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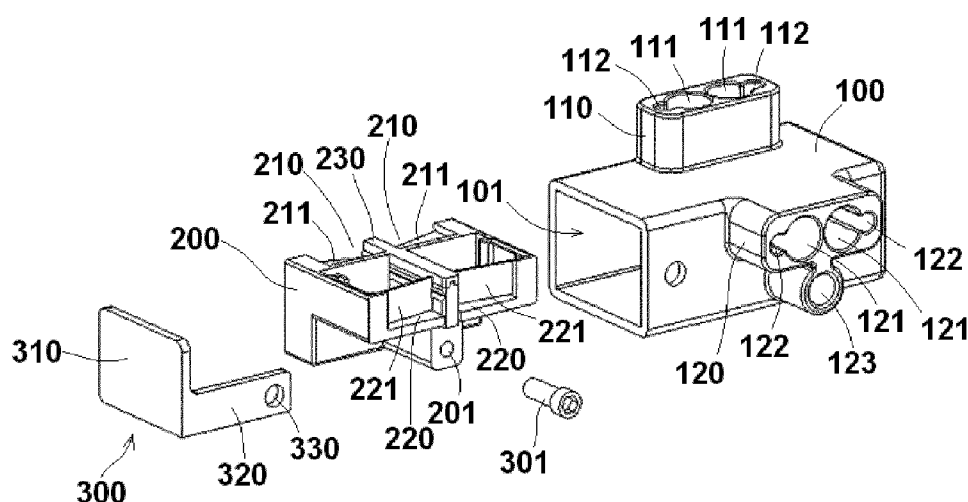


Fig.1

(57) Abstract: A connector including: an insulation housing; a conductive body received in the insulation housing; and an elastic element provided in the conductive body. A protruding wall facing the elastic element is formed on the conductive body, and a wire insertion hole is formed in the insulation housing. A wire is inserted between the elastic element and the protruding wall through the wire insertion hole. The elastic element is adapted to press the inserted wire against the protruding wall, so as to electrically connect the wire to the conductive body. In this way, it may ensure the connector to achieve reliable electrical connection at high temperature.

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Connector

CROSS-REFERENCE TO RELATED APPLICATION

5 This application claims the benefit of Chinese Patent Application No.201710541388.X filed on July 5, 2017 in the State Intellectual Property Office of China, the whole disclosure of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

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Field of the Invention

At least one embodiment of the present disclosure relates to a connector, more particularly, relates to a connector adapted to work in a high temperature environment.

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Description of the Related Art

In the related art, an insulation housing of a connector generally is made of plastic. Therefore, the connector is only adapted to work at a lower temperature, for example, below
20 80 °C.

In addition, in the related art, the configuration of the connector structures is not suitable for working at a high temperature. The connector generally comprises a plastic housing and an elastic contact received in the plastic housing. The elastic contact may clamp an inserted wire to electrically connect the wire. However, at high temperature, the elastic
25 contact will become soft, resulting in insufficient elasticity, which will reduce the electrical contact performance and lead to poor electrical contact.

SUMMARY OF THE INVENTION

The present disclosure has been made to overcome or alleviate at least one aspect of the
30 above mentioned disadvantages.

According to an aspect of the present disclosure, there is provided a connector, comprising: an insulation housing; a conductive body received in the insulation housing; and an elastic element provided in the conductive body. A protruding wall facing the elastic element is formed on the conductive body, and a wire insertion hole is formed in the
35 insulation housing. A wire is inserted between the elastic element and the protruding wall through the wire insertion hole. The elastic element is adapted to press the inserted wire against the protruding wall, so as to electrically connect the wire to the conductive body.

According to an exemplary embodiment of the present disclosure, the insulation

housing is made of an insulating material capable of withstanding a temperature above 125 °C; and the conductive body and the elastic element are made of a metal material capable of withstanding a temperature above 125 °C.

According to another exemplary embodiment of the present disclosure, the insulation
5 housing is made of a ceramic material.

According to another exemplary embodiment of the present disclosure, a wire positioning slot corresponding to the wire insertion hole is formed on the protruding wall, the wire being inserted into the wire positioning slot through the wire insertion hole. The elastic element is adapted to press the inserted wire in the wire positioning slot of the
10 protruding wall, so as to electrically connect the wire to the conductive body.

According to another exemplary embodiment of the present disclosure, a tool insertion hole is formed in the insulation housing, and a tool is adapted to be inserted into the insulation housing through the tool insertion hole, so as to push the elastic element from a pressing position where the wire is pressed to a releasing position where the wire is released.

According to another exemplary embodiment of the present disclosure, a first
15 protrusion is formed on the insulation body, and the wire insertion hole comprises a pair of first wire insertion holes formed in the first protrusion.

According to another exemplary embodiment of the present disclosure, the elastic element comprises a pair of first elastic elements provided in the conductive body and
20 located at both sides of the protruding wall, respectively. The wire comprises two first wires adapted to be inserted through the pair of first wire insertion holes, respectively, and the pair of first elastic elements are adapted to press the inserted first wires on the both sides of the protruding wall, respectively.

According to another exemplary embodiment of the present disclosure, two first
25 chambers are formed in the conductive body and located at both sides of the protruding wall, respectively, the pair of first elastic elements being mounted in the two first chambers, respectively.

According to another exemplary embodiment of the present disclosure, the wire positioning slot comprises a pair of first wire positioning slots formed on both sides of the
30 protruding wall and corresponding to the pair of first wire insertion holes, respectively. Two first wires are adapted to be inserted into the pair of first wire positioning slots through the pair of first wire insertion holes, respectively; and the pair of first elastic elements are adapted to press the inserted first wires in the pair of first wire positioning slots of the protruding wall, respectively.

According to another exemplary embodiment of the present disclosure, the tool
35 insertion hole comprises a pair of first tool insertion holes formed in the first protrusion and corresponding to the pair of first elastic elements, respectively; and the first tool insertion hole is adjacent to or partly communicated with a corresponding first wire insertion hole.

The tool is adapted to be inserted into the insulation housing through the first tool insertion hole, so as to push the first elastic element from the pressing position where the first wire is pressed to the releasing position where the first wire is released.

According to another exemplary embodiment of the present disclosure, a second protrusion is formed on the insulation housing, and the wire insertion hole further comprises a pair of second wire insertion holes formed in the second protrusion, a center axis of the second wire insertion hole being perpendicular to a center axis of the first wire insertion hole.

According to another exemplary embodiment of the present disclosure, the elastic element further comprises a pair of second elastic elements provided in the conductive body and located at both sides of the protruding wall, respectively. The wire further comprises two second wire adapted to be inserted through the pair of second wire insertion holes, respectively; and the pair of elastic elements are adapted to press the inserted second wires on both sides of the protruding wall, respectively.

