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(54) A WEDGE FOR A ROCKING LOUNGER AND A ROCKING LOUNGER WITH WEDGES

(57) The invention relates to a wedge (10) of a rocking lounger (20) comprising a plurality of rungs (21) between two arch profiles (23, 24) for preventing rocking of the rocking lounger (20) when arranged between two adjacent rungs (21). The wedge (10) is a profile comprising a front part comprising a front upper protrusion (11), a front lower protrusion (13), and between the front upper protrusion (11) and the front lower protrusion (13) a front recess (15) for a first rung (21) of the rocking lounger (20), and a back part comprising a back upper protrusion (12), a back lower protrusion (14), and between the back upper protrusion (12) and the back lower protrusion (14) a back recess (16) for a second rung (21) of the rocking lounger (20). The front lower protrusion (13) is longer than the back lower protrusion (14). The invention further relates to a rocking lounger (20) comprising at least one wedge (10).

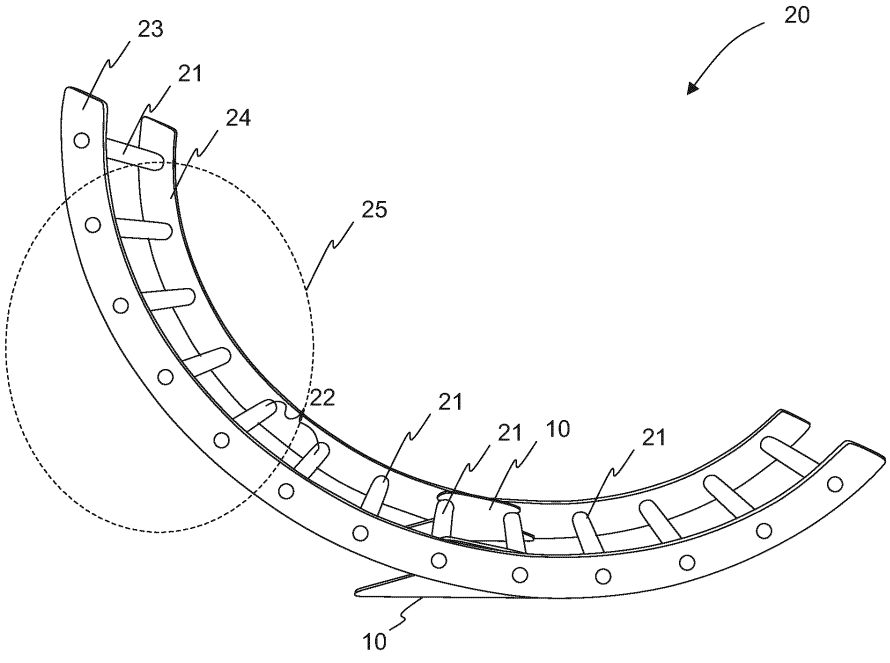

Fig. 2

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Description

Technical field

[0001] The present invention relates to a wedge for a rocking lounger and a rocking lounger with one or more wedges.

Background

[0002] A rocking lounger acts as an arch rocking chair in a position when the rocking lounger is in a u-like position i.e. the arch ends are substantially towards to the ceiling or at least not against the ground/floor. The rocking lounger, however, is a versatile toy and furniture that transforms from a rocking lounger into a climbing arch when turned upside down. In climbing arch position the arch is stable and would not overturn, but as a rocking lounger it freely changes its position. Rocking freely is, however, not always a desired situation.

Summary

[0003] The scope of protection sought for various embodiments of the invention is set out by the independent claims. The embodiments, examples and features, if any, described in this specification that do not fall under the scope of the independent claims are to be interpreted as examples useful for understanding various embodiments of the invention.

[0004] According to a first aspect, there is provided a wedge of a rocking lounger comprising a plurality of rungs between two arch profiles for preventing rocking of the rocking lounger when arranged between two adjacent rungs, which the wedge is a profile comprising a front part comprising a front upper protrusion, a front lower protrusion, and between the front upper protrusion and the front lower protrusion a front recess for a first rung of the rocking lounger, and a back part comprising a back upper protrusion, a back lower protrusion, and between the back upper protrusion and the back lower protrusion a back recess for a second rung of the rocking lounger, which the front lower protrusion is longer than the back lower protrusion.

