A cutlery drawer for dishwashers is provided that includes a base section on which holding elements for holding the cutlery are provided. Each holding device has two fastening sections attached to the base section and a center section that connects the two fastening sections to each other.
CUTLERY DRAWER FOR A DISHWASHER

[0001] The invention relates to a cutlery drawer for dishwashers in accordance with the preamble of claim 1.

[0002] A cutlery drawer for a dishwasher is known from DE 3721689 A1 which is arranged in a dishwasher interior. In order to prevent undesired shifting of items cutlery during a washing process onto the impinging washing plate, the cutlery drawer, in addition to support points, also features holding means fastened to the base section of the cutlery drawer and extending at a right angle upwards in the form of rods and thus forming lateral support surfaces serving to hold inserted cutlery items. These rod-type holding means have a low mechanical stability however and also make it difficult to insert items of cutlery since a precise positioning of the cutlery items is required for this, which demands great care from an operator.

[0003] The object of the invention is thus to further develop a cutlery drawer for dishwashers so as to make operation easier.

[0004] The object of the invention is achieved by a cutlery drawer for dishwashers, at least comprising a base section on which at least holding means for holding cutlery are arranged, with the cutlery drawer being characterized by the holding means featuring at least two fastening sections, with which the holding means are attached to the base section and a center section that connects the at least two fastening sections to each other. Thus, on the one hand the mechanical stability of the holding means and on the other hand the positioning of cutlery is simplified, since an operator can simply orient themselves on the center section when inserting cutlery, with the center section that connects the two fastening sections increasing the stability of the holding means.

[0005] Preferably there is provision for the at least two fastening sections to be embodied for holding items of cutlery, i.e. for the two fastening sections to be arranged along a straight line, which essentially runs in parallel to a longitudinal axis of a inserted item of cutlery, so that at least two fastening sections hold onto at least two sections of an item of cutlery. This guarantees a secure hold during operation in the dishwasher and simultaneously allows the contact surface between an item of cutlery and the holding means to be reduced in order to counter an undesired staining during drying of the cutlery.

[0006] In a preferred embodiment there is provision for the at least two fastening sections to be embodied for holding items of cutlery on both sides, i.e. for the holding means, consisting of at least two fastening sections and a center section joining the two fastening sections, to be embodied symmetrically and to interact with a holding means arranged adjacent to them in each case.

[0007] Preferably there is provision for the at least two fastening sections and the center section to have an identical cross section. Thus the two fastening sections and the center sections merge seamlessly into each other, which counteracts any undesired drop formation or adhesion.

[0008] However it is also possible for the at least two fastening sections and/or the center section to have different cross sections.

[0009] The at least two fastening sections and the center section can have any shape of cross section, for example a half-round or half-oval cross section. It is also conceivable for the at least two fastening sections and the center section to have a rectangular cross section, a hexagonal cross section or a cross section featuring a larger number of corners. Preferably however there is provision for the at least two fastening sections and the center section to have a triangular cross section. In this case the two fastening sections and the center section are arranged and embodied such that items of cutlery inserted rest against one edge of the triangular cross section, so that the contact surface is minimized and staining is largely avoided.

[0010] The base section of the cutlery drawer, the at least two fastening sections and the center section can be made up of individual components which are joined together during an assembly process. Preferably however there is provision for the base section, the at least two fastening sections and the center section to be embodied in one piece. To this end the base section of the cutlery drawer, the at least two fastening sections and the center section can be manufactured from a suitable plastic, e.g. by means of injection molding, with the plastic being appropriately temperature- and chemical-resistant in accordance with use inside a dishwasher.

[0011] The center section which connects at least two attachment sections of the holding means to each other can take any form, featuring notches for example. Preferably there is provision however for the center section to be arched in order to guarantee that washing liquor can flow without any problems and without leaving residue during the drying program.

[0012] Furthermore there is preferably provision for the holding means to be embodied in the form of a loop, i.e. for at least two fastening sections and the center section to be embodied essentially without transitions or kink-free in the form of a hyperbola going over into each other.

[0013] In this case there is preferably provision for two holding means together to form a holder for a cutlery item, i.e. an item of cutlery is held by a total of four fastening sections by two holding means during a washing process and is secured in this way from undesired shifting.

[0014] To this end the holding means are preferably arranged in at least one row, so that the holding means are arranged next to each other and especially the holding means up to the holding means arranged at the end of the row are embodied for holding items of cutlery on both sides, so that a minimum number of holding means can hold a maximum number of items of cutlery.

