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(54) **Basket arrangement for a dishwashing machine**

(57) Basket arrangement (1) for a dishwashing machine (2), wherein the basket arrangement (1) comprises a basket tray member (3) for holding goods to be washed, and a holding member (4) arranged at a side (5) of the basket tray member (3) for holding the basket tray member (3) when arranged in the machine (2), wherein the basket tray member and the holding member are connected via a connection system (6) configured to, at least when the basket arrangement (1) is installed in the machine (2), allow the basket tray member (3) to be adjusted between at least two vertical positions in relation to the holding member (4) upon movement of the basket tray

member (3) in a horizontal direction in relation to the holding member (4). The connection system (6) comprises a rotatable element (7) having an axis of rotation, wherein the rotatable element (7) is arranged on a first of either said basket tray member (3) or said holding member, wherein the rotatable element (7) is provided with a pushing element (8) positioned at a distance from said axis and arranged to push onto the second of either said basket tray member (3) or said holding member (4) when turning the rotatable element (7) so as to bring about the relative movement in the horizontal direction.

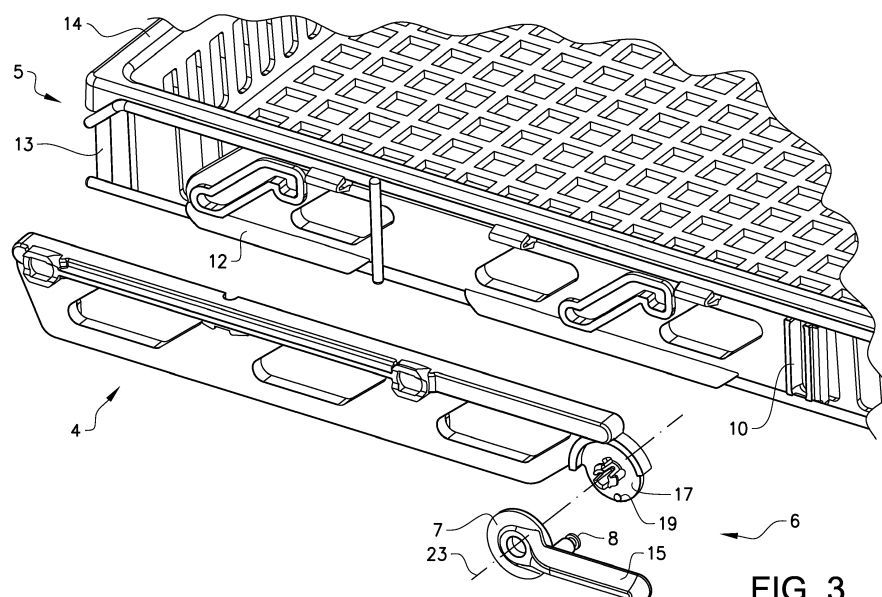


FIG. 3

Description

TECHNICAL FIELD

[0001] This invention relates to a basket arrangement for a dishwashing machine, wherein the basket arrangement comprises a basket tray member for holding goods to be washed, and a holding member arranged at a side of the basket tray member for holding the basket tray member when arranged in the machine, wherein the basket tray member and the holding member are connected via a connection system configured to, at least when the basket arrangement is installed in the machine, allow the basket tray member to be adjusted between at least two vertical positions in relation to the holding member upon movement of the basket tray member in a horizontal direction in relation to the holding member.

BACKGROUND

[0002] There is an increasing demand for dishwashing machines that can be adapted to different types of dish goods. For instance, there may be a need to adapt the vertical space between the dish trays/baskets of the machine to wine glasses which, as an example, require more space in between the trays than flat laying cutlery. For such an adaptation it is desired that the trays are adjustable in vertical direction.

[0003] An example of a versatile cutlery tray for a dishwasher is disclosed in US2010/0155280. The cutlery tray comprises a frame carrying a top tray with a movable central insert/basket arranged in between two side inserts/baskets. Two hangers arranged at the front and the rear of the frame, respectively, hold the central basket in place. The hangers are provided with two pins each, and the central insert is provided with a front plate and a rear plate each provided with two guiding grooves extending partly in a vertical direction and adapted to receive the pins. By sliding the hangers along the frame sideways in relation to the central insert and the dishwasher, i.e. by sliding the pins along the guiding grooves, the central insert can be moved in a vertical direction between an upper position flush with the side inserts and a lower position lower than the side inserts.

[0004] The arrangement disclosed in US2010/0155280 is useful for adapting the height of the central basket but handling of the sliding hangers may not always be easy, in particular not with one hand, and the sliding movement is difficult to control which may lead to too fast movements of the tray.

[0005] Accordingly, there is still a need for improvements in this field.

SUMMARY OF THE INVENTION

[0006] An object of this invention is to provide a basket arrangement for a dishwashing machine with improved means to adjust the height of the basket arrangement.

This object is achieved by the basket arrangement defined by the technical features of claim 1.

[0007] The invention concerns a basket arrangement for a dishwashing machine, wherein the basket arrangement comprises a basket tray member for holding goods to be washed, and a holding member arranged at a side of the basket tray member for holding the basket tray member when arranged in the machine. The basket tray member and holding member are connected via a connection system configured to, at least when the basket arrangement is installed in the machine, allow the basket tray member to be adjusted between at least two vertical positions in relation to the holding member upon movement of the basket tray member in a horizontal direction in relation to the holding member.

[0008] The invention is characterized in that the connection system comprises a rotatable element having an axis of rotation, wherein the rotatable element is arranged on a first of either the basket tray member or the holding member, wherein the rotatable element is provided with a pushing element positioned at a distance from said axis and arranged to push onto a second of either the basket tray member or the holding member when turning the rotatable element so as to bring about the relative movement in the horizontal direction.

[0009] Because the pushing element is positioned at a distance from the axis of rotation it will exhibit a movement in the horizontal plane (x- and/or y-direction) when turning the rotatable element and this movement is used to bring about the relative movement in the horizontal direction of the basket tray member in relation to the holding member. The adjustment in height between the at least two positions can be achieved using a connection system that e.g. makes use of guide pins and guide grooves.

[0010] The inventive basket arrangement provides for a more controlled and easily carried out height adjustment of the basket tray member compared to a design with sliding hangers because rotation of the rotatable element keeps the basket arrangement stable and is easy to carry out with one hand.

[0011] The inventive solution makes it suitable to connect the holding members to sliding rails of the dishwashing machine so that the vertical position of the basket tray member can be adjusted by rotating rotatable members on the left and right sides of the basket arrangement. This makes the handling easier and more efficient compared to the situation when it is necessary to stretch into the machine and get access to the rear of the basket arrangement to adjust the vertical position.

[0012] The pushing element may be a protruding element that protrudes in a direction towards the second of either the basket tray member or the holding member. A pin is an example of a suitable protruding element. The protruding element may be provided with a cap at its end, i.e. being wider at its free end, such as to hold the pushing element in place in the direction of the axis of rotation.

[0013] The connection system may comprise a recess

or opening adapted to receive the pushing element such as to allow the pushing element to push onto inner surfaces of the recess or opening when rotating the rotatable element. Thereby movement of the basket tray member in relation to the holding member is facilitated.

