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(54) **The box of a roller shutter**

Kasten eines Rollladens

Boîtier pour volet roulant

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Description

[0001] The subject of this invention is a box of a roller shutter, furnished with a hinge facilitating its front wall closing and/or opening.

[0002] The roller shutter box, known from the European Patent NO EP 0 841 460 B1, is furnished with a closing set comprised of the profiled seat of a S-shaped cross-section, with a Z-shaped catch set inside the seat, being a closing of the bottom part of the box.

[0003] The embodiment of this invention is the construction of a box of a roller shutter furnished with a hinge that facilitate closing and/or opening of the bottom part of the box wall, practically self-acting or requiring application of an insignificant force only, whereas the joint of the components making the hinge structure is practically invisible from the outside of the box front wall, whereas the hinge seat is placed in the upper part of the box and, due to its shape, covers a part of the side cover, effecting the top part of the box is fixed in its proper position.

[0004] According to this invention, the box of a roller shutter fixed at its ends to the side covers, consisting of two parts, is characterised by that its top part has a seat for a catch of the bottom part of the box, formed of two half-round components of different curve radii, making together with the half-round component ended with the inserting stop the slot of a width slightly greater than the catch thickness. The catch, installed inside the seat slot, has the ending positioned above the centre of the curvature of the half-round component. The centre of the half-round component curvature is situated at the angle " α " amounting to 35° up to 40° in relation to the plane running through the symmetry axis of the round part of the side cover.

[0005] The advantage of the box of a roller shutter, according to this invention, is a relatively simple structure of the seat and/or the catch making the hinge, providing a wide angle of opening and practically self-automatic closing of the front part of the casing, or closing it applying only an insignificant force, as well as it constructs a small slot visible from the outside of the front part of the box, which improves its aesthetic quality.

[0006] The subject of this invention is shown in the drawings; in the Fig. 1, the end fragment of the box of a roller shutter furnished with the side cover is shown in an axonometric view; in the Fig. 2, the front view of the inside of the box of a roller shutter is shown; and in the Fig. 3, the magnified view of the hinge constructed of the seat and the catch is shown.

[0007] As it is shown in the drawing, the box 1 of a roller shutter is fixed, at its ends, into side covers 2, and consists of two parts 3 and 4. The top part 3 of the box 1 has a seat 5 for the catch 6 of its bottom part 4 constructed of two half-rounded components 7, 8, of different curve radii, which together with the half-round component 9 tipped with the inserting stop 10 they both make the slot 11 of a width slightly greater than the thickness of the catch 6. The catch 6, placed inside the slot 11 of the

seat 5, has its tip 12 situated at a height above the centre of curvature 13 of the half-round component 7. The centre of curvature 13 of the half-round component 7 is positioned at the angle α amounting to 35° up to 40° in relation to the plane 14 running through the symmetry axis of the round part 15 of the side cover 2, and encloses a part of the edge of the side cover 2.

Claims

1. The box of a roller shutter, fixed at its ends to the side covers, consisting of two parts, **characterised in that** its top part of the box (3) has a seat (5) for the catch (6) of the bottom part (4) of the box, constructed of two half-round components (7), (8) of different curve radii, making together with the half-round component (9) tipped with the inserting stop (10), the slot (11) of a width slightly greater than the catch (6) thickness.
2. The box according to the claim 1, **characterised in that** the catch (6), placed inside the slot (11) of the seat (5), has its tip (12) situated at a height above the centre of curvature (13) of the half-round component (15).
3. The box according to the claim 1 and/or claim 2, **characterised in that** the centre of curvature (13) of the half-round component (7) is positioned at the angle (α) amounting to 35° up to 40° in relation to the plane (14) running through the symmetry axis of the round part (15) of the side cover (2).

