



(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
27.01.2021 Bulletin 2021/04

(51) Int Cl.:
A47L 15/50 ^(2006.01)

(21) Application number: **18910514.1**

(86) International application number:
PCT/CN2018/113678

(22) Date of filing: **02.11.2018**

(87) International publication number:
WO 2019/179116 (26.09.2019 Gazette 2019/39)

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

(72) Inventors:
• **ZHANG, Jidong**
Zhuhai, Guangdong 519070 (CN)
• **LI, Shuguang**
Zhuhai, Guangdong 519070 (CN)
• **HUANG, Jinjie**
Zhuhai, Guangdong 519070 (CN)
• **ZENG, Qi**
Zhuhai, Guangdong 519070 (CN)

(30) Priority: **20.03.2018 CN 201810230753**

(74) Representative: **Zacco GmbH**
Bayerstrasse 83
80335 München (DE)

(71) Applicants:
• **Gree Electric Appliances (Wuhan) Co., Ltd.**
Wuhan, Hubei 430000 (CN)
• **Gree Electric Appliances, Inc. of Zhuhai**
Zhuhai, Guangdong 519070 (CN)

(54) **CUP HOLDER, DISHWARE BASKET ASSEMBLY HAVING SAME, AND DISHWASHER**

(57) A cup holder (2), a bowl basket assembly with the cup holder, and a dishwasher are disclosed. The cup holder (2) is configured to be mounted on a dishwasher bowl basket (1) and includes a cup bracket (25) and a goblet bayonet (23). The cup bracket (25) is configured to place a cup. The goblet bayonet (23) is provided on a first side of the cup bracket (25) and is configured to accommodate a foot of a goblet. A second side of the cup bracket is provided with a mounting portion for mounting the cup holder (2) on the dishwasher bowl basket (1). The first side and the second side are opposite sides of the cup bracket in a width direction. When the cup holder (2) is mounted on the corresponding dishwasher bowl basket (1), many different types of cups can be placed simultaneously. For example, a tea cup and a mug and the like are placed on the cup bracket (25). The goblet bayonet is used for placing the goblet to make full use of the space of the dishwasher bowl basket (25), and the convenience and flexibility of the corresponding dishwasher products are improved.

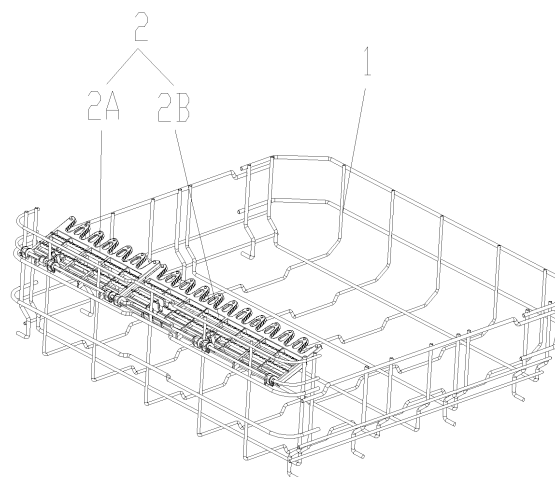


Fig. 1

Description

Related Applications

[0001] This application claims priority to Chinese Patent Application No.201810230753.X, filed on March 20, 2018, and entitled "Cup Holder, Bowl Basket Assembly with the Cup Holder, and Dishwasher", the disclosure of which is hereby incorporated in its entirety by reference.

Technical Field

[0002] The present disclosure relates to a technical field of dishwashers, and more particularly to a cup holder, a bowl basket assembly with the cup holder, and a dishwasher.

Background

[0003] A dishwasher bowl basket, serving as a carrier to hold tableware, is one of the key parts of a dishwasher. In the bowl basket, it is necessary to better place more tableware and cups in a limited space. Compared with the placement of tableware such as bowls and plates, the placement of cups is often more difficult and the space utilization rate is lower. It is necessary to consider the placement of different types of cups such as mugs, tea cups, and goblets. In the device known to the inventors, cup holders are generally used to place cups. However, the cup holders of the device known to the inventors generally have a single structure, and different types of cups cannot be placed at the same time. In order to place different cups, multiple different cup holders and cup brackets are often needed, which lead to complex structure and high cost.

Summary

[0004] Based on the above situation, embodiments of the present disclosure provide a cup holder, which can conveniently place different types of cups, thereby improving the convenience and flexibility of corresponding products, and facilitating space and cost saving.

[0005] The present disclosure adopts the following technical solutions.

[0006] A cup holder is configured to be mounted on a dishwasher bowl basket and includes a cup bracket and a goblet bayonet. The cup bracket is configured to place a cup. The goblet bayonet is provided on a first side of the cup bracket and is configured to accommodate a foot of a goblet. A second side of the cup bracket is provided with a mounting portion for mounting the cup holder on the dishwasher bowl basket. The first side and the second side are opposite sides of the cup bracket in a width direction.

[0007] In some embodiments, the cup bracket includes crossed transverse beams and longitudinal beams. At least one of the transverse beams and/or at least one of

the longitudinal beams is provided with a first corrugated structure for limiting a cup opening of a cup; and/or,

[0008] the goblet bayonet includes a first bayonet wall and a second bayonet wall opposite to each other. At least one of the first bayonet wall and the second bayonet wall is provided with a second corrugated structure for limiting the foot of the goblet.

[0009] In some embodiments, the first side of the cup bracket is provided with a plurality of goblet notches, arranged in a zigzag shape; and/or, the goblet bayonet is of a U shape with an opening gradually increased; and/or,

a limiting protrusion is provided at an outer edge of the goblet bayonet, and a protruding direction of the limiting protrusion is toward a front side of the cup bracket.

[0010] In some embodiments, the mounting portion is rotatably connected to the dishwasher bowl basket, so that the cup holder is switched between an accommodation position and a working position.

[0011] In some embodiments, the mounting portion includes a mounting buckle for buckling on a first rib of the dishwasher bowl basket so that the cup holder is rotated around the first rib.

