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(54) **CUTLERY BASKET FOR DISHWASHERS**

BESTECKKASTEN FÜR GESCHIRRSPÜLER

PANIER À COUVERTS POUR LAVE-VAISSELLE

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Description

Technical Field

[0001] The present invention relates to cutlery baskets which are provided in dishwashers and allow the cutlery to be placed and washed in a horizontal plane.

Prior Art

[0002] Today, dishwashers suitable for use in cleaning the dirty dishes which save time, water and consumed amount of cleanser (e.g. detergent) are commonly used. Enabling to wash a great number of and various dishes at the same time, such dishwashers conventionally comprise a main body, a washing compartment provided in the main body, a door to control access to the washing compartment, and washing baskets which are in the form of a grid so as to allow water inside the washing compartment to reach to the dishes, which are located at the washing compartment for washing process, and in which the dishes are placed for cleaning. In general, the dishwashers have a plurality of washing baskets located one above the other, wherein among these baskets, while a bottom washing basket located at the bottom is used to clean relatively high volume dishes such as pots and plates, an upper washing basket located above the bottom basket is used to clean relatively small volume dishes such as glasses and cups.

[0003] In said conventional dishwashers, cutlery is cleaned at the cutlery baskets which are provided at the bottom washing basket, consist of a plurality of partitions, and in which the cutlery is located extending in a perpendicular direction to the partitions therein so as to be cleaned. However, such vertical cutlery baskets reduce the usable washing volume in the lower washing basket, and may cause an inadequate space for the cutlery to be washed. In particular, these cutleries in vertical direction may overlap each other, causing an insufficient washing operation. In order to solve said problems, cutlery baskets are covered by the known art which are generally located at the washing compartment so as to be at an upper part of the upper washing basket and in which the cutlery is able to be placed in a horizontal direction independently of each other. However, such cutlery baskets cause volume constraints for the dishes to be cleaned at the upper washing basket since they are located at an upper part of the upper washing basket. To solve said problem, there are provided cutlery baskets that consist of movable parts such that one part is located above the other, and an example of said basket is disclosed in the patent application EP317576A1. According to the application disclosed in said document, the cutlery basket consists of 3 parts such that the middle part is at a lower region than the side parts and the side parts can move in a way that they remain above the middle part. In this case, however, as the middle part is both fixed and located at the lower region, it limits effective usage

of the washing volume of the washing basket that is remained under the cutlery basket.

[0004] Another example of moving baskets is also explained in the published patent application EP2732749A1. In this document, a dishwasher including a wash tub, a lower basket, a first upper basket, a second upper basket, and movement parts is disclosed. The first upper basket is disposed over the lower basket inside the wash tub to define a first lower reception space together with the lower basket. The second upper basket is disposed over the lower basket side by side with the first upper basket to define a second lower reception space. The movement parts move the first upper basket to the second upper basket to increase the first lower reception space. The movement parts may include a frame receiving a first upper basket, adjustment parts disposed on the frame to adjust the height of the first upper basket, and a rail connected to the frame such that the frame can move to the second upper basket. The rail may be configured such that the frame can move in left and right directions. The rail may be connected to the second upper basket and may support the second upper basket.

Brief Description of the Invention

[0005] The cutlery basket according to the present invention is suitable for being located in a washing compartment of a dishwasher such that the cutlery basket will above washing basket, wherein the dishwasher comprises at least one main body; at least one washing compartment provided in the main body; at least one door controlling access to the washing compartment; and at least one washing basket in which the dishes are placed for cleaning and which is located in the washing compartment, and the cutlery basket allows the cutlery to be placed and washed in a horizontal plane and comprises at least one carrier structure in the form of a frame and having at least one front side which is close to the door when positioned in the washing compartment, at least one rear side opposite to the front side, and at least two lateral sides which are located between the front side and the rear side facing each other so as to intersect the front side and the rear side; at least a first carrier component in the form of a grid, on which the cutlery to be cleaned can be placed so as to extend along a horizontal plane and which is connected to the front side by at least a first connecting piece and to the rear side by at least a second connecting piece such that the first carrier component is movable between the lateral sides in a sliding manner; at least a second carrier component in the form of a grid, on which the cutlery to be cleaned can be placed so as to extend along a horizontal plane, which is located next to the first carrier component adjacent to the first carrier component, which is connected, on at least a first side thereof, to the rear side so as to rotate around a first axis parallel to the rear side, which is connected, on at least a second side thereof opposite to the first side, to

the front side so that the second side is able to move closer to the washing basket and away from the washing basket, and which has a straight position where the first side and the second side are aligned, and an inclined position where the first side and the second side are not aligned and a vertical distance is provided between the first side and the second side; at least one wall which is in connection with the second side of the second carrier component and on which at least one movement channel is located so as to extend between the lateral sides; and at least one movement mechanism that allows second carrier component to move between the straight position and the inclined position, wherein the movement mechanism comprises: at least one guide member located at the front side and comprising at least a first body, and at least a first guide channel provided on the first body; at least one movement element which is located at the guide member so as to move on the guide member and between the lateral sides in a sliding manner, and on which at least a first guide pin is provided, wherein the first guide pin is placed in the first guide channel so as to move inside the first guide channel as a result of the sliding movement; at least one movement member which is in connection with the guide member so as to rotate around a second axis, and comprises at least a second body which is in connection with the guide member, at least a second guide channel which is in connection with the second body on one side thereof, extends away from the second body, and in which the first guide pin is seated, wherein the free end of the second guide channel that is not in connection with the second body is closed, and at least a second guide pin which is located on the side of the second body facing the second carrier component such that a distance is provided between the second guide channel and the second guide pin, which is in connection with the second body on one side, and is seated in the movement channel on the other opposite side, and which moves inside the movement channel as a result of the rotational movement around the second axis to allow the second carrier component to move between the straight position and the inclined position, wherein the movement member rotates around the second axis by means of the second guide channel, in which it is seated, following the movement of the first guide pin inside the first guide channel as a result of the sliding movement of the movement element, and allows the second guide pin to move inside the movement channel due to such a rotational movement.

[0006] Thanks to the cutlery basket according to the present invention, the cutlery can be placed and cleaned in a horizontal plane, enabling the cutlery to be cleaned in a more efficient and effective way. In addition, since the cutlery basket comprises the movable first carrier component and the second carrier component, the widths of the washing volumes of both the washing basket and the cutlery basket can be adjusted in line with the requirements. By this way, customer satisfaction can be achieved in the best manner, and a cutlery basket is

obtained which is easy to use, practical and reliable.

Object of the Invention

[0007] An object of the present invention is to provide a cutlery basket suitable for use in dishwashers and allowing the cutlery to be placed and washed in a horizontal plane.

[0008] Another object of the present invention is to provide a cutlery basket that provides efficient and effective use of the washing volume of the washing basket above which it is located.

[0009] A further object of the present invention is to provide a cutlery basket for which the washing volume thereof is used in an efficient and effective way.

[0010] Yet another object of the present invention is to provide an easy to use, practical and reliable cutlery basket.

Description of the Drawings

[0011] Exemplary embodiments of the cutlery basket according to the present invention are illustrated in the attached drawings, in which:

Figure 1 is a perspective view of an exemplary usage of the cutlery basket according to the invention.

Figure 2 is a perspective view of another exemplary usage of the cutlery basket according to the invention.

Figure 3 is a detailed perspective view of a movement mechanism in an exemplary usage of the cutlery basket according to the invention.

Figure 4 is a detailed perspective view of the movement mechanism in another exemplary usage of the cutlery basket according to the invention.

Figure 5 is a further detailed perspective view of the movement mechanism of the cutlery basket.

Figure 6 is another detailed perspective view of the movement mechanism of the cutlery basket.