[0015] Furthermore the invention belongs to a dishwasher featuring at least one cutlery drawer of this type.

[0016] The embodiments are explained below with reference to a drawing. The figures show

[0017] FIG. 1 a perspective diagram of a section of an inventive cutlery drawer,

[0018] FIG. 2 a front view of an inventive exemplary embodiment,

[0019] FIG. 3 an overhead view of an inventive exemplary embodiment, and

[0020] FIG. 4 a perspective view of an inventive exemplary embodiment of the invention.

[0021] The explanations refer to FIG. 1 through FIG. 4.

[0022] The figures show a base section 2 of a cutlery drawer 14 for dishwashers (not shown) which has a plurality of holding means 4 arranged adjacent to each other in a row, with the base section 2 of the cutlery drawer 14 and the holding means 4 being formed in one piece, from a suitable plastic. Two adjacent holding means 4 in each case form a support
space 16 into which an item of cutlery, such as a knife 18 or also a spoon or a fork, can be inserted in this exemplary embodiment.

[0023] In this case the holding means arranged in a row, with their symmetrical design embodied to hold the cutlery on both sides, allow a maximum number of items of cutlery 6 to be securely held during a washing process in a cutlery drawer 14 by a minimum number of holding means.

[0024] The holding means 4 each feature a fastening section 8, 10 which is fastened to the base section 2 of the cutlery drawer. The two fastening sections 8, 10 are connected to each other by an arched center section 12, so that the two fastening sections 8, 10 and the center section 12 have a kink-free loop-shaped design. In this case the two fastening sections 8, 10 and the center section 12 have the same cross section, which is embodied as a triangle.

[0025] The two holding elements 4 arranged adjacent to each other are arranged in relation to each other in this case so that the two fastening sections 8, 10 of the two holding means 4 are each arranged on one side of an item of cutlery 6 to be held and thus guarantee that inserted knives remain standing on the cutting edge 20 of the blade 22. In this case the holding means are arranged so that the edges formed by the triangular cross section form holding surfaces for the inserted items of cutlery, so that the contact surface between the edges and the item of cutlery 6 is minimized and it is thus guaranteed that scratching is reduced during the drying process.

[0026] In this case the insertion of an item of cutlery is simplified since an operator can orient themselves to the arched center section 12 when inserting the cutlery item 6 and during further insertion of the cutlery item 6, said item aligns itself by contact with the fastening sections 8, 10 forming the holding surfaces, so that an optimum use of space is guaranteed.

LIST OF REFERENCE SYMBOLS

2 Base section
4 Holding means
6 Cutlery item
8 Fastening section
10 Fastening section
12 Center section
14 Cutlery drawer
16 Support space
18 Knife
20 Cutting edge
22 Blade

1-11. (canceled)
12. A cutlery drawer for dishwashers comprising:
a base section; and
a holding device for holding a cutlery item, the holding
device including two fastening sections that fasten the
holding device to the base section and a center section
that connects the two fastening sections to each other.
13. The cutlery drawer as claimed in claim 12, wherein
the two fastening sections are configured for holding an item
of cutlery.
14. The cutlery drawer as claimed in claim 12, wherein
the two fastening sections are configured to hold an item
of cutlery on both sides of the item.
15. The cutlery drawer as claimed in claim 12, wherein
the two fastening sections and the center section have an identical
cross section.
16. The cutlery drawer as claimed in claim 12, wherein
the two fastening sections and the center section have a triangular
cross section.
17. The cutlery drawer as claimed in claim 12, wherein
the base section, the two fastening sections, and the center section
are formed as a single piece.
18. The cutlery drawer as claimed in claim 12, wherein
the center section is configured in the shape of an arch.
19. The cutlery drawer as claimed in claim 12, wherein
the holding device is configured in the shape of a loop.
20. The cutlery drawer as claimed in claim 12 and further
comprising a second holding device for holding a cutlery
item, the second holding device including two fastening
sections that fasten the second holding device to the base section
and a center section that connects the two fastening sections
to each other, and the two holding devices form a support for
an item of cutlery.
21. The cutlery drawer as claimed in claim 20 and further
comprising further holding devices for holding cutlery items,
each further holding device including two fastening sections
that fasten the holding device to the base section and a center
section that connects the two fastening sections to each other,
and the holding devices are arranged in a row.

22. A dishwasher comprising:
an interior in which items to be handled by the dishwasher
can be received; and
a cutlery drawer having a base section and a holding device
for holding a cutlery item, the holding device including
two fastening sections that fasten the holding device to
the base section and a center section that connects the two
fastening sections to each other.

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