[0012] In some embodiments, the mounting buckle includes a first hook portion and a second hook portion. The first hook portion is configured to hook the first rib. The second hook portion is disposed at a free end of the first hook portion and extends toward an inner side of the first hook portion to prevent the first rib from being separated from the first hook portion.

[0013] In some embodiments, an outer side surface of the second hook portion is an inclined surface for guiding the first rib when buckled on the first rib.

[0014] In some embodiments, the second side of the cup bracket is further provided with a limiting portion. When the cup holder is rotated to the working position, the limiting portion abuts against a second rib of the dishwasher bowl basket.

[0015] In some embodiments, the limiting portion includes a convex rib protruding outward in the width direction of the cup bracket.

[0016] In some embodiments, the cup holder further includes an accommodating and locking structure for locking the cup holder relative to the dishwasher bowl basket when the cup holder is at the accommodation position.

[0017] In some embodiments, the accommodating and locking structure includes a snap structure disposed on the cup bracket for snapping onto the rib of the dishwasher bowl basket.

[0018] Embodiments of the present disclosure provide a bowl basket assembly, which adopts the following technical solution.

[0019] The bowl basket assembly includes a dishwasher bowl basket and the aforementioned cup holder. The cup holder is mounted on the dishwasher bowl basket.

[0020] In some embodiments, the cup holder includes a first cup holder and a second cup holder arranged side

by side and independent of each other.

[0021] In some embodiments, the first cup holder and the second cup holder have different lengths.

[0022] Embodiments of the present disclosure provide a dishwasher, which includes the aforementioned bowl basket assembly.

[0023] When the cup holder of the present disclosure is mounted on the corresponding dishwasher bowl basket, many different types of cups can be placed simultaneously. For example, a tea cup and a mug and the like are placed on the cup bracket. The goblet bayonet is used for placing the goblet to make full use of the space of the dishwasher bowl basket, and the convenience and flexibility of the corresponding dishwasher products are improved.

Brief Description of the Drawings

[0024] The implementation manners of the cup holder and the bowl basket assembly with the same according to the present disclosure will be described below with reference to the drawings. In the drawings:

Fig. 1 is a schematic structure diagram of a bowl basket assembly according to a implementation manner of the present disclosure, where a cup holder according to a implementation manner of the present disclosure is included;

Fig. 2 is a schematic structure diagram of a cup holder according to a implementation manner of the present disclosure from a perspective;

Fig. 3 is a schematic structure diagram of the cup holder in Fig. 2 from another perspective;

Fig. 4 is a schematic front view of the bowl basket assembly of Fig. 1, where the cup holder is at a working position;

Fig. 5 is a part of a schematic left view of Fig. 4;

Fig. 6 is a schematic front view of the bowl basket assembly of Fig. 1, where the cup holder is at an accommodation position;

Fig. 7 is a part of a schematic left view of Fig. 6; and

Fig. 8 schematically illustrates a structure of a mounting portion of a cup holder according to the present disclosure.

Detailed Description of the Embodiments

[0025] First, referring to Fig. 1, the present disclosure provides a bowl basket assembly, which includes a dishwasher bowl basket 1 and a cup holder 2. The cup holder 2 is mounted on the dishwasher bowl basket 1. The bowl basket assembly of the present disclosure is configured to carry tableware, cups and the like in a dishwasher.

[0026] According to a first aspect of the present disclosure, as shown in Fig. 2 to Fig. 3, the cup holder 2 of the present disclosure includes a cup bracket 25 and a goblet bayonet 23. The cup bracket 25 is, for example, a main structure of the cup holder 2 and serves to support and

fix cups, and is configured to place cup openings of various cups. For example, the corresponding cups can be placed upside down on the cup bracket 25. The goblet bayonet 23 is provided on a first side of the cup bracket 25 for accommodating a foot of a goblet, so as to support, limit and fix the foot of the goblet and a bottom holder. A second side of the cup bracket 25 is provided with a mounting portion 21 for mounting the cup holder 2 on the corresponding dishwasher bowl basket 1. The first side and the second side are opposite sides of the cup bracket 25 in a width direction.

[0027] When the cup holder 2 of the present disclosure is mounted on the corresponding dishwasher bowl basket 1, many different types of cups can be placed simultaneously. For example, tea cups and mugs are placed on the cup bracket 25. The goblet bayonet 23 is used for placing the goblet to make full use of the space of the dishwasher bowl basket 1, and the convenience and flexibility of the corresponding dishwasher products are improved.

[0028] In some embodiments, the goblet bayonet 23 is integrally provided on the first side of the cup bracket 25, or alternatively provided on the first side of the cup bracket 25 in a fixed connection manner, thereby integrating the goblet bayonet and the cup bracket.

[0029] In some embodiments, as shown in Fig. 2 to Fig. 3, the cup bracket 25 includes crossed transverse beams 251 and longitudinal beams 252. At least one of the transverse beams 251 and/or longitudinal beams 252 is provided with a first corrugated structure 26 for limiting a cup opening of a cup, for example, forming at least two limit points on the cup opening to effectively prevent the cup from slipping off the cup bracket 25. As shown in Fig. 3, in some embodiments, a first corrugated structure 26 is provided on two non-adjacent transverse beams 251, so that when the corresponding cup is placed on the cup bracket 25 upside down, four limit points be formed on a cup opening of a cup, and the slip prevention effect is better. It is easy to understand that the limiting effect of the first corrugated structure 26 on the transverse beam 251 on the cup in an extending direction of the transverse beam (that is, a length direction of the cup bracket 25) is particularly obvious. Similarly, the limiting effect of a first corrugated structure (not shown) on the longitudinal beam 252 on the cup in an extending direction of the longitudinal beam (that is, a width direction of the cup bracket 25) is more prominent.