[0014] The axis of rotation may extend in a direction towards the second of either the basket tray member or the holding member. The direction of the extension of the protruding element and the axis of rotation is thereby the same. The axis of rotation extends in a direction that, when the basket arrangement is installed in an intended position in the machine, is substantially horizontal. The direction of the extension of the axis, around which the rotatable element rotates, facilitates a stabile relative movement in the horizontal direction of the basket tray member in relation to the holding member.

[0015] In an embodiment of the invention the rotatable element is arranged on the holding member and the pushing element is arranged to push onto the basket tray member. In such a design, the recess or opening is arranged in the basket tray member and extends preferably in a vertical direction. The rotatable element is thus accessible from the sides of the basket arrangement.

[0016] The axis of rotation may extend in a direction that is substantially perpendicular to the side of the basket tray member.

[0017] The basket tray member is adapted to hold goods to be washed and has the general shape of a basket, wherein the basket tray member comprises two sides, a front and a rear. The basket tray member may comprise a side plate extending along a side of the basket tray member wherein the recess or opening is arranged in the side plate. The basket tray member may also be provided with side plates along both sides of the basket tray member.

[0018] The recess or opening may extend in a direction substantially perpendicular to the direction of extension of the side plate such that when the basket arrangement is installed in an intended position in the machine the recess extends vertically.

[0019] During turning of the rotatable element the pushing element moves in the vertical direction along the extension of the recess while pushing onto the inner surfaces, i.e. the sides, of the recess such that it pushes the basket tray member to move in the horizontal direction. The rotatable element thus controls the horizontal movement of the basket tray member in relation to the holding member.

[0020] The holding member may extend along the side of the basket tray member, wherein the rotatable element is arranged in the holding member with the axis of rotation extending towards the basket tray member.

[0021] The basket tray member may further comprise a frame and a basket tray supported by the frame, wherein the side plate is attached to the frame. The side plate may be removably arranged at the frame of the basket tray member.

[0022] The rotatable member may be provided with a

gripping member extending in a radial direction to simplify rotation. The rotatable element can also be provided with several gripping members. The radial length of the gripping member can be adapted to achieve a suitable torque. The gripping member may be arranged to extend in the radial direction formed between the pushing element and the axis of rotation.

[0023] The connection system may further comprise at least one guide pin arranged on a first of the basket tray member and holding member and at least one guide groove adapted to receive the guide pin, arranged on a second of the basket tray member and holding member, wherein the guide groove is configured to extend in a direction that, when the basket arrangement is installed in the machine, guides the basket tray member at least partly in a vertical direction when the basket tray member is moved in a horizontal direction in relation to the holding member. Thus, the guide groove extends diagonally in the horizontal and the vertical direction along an inclined path that may exhibit a constant angle to both the horizontal plane and the vertical direction along most of the length of the path. The movement in the horizontal direction is controlled by the rotatable element. Thereby, the movement of the basket tray member in relation to the holding member is controlled in both the vertical and the horizontal direction.

[0024] The guiding pin may protrude in a direction towards the second of the basket tray member and holding member such that it may be received by the guiding groove. The free end of the guiding pin may also be wider than the width of the guide groove such that the guiding pin is secured in the guide groove during the movement of the basket tray member relative to the holding member.

[0025] The guide groove extends in two directions, i.e. in the vertical as well as in the horizontal direction when the basket arrangement is installed in the machine and is provided with a first and second closed end. During the turning of the rotatable element the pushing element brings about the horizontal movement of the basket tray member, whereas the guide pin and guiding groove takes care of and guides the horizontal movement and simultaneously brings about the vertical movement of the basket tray member in relation to the holding member.

[0026] An inner side of the rotatable element may be arranged to press onto a surface of the holding member during rotation of the rotatable element. The surface of holding member and the inner side of the rotatable element may comprise complementary engagement means in the form of at least one depression arranged on said inner side or said surface and at least one protruding member arranged on the other of said inner side or said surface and wherein the complementary engagement means are arranged to engage so as to prevent unintentional rotation of the rotatable element when the basket tray member is positioned in one of its at least two vertical positions in relation to the holding member. The inner side of the rotatable element is arranged perpendicular to the axis of rotation of the rotatable element and the

surface of the holding member upon which the inner side abuts is arranged perpendicular to the axis of rotation. The protruding member protrudes in the direction of the axis of rotation. The depression(s) and protruding member(s) are arranged such that a protruding member enters a depression when the pushing element has reached its desired end position, thereby preventing further rotation of the rotatable element.

[0027] The holding member may be adapted to engage with a sliding rail provided at an inner side of a dishwashing machine. Thereby the holding member may be held in a vertical and horizontal position along the rail whereas the basket tray member may move in vertical and horizontal direction in relation to the holding member upon turning of the rotatable element. The rail enables the basket arrangement to be at least partly pulled out from the dishwashing machine such that the connection system of the basket arrangement is easily accessible to the user.

[0028] Further, the basket arrangement may comprise two holding members arranged on opposite sides of the basket tray member, whereby connection systems according to the above are arranged on both sides of the basket tray member. Thereby, the vertical position of basket tray member may be adjusted at each of the sides such that the sides are vertically aligned.

[0029] The invention also comprises a dishwashing machine, comprising a basket arrangement according to the description above.

BREIF DESCRIPTION OF THE DRAWINGS

[0030] The present invention will now be described in detail with reference to the figures, wherein:

- Figure 1 shows, in perspective view, a dishwashing machine with a basket arrangement according to an embodiment of the invention;
- Figure 2 shows, in perspective view, the basket arrangement of Figure 1;
- Figure 3 shows, in exploded view, the basket arrangement of Figure 1;
- Figures 4a-b show, in an unassembled and an assembled state, respectively, parts of the basket arrangement of Figure 1; and
- Figures 5a-e shows, in a side view, the function of the basket arrangement of Figure 1.

DETAILED DESCRIPTION OF THE DRAWINGS

[0031] In the description of the invention given below reference is made to the following figures in which one embodiment is exemplified. The invention is however not limited to the embodiment shown in the figures, and the figures are simply to be seen as a way of illustrating one mode of the invention.

[0032] Figures 1-5 show an embodiment of the inven-

tive basket arrangement 1 for a dishwashing machine 2.

[0033] Figure 1 shows a basket tray member 4 installed in a dishwashing machine 2. The basket tray member 1 comprises a tray 14 arranged to hold goods to be washed, a frame 13 supporting the tray 14 and two side plates 12 arranged along two opposite sides 5 of the basket tray member 3 by attachment to the frame 13. The side plates 12 are arranged along the sides 5 of the basket tray member 3 intended to face side walls of the interior of the dishwashing machine 2, wherein the inner sides of the machine 2 are arranged perpendicular to a front door of the machine 2 intended to be opened. The front door of the machine 2 is omitted from Figure 1.

[0034] The tray 14 may be removably arranged in the frame 13 thereby allowing the tray 14 to be changed if needed. The basket arrangement 1 may thus be used with a variety of trays 14.

[0035] Two holding members 4 are connected at the sides 5 of the basket tray member 4 via two connections systems 6, i.e. on each side 5 there is one holding member 4 and one connection system 6. The holding members 4 are engaged with sliding rails 22 attached to the machine 2 such that the tray 14 may be at least partly pulled out from the interior of the dishwashing machine 2.

