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(54) **NEXT CUSTOMER BAR PROVIDED WITH FIXING MEANS FOR AN ADVERTISING PANEL**

(57) A 'next customer' bar for supermarkets, provided with two eccentric revolving pins (5) that are suitable for guaranteeing the rapid, stable fixing of the lower edge

(4a) of a rigid advertising panel (4) inserted in the longitudinal slot provided in the bar.

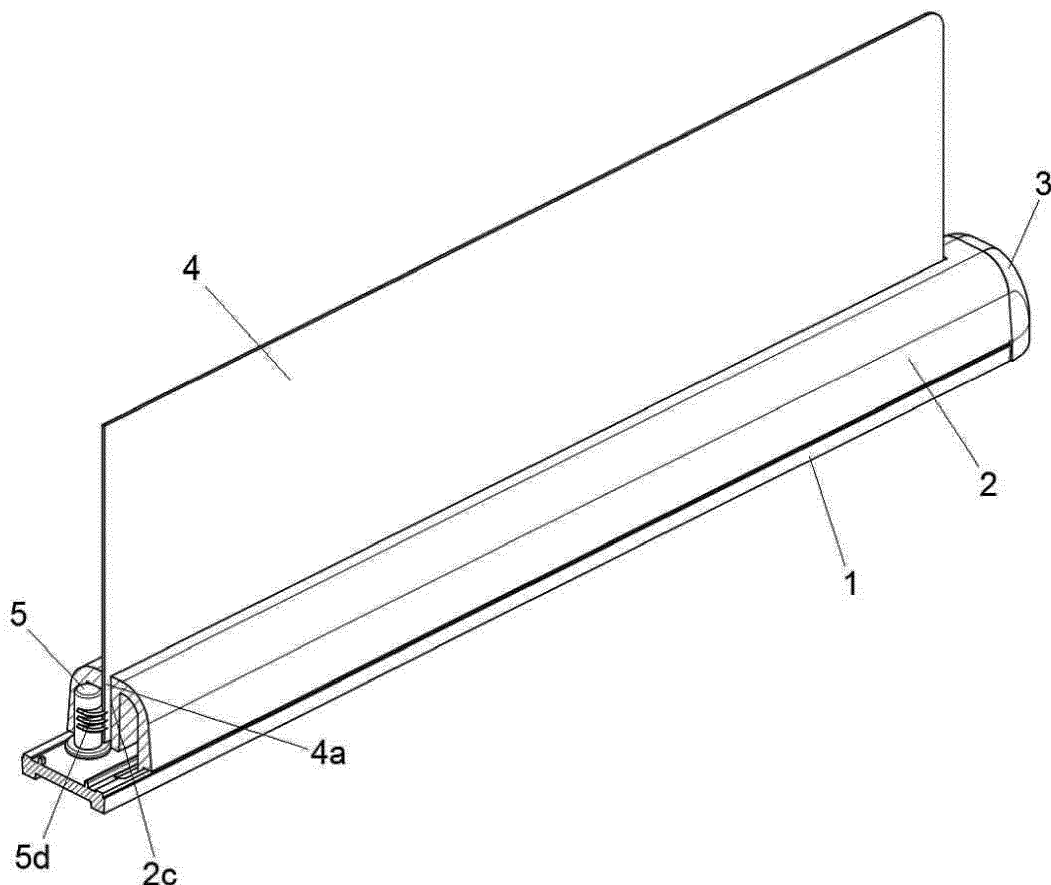


Fig. 3

EP 3 364 399 A1

Description

[0001] The present patent application relates to a "next customer" bar provided with fixing means for an advertising panel.

[0002] In order to illustrate the peculiarities and advantages of the invention, it must be noted that the expression "next customer" bar is used to indicate a mobile bar used in supermarket cash counters - and more precisely on conveyor belts - to separate the items presented at checkout by a customer from the ones purchased by the following customer.

[0003] As it is known, this type of bars has been used for a long time in a very effective way.

[0004] The large diffusion of these bars in supermarkets, together with the fact that they remain under the customer's eyes for the entire duration of the payment operations, have originated the idea of using them as advertising tools for sponsored commercial messages.