[0005] According to an example, the wedge is made of wood. According to an example, the wedge is made of birch plywood. According to an example, the front and back upper protrusions are shorter than the front and back lower protrusions. According to an example, when the wedge is arranged between two adjacent rungs, the front part of the wedge is configured to direct to the direction of a backrest of the rocking lounger. According to an example, when the wedge is arranged between two adjacent rungs, the front lower protrusion and the back lower protrusion are against the floor. According to an example, the distance between the front recess and the back recess is 2-10 mm shorter than the distance between two adjacent rungs.

[0006] According to a second aspect, there is provided a rocking lounger comprising a plurality of rungs between two arch profiles, which the rocking lounger comprises at least one wedge according to the first aspect or any of its examples for preventing rocking of the rocking lounger when arranged between two adjacent rungs.

[0007] According to an example, the arch profiles and the rungs are made of wood. According to an example, wherein the arch profiles are made of birch plywood and the rungs are made of aspen. According to an example, a wedge is configured to be installed to the rocking lounger by placing the wedge between two adjacent rungs so that the front part and the back part of the wedge are between the two adjacent rungs and turning the wedge so that the first rung settles to the front recess and the second rung settles to the back recess. According to an example, a cross-sectional shape of a rung is round, oval, square, or rectangle.

Brief description of the drawings

[0008] In the following, various embodiments of the invention will be described in more detail with reference to the appended drawings, in which

Fig. 1a shows an example of a wedge for a rocking lounger;

Fig. 1b shows a first perspective view of the wedge of fig. 1a;

Fig. 1c shows a second perspective view of the wedge of fig. 1a; and

Fig. 2 shows an example of a rocking lounger with two wedges shown in figs. 1a-1c as assembled.

Detailed description

[0009] As stated in the Background part, a rocking lounger is a multi-functional furniture that acts as an arch rocking chair in a position when the rocking lounger is in a u-position i.e. the arch ends are substantially towards to the ceiling or at least not against the ground/floor. The rocking lounger transforms to a climbing arch when turned upside down from the u-position. The rocking lounger may further act as a play fort, baby gym, goal, toy storage etc.

[0010] As a climbing arch the rocking lounger supports active play of children and diverse development of gross motor skills, coordination, balance, and strength. Climbing fulfils children's natural built-in need to learn new things and learning to climb is a wonderful way to get physically active and build kids' confidence. As a rocking chair it calms down a rocking child and may ease concentration. In the rocking chair position the arch is unstable and freely changes its position. Rocking freely is,

however, not always desired, but there may be a need to prevent the rocking so that rocking lounger will just act as an un-rocking chair.

[0011] Therefore there has been provided a wedge for a rocking lounger. A wedge is a profile arranged and suitable for preventing rocking of a rocking lounger when the rocking lounger is in rocking position and the wedge is installed under the rocking lounger, between two adjacent rungs so that the bottom of the wedge is downwards, for example, against ground or floor or mat etc. The wedge may be made of any suitable material, for example, of wood, and more precisely, for example, of birch plywood. The number of wedges installed in one rocking lounger can be, for example, one, two or three or any other desired number. A cross-sectional shape of a rung can be, for example, round, oval, square, rectangle or any other desired shape. At least when the cross-sectional shape is round, a rung may also be called as a spool. The shape of rungs may effect to the shapes of recesses of a wedge. The shapes of recesses are arranged in any case such that rungs fit to them.

[0012] The wedge has a front part and a back part. Both of them comprise an upper protrusion and a lower protrusion, between the upper protrusions and the lower protrusions there is a recess for a rung. Lower protrusions are parts of the bottom part of the wedge. The distance between the recess of the front part i.e. the front recess and the recess of the back part i.e. the back recess is arranged such that it substantially corresponds the distance between rungs of the rocking lounger into which the wedge is configured to be installed. And the shape and size of the front and back recesses are arranged such that a rung of the rocking lounger fits inside/into them when the wedge is arranged between two adjacent rungs. The wedge is installed to a rocking lounger by placing it between two adjacent rungs in longitudinal direction or at least so that the front part and the back part of the wedge are between the two adjacent rungs, after this the wedge is turned so that the first rung settles to the front recess of the front part and the second rung settles to the back recess of the back part.

