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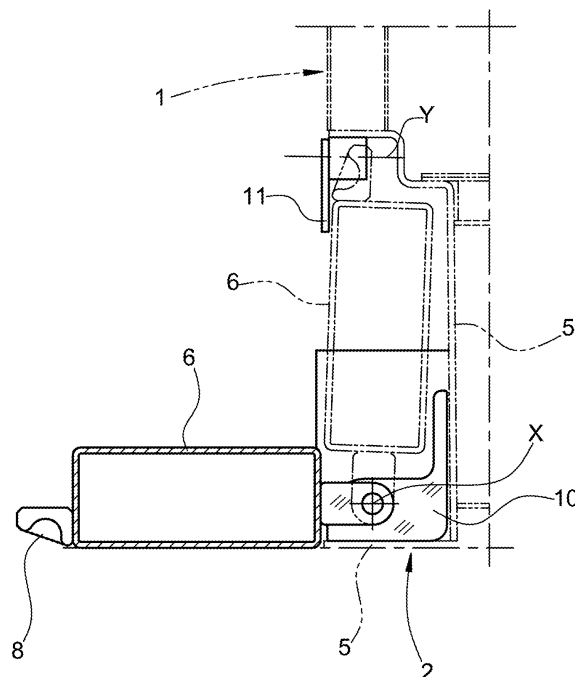
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(54) **Container with retractable lateral retaining devices**

(57) The container (1) has a base structure (2) including two lower longitudinal members (5). Each longitudinal member (5) is connected to at least one retaining body (6) having a plurality of longitudinally aligned projecting formations or teeth (8), between which are formed corresponding recesses (9), each of which can be engaged by a locking member carried by an external structure for transporting the container (1), to prevent a relative longitudinal or transverse movement of the container (1) with respect to the transporting structure. The at least one retaining body (6) is connected to the associated longitudinal member (5) in such a way that it can be moved between a retracted rest position and a deployed operating position, in which positions, respectively, said formations or teeth (8) lie within the profile of the container (1) or project transversely therefrom.

FIG. 4



Description

[0001] The present invention relates to containers for transporting goods.

[0002] More specifically, the invention relates to a container potentially intended to be stowed and transported in a vehicle, such as a cargo aircraft (for example a Hercules C130 or the like, having a "Dual Rail" or equivalent locking system).

[0003] One object of the invention is to provide a container of this type which can be conveniently and reliably secured and locked in a transport vehicle of this type, to prevent any longitudinal or transverse relative movement of the container.

[0004] This and other objects are achieved according to the invention with a container which, in a known way, has a base structure including two lower longitudinal members, one on the right and one on the left, and which is **characterized in that** each of these longitudinal members is connected to at least one retaining body having a plurality of longitudinally aligned projecting formations or teeth, between which are formed corresponding recesses each of which can be engaged by a locking member carried by an external structure for transporting the container, to prevent a relative longitudinal movement of the container with respect to this transporting structure; said at least one retaining body being connected to the corresponding longitudinal member in such a way that it can be moved between a retracted rest position and a deployed operating position, in which positions, respectively, said formations lie within the profile of the container or project transversely therefrom.

[0005] In one embodiment, said at least one retaining body is pivoted on the associated longitudinal member about an essentially horizontal axis, and can be swung between a retracted rest position in which said projecting formations or teeth extend in an essentially vertical plane, being preferably turned upwards, and a deployed operating position in which said projecting formations or teeth extend in an essentially horizontal plane.

[0006] In a container in which the lower longitudinal members form corresponding pairs of lifting compartments which are spaced apart longitudinally, each of these longitudinal members is conveniently associated with a first and a second end retaining body, located longitudinally outside the lifting compartments, and a third retaining body located in an intermediate position between these lifting compartments.

[0007] Further characteristics and advantages of the invention will be made clear by the following detailed description, provided purely by way of example and without restrictive intent, with reference to the attached drawings, in which:

- Figure 1 is a lateral elevation of a container according to the invention;
- Figure 2 is a plan view from above of the container of Figure 1;

- Figure 3 is a plan view of a retaining body for a container according to the invention; and
- Figure 4 is a partial view of a section taken essentially along the line IV-IV of Figure 1.

[0008] In Figure 1, the number 1 indicates the whole of a container according to the present invention.

[0009] In the illustrated embodiment, the container 1 comprises, in a known way, a frame including an essentially horizontal base structure 2, connected to a roof structure 3 by means of end uprights 4.

[0010] The base structure 2 comprises longitudinal beams or members 5, only one of which is visible in Figure 1.

[0011] A plurality of retaining bodies, each of which is indicated by 6, is connected to each lower longitudinal member 5.

