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(54) **INSTALLATION STRUCTURE, ILLUMINATION DEVICE COMPRISING THE INSTALLATION STRUCTURE AND INSTALLATION METHOD THEREOF**

INSTALLATIONSSTRUKTUR, BELEUCHTUNGSVORRICHTUNG MIT DER INSTALLATIONSSTRUKTUR UND INSTALLATIONSVERFAHREN DAFÜR

STRUCTURE D'INSTALLATION, DISPOSITIF D'ÉCLAIRAGE COMPRENANT LADITE STRUCTURE ET SON PROCÉDÉ D'INSTALLATION

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Description

Technical Field

[0001] The present invention relates to an installation structure for fixing an illumination device and an illumination device comprising the installation structure, and an installation method for fixing the illumination device.

Background Art

[0002] The short circuit failure may occur when the conventional illumination device and LED illumination device are installed and maintained, wherein for installation of the illumination device, professional technical personnel and special tools are usually needed in the installation operation, and in order to suitably install and fix the illumination device on for instance the ceiling board, a lot of time and energy are cost. Besides, when non-professional personnel perform the installation and if the installation is inappropriate or failed, not only the normal use of the illumination device will be influenced or the normal service lifetime of the illumination device is reduced, but also potential safety accidents may occur.

[0003] At present, for instance in order to install the conventional illumination device, such as an incandescent lamp or a fluorescent lamp, onto the ceiling board, respective parts of the illumination device should be firstly carefully connected mechanically, and when the illumination device is fixed onto the ceiling board, wires should be manually processed, and connected to the illumination device with a special tool so as to form electric connection. Furthermore, for instance, in order to install the LED illumination device onto the ceiling board, the cover of the LED illumination device must be opened such that the normal installation operation can be carried out, and this also will make the installation of the illumination device more difficult.

[0004] Moreover, EP 2 495 492 A2 discloses an illumination device that includes a light source part having a flat light emitting panel, and an attached part detachably attached to the light source part. Engaging parts are provided at one end on the side of a non-light emitting surface of the light source part, engaged parts are provided on an attached surface of the attached part, to which the light source part is attached, and the light source part can be freely rotated relative to the attached part in a state where the engaging parts are engaged with the engaged parts. The light sourc part and the attached part are provided with holding parts and held parts, respectively, and are held in the state where the light source part is attached to the attached part.

Summary of the Invention

[0005] In order to solve the above technical problems, the present invention provides a novel installation structure for fixing the illumination device and an illumination device comprising the installation structure, and an installation method for fixing the illumination device. With the installation structure and the installation method according to the present invention, the illumination device could be installed and fixed conveniently and quickly to a mounting position, moreover, the installation structure has a simple structure and a low cost, is easy to manufacture, and can be quickly installed or removed by any user without professional technical personnel. Furthermore, the light source of the illumination device having this installation structure can be changed simply according to user's requirement, and the device can be maintained easily by various users.

[0006] One of the objects of the present invention is achieved via such an installation structure for fixing an illumination device, wherein the illumination device comprises a first mounting plate at least carrying a light source of the illumination device, wherein the installation structure comprises a second mounting plate, and the first mounting plate comprises a first assembling unit and a second assembling unit which are arranged opposite to each other on the first mounting plate, the second mounting plate comprises a first installation portion and a second installation portion, wherein the first installation portion is plugged into the first assembling unit, and through the first mounting plate rotating relative to the second mounting plate the second installation portion is locked in or unlocked from the second assembling unit. According to the installation structure in the present invention, after the second mounting plate being fixed to a mounting position such as ceiling or walls, the illumination device is fixed to the mounting position in a manner of a mechanical connection by installing or fixing the first mounting plate or the assembled illumination device having the first mounting plate to the second mounting plate. Such installation structure is simple, and the illumination device can be fixed to for instance the ceiling or the wall by means of the installation structure through quite simple operation steps.

[0007] Moreover, the first mounting plate is rotated relative to the second assembling unit around a rotation axis perpendicular to the first mounting plate and extending through the first assembling unit. By means of the installation of the first assembling unit and the first installation portion, i.e. the first mounting plate partially forming connection with the second mounting plate, through the rotation of the first mounting plate around the above rotation axis, the second assembling unit arranged on the first mounting plate approaches, with the function of the rotation, and finally removably connect to the second installation portion of the second mounting plate.

[0008] According to an embodiment of the present invention, preferably, the second installation portion is configured to be capable of being locked in or unlocked from the second assembling unit in a removable manner in a circumferential direction of the first mounting plate. According to such solution, the second installation portion can approach to the second assembling unit with the

function of rotation from a side of the second assembling unit or in a circumferential direction of the first mounting plate, and thus can be mechanically connected with the second assembling unit in a removable manner.

[0009] According to one example of the present invention, preferably, the first assembling unit is configured as a plug-in part, and the second assembling unit is configured as a snap-on part. The first assembling unit configured as a plug-in part enables the first installation portion of the second mounting plate to be connected to the first assembling unit of the first mounting plate in an insertion manner, and in cooperation with the rotation movement of the first mounting plate relative to the second mounting plate, the second assembling unit of the first mounting plate can be snapped on the second installation portion of the second mounting plate, for instance in a lateral direction of the second assembling unit or in a circumferential direction of the first mounting plate.