[0005] In view of the above, commercial messages are sometimes reproduced on the longitudinal sides of the bars; in other cases, the bars are provided with a longitudinal slot obtained on the upper profile, as well as suitable for receiving a two-sided rigid panel with the desired advertising message in edgeways position.

[0006] The present invention has been conceived in order to solve a significant drawback that is currently encountered when using the "next customer" bars of the latter type, i.e. the bars that are suitable for acting as support for a rigid advertising panel.

[0007] Such an inconvenience consists in the lack of stability suffered by a similar rigid panel relative to the bar used to support the panel in vertical position.

[0008] Such lack of stability is originated by two facts: the first one is that the panel is inserted in the base - which is evidently represented by the "next customer" bar - for a very small percentage of its total height.

[0009] In such a situation, the panel naturally tends to be accidentally removed from the bar, possibly when the bar is tilted or overturned by an absent-minded or hurried customer.

[0010] The second reason refers to the fact that the "next customer" bar is continuously handled by supermarket customers, without paying special attention.

[0011] Such a negative phenomenon has been studied by the experts of the field, who have tried to find a remedy in order to give a higher stability to the rigid advertising panel when it is inserted in the slot of the "next customer" bar.

[0012] Evidently, the solution of such a problem cannot be too sophisticated because it would otherwise affect the costs of a product, i.e. a "next customer" bar, that needs to be extremely inexpensive to produce.

[0013] In view of the above, so far the main remedy has been to increase as much as possible the depth of the longitudinal slot that receives the lower longitudinal edge of the rigid advertising panel, substantially for the entire height of the "next customer" bar.

[0014] In fact, it was considered that a deeper penetration of the panel inside the "next customer" bar could reduce the risk of accidentally detaching the two parts.

[0015] However, practical tests have shown that the simple provision of a deeper slot in the "next customer" bar in order to insert the lower edge of the rigid advertising panel is not a suitable solution to guarantee the full stability of the two parts when they are coupled.

[0016] Based on similar observations, it was believed that a stable coupling between a "next customer" bar and a rigid advertising panel could be exclusively obtained by providing means for mutual fixing.

[0017] Therefore the main purpose of the present invention is to provide a "next customer" bar that is provided with fixing means in order to guarantee the stable coupling of a rigid advertising panel.

[0018] Another purpose is to provide said fixing means in such a configuration to permit the user of the bar according to the invention to activate or deactivate them rapidly and easily.

[0019] In fact, it appears evident that, during the operating life of a "next customer" bar, it may be often necessary to use panels with different advertisement messages according to the promotional activities in progress.

[0020] Considering that a supermarket of medium-large size can use hundreds of "next customer" bars, it appears evident that the capability of rapidly dismounting and mounting the advertising panels from the bars represents a considerable advantage in terms of time and staff.

[0021] Furthermore, according to the aforementioned requirement, another purpose of the present invention is to guarantee that the "next customer" bars, and especially the fixing means of the rigid advertising panel, are produced with a very low cost, making the bars of the invention competitive compared to the traditional "next customer" bars that are not capable of firmly holding the rigid advertising panels.

[0022] Finally, another purpose of the present invention is to position the means used to fix the advertising panel in a position that is not visible during the normal use of the bar of the invention, in order not to keep the general aesthetical appearance of the bar unchanged.

[0023] The aforementioned purposes have been achieved by providing a pair of alternately revolving vertical pins with eccentric profile inside the substantially traditional box-shaped structure of the bar of the invention.

[0024] In particular, the two pins are preferably disposed in the longitudinal slot that is used by the bar of the invention to receive the lower longitudinal edge of a rigid advertising panel.

[0025] Because of their position and capability of making alternate rotations, the two pins can be moved from a non-operating condition, wherein their eccentric profiles are maintained out of the slot of the bar, to an operating position, wherein the eccentric profiles shortly occupy the section of said slot.

[0026] In view of the above, until the pins are maintained in the non-operating position, a rigid panel can be freely inserted into and extracted from the longitudinal slot of the bar of the invention.

[0027] On the contrary, when the pins are moved to the operating position - after introducing the panel in the slot of the bar - the eccentric profiles will energetically interfere against the panel, thus preventing it from being accidentally detached from the bar of the invention until the pins are moved again to the non-operating position.