According to another exemplary embodiment of the present disclosure, two second chambers are formed in the conductive body and located at both sides of the protruding wall, respectively; the pair of second elastic elements being mounted in the two second chambers, respectively.

According to another exemplary embodiment of the present disclosure, the wire positioning slot further comprises a pair of second wire positioning slots formed on both sides of the protruding wall and corresponding to the pair of second wire insertion holes, respectively, the second wire positioning slot being perpendicular to the first wire positioning slot. Two second wires are adapted to be inserted into the pair of second wire positioning slots through the pair of second wire insertion holes, respectively; and the pair of second elastic elements are adapted to press the inserted second wires in the pair of second wire positioning slots of the protruding wall, respectively.

According to another exemplary embodiment of the present disclosure, the tool insertion hole further comprises a pair of second tool insertion holes formed on the second protrusion and corresponding to the pair of second elastic elements, respectively; and the second tool insertion hole is adjacent to or partly communicated with a corresponding second wire insertion hole. The tool is adapted to be inserted into the insulation housing through the second tool insertion hole, so as to push the second elastic element from the pressing position where the second wire is pressed to the releasing position where the second wire is released.

According to another exemplary embodiment of the present disclosure, the first protrusion and the second protrusion are formed on two adjacent sidewalls of the insulation housing, respectively; and the first protrusion is perpendicular to the second protrusion.

According to another exemplary embodiment of the present disclosure, an opening is

formed in the insulation body, the conductive body is adapted to be mounted into the insulation housing through the opening; and the connector further comprises a cover adapted to seal the opening of the insulation housing.

According to another exemplary embodiment of the present disclosure, the cover comprises a plate-shaped body and a plate-shaped connection part connected to the plate-shaped body, the plate-shaped connection part being perpendicular to the plate-shaped body and connected to the conductive body by a screw. The plate-shaped body of the cover is received in the insulation housing, and tightly contacts an inner wall of the opening of the insulation housing, so as to seal the opening of the insulation housing.

According to another exemplary embodiment of the present disclosure, a through hole is formed in the second protrusion of the insulation housing, and the screw is adapted to enter into the insulation housing through the through hole. A connection hole is formed in the plate-shaped connection part of the cover, and a thread hole is formed in the conductive body, the screw passing through the connection hole and being screwed into the thread hole.

According to another exemplary embodiment of the present disclosure, the cover is made of a ceramic material capable of withstanding a temperature above 125 °C; and the screw is made of a metal material capable of withstanding a temperature above 125 °C.

In the above various exemplary embodiments of the present disclosure, the inserted wire is reliably pressed on the protruding wall of the conductive body by the elastic element, so as to reliably and electrically contact the conductive body. In this way, it may ensure the connector to achieve reliable electrical connection at high temperature.

In addition, in some exemplary embodiments of the present disclosure, since the insulation housing of the connector is made of the ceramic material capable of withstanding a high temperature, the connector may be capable of working at high temperature.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and other features of the present disclosure will become more apparent by describing in detail exemplary embodiments thereof with reference to the accompanying drawings, in which:

Fig.1 is an illustrative exploded view of a connector according to an exemplary embodiment of the present disclosure;

Fig.2 is an illustrative assembled view of the connector according to an exemplary embodiment of the present disclosure;

Fig.3 is an illustrative perspective view of a conductive body of the connector of Fig.1 when viewed from one side thereof;

Fig.4 is an illustrative perspective view of the conductive body of the connector of Fig.1 when viewed from the other side thereof;

Fig.5 is an illustrative view of inserting a wire into the connector of Fig.2;

Fig.6 is an illustrative view of pressing an inserted wire on a protruding wall of the conductive body by an elastic element; and

Fig.7 is an illustrative view of releasing the wire pressed by the elastic element by a tool.

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DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS OF THE INVENTION

Exemplary embodiments of the present disclosure will be described hereinafter in detail with reference to the attached drawings, wherein the like reference numerals refer to the like elements. The present disclosure may, however, be embodied in many different forms and should not be construed as being limited to the embodiment set forth herein; rather, these embodiments are provided so that the present disclosure will be thorough and complete, and will fully convey the concept of the disclosure to those skilled in the art.

In the following detailed description, for purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the disclosed embodiments. It will be apparent, however, that one or more embodiments may be practiced without these specific details. In other instances, well-known structures and devices are schematically shown in order to simplify the drawing.

According to a general concept of the present disclosure, there is provided a connector, comprising: an insulation housing; a conductive body received in the insulation housing; and an elastic element provided in the conductive body. A protruding wall facing the elastic element is formed on the conductive body, a wire insertion hole is formed in the insulation housing, and a wire is inserted between the elastic element and the protruding wall through the wire insertion hole. The elastic element is adapted to press the inserted wire against the protruding wall, so as to electrically connect the wire to the conductive body.

Fig.1 is an illustrative exploded view of a connector according to an exemplary embodiment of the present disclosure; Fig.2 is an illustrative assembled view of the connector according to an exemplary embodiment of the present disclosure.

As shown in Figs.1 and 2, in an embodiment, the connector mainly comprises an insulation housing 100, a conductive body 200, and an elastic element 211, 221. The conductive body 200 is received in the insulation housing 100. The elastic element 211, 221 is provided in the conductive body 200.

Fig.3 is an illustrative perspective view of a conductive body 200 of the connector of Fig.1 when viewed from one side thereof; Fig.4 is an illustrative perspective view of the conductive body 200 of the connector of Fig.1 when viewed from the other side thereof.

As shown in Figs.3 and 4, in an embodiment, a protruding wall 230 facing the elastic element 211, 221 is formed on the conductive body 200. As shown in Figs.1 and 2, a wire

insertion hole 111, 121 is formed in the insulation housing 100.

Fig.5 is an illustrative view of inserting a wire into the connector of Fig.2; Fig.6 is an illustrative view of pressing the inserted wire on the protruding wall of the conductive body by an elastic element.

5 As shown in Figs.5 and 6, in an embodiment, a wire 10, 20 is inserted between the elastic element 211, 221 and the protruding wall 230 through the wire insertion hole 111, 121. The elastic element 211, 221 is adapted to press the inserted wire 10, 20 against the protruding wall 230, so as to electrically connect the wire 10, 20 to the conductive body 200. In this way, a plurality of wires 10, 20 may be electrically connected to each other by the
10 conductive body 200.

In an embodiment, the insulation housing 100 may be made of an insulating material capable of withstanding a temperature above 125 °C, for example, ceramic material. The conductive body 200 and the elastic element 211, 221 may be made of a metal material capable of withstanding a temperature above 125 °C, for example, copper.