[0010] Advantageously, the first installation portion is arranged at a first free end of the second mounting plate, the second installation portion is arranged at a second free end of the second mounting plate opposite to the first free end, and the first installation portion and the second installation portion are respectively configured to be bent in a direction away from a plane defined by a main body of the second mounting plate. According to such configuration, while the manufacturing material of the second mounting plate is saved, it can facilitate insertion of the first installation portion into the first assembling unit, and the second installation portion also can be easily snapped on the second assembling unit when the first mounting plate is rotated.

[0011] Preferably, the first installation portion and the second installation portion are respectively configured to be bent towards the first mounting plate. According to such solution, space which can receive other devices related to the illumination device or the installation structure, such as electrical connection devices, is present between the second mounting plate and the first mounting plate after the second mounting plate being installed onto the first mounting plate, which makes it easy to fully use the space between the installation structure and the illumination device and simplify the structure of the installation structure.

[0012] Preferably, the second mounting plate is made of a strip sheet. The second mounting plate configured as strip sheet can save the material and the cost of the installation structure, provides a structure which does not require a large space, and facilitates mechanical connection of the second mounting plate with the first mounting plate using the rotation movement of the first mounting plate relative to the second assembling plate.

[0013] Another object of the present invention is accomplished via such an illumination device that comprises the installation structure as the above, and the illumination device further comprises a first power connector arranged on the first mounting plate and a second power connector arranged on the second mounting plate, wherein the first power connector and the second power connector could be engaged or disengaged so that an electrical connection therebetween could be formed or disconnected. According to such configuration, the electric connection of the illumination device having the installation structure is completed when the mechanical connection between the first mounting plate and the second mounting plate is completed, such that it is easier to achieve the electrical function of the illumination device in the installation without additional electric wiring.

[0014] According to one example of the present invention, the first power connector and the second power connector are configured to be capable of being engaged so as to form an electric connection or being disengaged so as to disconnect the electric connection when the first mounting plate is rotated relative to the second mounting plate. The first power connector, by means of the rotation movement of the first mounting plate relative to the second mounting plate, can be connected to the second power connector without other connection actions, so as to achieve the electric connection of the illumination device.

[0015] Preferably, the first power connector is configured as a plug or a socket, and the second power connector is configured as a socket or a plug. According to such configuration, the first power connector can be directly inserted into the second power connector with the rotation movement of the first mounting plate relative to the second mounting plate, and an electric connection and a mechanical connection of the two connectors is achieved.

[0016] The present invention further relates to an installation method for fixing an illumination device comprising a first mounting plate, comprising: 1) fixing a second mounting plate of an installation structure for fixing the illumination device to a mounting position; 2) a first assembling unit and a second assembling unit which are arranged opposite to each other being provided on the first mounting plate, plugging a first installation portion of the second mounting plate into the first assembling unit; and 3) rotating the first mounting plate relative to the second mounting plate around a rotation axis perpendicular to the first mounting plate and extending through the first assembling unit, and locking the second installation portion of the second mounting plate in the second assembling unit or releasing the locking connection from the second assembling unit in a removable manner. According to the installation method for fixing the illumination device in the present invention, any user can quickly and simply fix the illumination device to a mounting position without professional technical personnel.

[0017] According to the installation method for fixing the illumination device in the present invention, the second installation portion is locked in or unlocked from the second assembling unit in a removable manner in a circumferential direction of the first mounting plate. The electrical connection of the illumination device is achieved when the mechanical connection of the first mounting plate and the second mounting plate is

achieved.

Brief Description of the Drawings

[0018] The accompanying drawings constitute a part of the present Description and are used to provide further understanding of the present invention. Such accompanying drawings illustrate the embodiments of the present invention and are used to describe the principles of the present invention together with the Description. In the accompanying drawings the same components are represented by the same reference numbers. As shown in the drawings:

Fig. 1 shows an exploded view of an illumination device with an installation structure according to an embodiment of the present invention;

Fig. 2 shows a schematic diagram of an installation structure according to an embodiment of the present invention; and

Fig. 3 shows a top view of the illumination device installed with the installation structure according to an embodiment of the present invention.

Detailed Description of the Embodiments

[0019] Fig. 1 shows an exploded view of an illumination device 200 with an installation structure 100 according to an embodiment of the present invention. As shown in Fig. 1, the illumination device 200 comprises a first mounting plate 1 which is configured in a disk shape and can be provided with a light source of the illumination device 200, and the first mounting plate 1 is further provided with a first assembling unit 11 and a second assembling unit 12, wherein the first assembling unit 11 and the second assembling unit 12 can be provided on the circumferential edge of the first mounting plate 1, and the first assembling unit 11 and the second assembling unit 12 can be installed and fixed on the first mounting plate 1 with for instance bolts 24, and wherein the light source can be configured as an LED light source or conventional fluorescent light source. Preferably, the first assembling unit 11 and the second assembling unit 12 are arranged separately, opposite to each other, on the first mounting plate 1, and a line connecting the first assembling unit 11 and the second assembling unit 12 preferably can pass through the center of the first mounting plate 1 configured in a disk shape, in this way a distance between the first mounting plate 11 and the second mounting plate 12 can be configured to be the largest as much as possible.

