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(54) **A SUPPORT DEVICE FOR EQUIPMENT, IN PARTICULAR AIR-CONDITIONING INSTALLATION UNITS**

(57) There is described a support device for equipment, in particular air-conditioning installation units, comprising a support leg (2) which extends in an axial direction (X) between a first end (2a) which is provided for support on the ground and a second axially opposite end (2b), wherein the leg (2) has a self-carrying structure and

comprises a bracket-like portion (4) which is formed so as to be integral with the leg (2) and which projects therefrom transversely relative to the axial direction (X), in a position between the ends (2a, 2b), the portion (4) defining a surface (4a) which is suitable for supporting in a supporting manner a condensate collection tank.

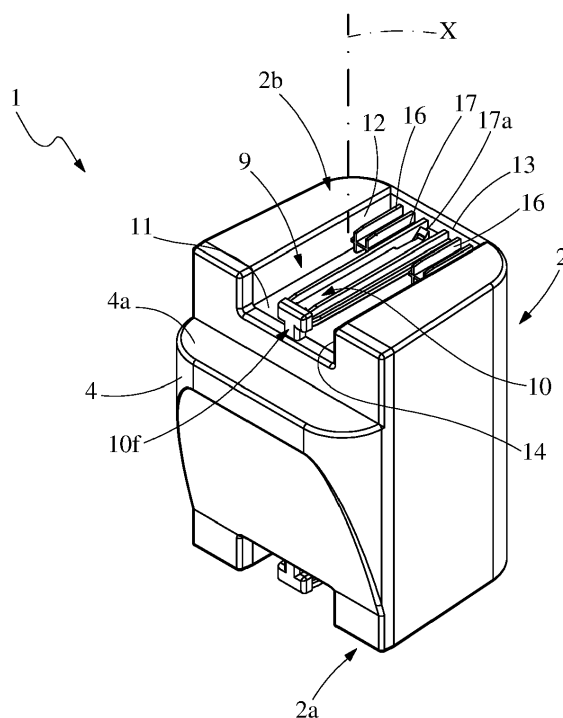


Fig. 1

Description

Technical field

[0001] The present invention relates to a support device for equipment, in particular air-conditioning installation units, having the features set out in the preamble of main claim 1.

[0002] The invention particularly relates to the field of devices for supporting the external units of the exchange groups for conditioning installations on the floor or ground.

Technological background

[0003] In this field, it is known that the heat exchange groups which are used in air-conditioning installations and which supply the internal units of the diffusers which are provided in the environments of the buildings which are intended to be air-conditioned have to be arranged and supported outside the buildings or in any case positioned in such a position as to communicate with the exterior.

[0004] The support devices of the external exchange units are typically of two types, that is to say, ones supported in a bracket-like manner in order to hold the units in a projecting manner, for example, coupled to walls, and ones supported on the floor, which are configured to be supported on a surface, such as, for example, the plane of a balcony or a terrace or the ground itself, and to support the exchange units in a stable manner.

[0005] If the external exchange units are arranged in order also to perform the function of heating the environments, the discharge water or condensate water produced during use is typically collected in condensate collection tanks which are arranged under the external exchange units.

[0006] In order to receive and support the tank in a position raised off the ground in the region under the exchange unit, there are known, for example, support devices which are formed by a pair of portal-like frames which are connected to each other with a predetermined spacing by means of transversely extending profiles, in which the support and the fixing of the equipment are brought about on the horizontal cross-members of the portal-like frames and in which the tank is supported under the equipment by means of additional separate coupling elements which can be secured to the frames.

[0007] However, such a solution requires the interconnection of the pair of portal-like frames in order to also make the support device stable and self-carrying as a result of the vertical dimension of the frames necessary to ensure the receiving space of the condensate collection tank and further requires the arrangement and assembly of separate and different coupling elements for supporting the tank.

[0008] A limitation of this solution can be appreciated from the number of components of the support which

have to be arranged for supporting the external unit and the tank located below which inevitably increases times and costs not only for production and storage but also for assembly by the same installers.

[0009] Another limitation is that the portal-like frames mentioned above are constructed from metal and are therefore subjected to corrosion phenomena.

Description of the invention

[0010] A main object of the invention is to provide a support device for equipment, in particular air-conditioning installation units, which is structurally and functionally configured to overcome the limitations set out with reference to the cited prior art.

[0011] Another object is to provide a support device which is readily and rapidly able to be configured in the operating condition for supporting the external unit and the condensate collection tank underneath in order to assist the installer during the assembly operations.

[0012] These objects and other objects which will be set out clearly below are achieved by the invention by means of a support device of the above-mentioned type, which is constructed according to the appended claims.

[0013] According to an aspect of the invention, the device comprises a support leg which extends in an axial direction between a first end which is provided for support on the ground and a second axially opposite end, the leg having a self-carrying structure and comprising a bracket-like portion which is formed so as to be integral with the leg and which projects therefrom transversely relative to the axial direction, in a position between the ends, the bracket-like portion defining a surface which is suitable for supporting in a supporting manner a condensate collection tank.

[0014] According to another aspect of the invention, the support leg comprises, at the second end, connection means which are capable of cooperating with respective connection counter-means which are provided on a cross-member which is capable of removably connecting a pair of the legs.

[0015] According to another aspect of the invention, the connection means are also provided at the first end of the leg with a symmetrical and specular configuration with respect to a centre plane of the leg which extends perpendicularly to the axial direction.

[0016] According to another aspect of the invention, the connection means comprise a seat and a beam which is provided internally with respect to the seat, the seat extending in a transverse direction relative to the axial direction and having such dimensions as to receive an end portion of the cross-member with connection by means of coupling in the transverse direction, the beam engaging, during the coupling movement, with a respective slot of the connection counter-means, which slot is formed in the cross-member, the beam and the slot having respective cross-sections which are formed to construct an interlocking retention of the cross-member in

the leg, transversely relative to the coupling direction, as a result of the insertion of the cross-member in the seat.

Brief description of the drawings

[0017] Additional characteristics and advantages of the invention will be better appreciated from the following detailed description of a preferred embodiment thereof which is illustrated by way of non-limiting example with reference to the appended drawings, in which:

- Figure 1 is a perspective view of an example of a support device according to the invention,
- Figure 2 is another perspective view of the support device of Figure 1,
- Figure 3 is an exploded, perspective view of the support device of the preceding Figures,
- Figure 4 is a front view of the support device of the preceding Figures,
- Figure 5 is a side view of the support device of the preceding Figures,
- Figure 6 is a plan view of the device of the preceding Figures,
- Figure 7 is a partial perspective view, drawn to an enlarged scale, of a detail of the device of the preceding Figures,
- Figure 8 is a perspective view of the support device of the preceding Figures, shown during a step of connection to another component of the device,
- Figure 9 is a front view of the device shown in Figure 8,
- Figure 10 is a perspective view of an assembly constructed with the support device according to the invention for supporting an equipment item,
- Figure 11 is a front view of the assembly of Figure 10,
- Figure 12 is a perspective view of a configuration for use of the support device of the invention in relation to the support of a condensate collection tank,
- Figure 13 is a side view of the support system shown in Figure 12,
- Figure 14 is a perspective view of the support system of Figure 13 shown in the operating condition for supporting an equipment item,
- Figure 15 is a perspective view, with detached portions, of the support device of the preceding Figures, shown in conjunction with a base for anchoring to the ground,
- Figure 16 is a perspective view, with assembled portions, of the device of Figure 15,
- Figure 17 is an exploded perspective view of a detail of Figure 15,
- Figure 18 is a plan view of the detail of Figure 17 in an assembled condition,
- Figure 19 is a cross-section along the line XIX-XIX of Figure 18,
- Figure 20 is a perspective view of an additional configuration of a support system which can be constructed with the device of the invention,

- Figure 21 is an exploded perspective view of an additional configuration of the support system which can be constructed with the device of the invention,
- Figure 22 is a partially sectioned perspective view of an assembly which is constructed with the support device according to the invention, for supporting an equipment item.