[0012] All the parts illustrated in figures are individually assigned a reference numeral and the corresponding terms of these numbers are listed below:

Cutlery basket	(S)
First carrier component	(S1)
Second carrier component	(S2)
Third carrier component	(S3)
Carrier structure	(1)
Front side	(1a)
Rear side	(1b)
First connecting piece	(2a)
Second connecting piece	(2b)
Guide piece	(3)
Wall	(4)

(continued)

Movement channel	(4a)
Movement element	(5)
First guide pin	(5a)
Movement member	(6)
Second body	(6a)
Second guide channel	(6b)
Second guide pin	(6c)
Guide member	(7)
First body	(7a)
First guide channel	(7b)
Third guide channel	(7c)
First claw	(8a)
Second claw	(8b)

Description of the Invention

[0013] Dishwashers are commonly used today to clean the dishes in a time and energy saving way. The dishwashers comprise at least one main body, at least one washing compartment provided in the main body, at least one door to control access to the washing compartment, and at least two washing baskets in the form of a grid which are located one above the other so as to allow water inside the washing compartment to reach to the dishes, which are located at the washing compartment for washing process, and in which the dishes are placed for cleaning. In general, the dishwashers also comprise at least one cutlery basket which is located in the washing compartment so as to be at an upper part of the washing basket provided above said washing baskets, and which allows cutlery to be placed and washed in a horizontal plane. However, the cutlery basket may prevent using the washing volume of the washing basket, above which it is provided, in an efficient and effective way. In this regard, the present invention provides a cutlery basket which enables that both the washing volume of the washing basket, above which it is provided, and the washing volume of its own, where the cutlery is placed, are used in an efficient and effective way.

[0014] The cutlery basket (S) according to the present invention, exemplary views of which are illustrated in figure 1-6, is suitable for being located in a washing compartment of a dishwasher such that the cutlery basket will be above washing basket, wherein the dishwasher comprises at least one main body; at least one washing compartment provided in the main body; at least one door controlling access to the washing compartment; and at least one washing basket in which the dishes are placed for cleaning and which is located in the washing compartment, and the cutlery basket allows the cutlery to be placed and washed in a horizontal plane (said horizontal plane is parallel to the base of the washing compartment). The cutlery basket (S) according to the invention comprises at least one carrier structure (1) in the form of a

frame and having at least one front side (1a) which is close to the door when positioned in the washing compartment, at least one rear side (1b) opposite to the front side (1a), and at least two lateral sides which are located between the front side (1a) and the rear side (1b) facing each other so as to intersect the front side (1a) and the rear side (1b); and at least a first carrier component (S1) in the form of a grid, on which the cutlery to be cleaned can be placed so as to extend along a horizontal plane and which is connected to the front side (1a) by at least a first connecting piece (2a) and to the rear side (1b) by at least a second connecting piece (2b) such that the first carrier component is movable between the lateral sides in a sliding manner. The cutlery basket (S) further comprises at least a second carrier component (S2) in the form of a grid, on which the cutlery to be cleaned can be placed so as to extend along a horizontal plane, which is located next to the first carrier component (S1) adjacent to the first carrier component (S1), which is connected, on at least a first side thereof, to the rear side (1b) so as to rotate around a first axis parallel to the rear side (1b), which is connected, on at least a second side thereof opposite to the first side, to the front side (1a) so that the second side is able to move closer to the washing basket and away from the washing basket (i.e. move closer to the front side (1a) and away from the front side (1a)), and which has a straight position where the first side and the second side are aligned (where the second side is away from the washing basket) and an inclined position where the first side and the second side are not aligned (where the second side is close to the washing basket) and a vertical distance is provided between the first side and the second side; at least one wall (4) which is in connection with the second side of the second carrier component (S2) and on which at least one movement channel (4a) is located so as to extend between the lateral sides, preferably, in a linear way along a horizontal plane; and at least one movement mechanism that allows second carrier component (S2) to move between the straight position and the inclined position.

[0015] According to an exemplary embodiment of the invention, the first carrier component (S1) of the cutlery basket (S) is movable along the horizontal plane between the lateral sides, and the second carrier component (S2) rotates from the first side thereof so as to be in the straight position or the inclined position. When the second carrier component (S2) is in the straight position, the first side and the second side are aligned and the second carrier component (S2) is positioned at a plane parallel to the base of the washing compartment. When the second carrier component (S2) is in the inclined position, the first side and the second side are not aligned and the second side remains under the first side. According to an exemplary use of the cutlery basket (S), if a user needs to place a relatively high volume dish to the washing basket that is located at a lower region of the cutlery basket (S), the user will move the first carrier component (S1) in a sliding way on the first side (1b) and the second side (1b)

such that the first carrier component (S1) is above the second carrier component (S2). Thus, a larger area is obtained at a portion of the washing compartment, making it possible to place the high volume dish to the washing compartment in an easy way. According to another exemplary use, if a user needs to place a relatively high volume dish to the cutlery basket (S), the user will move the second side by the movement mechanism to approach to the washing basket, and place the second carrier component (S2) into the inclined position. By this way, a larger area is obtained where second carrier component (S2) is located, making it possible to place the high volume dish to the cutlery basket (S) in an easy way. In addition, when the first carrier component (S1) is positioned above the second carrier component (S2), the dishes on the second carrier component (S2) can be cleaned more efficiently, thanks to such an inclined position.

[0016] According to the invention, the movement mechanism comprises:

- at least one guide member (7) located at the front side (1a) and comprising
 - at least a first body (7a) preferably in the form of a plate, and
 - at least a first guide channel (7b) provided on the first body (7a);
- at least one movement element (5) which is located at the guide member (7) so as to move on the guide member (7) and between the lateral sides in a sliding manner, which, preferably, is inserted into at least one part of the guide member (7) for such a sliding movement, which has a channel form open at both ends, and on which at least a first guide pin (5a) is provided, wherein the first guide pin (5a) is placed in the first guide channel (7b) so as to move inside the first guide channel (7b) as a result of the sliding movement;
- at least one movement member which is in connection with the guide member (7) (preferably, with a part of the guide member (7) facing the second carrier component (S2)) so as to rotate around a second axis, and comprises:
 - at least a second body (6a) which, preferably, has a cylindrical form and is in connection with the guide member (7) (the second axis is preferably parallel to a line perpendicular to the second body (6a) and passing through the centre of the second body (6a)),
 - at least a second guide channel (6b) which is in connection with the second body (6a) on one side thereof, extends away from the second body (6a) preferably in the same plane as the second body (6a), and in which the first guide pin (5a) is seated, wherein the free end of the

second guide channel (6b) that is not in connection with the second body (6a) is preferably closed, and

- at least a second guide pin (6c) which is located on the side of the second body (6a) facing the second carrier component (S2) such that a distance is provided between the second guide channel (6b) and the second guide pin (6c) (e.g. with an angle other than 0° and 180°, preferably with a wide angle between the second guide channel (6b) and the second guide pin (6c)), which is in connection with the second body (6a) on one side, and is seated in the movement channel (4a) on the other opposite side, and which moves inside the movement channel (4a) as a result of the rotational movement around the second axis to allow the second carrier component (S2) to move between the straight position and the inclined position, wherein the movement member rotates around the second axis by means of the second guide channel (6b), in which it is seated, following the movement of the first guide pin (5a) inside the first guide channel (7b) as a result of the sliding movement of the movement element (5), and allows the second guide pin (6c) to move inside the movement channel (4) due to such a rotational movement.

[0017] A user moves the movement element (5) in a sliding manner on the guide member (7) and between the lateral walls by means of the movement mechanism according to the invention; therefore such a right/left movement enables the second side of the second carrier component (S2) to move easily in the vertical direction, allowing the second carrier component (S2) to switch between the straight position and the inclined position in a practical manner. According to this embodiment, preferably, there is provided at least a third guide channel (7c) which extends preferably linearly in the vertical direction on the first body (7a), wherein at least one guide piece (3) which is seated in the third guide channel (7c) is located on a side of the wall (4) facing the guide member (7). Movement of the second carrier component (S2) between said positions is able to be performed in a more balanced way by means of the guide piece (3) and the third guide channel (7c).