[0020] The installation structure 100 comprises a second mounting plate 2. When the first mounting plate 1 is installed to the second mounting plate 2, for instance, a first installation portion 21 of the second mounting plate 2 can be firstly inserted into the first assembling unit 11 which has been already mounted to the first mounting plate 1, and the first mounting plate 1 is rotated around the first assembling unit 11 relative to the second mounting plate 2 in a clockwise or anticlockwise direction. The first mounting plate 1 and the second mounting plate 2 respectively can be configured to be made of a rigid material such as metal or resin plastic, wherein the first assembling unit 11 is preferably configured as a plug-in part such that the first installation portion 21 provided at one free end of the second mounting plate 2 can be inserted into the part to form partial connection of the first mounting plate 1 with the second mounting plate 2. The second assembling unit 12 is preferably configured as a snap-on part which can have a lateral opening after being assembled to the first mounting plate 1, that is, for instance, the opening can be configured to be oriented to a clockwise direction or an anticlockwise direction of the first mounting plate 1. According to the position of the second assembling unit 12 on the first mounting plate 1 and the orientation of the opening of the second assembling unit 12 configured, rotation directions of the first mounting plate 1 relative to the second mounting plate 2 will not be the same when the first mounting plate 1 is connected with the second mounting plate 2, but when the first mounting plate 1 is removed from the second mounting plate 2, the rotation direction of the first mounting plate 1 will be opposite to the direction when the first mounting plate 1 is installed. Nevertheless, after the first installation portion 21 is inserted into the first assembling unit 11, when the first mounting plate 1 is rotated relative to the second mounting plate 2, the second installation portion 22 is always snapped on the first assembling unit 11, for instance, in a circumferential direction of the first mounting plate 1 from a side of the first assembling unit 11.

[0021] In order to fix the second mounting plate 2 to a position where it is to be fixed, for example the ceiling or the wall, the second mounting plate 2 can be provided with assembling holes 23, and can be fixed to the mounting position using for example bolts passing through the assembling holes 23 via guide blocks.

[0022] Fig. 1 further shows a first power connector 31 which can be provided on the first mounting plate 1 and a second power connector 32 which can be provided on the second mounting plate 2, wherein the first power connector 31 can be configured as a plug or a socket, and the second power connector 32 can be correspondingly configured as a socket or a plug in accordance with the first power connector 31. Besides, the first power connector 31 preferably is arranged on a surface of the first mounting plate 1 oriented to the second mounting plate 2, and the second power connector 32 further can be provided between the first mounting plate 1 and the second mounting plate 2, in this way, after the mechanical connection between the first mounting plate 1 and the second mounting plate 2 is completed, with the aid of the rotation movement of the first mounting plate 1 relative to the second mounting plate 2, the first power connector 31 can be connected to and form electric connection with

the second power connector 32, wherein as the first mounting plate 1 is rotated around the first assembling unit 11, the first power connector 31 approaches the second power connector 32 from a side of the second mounting plate 2 and, as a result, is connected to the second power connector 32.

[0023] Fig. 2 shows a schematic diagram of the installation structure 100 according to an embodiment of the present invention. The installation structure 100 comprises the second mounting plate 2 configured as a strip sheet. The second mounting plate 2 is configured in an elongated strip shape, and preferably has a length equal to or greater than a distance between the first assembling unit 11 and the second assembling unit 12. The second mounting plate 2 comprises installation portions, i.e. first installation portion 21 and second installation portion 22, preferably arranged at two free ends thereof,. The first installation portion 21 and the second installation portion 22 are respectively configured to be bent in a direction away from a plane defined by a main body of the second mounting plate 2, and preferably, the first installation portion 21 and the second installation portion 22 are enabled to be bent towards the first mounting plate 1, consequently, a space which can receive other devices such as electronic devices is formed between the first mounting plate 1 and the second mounting plate 2 after the second mounting plate 2 being installed onto the first mounting plate 1, and the electrical devices can be powered via wires 25 arranged on the second mounting plate 2, and wherein in cases where the length of the second mounting plate 2 is configured to be larger or far larger than the distance between the first assembling unit 11 and the second assembling unit 12, the first installation portion 21 and the second installation portion 22 can be preferably configured on the second mounting plate 2 and away from the two free ends of the second mounting plate 2. Besides, when the first installation portion 21 is arranged at the free end of the second mounting plate 2, the first installation portion 21 can be configured with an fool-proof structure, for example, a wall structure 211 configured being vertical on the main body of the first installation portion 21. In order to be capable of connecting the second installation portion 22 to the second assembling unit 12 on a side of the second assembling unit 12, and structurally distinguishing the second installation portion 22 from the first installation portion 21, the second installation portion 22 also can be configured with an fool-proof structure, for example, a barb structure 212 configured being vertical on the main body of the second installation portion 22.

[0024] Fig. 3 shows a top view of the illumination device 200 installed with the installation structure 100 according to an embodiment of the present invention. As shown in Fig. 2, after installation of the first mounting plate 1 on the second mounting plate 2, not only mechanical connection between the first mounting plate 1 and the second mounting plate 2 is formed, but also electrical connection between the first mounting plate 1 and the second mounting plate 2 is formed at the same time through the electrical connection between the first power connector 31 arranged on the first mounting plate 1 and the second power connector 32 arranged on the second mounting plate 2. Thereby, when the illumination device 200 according to the present invention is installed and connected with the help of the installation structure 100, it is achieved not only fixing of the illumination device 200 to a mounting position, but also the electric connection of the illumination device 200.