Patentansprüche

1. Kasten eines Rollladenkastens, dessen Enden an den Seitenabdeckungen befestigt sind, bestehend aus zwei Teilen, **dadurch gekennzeichnet, dass** die obere Abdeckung des Rollladenkastens (3) eine Schnappvorrichtung (5) für die Raste (6) des unteren Teils (4) des Rollladenkastens hat, gebaut aus zwei halbrunden Elementen (7), (8) mit einem unterschiedlichen Kurvenradius, die zusammen mit einem halbrunden Element (9), das mit einer einsetzbaren Sperre (10) abgeschlossen ist, eine Nut (11) mit einer Breite bilden, die etwas breiter ist, als die Breite der Raste (6).
2. Kasten eines Rollladenkastens nach Anspruch 1, **dadurch gekennzeichnet, dass** die in der Nut (6) der Schnappvorrichtung (11) befindliche Raste (5) ein Endstück (12) hat, das sich oberhalb des Mittelpunktes der Krümmung (13) des halbrunden Elementes (15) befindet.
3. Kasten eines Rollladenkastens nach Anspruch 1

und/oder 2, wird der Rollladenkasten **dadurch gekennzeichnet, dass** sich der Mittelpunkt der Krümmung (13) des halbrunden Elementes (7) in einem Winkel (α) von 35° bis 45° im Verhältnis zur Fläche (14) befindet, die durch die Symmetrieachse des runden Teils (15) der Seitenabdeckung (2) verläuft.

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Revendications

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1. Boîtier pour volet roulant, fixé aux extrémités aux couvercles latéraux, composé de deux parties, **caractérisé en ce que** la partie supérieure du caisson (3) est équipée d'un logement (5) pour recevoir le taquet (6) de la partie inférieure (4) du caisson, composé de deux éléments semi-circulaires (7), (8) aux rayons de courbure différents, formant, ensemble avec l'élément semi-circulaire (9), se terminant par un dispositif de limitation à insérer (10) une fente (11) de largeur légèrement supérieure à l'épaisseur du taquet (6).
2. Boîtier pour volet roulant la revendication 1, **caractérisé en ce que** le taquet (6) placé dans la fente (11) du logement (5) possède une extrémité (12) placée à la hauteur au-dessus du milieu de la courbure (13) de l'élément semi-circulaire (15).
3. Boîtier pour volet roulant la revendication 1 et/ou 2, **caractérisé en ce que** le milieu de la courbure (13) de l'élément semi-circulaire (7) est positionné à l'angle (α) égal à 35° jusqu'à 45° par rapport à la surface plane (14) passant par l'axe de symétrie de la partie ronde (15) du couvercle latéral (2).

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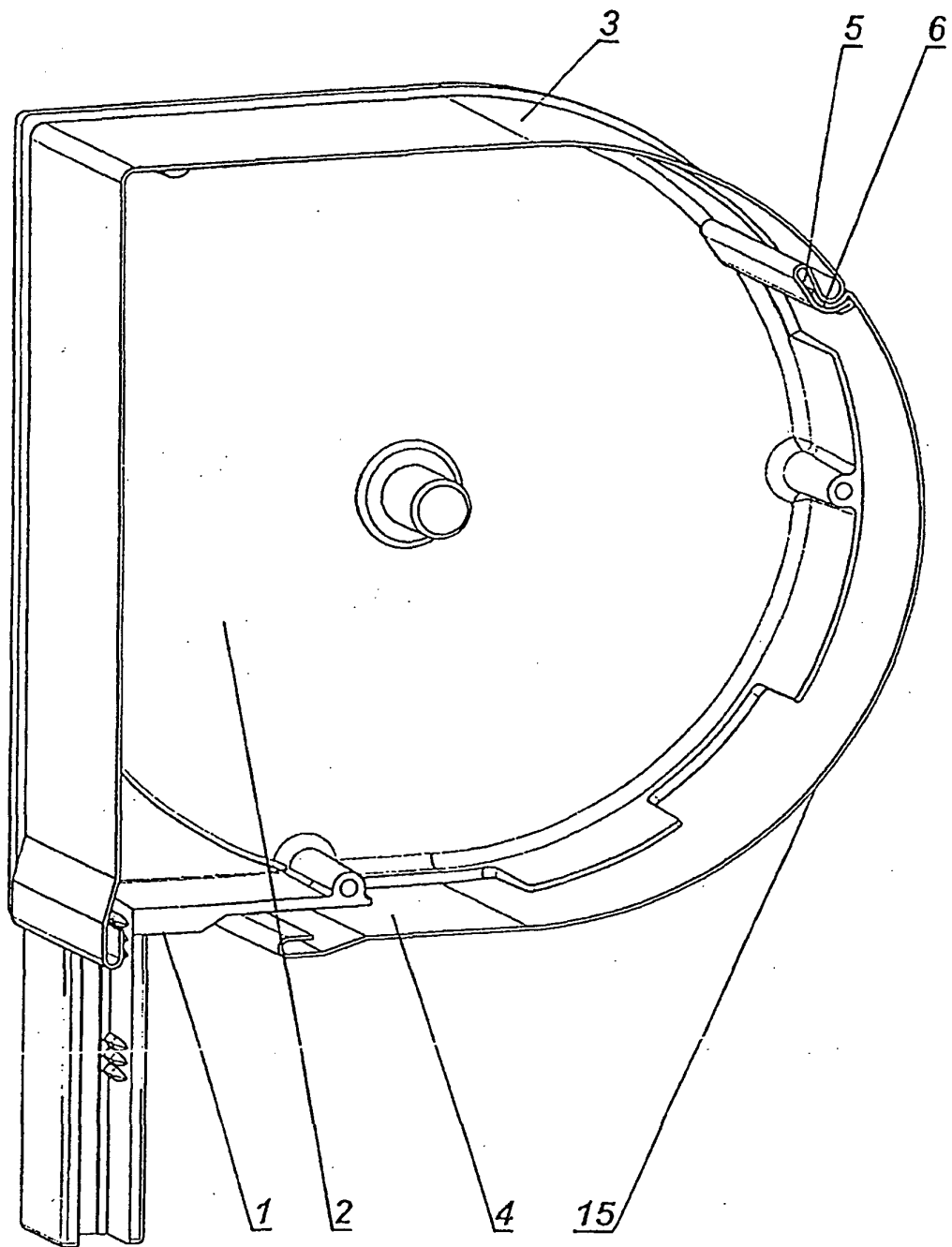