[0028] For the sake of clarity, the description of the invention continues with reference to the attached drawings, which have a merely illustrative, not limiting value, wherein:

- Fig. 1 is an axonometric exploded view of the bar of the invention;
- Fig. 2 is an axonometric view that shows the bar of the invention and the panel in uncoupled position, wherein one end of the bar is omitted in order to show the internal structure of the bar;
- Fig. 3 is substantially the same as Fig. 2, except for it shows the bar of the invention coupled with the panel
- Figs. 4 and 5 are cross-sectional views taken in correspondence of said fixing means of the advertising panel, respectively shown in non-operating and in operating position.

[0029] With reference to the enclosed figures, the bar of the invention (B) has a modular structure of traditional type, which comprises the following cooperating parts made of plastic materials.

[0030] The first one of said parts is a rectangular plate (1) with a narrow elongated shape, which is provided with rounded ends (1a).

[0031] Two cylindrical metal rods (1b) are longitudinally mounted on said plate (1), being simply intended to make the bar (B) heavier in order to guarantee the stability of the bar when it is positioned on the conveyor belt of a supermarket cash-counter.

[0032] The second one of said parts is a box-shaped top (2) with a rectangular shape and an overturned "U"-shaped cross-section.

[0033] Said top (2) can be fitted on said plate (1) by means of a set of hooks (20) and holding points disposed between the plate (1) and the top (2), said top (2) being shorter than the plate (1) in order not to cover the two rounded ends (1a).

[0034] For most of its length, the top (2) is provided with a longitudinal central slot (2a) that is defined by a close pair of vertical edges (2b, 2c) on the interior of the top (2).

[0035] The third one of said parts is a pair of covers (3), each of them suitable for being fitted onto one of said rounded ends (1a) of the plate (1), exactly covering it, by means of a set of hooks (30) and holding points disposed between the cover (3) and the rounded end (1a).

[0036] The assembly sequence of the three parts (1, 2, 3) provides for fastening the two lateral covers (3) onto the rounded ends (1a) of the plate (1) and then introducing the top (2) between them until the top (2) is attached onto the plate (1).

[0037] After such an assembly, the longitudinal slot (2a) of the top (2) can exactly receive the lower horizontal edge (4a) of a rigid advertising panel (4) with rectangular shape that needs to be vertically supported by the bar (B).

[0038] It is reiterated that, within a substantially traditional general structure of said next customer bar (B), the present invention was devised in order to find a solution able to guarantee the stable fixing of the advertising panel (4) inside said slot (2a) of the top (2).

[0039] According to such an inventive solution, the bar (B) is provided with two pins with vertical axis (5) that are suitable for being disposed between said plate (1) and the box-shaped top (2), substantially at the two ends of said slot (2a) of the top (2).

[0040] Each of said pins (5) comprises a cylindrical stem (5a) that protrudes upwards from the center of a circular flange (5b); a cylindrical bulb (5c) with a diametral notch (5c') is provided in projecting position under said circular flange (5b).

[0041] Another peculiarity of a similar pin (5) consists in the fact that it is provided, at approximately half of its cylindrical stem (5a), with a cam (5d) obtained as a set of three ribs with substantial semicircular shape.

[0042] In order to mount said pins (5), the plate (1) is provided with two circular through holes (6), disposed in proximal position to the first one of its longitudinal edged (1c); it being also provided that each of said holes (6) occupies a position that substantially corresponds to the position occupied in the top (2) by each end of said slot (2a).

[0043] Moreover, it must be noted that two niches (7) are obtained on the first one (2b) of the two edges that define the vertical slot (2a), each niche (7) being disposed at one end of the slot (2a), exactly above the holes (6) of the plate (1), which are in communication with the internal space of said niches (7).

[0044] A cylindrical housing (7a) is provided at the upper end of each niche (7), in coaxial position with the hole (6) of the plate (1).

[0045] In order to assemble the bar (B), the two pins (5) must be inserted from up downwards inside the holes (6) obtained on the plate (1).

[0046] More precisely, said cylindrical bulb (5c) of each pin (5) is inserted into one of the holes (6) of the plate (1), until the circular flange (5a), which suitably has a larger diameter than the hole (6), stops against the surface of the plate (1), all around the hole (6).

[0047] Furthermore, it must be considered that the height of said bulb (5c) of the pin (5) is substantially equal to the thickness of the hole (6) in order to prevent said bulb (5c) from projecting under the hole (6).

