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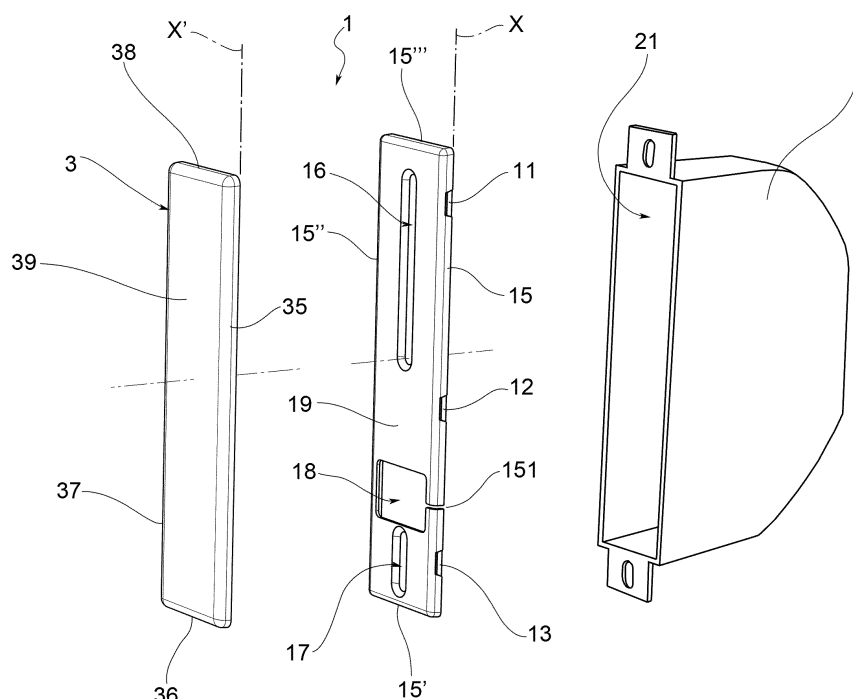
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(54) **A COVER PLATE ASSEMBLY FOR A WINDER SEAT OF A WINDER BOX OF A SHUTTER FOR A WINDOW OR GLASS DOOR COMPARTMENT AND RELATIVE PLATE**

(57) A cover plate assembly (1) for a winder seat (21) of a winder box (2) for a winder of a shutter, comprises a sub-plate (10), suitable for being fastened to the winder seat (21) and comprising one or more sub-plate coupling portions (11, 12, 13). The assembly also comprises a cover plate (3), comprising a sub-plate seat (33) suitable for accommodating the sub-plate (10) therein when the cover plate (3) is coupled to the sub-plate (10). The

assembly (1) is characterized in that the cover plate (3) is totally devoid of through openings and comprises plate coupling portions (30, 31, 32) suitable for being snap-coupled to the one or more respective sub-plate coupling portions (11, 12, 13) for releasably snap-coupling the cover plate to the sub-plate (10) and completely closing the winder seat (21).

**FIG.1****EP 4 556 676 A1**

Description

Field of application

[0001] The present invention relates to a cover plate assembly of a winder seat of a winder box for a winder of a shutter for a window or glass door compartment and a relative cover plate.

[0002] The present patent application relates to the field of shutter winders and, more specifically, to a cover plate for a winder box, designed to improve the aesthetics and functionality of existing winder boxes, especially in cases of non-use or replacement with motorized winders.

[0003] In the field of shutter winders, the need to provide cover plates for the boxes containing winder mechanisms is common. Such cover plates have traditionally been provided with through openings to allow for the passage of belts or chains towards the winder and which are connected to the roller of the shutter. Such openings may however cause problems such as infiltration of dust and humidity, as well as weak points from the point of view of thermal and acoustic insulation.

[0004] Moreover, with winder systems evolving towards motorized winder systems, existing cover plates are often inadequate or unsightly once the manual winder is to be removed and no longer used. Furthermore, through openings that no longer have the belt may pose a safety risk, offering accidental or intentional gripping points which may compromise the integrity of the system or lead to injuries.

Solution of the invention

[0005] There is therefore a strong need to provide a cover plate assembly and a cover plate that are capable of overcoming the drawbacks mentioned with reference to the prior art.