Preferred embodiments of the invention

[0018] With reference to the cited Figures, there is generally designated 1 a support device for equipment, typically air-conditioning installation units, which is constructed according to the present invention.

[0019] The device 1 comprises a support leg 2 in the axial extent direction X of which there are defined a pair of opposite ends 2a, 2b thereof.

[0020] The end 2a of the leg is arranged for support on the ground and is axially opposite the end 2b, at which the support of the equipment item is brought about, as will be appreciated in detail from the remaining description. It will be understood that the direction X corresponds under the conditions of use of the support to the vertical direction of gravitational force, that is to say, perpendicular to a hypothetical horizontal plane P of support on the ground.

[0021] The leg 1 advantageously has a substantially parallelepipedal formation which produces a self-carrying structure which is suitable for locally supporting the equipment item, in accordance with a support system which provides for the use of a plurality of legs.

[0022] As will be clearly appreciated from Figure 12, for example, the support system of the equipment item provides for using two pairs of legs 2, the legs of each pair being connected by a cross-member 3, at the respective ends 2b, so as to form two respective portal-like structures. The equipment item, for example, the external unit of an air-conditioning installation (shown in Figure 14) is therefore supported by and fixed to the cross-members 3, by means of suitable positioning of the portal-like structures constructed with the legs 2.

[0023] According to a feature of the invention, the leg 2 comprises a bracket-like portion 4, which is formed so as to be integral with the leg and which projects from the leg transversely to the axial direction X, in a position between the ends 2a, 2b. There is defined on the bracket-like portion a surface 4a which extends perpendicularly to the axial direction X and which has an extent suitable for supporting a local zone of the peripheral edge of a condensate collection tank 5. Therefore, this tank remains supported by the legs 2 in a position raised off the ground, by being supported on the surfaces 4a, in the space under the equipment item, which space is defined vertically by the height dimension of the leg (in the direction X). The support leg 2 further comprises, at the end 2b, connection means which are generally designated 6 and which are capable of cooperating with respective connection counter-means 7 which are provided on the

cross-member 3 which is capable of removably connecting each pair of legs 2, as described above.

[0024] The connection means 6 are also provided at the end 2a of the leg with a specularly symmetrical configuration with respect to a centre plane of the leg which extends perpendicularly to the direction X, which is designated M in the view of the leg of Figure 4. At the end 2a, the connection means 6 cooperate with the respective counter-means 7 which are formed on a base 8 for supporting the leg on the ground.

[0025] As a result of their structural identity, there will be described below only the connection means 6 which are provided at the end 2b of the leg.

[0026] The connection means comprise a seat 9 and a beam 10 which is provided internally with respect to the seat. The seat is delimited by a pair of opposing side walls which are both designated 12 and which project from the base surface 11 of the seat, an additional end wall 13 which is contiguous with the walls 12 and opposite an opening 14 of the seat.

[0027] The seat 9 (and the beam 10) extends in a transverse direction Y, which is preferably perpendicular, relative to the direction X, with the beam 10 extending parallel with the walls 12 and being equidistant therefrom. The seat 10 has such a dimension as to receive, with form-fitting connection and with reduced connection play or with slight interference, by means of coupling in the direction Y through the opening 14, an end portion of the cross-member 3. During the coupling movement, the beam 10 engages with a respective slot 15 which is formed in the cross-member. The beam 10 and the slot 15 have respective cross-sections which are formed to bring about, with mutual form-fitting connection, an interlocking retention action of the cross-member in the leg, as a result of the engaging insertion of the cross-member in the seat 10.

[0028] It will be evident that the slot 15 with the cross-section of the cross-member 3 produce the connection counter-means 7 which are suitable for cooperating with the connection means 6.

[0029] In an embodiment, the beam 10 has a main longitudinal extent (parallel with the Y direction) and is fixedly joined to the seat 9 at the individual opposite longitudinal ends 10a, 10b. In an embodiment, the beam 10 has an H-shaped cross-section relative to the longitudinal extent direction Y, wherein the H-shaped cross-section comprises a core 10c which is connected to a pair of opposite wings 10d, each wing 10d having a respective relief 10e, at the opposite side to the core, which extends parallel with the core 10c in the longitudinal direction Y. The H-shaped cross-section is engaged in the slot 15 with a connection which preferably has slight interference, as a result of the contact of the free ends of the pair of wings 10d and the free ends of the pair of reliefs 10e with corresponding surfaces of the cross-member which define the slot 15.

[0030] In an embodiment, the beam 10 extends at the ends 10a thereof from the end wall 13 of the seat and is

connected at the opposite end 10b thereof to an attachment element 10f which projects from the base surface 11 of the seat 9.

[0031] In an embodiment, the attachment element 10f has a T-shaped formation, the core 10g of which projects from the base 11 of the seat 9 and the wing 10h of which is configured for connection to the H-shaped cross-section of the end of the beam 10.

[0032] There are designated 16 a pair of extension pieces which project from the wall 13 and from opposite sides of the beam 10, having a main longitudinal extent which is directed parallel with the direction Y. The extension pieces 16 are capable of engaging, with reduced coupling play or with slight interference, with respective tubular cavities 3a which are provided longitudinally in the cross-member 3, during the coupling movement thereof with respect to the leg.

[0033] The extension pieces 16 serve to improve the relative connection action between the cross-member and the leg following the relative coupling movement.

[0034] In an embodiment, the extension pieces 16 have a cross-section which corresponds to the cross-section of the beam 10 which is described above.

[0035] There is designated 17 a resilient locking tongue which is provided on the beam 10 near the wall 13. In an embodiment, the tongue extends in continuation of the core 10c, remaining spaced apart from the wings 10d, so as to be resiliently deformable.

[0036] The tongue has, at the free end thereof, a tooth-like formation 17a which projects externally from the surface profile of the beam 10. As a result of the effect of this projection, following the coupling of the beam in the slot of the cross-member, the tongue is resiliently deformed and consequently the tooth 17a is pressed against the corresponding surface of the cross-member with relevant contact. In this manner, the cross-member 3 remains held inside the seat 9 with the function of acting counter to unscrewing from the seat as a result of the pressing action applied by the tooth which is pressed against the cross-member.

[0037] There is designated 8b in the base 8 a recess which is intended to receive and retain the corresponding tooth 17a which is provided on the leg in a corresponding position when it is connected to the base. The recess performs the function of a retention means of the tooth so as to prevent the base from moving under the effect of vibrations.

[0038] The cross-member 3 has a tubular formation and is characterized by a cross-section which is repeated in a constant manner in the main longitudinal extent direction thereof. In an embodiment, the section of the cross-member has a rectangular formation.

[0039] The cross-member is advantageously provided with a pair of slots 15 which extend in respective opposing faces of the cross-member, in a specular symmetrical arrangement of the slots themselves, with respect to a centre plane of symmetry of the cross-member which extends parallel with the longitudinal extent direction.