[0025] The above is merely preferred embodiments of the present invention but not intended to limit the present invention. For the person skilled in the art, the present invention may have various alterations and changes, according to the scope of the present invention as defined in the appended claims.

List of reference signs

[0026]

1	first mounting plate
2	second mounting plate
11	first assembling unit
12	second assembling unit
21	first installation portion
22	second installation portion
23	assembling hole
24	bolt
25	wire
31	first power connector
32	second power connector
211	wall structure
212	barb structure
100	installation structure
200	illumination device

Claims

1. An installation structure (100) for fixing an illumination device (200), comprising a first mounting plate (1) at least carrying a light source of the illumination device (200), wherein the installation structure (100) comprises a second mounting plate (2), and the first mounting plate (1) comprises a first assembling unit (11) and a second assembling unit (12) which are arranged opposite to each other on the first mounting plate (1), the second mounting plate (2) comprises a first installation portion (21) and a second installation portion (22), wherein the first installation portion (21) is plugged into the first assembling unit (11), and the second installation portion (22) is locked in or unlocked from the second assembling unit (12) by rotating the first mounting plate relative to the second mounting plate, **characterized in that** the first mounting plate (1) is rotated relative to the second assembling unit (12) around a rotation axis perpen-

dicular to the first mounting plate (1) and extending through the first assembling unit (11).

2. The installation structure (100) according to claim 1, **characterized in that** the second installation portion (22) is configured to be capable of being locked in or unlocked from the second assembling unit (12) in a removable manner in a circumferential direction of the first mounting plate (1).

3. The installation structure (100) according to claim 1, **characterized in that** the first assembling unit (11) is configured as a plug-in part, and the second assembling unit (12) is configured as a snap-on part.

4. The installation structure (100) according to any one of claims 1-3, **characterized in that** the first installation portion (21) is arranged at a first free end of the second mounting plate (2), the second installation portion (22) is arranged at a second free end of the second mounting plate (2) opposite to the first free end, and the first installation portion (21) and the second installation portion (22) are respectively configured to be bent in a direction away from a plane defined by a main body of the second mounting plate (2).

5. The installation structure (100) according to claim 4, **characterized in that** the first installation portion (21) and the second installation portion (22) are respectively configured to be bent towards the first mounting plate (1).

6. The installation structure (100) according to claim 1, **characterized in that** the second mounting plate (2) is made of a strip sheet.

7. An illumination device (200), **characterized in that** the illumination device (200) comprises the installation structure (100) according to any one of claims 1-6, and the illumination device (200) further comprises a first power connector (31) arranged on the first mounting plate (1) and a second power connector (32) arranged on the second mounting plate (2), wherein the first power connector (31) and the second power connector (32) could be engaged or disengaged so that an electrical connection therebetween could be formed or disconnected.

8. The illumination device (200) according to claim 7, **characterized in that** the first power connector (31) and the second power connector (32) are configured to be capable of being engaged so as to form an electric connection or being disengaged so as to disconnect the electric connection when the first mounting plate (1) is rotated relative to the second mounting plate (2).

9. The illumination device (200) according to claim 7, **characterized in that** the first power connector (31) is configured as a plug or a socket, and the second power connector (32) is configured as a socket or a plug.

10. An installation method for fixing an illumination device (200) comprising a first mounting plate (1), comprising:

1) fixing a second mounting plate (2) of an installation structure (100) for fixing the illumination device (200) to a mounting position;
2) a first assembling unit (11) and a second assembling unit (12) which are arranged opposite to each other being provided on the first mounting plate (1), plugging a first installation portion (21) of the second mounting plate (2) into the first assembling unit (11); and **characterised by**
3) rotating the first mounting plate (1) relative to the second mounting plate (2) around a rotation axis perpendicular to the first mounting plate (1) and extending through the first assembling unit (11), and locking the second installation portion (22) of the second mounting plate (2) in the second assembling unit (12) or releasing the locking connection from the second assembling unit (12) in a removable manner.

11. The method according to claim 10, **characterized in that** the second installation portion (22) is locked in or unlocked from the second assembling unit (12) in a removable manner in a circumferential direction of the first mounting plate (1).

Patentansprüche

1. Installationsstruktur (100) zum Befestigen einer Beleuchtungsvorrichtung (200), die eine erste Montageplatte (1) umfasst, die zumindest eine Lichtquelle der Beleuchtungsvorrichtung (200) trägt, wobei die Installationsstruktur (100) eine zweite Montageplatte (2) umfasst und die erste Montageplatte (1) eine erste Montageeinheit (11) und eine zweite Montageeinheit (12) umfasst, die auf der ersten Montageplatte (1) einander gegenüber angeordnet sind, wobei die zweite Montageplatte (2) einen ersten Installationsabschnitt (21) und einen zweiten Installationsabschnitt (22) umfasst, wobei durch das Drehen der ersten Montageplatte relativ zu der zweiten Montageplatte der erste Installationsabschnitt (21) in die erste Montageeinheit (11) gesteckt wird und der zweite Installationsabschnitt (22) in der zweiten Montageeinheit (12) verriegelt wird oder von der zweiten Montageeinheit (12) entriegelt wird, **dadurch gekennzeichnet, dass** die erste Montageplatte (1) relativ zu der zweiten Montageeinheit (12)

um eine Drehachse gedreht wird, die senkrecht zu der ersten Montageplatte (1) ist und sich durch die erste Montageeinheit (11) erstreckt.