15 As shown in Figs.1-6, in an embodiment, a wire positioning slot 231, 232 corresponding to the wire insertion hole 111, 121 is formed on the protruding wall 230, the wire 10, 20 is inserted into the wire positioning slot 231, 232 through the wire insertion hole 111, 121. The elastic element 211, 221 is adapted to press the inserted wire 10, 20 in the wire positioning slot 231, 232 of the protruding wall 230, so as to electrically connect the
20 wire 10, 20 to the conductive body 200.

Fig.7 is an illustrative view of releasing the wire pressed by the elastic element by a tool 30.

As shown in Figs.1-7, in an embodiment, a tool insertion hole 112, 122 is formed in the insulation housing 100, a post-shaped end 301 of a tool 30 is adapted to be inserted into
25 the insulation housing 100 through the tool insertion hole 112, 122, so as to push the elastic element 211, 221 from a pressing position where the wire 10, 20 is pressed to a releasing position where the wire 10, 20 is released.

As shown in Figs.1-6, in an embodiment, a first protrusion 110 is formed on the insulation body 100, and the wire insertion hole 111, 121 comprises a pair of first wire
30 insertion holes 111 formed in the first protrusion 110.

As shown in Figs.1-6, in an embodiment, the elastic element 211, 221 comprises a pair of first elastic elements 211 provided in the conductive body 200 and located at opposite sides of the protruding wall 230, respectively. The wire 10, 20 comprises two first wires 10 adapted to be inserted through the pair of first wire insertion holes 111, respectively, the pair
35 of first elastic elements 211 are adapted to press the inserted first wires 10 on the both sides of the protruding wall 230, respectively.

As shown in Figs.1-6, in an embodiment, two first chambers 210 are formed in the conductive body 200 and located at both sides of the protruding wall 230, respectively, and

the pair of first elastic elements 211 are mounted in the two first chambers 210, respectively.

As shown in Figs.1-6, in an embodiment, the wire positioning slot 231, 232 comprises a pair of first wire positioning slots 231 formed on both sides of the protruding wall 230 and corresponding to and communicated with the pair of first wire insertion holes 111, respectively. Two first wires 10 are adapted to be inserted into the pair of first wire positioning slots 231 through the pair of first wire insertion holes 111, respectively; the pair of first elastic elements 211 are adapted to press the inserted first wires 10 in the pair of first wire positioning slots 231 of the protruding wall 230, respectively.

As shown in Figs.1-6, in an embodiment, the tool insertion hole 112, 122 comprises a pair of first tool insertion holes 112 formed in the first protrusion 110 and corresponding to the pair of first elastic elements 211, respectively; and the first tool insertion hole 112 is adjacent to or partly communicated with a corresponding first wire insertion hole 111.

As shown in Figs.1-6, in an embodiment, the tool 30 is adapted to be inserted into the insulation housing 100 through the first tool insertion hole 112, so as to push the first elastic element 211 from the pressing position where the first wire 10 is pressed to the releasing position where the first wire 10 is released.

As shown in Figs.1-6, in an embodiment, a second protrusion 120 is formed on the insulation housing 100, and the wire insertion hole 111, 121 further comprises a pair of second wire insertion holes 121 formed in the second protrusion 120. A center axis of the second wire insertion hole 121 is perpendicular to a center axis of the first wire insertion hole 111.

As shown in Figs.1-6, in an embodiment, the elastic element 211, 221 further comprises a pair of second elastic elements 221 provided in the conductive body 200 and located at both sides of the protruding wall 230, respectively. The wire 10, 20 further comprises two second wire 121 adapted to be inserted through the pair of second wire insertion holes 121, respectively; and the pair of elastic elements 221 are adapted to press the inserted second wires 20 on both sides of the protruding wall 230, respectively.

As shown in Figs.1-6, in an embodiment, two second chambers 220 are formed in the conductive body 200 and located at both sides of the protruding wall 230, respectively; and the pair of second elastic elements 221 are mounted in the two second chambers 220, respectively.

As shown in Figs.1-6, in an embodiment, the wire positioning slot 231, 232 further comprises a pair of second wire positioning slots 232 formed on both sides of the protruding wall 230 and corresponding to and communicated with the pair of second wire insertion holes 121, respectively; and the second wire positioning slot 232 is perpendicular to the first wire positioning slot 231. Two second wires 20 are adapted to be inserted into the pair of second wire positioning slots 232 through the pair of second wire insertion holes 121, respectively; and the pair of second elastic elements 221 are adapted to press the inserted

second wires 20 in the pair of second wire positioning slots 232 of the protruding wall 230, respectively.

As shown in Figs.1-7, in an embodiment, the tool insertion hole 112, 122 further comprises a pair of second tool insertion holes 122 formed on the second protrusion 120 and corresponding to the pair of second elastic elements 221, respectively; and the second tool insertion hole 122 is adjacent to or partly communicated with a corresponding second wire insertion hole 121. The tool 30 is adapted to be inserted into the insulation housing 100 through the second tool insertion hole 122, so as to push the second elastic element 221 from the pressing position where the second wire 20 is pressed to the releasing position where the second wire 20 is released.

As shown in Figs.1-6, in an embodiment, the first protrusion 110 and the second protrusion 120 are formed on two adjacent sidewalls of the insulation housing 100, respectively; and the first protrusion 110 is perpendicular to the second protrusion 120.

As shown in Figs.1-6, in an embodiment, an opening 101 is formed in the insulation body 100, and the conductive body 200 is adapted to be mounted into the insulation housing 100 through the opening 101. The connector further comprises a cover 300 adapted to seal the opening 101 of the insulation housing 100.

As shown in Figs.1-6, in an embodiment, the cover 300 comprises a plate-shaped body 310 and a plate-shaped connection part 320 connected to the plate-shaped body 310, and the plate-shaped connection part 320 is perpendicular to the plate-shaped body 310 and connected to the conductive body 200 by a screw 301. The plate-shaped body 310 of the cover 300 is received in the insulation housing 100, and tightly contacts an inner wall of the opening 101 of the insulation housing 100, so as to seal the opening 101 of the insulation housing 100.

As shown in Figs.1-6, in an embodiment, a through hole 123 is formed in the second protrusion 120 of the insulation housing 100, and the screw 301 is adapted to enter into the insulation housing 100 through the through hole 123. A connection hole 330 is formed in the plate-shaped connection part 320 of the cover 300, a thread hole 201 is formed in the conductive body 200, and the screw 301 passes through the connection hole 330 and screwed into the thread hole 201.

As shown in Figs.1-6, in an embodiment, the cover 300 is made of a ceramic material capable of withstanding a temperature above 125 °C. The screw 301 is made of a metal material capable of withstanding a temperature above 125 °C.

It should be appreciated for those skilled in this art that the above embodiments are intended to be illustrated, and not restrictive. For example, many modifications may be made to the above embodiments by those skilled in this art, and various features described in different embodiments may be freely combined with each other without conflicting in configuration or principle.

