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(54) Title: A DISHWASHER COMPRISING AN ADDITIONAL SPRAYING MEMBER

(57) Abstract: The present invention relates to a dishwasher (2) comprising a body (2); a washing tub (3) which is arranged in the body (2) and wherein the washing process is realized; at least one rack (4) which is disposed in the washing tub (3) and whereon the dishes to be washed are placed; at least one spraying member (5) which enables the water to be sprayed onto the rack (4) and the kitchen items to be cleaned; an additional spraying member (6) which is disposed on the rack and whereon the kitchen items requiring intensive washing are placed; and an additional water delivery line (7) which enables the water to be delivered to the additional spraying member (6).



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A DISHWASHER COMPRISING AN ADDITIONAL SPRAYING MEMBER

The present invention relates to a dishwasher comprising an additional spraying member.

In dishwashers, the washing process is realized by spraying the water received from the main delivery line onto the dishes by means of spray arms. The spraying members
5 provided on the spray arm enable the water to be sprayed onto the dishes at a certain pressure. The flow rate and pressure of the sprayed water are critical in terms of cleaning of the dishes. In the dishwashers, washing areas are formed to clean heavy stains. Additional spraying members are used to clean the stains in the washing areas. The
10 kitchen items placed onto the rack are cleaned with water pressure and detergent. Therefore, the layout of the dishes on the rack is important to perform a highly-efficient washing process. Especially tall kitchen items such as bottles and glasses with a narrow mouth cannot contact water and thus, cannot be cleaned. Therefore, a plurality of arrangement apparatuses are used in dishwashers. However, the arrangement apparatuses
15 occupy additional space and decrease the usable volume of the rack. When not in use, the arrangement apparatuses prevent the proper arrangement.

In the state of the art United States of America Patent Application Document No. US2977963, a washing machine is disclosed, comprising intensive washing sections.

The aim of the present invention is the realization of a dishwasher with improved washing
20 effectiveness.

The dishwasher realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof, comprises a body; a washing tub which is disposed in the body, wherein the washing process is performed; at least one rack which is disposed in the washing tub; and at least one spraying member which sprays water onto
25 the racks. The kitchen items to be washed are placed onto the rack. The water is delivered onto the dishes by means of the spraying member. Consequently, the cleaning process is performed. An additional spraying member is provided on the rack. Kitchen items with greater depth such as bottles and glasses are placed onto the additional spraying member.

The water is delivered to the additional spraying member by means of the additional water delivery line.

The dishwasher of the present invention comprises the additional spraying member which is disposed on the rack and at least one water delivery member which is arranged on the additional spraying member. The additional spraying member can be folded to change shape according to the positions of the kitchen items placed onto the rack. The water delivery member can be detachably attached onto the additional spraying member. Thus, the water delivery member can be removed by the user so as not to occupy space when not in use.

10 In an embodiment of the present invention, the dishwasher comprises at least one opening which is arranged on the additional spraying member and which transfers the water to the water delivery member through the additional spraying member. The water delivery member is attached onto the opening. Thus, the water is enabled to be transferred into the washing tub.

15 In an embodiment of the present invention, the dishwasher comprises the water delivery member having an open position and a closed position. When in the open position, the water delivery member extends perpendicularly to the additional spraying member. Thus, the kitchen items with greater depth can be placed on the water delivery member. When in the closed position, the water delivery member extends parallel to the additional spraying member. Thus, larger kitchen items such as pots are enabled to be washed intensively.

25 In an embodiment of the present invention, the dishwasher comprises the additional spraying member having a bearing which enables the water delivery member to be placed thereon when in the closed position. Thus, when in the closed position, the water delivery member is completely parallel to the additional spraying member and does not occupy space.

In an embodiment of the present invention, the dishwasher comprises a cover which is provided at the end of the water delivery member and a plurality of spraying openings which are arranged on the cover. The spraying openings can be opened/closed by the user

rotating the cover. Thus, the amount of water delivered from the water delivery member can be adjusted.

In an embodiment of the present invention, the dishwasher comprises the additional spraying member in the form of a frame which can be folded diagonally to change shape.

- 5 Thus, the additional spraying member can change shape according to the positions of the kitchen items placed onto the rack.