2. Installationsstruktur (100) nach Anspruch 1, **dadurch gekennzeichnet, dass** der zweite Installationsabschnitt (22) konfiguriert ist, in einer abnehmbaren Weise in einer Umfangsrichtung der ersten Montageplatte (1) in der zweiten Montageeinheit (12) verriegelt werden zu können oder von der zweiten Montageeinheit (12) entriegelt werden zu können.

3. Installationsstruktur (100) nach Anspruch 1, **dadurch gekennzeichnet, dass** die erste Montageeinheit (11) als ein Steckteil konfiguriert ist und die zweite Montageeinheit (12) als ein Schnappteil konfiguriert ist.

4. Installationsstruktur (100) nach einem der Ansprüche 1-3, **dadurch gekennzeichnet, dass** der erste Installationsabschnitt (21) an einem ersten freien Ende der zweiten Montageplatte (2) angeordnet ist, der zweite Installationsabschnitt (22) an einem zweiten freien Ende der zweiten Montageplatte (2) gegenüber dem ersten freien Ende angeordnet ist und der erste Installationsabschnitt (21) und der zweite Installationsabschnitt (22) jeweils konfiguriert sind, in eine Richtung, die weg von einer Ebene, die von einem Hauptkörper der zweiten Montageplatte (2) definiert wird, zeigt, gebogen zu werden.

5. Installationsstruktur (100) nach Anspruch 4, **dadurch gekennzeichnet, dass** der erste Installationsabschnitt (21) und der zweite Installationsabschnitt (22) jeweils konfiguriert sind, in Richtung der ersten Montageplatte (1) gebogen zu werden.

6. Installationsstruktur (100) nach Anspruch 1, **dadurch gekennzeichnet, dass** die zweite Montageplatte (2) aus einem Blechband hergestellt ist.

7. Beleuchtungsvorrichtung (200), **dadurch gekennzeichnet, dass** die Beleuchtungsvorrichtung (200) die Installationsstruktur (100) nach einem der Ansprüche 1-6 umfasst, und die Beleuchtungsvorrichtung (200) ferner einen ersten Leistungsverbinder (31), der auf der ersten Montageplatte (1) angeordnet ist, und einen zweiten Leistungsverbinder (32), der auf der zweiten Montageplatte (2) angeordnet ist, umfasst, wobei der erste Leistungsverbinder (31) und der zweite Leistungsverbinder (32) eingerastet oder gelöst werden können, so dass eine elektrische Verbindung dazwischen gebildet oder getrennt werden kann.

8. Beleuchtungsvorrichtung (200) nach Anspruch 7, **dadurch gekennzeichnet dass** der erste Leistungsverbinder (31) und der zweite Leistungsverbinder (32) konfiguriert sind, eingerastet werden zu können, um eine elektrische Verbindung zu bilden, oder gelöst werden zu können, um die elektrische Verbindung zu trennen, wenn die erste Montageplatte (1) relativ zu der zweiten Montageplatte (2) gedreht wird.

9. Beleuchtungsvorrichtung (200) nach Anspruch 7, **dadurch gekennzeichnet, dass** der erste Leistungsverbinder (31) als ein Stecker oder eine Steckdose konfiguriert ist und der zweite Leistungsverbinder (32) als eine Steckdose oder ein Stecker konfiguriert ist.

10. Installationsverfahren zum Befestigen einer Beleuchtungsvorrichtung (200), die eine erste Montageplatte (1) umfasst, das Folgendes umfasst:

    1) Befestigen einer zweiten Montageplatte (2) einer Installationsstruktur (100) zum Befestigen der Beleuchtungsvorrichtung (200) an einer Montageposition;
    2) eine erste Montageeinheit (11) und eine zweite Montageeinheit (12), die einander gegenüber angeordnet sind und die auf der ersten Montageplatte (1) vorgesehen sind, wobei ein erster Installationsabschnitt (21) der zweiten Montageplatte (2) in die erste Montageeinheit (11) gesteckt wird; und **gekennzeichnet durch**
    3) Drehen der ersten Montageplatte (1) relativ zu der zweiten Montageplatte (2) um eine Drehachse, die senkrecht zu der ersten Montageplatte (1) ist und sich durch die erste Montageeinheit (11) erstreckt, und Verriegeln des zweiten Installationsabschnitts (22) der zweiten Montageplatte (2) in der zweiten Montageeinheit (12) oder Lösen der Verriegelungsverbindung von der zweiten Montageeinheit (12) in einer abnehmbaren Weise.

11. Verfahren nach Anspruch 10, **dadurch gekennzeichnet, dass** der zweite Installationsabschnitt (22) in einer abnehmbaren Weise in einer Umfangsrichtung der ersten Montageplatte (1) in der zweiten Montageeinheit (12) verriegelt wird oder von der zweiten Montageeinheit (12) entriegelt wird.