With such a formation, one of the slots 15 is intended to be engaged by the pair of beams 10 of the respective opposing legs, to which the cross-member is connected, the other opposing slot 15 being capable of being engaged by fixing elements which are conventional per se in order to fixedly join the cross-member to the equipment item in supporting contact therewith.

[0040] The fixing elements comprise, for example, screws with respective heads which are slidably received and retained in the slot, and on the threaded leg of which a respective locking nut is screwed, the leg engaging with a hole which is provided in an attachment edge of the equipment item which is brought into support on the cross-member and which is locked by means of the locking nut.

[0041] In order to improve the mechanical strength characteristics, the hollow section of the tubular profile of the cross-member 3 has a cellular configuration, that is to say, one which is formed by a plurality of tubular cavities (identical, for example, to the cavities 3a) which are contiguous with each other and which are delimited by internal walls or dividing walls, as clearly shown, for example, in Figure 8.

[0042] The cross-member 3 can advantageously be constructed as a profile from plastics material, which can readily be cut to size in order to obtain the preselected length required to produce the suitable portal-like support structures of the equipment item, by connecting the cross-member to a pair of opposing legs which are arranged with a specific relative spacing which is selected in accordance with the dimensions and the spatial requirement of the equipment item and the dimensions of the condensate collection tank supported by the legs.

[0043] In order to close the ends of the cross-member, there is provided a cap 3c which is shown in two different configurations in Figures 10 and 20, respectively. It is configured to partially or completely close the tubular cavities which are defined by the cross-section of the cross-member.

[0044] The plate-like base 8 is configured to form the foot for supporting the support leg 2 on the ground. There are provided on the base 8 the connection counter-means 7, that is to say, the slot 15 which is formed in a projection 21 of the base, which cooperate with the connection means 6 which are provided at the end 2a of the leg. In greater detail, the projection 21 is intended to be coupled (through the opening 14) in the seat 9 of the end 2a of the leg, substantially with form-fitting connection and with reduced coupling play, with concurrent engagement of the beam 10 in the slot 15 and engagement of the extension pieces 16 in corresponding cavities (which cannot be seen in Figure 15) which are provided in the projection and which have similar structures to that of the cavities 3a.

[0045] There is designated 8c a wall which projects from the base 8 and which is intended to act as an element for closing the opening 14 of the leg when the leg is connected to the base (Figure 16).

[0046] There are designated 22 a pair of fixing clamps for the base 8 which are structurally independent of the base and which can be associated therewith in order to lock the base to the ground, for example, with screw type fixing means which cooperate with the clamps. In greater detail, each clamp 22 has a first portion 22a which is provided with a fixing hole 23 and which extends into a second portion 22b which is intended to be received in a respective lowered surface portion 24 of the base. The second portion 22b of the clamp is further provided to be inserted and retained between the projection 21 and the base 8, by means of an opening which is generated where applicable in a region 25 for pre-breaking which is defined between the projection and the lowered portion, as shown in Figure 14.

[0047] By means of the connection of the clamps 22 to the base 8, which are arranged in relative alignment at opposite sides of the base, the base remains effectively locked in the support plane following the fixing of the clamps 22, for example, by way of screw type means which are engaged in the holes 23.

[0048] The base 8 may have on the individual face 8a directed towards the support plane a frame 8d which comprises elastomer material and which has antivibration properties, for example, obtained with a co-moulding technique of such a material on a peripheral profile of the base.

[0049] The base 8 may further be constructed in two portions (Figure 17) as a result of moulding requirements, which are intended to be connected to each other in an irreversible manner.

[0050] In a generally similar manner, the support leg 2 may also be advantageously constructed in two portions (Figure 3) which are configured to be connected to each other with locking of the irreversible type.

[0051] As shown in Figure 3, one of the portions in which the support leg is constructed has the bracket-like portion 4 and the pair of T-shaped attachment elements 10f, the other of the portions has the seat 9 with the corresponding beam 10.

[0052] In the relative locking step of the portions, each attachment element 10f of one of the leg portions is connected to the free end of the corresponding beam 10 which is provided in the other leg portion. Each beam 10 is constructed therein as a projecting structure which extends from the end wall 13 in order then to be secured at the opposite end with the corresponding attachment element 10f.

[0053] With reference to Figure 20, a portion 3b of the cross-member 3 with a suitable reduced length may be able to be configured as a joint element between a pair of legs 2 which are arranged in a configuration in which a leg is arranged vertically on the other leg, in the direction X. In this application, the portion 3b of the cross-member is connected to the connection means 6 provided at the end 2b of the leg underneath and to the connection means provided at the end 2a of the leg above. Such a configuration is suitable for constructing, if needed for

installation-related requirements, a height of the support which is doubled with respect to the height of a single leg.

[0054] In another application variant (Figure 21), there may be provision for an accessory 27 which has the formation of the leg 2 but which does not have the bracket-like portion 4, the height of which in the axial direction X is equal to half of the height of the leg. This accessory may be connected to a leg by means of the joint element which is formed by the portion 3b of the cross-member in order to bring about an overall height of the support which is equal to approximately one and a half times the height of the single leg 2 if installation-related requirements require such a configuration.

[0055] It will be evident that the support leg 2 may therefore be configured as a type of base element for a modular system, with which, as a result of the connection interfaces which are provided in the leg, various connection combinations can be obtained between the above-described components (such as the leg, the cross-member, the joint element, the base, the accessory mentioned), the combinations allowing the configuration of the support device which is most suitable for the various installation requirements which may occur to be produced. Particular reference may be made here to the height dimensions of the support leg and length of the cross-member and the spatial requirement of the support which is connected with the dimension of the condensate collection tank which is intended to be supported in the space under the equipment item.

[0056] The invention thereby achieves the objectives set out, achieving the advantages set out with respect to the known solutions.

[0057] A first advantage involves the fact that, as a result of the support device of the invention, it is possible to configure a support structure simply by shaping or cutting to size the cross-members with the length suitable for connecting the legs in order to support the condensate collection tank having the most suitable dimensions.

[0058] Another advantage is that it is unnecessary to provide specific coupling or support elements for the condensate collection tanks to be applied to the supports.

[0059] Another advantage is that no screw type fixing means or the like is required to connect the cross-member to the corresponding pair of legs, in order to provide the portal-like frame for supporting the equipment item, nor is any interconnection element required between the portals, as a result of the self-carrying structure of the support legs according to the invention.

[0060] Another advantage is that the support device of the invention is configured to bring about, in a modular manner, a variety of configurations which are suitable for meeting different installation-related requirements (for example, for dimensions, heights of the support, for dimensions of the condensate collection tank, etcetera).

