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(54) **SUSPENSION SPRING MOUNTING STRUCTURE AND WASHING MACHINE**

(57) This application relates to the technical field of washing machine accessories, and in particular, to a suspension spring mounting structure and a washing machine. The suspension spring mounting structure includes a suspension spring gasket (1) and a suspension spring bracket (2), and the suspension spring gasket (1) includes an abutting portion (11) and an anti-tilting portion (12); the suspension spring bracket (2) is configured to mount the suspension spring gasket (1) and includes a mating portion (21) and a butting portion (22); one of the abutting portion (11) and the mating portion (21) is an arc-shaped protrusion, and the other is an arc-shaped

recess; when the suspension spring gasket (1) is mounted on the suspension spring bracket (2), the arc-shaped protrusion abuts against the arc-shaped recess, and the anti-tilting portion (12) abuts against the butting portion (22) to act together to fix the suspension spring gasket (1) to the suspension spring bracket (2). The washing machine includes the suspension spring mounting structure. Compared with the suspension spring gasket in the prior art, the suspension spring mounting structure and the washing machine according to this application can avoid stress concentration and achieve high mounting stability.

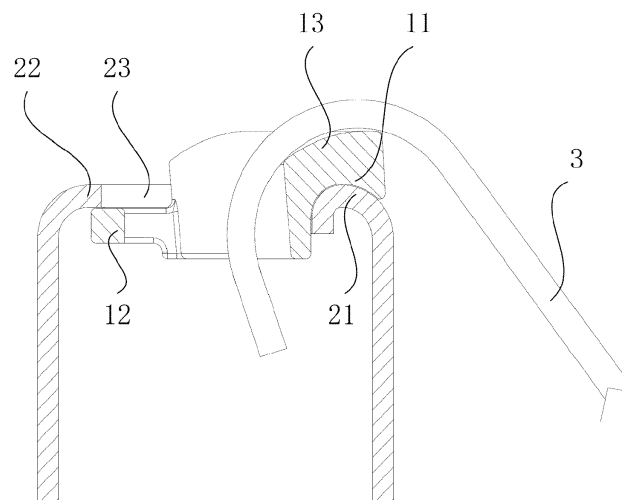


FIG. 4

Description

BACKGROUND

Technical Field

[0001] This application relates to the technical field of washing machine accessories, and in particular to a suspension spring mounting structure and a washing machine.

Related Art

[0002] A washing machine is a common household appliance in our daily life. For a drum washing machine, in order to reduce vibration and noise generated during usage, a drum assembly is generally connected to a suspension spring bracket on the washing machine body through a suspension spring. Moreover, to improve mounting stability of the suspension spring, the suspension spring bracket is often provided with a suspension spring gasket for mounting the suspension spring.

[0003] However, when being used, the suspension spring gasket in the prior art receives concentrated stress from the suspension spring, and is prone damage. In addition, the suspension spring gasket in the prior art is generally provided with a ring-like shape and is plugged and fixed in an insertion hole of the suspension spring bracket, causing a risk of vibration and falling off in the using process.

SUMMARY

[0004] This application provides a suspension spring mounting structure and a washing machine for resolving a problem that a suspension spring gasket of a washing machine in the prior art receives concentrated stress from a suspension spring when being used, and there is a risk of vibration and falling off.

[0005] This application provides a suspension spring mounting structure, where the suspension spring mounting structure includes:

a suspension spring gasket, including an abutting portion and an anti-tilting portion;

a suspension spring bracket, configured to mount the suspension spring gasket, and including a mating portion and a butting portion;

where the one of the abutting portion and the mating portion is an arc-shaped protrusion, and the other one is an arc-shaped recess; and

when the suspension spring gasket is mounted on the suspension spring bracket, the arc-shaped protrusion abuts against the arc-shaped recess, and the anti-tilting portion abuts against the butting portion

to act together to fix the suspension spring gasket to the suspension spring bracket.

[0006] In a possible design, the suspension spring gasket further includes a hook portion for hooking a suspension spring, and the hook portion includes an arc-shaped protruding surface.

[0007] In a possible design, the hook portion includes a first segment, an arc segment and a second segment sequentially connected; and two ends of the anti-tilting portion are connected to the first segment and the second segment respectively, and the anti-tilting portion defines, with the hook portion, an accommodating space for accommodating the suspension spring.

[0008] In a possible design, the suspension spring bracket is a hollow structure, and is provided with a bayonet for mounting the suspension spring gasket; a circumferential wall on a side of the suspension spring bracket defining the bayonet is bent to form the arc-shaped protrusion; and

when the suspension spring gasket is mounted on the suspension spring bracket, the arc-shaped protrusion abuts against the arc-shaped recess, and the anti-tilting portion is located inside the suspension spring bracket and abuts against the butting portion of the suspension spring bracket to prevent the suspension spring gasket from rotating around the arc-shaped protrusion.

[0009] In a possible design, a circumferential wall on an other side of the suspension spring bracket defining the bayonet is bent to form the butting portion, and the butting portion and the arc-shaped protrusion are located on two opposite sides of the bayonet respectively; and a surface of the butting portion towards the interior of the suspension spring bracket forms a butting surface for butting the anti-tilting portion.

[0010] In a possible design, the suspension spring gasket further includes an insertion portion, and the insertion portion is disposed below the hook portion along a height direction H of the suspension spring gasket; and the anti-tilting portion is connected to the hook portion.

In a possible design, the suspension spring bracket is a hollow structure, and is provided with an insertion hole for mounting the suspension spring gasket;

a circumferential wall of the suspension spring bracket defining the insertion hole forms the arc-shaped protrusion that is ring-like; and

when the suspension spring gasket is mounted on the suspension spring bracket, the arc-shaped protrusion abuts against the arc-shaped recess, the insertion portion is inserted into the insertion hole, and the anti-tilting portion is located outside the suspension spring bracket and abuts against the butting portion of the suspension spring bracket to prevent the suspension spring gasket from rotating around the arc-shaped protrusion.

