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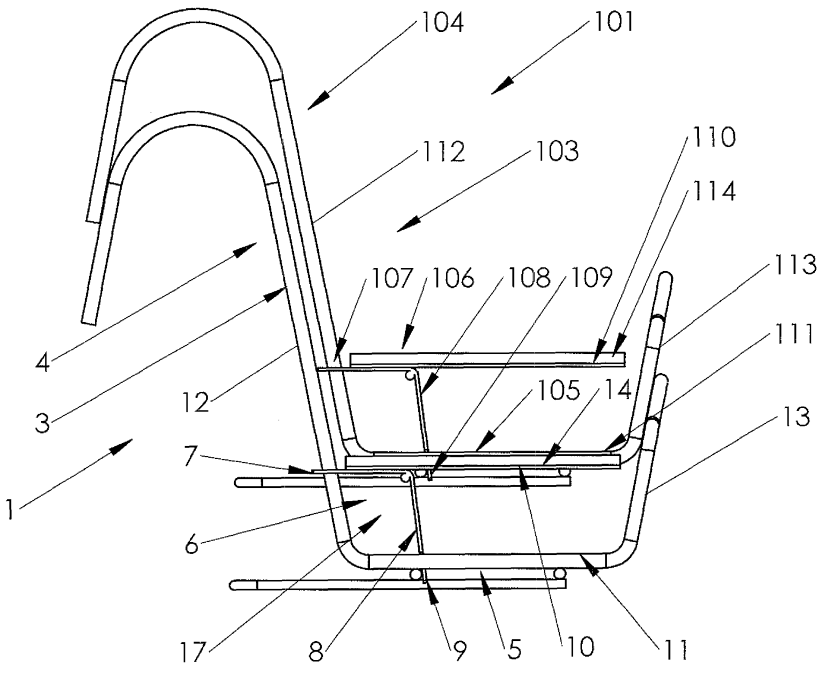
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(54) Plant holder system

(57) A plant holder system for supporting a plant holder, said plant holder system comprising a base frame comprising a frame fixating part for fixating the base frame to an item, such as a wall or balcony rim, and a holder support part for supporting the plant holder, and at least one holder fixating device for fixating the plant holder supported by the holder support part, wherein the at least one holder fixating device comprises at least one coupling part for coupling the holder fixating device to the base frame, at least one engaging part for engaging the plant holder supported by the holder support part, at least one support member for supporting a further plant holder system with the at least one holder fixating device coupled to the base frame, at least one fixating member for fixating the at least one the holder fixating device when supporting the further plant holder, and wherein the at least one holder fixating device is configured to in use support the further plant holder system such that the further plant holder system is orderly stacked on the plant holder system.

fig. 2



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Description

[0001] The invention relates to a plant holder system for supporting a plant holder, said plant holder system comprising a base frame comprising a frame fixating part for fixating the base frame to an item, such as a wall or balcony rim, and a holder support part for supporting the plant holder, and at least one holder fixating device for fixating the plant holder supported by the holder support part, wherein the at least one holder fixating device comprises at least one coupling part for coupling the holder fixating device to the base frame, at least one engaging part for engaging the plant holder supported by the holder support part.

[0002] To prevent dangerous situations wherein the plant holder slides of the base frame and falls down from a plant holder system fixed to a balcony, the plant holder is fixated by the at least one holder fixating device.

[0003] A problem of the plant holder systems known from the prior art is that it is not possible to stack a further plant holder system on said plant holder system in an orderly manner. This courses many difficulties during the transport and storages of the plant holder systems.

[0004] An object of the invention is to provide an improved plant holder system. This object is achieved by a plant holder system for supporting a plant holder, said plant holder system comprising a base frame comprising a frame fixating part for fixating the base frame to an item, such as a wall or balcony rim, and a holder support part for supporting the plant holder, and at least one holder fixating device for fixating the plant holder supported by the holder support part, wherein the at least one holder fixating device comprises at least one coupling part for coupling the holder fixating device to the base frame, at least one engaging part for engaging the plant holder supported by the holder support part, at least one support member for supporting a further plant holder system with the at least one holder fixating device coupled to the base frame, at least one fixating member for fixating the at least one the holder fixating device when supporting the further plant holder, and wherein the at least one holder fixating device is configured to in use support the further plant holder system such that the further plant holder system is orderly stacked on the plant holder system.

[0005] In an embodiment of the plant holder system according the invention, the further plant holder system comprises in use a further base frame and the at least one holder fixating device is configured to in use support the further base frame such that the further plant holder system is orderly stacked on the plant holder system.

[0006] The further base frame may in use comprise a further holder support part and the at least one holder fixating device may be configured to in use support the further holder support part such that the further plant holder system is orderly stacked on the plant holder system.

[0007] In an embodiment of the plant holder system according the invention, the holder support part defines a support surface for receiving the plant holder, in use the further plant holder system comprises a further base frame with a further holder support part which defines a further support surface for receiving a further plant holder, the at least holder fixating device is configured to in use support the further plant holder system such that the support surface and the further support surface extend substantially parallel to each other.