Claims

1. A support device for equipment, in particular air-conditioning installation units, comprising a support leg (2) which extends in an axial direction (X) between a first end (2a) which is provided for support on the ground and a second axially opposite end (2b), **characterized in that** the leg (2) has a self-carrying structure and comprises a bracket-like portion (4) which is formed so as to be integral with the leg (2) and which projects therefrom transversely relative to the axial direction (X), in a position between the ends (2a, 2b), the portion (4) defining a surface (4a) which is suitable for supporting in a supporting manner a condensate collection tank.
2. A support device according to claim 1, wherein the support leg (2) comprises, at the second end (2b), connection means (6) which are capable of cooperating with respective connection counter-means (7) which are provided on a cross-member (3) which is capable of removably connecting a pair of the legs (2).
3. A device according to claim 2, wherein the connection means (6) are also provided at the first end (2a) of the leg (2) with a symmetrical and specular configuration with respect to a centre plane (M) of the leg (2) which extends perpendicularly to the axial direction (X).
4. A support device according to claim 2 or claim 3, wherein the connection means (6) comprise a seat (9) and a beam (10) which is provided internally with respect to the seat, the seat (9) extending in a transverse direction (Y) relative to the axial direction (X) and having such dimensions as to receive an end portion of the cross-member (3) with connection by means of coupling in the transverse direction (Y), the beam (10) engaging, during the coupling movement, with a respective slot (15) of the connection counter-means (7), which slot is formed in the cross-member (3), the beam (10) and the slot (15) having respective cross-sections which are formed to construct an interlocking retention of the cross-member (3) in the leg (2), transversely relative to the coupling direction, as a result of the insertion of the cross-member (3) in the seat (9).
5. A support device according to claim 4, wherein the beam (10) has a main longitudinal extent and is fixedly joined to the seat (9) in the region of the individual opposite longitudinal ends (10a, 10b).
6. A support device according to claim 4 or claim 5, wherein the beam (10) has a cross-section relative to the longitudinal extent direction which is H-shaped.

7. A device according to claim 6, wherein the H-shaped cross-section comprises a core (10c) which is connected to a pair of opposite wings (10d), each wing (10d) having a respective relief (10e), at the opposite side to the core (10c), which extends parallel with the core in the longitudinal direction.
8. A device according to claim 6 or claim 7, wherein the H-shaped cross-section is engaged in the slot (15) with slight-interference connection, as a result of the contact of the free ends of the pair of wings (10d) and the free ends of the pair of the reliefs (10e) with corresponding surfaces of the cross-member defining the slot (15).
9. A support device according to any one of claims 4 to 8, wherein the beam (10) extends, in the region of an end (10a) thereof, from an end wall (13) of the seat (9) and is connected, at the opposite end (10b) thereof, to an attachment element (10f) which projects from a base surface (11) of the seat (9).
10. A support device according to claim 9, wherein the attachment element (10f) has a T-shaped formation, the core (10g) of which projects from the base (11) of the seat (9) and the wing (10h) of which is configured for connection to the H-shaped cross-section of the end of the beam (10).
11. A support device according to any one of claims 4 to 10, wherein the seat (9) is further provided with at least one extension piece (16), which is capable of engaging, with relative connection, with a respective cavity (3a) which is formed in the cross-member (3), as a result of the coupling movement of the cross-member in the seat.
12. A device according to claim 9 and claim 11, wherein there are provided a pair of extension pieces (16) which project from the end wall (13) of the seat (9) and at opposite sides of the beam (10), which are configured to engage with a respective pair of corresponding cavities (3a) provided in the cross-member (3).
13. A device according to any one of claims 4 to 12, wherein the cross-member (3) is provided with a pair of the slots (15), which extend on respective opposing faces of the cross-member, with a specular symmetrical arrangement of the slots (15) with respect to a centre plane of the cross-member which extends parallel with a longitudinal extent direction thereof.
14. A device according to claim 13, wherein the slot (15) of the cross-member (3) opposite the one engaged with the beam (10) provided in the support leg (2) is capable of being engaged by fixing elements which are capable of fixedly joining the cross-member (3) to the equipment in supporting contact on the cross-member.
15. A device according to claim 2, wherein the cross-member (3) is constructed as a profile which can be cut to size in order to connect a pair of the legs (2) with a preselected relative spacing.
16. A device according to any one of claims 3 to 15, wherein an axial portion (3b) of the cross-member (3) can be configured as a joint element between a pair of legs (2) which are arranged one on the other in the axial direction (X), the cross-member portion (3b) being connected to the connection means (6) which are provided at the first end (2a) of a leg and to the connection means (6) which are provided at the second end (2b) of the other leg.
17. A device according to any one of claims 3 to 15, wherein the connection means (6) in the first leg end (2a) are capable of cooperating with respective connection counter-means (7) which are provided on a base (8) for supporting the support leg (2) on the ground.
18. A device according to claim 17, comprising clamps (22) for fixing the base (8) to the ground, which clamps can be removably secured to the base.
19. A device according to any one of the preceding claims, wherein the leg (2) is obtained in two portions which are produced by moulding from plastics material and which are intended to be secured to each other, with connection of the irreversible type.
20. A device according to claim 4 and claim 19, wherein one of the portions from which the support leg (2) is constructed has the bracket-like portion (4), the other of the portions has the seat (9) with the corresponding beam (10).
21. A device according to claims 10 and 20, wherein the attachment element (10f) with a T-shaped cross-section is provided in the portion which has the bracket-like portion (4).