[0011] In a possible design, an outer wall of the suspension spring bracket forms the butting portion, and the outer wall and the circumferential wall of the suspension

spring bracket provided with the insertion hole are two opposite wall surfaces.

[0012] In a possible design, an end of the insertion portion away from the hook portion is further provided with a retaining edge.

[0013] In addition, this application provides a washing machine, where the washing machine includes a suspension spring, a tub assembly and the suspension spring mounting structure described above; and two ends of the suspension spring are connected to the suspension spring mounting structure and the tub assembly respectively.

[0014] The technical solutions according to this application may achieve the following advantageous effects: The suspension spring mounting structure according to this application includes a suspension spring gasket and a suspension spring bracket, and the suspension spring gasket includes an abutting portion and an anti-tilting portion; the suspension spring bracket is configured to mount the suspension spring gasket, and includes a mating portion and a butting portion; one of the abutting portion and the mating portion is an arc-shaped protrusion, and the other one is an arc-shaped recess; when the suspension spring gasket is mounted on the suspension spring bracket, the arc-shaped protrusion abuts against the arc-shaped recess, and the anti-tilting portion abuts against the butting portion to act together to fix the suspension spring gasket to the suspension spring bracket.

[0015] In a using process, when the suspension spring is hooked on the suspension spring gasket, the suspension spring gasket transmits the force of the suspension spring to the suspension spring bracket. Because the arc-shaped protrusion and the matching arc-shaped recess are provided, the mounting abutting area between the suspension spring gasket and the suspension spring bracket can be increased, and the force may be better dispersed to avoid stress concentration. The anti-tilting portion may further prevent a relative tilt between the arc-shaped protrusion and the arc-shaped recess, and may better fix the suspension spring gasket on the suspension spring bracket to prevent the suspension spring gasket from falling off from the suspension spring bracket in a using process.

[0016] In addition, the washing machine according to this application includes the suspension spring mounting structure described above, and can achieve all the advantageous effects thereof. Details are not described herein again.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017]

FIG. 1 is a schematic structural diagram of a washing machine according to an embodiment of this application;

FIG. 2 is a first structural diagram of a suspension

spring mounting structure according to an embodiment of this application;

FIG. 3 is a schematic structural diagram of a suspension spring bracket in FIG. 2;

FIG. 4 is a sectional view of FIG. 3 along A-A direction;

FIG. 5 is a schematic structural diagram of a suspension spring gasket in FIG. 2 at a first view;

FIG. 6 is a schematic structural diagram of a suspension spring gasket in FIG. 2 at a second view;

FIG. 7 is a second structural diagram of a suspension spring mounting structure according to an embodiment of this application;

FIG. 8 is a schematic structural diagram of a suspension spring bracket in FIG. 7;

FIG. 9 is a sectional view of FIG. 7 along A-A direction; and

FIG. 10 is a schematic structural diagram of a suspension spring gasket in FIG. 7.

REFERENCE NUMERALS OF ACCOMPANYING DRAWINGS:

[0018]

1-suspension spring gasket;
11-abutting portion;
12-anti-tilting portion;
13-hook portion;
14-insertion portion;
141-retaining edge;
2-suspension spring bracket;
21-mating portion;
22-butting portion;
23-bayonet;
24-insertion hole;
3-suspension spring;
4-tub assembly;
H-height direction.

[0019] The accompanying drawings herein, which are incorporated into the specification and form a part of this specification, show embodiments that conform to this application, and are used to describe the principle of this application together with this specification.

DETAILED DESCRIPTION

[0020] To make the technical solutions more comprehensible, embodiments of this application will be de-

scribed in detail below with reference to the accompanying drawings.

[0021] It should be noted that, the described embodiments are merely some embodiments rather than all the embodiments of this application. All other embodiments obtained by a person of ordinary skill in the art based on the embodiments of this application without creative efforts shall fall within the protection scope of this application.

[0022] The terms used in the embodiments of this application are merely used for illustrating specific embodiments, and are not intended to limit this application. The terms "a", "said", and "the" of singular forms used in the embodiments and the appended claims of this application are also intended to include plural forms, unless otherwise specified in the context clearly.

[0023] It should be appreciated that the term "and/or" in this specification is merely an association relationship for describing associated objects and represents that three types of relationships may exist. For example, A and/or B may represent the following three cases: Only A exists, both A and B exist, and only B exists. In addition, the character "/" in this specification generally indicates an "or" relationship between the associated objects.

[0024] It should be noted that orientation terms such as "on", "below", "left" and "right" in the embodiments of this application are described from views shown in the accompanying drawings, and should not be construed as limiting the embodiments of this application. In addition, in the context, it should be further appreciated that when a component is connected "on" or "below" another component, the component may be connected "on" or "below" another component directly, or may be connected "on" or "below" another component indirectly through an intermediate component.

[0025] This application is further described below with reference to the accompanying drawings and specific embodiments.

[0026] FIG. 1 is a schematic structural diagram of a washing machine according to an embodiment of this application; FIG. 2 is a first structural diagram of a suspension spring mounting structure according to an embodiment of this application; FIG. 3 is a schematic structural diagram of a suspension spring bracket in FIG. 2; FIG. 4 is a sectional view of FIG. 3 along A-A direction; FIG. 5 is a schematic structural diagram of a suspension spring gasket in FIG. 2 at a first view; FIG. 6 is a schematic structural diagram of a suspension spring gasket in FIG. 2 at a second view; FIG. 7 is a second structural diagram of a suspension spring mounting structure according to an embodiment of this application; FIG. 8 is a schematic structural diagram of a suspension spring bracket in FIG. 7; FIG. 9 is a sectional view of FIG. 7 along A-A direction; and FIG. 10 is a schematic structural diagram of a suspension spring gasket in FIG. 1.