Revendications

1. Une structure d'installation (100) destinée à la fixation d'un dispositif d'éclairage (200), comprenant une première plaque de montage (1) comportant au moins une source lumineuse du dispositif d'éclairage (200), la structure d'installation (100) comprenant une deuxième plaque de montage (2) et la première plaque de montage (1) comprenant une première

unité d'assemblage (11) et une deuxième unité d'assemblage (12) qui sont agencées de manière opposée l'une à l'autre sur la première plaque de montage (1), la deuxième plaque de montage (2) comprenant une première partie d'installation (21) et une deuxième partie d'installation (22), la première partie d'installation (21) étant enfichée dans la première unité d'assemblage (11) et la deuxième partie d'installation (22) étant verrouillée sur ou déverrouillée de la deuxième unité d'assemblage (12) par la rotation de la première plaque de montage par rapport à la deuxième plaque de montage, **caractérisée en ce que** la première plaque de montage (1) est pivotée par rapport à la deuxième unité d'assemblage (12) autour d'un axe de rotation perpendiculaire à la première plaque de montage (1) et s'étendant au travers de la première unité d'assemblage (11).

2. La structure d'installation (100) selon la revendication 1, **caractérisée en ce que** la deuxième partie d'installation (22) est configurée de façon à pouvoir être verrouillée sur ou déverrouillée de la deuxième unité d'assemblage (12) de manière amovible dans une direction circonférentielle de la première plaque de montage (1).

3. La structure d'installation (100) selon la revendication 1, **caractérisée en ce que** la première unité d'assemblage (11) est configurée sous la forme d'une pièce enfichable et la deuxième unité d'assemblage (12) est configurée sous la forme d'une pièce encliquetable.

4. La structure d'installation (100) selon l'une quelconque des revendications 1 à 3, **caractérisée en ce que** la première partie d'installation (21) est agencée au niveau d'une première extrémité libre de la deuxième plaque de montage (2), la deuxième partie d'installation (22) est agencée au niveau d'une deuxième extrémité libre de la deuxième plaque de montage (2) opposée à la première extrémité libre, et la première partie d'installation (21) et la deuxième partie d'installation (22) sont respectivement configurées de façon à être courbées dans une direction à l'écart d'un plan défini par un corps principal de la deuxième plaque de montage (2).

5. La structure d'installation (100) selon la revendication 4, **caractérisée en ce que** la première partie d'installation (21) et la deuxième partie d'installation (22) sont respectivement configurées de façon à être courbées vers la première plaque de montage (1).

6. La structure d'installation (100) selon la revendication 1, **caractérisée en ce que** la deuxième plaque de montage (2) se compose d'une feuille en bande.

7. Un dispositif d'éclairage (200), **caractérisé en ce que** le dispositif d'éclairage (200) comprend la structure d'installation (100) selon l'une quelconque des revendications 1 à 6, et le dispositif d'éclairage (200) comprend en outre un premier connecteur d'alimentation électrique (31) agencé sur la première plaque de montage (1) et un deuxième connecteur d'alimentation électrique (32) agencé sur la deuxième plaque de montage (2), le premier connecteur d'alimentation électrique (31) et le deuxième connecteur d'alimentation électrique (32) pouvant être enclenchés ou désenclenchés de sorte qu'une connexion électrique entre ceux-ci puisse être formée ou déconnectée.

8. Le dispositif d'éclairage (200) selon la revendication 7, **caractérisé en ce que** le premier connecteur d'alimentation électrique (31) et le deuxième connecteur d'alimentation électrique (32) sont configurés de façon à pouvoir être enclenchés de façon à former une connexion électrique ou être désenclenchés de façon à déconnecter la connexion électrique lorsque la première plaque de montage (1) est pivotée par rapport à la deuxième plaque de montage (2).

9. Le dispositif d'éclairage (200) selon la revendication 7, **caractérisé en ce que** le premier connecteur d'alimentation électrique (31) est configuré sous la forme d'une fiche mâle ou d'une prise femelle et le deuxième connecteur d'alimentation électrique (32) est configuré sous la forme d'une prise femelle ou d'une fiche mâle.

10. Un procédé d'installation destiné à la fixation d'un dispositif d'éclairage (200) comprenant une première plaque de montage (1), comprenant :

1) la fixation d'une deuxième plaque de montage (2) d'une structure d'installation (100) destinée à la fixation du dispositif d'éclairage (200) sur une position de montage,
2) une première unité d'assemblage (11) et une deuxième unité d'assemblage (12) qui sont agencées de manière opposée l'une à l'autre et sont placées sur la première plaque de montage (1), l'enfichage d'une première partie d'installation (21) de la deuxième plaque de montage (2) dans la première unité d'assemblage (11), et **caractérisé par**
3) la rotation de la première plaque de montage (1) par rapport à la deuxième plaque de montage (2) autour d'un axe de rotation perpendiculaire à la première plaque de montage (1) et s'étendant au travers de la première unité d'assemblage (11), et le verrouillage de la deuxième partie d'installation (22) de la deuxième plaque de montage (2) dans la deuxième unité d'assemblage (12) ou la libération de la connexion de verrouillage de la deuxième unité d'assemblage

(12) de manière amovible.