[0030] In some embodiments, as shown in Fig. 2, the goblet bayonet 23 includes a first bayonet wall 231 and a second bayonet wall 232 opposite to each other. At least one of the first bayonet wall 231 and the second bayonet wall 232 is provided with a second corrugated structure 24, so as to increase the friction between the foot of the goblet and the goblet bayonet 23, thereby better limiting the foot of the goblet. In the some implementation manners shown in Fig. 2 to Fig. 3, the first bayonet wall 231 and the second bayonet wall 232 are symmetrically provided with the second corrugated structure 24,

so that the effect of limiting and slip prevention is better.

[0031] In some embodiments, the goblet bayonet 23 is of a U shape with an opening gradually increased, as shown in Fig. 2 to Fig. 3, so that it can easily adapt to feet of goblets of different diameters, and the feet of the goblets can be guided. In particular, in conjunction with the second corrugated structures 24 on the two side walls of the bayonet, a limited anti-skid effect can be better provided for goblets of various sizes and specifications.

[0032] As shown in Fig. 2 to Fig. 3, the first side of the cup bracket 25 is provided with multiple goblet notches 23. The multiple goblet notches 23 are arranged in a zig-zag shape. For example, outer ends of adjacent bayonet walls of two adjacent goblet notches 23 are smoothly connected by arc-shaped structures 233.

[0033] As shown in Fig. 3, a limiting protrusion 27 is provided at an outer edge of the goblet bayonet 23 (for example, on each arc-shaped structure 233). A protruding direction of the limiting protrusion 27 is toward a front side of the cup bracket 25, and is, for example, consistent with a carrying direction of the cup bracket 25. Here, the front side of the cup bracket 25 refers to a side for placing cups in a working state, for example, a side facing upward. Accordingly, the carrying direction of the cup bracket 25 is an outward normal direction of the front side. The limiting protrusion 27 effectively limit the cup on the cup holder 2 to prevent the cup from sliding on the cup bracket 25 in the width direction, especially outward, thereby ensuring the fixing and washing effect of the cup.

[0034] In some embodiments, the mounting portion 21 is rotatably connected to the dishwasher bowl basket 1, so that the cup holder 2 is switched (for example, in a rotating manner) between an accommodation position (as shown in Fig. 6 to Fig. 7) and a working position (as shown in Fig. 1, and Fig. 4 to Fig. 5). For example, when the cup holder 2 is rotated to the accommodation position, it can be in an upright state, and is as close as possible to the side of the dishwasher bowl basket 1, so that the inner space of the bowl basket is hardly occupied. When the cup holder 2 is rotated to the working position, it can be at an inclined position (the first side of the cup bracket 25 is higher than the second side) or a horizontal position, so that the cup can be carried. It can be seen that in the present disclosure, the cup holder 2 can be prevented from occupying the limited space of the dishwasher bowl basket 1 when the cup holder 2 is not in use by rotating the cup holder 2 to be stored, thereby further improving the convenience and flexibility of the dishwasher bowl basket 1. The mounting portion 21 adopt various rotating structures to achieve rotatable connection.

[0035] In some embodiments, as shown in Fig. 2 to Fig. 3, the mounting portion 21 includes a mounting buckle 210 for buckling on a first rib of the dishwasher bowl basket 1, for example, a certain transverse rib 12 or ribs in other directions, so that the cup holder 2 can be rotated around the first rib, as shown in Fig. 4 to Fig. 7. For example, the dishwasher bowl basket 1 has an iron wire-welded structure. Each iron wire can be called a rib, and

the cup holder 2 of the present disclosure can be easily mounted on a suitable iron wire through the mounting buckle 210.

[0036] In some embodiments, as shown in Fig. 8, the mounting buckle 210 includes a first hook portion 211 and a second hook portion 212, the first hook portion 211 is configured to hook the first rib (such as the transverse rib 12), the second hook portion 212 is disposed at a free end of the first hook portion 211 and extends toward an inner side of the first hook portion 211 to prevent the transverse rib 12 from being separated from the first hook portion 211. Here, the free end of the first hook portion 211 refers to an end away from the cup bracket 25, and the other end (that is, an end connected to the cup bracket 25) can be referred to as a fixed end, or as a root of the mounting buckle 210.

[0037] As shown in Fig. 8, in a mounting state, the free end of the second hook portion 212 points toward the transverse rib 12, so that the transverse rib 12 can be effectively prevented from being separated from the first hook portion 211, that is, the reliability for mounting the cup holder 2 on the dishwasher bowl basket 1 is ensured.

[0038] In some embodiments, as shown in Fig. 8, an outer side surface 2121 of the second hook portion 212 is an inclined surface, and is used to guide the transverse rib 12 when it is buckled onto the transverse rib 12, so that the mounting process is easier.

[0039] As shown in Fig. 8, the portion where the second hook portion 212 and the first hook portion 211 are connected is an arc-shaped bending portion 2122. The arc-shaped bending portion 2122 can function as an elastic hinge, and when it is buckled onto the transverse rib 12, the outer side surface 2121 of the second hook portion 212 can be pressed by the transverse rib 12 to deform the arc-shaped bending portion 2122, so that the transverse rib 12 can smoothly slide into the first hook portion 211. With the transverse rib 12 mounted in place, the outer side surface 2121 of the second hook portion 212 is no longer pressed, and the arc-shaped bending portion 2122 can rebound immediately, so that the second hook portion 212 is restored to the original position, and the transverse rib 12 cannot be separated from the first hook portion 211.

[0040] It can be seen that the mounting portion 21 makes the cup holder 2 of the present disclosure have the advantages of easy mounting and reliable mounting. For example, the mounting buckle 210 can be mounted longitudinally and downward to the transverse rib of the dishwasher bowl basket 1 in one step. The mounting is very convenient. Meanwhile, after mounting, the cup holder 2 is difficult to be separated from the dishwasher bowl basket 1.