[0012] In the illustrated embodiment, each lower longitudinal member 5 of the container has a corresponding pair of lifting recesses 7 (Figure 1), spaced apart from each other longitudinally. Similarly, each longitudinal member 5 is associated with a pair of end retaining bodies 6, located longitudinally outside the lifting recesses 7, and a further retaining body 6 located in an intermediate position between these lifting recesses (see Figure 1 in particular).

[0013] As shown more clearly in Figure 3, each retaining body 6 essentially has an elongate parallelepipedal shape, with a plurality of projecting formations or teeth 8, aligned longitudinally on one larger side or face of this body. The teeth 8 of each retaining body 6 are separated by recesses 9, each of which can be engaged by a locking member carried by an external structure for transporting the container, for example a structure of the hold of a cargo aircraft, to prevent any relative longitudinal and transverse movement of the container 1 with respect to this structure.

[0014] The retaining bodies 6 are connected to the corresponding lower longitudinal members 5 in such a way that they are pivoted about a horizontal axis, indicated by X in Figure 4. In particular, in the illustrated embodiment, each retaining body 6 is pivoted rotatably about a plurality of essentially L-shaped supporting brackets 10 (Figure 4), fixed to the associated longitudinal member 5 by welding for example.

[0015] As shown more clearly in Figure 4, each retaining body 6 can be swung between a retracted rest position, shown in broken lines in this drawing, and a deployed operating position, shown in solid lines.

[0016] In the retracted rest position, the projecting formations or teeth 8 of each retaining body 6 extend in an essentially vertical plane, preferably upwards, as shown in Figure 4. In this condition, each retaining body 6 is housed in a cavity formed by the associated longitudinal member 5, and does not project transversely to any substantial extent from the transverse profile of the container.

[0017] A rotatable stop member 11, carried by the container in the vicinity of said cavity, can then be rotated

about an axis Y and placed in the position shown in solid lines in Figure 4, in which it securely holds the retaining body 6 in the rest position (shown in broken lines).

[0018] In the deployed operating position, each retaining body 6 extends in an essentially horizontal configuration and protrudes transversely beyond the profile of the container 1.

[0019] In this condition, the projecting formations or teeth 8 extend essentially horizontally, and the recesses 9 formed between them can be engaged by locking devices or members carried by a structure of a means of transport.

[0020] The presence of a plurality of projections or teeth 8 and corresponding recesses 9 makes it possible to change the longitudinal position in which the container 1 is to be locked with respect to the transport structure.

[0021] Clearly, provided that the principle of the invention is retained, the forms of application and the details of embodiment can be varied widely from what has been described and illustrated purely by way of example and without restrictive intent, the invention extending to all embodiments which achieve the same usefulness by using the same innovative principles.

lower longitudinal member (5) has a pair of lifting recesses (7) which are spaced apart longitudinally, and in which each lower longitudinal member (5) is associated with a first and a second end retaining body (6) located longitudinally outside said lifting recesses (7), together with a third retaining body (6) located in an intermediate position between said lifting recesses (7).

4. Container according to any one of the preceding claims, in which said at least one retaining body (6) is pivoted rotatably about a plurality of essentially L-shaped supporting brackets (10), fixed to the associated lower longitudinal member (5).

5. Container according to any one of the preceding claims, in which said at least one retaining body (6) is associated with at least one movable stop member (11) capable of holding it in the retracted rest position.

Claims

1. Container (1) having a base structure (2) including two lower longitudinal members (5), one on the right and one on the left; the container (1) being **characterized in that** each lower longitudinal member (5) is connected to at least one retaining body (6) having a plurality of longitudinally aligned projecting formations or teeth (8), between which are formed corresponding recesses (9), each of which can be engaged by a locking member carried by an external structure for transporting the container (1), to prevent a relative longitudinal or transverse movement of the container (1) with respect to said transporting structure; said at least one retaining body (6) being connected to the associated longitudinal member (5) in such a way that it can be moved between a retracted rest position and a deployed operating position, in which positions, respectively, said formations or teeth (8) lie within the profile of the container (1) or project transversely therefrom.
2. Container according to Claim 1, in which said at least one retaining body (6) is pivoted on the associated longitudinal member (5) about an essentially horizontal axis, and can be swung between a retracted rest position in which said projecting formations or teeth (8) extend in an essentially vertical plane, preferably upwards, and a deployed operating position in which said projecting formations or teeth (8) extend in an essentially horizontal plane.
3. Container according to Claim 1 or 2, in which each