[0036] The connection systems 6 comprise a rotatable element 7; being arranged on the holding member 4 and provided with a pushing element 8. The rotatable element has an axis of rotation 23 and the pushing element 8 is positioned at a distance from the axis of rotation 23, see Figures 2-3. In the example shown the pushing element 8 is a protruding element, which protrudes in a direction towards the side plate 12 of the basket tray member 3. The rotatable element 7 is also provided with a gripping member 15 extending in a radial direction in relation to the rotational axis. The gripping member 15 may be of various suitable shapes and lengths facilitating the rotational movement and gripping of the rotatable element 7.

[0037] In this example the rotatable element 7, which facilitates the controlled height adjustment of the basket tray member 3, is arranged such that it is easily accessible on the side of the basket tray member 3 when the basket tray member 3 is pulled-out from the dishwashing machine 2 through the front of the machine 2.

[0038] The pushing element 8 fits in a vertically extending opening 10 which is arranged in the side plate 12 of the basket tray member 3. The opening 10 is arranged perpendicular to the extension of the side plate 12 along the side 5 of the basket tray member 3, thereby being arranged essentially vertical when the basket arrangement 1 is installed in the dishwashing machine 2. The pushing member 8 is allowed to move vertically in the opening 10 and simultaneously push onto inner surfaces 11 of the opening 10 when turning the rotatable element 7 such as to bring about a horizontal movement of the side plate 12 of the basket tray member 3 in relation to the holding member. The gripping member 15 of the rotatable element 7 enhances the torque of the pushing member 8 upon rotation of the rotatable element 7.

[0039] The height of the basket tray member 3 is controlled by clockwise or counter clockwise rotation of the rotatable element 7 upon turning the gripping member 15, wherein the pushing element 8 pushes in the horizontal direction onto the inner sides of the opening 10 in the side plate 12 of the basket tray member 3, bringing about a relative movement of the basket tray member 3 and the holding member 4 in horizontal direction.

[0040] The rotatable element 7 and the holding member 4 are provided with complementary engagement means. In the example shown in the figures the engagement means comprise two depressions 18, see Figure 4a, arranged circumferentially spaced on an inner side 16 perpendicular to the axis of rotation 23, of the rotatable element 7 and a protruding member 19, see Figure 3, arranged on a surface 17, perpendicular to the axis of rotation 23, of the holding member 4. The inner side 16 faces and presses onto the surface 17, and the protruding member 19 extend in the direction of the axis of rotation 23, i.e. protruding towards the surface 17 comprising the depressions 18. The depressions 18 and protruding member 19 are positioned such that the protruding element 19 engages one of the depressions 18 when the rotational element 7 reaches one of its end positions corresponding to one of the vertical positions of the basket tray member 3 in relation to the holding member 4 and engages the other depression 18 when the rotatable element 7 reaches its other end position. Thereby, undesired rotation of the rotatable element 7 is prevented when the engagement means engage; indicating to a user that the rotational end position of the rotatable element 7, and thereby the vertical position of the basket tray member 3 in relation to the holding member 4, is reached. The engagement means are adapted to releasably engage such that disengagement is easily achieved upon applying a rotational force through turning of the rotatable element 7.

[0041] The connection system 6 in the example shown further comprise guiding means in the form of two guide pins 20 arranged on the holding member 4 and two corresponding guide groove 21 arranged on the basket tray member 3, in the side plate 5, shown in figure 4a. Each guide groove 21 is adapted to receive its corresponding guide pin 20, see Figures 4a-b. Details of the guiding means are shown in Figure 4b; the guide groove 21 extends in two directions, i.e. it extends in an inclined manner both vertically and horizontally when the basket arrangement 1 is installed in the machine 2. Thereby the guide pin 20 guides the basket tray member 3 in a vertical direction when the basket tray member 3 is moved in a horizontal direction in relation to the holding member 4 brought about by the rotation of the rotatable element 7.

[0042] The horizontally/vertically inclined path of each guide groove 21 allows the guide pin 20 to slide freely in the guide groove 21 while the pushing element 8 pushes the inner sides 11 of opening 10 such that the basket tray member 3 moves horizontally due to rotation of the rotatable element 7. The angle of incline of the guide groove

21, as well as the length of the guide groove, determine the height adjustment of the basket tray member 3 made possible by the basket arrangement 1, whereby a steep incline (or longer groove) allows for a greater height difference between the highest and lowest position of the basket tray member 3 in relation to the holding member 4 than a less steep incline angle.

[0043] The guide groove 21 comprises an intermediate portion and two closed end portions 24, defining the end positions of the guide pin 20 in the guide groove 21. The intermediate portion extends in two directions, i.e. is inclined, whereas the closed end portions 24 extend only in the direction of the extension of the side plate 12. This corresponds to the intermediate portion extending in both a horizontal and vertical direction and the closed end portions 24 extending in a horizontal direction when the basket arrangement 1 is installed in a machine.

[0044] The free end of the guide pin 20 is wider than the width of the guide groove 21 thereby preventing it from sliding out of the guide groove. One of the closed end portions 24 therefore comprise an enlargement adapted to fit the wider free end of the guide pin 20 such that the guide pin 20 may be entered into the guide groove 21.

[0045] An end position of the guide pin 20 in a closed end portion 24 corresponds to a position of the rotatable element 7 in relation to the holding member 4 when the corresponding engagement means of the rotatable element 7 and the holding member 4 are engaged. Thereby, the end positions for the guide pin 20 in the guide groove 21 and the engagement means of the rotatable element 7 and the holding member 4 jointly secures the two height positions enabled by the example shown in the figures. A person skilled in the art would however realize that several secure positions, corresponding to controlled heights of the basket tray member 3 in relation to the holding member 4, are possible by adjusting the engagement means and the guiding means.

[0046] Figures 5a-e illustrate the horizontal and vertical movement of the basket tray member 3, shown only as the side plate 12, in relation to the holding member 4 upon turning the rotatable element 7. The holding member 4 is intended to be attached to a sliding rail 22, arranged in the dishwashing machine 2, whereby the vertical position of the holding member 4 may be considered as fixed in this example. The turning of the rotatable element 7 is a continuous motion, but only five momentary positions are shown in figures 5a-e.

[0047] In Figure 5a, the basket tray member 3 is positioned at its highest vertical position, aligning with the holding member 4. The pushing element 8 is centrally arranged in the opening 10 and the two guide pins 20 are arranged at two lower closed ends 24 of the guide grooves 21. In Figure 5b the gripping member 15 has been turned about 45°, where the pushing element 8 has pushed the side plate 12 in horizontal direction, via a force applied to the inner side 11 of the opening 10, and forced the basket tray member 3 to move horizontally

and vertically guided by the guide pins 20 and the corresponding guide grooves 21. In Figure 5c the gripping member 15 has been turned 90° compared to the position in Figure 5a, wherein the pushing element 8 has reached a first end of the opening 10 and the guide pins 20 are positioned centrally in the guide grooves 21. The turning of the rotatable element 7, via the gripping member 15, is continued in Figure 5d. The end position, wherein the basket tray member 3 has reached its lowest vertical position, is reached in Figure 5e. The pushing element 8 is positioned in a second end of the opening 10 and the guide pins 20 are positioned at the two higher closed ends 24 of the guide grooves 21 opposite from where they started, i.e. the guide grooves 21 have slid its entire extension length along the guide pins 20. The complementary engagement means of the rotatable element 7 and the holding member 4 are engaged at this position, stabilizing the position such that no further rotation is pursued.