[0041] In some embodiments, as shown in Fig. 2 to Fig. 3, the second side of the cup bracket 25 is further provided with a limiting portion 22, and when the cup holder 2 is rotated to the working position, the limiting portion 22 abuts against a second rib of the dishwasher bowl basket 1, for example, another transverse rib 13 or

ribs in other directions, as shown in Fig. 4 to Fig. 5. By setting the distance between the first rib and the second rib, the cup holder 2 can obtain a desired inclination angle in the working position.

[0042] In some embodiments, as shown in Fig. 2 to Fig. 3, the limiting portion 22 includes a convex rib protruding outward in the width direction of the cup bracket 25. The number of ribs is plural, so as to ensure the carrying capability of the cup holder 2 in order to carry more cups at the same time.

[0043] In some embodiments, the cup holder 2 of the present disclosure further includes an accommodating and locking structure for locking the cup holder 2 relative to the dishwasher bowl basket 1 when the cup holder 2 is at the accommodation position. For example, it is fixed relative to the transverse rib and/or the longitudinal rib of the dishwasher bowl basket 1 to avoid free rotating.

[0044] The accommodating and locking structure can adopt any suitable structure, as long as the cup holder 2 can be relatively fixed to the dishwasher bowl basket 1 to prevent from rotating. As an example, it can be a hook, a strap, or the like.

[0045] In some embodiments, as shown in Fig. 3, the accommodating and locking structure includes a snap structure 28 disposed on the cup bracket 25 for snapping onto the rib of the dishwasher bowl basket 1. For example, in an implementation manner shown in Fig. 6 to Fig. 7, the two snap structures 28 are snapped onto longitudinal ribs 11 and 14 of the dishwasher bowl basket 1 respectively. In an implementation manner not shown, the snap structure 28 can also be snapped onto the transverse rib of the dishwasher bowl basket 1. For example, when the cup holder 2 needs to be stored, the cup holder 2 is rotated toward the accommodation position, and when the rotating is completed, the cup holder 2 can be gently pushed to snap the snap structure 28 to the corresponding rib in one step to complete accommodating and locking. The storage process is very convenient. Similarly, when the cup holder 2 needs to be used, it is only necessary to push the cup holder 2 slightly toward the working position, so that the snap structure 28 can be disconnected from the corresponding rib, thereby rotating the cup holder 2 to the working position. The unfolding process is also very convenient.

[0046] In summary, the cup holder of the present disclosure has the advantages of allowing multiple cups to be placed at the same time, while also improving the space utilization of the bowl basket, ensuring the washing effect, and in particular, having the advantages of convenient storage, simple structure, convenient use, and the like.

[0047] On the basis of the above work, a second aspect of the present disclosure provides a bowl basket assembly, as shown in Fig. 1, which includes a dishwasher bowl basket 1 and the aforementioned cup holder 2 of the present disclosure. The cup holder 2 is mounted on the dishwasher bowl basket 1.

[0048] In some embodiments, as shown in Fig. 1, the

cup holder 2 includes a first cup holder 2A and a second cup holder 2B arranged side by side and independent of each other. For example, the two cup holders are mounted on the same transverse rib so that they can be kept flush in the working position or in the accommodation position. In particular, on the one hand, since they can be kept flush in the working position, it can be regarded as a cup holder with a larger size to continuously place cups, so that the carrying capacity of the two cup holders can be maximized. On the other hand, depending on how many cups need to be washed, it is also possible to use only one of the cup holders and store the other cup holder to make room for the bowl basket assembly.

[0049] In some embodiments, the first cup holder 2A and the second cup holder 2B have different lengths. For example, as shown in Fig. 1, the length of the first cup holder 2A is smaller than the length of the second cup holder 2B, that is, the former is a small cup holder and the latter is a large cup holder. This way of setting the two cup holders with unequal length can be more flexible to adapt to the difference in the number of cups, so that according to actual conditions, a small cup holder or a large cup holder can only be used, or two cup holders can be used at the same time.

[0050] The bowl basket assembly of the present disclosure has the advantages of high space utilization, increased types and numbers of tableware that can be placed, and the like, and can improve the product quality and user experience of the corresponding dishwasher.

[0051] On the basis of the above work, a third aspect of the present disclosure provides a dishwasher, which includes the aforementioned bowl basket assembly of the present disclosure.

[0052] Those skilled in the art easily understand that the above solutions can be freely combined and superimposed on the premise of no conflict.

[0053] It should be understood that the above implementation manners are only exemplary, and not limiting, without departing from the basic principles of the present disclosure. Those skilled in the art can make various obvious or equivalent modifications or replacements for the above details, which will be included within the scope of the claims of the present disclosure.

Claims

1. A cup holder, configured to be mounted on a dishwasher bowl basket, comprising a cup bracket and a goblet bayonet, wherein the cup bracket is configured to place a cup, the goblet bayonet is provided on a first side of the cup bracket and is configured to accommodate a foot of a goblet, a second side of the cup bracket is provided with a mounting portion for mounting the cup holder on the dishwasher bowl basket, and the first side and the second side are opposite sides of the cup bracket in a width direction.