By means of the present invention, a dishwasher with increased washing efficiency is realized. By means of the modular additional spraying member, intensive washing is provided without hindering the placement of the kitchen items on the rack.

- 10 A dishwasher realized in order to attain the aim of the present invention is illustrated in the attached figures, where:

Figure 1 - is the perspective view of a dishwasher.

Figure 2 – is the perspective view of the additional spraying member when the water delivery member is in the open position in an embodiment of the present invention.

- 15 Figure 3 – is the perspective view of the additional spraying member when the water delivery member is in the closed position in another embodiment of the present invention.

Figure 4 – is the perspective view of the additional spraying member in another embodiment of the present invention.

- Figure 5 – is the perspective view of the additional spraying member in another
20 embodiment of the present invention.

Figure 6 – is the view of the cover and the spraying opening in another embodiment of the present invention.

The elements illustrated in the figures are numbered as follows:

- 1- Dishwasher
25 2- Body
3- Washing tub
4- Rack

- 5- Spraying member
- 6- Additional spraying member
- 7- Additional water delivery line
- 8- Water delivery member
- 5 9- Opening
- 10- Support
- 11- Cover
- 12- Spraying opening

The dishwasher (1) comprises a body (2); a washing tub (3) which is arranged in the body (2) and wherein the washing process is realized; at least one rack (4) which is disposed in the washing tub (3) and whereon the dishes to be washed are placed; at least one spraying member (5) which enables the water to be sprayed onto the rack (4) and the kitchen items to be cleaned; an additional spraying member (6) which is disposed on the rack and whereon the kitchen items requiring intensive washing are placed; and an additional water delivery line (7) which enables the water to be delivered to the additional spraying member (6). The kitchen items are placed onto the rack (4) by the user. The cleaning is performed by sending pressurized water onto the rack (4) by means of the spraying members (5). Kitchen items with heavy stains or kitchen items with greater depth such as glasses and bottles are cleaned by means of intensive washing. Intensive washing is realized by means of the additional spraying members (6). Water is delivered to the additional spraying member (6) through the additional water delivery line (7).

The dishwasher (1) of the present invention comprises the additional spraying member (6) which can be folded to change shape according to the positions of the kitchen items placed onto the rack (4), and at least one water delivery member (8) which can be detachably attached to the additional spraying member (6). The additional spraying member (6) can change shape as per user preference according to the positions of the kitchen items on the rack (4). The additional spraying member (6) can be folded so as to be used in different shapes, and thus, the water can be delivered to different areas. The

additional water delivery line (7) is detachably mounted onto the additional spraying member (6). Thus, the water can be delivered to a wider area.

In an embodiment of the present invention, the dishwasher (1) comprises at least one opening (9) which is arranged on the additional spraying member (6) and which transfers the water to the water delivery member (8), and the water delivery member (8) which is disposed on the opening (9) to deliver the water to the washing tub (3). By means of the openings (9) on the additional spraying member (6), the water is delivered to the water delivery member (8). Thus, the water reaches the washing tub (3). A water delivery member (8) is disposed on each opening (9).

In an embodiment of the present invention, the dishwasher (1) comprises the water delivery means (8) having an open position wherein the water delivery member (8) extends perpendicularly to the additional spraying member (6) and kitchen items with greater depth such as bottles and glasses are placed thereon, and a closed position wherein the water delivery member (8) extends parallel to the additional spraying member (6) and kitchen items which larger width such as pots are placed thereon. When in the open position, the water delivery member (8) extends perpendicularly to the base of the rack (4) and the additional spraying member (6). Thereby, the water delivery member (8) creates a protrusion on the rack (4) and the kitchen items to be cleaned can be placed thereon. When in the closed position, the water delivery member (8) extends parallel to the base of the rack (4) and the additional spraying member (6). Thus, the water is sprayed from the base of the rack (4), and kitchen items with larger width are enabled to be washed intensively.

In an embodiment of the present invention, the dishwasher (1) comprises the additional spraying member (6) having a bearing (10) which enables the water delivery member (8) to be placed thereon when in the closed position. The water delivery member (8) is placed onto the bearing (10) when in the closed position. Thus, the water delivery member (8) is prevented from occupying space.