[0006] In particular, a dual need is felt: on the one hand, the need is felt to look for a solution to effectively cover the winder seat when this is no longer in use or when it is replaced with a motorized system, in such a way as to ensure an improvement from an aesthetic, thermal and acoustic point of view; on the other hand, it is intended to provide a cover that is safe, easy to remove and that does not present risks for the users.

[0007] Also an object of the present invention to provide a cover plate assembly that is easy to install, compatible with standard winder boxes and capable of aesthetically adapting to various residential contexts whilst maintaining a discrete or elegant profile.

[0008] Such needs are satisfied by a cover plate assembly and by a cover plate in accordance with the attached independent claims. The dependent claims describe preferred or advantageous embodiments of the invention, comprising further advantageous features.

Description of the drawings

[0009] The features and advantages of the cover plate assembly and of the cover plate will become apparent from the following description of some preferred embodiments, given by way of indicative and non-limiting example, with reference to the accompanying figures, wherein:

Figure 1 shows an exploded axonometric view of a cover plate assembly according to one embodiment of the present invention and of a winder box suitable for accommodating a shutter winder;

Figure 2 shows an exploded axonometric view of a cover plate assembly according to one embodiment of this invention from a different point of view than in Figure 1, in particular from the rear, i.e., from the side facing the seat of the winder box;

Figure 3 shows an elevation plan view of the cover plate assembly in Figure 2 when assembled.

Detailed description

[0010] With reference to the aforesaid figures, a cover plate assembly 1 for a winder seat 21 of a winder box 2 for a winder of a shutter of a window or glass door compartment is collectively indicated with the reference numeral 1.

[0011] The cover plate assembly 1 comprises a sub-plate 10, suitable for being fastened to the winder seat 21 and comprising one or more sub-plate coupling portions 11, 12, 13.

[0012] The cover plate assembly 1 also comprises a cover plate 3 comprising a sub-plate seat 33 suitable for accommodating the sub-plate 10 therein when the cover plate 3 is coupled to the sub-plate 10.

[0013] The cover plate 3 is totally devoid of through openings and comprises plate coupling portions 30, 31, 32 suitable for being snap-coupled to the one or more respective sub-plate coupling portions 11, 12, 13 for releasably snap-coupling the cover plate to the sub-plate 10. In this way, the winder seat 21 is completely closed.

[0014] According to one embodiment, the one or more sub-plate coupling portions 11, 12, 13 are a depression formed on a side 15 of the sides of the sub-plate 10.

[0015] According to one embodiment, the plate coupling portions 30, 31, 32 are one or more teeth protruding from a plate side 35 of the peripheral sides 35, 36, 37, 38 of the cover plate 30. In particular, the one or more protruding teeth project towards the inside of the sub-plate seat 33.

[0016] According to one embodiment, the one or more sub-plate coupling portions 11, 12, 13 are a tooth protruding from a side 15 of the sub-plate and wherein the plate coupling portions 30, 31, 32 are one or more depressions formed upon a plate side 35 of the peripheral sides 35, 36, 37, 38 of the cover plate 30. In particular, the one or more depressions are on the side of the sub-plate

seat 33.

[0017] According to one embodiment, the sub-plate 10 comprises an upper fastening slot 16 and/or a lower fastening slot 17.

[0018] The upper fastening slot 16 and the lower fastening slot 17 are each suitable for being crossed by a pin or a screw for stably fastening the sub-plate 10 to the winder box 2.

[0019] According to one embodiment, the sub-plate 10 also comprises a belt opening 18 arranged between the upper fastening slot 16 and the lower fastening slot 17 along a major extension direction X of the sub-plate. The belt opening 18 is a through opening, open towards a single side 15 of the sub-plate 10 through a slit 151 which interrupts the continuity of said side 15. This may allow the belt of the manual shutter to be restored, once the cover plate has been removed, where necessary.

[0020] Preferably, the sub-plate 10 is completely made of a thermoplastic polymer.

[0021] Preferably, the sub-plate 10 is completely made of a metal, such as aluminum, sheet metal, or steel.

[0022] Preferably, the cover plate 3 is completely made of a thermoplastic polymer or a metal, for example aluminum, sheet metal or steel.

[0023] Preferably, the cover plate 3 has a rectangular plate shape, mainly extending along a major plate direction X' and having a completely flat front face 39 folded over the edges with rounded corners to form peripheral plate sides 35, 36, 37, 38.