2. The cup holder as claimed in claim 1, wherein the cup bracket comprises crossed transverse beams and longitudinal beams, and at least one of the transverse beams and/or at least one of the longitudinal beams is provided with a first corrugated structure for limiting a cup opening of the cup; and/or, the goblet bayonet comprises a first bayonet wall and a second bayonet wall opposite to each other, wherein at least one of the first bayonet wall and the second bayonet wall is provided with a second corrugated structure for limiting the foot of the goblet. 5
3. The cup holder as claimed in claim 1, wherein the first side of the cup bracket is provided with a plurality of goblet notches, arranged in a zigzag shape; and/or, the goblet bayonet is of a U shape with an opening gradually increased; and/or, a limiting protrusion is provided at an outer edge of the goblet bayonet, and a protruding direction of the limiting protrusion is toward a front side of the cup bracket. 10
4. The cup holder as claimed in one of claims 1 to 3, wherein the mounting portion is rotatably connected to the dishwasher bowl basket, so that the cup holder is switched between an accommodation position and a working position. 15
5. The cup holder as claimed in claim 4, wherein the mounting portion comprises a mounting buckle for buckling on a first rib of the dishwasher bowl basket so that the cup holder is rotated around the first rib. 20
6. The cup holder as claimed in claim 5, wherein the mounting buckle comprises a first hook portion and a second hook portion, the first hook portion is configured to hook the first rib, the second hook portion is disposed at a free end of the first hook portion and extends toward an inner side of the first hook portion to prevent the first rib from being separated from the first hook portion. 25
7. The cup holder as claimed in claim 6, wherein an outer side surface of the second hook portion is an inclined surface for guiding the first rib when buckled on the first rib. 30
8. The cup holder as claimed in claim 4, wherein the second side of the cup bracket is further provided with a limiting portion, and when the cup holder is rotated to the working position, the limiting portion abuts against a second rib of the dishwasher bowl basket. 35
9. The cup holder as claimed in claim 8, wherein the limiting portion comprises a convex rib protruding outward in the width direction of the cup bracket. 40
10. The cup holder as claimed in claim 4, further comprising a accommodating and locking structure for locking the cup holder relative to the dishwasher bowl basket when the cup holder is at the accommodation position. 45
11. The cup holder as claimed in claim 10, wherein the accommodating and locking structure comprises a snap structure disposed on the cup bracket for snapping onto a rib of the dishwasher bowl basket. 50
12. A bowl basket assembly, comprising a dishwasher bowl basket and the cup holder as claimed in one of claims 1 to 11, wherein the cup holder is mounted on the dishwasher bowl basket. 55
13. The bowl basket assembly as claimed in claim 12, wherein the cup holder comprises a first cup holder and a second cup holder arranged side by side and independent of each other.
14. The bowl basket assembly as claimed in claim 13, wherein the first cup holder and the second cup holder have different lengths.
15. A dishwasher, comprising the bowl basket assembly as claimed in one of claims 12 to 14.

