

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1 and shows a package according to the preamble of claim 1.

The subject-matter of claim 1 differs from this known D1 in that:

het zijdeel aan een buitenste deel daarvan is voorzien van een flap die zich in een richting naar een oppervlak van de bodemwand uitstrekt, welke flap op een afstand van het zijdeel is verbonden met de slede, welke flap de voorste opening van de behuizing sluit als de slede in positie is vergrendeld in de behuizing

The subject-matter of claim 1 is therefore new.

The problem to be solved by the present invention may be regarded as:

To provide a package being child resistant and senior-friendly, whereby the risk of tearing apart of the housing is being reduced.

Technical effect: By connecting the flap at a distance of the side part to the slide, the flap has a fixed position with respect to the side wall. Since the flap closes the opening of the housing, there is no or not enough space bounded by the housing and the flap in the locked position of the slide for fingers of a child to get grip on the housing for tearing it apart.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step for the following reasons:

None of the prior art documents appears to suggest provide a flap as defined in the characterising portion of claim 1.

Document D2 discloses a slide having a flap 504, however, this flap is positioned on the rear side of the slide and is intended to interact with front flap 204 of sleeve 200 to prevent the complete removal of the slide from the sleeve. However, D2 does not relate to the same problem, the flap is not closing a front opening of the sleeve and the flap is not connected to the tray at a distance from the lip 501 (only folded around).

Document D3 discloses another slide provided with a flap, however, also this flap (protection sheet 130 / 330) does not close the opening and is not connected to slide at a distance from the lip.

3 INDEPENDENT CLAIM 11

The slide of claim 11 is considered to comprise all the technical features of the slide defined in claim 1 (see **Re Item VIII** for further details) and as such the subject-matter of claim 11 is also considered to be new and to involve an inventive step.

4 DEPENDENT CLAIMS 2-10

Dependent claims 2-10 are dependent on claim 1 and as such also meet the requirements of novelty and inventive step.

Re Item VIII

The subject-matter of claim 11 is not clear. Claim 11 defines a slide suitable for a package according to any of claims 1-10, as such, claim 11 is actually an independent claim. However, fails to define the essential structural technical features of the slide. For the sake of the search and written opinion it is assumed that the slide defined in claim 11 comprises all the technical features of the slide defined in claim 1.