[0013] A rocking lounger in which the wedge is configured to be used for preventing rocking comprises two arch profiles, and a plurality of rungs i.e. sticks arranged between the arch profiles in certain distances of each other and longitudinally perpendicular to each other. First ends of rungs are fixed to the first arch profile and second ends of the rungs are fixed to the second arch profile. The two arch profiles are aligned and the first rung of the first arch profile is also the first rung of the second arch profile when it is seen from first ends of arch profiles. The arch profiles may be made of any suitable material, for example, wood, for example, birch plywood. The rungs may be made of any suitable material, for example, any suitable wood, for example, aspen. An arch profile may or may not be made from the arc of a circle. In any case, when a rocking lounger is in a rocking lounger use/position, the middle parts of the arch profiles are lower than the arch profile ends and when the rocking lounger is in a climbing arch use/position (i.e. it is turned upside down) the middle parts of the arch profiles are higher than the arch profile ends.

[0014] Figure 1a shows an example of a wedge 10 for a rocking lounger. The wedge 10 has a front part and a back part. Both of them comprise an upper protrusion 11, 12 and a lower protrusion 13, 14, between of the upper protrusions 11, 12 and the lower protrusions 13, 14, there is a recess 15, 16 for a rung of the rocking lounger. Upper protrusions 11, 12 are shorter than lower protrusions 13, 14. This is because this kind of wedge 10 would be easier to install to the rocking lounger. The lower protrusions 13, 14 are parts of the bottom part 17 of the wedge 10. The distance between the recess 15 of the front part i.e. the front recess 15 and the recess 16 of the back part i.e. the back recess 16 is arranged such that it substantially corresponds the distance between two adjacent rungs of the rocking lounger, but it is a few millimetres shorter, for example, 1 -10mm shorter, for example, 2-5mm shorter. And the shape and size of the front and back recesses 15, 16 are arranged such that rungs of the rocking lounger fit inside/into them when the wedge 10 is arranged between two adjacent rungs. The upper part 18, which is towards the ceiling, when the wedge 10 is installed to a rocking lounger is an opposite side of the wedge 10 than the bottom part 17.

[0015] Figure 1b shows a first perspective view of the wedge 10 of figure 1a and figure 1c shows a second perspective view of the wedge 10 of figure 1a.

[0016] Figure 2 shows an example of a rocking lounger 20 with two wedges 10 shown as an example in figures 1a-1c as installed. The rocking lounger 20 comprises two arch profiles 23, 24 and between them a plurality of rungs 21. The rungs 21 are fixed to the arch profiles 23, 24. In the example of figure 2, there are two wedges 10, but there could also be, for example, one or three.

[0017] A wedge 10 is installed to the rocking lounger 20 by first placing it between two adjacent rungs 21 in longitudinal direction i.e. approximately in parallel with the longitudinal direction of the rungs 21 or at least so that the front part and the back part of the wedge 10 is between the two adjacent rungs 21, after this the wedge 10 is turned so that the first rung 21 settles to the front recess 15 of the front part and the second rung 21 settles to the back recess 16 of the back part. When the wedge 10 is installed in place, its longitudinal direction is crosswise to the longitudinal direction of rungs 21. The wedges 10 are installed between the same rungs 21 and at the desired distance from each other, for example, so that the first wedge 10 is next to the first arch profile 23 and the second wedge 10 is next to the second arch profile 24 or closer to each other.

[0018] The following dimensions are given just as an example: The distance between the rungs 21 may be any desired length, but, for example, 80mm-95mm, for example, 87mm. The diameter of a rung 21 may be any desired, but, for example, 20-35mm, for example, 28mm.

The length of the rungs 21 may be any desired, but, for example, 300mm-1000mm, for example, 600mm. The length of the rungs 21 corresponds approximately to the distance of the arch profiles 23, 24, but naturally, a part of the length of the rungs 21 is placed inside the arch profiles 23, 24 when they are attached to them.

[0019] If the distance 22 between the rungs 21 is 87mm, the diameter of the rung 21 is 28mm, the length of the wedge 10 is, for example, 275mm and height is, for example, 85mm. The distance between the recesses 15, 16 of the wedge 10 is at least 28mm that is the distance 22 between the rungs 21, but usually one or more millimetres longer, so that the wedge 10 is easier to install in place between two adjacent rungs 21 by turning it so that the rungs settle to the recesses 15, 16. The thickness of the wedge 10 may be any desired but, for example, between 15-30mm, for example, around 20mm, so that it is strong and long lasting.