[0048] The following operation consists in inserting the top (2) onto the plate (1), in such a way that the cylindrical

stem (5a) of each of the two pins (5) is exactly inserted, from down upwards, inside said circular housing (7a) that is provided in said niches (7) obtained in the top (2).

[0049] When the two pins (5) have reached such a final position, they can be driven in alternate rotations from the lower side of said plate (1).

[0050] In order to do it, the tip of a screwdriver must be inserted in each one of the holes (6) obtained in the plate (1), in such a way that the tip is introduced in the diametral notch (5c') of the cylindrical bulb (5c) of the pin (5).

[0051] This description continues illustrating the modes in which the two pins (5) can effectively hold the advertising panel (4) inside the slot (2a) of the top (2).

[0052] Before inserting the panel (4) in the slot (2a), it must be assured that the cams (5d) provided in the pins (5) are maintained inside the niches (7), without occupying the passage section of the slot (2a), not even partially, as shown in Fig. 4.

[0053] A similar adjustment of the angular position of the pins (5) can be obtained by introducing a screwdriver in the diametral notch (5c') provided on the bulb (5c) of each pin (5) through the hole (6) of the plate (1).

[0054] With reference to Fig. 5, when the advertising panel (4) has been completely inserted in the slot (2a) of the top (2), the two pins (5) must be rotated in such a way that said cams (5d) come out of the niches (7) and energetically interfere against the surface of the panel (4), thus pushing and fixing the panel against the second edge (2c) of the slot (2), preventing its accidental uncoupling from the bar of the invention (B).

[0055] In order to extract the panel (4) from the slot (2a), a new inverse rotation must be imposed on the two pins (5), in such a way to eliminate the energetic interference generated by the cams (5d) against the lower edge (4a) of the panel (4) inside the slot (2a).

- comprises a cylindrical stem (5a) that protrudes upwards from the center of a circular flange (5b); a cylindrical bulb (5c) with a diametral notch (5c') is provided under said circular flange (5b);

- inserts its cylindrical stem (5a) inside a circular housing (7a) disposed on top of a vertical niche (7) obtained on the first edge (2b) of the top (2) and closed on the bottom by said plate (1), where a hole (6) is provided, which ends in the niche (7) and is suitable for exactly housing said cylindrical bulb (5c) of the pin (5)

- comprises a cam (5d) obtained along said cylindrical stem (5a), as well as housed in said niche (7) and dimensioned in such a way to alternately penetrate the slot (2a) and return completely inside the niche (7) according to the direction of rotation imposed on the pin (5).

2. The 'next customer' bar of claim 1, wherein the cam (5d) of said pin (5) consists in one or more eccentric ribs.

Claims

1. 'Next customer' bar comprising:

- a substantially rectangular plate (1) with a narrow elongated shape
 - a box-shaped top (2), suitable for being exactly fitted on said plate (1), as well as provided with a central longitudinal slot (2a) defined by a close pair of vertical edges (2c, 2b)
 - a rigid promotional panel (4) with a substantially rectangular shape, which is suitable for introducing its lower longitudinal edge (4a) inside said longitudinal slot (2a) of the top (2),
- 'next customer' bar **characterized in that** it is provided with vertical revolving pins (5) that are disposed in a position comprised between said plate (1) and said box-shaped top (2) and are used to fix or release the panel (4); each revolving pin (5):