[0048] In summary; the pushing element 8 of the rotatable element 7 brings about the horizontal movement of the basket tray member 3 upon rotation of the rotatable element 7, and the guide pin 20 and guide groove 21 guide the relative movement of the basket tray member 3 in both the horizontal and the vertical direction simultaneously. Thereby, a controlled and user friendly height adjustment of the basket tray member 3 is achieved.

[0049] The invention is not limited to the specific embodiment presented, but includes variations within the scope of the present claims. For example, the opening 10 receiving the pushing element 8 may be arranged directly on the side of the tray 14 of the basket tray member 3 arranged to hold the dish goods, such that the frame 13 and side plate 12 may be omitted. The opening 10 may be a recess or a slit. The pushing element 8 does not have to be a protruding element, but may take other forms or designs. The pushing element may be a non integral element mounted upon the basket arrangement, e.g. through the inner side of the side plate 12. The pushing/protruding element may be made in plastic, metal or any other suitable material suitable for the environment in a dishwasher. Accordingly, the drawings and the description thereto are to be regarded as illustrative in nature, and not restrictive. The pushing element 8 may be of other designs. Further, the connection system 6 may comprise any number of guiding means, of various designs, or be designed in another way that also allows the basket tray member 3 to be adjusted between at least two vertical positions in relation to the holding member 4 upon movement of the basket tray member 3 in a horizontal direction in relation to the holding member 4.

[0050] The connection system 6 may be arranged such that the basket tray member 3 may be secured at several vertical positions in relation to the holding member 4, i.e. by providing the guide grooves 21 with one or more horizontally extending parts in the intermediate portion representing additional vertical positions of the basket tray member 3. The complementary engagement means

may also be provided with several corresponding depressions 19 and protruding members 19.

[0051] Reference signs mentioned in the claims should not be seen as limiting the extent of the matter protected by the claims, and their sole function is to make claims easier to understand.

Claims

1. Basket arrangement (1) for a dishwashing machine (2), wherein the basket arrangement (1) comprises:

- a basket tray member (3) for holding goods to be washed, and
- a holding member (4) arranged at a side (5) of the basket tray member (3) for holding the basket tray member (3) when arranged in the machine (2),

wherein the basket tray member (3) and the holding member (4) are connected via a connection system (6) configured to, at least when the basket arrangement (1) is installed in the machine (2), allow the basket tray member (3) to be adjusted between at least two vertical positions in relation to the holding member (4) upon movement of the basket tray member (3) in a horizontal direction in relation to the holding member (4),

characterized in

that the connection system (6) comprises a rotatable element (7) having an axis of rotation, wherein the rotatable element (7) is arranged on a first of either said basket tray member (3) or said holding member (4),

wherein the rotatable element (7) is provided with a pushing element (8) positioned at a distance from said axis and arranged to push onto a second of either said basket tray member (3) or said holding member (4) when turning the rotatable element (7) so as to bring about the relative movement in the horizontal direction.

2. Basket arrangement (1) according to any of the above claims, wherein the pushing element (8) is a protruding element that protrudes in a direction towards the second of either said basket tray member (3) or said holding member (4).

3. Basket arrangement (1) according to any of the above claims, wherein the connection system (6) comprises a recess (10) or opening adapted to receive the pushing element (8) such as to allow the pushing element (8) to push onto inner surfaces (11) of the recess (10) or opening when rotating the rotatable element (7).

4. Basket arrangement (1) according to any of the

above claims, wherein the axis of rotation extends in a direction towards the second of either the basket tray member (3) or the holding member (4).

5. Basket arrangement (1) according to any of the above claims, wherein the axis of rotation extends in a direction that, when the basket arrangement (1) is installed in an intended position in the machine (2), is substantially horizontal. 5
6. Basket arrangement (1) according to any of the above claims, wherein the rotatable element (7) is arranged on the holding member (4) and the pushing element (8) is arranged to push onto the basket tray member (3). 10
7. Basket arrangement (1) according to claim 6, wherein the axis of rotation extends in a direction that is substantially perpendicular to the side of the basket tray member (3). 15
8. Basket arrangement (1) according to claim 4, wherein the basket tray member (3) comprises a side plate (12) extending along the side (5) of the basket tray member (3) wherein the recess (10) or opening is arranged in the side plate (12). 20
9. Basket arrangement (1) according to claim 8, wherein the recess (10) or opening extends in a direction substantially perpendicular to the direction of extension of the side plate (12) and in a substantially vertical direction when the basket arrangement (1) is installed in the machine (2). 25
10. Basket arrangement (1) according to any of the claims 8-9, wherein the basket tray member (3) further comprises a frame (13) and a basket tray (14) supported by the frame (13), wherein the side plate (12) is attached to the frame (13). 30
11. Basket arrangement (1) according to any of the above claims, wherein the rotatable element (7) is provided with a gripping member (15) extending in a radial direction. 35
12. Basket arrangement (1) according to any of the above claims, wherein the connection system (6) further comprises a guide pin (20) arranged on a first of said basket tray member (3) and holding member (4) and a guide groove (21), adapted to receive the guide pin (20), arranged on a second of said basket tray member (3) and holding member (4), wherein the guide groove (21) is configured to extend in a direction that, when the basket arrangement (1) is installed in the machine (2), guides the basket tray member (3) at least partly in a vertical direction when the basket tray member (3) is moved in a horizontal direction in relation to the holding member (4). 40

13. Basket arrangement (1) according to claim 13, wherein the guide pin (20) protrudes in a direction towards the second of said basket tray member (3) and holding member (4). 45

14. Basket arrangement (1) according to claim 6, wherein an inner side (16) of the rotatable element (7) is arranged to press onto a surface (17) of the holding member (4) during rotation of the rotatable element (7), wherein the surface (17) of holding member (4) and the inner side (16) of the rotatable element (7) comprises complementary engagement means in the form of at least one depression (18) arranged on said inner side (16) or said surface (17) and at least one protruding member (19) arranged on the other of said inner side (16) or said surface (17) and wherein the complementary engagement means are arranged to engage so as to prevent unintentional rotation of the rotatable element (7) when the basket tray member (3) is positioned in one of its at least two vertical positions in relation to the holding member (4). 50

15. Basket arrangement (1) according to any of the above claims, wherein the basket arrangement (1) comprises two holding members (4) arranged on opposite sides of the basket tray member (3). 55

16. Dishwashing machine (2), **characterized in that** the dishwashing machine (2) comprises a basket arrangement (1) according to any of the above claims.

17. Dishwashing machine (2), according to claim 16 wherein the holding member (4) is attached directly or indirectly to a sliding rail (22) fastened to a side wall of the machine (2).