[0020] The lower protrusion 13 of the front part of the wedge 10 is longer than the lower protrusion 14 of the back part of the wedge 10 and the front part is configured to be placed in the direction a person is going to lean i.e. towards the part of the rocking lounger 20 that acts as the backrest 25, so that the rocking lounger 20 does not tip over when the person leans on it.

[0021] The shapes and dimensions of the protrusions 11, 12, 13, 14 of the wedge 10 are such that the wedge 10 can be turned well between the rungs 21 into place, but it still stays firmly between the rungs when in use. The shape and size of the protrusions 11, 12, 13, 14 are features that effect to the functionality of the wedge 10. If the protrusions 11, 12, 13, 14 are too long, the wedge 10 may not fit between rungs 21. If the protrusions 11, 12, 13, 14 are too short, the wedge 10 will not stay firmly in place between rungs 21 by itself. Furthermore, if the distance between the front recess 15 and the back recess 16 is bigger than the distance between two adjacent rungs 21, the wedge 10 will not fit between rungs 21, and if the distance between the front recess 15 and the back recess 16 is much smaller than the distance between two adjacent rungs 21, the wedge 10 will not stay firmly in place between rungs 21 by itself. The distance between the front recess 15 and the back recess 16 may be, for example, a few millimetres shorter than the distance between two adjacent rungs 21, for example, 5-10 mm.

[0022] A lower protrusion and an upper protrusion of a front part may be called as a front lower protrusion and a front upper protrusion and a lower protrusion and an upper protrusion of a back part may be called as a back lower protrusion and a back upper protrusion.

[0023] It should be noted that dimensions and materials of a wedge and a rocking lounger can be freely chosen in the best and most suitable way for each case, as long as the dimensions of the wedge and the rungs i.e. their diameter and distance, are such that the wedge can be easily and firmly installed between two adjacent rungs to prevent rocking. The dimensions and materials are therefore not limited to the examples presented above. Also the number of rungs may be freely selected.

[0024] The foregoing description has provided by way of exemplary and non-limiting examples a full and informative description of the exemplary embodiment of this invention. However, various modifications and adaptations may become apparent to those skilled in the relevant arts in view of the foregoing description, when read in conjunction with the accompanying drawings and the appended claims. However, all such and similar modifications of the teachings of this invention will still fall within the scope of this invention.

Claims

1. A wedge (10) of a rocking lounger (20) comprising a plurality of rungs (21) between two arch profiles (23, 24) **characterized in that** the wedge (10) is configured to prevent rocking of the rocking lounger (10) when arranged between two adjacent rungs (21), which the wedge (10) is a profile comprising a front part comprising a front upper protrusion (11), a front lower protrusion (13), and between the front upper protrusion and the front lower protrusion a front recess (15) for a first rung (21) of the rocking lounger (20), and a back part comprising a back upper protrusion (12), a back lower protrusion (14), and between the back upper protrusion (12) and the back lower protrusion (14) a back recess (16) for a second rung (21) of the rocking lounger (20), which the front lower protrusion (13) is longer than the back lower protrusion (14).

2. The wedge according to claim 1, wherein the wedge (10) is made of wood.

3. The wedge according to claim 1, wherein the wedge (10) is made of birch plywood.

4. The wedge according to any of claims 1 to 3, wherein the front and back upper protrusions (11, 12) are shorter than the front and back lower protrusions (13, 14).

5. The wedge according to any of claims 1 to 4, wherein when the wedge (10) is arranged between two adjacent rungs (21), the front part of the wedge is configured to direct to the direction of a backrest (25) of the rocking lounger (20).

6. The wedge according to any of claims 1 to 5, wherein when the wedge (10) is arranged between two adjacent rungs (21), the front lower protrusion (13) and the back lower protrusion (14) are against the floor.

7. The wedge according to any of claims 1 to 6, wherein the distance between the front recess (15) and the back recess (16) is 2-10 mm shorter than the dis-

tance between two adjacent rungs (21).

8. A rocking lounger (20) comprising a plurality of rungs (21) between two arch profiles (23, 24), which the rocking lounger (20) comprises at least one wedge (10) according to any of claims 1 to 7 for preventing rocking of the rocking lounger (20) when arranged between two adjacent rungs (21).

9. The rocking lounger according to claim 8, wherein the arch profiles (23, 24) and the rungs (21) are made of wood.

10. The rocking lounger according to claim 8, wherein the arch profiles (23, 24) are made of birch plywood and the rungs (21) are made of aspen.