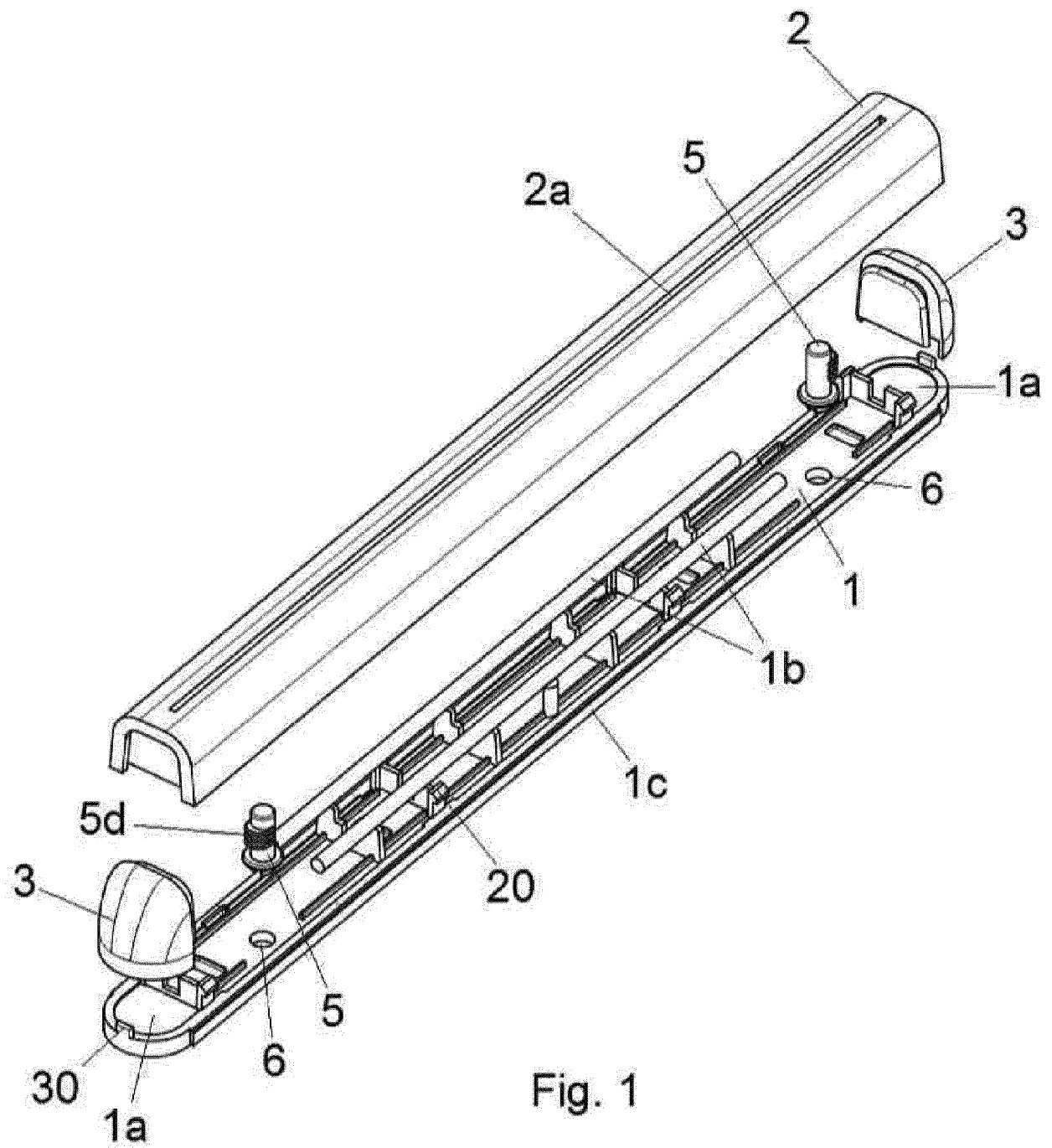


Fig. 1

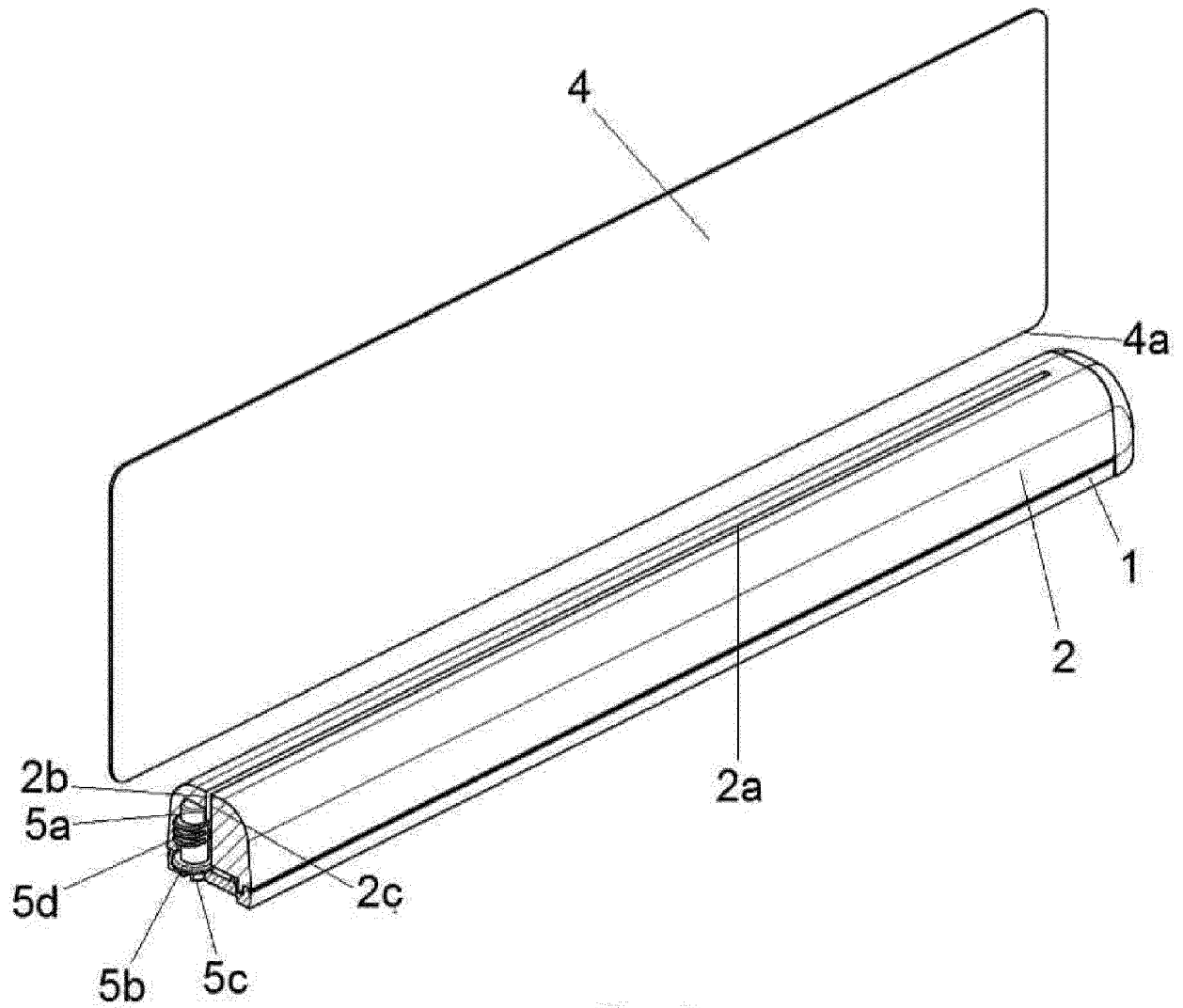


Fig. 2

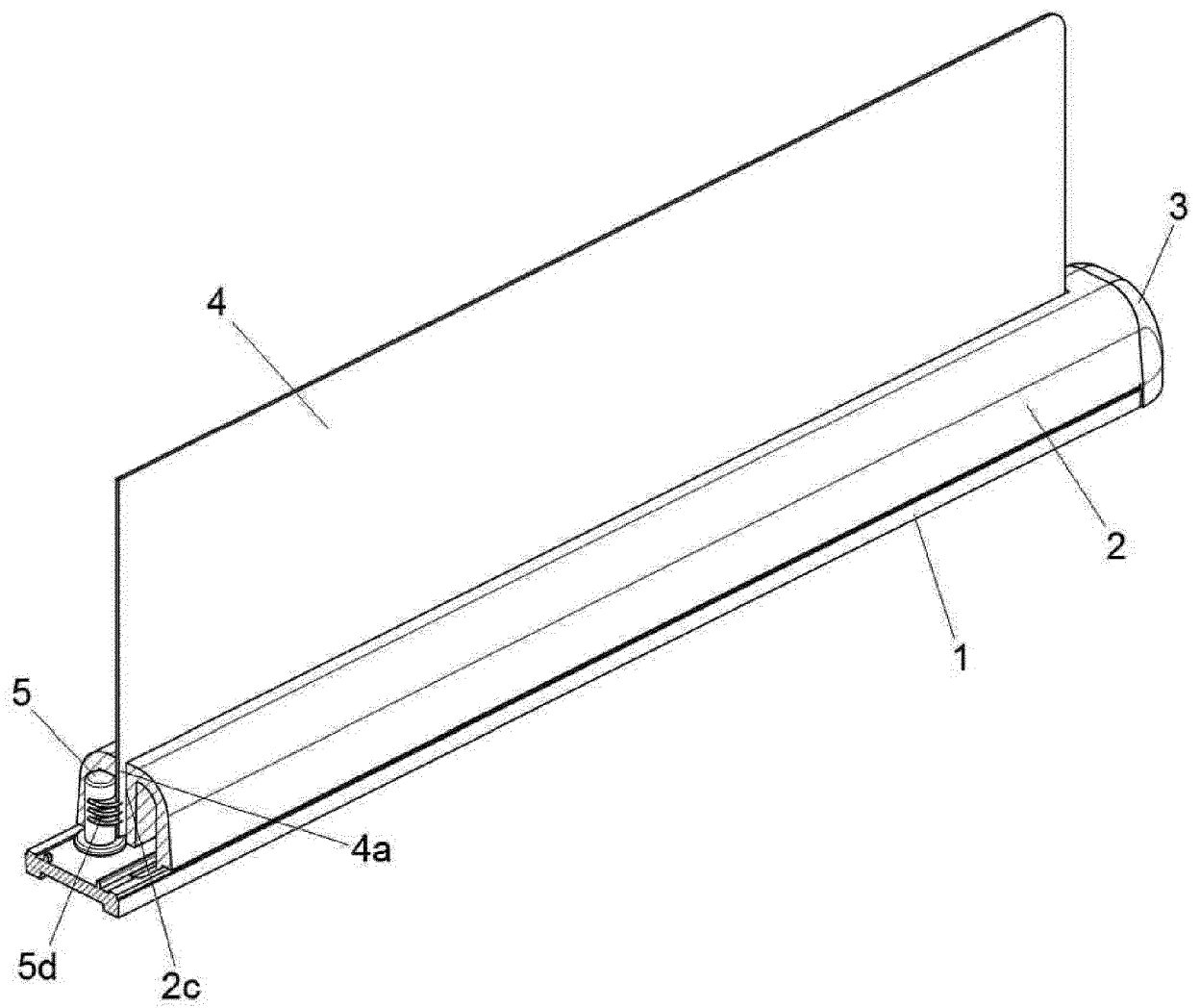