In an embodiment of the present invention, the dishwasher (1) comprises a cover (11) which is provided at the end of the water delivery member (8) and a plurality of spraying openings (12) which are arranged on the cover (11) and which enable the amount of water

to be adjusted with the rotation of the cover (11). The spraying openings (12) on the cover (11) are opened/closed as the cover (11) is rotated. Thus, the amount of water can be adjusted. The water delivery members (8) which are not to be used can be closed completely. Thus, water is directed towards the areas wherein the kitchen items are placed, providing savings in water consumption.

In an embodiment of the present invention, the dishwasher (1) comprises the additional spraying member (6) in the form of a frame which can be folded diagonally to change shape. The additional spraying member (6) is folded diagonally as per user preference. Thereby, the area provided with the intensive washing can be changed.

- 10 By means of the present invention, a dishwasher (1) with increased washing efficiency is realized. By changing the shape of the additional spraying member (6), the area the water reaches can be changed. Thus, savings in water consumption is provided and washing efficiency is increased.

CLAIMS

- 1- A dishwasher (1) **comprising** a body (2); a washing tub (3) which is arranged in the body (2) and wherein the washing process is realized; at least one rack (4) which is disposed in the washing tub (3) and whereon the dishes to be washed are placed; at least one spraying member (5) which enables the water to be sprayed onto the rack (4) and the kitchen items to be cleaned; an additional spraying member (6) which is disposed on the rack and whereon the kitchen items requiring intensive washing are placed; and an additional water delivery line (7) which enables the water to be delivered to the additional spraying member (6), **characterized by** the additional spraying member (6) which can be folded to change shape according to the positions of the kitchen items placed onto the rack (4), and at least one water delivery member (8) which can be detachably attached to the additional spraying member (6).
- 2- A dishwasher (1) as in Claim 1, **characterized by** at least one opening (9) which is arranged on the additional spraying member (6) and which transfers the water to the water delivery member (8), and the water delivery member (8) which is disposed on the opening (9) to deliver the water to the washing tub (3).
- 3- A dishwasher (1) as in Claim 1 and Claim 2, **characterized by** the water delivery means (8) having an open position wherein the water delivery member (8) extends perpendicularly to the additional spraying member (6) and kitchen items with greater depth such as bottles and glasses are placed thereon, and a closed position wherein the water delivery member (8) extends parallel to the additional spraying member (6) and kitchen items which larger width such as pots are placed thereon.
- 4- A dishwasher (1) as in Claim 3, **characterized by** the additional spraying member (6) having a bearing (10) which enables the water delivery member (8) to be placed thereon when in the closed position.
- 5- A dishwasher (1) as in any one of the above claims, **characterized by** a cover (11) which is provided at the end of the water delivery member (8) and a plurality

of spraying openings (12) which are arranged on the cover (11) and which enable the amount of water to be adjusted with the rotation of the cover (11).

- 5 **6-** A dishwasher (1) as in any one of the above claims, **characterized by** the additional spraying member (6) in the form of a frame which can be folded diagonally to change shape.