[0018] According to another alternative embodiment, the cutlery basket (S) according to the invention preferably comprises at least a third carrier component (S3) in the form of a grid, on which the cutlery to be cleaned can be placed so as to extend along a horizontal plane, which is located at a lateral side of the second carrier component (S2) such that the second carrier component (S2) is in between the third carrier component (S3) and the first carrier component (S1), and which is connected to the front side (1a) by at least a first connecting piece (2a), and to the rear side (1b) by at least a second connecting

piece (2b) so as to move between the lateral sides in a sliding manner. Washing volume of the washing basket may be used in a more effective way thanks to the movable first carrier component (S1) and the third carrier component (S3).

[0019] According to another exemplary embodiment, at least a portion of the front side (1a) and/or the rear side (1b) on which the first connecting piece (2a) and/or the second connecting piece (2b) move have preferably a wire (bar-shaped) structure. According to this embodiment, the first connecting piece (2a) and/or the second connecting piece (2b) preferably comprise at least one channel which is open at both ends so as to allow the first connecting piece (2a) and/or the second connecting piece (2b) to move at these parts in a sliding manner, and receives the portions of the front side (1a) and/or the rear side (1b) on which the first connecting piece (2a) and/or the second connecting piece (2b) move.

[0020] According to a further alternative embodiment of the invention, the first guide channel (7b) preferably comprises at least one straight portion extending between the lateral sides along the horizontal direction, and at least two inclined portions extending, on each end of the straight portion, towards a side of the guide member (7) on which the movement element (5) moves such that there is provided an angle other than 0° and 180°, preferably a wide angle between the straight portion and the inclined portions. The first guide pin (5a) moves inside the straight portion, and the inclined portions both function as a stop for the first guide pin (5a) and allows the first guide pin (5a) to be attached easily to the first guide channel (7b) during mounting process.

[0021] According to another preferred embodiment, a portion of the rear side (1b) of the carrier structure (1) to which the second carrier component (S2) is connected has preferably a wire (bar-shaped) structure of a "U" shape. According to this embodiment, the second carrier component (S2) is connected by at least a first claw (8a) to the horizontal portion of the "U" shape so as to be able to rotate around this horizontal portion, and the second carrier component (S2) preferably comprises at least a second claw (8b) in which the vertical region of the "U" shape is located in a movable manner in order to ensure that the second carrier component (S2) which is inclined as a result of the rotational movement remains stable and secure in this position.

[0022] Thanks to the cutlery basket (S) according to the present invention, the cutlery can be placed and cleaned in a horizontal plane, enabling the cutlery to be cleaned in a more efficient and effective way. In addition, since the cutlery basket (S) comprises the movable first carrier component (S1) and the second carrier component (S2), the widths of the washing volumes of both the washing basket and the cutlery basket (S) can be adjusted in line with the requirements. By this way, customer satisfaction can be achieved in the best manner, and a cutlery basket (S) is obtained which is easy to use, practical and reliable.

Claims

1. A cutlery basket (S) suitable for being located in a washing compartment of a dishwasher, which comprises at least one main body; at least one washing compartment provided in the main body; at least one door controlling access to the washing compartment; and at least one washing basket in which the dishes are placed for cleaning and which is located in the washing compartment, in such a way that the cutlery basket (S) is arranged for being above the washing basket and allows the cutlery to be placed and washed in a horizontal plane wherein the cutlery basket (S) comprises:

- at least one carrier structure (1) in the form of a frame and having at least one front side (1a), at least one rear side (1b) opposite to the front side (1a), and at least two lateral sides which are located between the front side (1a) and the rear side (1b) facing each other so as to intersect the front side (1a) and the rear side (1b); and
- at least a first carrier component (S1) in the form of a grid, on which the cutlery to be cleaned can be placed so as to extend along a horizontal plane and which is connected to the front side (1a) by at least a first connecting piece (2a) and to the rear side (1b) by at least a second connecting piece (2b) such that the first carrier component (S1) is movable between the lateral sides in a sliding manner,
- at least a second carrier component (S2) in the form of a grid, on which the cutlery to be cleaned can be placed so as to extend along a horizontal plane, which is located next to the first carrier component (S1) adjacent to the first carrier component (S1), which is connected, on at least a first side thereof, to the rear side (1b) so as to rotate around a first axis parallel to the rear side (1b), which is connected, on at least a second side thereof opposite to the first side, to the front side (1a) so that the second side is configured to being able to move closer to the washing basket and away from the washing basket, and which has a straight position where the first side and the second side are aligned, and an inclined position where the first side and the second side are not aligned and a vertical distance is provided between the first side and the second side;
- at least one wall (4) which is in connection with the second side of the second carrier component (S2) and on which at least one movement channel (4a) is located so as to extend between the lateral sides; and
- at least one movement mechanism that allows second carrier component (S2) to move between the straight position and the inclined position

characterized in that the movement mechanism comprises

- at least one guide member (7) located at the front side (1a) and comprising
 - at least a first body (7a), and
 - at least a first guide channel (7b) provided on the first body (7a);
 - at least one movement element (5) which is located at the guide member (7) so as to move on the guide member (7) and between the lateral sides in a sliding manner, and on which at least a first guide pin (5a) is provided, wherein the first guide pin (5a) is placed in the first guide channel (7b) so as to move inside the first guide channel (7b) as a result of the sliding movement;
 - at least one movement member which is in connection with the guide member (7) so as to rotate around a second axis, and comprises:
 - at least a second body (6a) which is in connection with the guide member (7),
 - at least a second guide channel (6b) which is in connection with the second body (6a) on one side thereof, extends away from the second body (6a), and in which the first guide pin (5a) is seated, wherein the free end of the second guide channel (6b) that is not in connection with the second body (6a) is closed, and
 - at least a second guide pin (6c) which is located on the side of the second body (6a) facing the second carrier component (S2) such that a distance is provided between the second guide channel (6b) and the second guide pin (6c), which is in connection with the second body (6a) on one side, and is seated in the movement channel (4a) on the other opposite side, and which moves inside the movement channel (4a) as a result of the rotational movement around the second axis to allow the second carrier component (S2) to move between the straight position and the inclined position, wherein the movement member rotates around the second axis by means of the second guide channel (6b), in which it is seated, following the movement of the first guide pin (5a) inside the first guide channel (7b) as a result of the sliding movement of the movement element (5), and allows the second guide pin (6c) to move inside the movement channel (4) due to such a rotational movement.
2. A cutlery basket (S) according to claim 1, **characterized in that** the movement channel (4a) is located

so as to extend in a linear way along a horizontal plane.