Although several exemplary embodiments have been shown and described, it would be appreciated by those skilled in the art that various changes or modifications may be made in these embodiments without departing from the principles and spirit of the disclosure, the scope of which is defined in the claims and their equivalents.

5 As used herein, an element recited in the singular and proceeded with the word "a" or "an" should be understood as not excluding plural of said elements or steps, unless such exclusion is explicitly stated. Furthermore, references to "one embodiment" of the present disclosure are not intended to be interpreted as excluding the existence of additional
10 embodiments that also incorporate the recited features. Moreover, unless explicitly stated to the contrary, embodiments "comprising" or "having" an element or a plurality of elements having a particular property may include additional such elements not having that property.

What is claimed is,

1. A connector, comprising:
an insulation housing (100);
5 a conductive body (200) received in the insulation housing (100); and
an elastic element (211, 221) provided in the conductive body (200),
characterized in that, a protruding wall (230) facing the elastic element (211, 221) is
formed on the conductive body (200), a wire insertion hole (111, 121) is formed in the
insulation housing (100), and a wire (10, 20) is inserted between the elastic element (211,
10 221) and the protruding wall (230) through the wire insertion hole (111, 121), and
the elastic element (211, 221) is adapted to press the inserted wire (10, 20) against the
protruding wall (230), so as to electrically connect the wire (10, 20) to the conductive body
(200).
- 15 2. The connector according to claim 1,
wherein the insulation housing (100) is made of an insulating material capable of
withstanding a temperature above 125 °C; and
wherein the conductive body (200) and the elastic element (211, 221) are made of a
metal material capable of withstanding a temperature above 125 °C ; and/or the insulation
20 housing (100) is made of a ceramic material.
3. The connector according to claim 1 or 2,
wherein a wire positioning slot (231, 232) corresponding to the wire insertion hole (111,
121) is formed on the protruding wall (230), the wire (10, 20) being inserted into the wire
25 positioning slot (231, 232) through the wire insertion hole (111, 121); and
wherein the elastic element (211, 221) is adapted to press the inserted wire (10, 20) in
the wire positioning slot (231, 232) of the protruding wall (230), so as to electrically connect
the wire (10, 20) to the conductive body (200).
- 30 4. The connector according to claim 3,
wherein a tool insertion hole (112, 122) is formed in the insulation housing (100), and
a tool (30) is adapted to be inserted into the insulation housing (100) through the tool
insertion hole (112, 122), so as to push the elastic element (211, 221) from a pressing
position where the wire (10, 20) is pressed to a releasing position where the wire (10, 20) is
35 released.
5. The connector according to claim 4,
wherein a first protrusion (110) is formed on the insulation body (100), and the wire

insertion hole (111, 121) comprises a pair of first wire insertion holes (111) formed in the first protrusion (110).

6. The connector according to claim 5,

5 wherein the elastic element (211, 221) comprises a pair of first elastic elements (211) provided in the conductive body (200) and located at both sides of the protruding wall (230), respectively; and

10 wherein the wire (10, 20) comprises two first wires (10) adapted to be inserted through the pair of first wire insertion holes (111), respectively, and the pair of first elastic elements (211) are adapted to press the inserted first wires (10) on the both sides of the protruding wall (230), respectively.

7. The connector according to claim 6,

15 wherein two first chambers (210) are formed in the conductive body (200) and located at both sides of the protruding wall (230), respectively, the pair of first elastic elements (211) being mounted in the two first chambers (210), respectively.

8. The connector according to claim 7,

20 wherein the wire positioning slot (231, 232) comprises a pair of first wire positioning slots (231) formed on both sides of the protruding wall (230) and corresponding to the pair of first wire insertion holes (111), respectively; and

25 wherein two first wires (10) are adapted to be inserted into the pair of first wire positioning slots (231) through the pair of first wire insertion holes (111), respectively; and the pair of first elastic elements (211) are adapted to press the inserted first wires (10) in the pair of first wire positioning slots (231) of the protruding wall (230), respectively.

9. The connector according to claim 8,

30 wherein the tool insertion hole (112, 122) comprises a pair of first tool insertion holes (112) formed in the first protrusion (110) and corresponding to the pair of first elastic elements (211), respectively; and the first tool insertion hole (112) is adjacent to or partly communicated with a corresponding first wire insertion hole (111); and

35 wherein the tool (30) is adapted to be inserted into the insulation housing (100) through the first tool insertion hole (112), so as to push the first elastic element (211) from the pressing position where the first wire (10) is pressed to the releasing position where the first wire (10) is released.

10. The connector according to any one of claims 6-9,

wherein a second protrusion (120) is formed on the insulation housing (100), and the

wire insertion hole (111, 121) further comprises a pair of second wire insertion holes (121) formed in the second protrusion (120), a center axis of the second wire insertion hole (121) being perpendicular to a center axis of the first wire insertion hole (111).

5 11. The connector according to claim 10,

wherein the elastic element (211, 221) further comprises a pair of second elastic elements (221) provided in the conductive body (200) and located at both sides of the protruding wall (230), respectively; and

10 wherein the wire (10, 20) further comprises two second wire (121) adapted to be inserted through the pair of second wire insertion holes (121), respectively; and the pair of elastic elements (221) are adapted to press the inserted second wires (20) on both sides of the protruding wall (230), respectively.

15 12. The connector according to any one of claims 1-11,

wherein an opening (101) is formed in the insulation body (100), and the conductive body (200) is adapted to be mounted into the insulation housing (100) through the opening (101); and

20 wherein the connector further comprises a cover (300) adapted to seal the opening (101) of the insulation housing (100).

13. The connector according to claim 12,

25 wherein the cover (300) comprises a plate-shaped body (310) and a plate-shaped connection part (320) connected to the plate-shaped body (310), the plate-shaped connection part (320) being perpendicular to the plate-shaped body (310) and connected to the conductive body (200) by a screw (301); and

30 wherein the plate-shaped body (310) of the cover (300) is received in the insulation housing (100), and tightly contacts an inner wall of the opening (101) of the insulation housing (100), so as to seal the opening (101) of the insulation housing (100).

14. The connector according to claim 17,

wherein a through hole (123) is formed in the second protrusion (120) of the insulation housing (100), and the screw (301) is adapted to enter into the insulation housing (100) through the through hole (123); and

35 wherein a connection hole (330) is formed in the plate-shaped connection part (320) of the cover (300), and a thread hole (201) is formed in the conductive body (200), the screw (301) passing through the connection hole (330) and being screwed into the thread hole (201).

15. The connector according to claim 14,
wherein the cover (300) is made of a ceramic material capable of withstanding a
temperature above 125 °C; and
5 wherein the screw (301) is made of a metal material capable of withstanding a
temperature above 125 °C.