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Figure 1

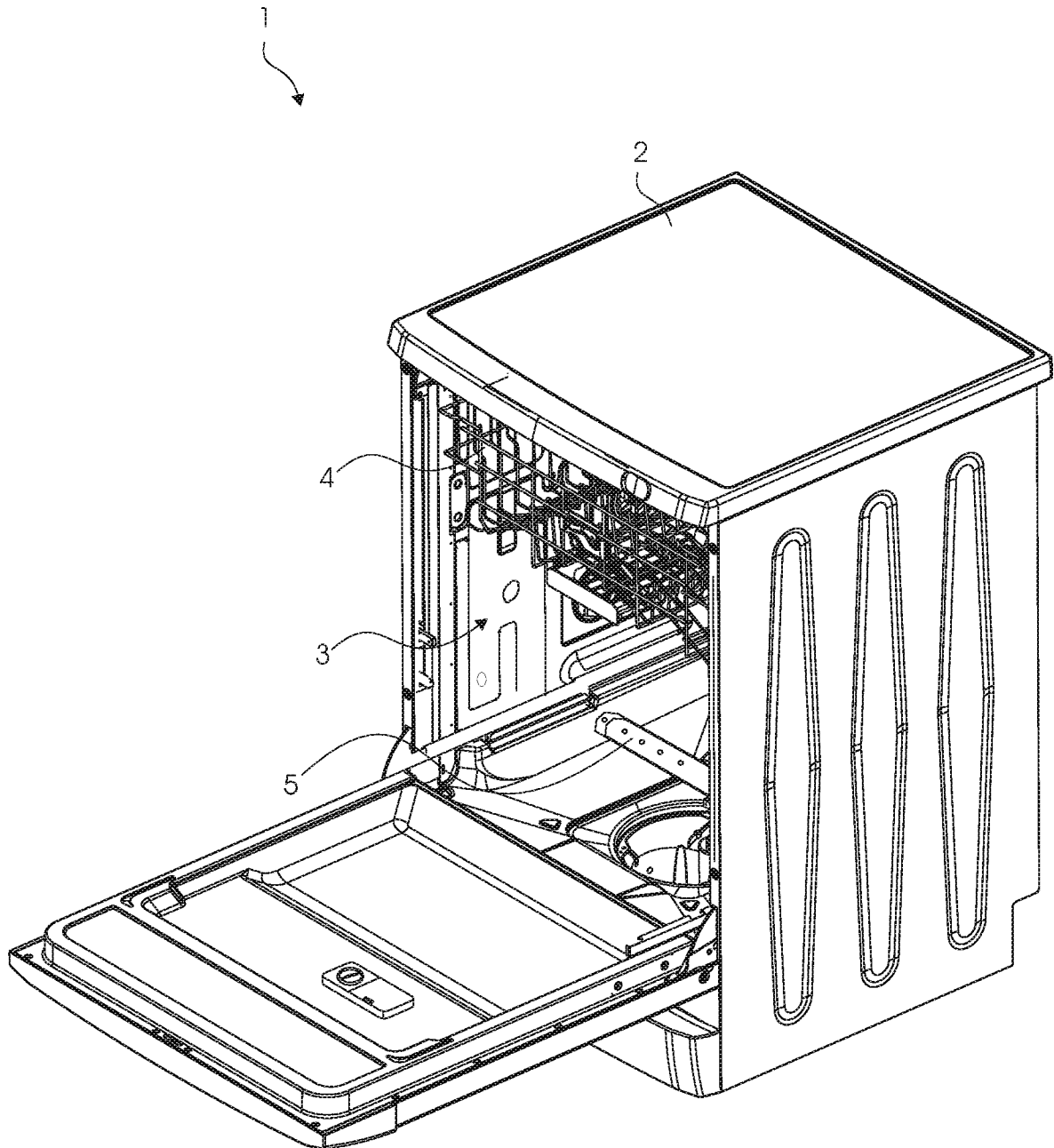
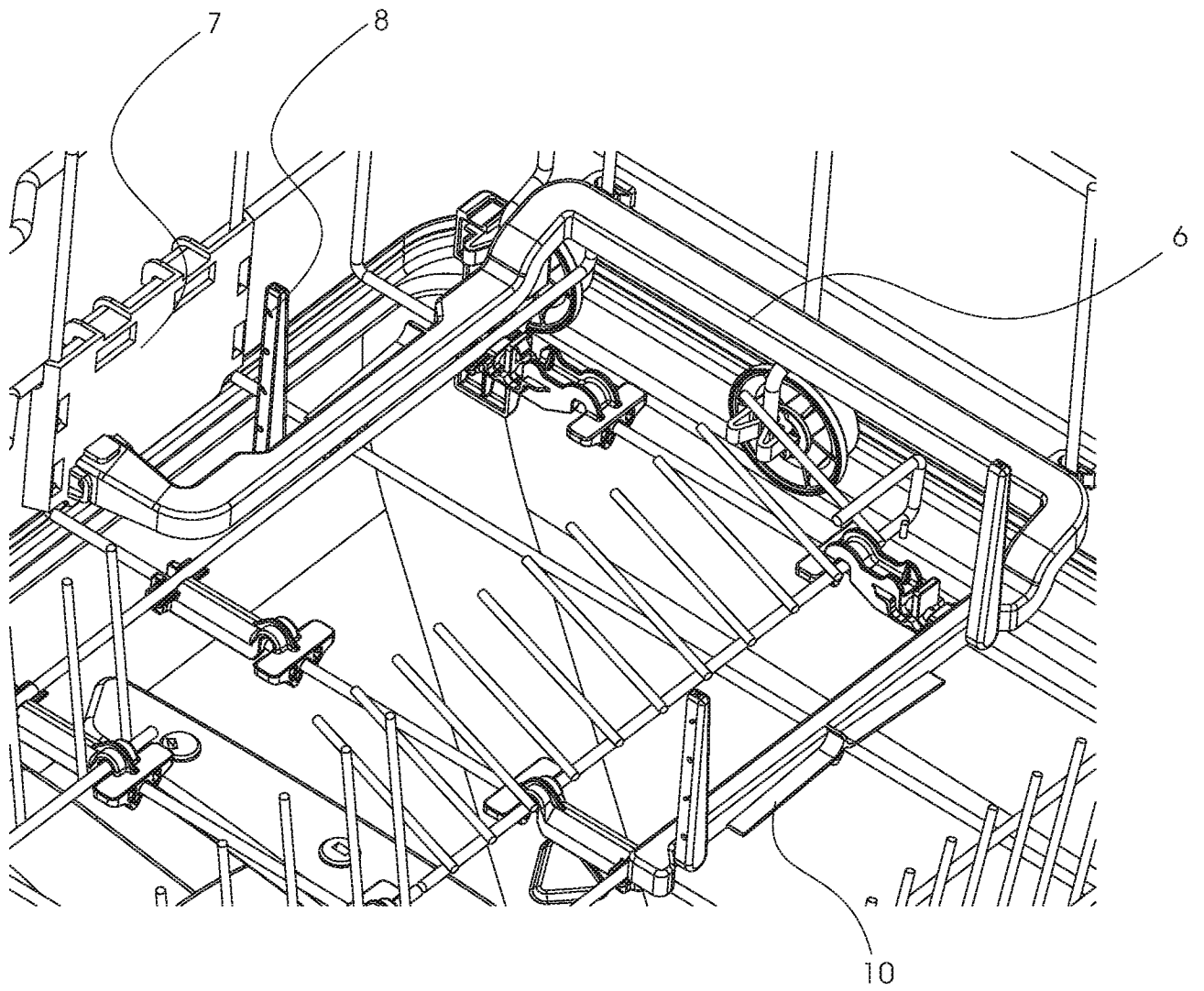