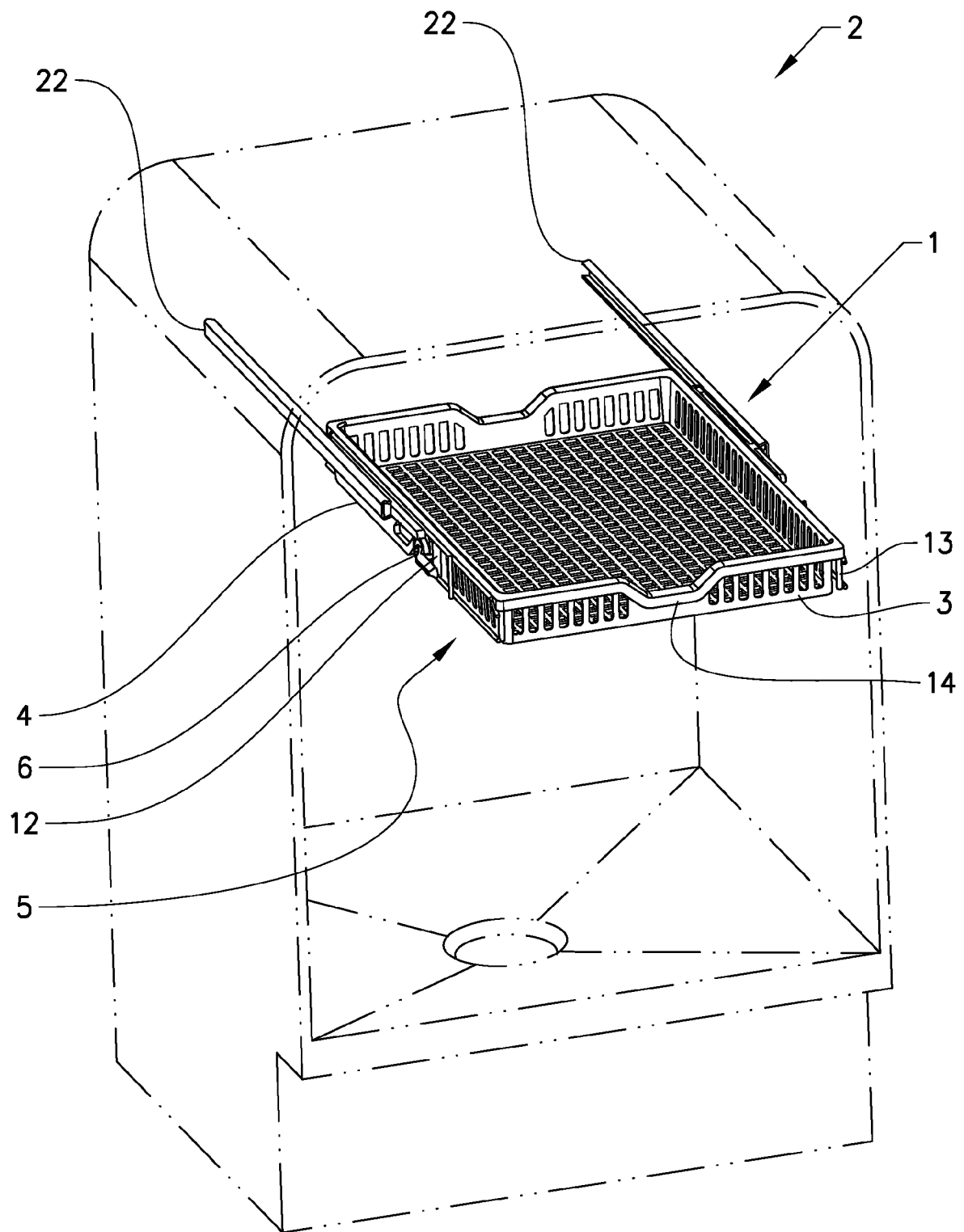


FIG. 1

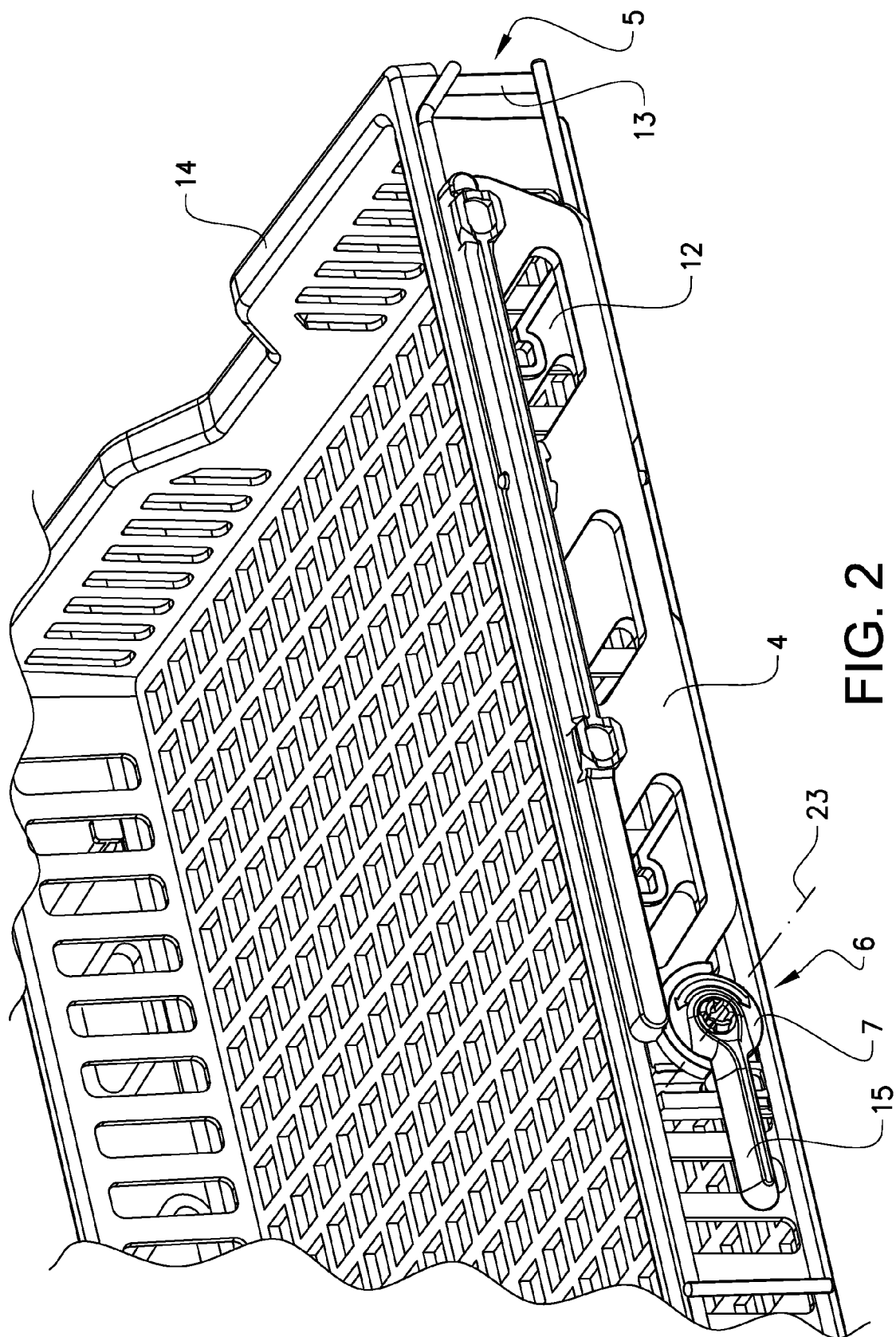


FIG. 2

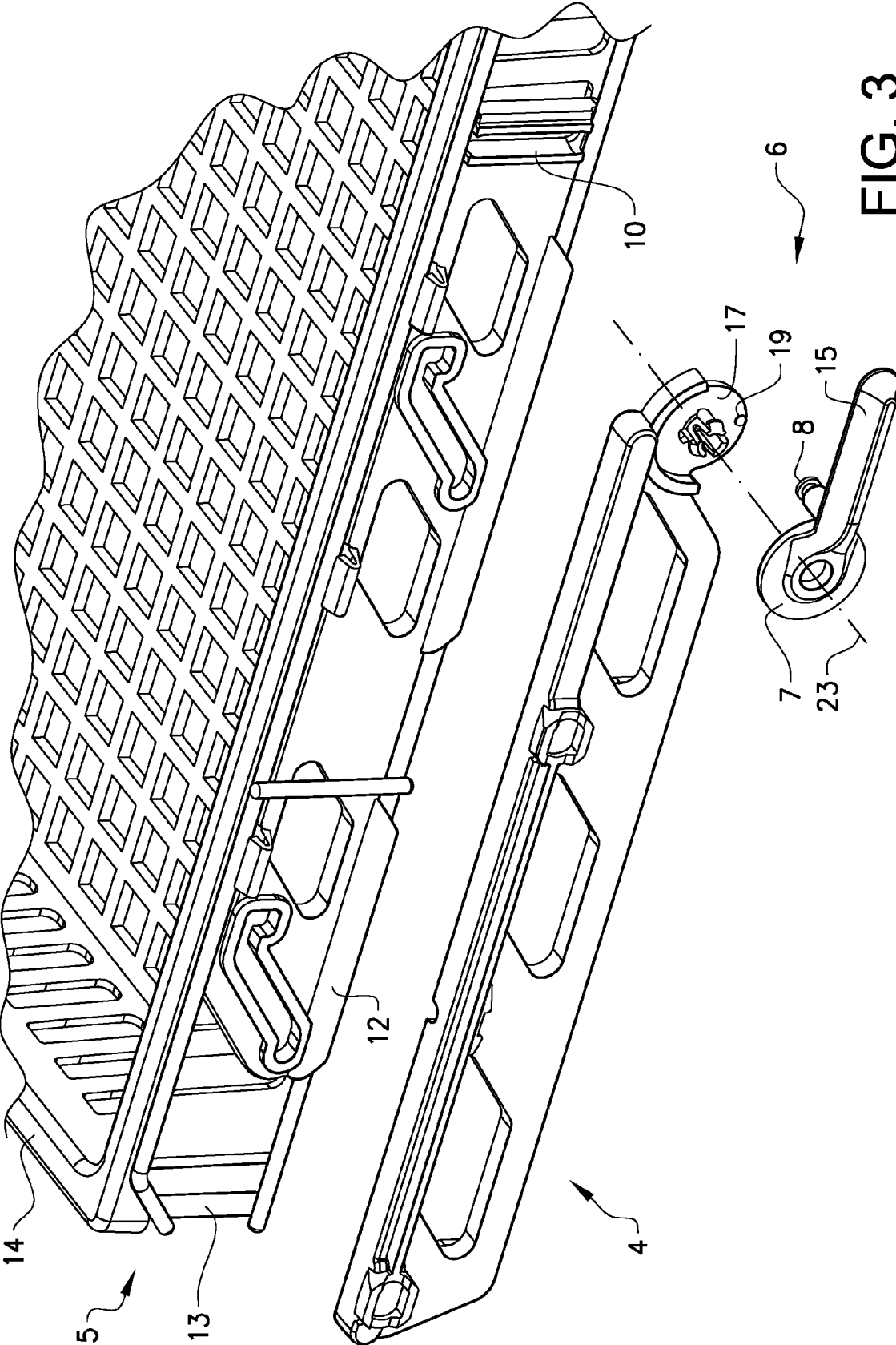


FIG. 3