FIG. 1

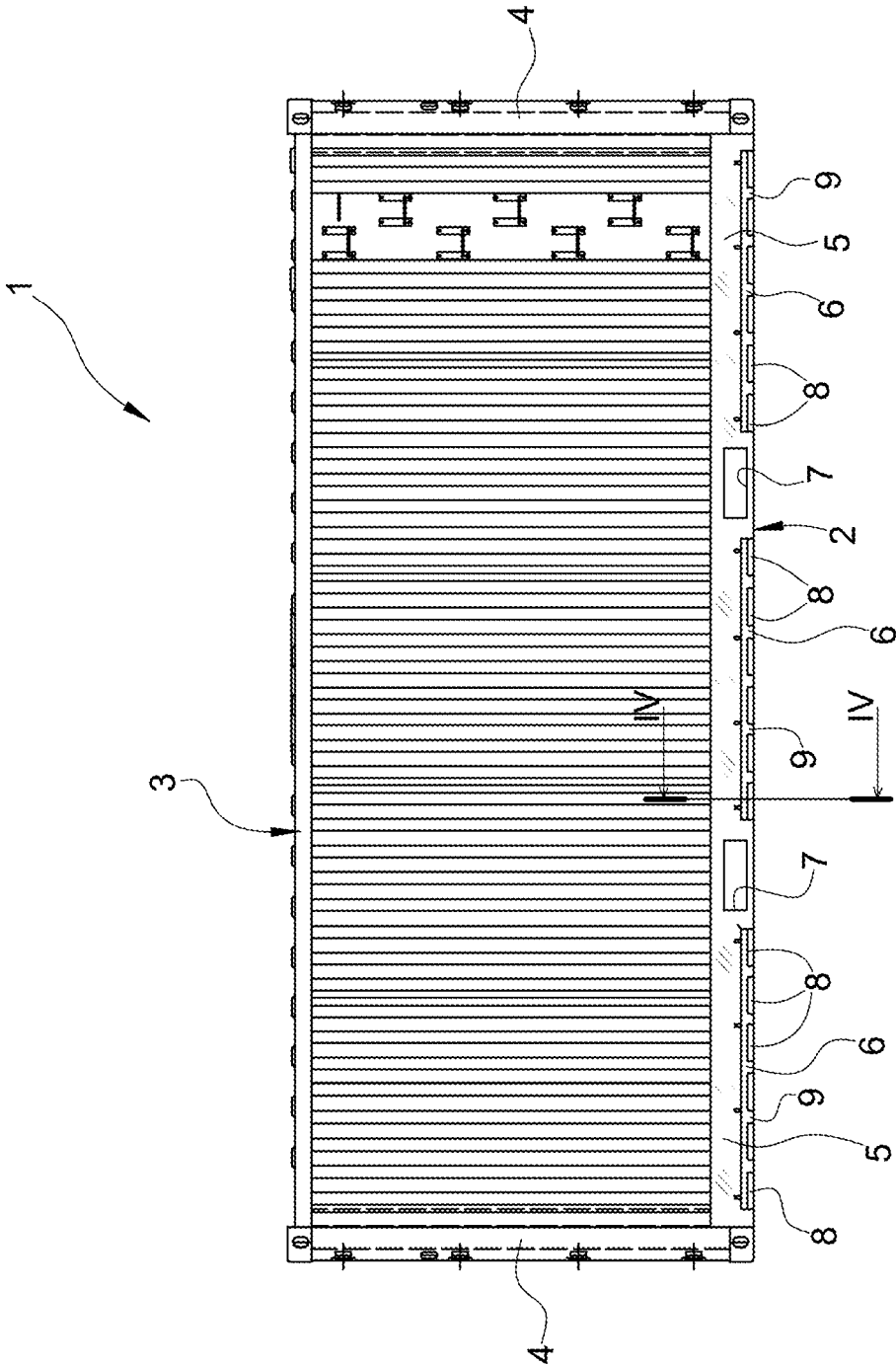


FIG. 2

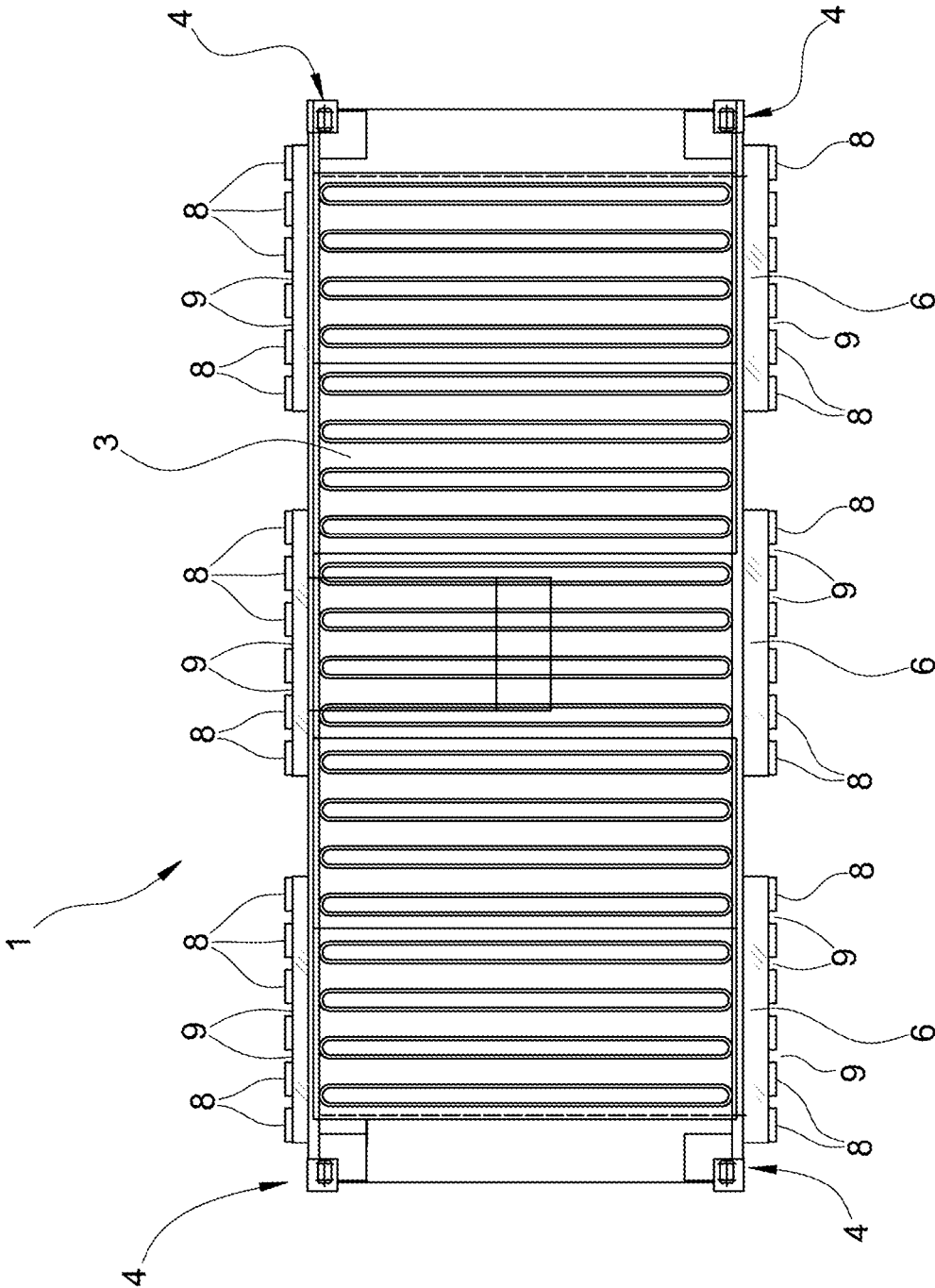