Fig. 1

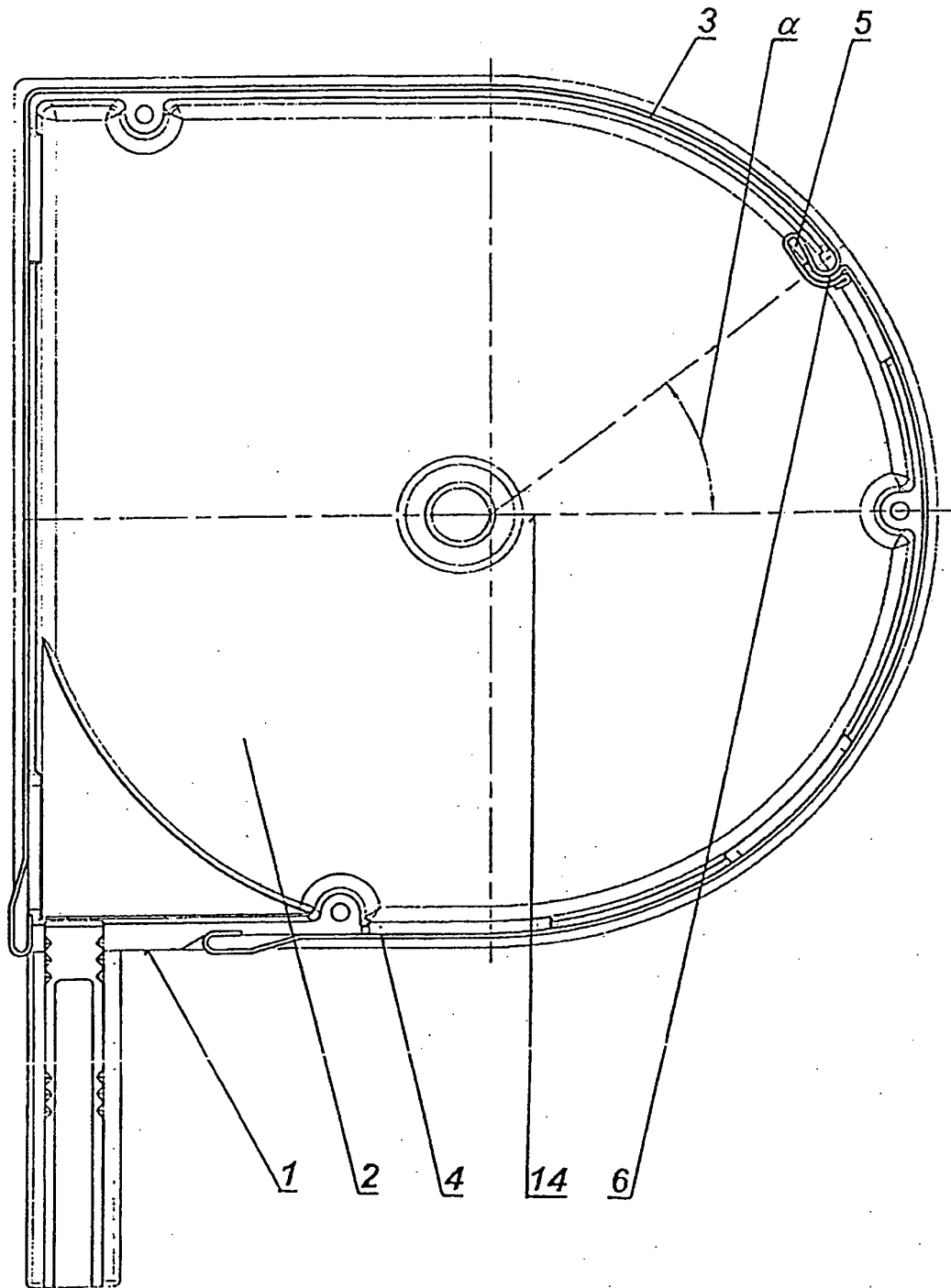


Fig. 2

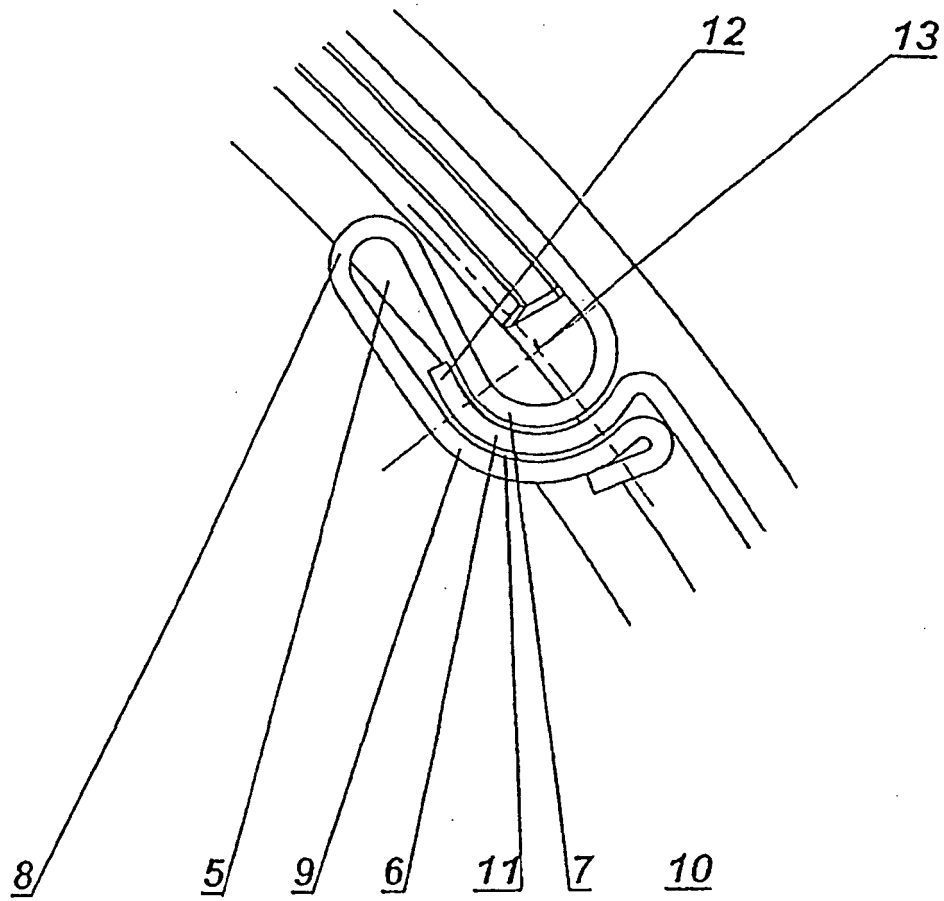


Fig. 3

REFERENCES CITED IN THE DESCRIPTION

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