[0024] Preferably, the sub-plate 10 has a rectangular plate shape having a flat front face 19 folded over the edges with rounded corners to form plate sides 15, 15', 15'', 15''', suitable for abutting with the peripheral plate sides 35, 36, 37, 38 on the side of the sub-plate seat 33, and preferably to be fully accommodated in such a sub-plate seat, so that the cover plate 3 entirely covers the sub-plate.

[0025] It is clear that object of the present invention is also a cover plate 3 per se couplable to a sub-plate 10 of a cover plate assembly 1 as described within any of the previously described embodiments, and in particular having a completely flat front face 39 folded over the edges with rounded corners to form peripheral plate sides 35, 36, 37, 38 of the plate and being totally devoid of through openings.

[0026] Innovatively, the present invention brilliantly overcomes the drawbacks of the prior art and meets the needs of the industry.

[0027] The proposed solution is easy to install and remove, it is compatible with standard winder boxes and is capable of aesthetically adapting to various residential contexts, whilst maintaining a discrete profile.

[0028] Advantageously, the cover plate assembly offers effective protection for the winder seat, thus contributing to the overall improvement of the insulation and safety of dwellings.

[0029] Advantageously, the possibility of snap-removing the plate allows the aesthetics of the plate to be

adapted and re-adapted quickly to the residential context, without having to carry out screwing operations.

[0030] Furthermore, advantageously, the present invention allows manual winders to be retrofitted without having to cover the winder seat box with masonry works.

[0031] Furthermore, due to the presence of the sub-plate, where it is necessary to restore the manual winder, this would be immediate by virtue of the possibility of removing only the cover plate, snapped in place onto the sub-plate which is already provided with the opening for the passage of a belt.

[0032] It is clear that a person skilled in the art may make changes to the invention in order to meet contingent needs, said changes all falling within the scope of protection as defined in the following claims.

Claims

1. A cover plate assembly (1) for a winder seat (21) of a winder box (2) for a winder of a shutter, said cover plate assembly (1) comprising:

- a sub-plate (10), suitable for being fastened to the winder seat (21) and comprising one or more sub-plate coupling portions (11, 12, 13);
- a cover plate (3), comprising a sub-plate seat (33) suitable for accommodating the sub-plate (10) therein when the cover plate (3) is coupled to the sub-plate (10) ;

said cover plate assembly (1) being **characterized in that** the cover plate (3) is completely devoid of through openings and comprises plate coupling portions (30, 31, 32) suitable for being snap-coupled to the one or more respective sub-plate coupling portions (11, 12, 13) for releasably snap-coupling the cover plate to the sub-plate (10) and completely closing the winder seat (21) .

2. Cover plate assembly (1) according to claim 1, wherein the one or more sub-plate coupling portions (11, 12, 13) is a depression obtained on a side (15) of the sub-plate and wherein the plate coupling portions (30, 31, 32) are one or more teeth protruding from a side of the cover plate (30) towards the inside of the sub-plate seat (33).
3. Cover plate assembly (1) according to claim 1, wherein the one or more sub-plate coupling portions (11, 12, 13) is a tooth protruding from a side (15) of the sub-plate and wherein the plate coupling portions (30, 31, 32) are one or more depressions obtained on a side of the cover plate (30) on the side of the sub-plate seat (33).
4. Cover plate assembly (1) according to any one of the preceding claims, wherein the sub-plate (10) com-

prises an upper fastening slot (16) and a lower fastening slot (17), said upper fastening slot (16) and lower fastening slot (17) being suitable for being crossed by a pin or a screw for stably fastening the sub-plate (10) to the winder box (2).

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5. Cover plate assembly (1) according to claim 4, wherein the sub-plate (10) comprises a belt opening (18) positioned between the upper fastening slot (16) and the lower fastening slot (17) along a major extension direction (X) of the sub-plate, wherein said belt opening (18) being a through opening and being open towards only s side (15) of the sub-plate through a slit (151) which interrupts the continuity of said side (15).
6. Cover plate assembly (1) according to any one of the preceding claims, wherein the sub-plate (10) is completely made of a thermoplastic polymer.
7. Cover plate assembly (1) according to any one of the preceding claims, wherein the sub-plate (10) is completely made of a metal, such as aluminum, sheet metal, or steel.
8. Cover plate assembly (1) according to any one of the preceding claims, wherein the cover plate (3) is completely made of a thermoplastic polymer or metal, such as aluminum, sheet metal, or steel.
9. Cover plate assembly (1) according to any one of the preceding claims, wherein the cover plate (3) has a rectangular plate shape having a completely flat front face (39) folded on the edges with rounded corners to form small peripheral plate sides (35, 36, 37, 38).
10. A cover plate (3) couplable to a sub-plate (10) of a cover plate assembly (1) according to any one of the preceding claims, said cover plate (3) having a completely flat front face (39) folded on the edges with rounded corners to form small peripheral plate sides (35, 36, 37, 38) and being completely devoid of through openings.