3. A cutlery basket (S) according to claim 1, **characterized in that** the movement element (5) has a channel form open at both ends into which at least one portion of the guide member (7) is received for the sliding movement.
4. A cutlery basket (S) according to claim 1, **characterized in that** the second guide channel (6b) extends in the same plane as the second body (6a).
5. A cutlery basket (S) according to claim 1, **characterized in that** the cutlery basket (S) comprises a third guide channel (7c) which is located on the first body (7a) and extends in the vertical direction.
6. A cutlery basket (S) according to claim 5, **characterized in that** the wall (4) comprises at least one guide piece (3) which is seated in the third guide channel (7c) and located on a side of the wall (4) facing the guide member (7).
7. A cutlery basket (S) according to claim 1, **characterized in that** the cutlery basket (S) comprises at least a third carrier component (S3) in the form of a grid, on which the cutlery to be cleaned can be placed so as to extend along a horizontal plane, which is located at a lateral side of the second carrier component (S2) such that the second carrier component (S2) is in between the third carrier component (S3) and the first carrier component (S1), and which is connected to the front side (1a) by at least a first connecting piece (2a), and to the rear side (1b) by at least a second connecting piece (2b) so as to move between the lateral sides in a sliding manner.
8. A cutlery basket (S) according to claim 1, **characterized in that** at least a portion of the front side (1a) and/or the rear side (1b), on which the first connecting piece (2a) and/or the second connecting piece (2b) move, have a bar-shaped structure.
9. A cutlery basket (S) according to claim 8, **characterized in that** the first connecting piece (2a) and/or the second connecting piece (2b) comprise at least one channel which is open at both ends so as to allow the first connecting piece (2a) and/or the second connecting piece (2b) to move at these parts in a sliding manner, and which receives the portions of the front side (1a) and/or the rear side (1b) on which the first connecting piece (2a) and/or the second connecting piece (2b) move.
10. A cutlery basket (S) according to claim 1, **characterized in that** the first guide channel (7b) comprises at least one straight portion extending between the

lateral sides along the horizontal direction, and at least two inclined portions extending, on each end of the straight portion, towards a side of the guide member (7) on which the movement element (5) moves such that there is provided an angle, other than 0° and 180°, between the straight portion and the inclined portion.

11. A cutlery basket (S) according to claim 1, **characterized in that** a portion of the rear side (1b) of the carrier structure (1), to which the second carrier component (S2) is connected, has a bar-shaped structure in the form of a "U" shape.
12. A cutlery basket (S) according to claim 11, **characterized in that** the second carrier component (S2) comprises at least a first claw (8a) enabling the second carrier component (S2) to be connected to the horizontal portion of the "U" shape so as to be able to rotate around this horizontal portion.
13. A cutlery basket (S) according to claim 11 or claim 12, **characterized in that** the second carrier component (S2) comprises at least a second claw (8b) which is located at the second carrier component (S2) in order to ensure that when the second carrier component (S2) is inclined as a result of the rotational movement, the second carrier component (S2) remains stable and secure in this position, and in which the vertical region of the "U" shape is located in a movable manner.
14. A cutlery basket (S) according to claim 1, **characterized in that** the second axis is parallel to a line perpendicular to the second body (6a) and passing through the centre of the second body (6a).

Patentansprüche

1. Bestecklade (S), die zur Platzierung in einem Waschabteil eines Geschirrspülers geeignet ist, der aufweist: wenigstens ein Hauptgehäuse; wenigstens ein in dem Hauptgehäuse befindliches Waschabteil; wenigstens eine Tür, die den Zugang zu dem Waschabteil kontrolliert; und wenigstens einen Geschirrkorb, in dem Geschirr zum Reinigen platziert wird und der sich so angeordnet in dem Waschabteil befindet, dass die Bestecklade (S) sich oberhalb des Geschirrkorbs befindet und dass das Besteck in einer horizontalen Ebene platziert und gespült wird, wobei die Bestecklade (S) aufweist:

wenigstens eine Trägerstruktur (1) in Form eines Rahmens und mit wenigstens einer Vorderseite (1a), wenigstens einer Rückseite (1b) gegenüber der Vorderseite (1a), und wenigstens zwei seitlichen Seiten, die zwischen der Vorder-

seite (1a) und der Rückseite (1b) einander zugewandt angeordnet sind, so dass sie die Vorderseite (1a) und die Hinterseite (1b) schneiden, und

wenigstens eine erste gitterförmige Trägerkomponente (S1), auf der das zu spülende Besteck platziert werden kann, so dass es entlang einer horizontalen Ebene ausgedehnt liegt, und die mit der Vorderseite (1a) durch mindestens ein erstes Verbindungsstück (2a) und mit der Rückseite (1b) durch mindestens ein zweites Verbindungsstück (2b) verbunden ist, so dass die erste Trägerkomponente (S1) zwischen den seitlichen Seiten in gleitender Weise beweglich ist, wenigstens eine zweite gitterförmige Trägerkomponente (S2), auf der das zu spülende Geschirr platziert werden kann, so dass es entlang einer horizontalen Ebene ausgedehnt liegt, die neben der ersten Trägerkomponente (S1) benachbart zu der ersten Trägerkomponente (S1) angeordnet ist, die, auf wenigstens einer Seite davon, mit der Rückseite (1b) verbunden ist, um so um eine erste Achse parallel zu der Rückseite (1b) zu rotieren, die auf wenigstens einer zweiten Seite davon gegenüber der ersten Seite mit der Vorderseite (1a) verbunden ist, so dass die zweite Seite dazu ausgestaltet ist, in der Lage zu sein, sich näher zu dem Geschirrkorb hin und von dem Geschirrkorb weg zu bewegen, und die eine gerade Stellung hat, in der die erste Seite und die zweite Seite ausgerichtet sind, und eine geneigte Stellung hat, in der die erste Seite und die zweite Seite nicht ausgerichtet sind und ein vertikaler Abstand zwischen der ersten Seite und der zweiten Seite gebildet ist, wenigstens eine Wand (4), die mit der zweiten Seite der zweiten Trägerkomponente (S2) verbunden ist und an der sich wenigstens ein Bewegungskanal (4a) angeordnet ist, um zwischen den seitlichen Seiten zu verlaufen, und wenigstens einen Bewegungsmechanismus, der es der zweiten Trägerkomponente (S2) ermöglicht, sich zwischen der geraden Stellung und der geneigten Stellung zu bewegen, **dadurch gekennzeichnet, dass** der Bewegungsmechanismus aufweist

- wenigstens ein Führungselement (7), das an der Vorderseite (1a) angeordnet ist und aufweist

- o wenigstens einen ersten Körper (7a) und
- o wenigstens einen ersten Führungskanal (7b), der an dem ersten Körper (7a) vorgesehen ist,

- wenigstens ein Bewegungselement (5),

das an dem Führungselement (7) angeordnet ist, um sich an dem Führungselement (7) und zwischen den seitlichen Seiten in gleitender Weise zu bewegen, und an dem ein erster Führungsstift (5a) vorgesehen ist, wobei der erste Führungsstift (5a) in dem ersten Führungskanal (7b) aufgenommen ist, um sich als Resultat der Gleitbewegung innerhalb des ersten Führungskanals (7b) zu bewegen,

- wenigstens ein Bewegungsteil, das in Verbindung mit dem Führungselement (7) steht, um so um eine zweite Achse zu rotieren, und das aufweist:

- o wenigstens einen zweiten Körper (6a), der in Verbindung mit dem Führungselement (7) ist,

- o wenigstens einen zweiten Führungskanal (6b), der in Verbindung mit dem zweiten Körper (6a) an einer Seite davon steht, von dem zweiten Körper (6a) weg verläuft und in dem der erste Führungsstift (5a) aufgenommen ist, wobei das freie Ende des zweiten Führungskanals (6b), das nicht in Verbindung mit dem zweiten Körper (6a) ist, geschlossen ist, und

- o wenigstens einen zweiten Führungsstift (6c), der auf der Seite des zweiten Körpers (6a), die der zweiten Trägerkomponente (S2) zugewandt ist, angeordnet ist, so dass ein Abstand zwischen dem zweiten Führungskanal (6b) und dem zweiten Führungsstift (6c) gegeben ist, der auf einer Seite in Verbindung mit dem zweiten Körper (6a) ist und der an der gegenüberliegenden Seite in dem Bewegungskanal (4a) aufgenommen ist und der sich innerhalb des Bewegungskanals (4a) infolge der Rotationsbewegung um die zweite Achse bewegt, um der zweiten Trägerkomponente (S2) zu ermöglichen, sich zwischen der geraden Stellung und der geneigten Stellung zu bewegen, wobei das Bewegungsteil sich um die zweite Achse mittels des zweiten Führungskanals (6b) dreht, in dem es gelagert ist, folgend der Bewegung des ersten Führungsstiftes (5a) innerhalb des ersten Führungskanals (7b) infolge der Gleitbewegung des Bewegungselements (5), und es dem zweiten Führungsstift (6c) ermöglicht, sich innerhalb des Bewegungskanals (4a) aufgrund einer solchen Drehbewegung zu bewegen.

2. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** der Bewegungskanal (4a) so angeordnet ist, dass er entlang einer geraden Strecke in einer horizontalen Ebene verläuft.

3. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** das Bewegungselement (5) ein Kanalprofil hat, das an beiden Enden offen ist und in dem wenigstens ein Teil des Führungselements (7) gleitend beweglich aufgenommen ist.

4. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** der zweite Führungskanal (6b) entlang derselben Ebene wie der zweite Führungskörper (6a) verläuft.

5. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** die Bestecklade (S) einen dritten Führungskanal (7c) aufweist, der sich an dem ersten Körper (7a) befindet und der in vertikaler Richtung verläuft.

6. Bestecklade (S) nach Anspruch 5, **dadurch gekennzeichnet, dass** die Wand (4) wenigstens ein Führungsstück (3) aufweist, das in dem dritten Führungskanal (7c) aufgenommen ist und das sich auf einer Seite der Wand (4) befindet, die dem Führungselement (7) zugewandt ist.

7. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** die Bestecklade (S) wenigstens eine dritte gitterförmige Trägerkomponente (S3) aufweist, auf der die zu spülenden Bestecke platziert werden können, so dass sie entlang in einer horizontalen Ebene verlaufend liegen, die auf einer seitlichen Seite der zweiten Trägerkomponente (S2) angeordnet ist, so dass die zweite Trägerkomponente (S2) sich zwischen der dritten Trägerkomponente (S3) und der ersten Trägerkomponente (S1) befindet, und die mit der Vorderseite (1a) durch wenigstens ein erstes Verbindungsstück (2a) und mit der Rückseite (1b) durch wenigstens ein zweites Verbindungsstück (2b) verbunden ist, um sich zwischen den seitlichen Seiten in gleitender Weise zu bewegen.

8. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** wenigstens ein Teil der Vorderseite (1a) und/oder der Rückseite (1b), auf dem sich das erste Verbindungsstück (2a) und/oder das zweite Verbindungsstück (2b) bewegt, eine stangenförmige Struktur hat.

9. Bestecklade (S) nach Anspruch 8, **dadurch gekennzeichnet, dass** das erste Verbindungsstück (2a) und/oder das zweite Verbindungsstück (2b) wenigstens einen Kanal aufweist, der an beiden Enden offen ist, um es dem ersten Verbindungsstück (2a)

und/oder dem zweiten Verbindungsstück (2b) zu ermöglichen, sich in diesen Bereichen in gleitender Weise zu bewegen, und der die Teile der Vorderseite (1a) und/oder der Hinterseite (1b), auf denen sich das erste Verbindungsstück (2a) und/oder das zweite Verbindungsstück (2b) bewegen, aufnimmt.

10. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** der erste Führungskanal (7b) wenigstens einen geraden, zwischen den seitlichen Seiten entlang der horizontalen Richtung verlaufenden Bereich und wenigstens zwei geneigte Bereiche aufweist, die jeweils von jedem Ende des geraden Bereiches aus zu einer Seite des Führungselements (7) hin verlaufen, auf dem sich das Bewegungselement (5) bewegt, so dass ein Winkel, der sich von 0° und 180° unterscheidet, zwischen dem geraden Bereich und dem geneigten Bereich gebildet ist.
11. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** ein Bereich der Rückseite (1b) der Trägerstruktur (1), mit dem die zweite Trägerkomponente (S2) verbunden ist, eine stangenförmige Struktur in Form einer U-Form hat.
12. Bestecklade (S) nach Anspruch 11, **dadurch gekennzeichnet, dass** die zweite Trägerkomponente wenigstens eine Klaue (8a) aufweist, die es der zweiten Trägerkomponente (S2) ermöglicht, mit dem horizontalen Bereich der U-Form verbunden zu werden, um so in der Lage zu sein, um diesen horizontalen Bereich herum zu schwenken.
13. Bestecklade (S) nach Anspruch 11 oder Anspruch 12, **dadurch gekennzeichnet, dass** die zweite Trägerkomponente (S2) wenigstens eine zweite Klaue (8b) aufweist, die an der zweiten Trägerkomponente (S2) angeordnet ist, um sicherzustellen, dass, wenn die zweite Trägerkomponente (S2) als Resultat der Rotationsbewegung geneigt ist, die zweite Trägerkomponente (S2) stabil und gesichert in dieser Stellung bleibt, und in der sich die vertikale Region der U-Form in beweglicher Weise befindet.
14. Bestecklade (S) nach Anspruch 1, **dadurch gekennzeichnet, dass** die zweite Achse parallel zu einer Linie ist, die senkrecht zu dem zweiten Körper (6a) steht und durch das Zentrum des zweiten Körpers (6a) verläuft.

Revendications

1. Panier à couverts (S) adapté pour être situé dans un compartiment de lavage d'un lave-vaisselle, qui comprend au moins un corps principal ; au moins un compartiment de lavage prévu dans le corps principal ; au moins une porte contrôlant l'accès au

compartiment de lavage ; et au moins un panier de lavage dans lequel la vaisselle est placée pour être nettoyée et qui est situé dans le compartiment de lavage, de telle sorte que le panier à couverts (S) est agencé pour être au-dessus du panier de lavage et permet aux couverts d'être placés et lavés dans un plan horizontal, dans lequel le panier à couverts (S) comprend :

- au moins une structure de support (1) sous la forme d'un cadre et ayant au moins un côté avant (1a), au moins un côté arrière (1b) opposé au côté avant (1a), et au moins deux côtés latéraux qui sont situés entre le côté avant (1a) et le côté arrière (1b) faisant face l'un à l'autre de manière à couper le côté avant (1a) et le côté arrière (1b) ; et
- au moins un premier composant de support (S1) en forme d'une grille, sur lequel les couverts à nettoyer peuvent être placés de manière à s'étendre le long d'un plan horizontal et qui est relié au côté avant (1a) par au moins une première pièce de liaison (2a) et à la face arrière (1b) par au moins une deuxième pièce de liaison (2b) de sorte que le premier composant de support (S1) est mobile entre les côtés latéraux de manière coulissante,
- au moins un deuxième composant de support (S2) en forme d'une grille, sur lequel les couverts à nettoyer peuvent être placés de manière à s'étendre le long d'un plan horizontal, qui est situé à côté du premier composant de support (S1), adjacent au premier composant de support (S1), qui est relié, sur au moins un premier côté de celui-ci, au côté arrière (1b) de manière à tourner autour d'un premier axe parallèle au côté arrière (1b), qui est relié, sur au moins un deuxième côté de celui-ci opposé au premier côté, au côté avant (1a) de sorte que le deuxième côté est configuré pour pouvoir se rapprocher s'éloigner du panier de lavage, et qui a une position droite où le premier côté et le deuxième côté sont alignés, et une position inclinée où le premier côté et le deuxième côté ne sont pas alignés et une distance verticale est prévue entre le premier côté et le deuxième côté ;
- au moins une paroi (4) qui est en liaison avec le deuxième côté du deuxième composant de support (S2) et sur laquelle au moins un canal de mouvement (4a) est situé de manière à s'étendre entre les côtés latéraux ; et
- au moins un mécanisme de mouvement qui permet au deuxième composant de support (S2) de se déplacer entre la position droite et la position inclinée

caractérisé en ce que le mécanisme de mouvement comprend

• au moins un élément de guidage (7) situé sur le côté avant (1a) et comprenant

- au moins un premier corps (7a), et
- au moins un premier canal de guidage (7b) prévu sur le premier corps (7a) ;