FIG. 3

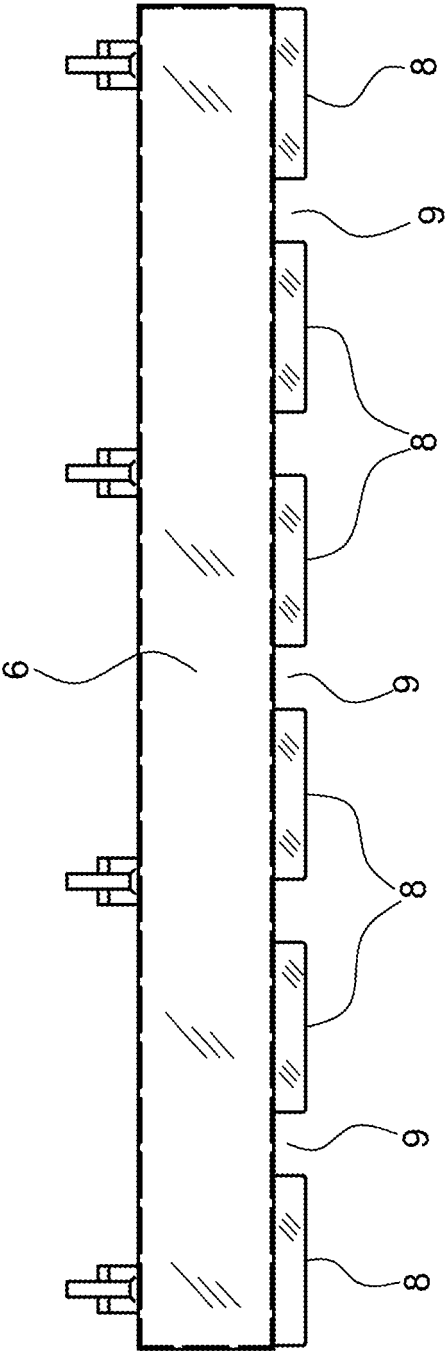


FIG. 4