11. Le procédé selon la revendication 10, **caractérisé en ce que** la deuxième partie d'installation (22) est verrouillée sur ou déverrouillée de la deuxième unité d'assemblage (12) de manière amovible dans une direction circonférentielle de la première plaque de montage (1).

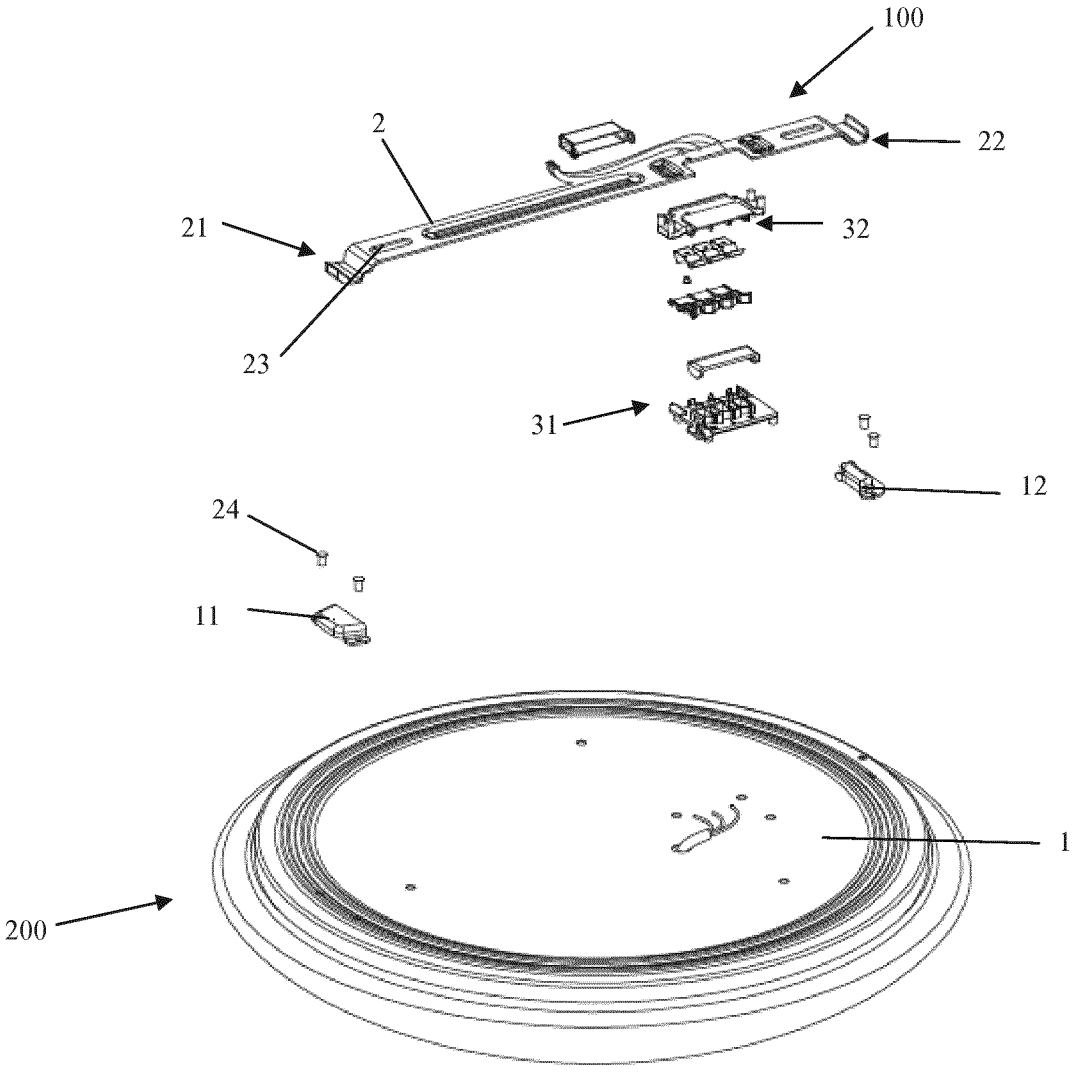


Figure 1

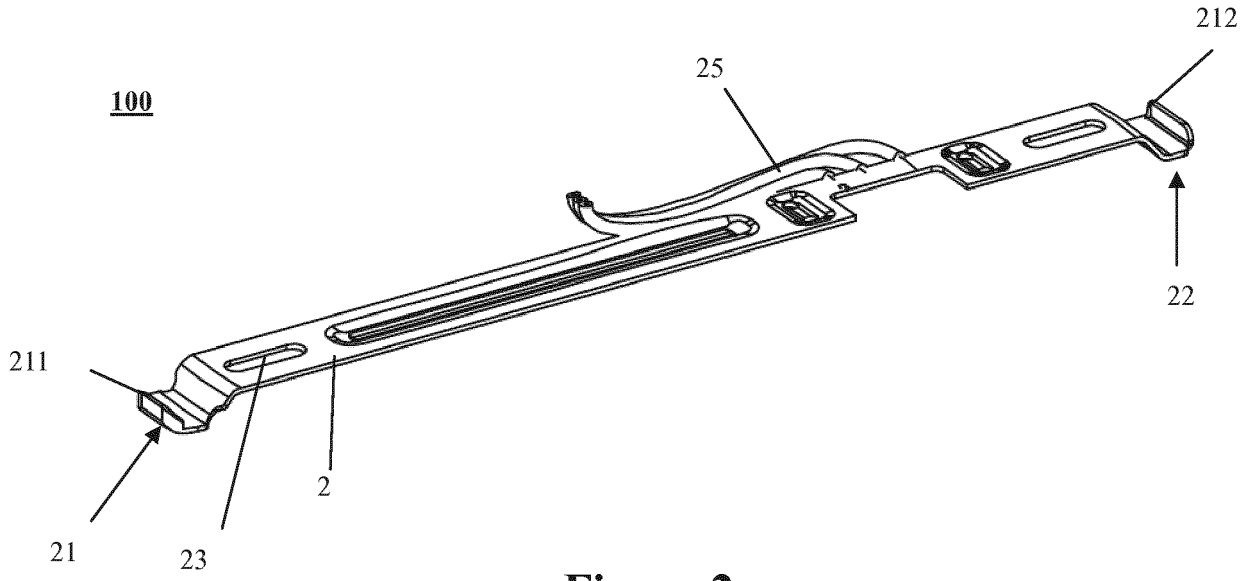


Figure 2

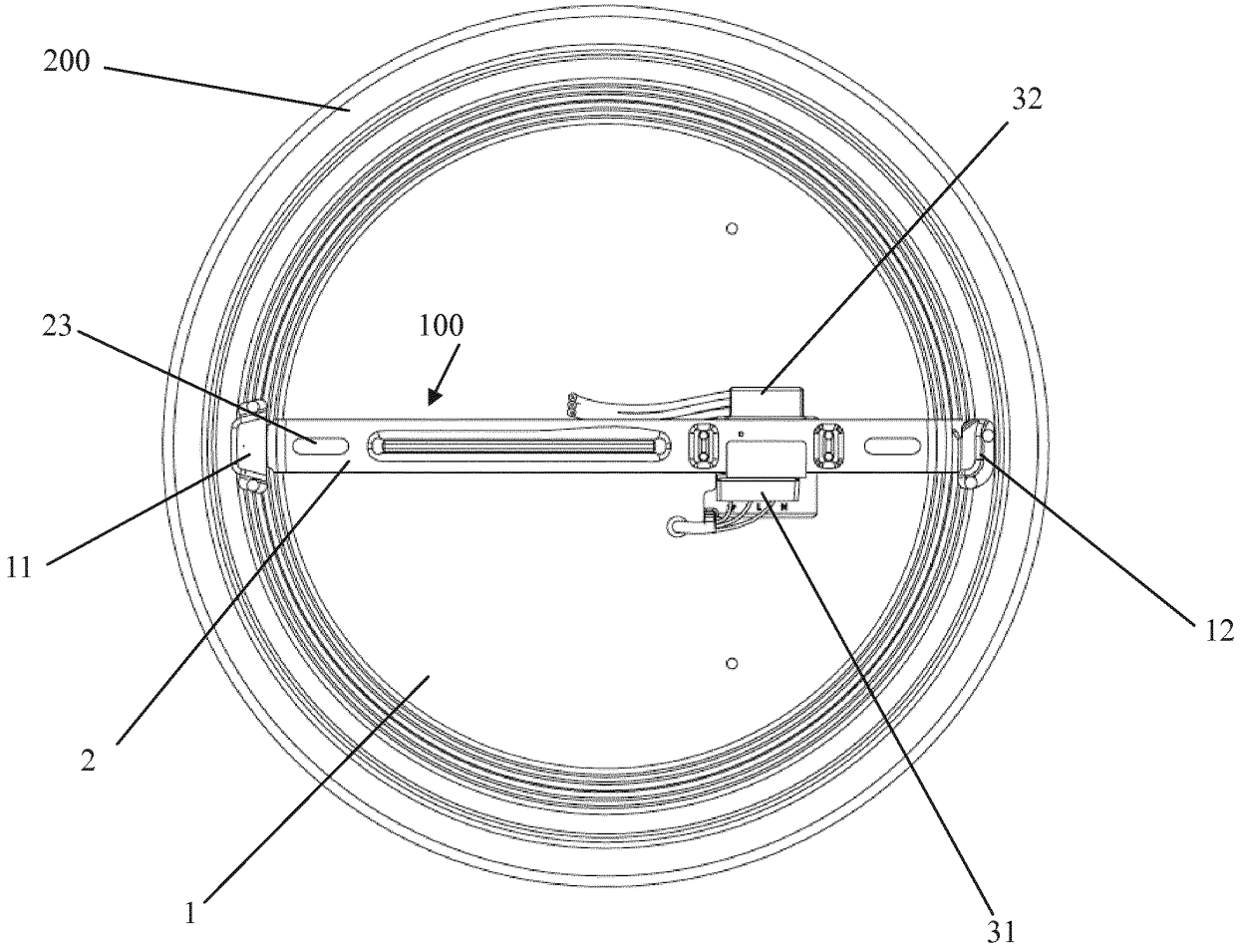


Figure 3

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- EP 2495492 A2 **[0004]**