• au moins un élément de mouvement (5) qui est situé au niveau de l'élément de guidage (7) de manière à se déplacer sur l'élément de guidage (7) et entre les côtés latéraux de manière coulissante, et sur lequel au moins une première goupille de guidage (5a) est prévue, dans lequel la première goupille de guidage (5a) est placée dans le premier canal de guidage (7b) de manière à se déplacer à l'intérieur du premier canal de guidage (7b) suite au mouvement de coulissement ;

• au moins un élément de mouvement qui est en liaison avec l'élément de guidage (7) de manière à tourner autour d'un deuxième axe, et comprend :

- au moins un deuxième corps (6a) qui est en liaison avec l'élément de guidage (7),
- au moins un deuxième canal de guidage (6b) qui est en liaison avec le deuxième corps (6a) sur un côté de celui-ci, s'étend à l'écart du deuxième corps (6a), et dans lequel la première goupille de guidage (5a) est logée, dans lequel l'extrémité libre du deuxième canal de guidage (6b) qui n'est pas en liaison avec le deuxième corps (6a) est fermée, et
- au moins une deuxième goupille de guidage (6c) qui est située sur le côté du deuxième corps (6a) faisant face au deuxième composant de support (S2) de telle sorte qu'une distance est prévue entre le deuxième canal de guidage (6b) et la deuxième goupille de guidage (6c), qui est en connexion avec le deuxième corps (6a) d'un côté, et est logée dans le canal de mouvement (4a) de l'autre côté opposé, et qui se déplace à l'intérieur du canal de mouvement (4a) suite au mouvement de rotation autour du deuxième axe pour permettre au deuxième composant de support (S2) de se déplacer entre la position droite et la position inclinée, dans lequel l'élément de mouvement tourne autour du deuxième axe au moyen du deuxième canal de guidage (6b), dans lequel il est logé, suite au mouvement de la première goupille de guidage (5a) à l'intérieur du premier canal de guidage (7b) suite au mouvement de coulissement de l'élément de mouvement (5), et permet à la deuxième goupille de guidage

(6c) de se déplacer à l'intérieur du canal de mouvement (4) en raison d'un tel mouvement de rotation.

2. Panier à couverts (S) selon la revendication 1, **caractérisé en ce que** le canal de mouvement (4a) est situé de manière à s'étendre de manière linéaire le long d'un plan horizontal.
3. Panier à couverts (S) selon la revendication 1, **caractérisé en ce que** l'élément de mouvement (5) a une forme de canal ouvert aux deux extrémités dans lequel au moins une partie de l'élément de guidage (7) est reçue pour le mouvement de coulissement.
4. Panier à couverts (S) selon la revendication 1, **caractérisé en ce que** le deuxième canal de guidage (6b) s'étend dans le même plan que le deuxième corps (6a).
5. Panier à couverts (S) selon la revendication 1, **caractérisé en ce que** le panier à couverts (S) comprend un troisième canal de guidage (7c) qui est situé sur le premier corps (7a) et s'étend dans la direction verticale.
6. Panier à couverts (S) selon la revendication 5, **caractérisé en ce que** la paroi (4) comprend au moins une pièce de guidage (3) qui est logée dans le troisième canal de guidage (7c) et située sur un côté de la paroi (4) faisant face à l'élément de guidage (7).
7. Panier à couverts (S) selon la revendication 1, **caractérisé en ce que** le panier à couverts (S) comprend au moins un troisième composant de support (S3) en forme de grille, sur lequel les couverts à nettoyer peuvent être placés de manière à s'étendre le long d'un plan horizontal, qui est situé sur un côté latéral du deuxième composant de support (S2) de telle sorte que le deuxième composant de support (S2) se trouve entre le troisième composant de support (S3) et le premier composant de support (S1), et qui est relié au côté avant (1a) par au moins une première pièce de liaison (2a), et au côté arrière (1b) par au moins une deuxième pièce de liaison (2b) de manière à se déplacer entre les côtés latéraux de manière coulissante.
8. Panier à couverts (S) selon la revendication 1, **caractérisé en ce qu'**au moins une partie du côté avant (1a) et/ou du côté arrière (1b), sur laquelle se déplace la première pièce de liaison (2a) et/ou la deuxième pièce de liaison (2b), présente une structure en forme de barre.
9. Panier à couverts (S) selon la revendication 8, **caractérisé en ce que** la première pièce de liaison (2a) et/ou la deuxième pièce de liaison (2b) comprennent

au moins un canal qui est ouvert aux deux extrémités de manière à permettre à la première pièce de liaison (2a) et/ou à la deuxième pièce de liaison (2b) de se déplacer à ces endroits de manière coulissante, et qui reçoit les parties du côté avant (1a) et/ou du côté arrière (1b) sur lesquelles la première pièce de liaison (2a) et/ou la deuxième pièce de liaison (2b) se déplacent.

10. Panier à couverts (S) selon la revendication 1, **caractérisé en ce que** le premier canal de guidage (7b) comprend au moins une partie droite s'étendant entre les côtés latéraux le long de la direction horizontale, et au moins deux parties inclinées s'étendant, à chaque extrémité de la partie droite, vers un côté de l'élément de guidage (7) sur lequel l'élément de mouvement (5) se déplace de telle sorte qu'il est prévu un angle, autre que 0° et 180°, entre la partie droite et la partie inclinée.

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11. Panier à couverts (S) selon la revendication 1, **caractérisé en ce qu'**une partie du côté arrière (1b) de la structure de support (1), à laquelle le deuxième composant de support (S2) est relié, a une structure en forme de barre en forme de « U ».

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12. Panier à couverts (S) selon la revendication 11, **caractérisé en ce que** le deuxième composant de support (S2) comprend au moins une première griffe (8a) permettant au deuxième composant de support (S2) d'être relié à la partie horizontale de la forme en « U » de manière à pouvoir tourner autour de cette partie horizontale.

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13. Panier à couverts (S) selon la revendication 11 ou la revendication 12, **caractérisé en ce que** le deuxième composant de support (S2) comprend au moins une deuxième griffe (8b) qui est située au niveau du deuxième composant de support (S2) afin d'assurer que lorsque le deuxième composant de support (S2) est incliné en raison du mouvement de rotation, le deuxième composant de support (S2) reste stable et sécurisé dans cette position, et dans lequel la région verticale de la forme en « U » est située de manière mobile.

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14. Panier à couverts (S) selon la revendication 1, **caractérisé en ce que** le deuxième axe est parallèle à une ligne perpendiculaire au deuxième corps (6a) et passant par le centre du deuxième corps (6a).