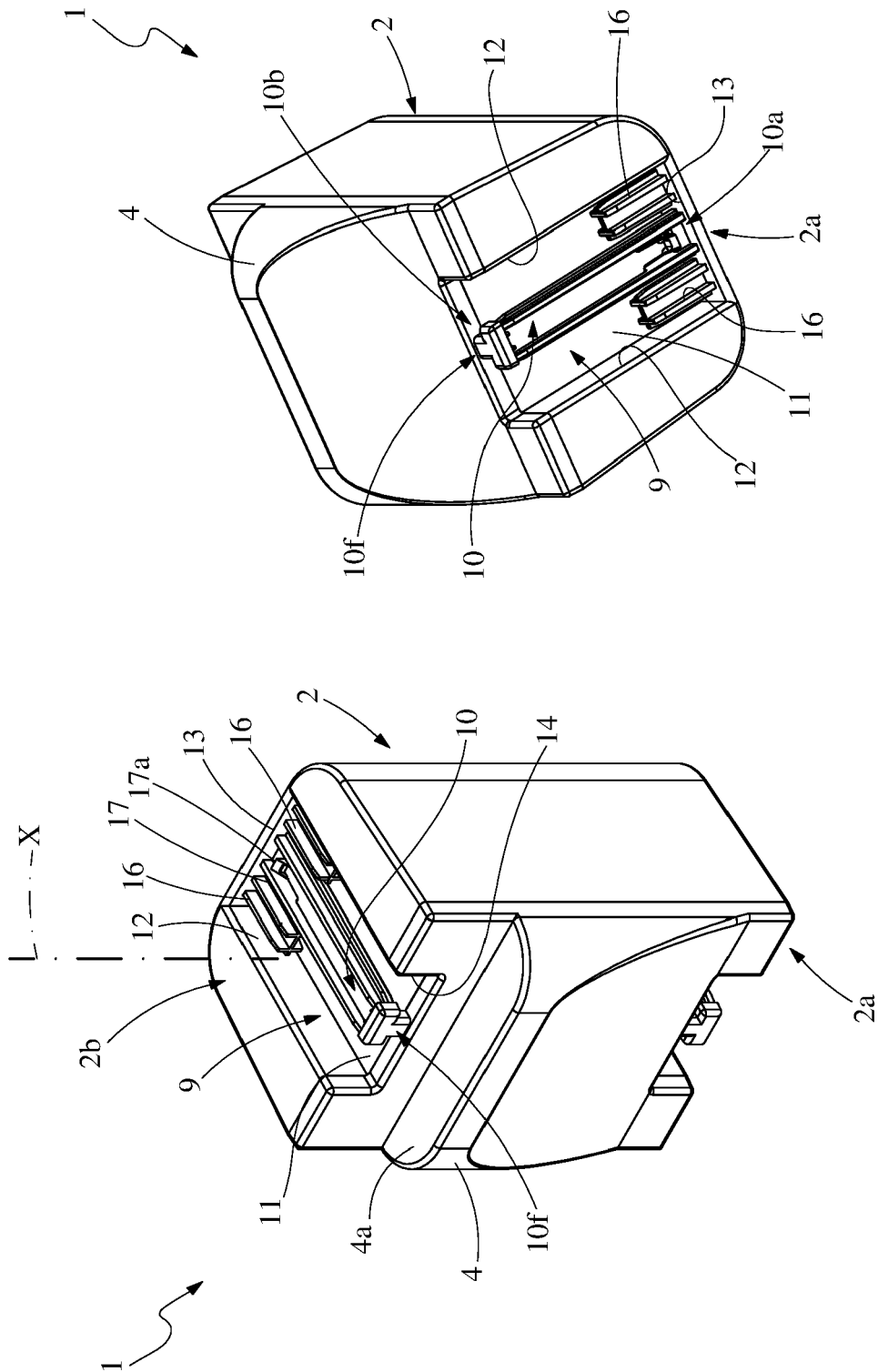
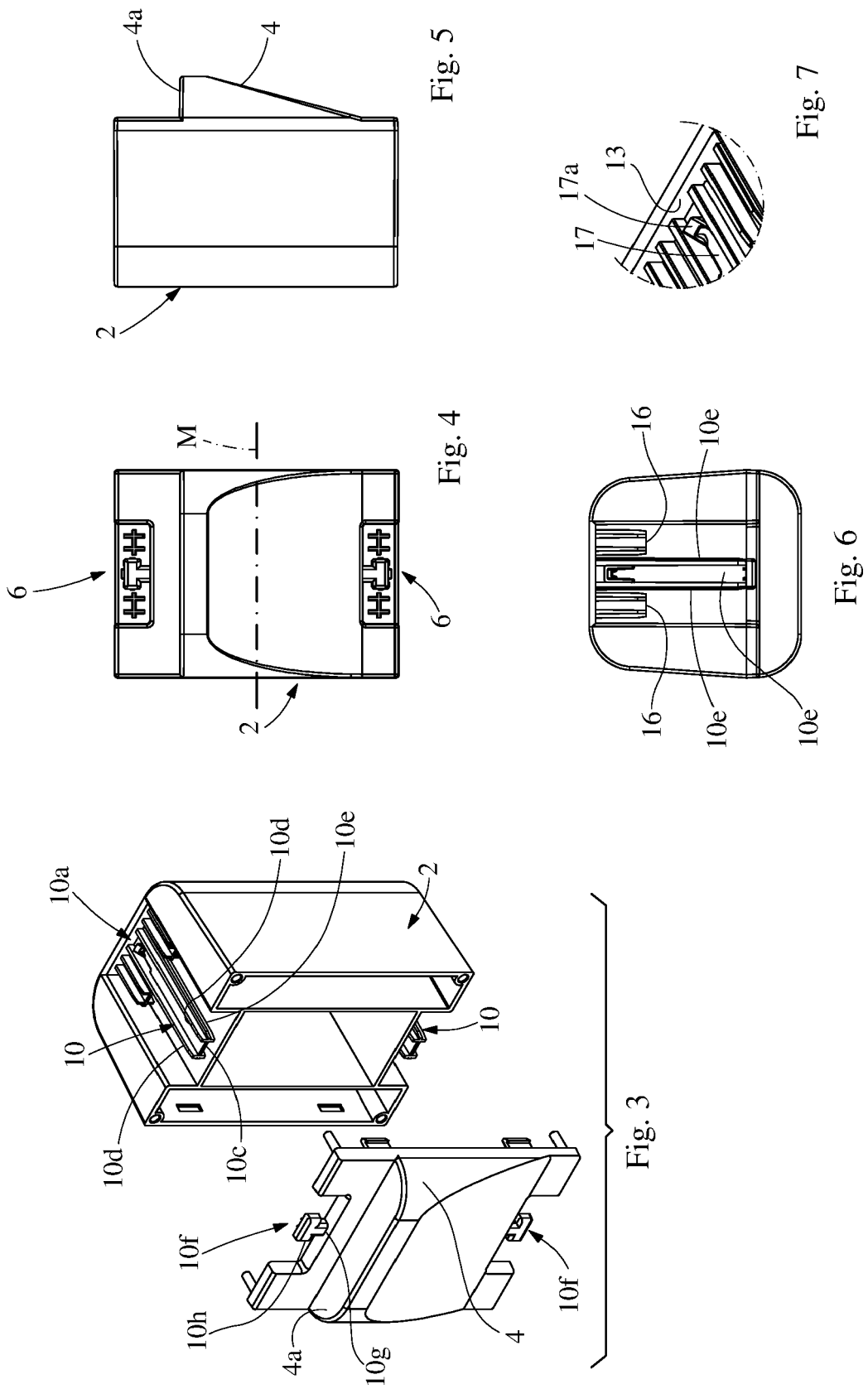