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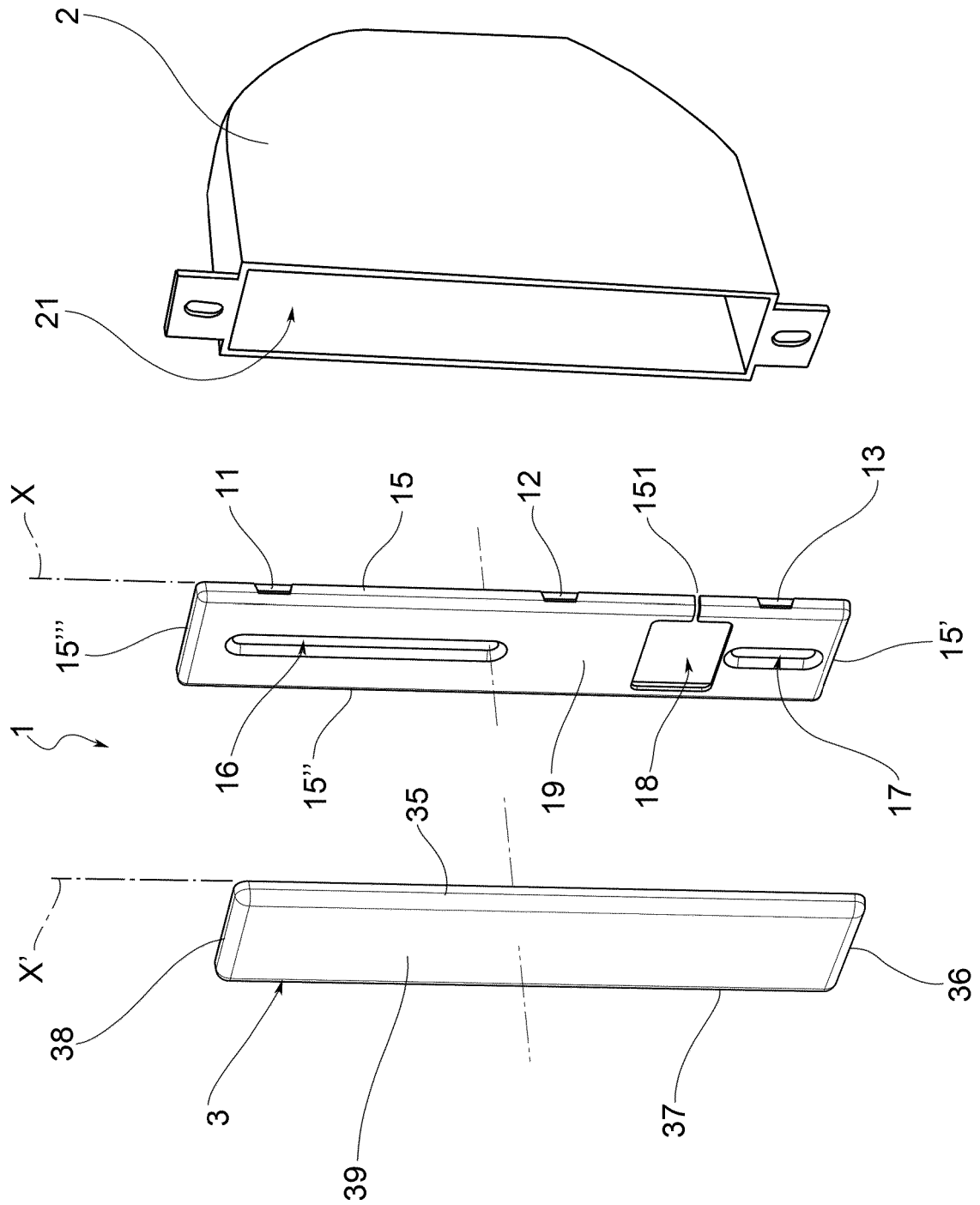