DRAWINGS

1/7

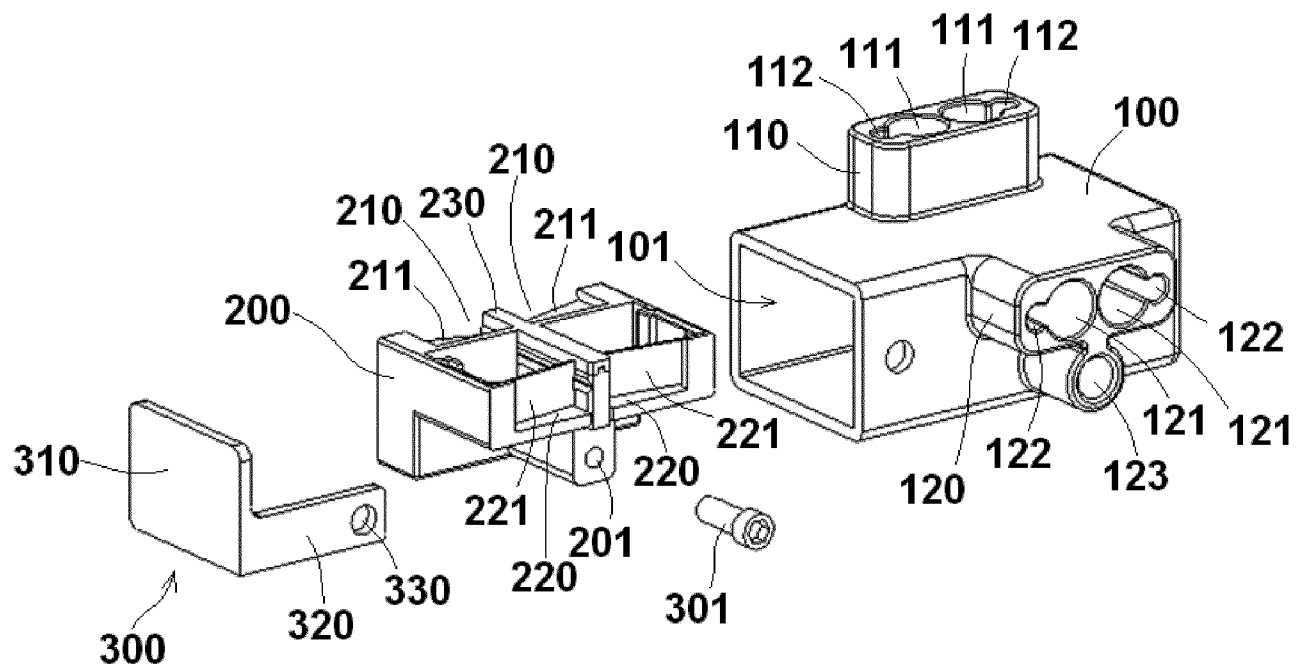


Fig.1

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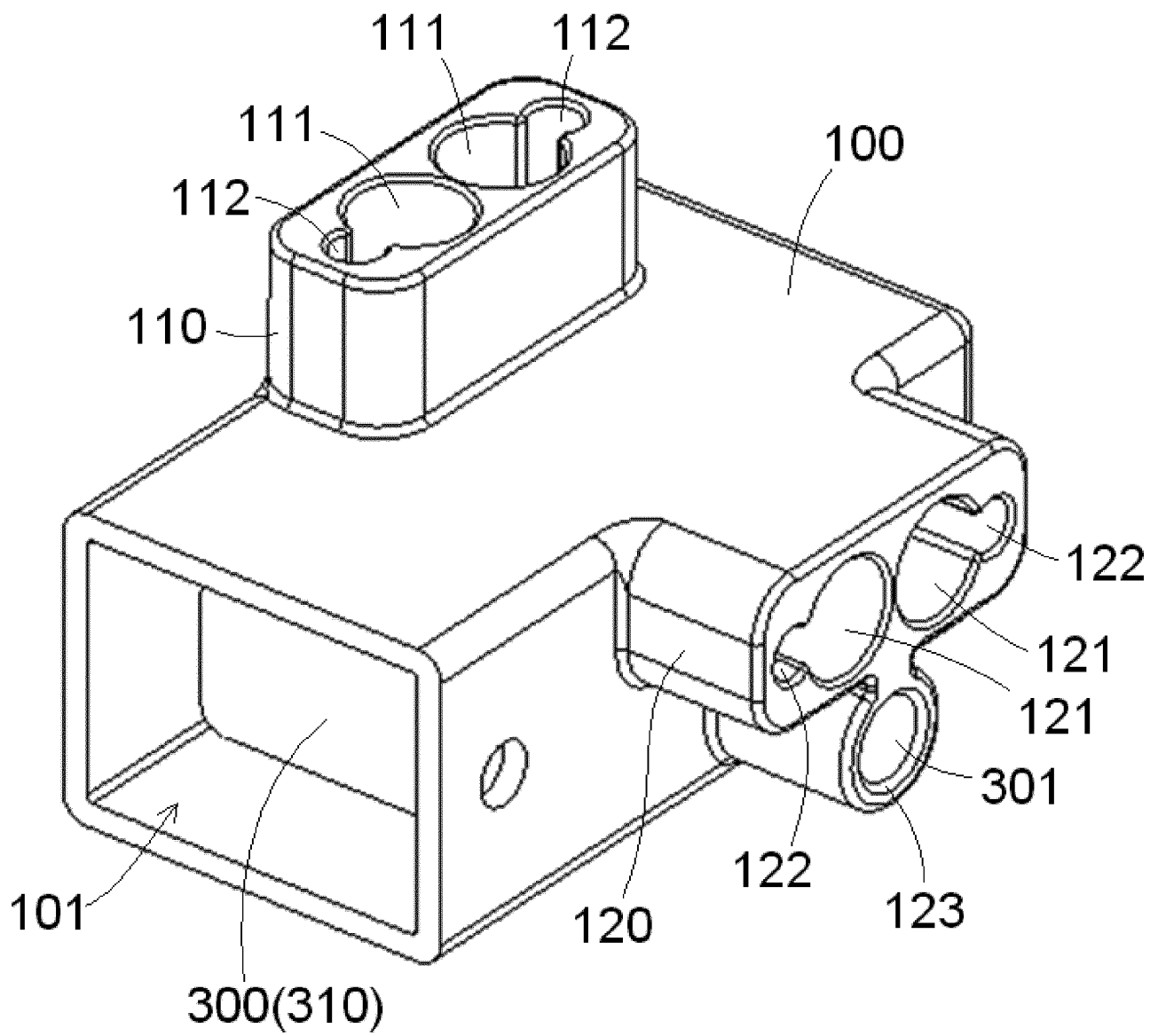