[0027] As shown in FIG. 1, an embodiment of this application provides a washing machine. The washing machine includes a suspension spring mounting structure

according to the embodiment of this application. The suspension spring mounting structure includes a suspension spring gasket 1 and a suspension spring bracket 2, which will be described in detail below. The washing machine further includes a suspension spring 3 and a tub assembly 4, where two ends of the suspension spring 3 are connected to the suspension spring mounting structure and the tub assembly 4 respectively.

[0028] As shown in FIG. 2 to FIG. 10, an embodiment of this application further provides a suspension spring mounting structure. The suspension spring mounting structure includes a suspension spring gasket 1 and a suspension spring bracket 2. The suspension spring gasket 1 includes an abutting portion 11 and an anti-tilting portion 12. The suspension spring bracket 2 is configured to mount the suspension spring gasket 1, and includes a mating portion 21 and a butting portion 22. One of the abutting portion 11 and the mating portion 12 is an arc-shaped protrusion, and the other one is an arc-shaped recess. When the suspension spring gasket 1 is mounted on the suspension spring bracket 2, the arc-shaped protrusion abuts against the arc-shaped recess, and the anti-tilting portion 12 abuts against the butting portion 22 to act together to fix the suspension spring gasket 1 to the suspension spring bracket 2.

[0029] In a using process, when the suspension spring 3 is hooked on the suspension spring gasket 1, the suspension spring gasket 1 transmits the force of suspension spring 3 to the suspension spring bracket 2. Because the arc-shaped protrusion and the matching arc-shaped recess are provided, the mounting abutting area between the suspension spring gasket 1 and the suspension spring bracket 2 can be increased, and the force may be better dispersed to avoid stress concentration. The anti-tilting portion 12 may further prevent a relative tilt between the arc-shaped protrusion and the arc-shaped recess, and may better fix the suspension spring gasket 1 on the suspension spring bracket 2 to prevent the suspension spring gasket 1 from falling off from the suspension spring bracket 2 in a using process.

[0030] In an optional solution of this embodiment, the suspension spring gasket 1 further includes a hook portion 13 for hooking the suspension spring 3, and the hook portion 13 includes an arc-shaped protruding surface.

[0031] Specifically, as shown in FIG. 4 and FIG. 9, the hook portion 13 is provided with an arc-shaped protruding shape. When the suspension spring 3 is hooked on the arc-shaped protruding surface, an abutting contact area between the suspension spring 3 and the suspension spring gasket 1 may be increased, so that the force of the suspension spring 3 acting on the suspension spring gasket 1 may be more stable and more evenly distributed on the suspension spring gasket 1, to prevent stress on the suspension spring gasket 1 from being excessively concentrated when the suspension spring 3 is hooked on the arc-shaped protruding surface, and also improve the mounting stability of the suspension spring gasket 1 to the suspension spring 3.

[0032] In an optional solution of this embodiment, the hook portion 13 includes a first segment 131, an arc segment 132 and a second segment 133 sequentially connected, and two ends of the anti-tilting portion 12 are connected to the first segment 131 and the second segment 133 respectively. The anti-tilting portion defines, with the hook portion 13, an accommodating space for accommodating the suspension spring.

[0033] Specifically, as shown in FIG. 5, the anti-tilting portion 12 may be lath-shaped. The first segment 131, the arc segment 132 and the second segment 133 are sequentially connected to form a near-semicircular structure and define, with the anti-tilting portion 12, an accommodating space for accommodating the suspension spring. The suspension spring 3 is hooked on the arc segment 132. Because vibration of a tub assembly 4 in the washing machine is not completely periodic during laundry, in this case, the suspension spring 3 may adaptively slide on the arc segment 132 according to a magnitude of the vibration, so that the suspension spring 3 better relieves the vibration.

[0034] In an optional solution of this embodiment, the suspension spring bracket 2 is a hollow structure, and is provided with a bayonet 23 for mounting the suspension spring gasket 1. A circumferential wall on a side of the suspension spring bracket 2 defining the bayonet 23 is bent to form the arc-shaped protrusion. When the suspension spring gasket 1 is mounted on the suspension spring bracket 2, the arc-shaped protrusion abuts against the arc-shaped recess, and the anti-tilting portion 12 is located inside the suspension spring bracket 2 and abuts against the butting portion 22 of the suspension spring bracket 2 to prevent the suspension spring gasket 1 from rotating around the arc-shaped protrusion. Specifically, as shown in FIG. 2, FIG. 3 and FIG. 4, the butting portion 22 is disposed inside the suspension spring bracket 2. During mounting of the suspension spring gasket 1, the anti-tilting portion 12 may be first inserted through the bayonet 23 into the hollow structure inside the suspension spring bracket 2 to abut against the butting portion 22, and then the arc-shaped protrusion and the arc-shaped recess are abut together to mount the suspension spring gasket 1 on the suspension spring bracket 2. The operation is simple and the mounting is stable and reliable.

[0035] In an optional solution of this embodiment, a circumferential wall on an other side of the suspension spring bracket 2 defining the bayonet 23 is bent to form the butting portion 22, and the butting portion 22 and the arc-shaped protrusion are located on two opposite sides of the bayonet 23 respectively. A surface of the butting portion 22 towards the interior of the suspension spring bracket 2 forms a butting space for butting the anti-tilting portion 12.

[0036] Specifically, as shown in FIG. 4, the butting portion 22 and the mating portion 21 are disposed on two opposite sides of the bayonet 23 respectively. In this case, the force arm between the butting portion 22 and

the mating portion 21 is the largest, and anti-tilting force moment of the butting portion 22 acting on the anti-tilting portion 12 may be maximized, to achieve a better anti-tilting effect.

[0037] In addition, this embodiment further provides another structure of the suspension spring gasket 1. The suspension spring gasket 1 further includes an insertion portion 14, and the insertion portion 14 is disposed below the hook portion 13 along a height direction H of the suspension spring gasket 1; and the anti-tilting portion 12 is connected to the hook portion 13.