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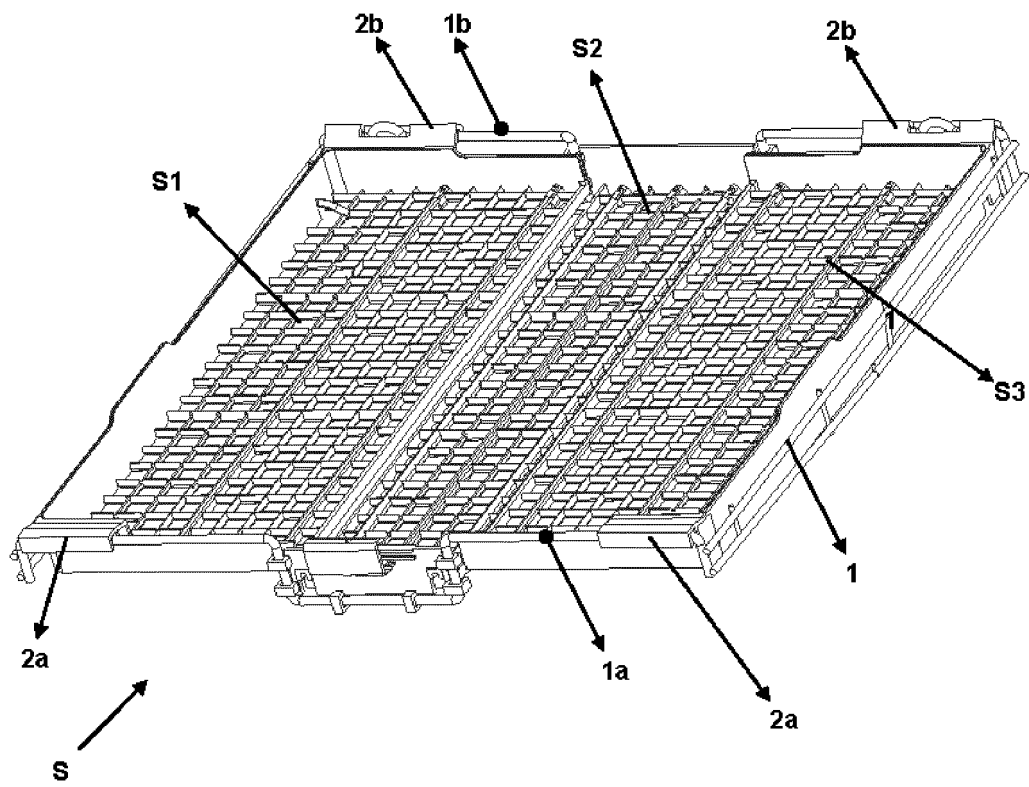