Fig.2

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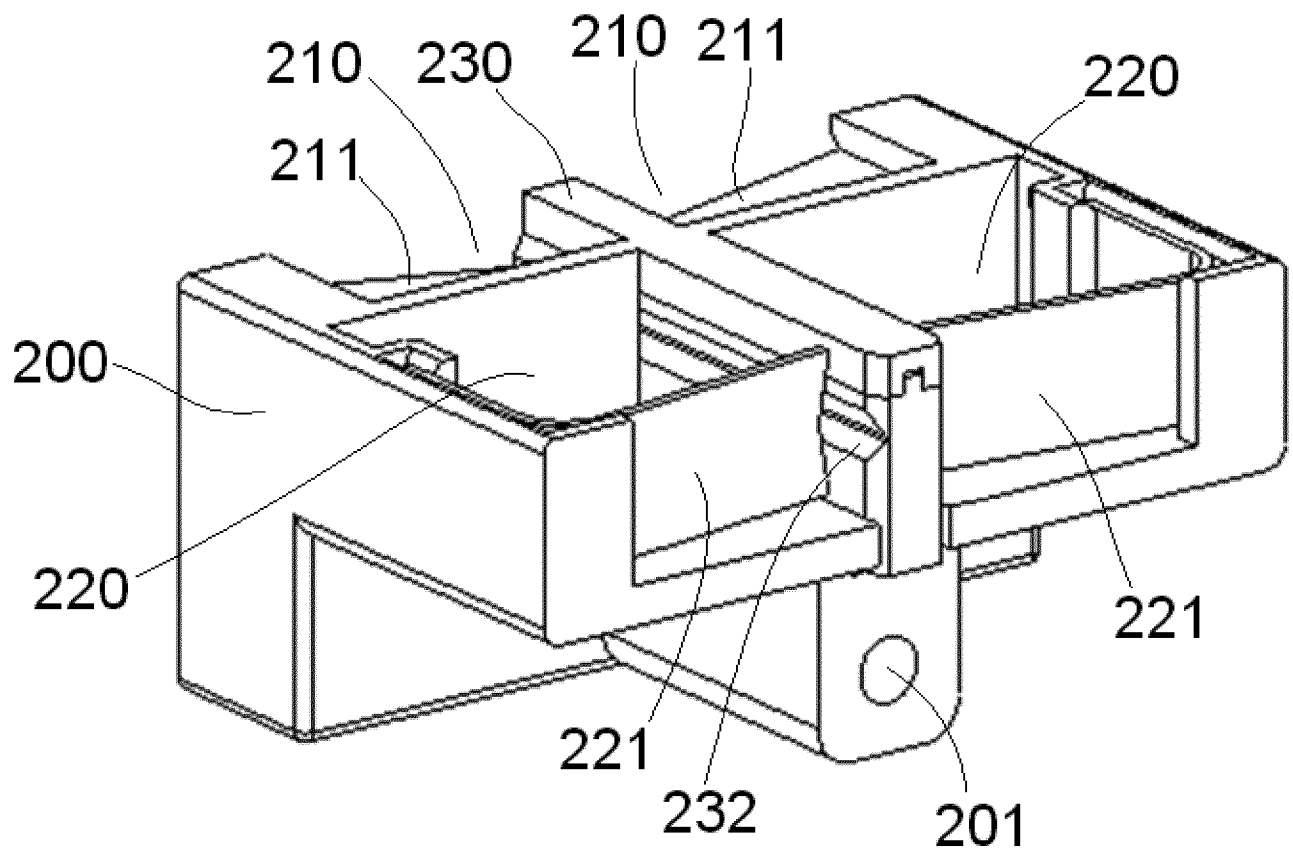