[0038] Specifically, as shown in FIG. 10, the anti-tilting portion 12 may be lath-shaped, and may be connected to the hook portion 13 through an indirect panel. The hook portion 13 may be semicircular, which may also realize the functions of adaptive sliding and cushioning of the suspension spring 3 on the hook portion 13 in response to different vibration of the tub assembly 4; moreover, the insertion portion 14 may be inserted into the insertion hole 24 of the suspension spring bracket 2 to improve the mounting stability.

[0039] In an optional solution of this embodiment, the suspension spring bracket 2 is a hollow structure, and is provided with an insertion hole 24 for mounting the suspension spring gasket 1. The circumferential wall on a side of the suspension spring bracket 2 defining the insertion hole 24 is bent to form the arc-shaped protrusion that is ring-like. When the suspension spring gasket 1 is mounted on the suspension spring bracket 2, the arc-shaped protrusion abuts against the arc-shaped recess, the insertion portion 14 is inserted into the insertion hole 24, and the anti-tilting portion 12 is located inside the suspension spring bracket 2 and abuts against the butting portion 22 of the suspension spring bracket 2 to prevent the suspension spring gasket 1 from rotating around the arc-shaped protrusion.

[0040] Specifically, as shown in FIG. 7, FIG. 8 and FIG. 9, in this case, the insertion portion 14, the abutting portion 11 and the anti-tilting portion 12 in three portions act together to press and mount the suspension spring gasket 1 on the suspension spring bracket 2. The anti-tilting portion 12 abuts against the outside of the suspension spring bracket 2 to play an anti-tilting function, to achieve the function of firmly mounting the suspension spring gasket 1 on the suspension spring bracket 2.

[0041] In an optional solution of this embodiment, an outer wall of the suspension spring bracket 2 forms the butting portion 22, and the outer wall and the circumferential wall of the suspension spring bracket 2 provided with the insertion hole 24 are two opposite wall surfaces.

[0042] Similarly, the anti-tilting force arm between the butting portion 22 and the mating portion 21 is the largest, and the force moment of the butting portion 22 acting on the anti-tilting portion 12 may be maximized, to achieve a better anti-tilting effect.

[0043] In an optional solution of this embodiment, an end of the insertion portion 14 away from the hook portion 13 is further provided with a retaining edge 141.

[0044] Specifically, as shown in FIG. 9 and FIG. 10, the retaining edge 141 is preferably made of an elastic material. The retaining edge 141 may better fix the insertion portion 14 to the insertion hole 24 when the insertion portion 14 is inserted into the insertion hole, thereby improving the mounting stability.

[0045] The foregoing descriptions are merely preferred embodiments of this application but are not intended to limit this application. This application may include various modifications and changes for a person skilled in the art. Any modification, equivalent replacement, or improvement made without departing from the spirit and principle of this application shall fall within the protection scope of this application.

Claims

1. A suspension spring mounting structure, **characterized by** comprising:

a suspension spring gasket (1), comprising an abutting portion (11) and an anti-tilting portion (12); and

a suspension spring bracket (2), configured to mount the suspension spring gasket (1), and comprising a mating portion (21) and a butting portion (22),

wherein one of the abutting portion (11) and the mating portion (21) is an arc-shaped protrusion, and the other one is an arc-shaped recess; and

when the suspension spring gasket (1) is mounted on the suspension spring bracket (2), the arc-shaped protrusion abuts against the arc-shaped recess, and the anti-tilting portion (12) abuts against the butting portion (22) to act together to fix the suspension spring gasket (1) to the suspension spring bracket (2).

2. The suspension spring mounting structure according to claim 1, **characterized in that**, the suspension spring gasket (1) further comprises a hook portion (13) for hooking a suspension spring, and the hook portion (13) comprises an arc-shaped protruding surface.

3. The suspension spring mounting structure according to claim 2, **characterized in that**, the hook portion (13) comprises a first segment (131), an arc segment (132), and a second segment (133) sequentially connected; and two ends of the anti-tilting portion (12) are connected to the first segment (131) and the second segment (133) respectively, and the anti-tilting portion defines, with the hook portion (13), an accommodating space for accommodating the suspension spring.

4. The suspension spring mounting structure according to claim 3, **characterized in that**, the suspension spring bracket (2) is a hollow structure, and is provided with a bayonet (23) for mounting the suspension spring gasket (1);

a circumferential wall on a side of the suspension spring bracket (2) defining the bayonet (23) is bent to form the arc-shaped protrusion; and

when the suspension spring gasket (1) is mounted on the suspension spring bracket (2), the arc-shaped protrusion abuts against the arc-shaped recess, and the anti-tilting portion (12) is located inside the suspension spring bracket (2) and abuts against the butting portion (22) of the suspension spring bracket (2) to prevent the suspension spring gasket (1) from rotating around the arc-shaped protrusion.

5. The suspension spring mounting structure according to claim 4, **characterized in that**, a circumferential wall on an other side of the suspension spring bracket (2) defining the bayonet (23) is bent to form the butting portion (22), and the butting portion (22) and the arc-shaped protrusion are located on two opposite sides of the bayonet (23) respectively; and a surface of the butting portion (22) towards the interior of the suspension spring bracket (2) forms a butting surface for butting the anti-tilting portion (12).

6. The suspension spring mounting structure according to claim 2, **characterized in that**, the suspension spring gasket (1) further comprises an insertion portion (14), and the insertion portion (14) is disposed below the hook portion (13) along a height direction (H) of the suspension spring gasket (1); and the anti-tilting portion (12) is connected to the hook portion (13).