FIG. 1

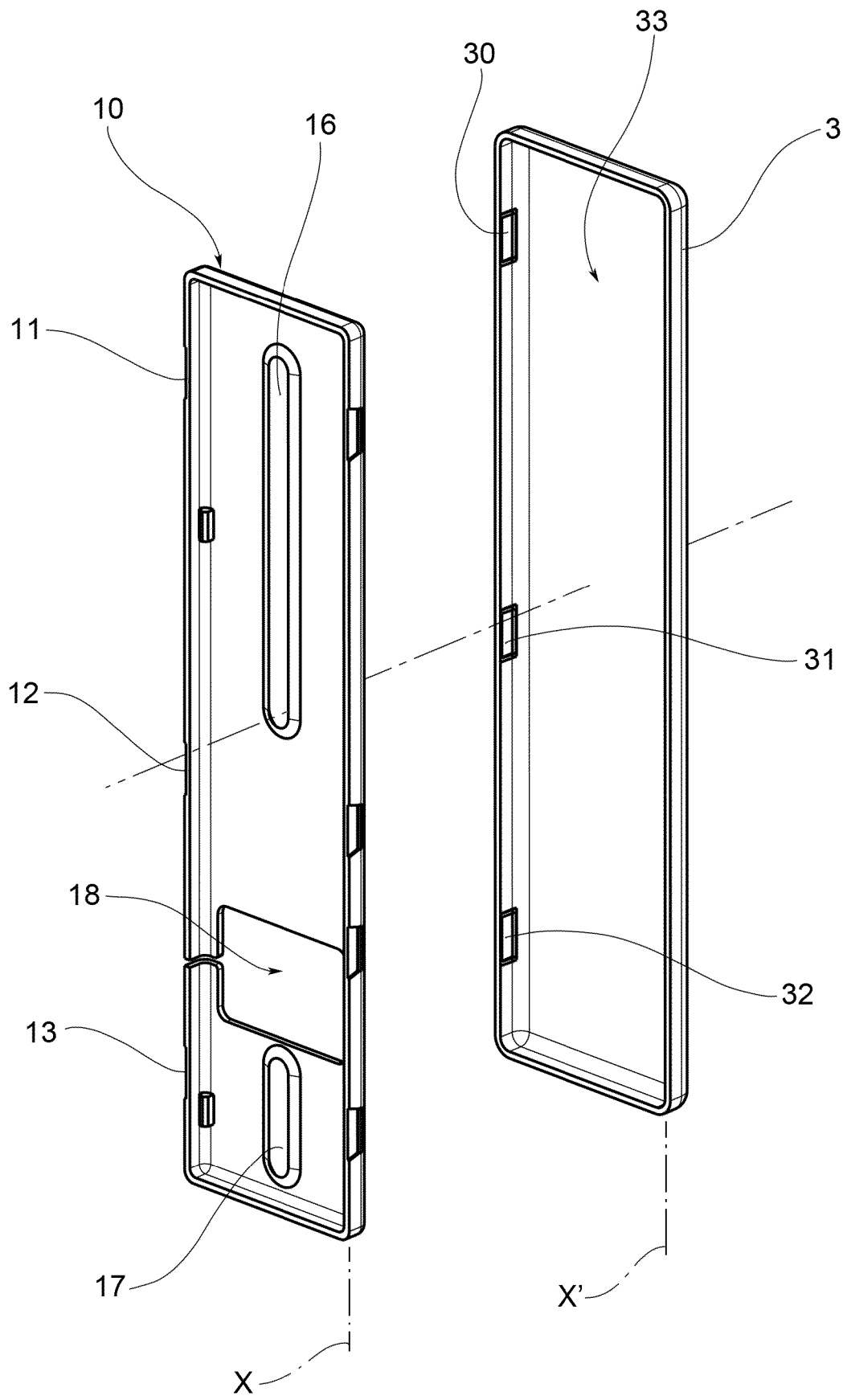


FIG.2

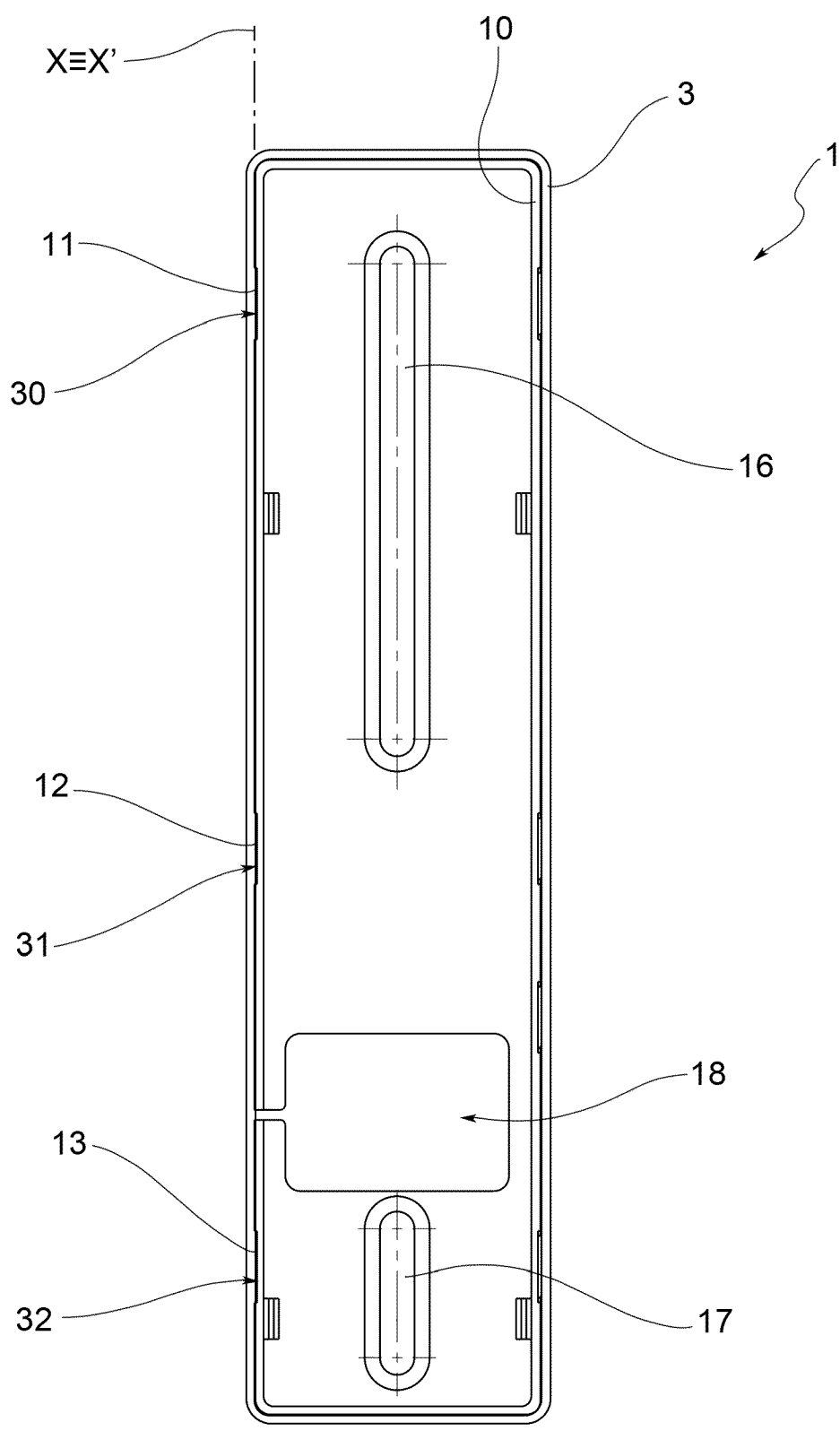


FIG.3



EUROPEAN SEARCH REPORT

Application Number

EP 24 21 2747

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	EP 2 396 489 B1 (STAFA SPA [IT]) 4 April 2018 (2018-04-04) * abstract; figures 1-6 *	1-10	INV. E06B9/78
A	BE 423 856 A (ERNEST SELVE) 30 October 1937 (1937-10-30) * abstract; figure 1 *	1-10	
			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		26 March 2025	Wehland, Florian
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			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 24 21 2747

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82