Fig.3

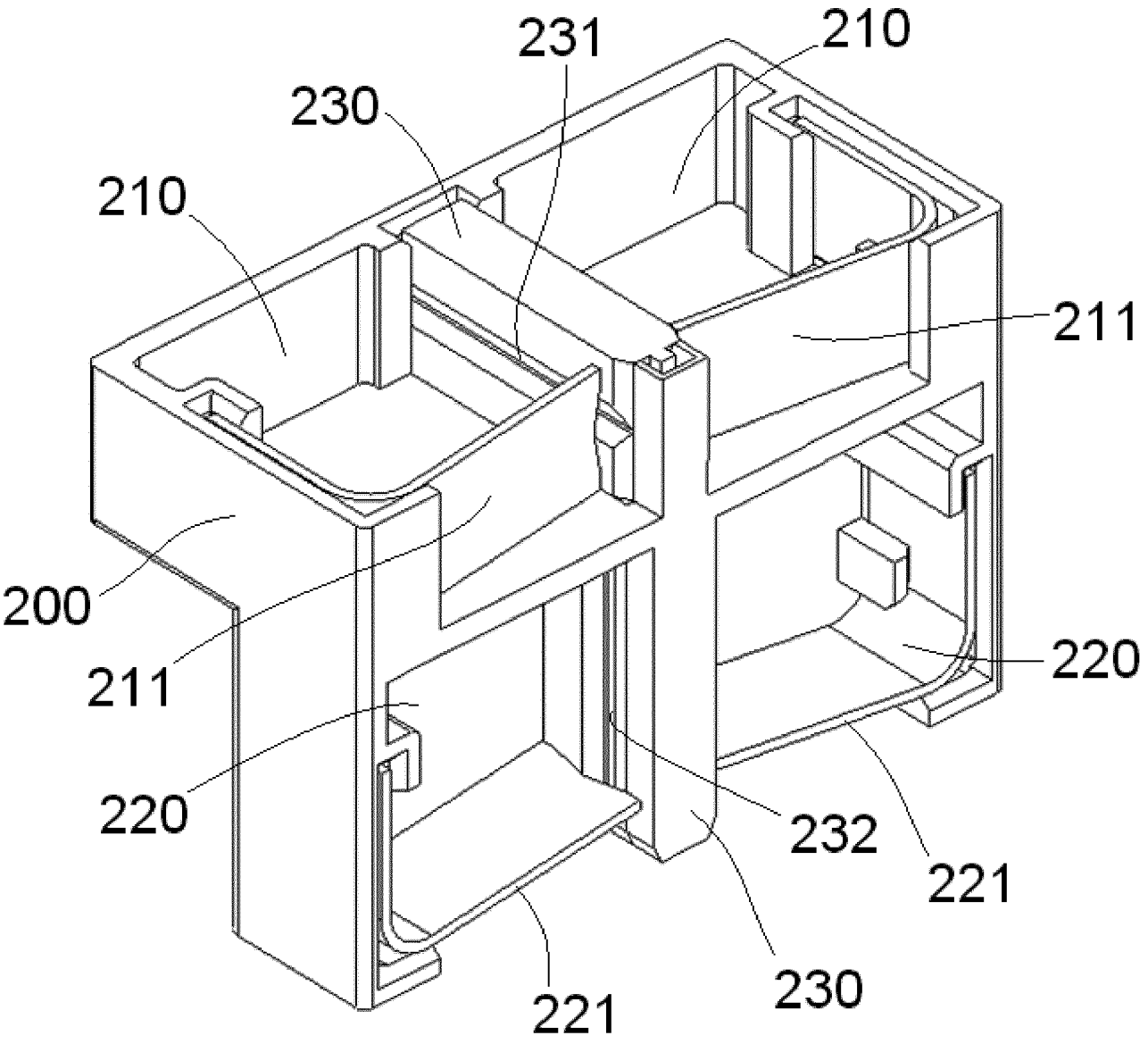


Fig.4

5/7

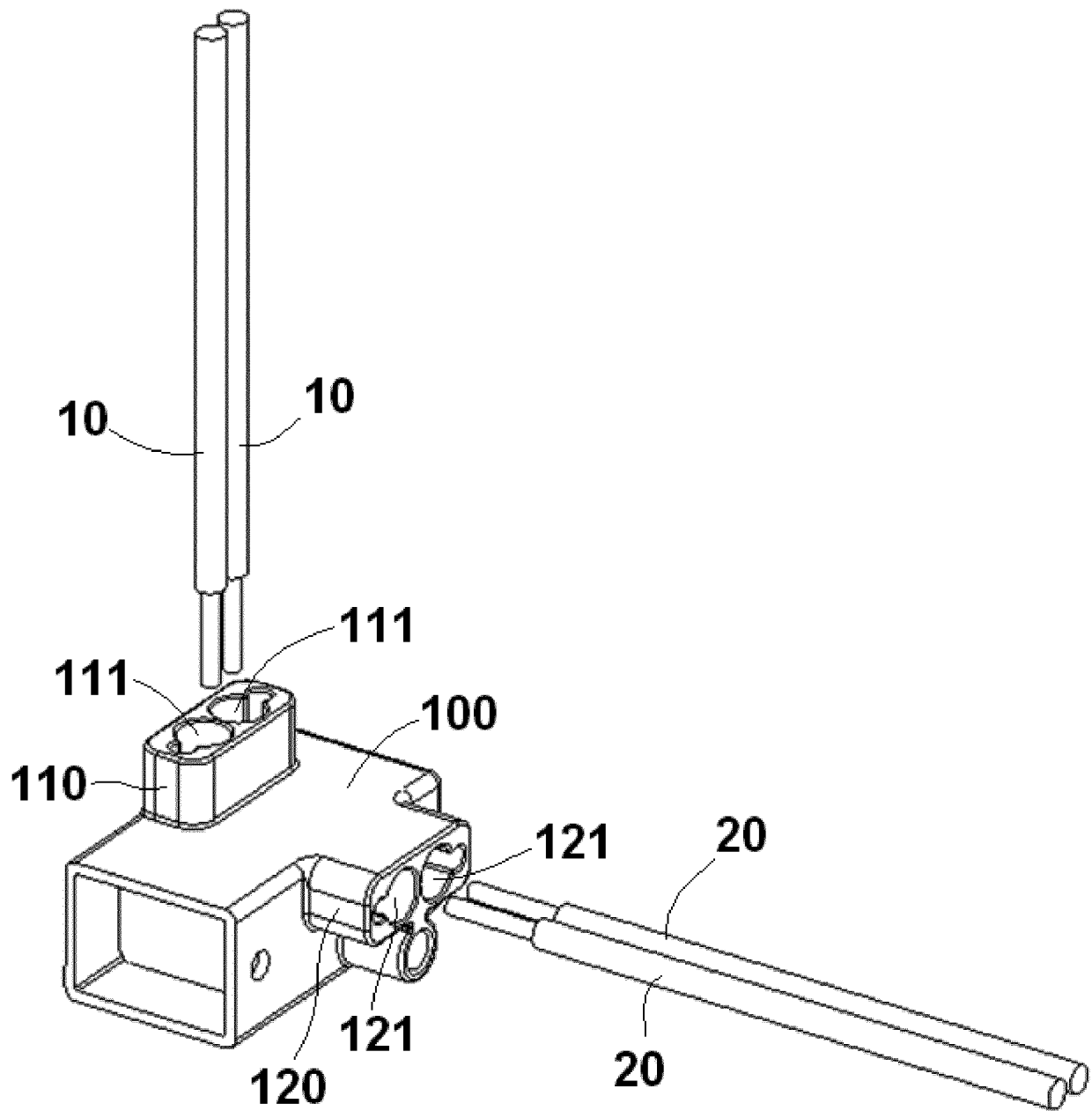


Fig.5

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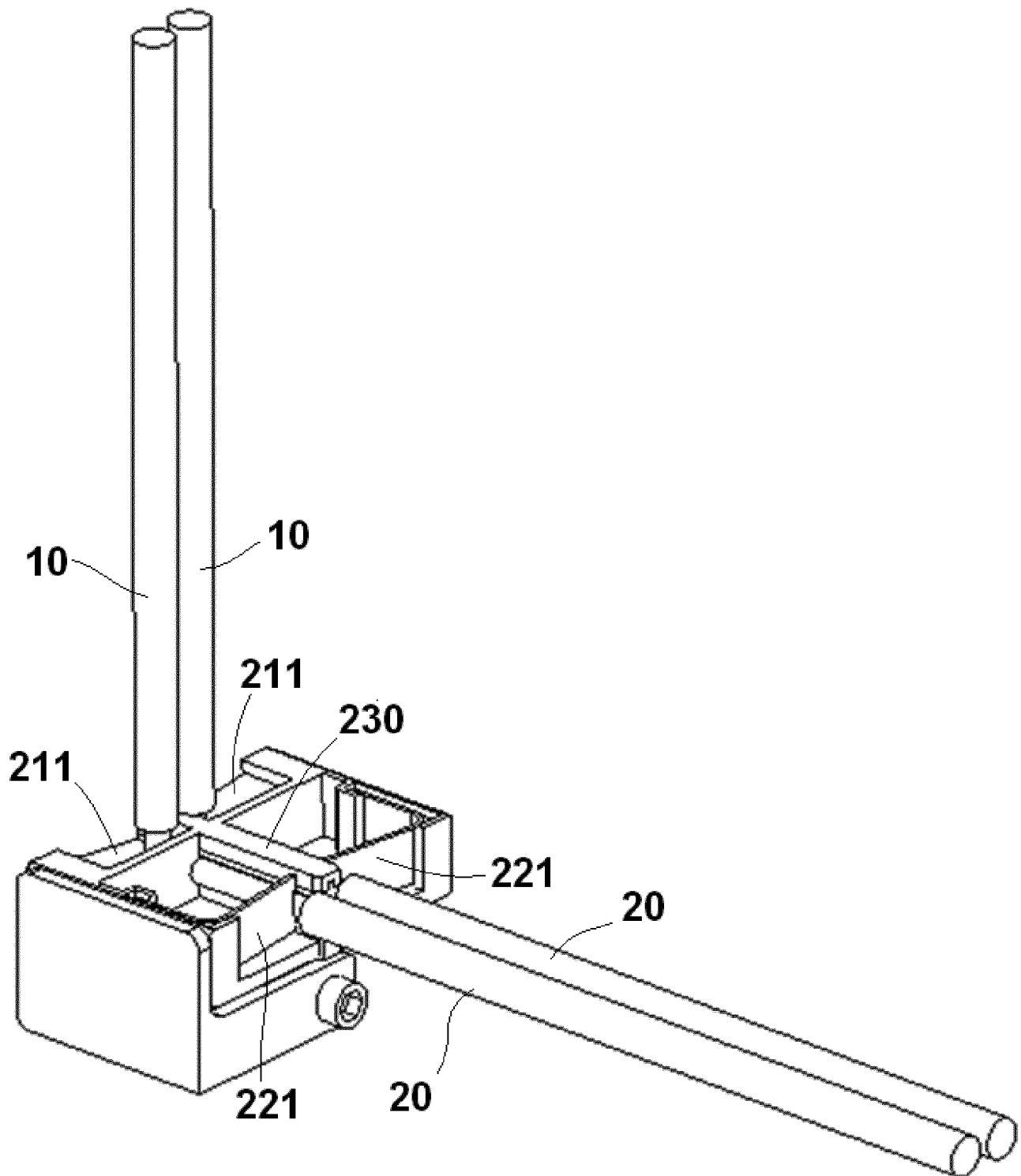