7. The suspension spring mounting structure according to claim 6, **characterized in that**, the suspension spring bracket (2) is a hollow structure, and is provided with an insertion hole (24) for mounting the suspension spring gasket (1); a circumferential wall of the suspension spring bracket (2) defining the insertion hole (24) forms the arc-shaped protrusion that is ring-like; and when the suspension spring gasket (1) is mounted on the suspension spring bracket (2), the arc-shaped protrusion abuts against the arc-shaped recess, and the insertion portion (14) is inserted into the insertion hole (24), and the anti-tilting portion (12) is located outside the suspension spring bracket (2) and abuts against the butting portion (22) of the suspension spring bracket (2) to prevent the suspension spring gasket (1) from rotating around the arc-shaped protrusion.

8. The suspension spring mounting structure according to claim 7, **characterized in that**, an outer wall of

the suspension spring bracket (2) forms the butting portion (22), and the outer wall and the circumferential wall of the suspension spring bracket (2) provided with the insertion hole (24) are two opposite wall surfaces.

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9. The suspension spring mounting structure according to claim 6, **characterized in that**, an end of the insertion portion (14) away from the hook portion (13) is further provided with a retaining edge (141).

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10. A washing machine, **characterized by** comprising the suspension spring mounting structure according to any one of claims 1 to 9, a suspension spring (3), and a tub assembly (4); and two ends of the suspension spring (3) being connected to the suspension spring mounting structure and the tub assembly (4) respectively.

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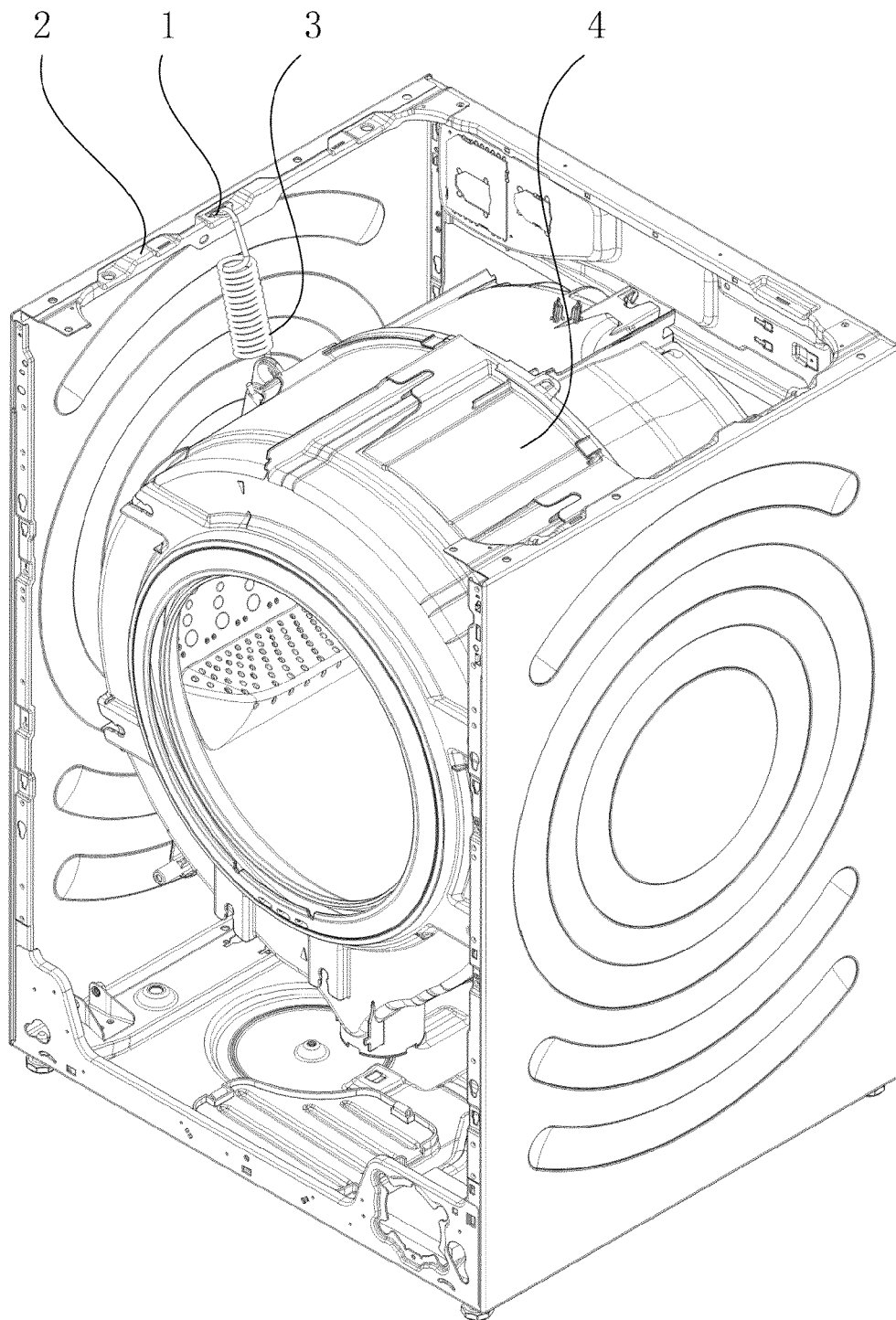