[0008] The at least one holder fixating device may be configured to in use support the further plant holder system such that the base frame and the further base frame extend substantially parallel to each other.

[0009] In an embodiment of the plant holder system according the invention, the at least one fixating member of at least one holder fixating device is configured to abut against the base frame when in use the further plant holder system is supported by said at least one holder fixating device.

[0010] The at least one fixating member of at least one holder fixating device may be configured to abut against the holder support part when in use the further plant holder system is supported by said at least one holder fixating device.

[0011] In an embodiment of the plant holder system according the invention, the frame fixating part comprises a frame section extending upwardly relative to the holder support part, and at least one coupling part of at least one holder fixating device is configured to be coupled to said frame section when in use the further plant holder system is supported by said at least one holder fixating device.

[0012] In an embodiment of the plant holder system according the invention, the base frame comprises a holder boundary extending upwardly relative to the holder support part for defining a boundary for the holder support part, and at least one coupling part of at least one holder fixating device is configured to be coupled to said holder boundary when in use the further plant holder system is supported by said at least one holder fixating device.

[0013] The plant holder system may comprise a first holder fixating device and a second holder fixating device, the first holder fixating device may be configured to be coupled to the frame fixating part and the second holder fixating device may be configured to be coupled to the holder boundary when in use the further plant holder system is supported by the first fixating device and second fixating device.

[0014] The plant holder system may comprises a third holder fixating device and a fourth holder fixating device, the third holder fixating device may be configured to be coupled to the frame fixating part and the fourth holder fixating device may be configured to be coupled to the holder boundary when in use the further plant holder system is supported by the third fixating device and fourth fixating device.

[0015] In an embodiment of the plant holder system according the invention, at least one holder fixating device comprises a limiter configured to in use limit the

movement of the further plant holder system supported by said holder fixating device.

[0016] The limiter may comprises an engaging member configured to in use engage the further plant holder system supported by said holder fixating device.

[0017] In an embodiment of the plant holder system according the invention, the at least one coupling part of at least one holder fixating device is configured to releasable couple said holder fixating device to the base frame.

[0018] In an embodiment of the plant holder system according the invention, all holder fixating devices are identical to each other.

[0019] The invention further relates to the use of a plant holder system according the invention.

[0020] The invention further relates to a holder fixating device according the invention.

[0021] The invention further relates to the use of a holder fixating device according the invention.

[0022] The plant holder system according the invention will be discussed in detail with reference to the accompanying figures, wherein;

Figure 1 shows a schematically view in perspective of a first embodiment of the plant holder system according the invention,
Figure 2 shows a schematically side view of the plant holder system of fig. 1,
Figure 3 shows a schematically view in perspective of a second embodiment of the plant holder system according the invention,
Figure 4 shows a schematically side view of the plant holder system of fig. 3,
Figure 5 shows a schematically view in perspective of a third embodiment of the plant holder system according the invention,
Figure 6 shows a schematically side view of the plant holder system of fig. 5,
Figures 7 and 8 shows a schematically view in perspective of a fourth embodiment of the plant holder system according the invention,
Figure 9 shows an enlarged view of a part of the embodiment of the plant holder system of fig. 8,
Figure 10 shows a schematically view in perspective of the holder fixating device of the plant holder system of fig. 7-9, and
Figure 11 shows a schematically side view of the plant holder system of fig. 7-10.

[0023] Figure 1 shows a first embodiment of the plant holder system according the invention. The plant holder system 1 is configured to support a plant holder 2. The plant holder 2 is indicated with discontinuous lines. The plant holder system 1 comprises a base frame 3 comprising a frame fixating part 4 for fixating the base frame 3 to an item, such as a wall or balcony rim, and a holder support part 5 for supporting the plant holder 2.

[0024] The plant holder system 1 comprises furthermore one holder fixating device 6 for fixating the plant holder 2 supported by the holder support part 5. The holder fixating device 6 comprises two coupling parts 7 for coupling the holder fixating device 6 to the base frame 3. The coupling parts 7 are configured such that the holder fixating device 6 is movable along the base frame 3. The holder fixating device 6 comprises two engaging parts 8 for engaging the plant holder 2 supported by the holder support part 5. In the situation shown, the engaging parts 8 are positioned in an engaging position 16. The engaging parts 8 engage the plant holder 2 such that sliding of the plant holder 2 of the holder support part 5 is prevented.

[0025] The holder fixating device 6 comprises furthermore two support members 10 for supporting a further plant holder system with the holder fixating device 6 coupled to the base frame 3. This situation is shown in fig. 2. The holder fixating device 6 comprises a fixating member 9 for fixating the holder fixating device 6 when supporting a further plant holder and a limiter configured to in use limit the movement of the further plant holder system supported by said holder fixating device.

[0026] Figure 2 shows a schematically side view of the plant holder system of fig. 1. The holder fixating device 6 is positioned in a supporting positing 17. A further plant holder system 101 is positioned on the holder fixating device 6. The further plant holder system 101 is identical to the plant holder system 1. The further plant holder system 101 is supported by the holder fixating device 6 such that the further plant holder system 101 is orderly stacked on the plant holder system 6. The further plant holder system 101 according the invention allows that a further plant holder system 101 is easily stacked on the plant holder system 1 in an orderly manner. This facilitates the transport and storages of the plant holder systems 1, 101.