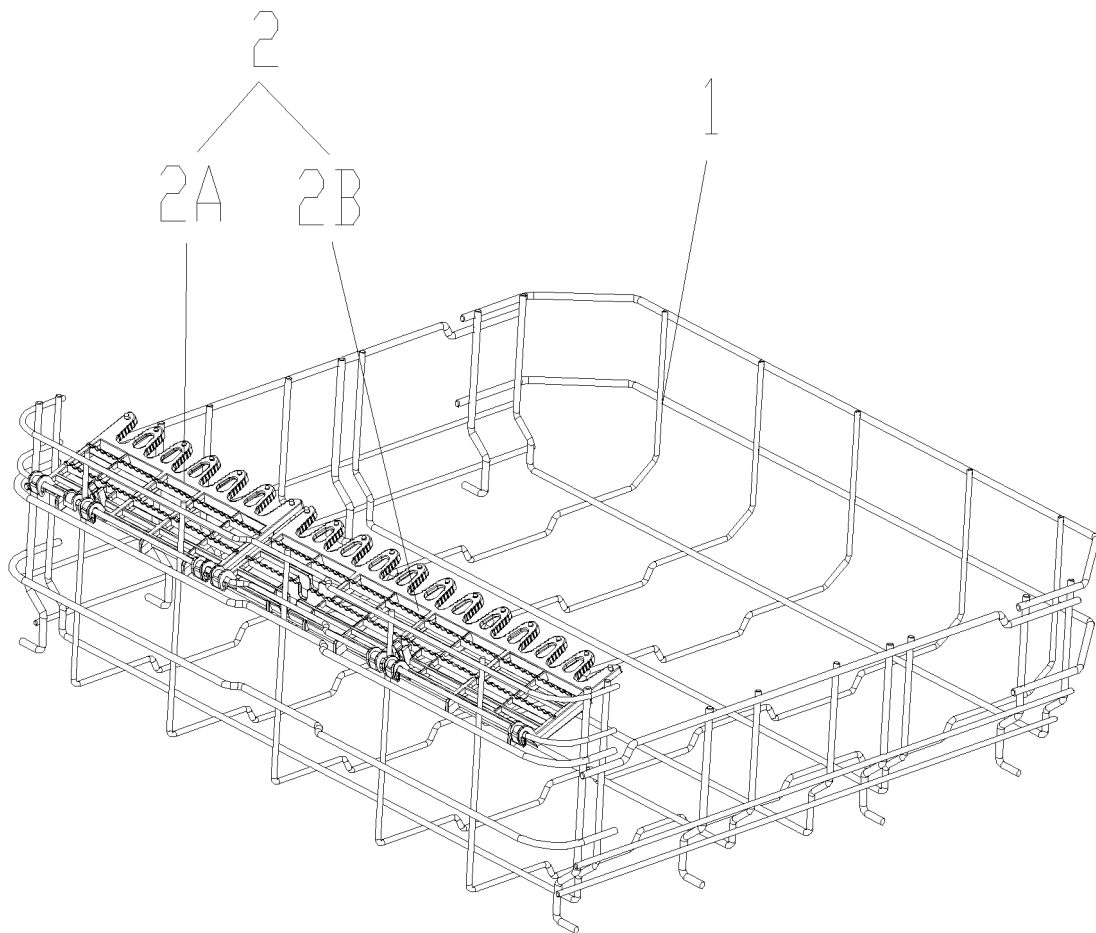


Fig. 1

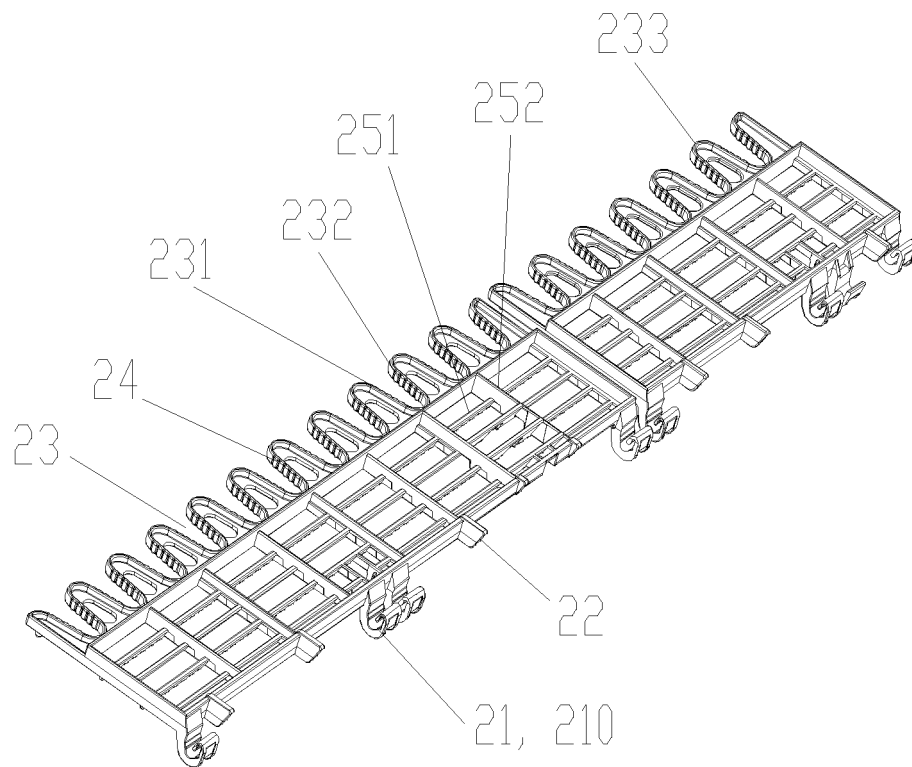


Fig. 2

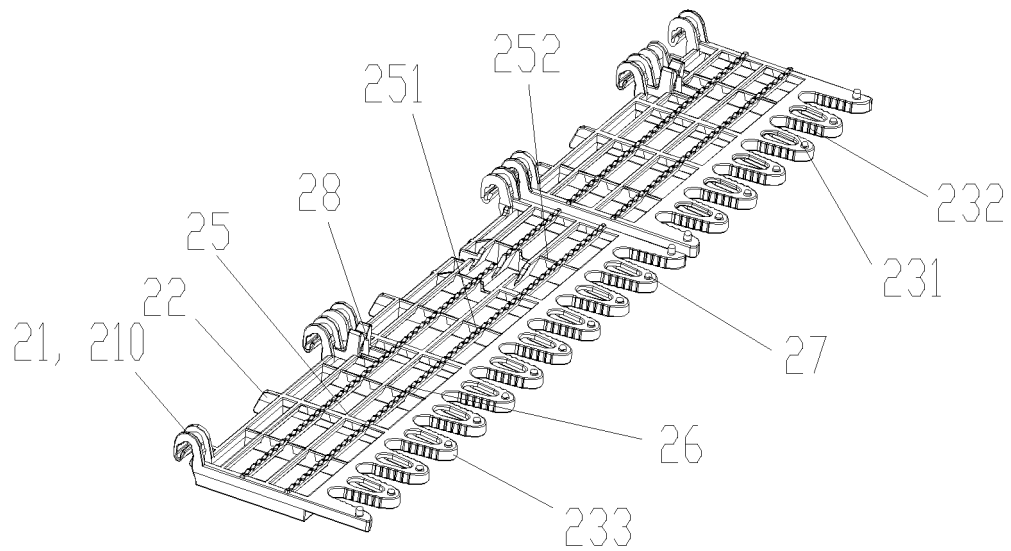


Fig. 3

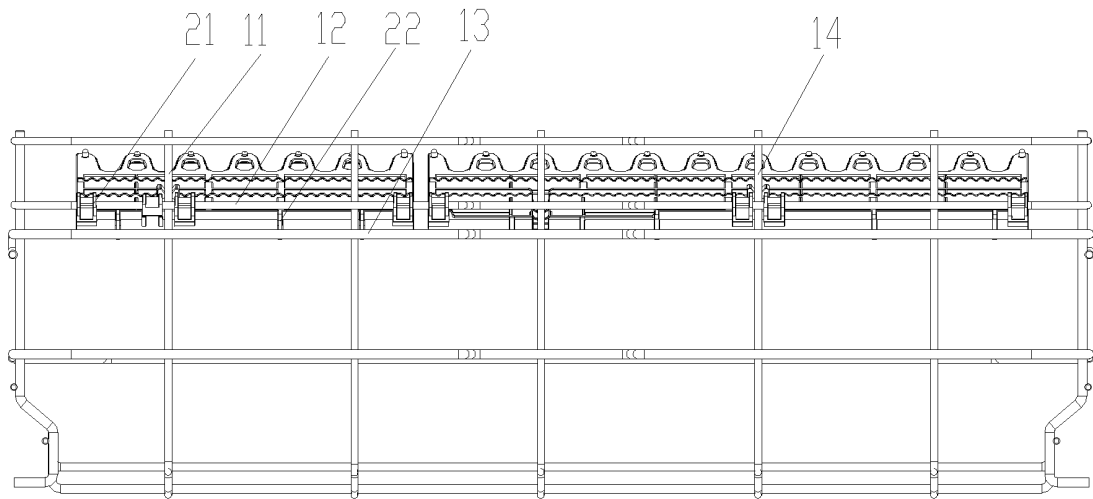


Fig. 4

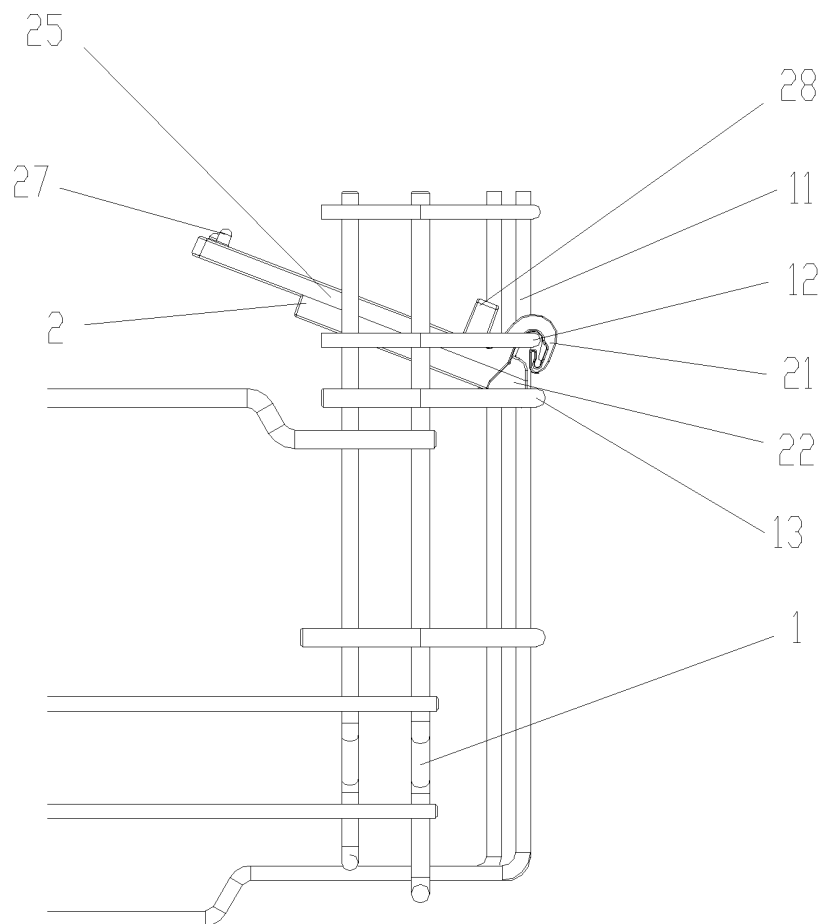


Fig. 5

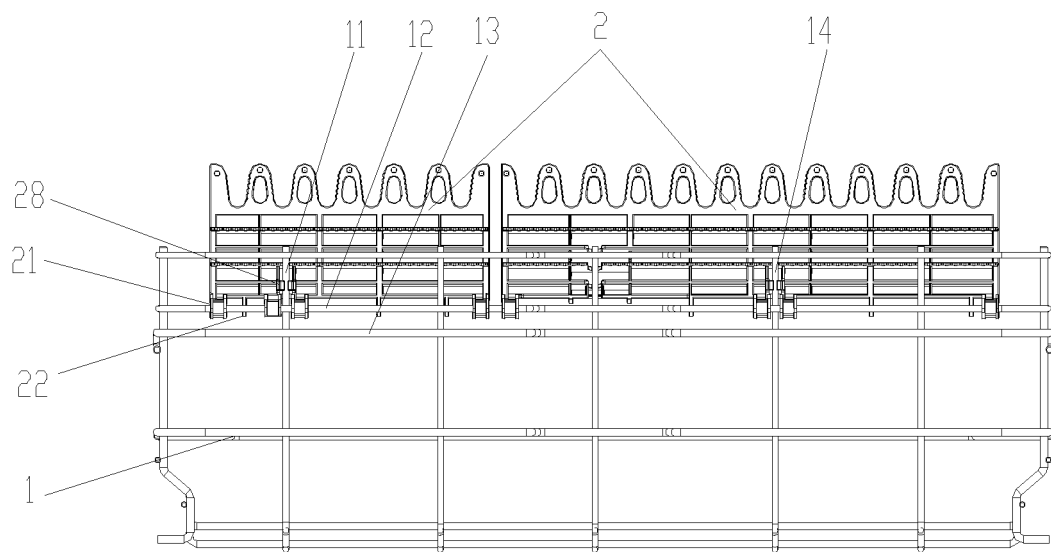


Fig. 6

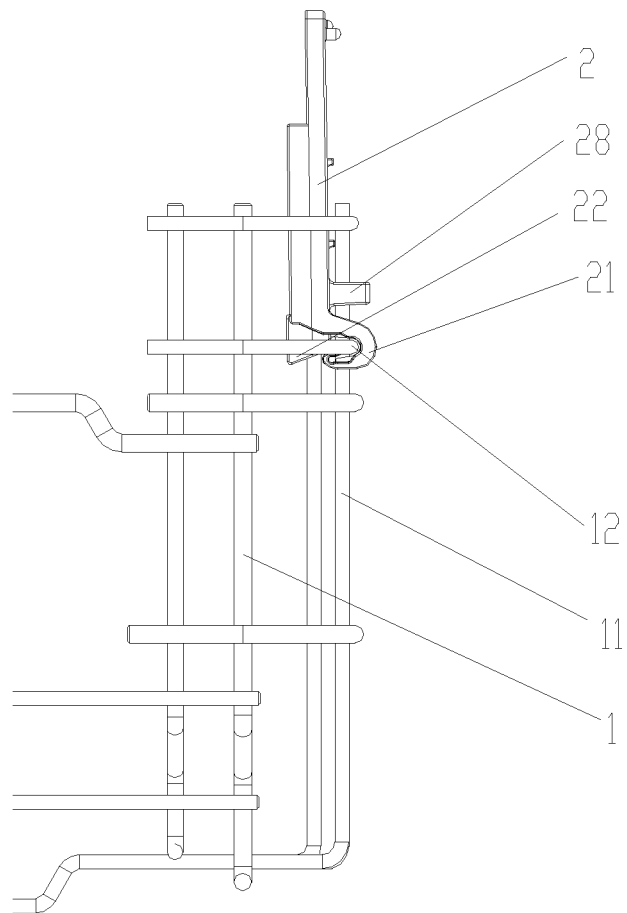


Fig. 7

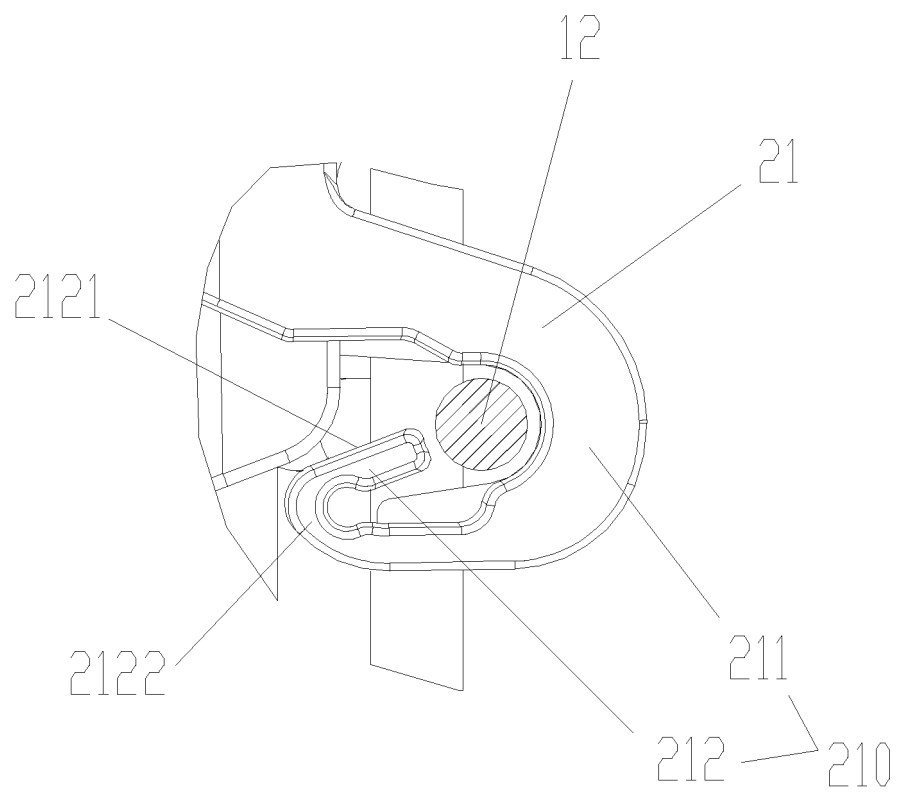


Fig. 8

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2018/113678

A. CLASSIFICATION OF SUBJECT MATTER

A47L 15/50(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A47L15/50

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNPAT, CNKI, WPI, EPODOC: 格力电器, 洗碗机, 高脚杯 or 酒杯, 杯, 托 or 架, 波 or 纹, 防滑 or 限位, dishwash+, goblet or cup?, stand+ or saucer? or holer? or support+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	CN 108294717 A (GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI) 20 July 2018 (2018-07-20) claims 1-15	1-15
X	CN 204146986 U (FOSHAN SHUNDE MIDEA WASHING APPLIANCES MFG. CO., LTD. ET AL.) 11 February 2015 (2015-02-11) description, paragraphs [0027]-[0028], and figures 1-2	1, 3, 12-15
Y	CN 204146986 U (FOSHAN SHUNDE MIDEA WASHING APPLIANCES MFG. CO., LTD. ET AL.) 11 February 2015 (2015-02-11) description, paragraphs [0027]-[0028], and figures 1-2	2, 4-11