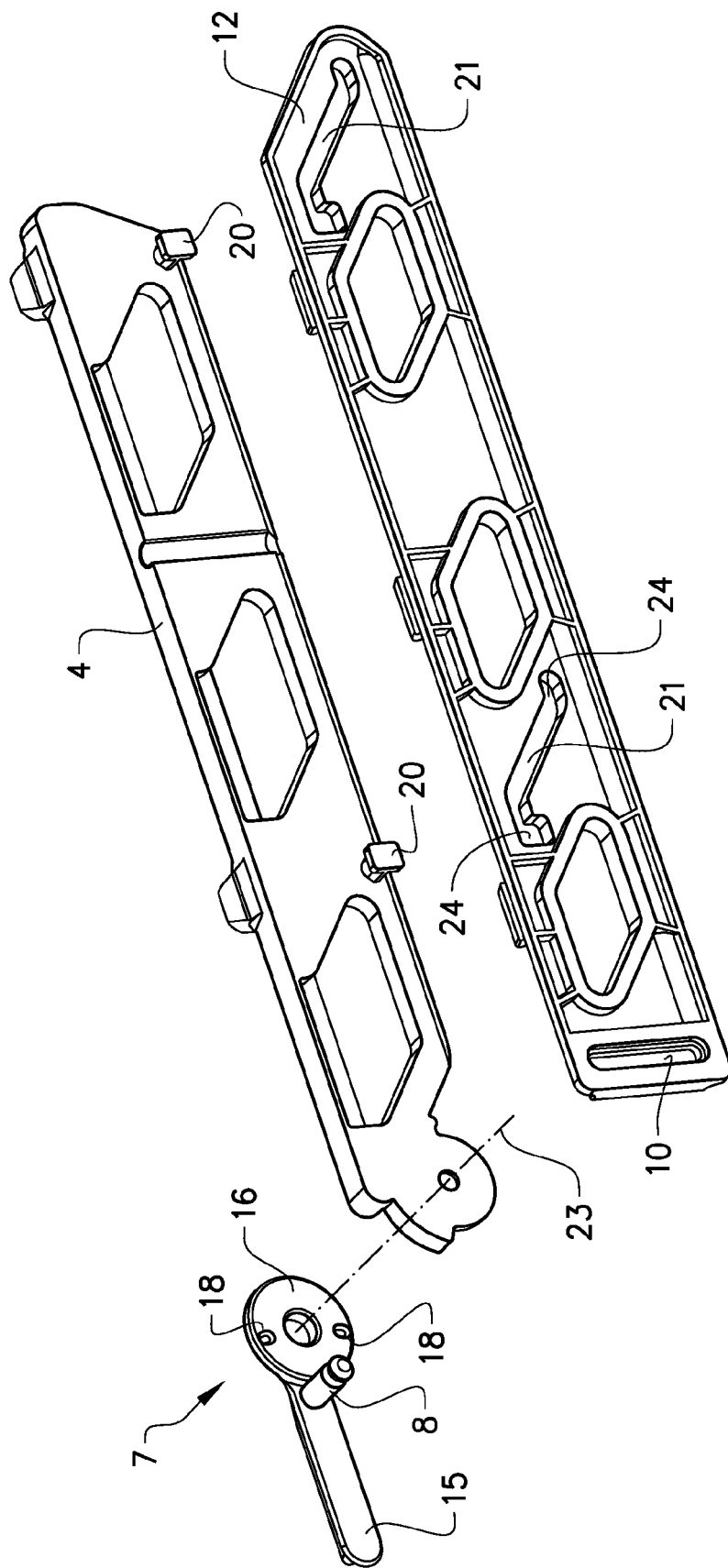


FIG. 4a

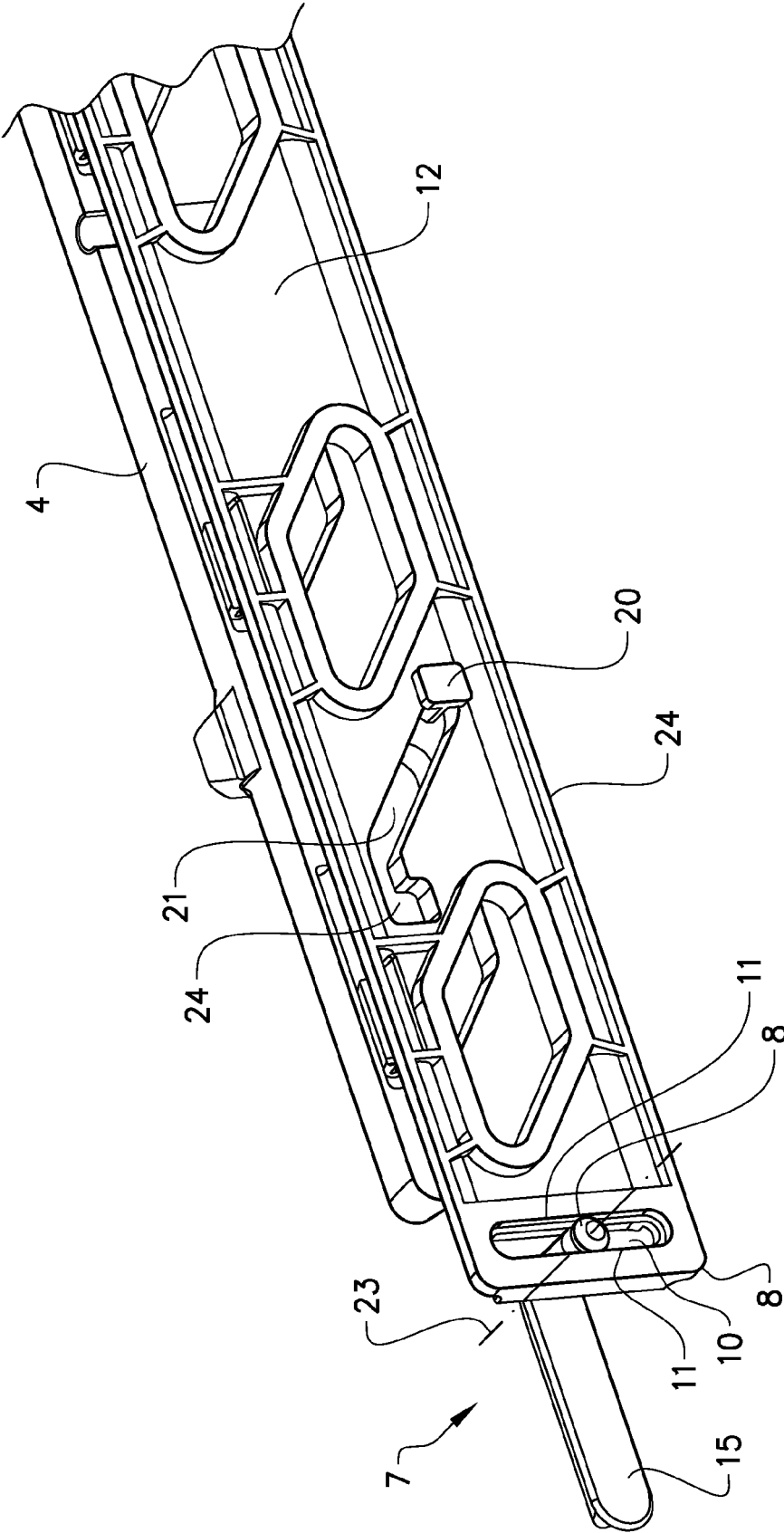


FIG. 4b

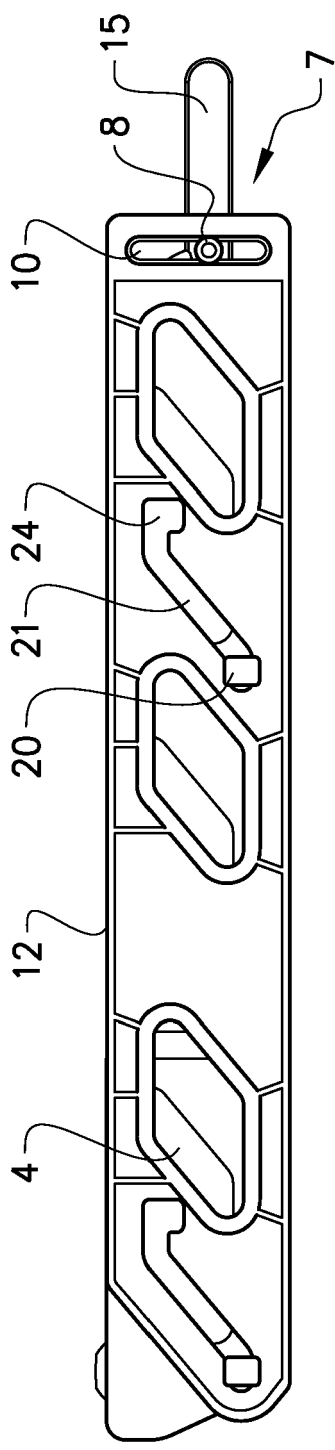