Figure – 1

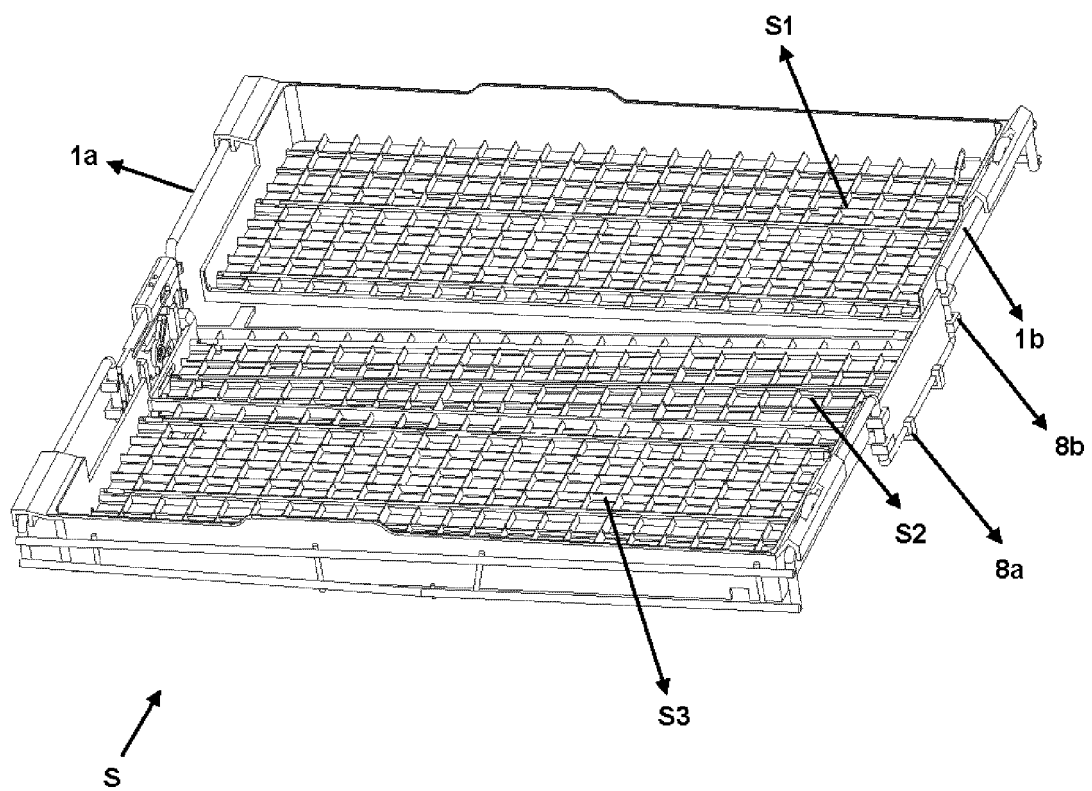


Figure – 2

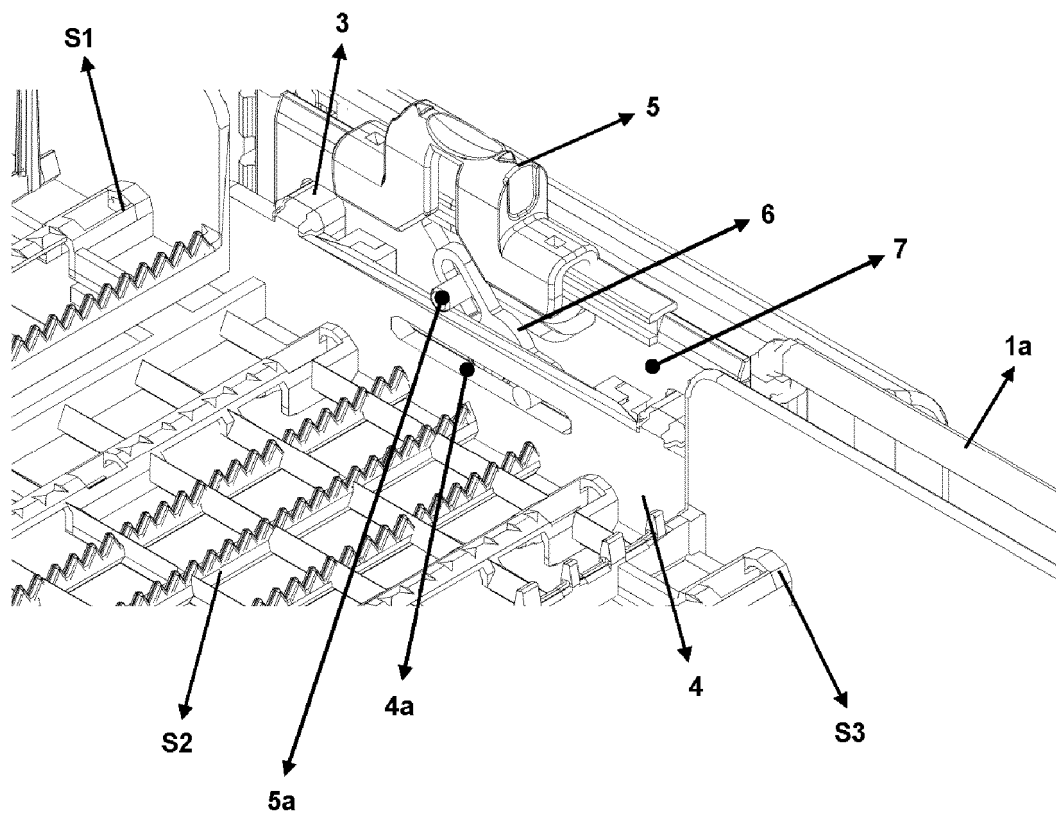


Figure – 3

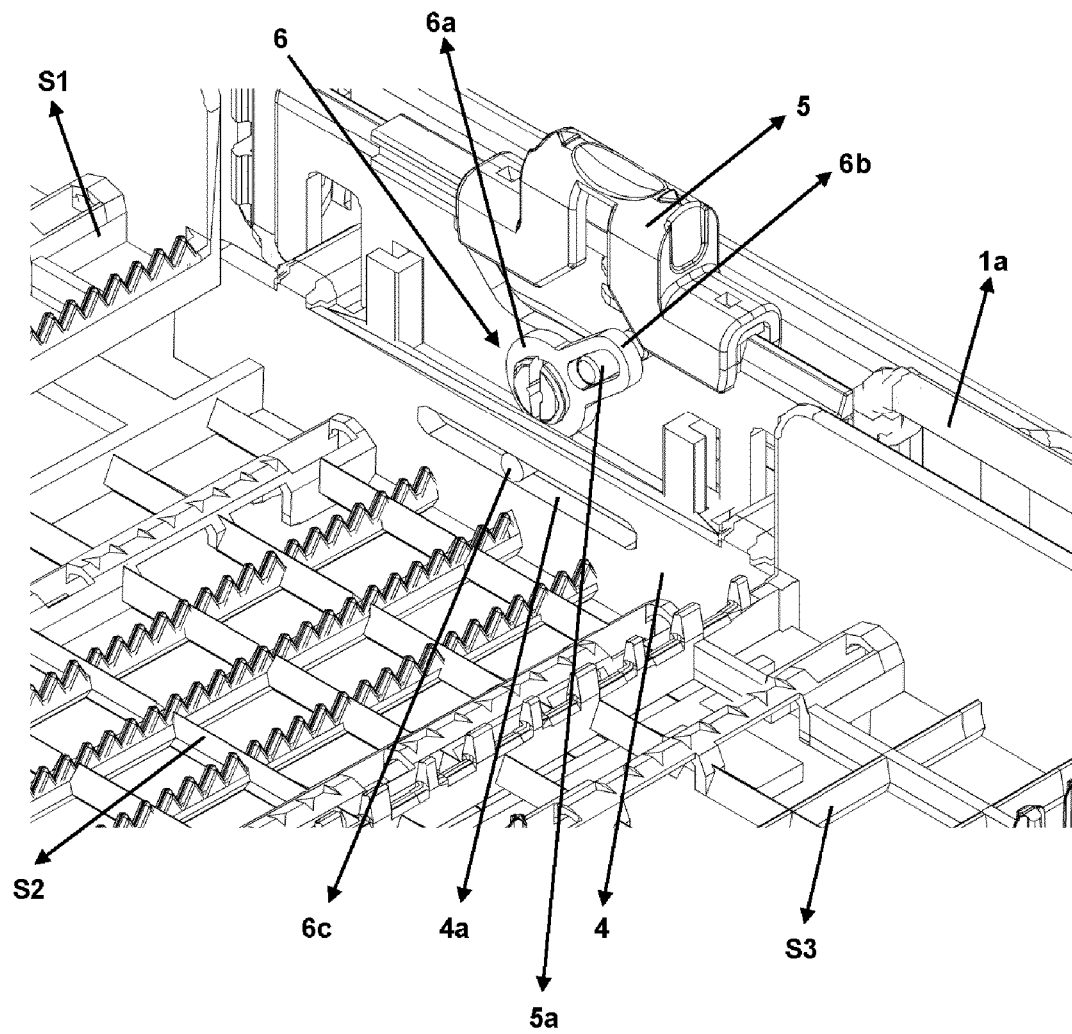


Figure - 4

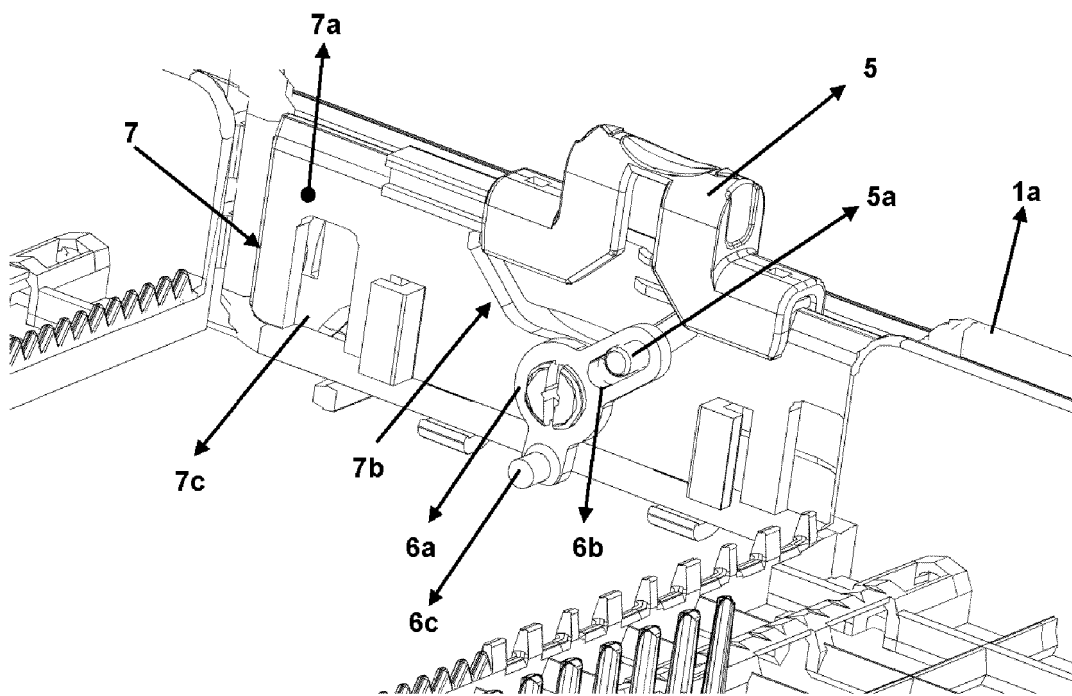


Figure – 5

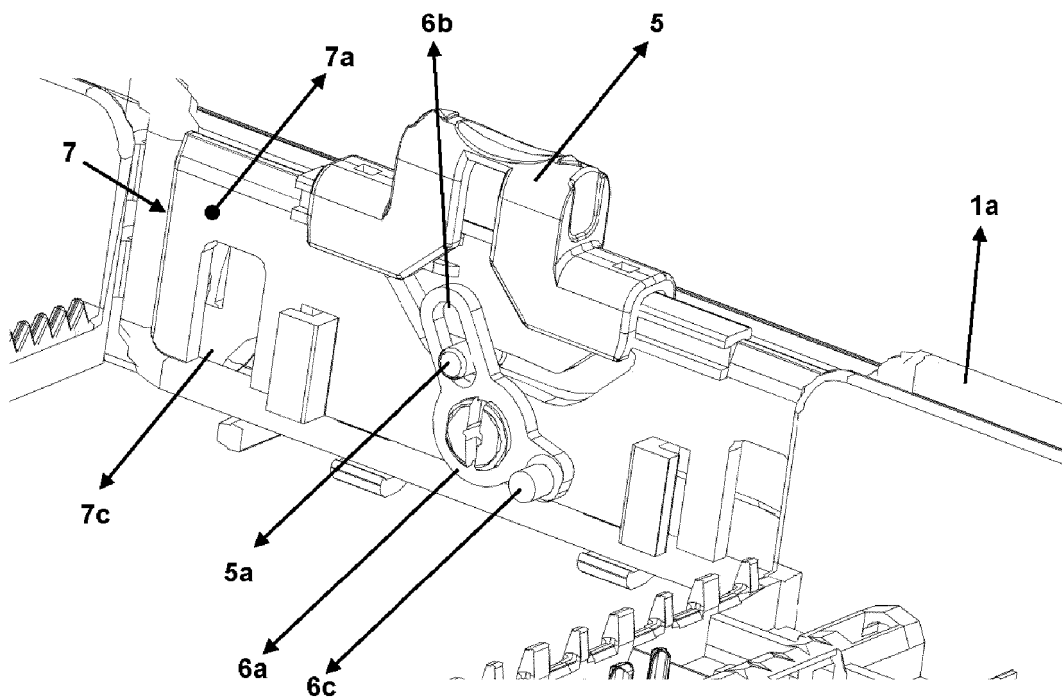


Figure – 6

REFERENCES CITED IN THE DESCRIPTION

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