Fig.6

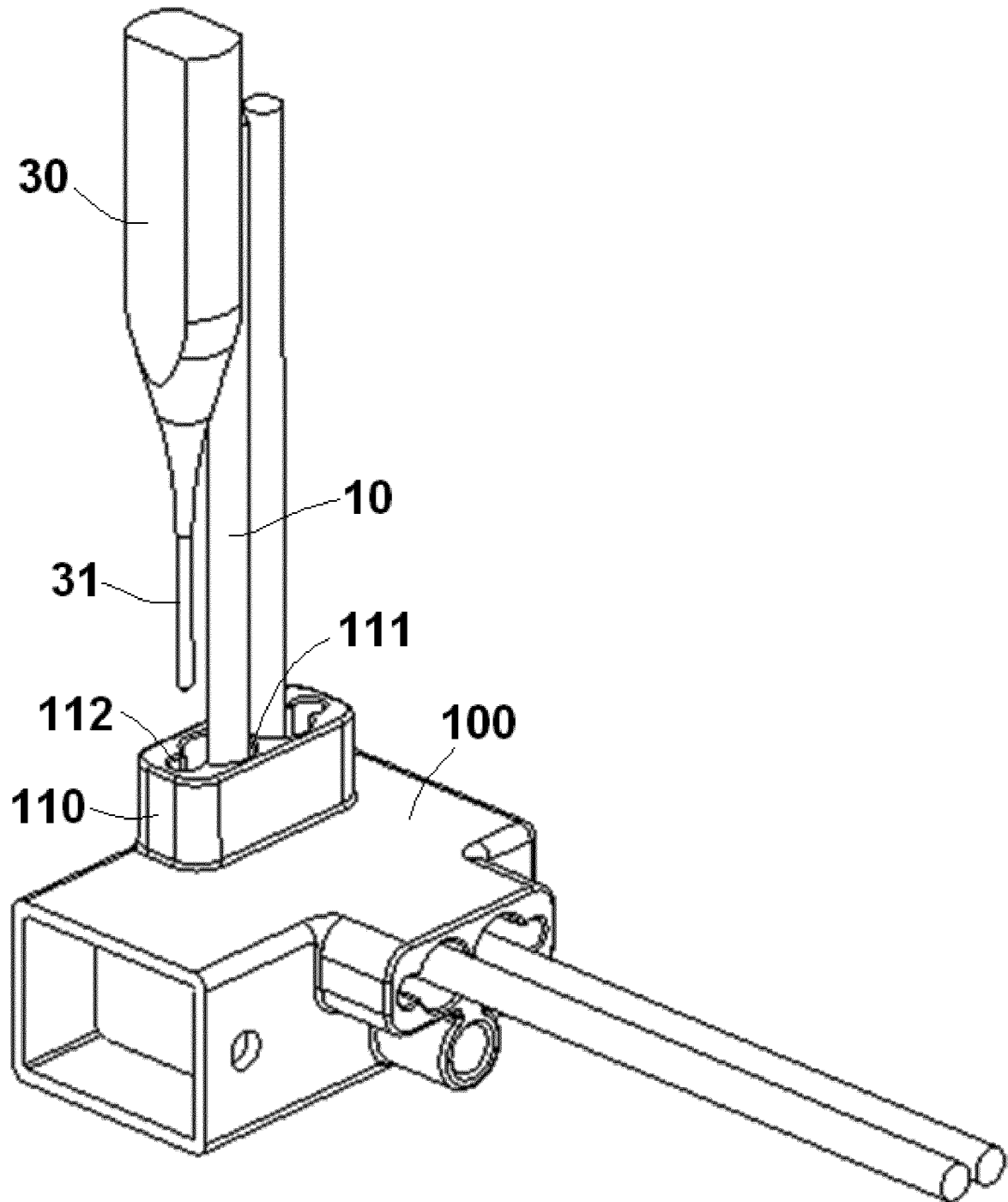


Fig.7

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2018/068123

A. CLASSIFICATION OF SUBJECT MATTER
 INV. H01R13/533 H01R4/48
 ADD.

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)
 H01R

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)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2009/103515 A2 (MUTH BRUNO [DE]; BEGEMANN KLAUS [DE]; KATHMANN ANSGAR [DE]; KETTERN MA) 27 August 2009 (2009-08-27)	1,2, 12-14
Y	page 1, line 23 - page 2, line 20; claims 1,3, 4,5, 6; figures 1-3 page 3, line 8 - page 13, line 15	15
X	US 2006/199444 A1 (GERMANI EMILIO [IT]) 7 September 2006 (2006-09-07) paragraph [0030] - paragraph [0064]; figures 1-6	1,3-11, 14
X	EP 2 263 757 A1 (SPELSBERG GUENTHER GMBH CO KG [DE]) 22 December 2010 (2010-12-22)	1-9,14
Y	paragraph [0009] - paragraph [0011] paragraph [0019] - paragraph [0024]; claims 1-12; figure (31)(see detail of figure 2 below)	15
	----- -/-	



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

26 September 2018

Date of mailing of the international search report

08/10/2018

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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2018/068123

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 916 742 A1 (LEGRAND FRANCE [FR]; LEGRAND SNC [FR]) 30 April 2008 (2008-04-30) paragraph [0012] - paragraph [0055]; figures 1-14 -----	1,3-14
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International application No

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