Fig. 3

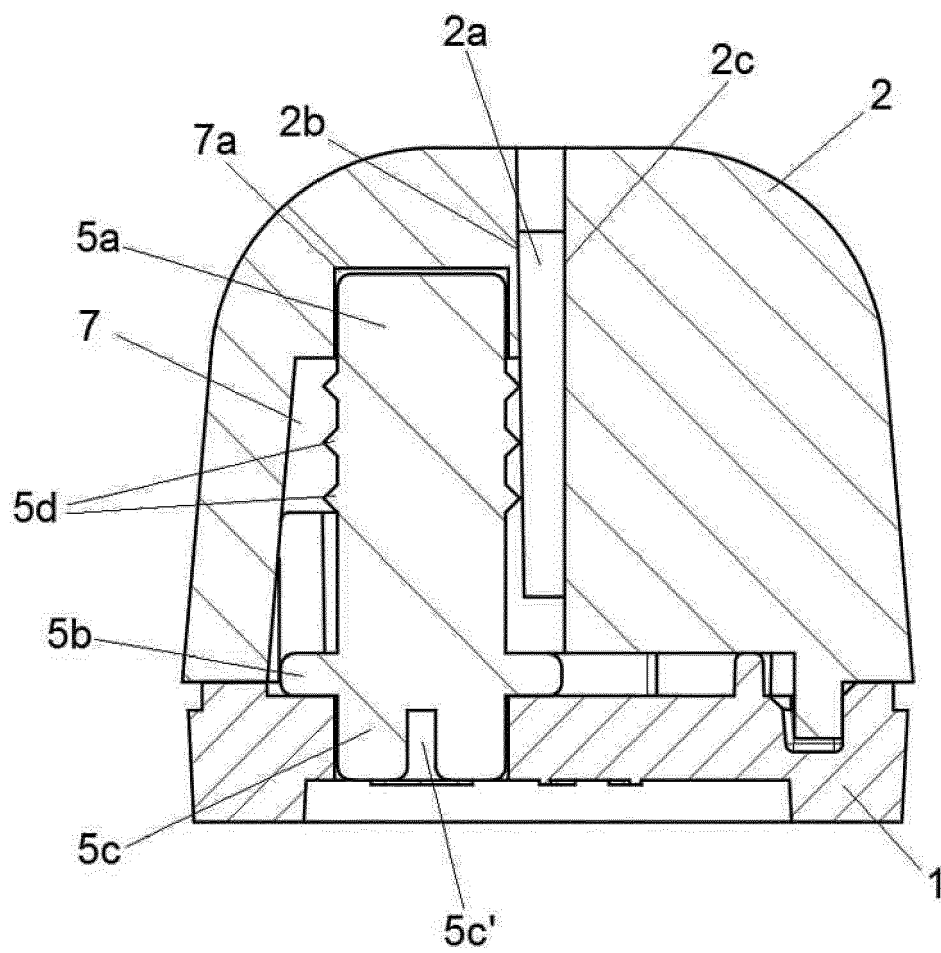


Fig. 4

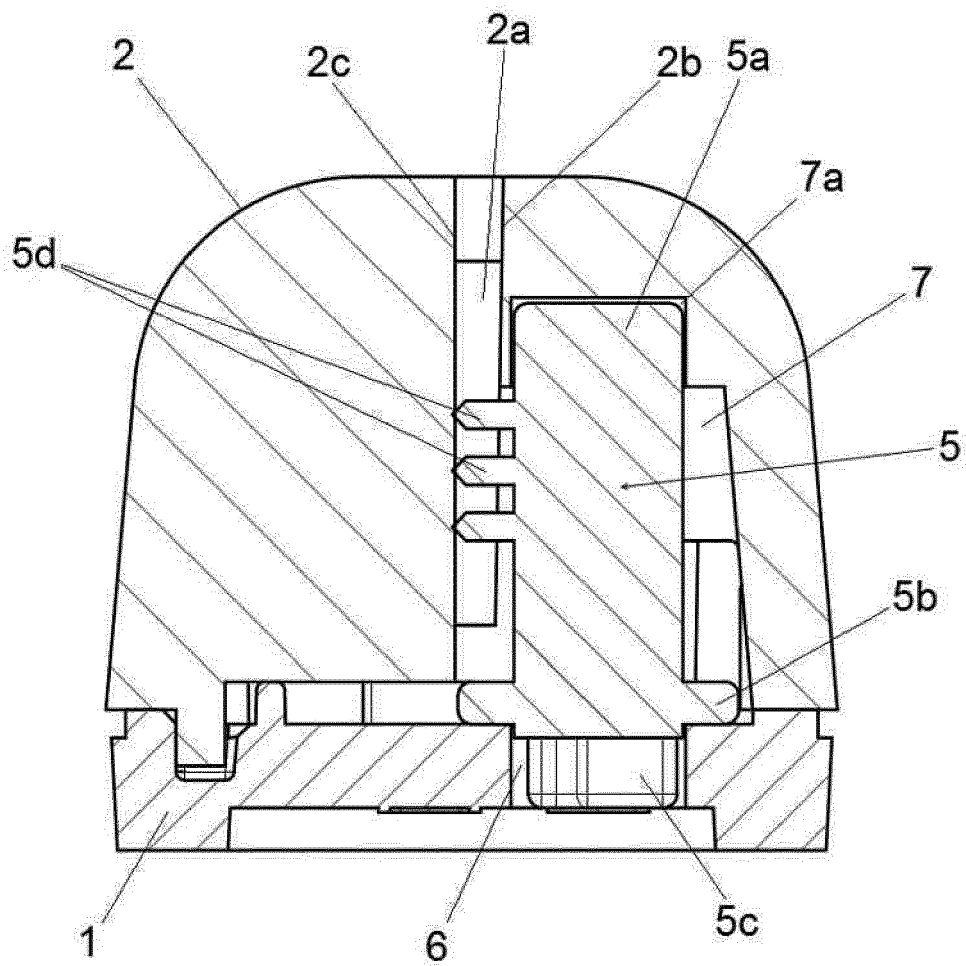


Fig. 5



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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 25 June 2018	Examiner Lechanteux, Alice
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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