Fig. 1

Fig. 2



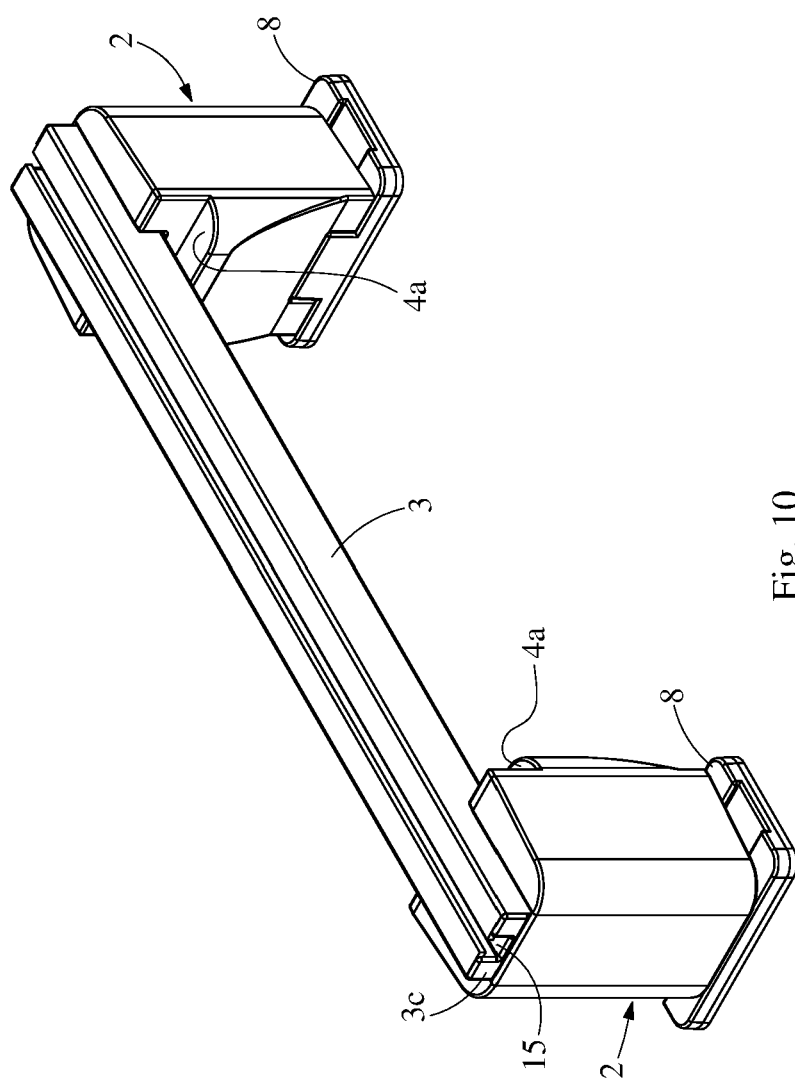


Fig. 10

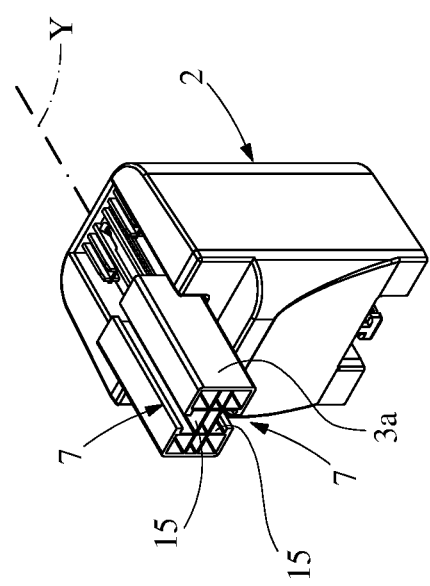


Fig. 8

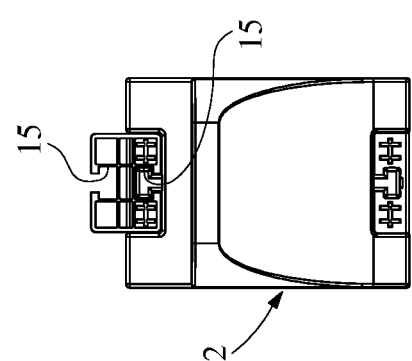


Fig. 9

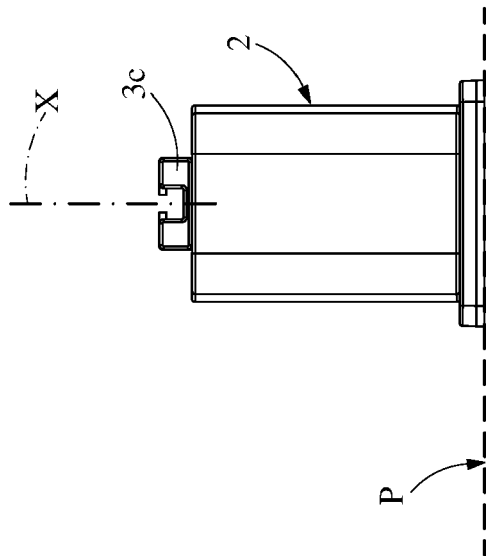


Fig. 11