FIG. 5a

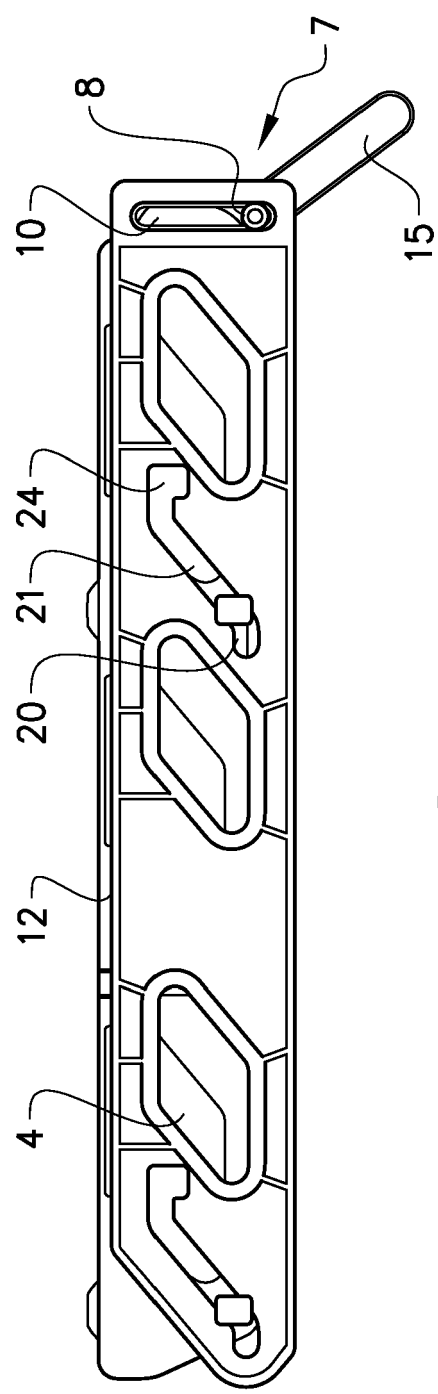
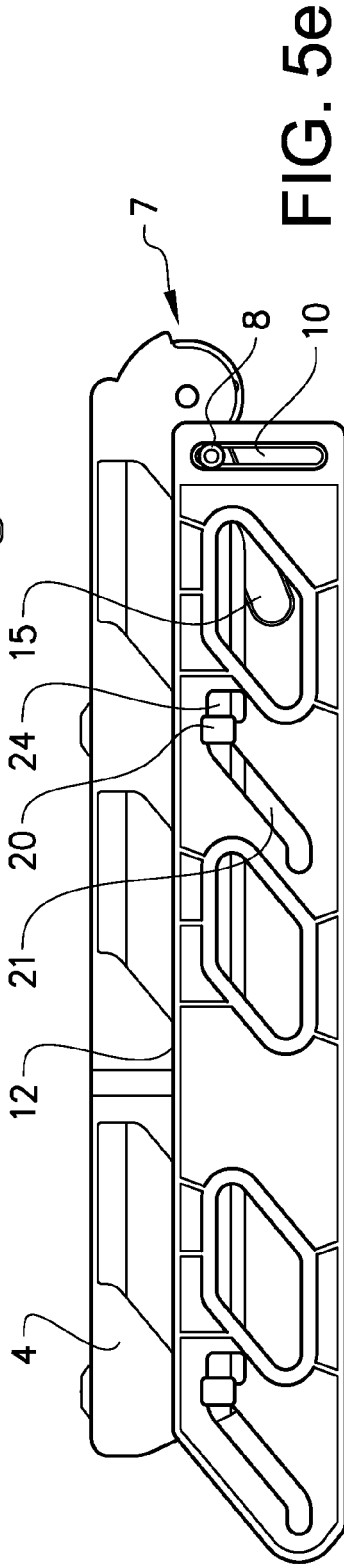
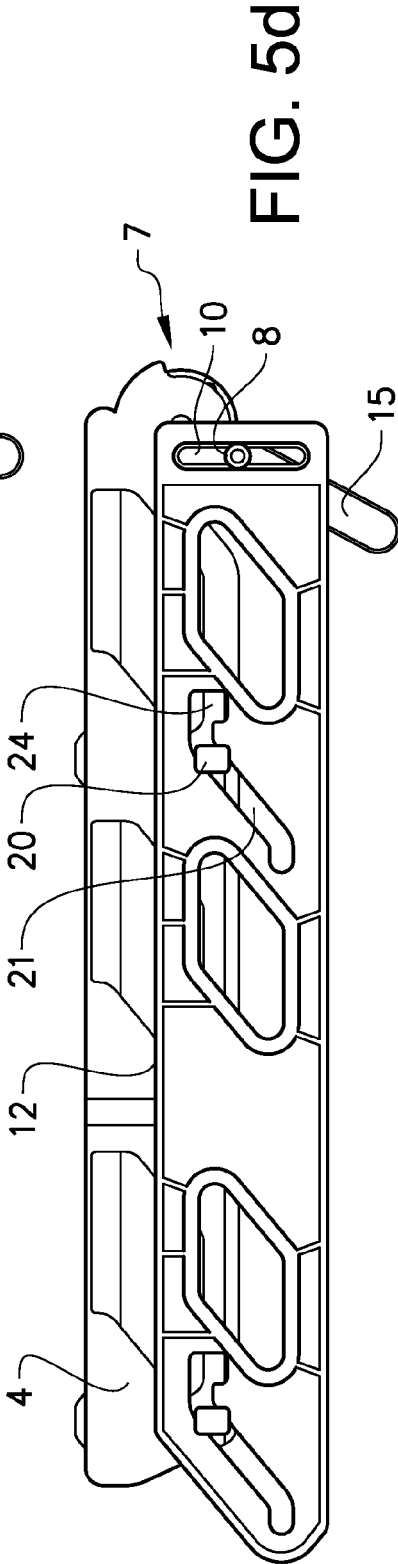