Figure 2



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Figure 3

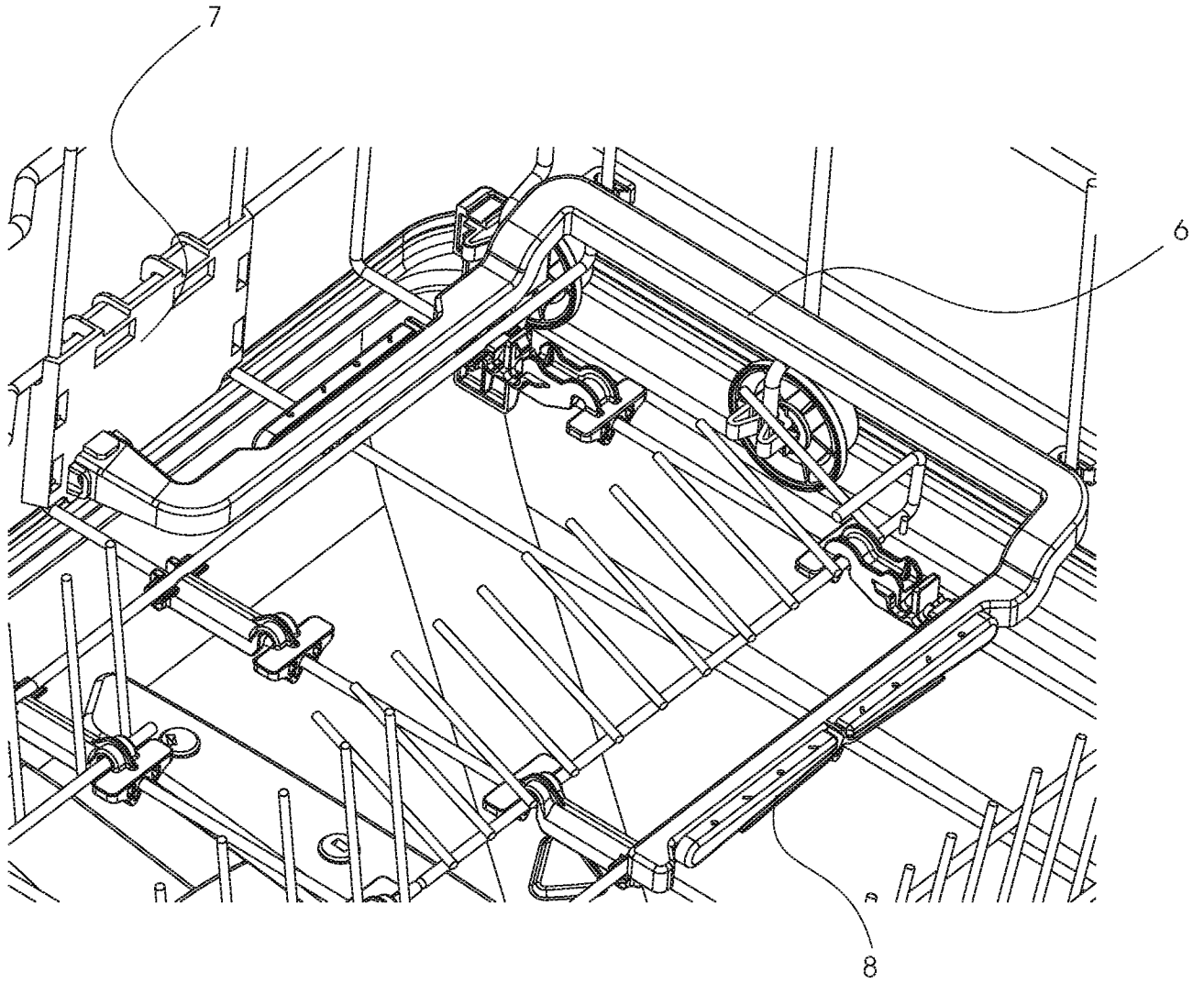