FIG. 1

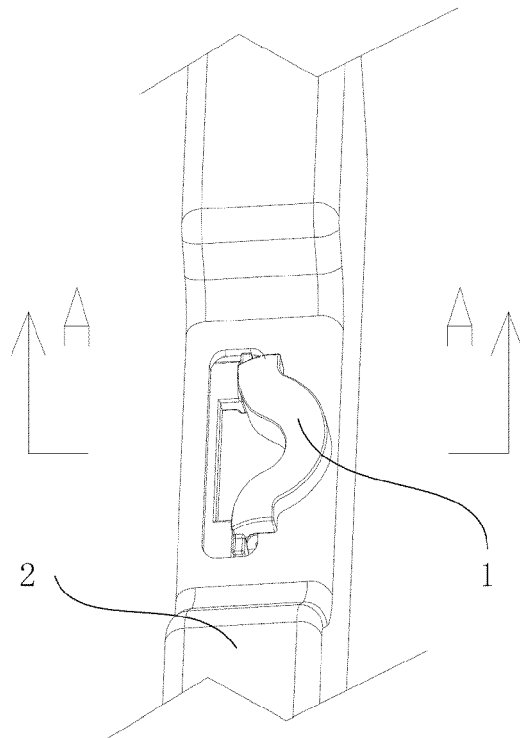


FIG. 2

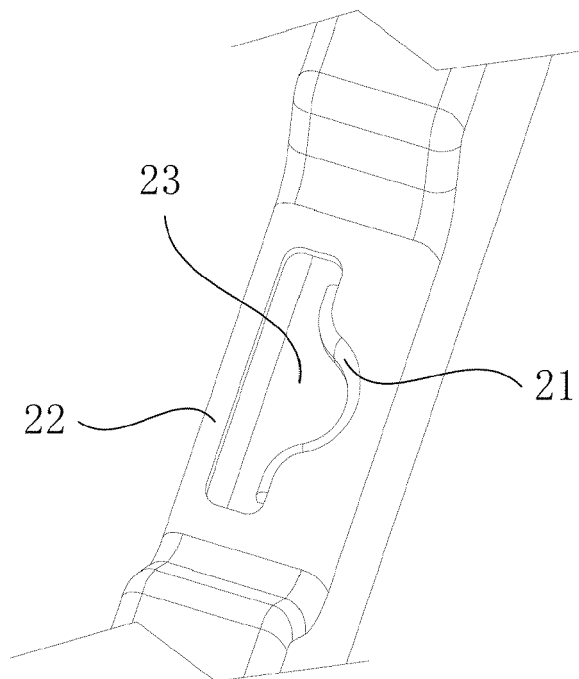


FIG. 3

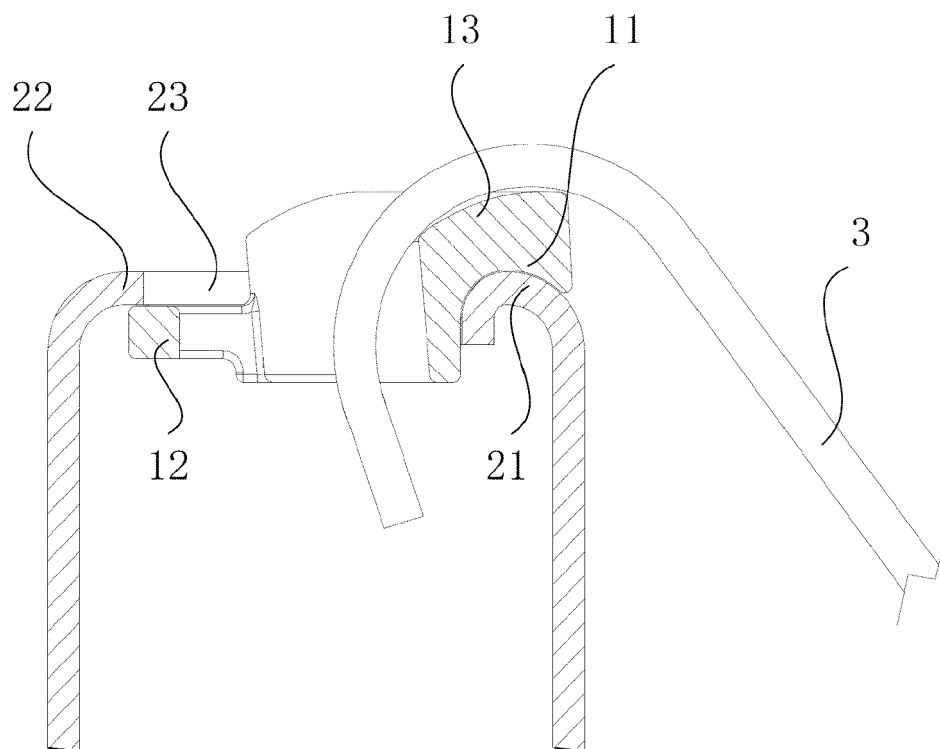


FIG. 4

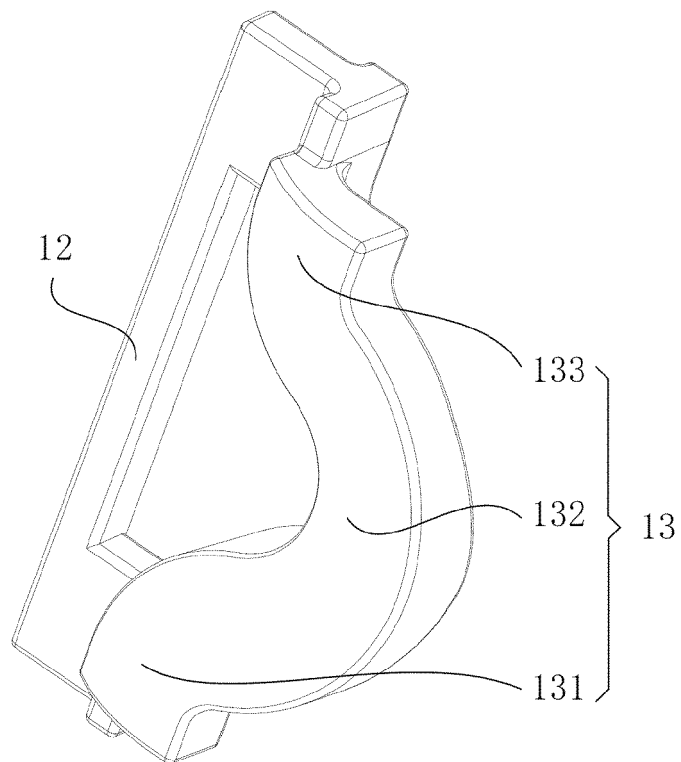


FIG. 5

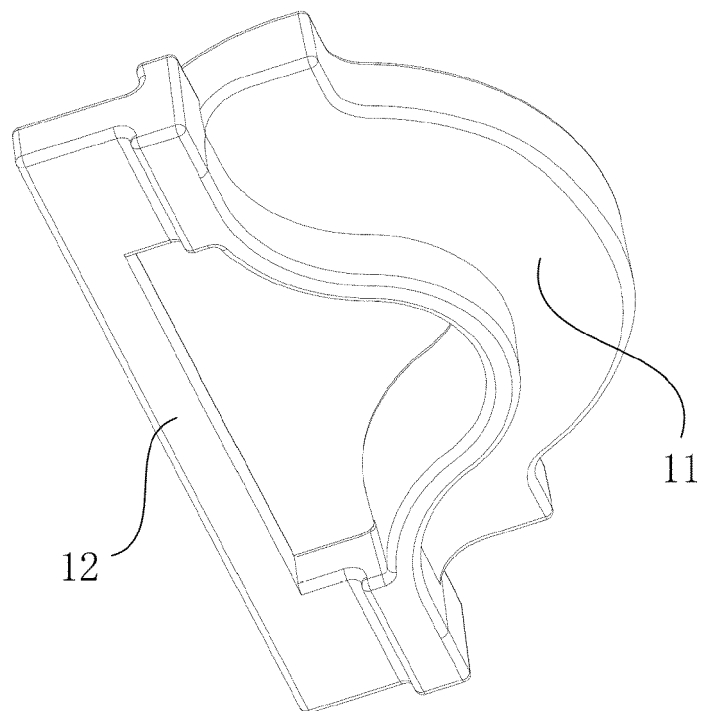


FIG. 6

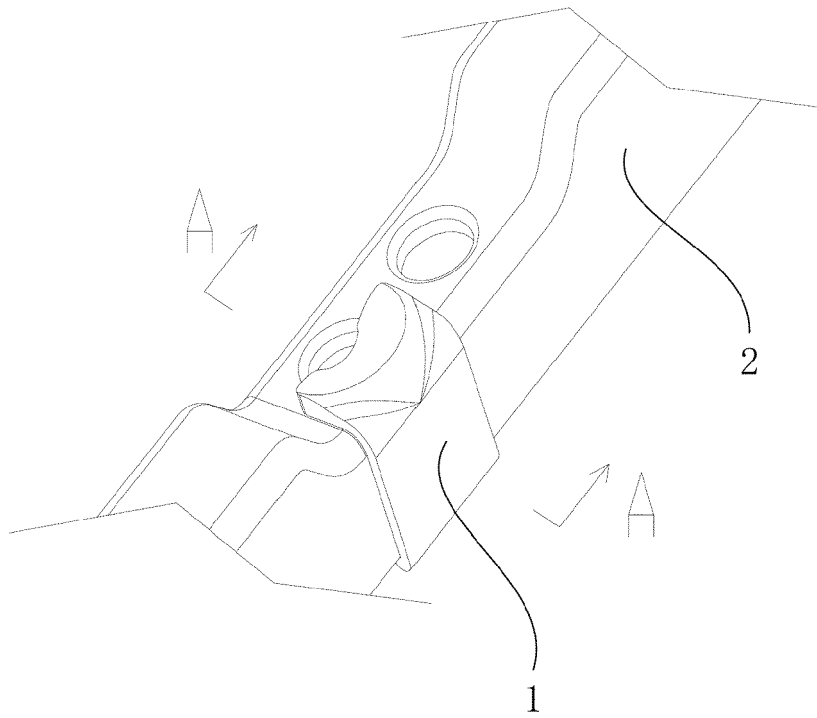


FIG. 7

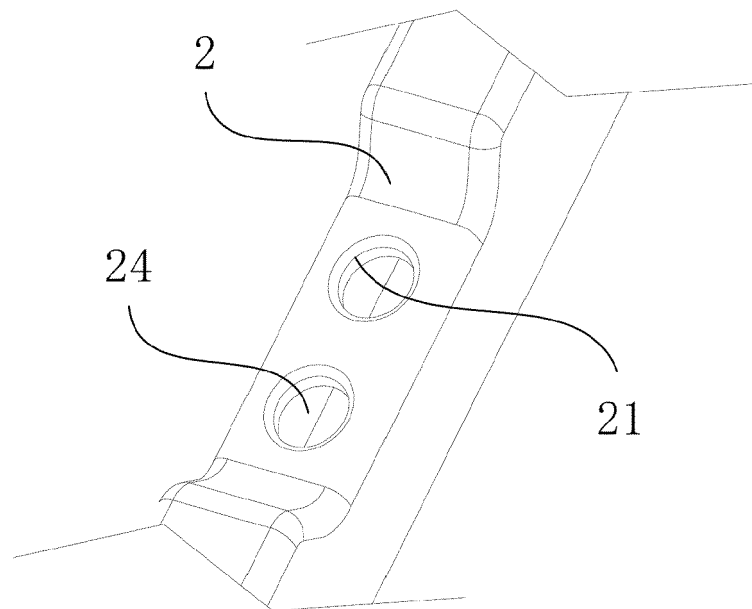


FIG. 8

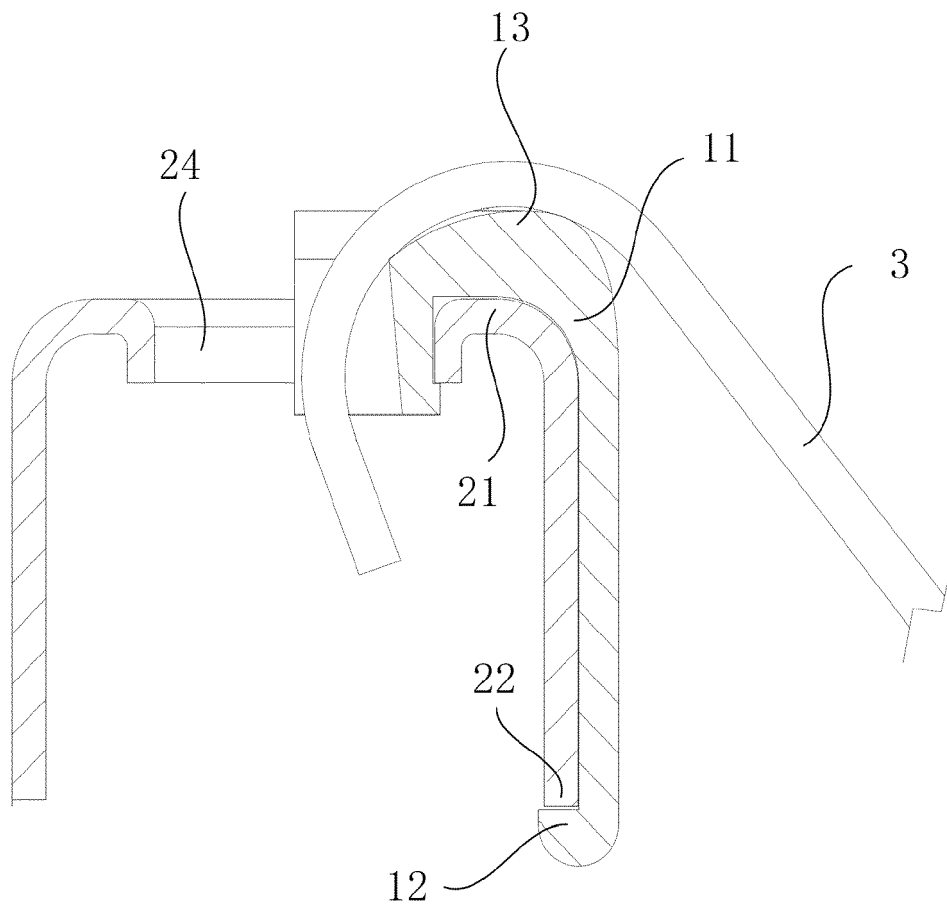


FIG. 9

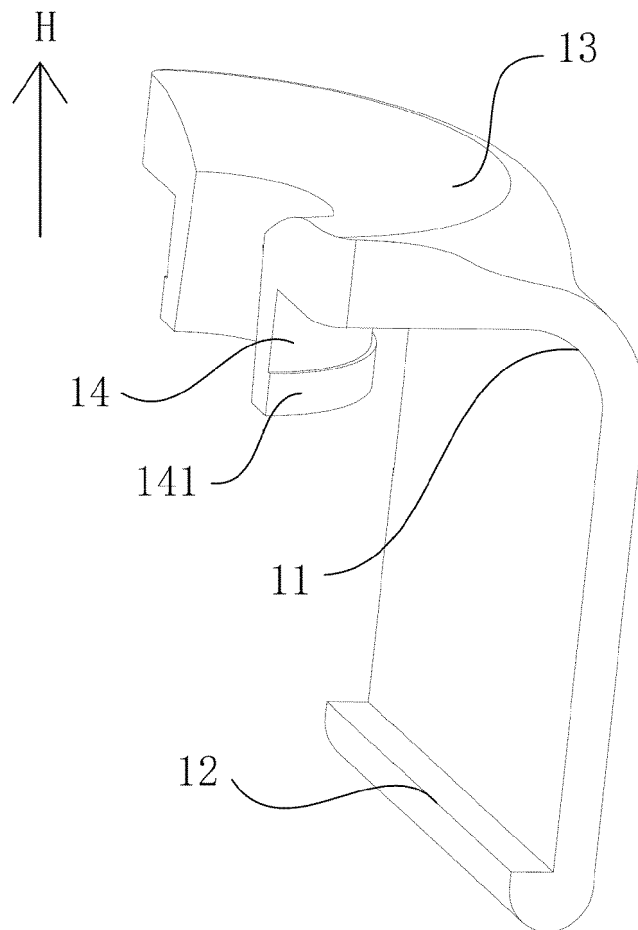


FIG. 10



EUROPEAN SEARCH REPORT

 Application Number
 EP 20 19 3312

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2017/153279 A1 (ARCELIK AS [TR]) 14 September 2017 (2017-09-14)	1,2,10	INV. D06F37/22 ADD. D06F39/12