11. The rocking lounger(20) according to any of claims 8 to 10, wherein a wedge (10) is configured to be installed to the rocking lounger (20) by placing the wedge (10) between two adjacent rungs (21) so that the front part and the back part of the wedge (10) are between the two adjacent rungs (21) and turning the wedge (10) so that the first rung (21) settles to the front recess (15) and the second rung (21) settles to the back recess (16).

12. The rocking lounger according to any of claims 8 to 11, wherein a cross-sectional shape of a rung (21) is round, oval, square, or rectangle.

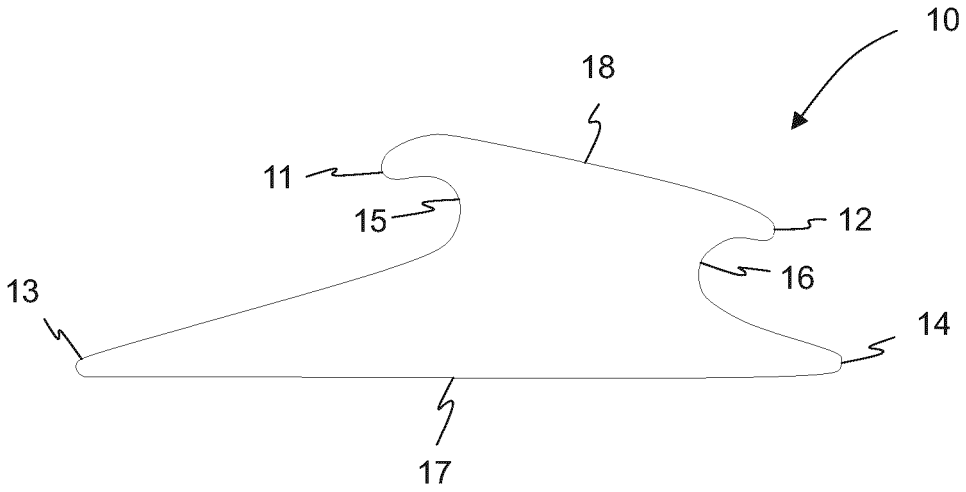

Fig. 1a

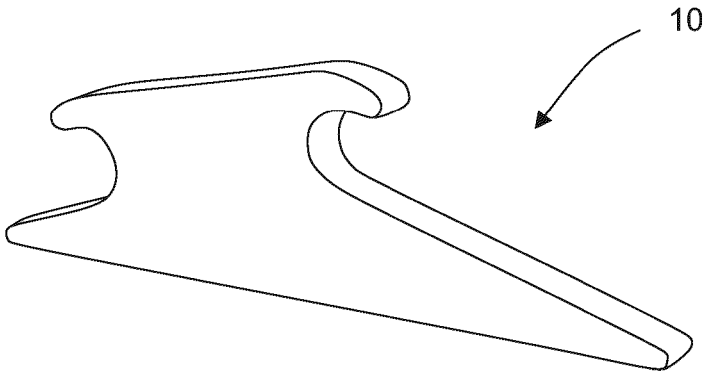

Fig. 1b

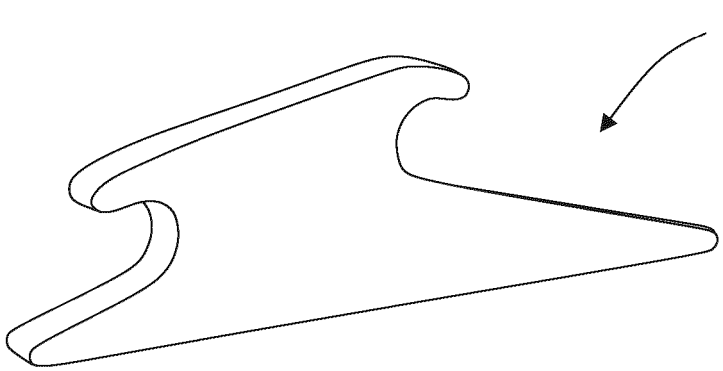

Fig. 1c

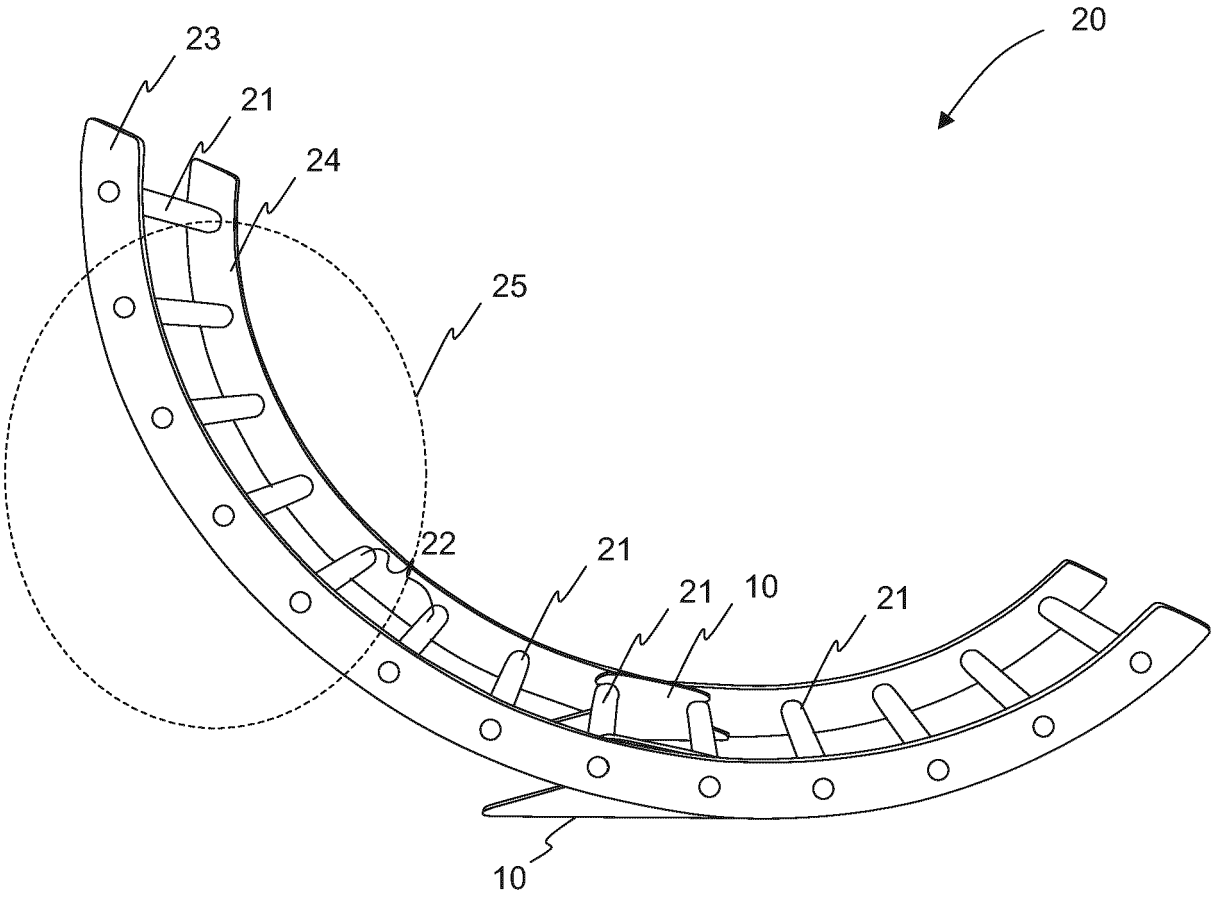

Fig. 2

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EUROPEAN SEARCH REPORT

Application Number
EP 24 20 1987

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 36 32 300 A1 (WANZL KG RUDOLF [DE]) 7 April 1988 (1988-04-07) * figure 1 *	1-7	INV. A47C3/029 A47C3/03 A47D9/02 A47D11/00 A47D13/10
A	DE 20 2007 007718 U1 (NAPIWOTZKI UDO [DE]) 25 October 2007 (2007-10-25) * paragraph [0022] - paragraph [0032]; figures 8-12 *	8-12	
A	DE 10 2021 120517 B3 (KRAL MARIAN [DE]) 6 October 2022 (2022-10-06) * paragraph [0030] - paragraph [0036]; figures 1-2 *	8-12	

TECHNICAL FIELDS SEARCHED (IPC)

A47D
A47C
A47B
A47G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	14 February 2025	Kus, Slawomir

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14-02-2025

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 3632300 A1	07-04-1988	NONE	
DE 202007007718 U1	25-10-2007	NONE	
DE 102021120517 B3	06-10-2022	NONE	

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