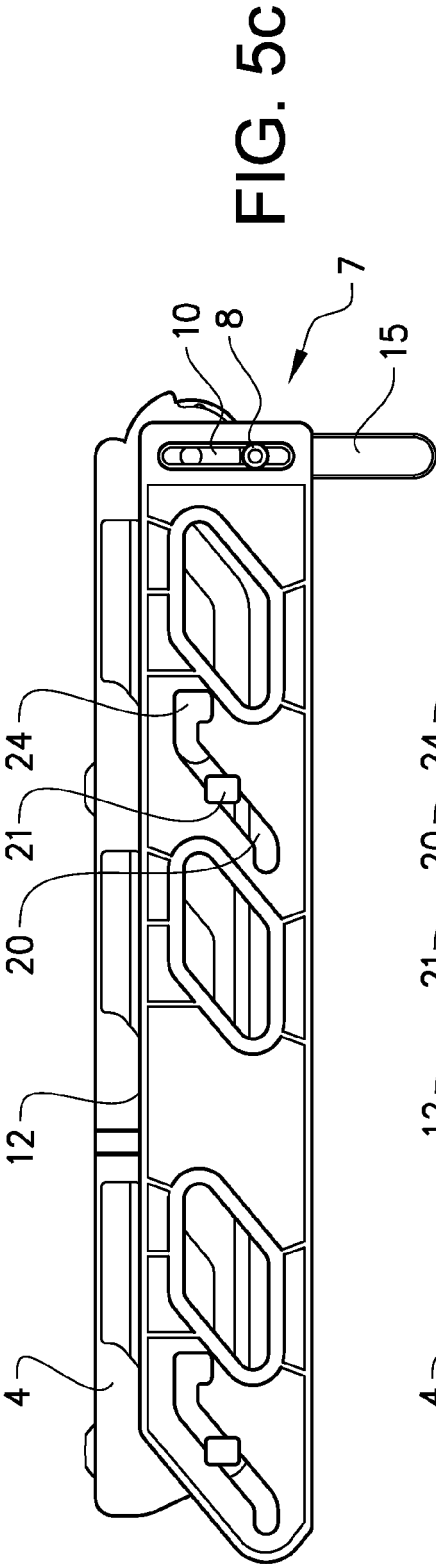


FIG. 5b





EUROPEAN SEARCH REPORT

Application Number
EP 14 17 3739

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