Y	CN 105996950 A (GREE ELECTRIC APPLIANCES, INC. OF ZHUHAD) 12 October 2016 (2016-10-12) description, paragraphs [0036]-[0042], and figures 1-3	2
Y	CN 203662709 U (MIDEA GROUP CO., LTD. ET AL.) 25 June 2014 (2014-06-25) description, paragraphs [0028]-[0043], and figures 1-7	4-11
X	CN 201061516 Y (MIDEA GROUP CO., LTD.) 21 May 2008 (2008-05-21) description, particular embodiments, and figures 1-6	1, 3, 12-15

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

“A” document defining the general state of the art which is not considered to be of particular relevance

“E” earlier application or patent but published on or after the international filing date

“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

“O” document referring to an oral disclosure, use, exhibition or other means

“P” document published prior to the international filing date but later than the priority date claimed

“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

“&” document member of the same patent family

Date of the actual completion of the international search

10 January 2019

Date of mailing of the international search report

30 January 2019

Name and mailing address of the ISA/CN

State Intellectual Property Office of the P. R. China
No. 6, Xitucheng Road, Jimenqiao Haidian District, Beijing
100088
China

Authorized officer

Facsimile No. (86-10)62019451

Telephone No.

Form PCT/ISA/210 (second sheet) (January 2015)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2018/113678

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 104981197 A (ELECTROLUX HOME PRODUCTS INC.) 14 October 2015 (2015-10-14) description, paragraphs [0029]-[0044], and figures 1-3	1, 3, 12-15
A	WO 0187133 A1 (ARCELIK A.S.) 22 November 2001 (2001-11-22) entire document	1-15

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/CN2018/113678

Patent document cited in search report	Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
CN 108294717 A	20 July 2018	None	
CN 204146986 U	11 February 2015	None	
CN 105996950 A	12 October 2016	None	
CN 203662709 U	25 June 2014	None	
CN 201061516 Y	21 May 2008	None	
CN 104981197 A	14 October 2015	US 9615722 B2	11 April 2017
		AU 2012396914 A1	16 July 2015
		EP 2934276 A1	28 October 2015
		CN 104981197 B	06 February 2018
		US 2016037997 A1	11 February 2016
		AU 2012396914 B2	22 March 2018
		WO 2014094898 A1	26 June 2014
		EP 2934276 B1	22 February 2017
WO 0187133 A1	22 November 2001	EP 1282376 A1	12 February 2003
		DE 60142472 D1	12 August 2010
		ES 2346040 T3	08 October 2010
		EP 1282376 B1	30 June 2010
		TR 200200878 T1	22 July 2002
		AU 7479301 A	26 November 2001

Form PCT/ISA/210 (patent family annex) (January 2015)

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- CN 201810230753 X [0001]