Y	* paragraphs [0018], [0019], [0022] *	3-7,9	
A	* claims; figures *	8	
X	----- CN 201 793 945 U (HAIER GROUP CO LTD) 13 April 2011 (2011-04-13)	1,2,10	
A	* machine translation; claims; figures *	3-9	
Y	----- JP 2016 120196 A (SAMSUNG ELECTRONICS CO LTD) 7 July 2016 (2016-07-07) * machine translation; paragraph [0033] - paragraph [0037] * * figures *	3	
Y	----- DE 17 60 826 A1 (CANDY SPA) 30 December 1971 (1971-12-30) * page 3, line 14 - line 21; figures *	4,5	TECHNICAL FIELDS SEARCHED (IPC) D06F
Y	----- DE 102 56 465 A1 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 15 July 2004 (2004-07-15) * paragraph [0021] * * claims; figures *	6,7,9	
A	----- CN 204 138 933 U (QINGDAO HAIER WASHING MACH CO) 4 February 2015 (2015-02-04) * figures 2-5 *	1-10	
A	----- DE 19 71 031 U (MIELE & CIE [DE]) 26 October 1967 (1967-10-26) * the whole document *	1-10	
A	----- WO 2006/016286 A1 (ARCELIK AS [TR]; AVCI KORKUT [TR]; OZKALAY KORHAN [TR]) 16 February 2006 (2006-02-16) * claims; figures *	1-10	
	----- -/--		
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 21 December 2020	Examiner Popara, Velimir
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.82 (P04C01)

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