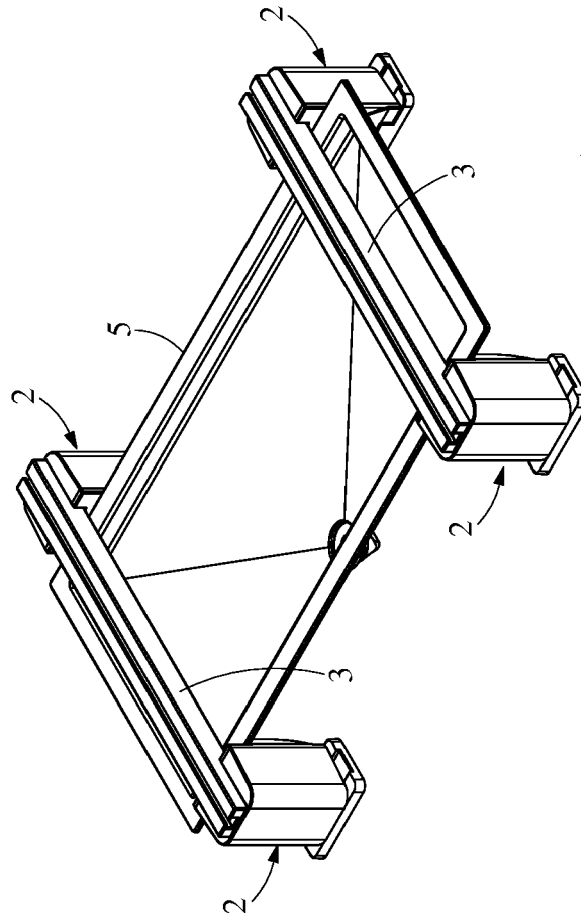


Fig. 12

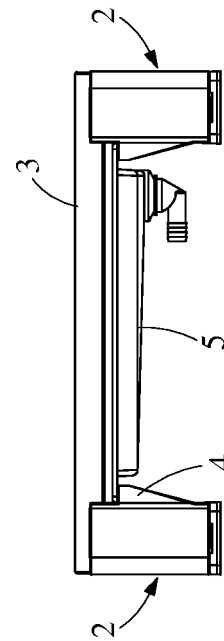


Fig. 13

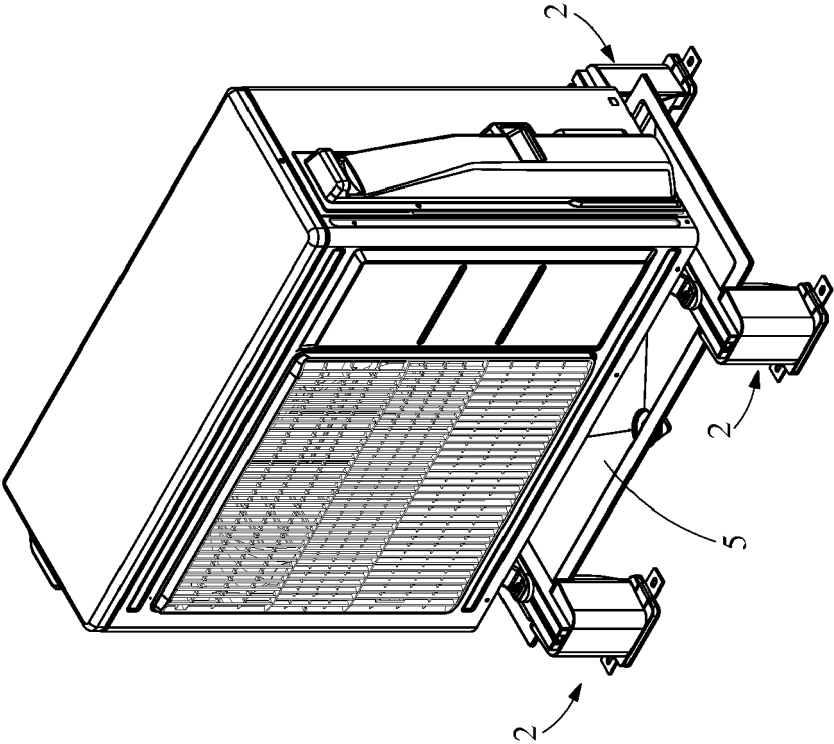
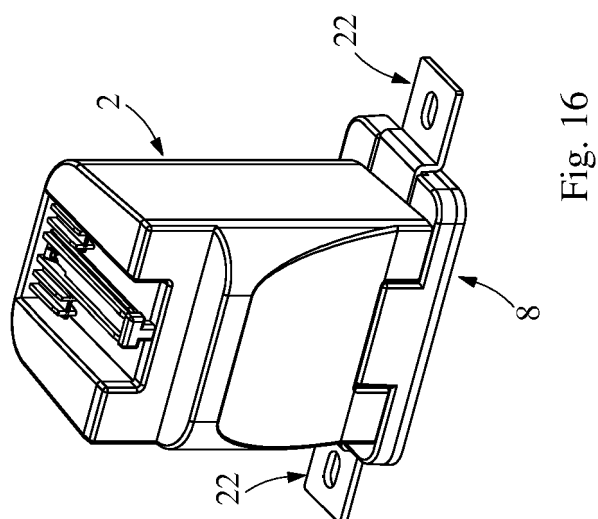
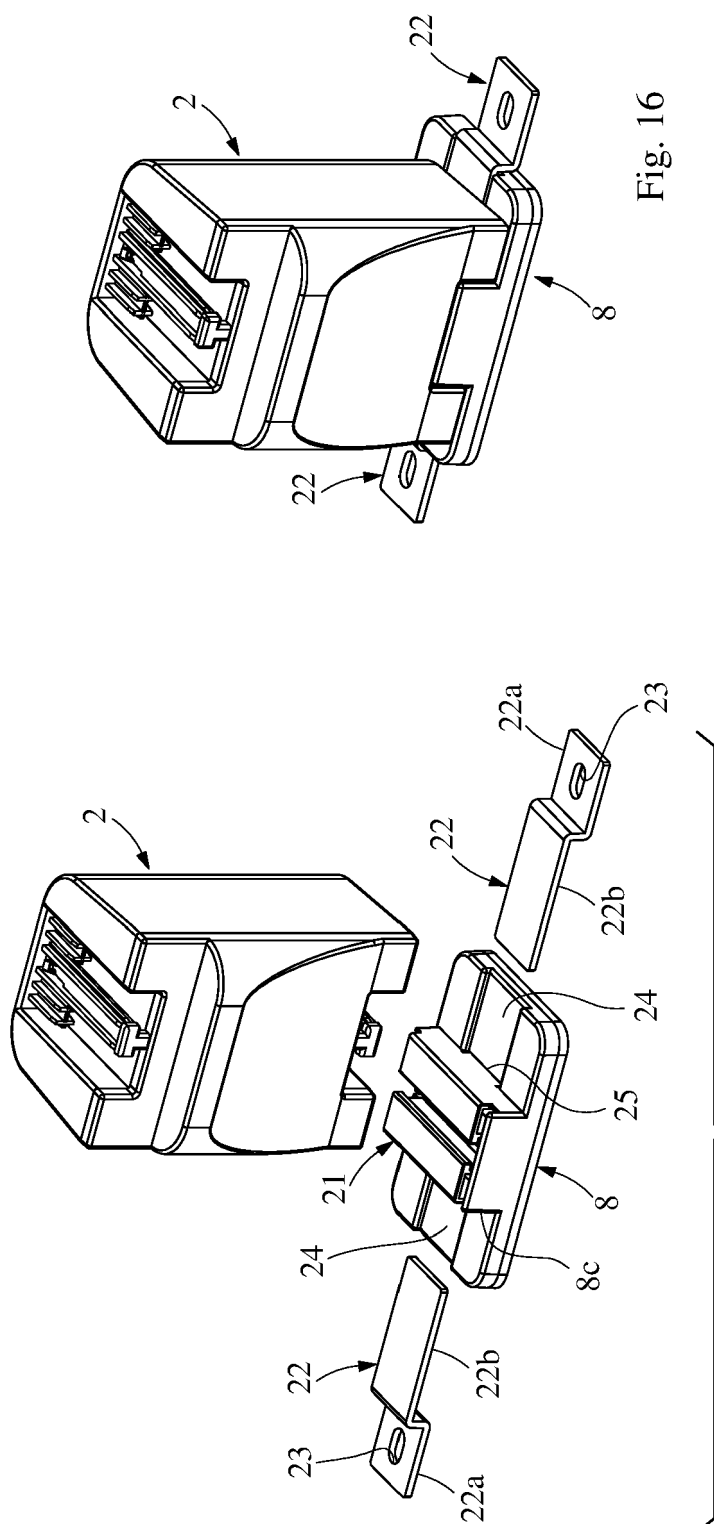