Figure 4

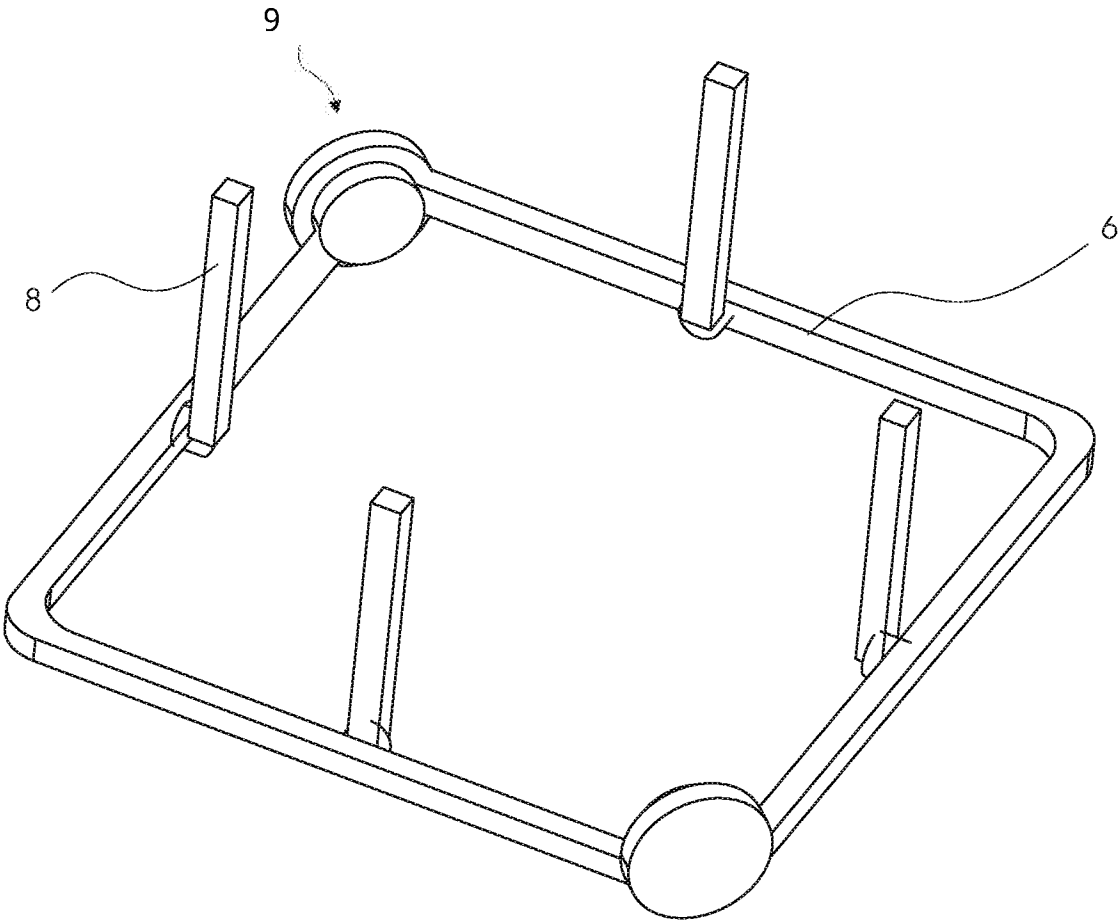


Figure 5

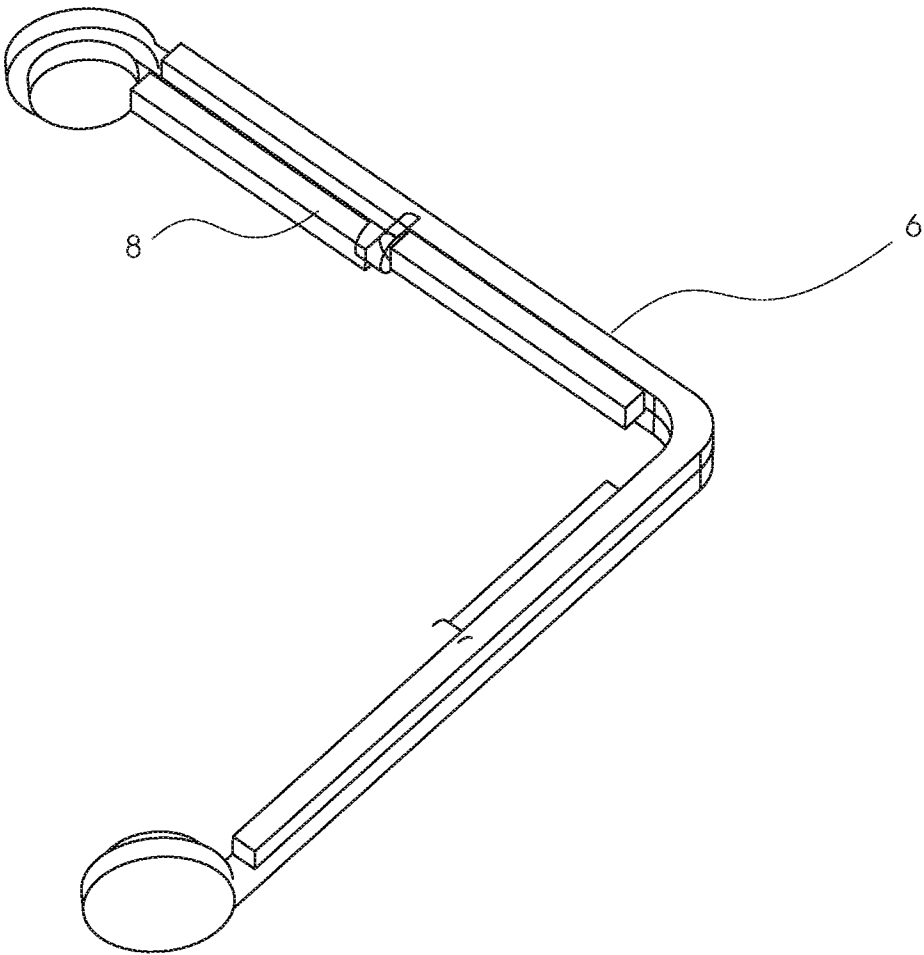


Figure 6