Fig. 14



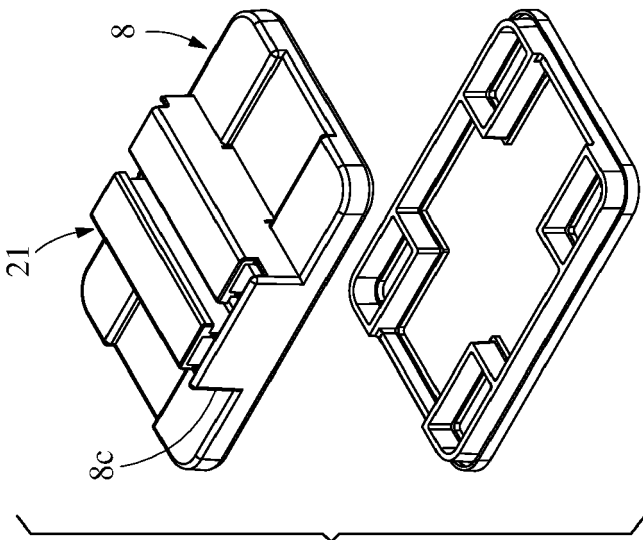


Fig. 17

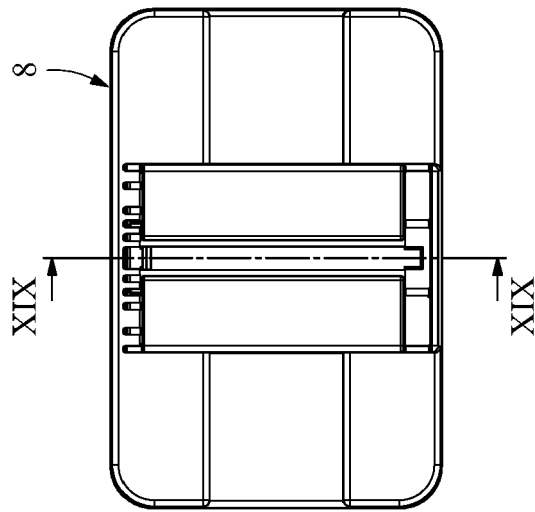


Fig. 18

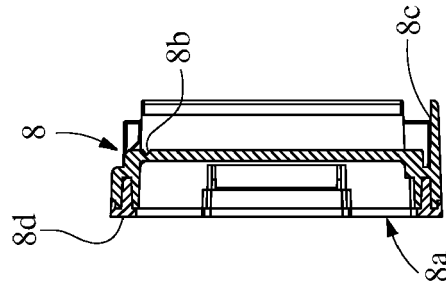
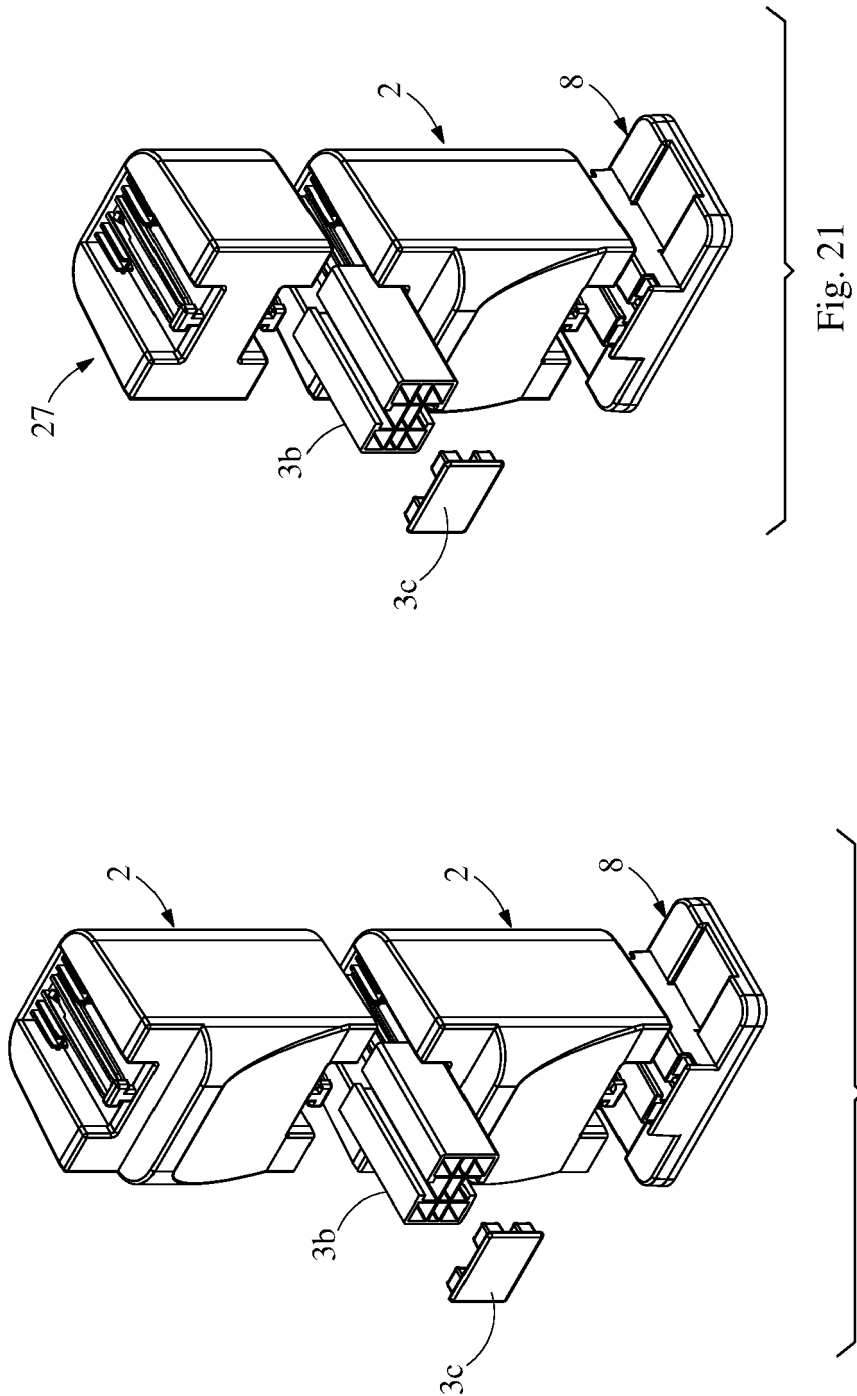


Fig. 19



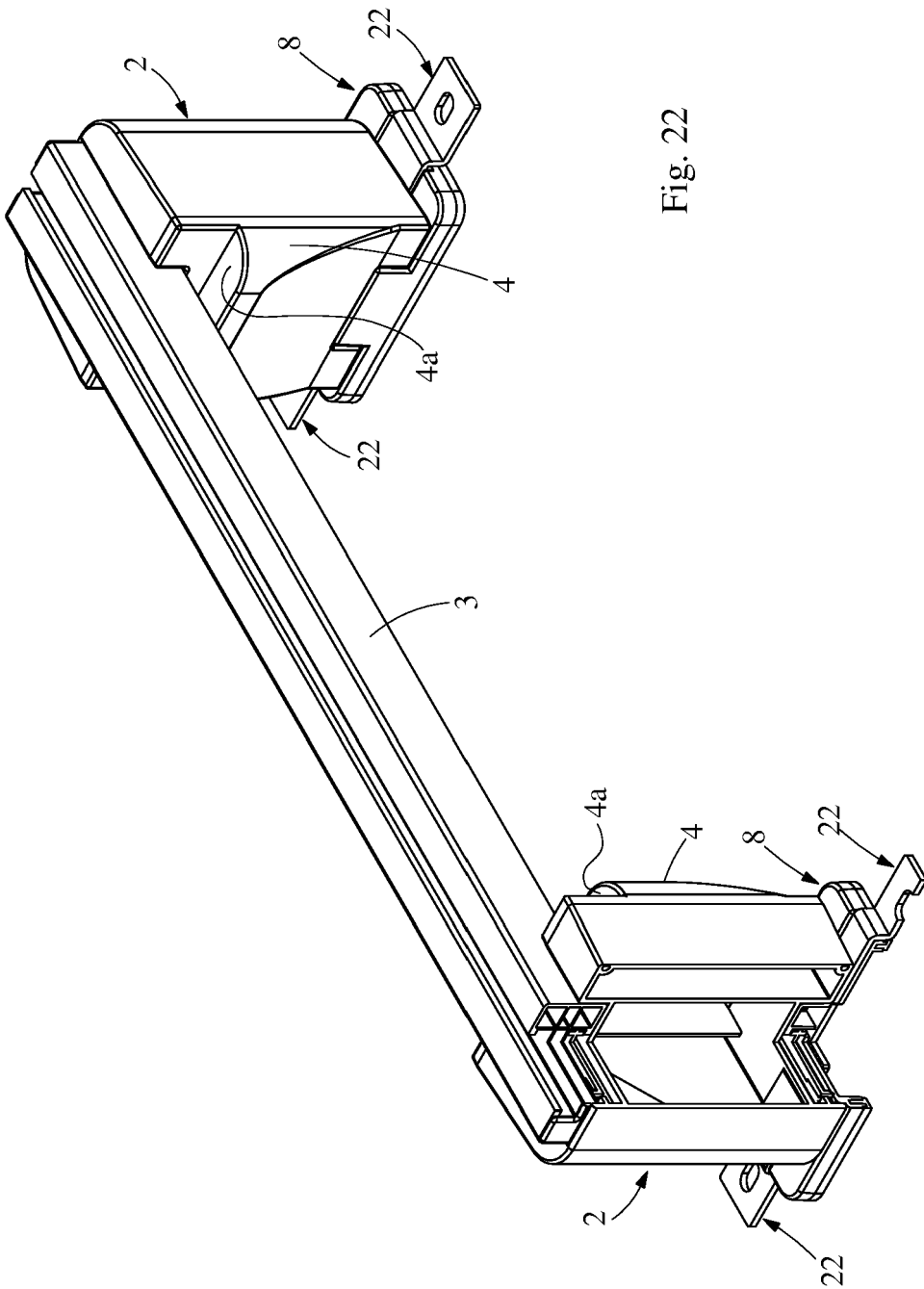


Fig. 22



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