[0027] The further plant holder system 101 comprises a further base frame 103 with a further holder support part 105 and the holder fixating device 5 supports the further holder support part 105. It is also possible that the holder fixating device 5 supports a different part of the further base frame 103.

[0028] The holder support part 5 and the further holder support part 105 define a support surface 11 and further support surface 111 for receiving a plant holder 2, respectively. The holder fixating device 6 supports the further plant holder system 101 such that the support surface 11 and the further support surface 111 extend substantially parallel to each other. More specifically, the holder fixating device 6 supports the further plant holder system 101 such that the base frame 3 and the further base frame 103 extend substantially parallel to each other. It is also possible that the plant holder systems 1, 101 are orderly stacked such that the support surfaces 11, 111 extend substantially parallel to each other while other parts of the base frames 3, 103 do not extend substantially parallel to each other. In said situation is possible that the frame fixating parts 4, 104 are located at opposite sides of the substantially parallel extending support sur-

faces 11, 111.

[0029] The frame fixating part 4 comprises a frame section 12 extending upwardly relative to the holder support part 5, more specifically the support surface 11. The coupling parts 7 are coupled to said frame section 12.

[0030] The base frame 3 comprises a holder boundary 13 extending upwardly relative to the holder support part, more specifically the support surface 11, for defining a boundary for the holder support part 5. It is also possible that the coupling parts 7 are coupled to the holder boundary 13 when the further plant holder system 101 is supported by the holder fixating device 7.

[0031] The coupling parts 7 are moveable along the base frame 3. It is also possible that the coupling parts 7 are configured such that the holder fixating device 6 can be coupled to the base frame 3 in fixed positions along the base frame 3. In said situation the fixating members 9 may be integrated in the coupling parts 7. It is also possible that the coupling parts 7 can releasable be coupled to the base frame.

[0032] In the embodiment of the fig. 1 and 2, the two fixating members 9 abut against the base frame 3, more specifically the holder support part 5, when the further plant holder system 101 is supported by the holder fixating device 6.

[0033] The further plant holder system 101 supported by the plant holder system 1 is fixated in its position (as shown in fig. 2) by the limiter 14. Another further plant holder system (not shown) may be positioned on the further plant holder system 101. In said situation, the further limiter 114 will fixate the other further plant holder system.

[0034] Figures 3 and 4 show a second embodiment of the plant holder system according the invention. The holder fixating device 6 comprises four fixating members 9. Each support member 10 is supported by two fixating members 9 located at a distance from each other. The support surface 11 is indicated by a shaded plane.

[0035] Figures 5 and 6 show a third embodiment of the plant holder system according the invention. The plant holder system 1 comprises a first holder fixating device 6A and a second holder fixating device 6B. Each holder fixating device 6A-B comprises two coupling parts 7, two engaging parts 8, two fixating members 9 and two support members 10. The coupling parts 7 are configured to releasable couple the holder fixating devices 6A-B to the base frame 3. The first holder fixating device 6A is coupled to the frame fixating part 4 and positioned in the engage position 16. The second holder fixating device 6B is coupled to the holder boundary 13 and positioned in the support position 17.

[0036] When the further plant holder system 101 is orderly stacked on the plant holder system 1, the holder fixating devices 6A, 6B are positioned in the support position 17 and supporting the further plant holder system 101.

[0037] When the plant holder 2 is positioned on the holder support part 5, the first holder fixating device 6A is positioned in the engage position 16 and engaging the plant holder. The second holder fixating device 6B is removed to provide space for the plant holder 2. The first holder fixating device 6A and the second holder fixating device 6B are identical to each other. The removed second holder fixating device 6B may function as a spare holder fixating device, for example for the situation where the first holder fixating device 6A breaks.

[0038] Figure 7 show a fourth embodiment of the plant holder system according the invention. The plant holder system 1 comprises a first holder fixating device 6A, a second holder fixating device 6B, a third holder fixating device 6C and a fourth holder fixating device 6D. Each holder fixating device 6A-D comprises one coupling part 7, one engaging part 8, one fixating member 9 and one support member 10. The coupling parts 7 are configured to releasable couple the holder fixating devices 6A-D to the base frame 3. The coupling parts 7 use a snap coupling for releasable coupling the holder fixating devices 6A-D to the base frame 3. The first holder fixating device 6A and the third holder fixating device 6C are coupled to the frame fixating part 4. The second holder fixating device 6B and the fourth holder fixating device 6D are coupled to the holder boundary 13. The holder fixating devices 6A-D are positioned in the support position 17.

[0039] When the plant holder 2 is positioned on the holder support part 5, the first and third holder fixating device 6A and 6C are positioned in the engage position 16 and engaging the plant holder. The second and fourth holder fixating device 6B and D are removed to provide space for the plant holder 2. The holder fixating devices 6A-D are identical to each other. The removed second and fourth holder fixating device 6B, D may function as spare holder fixating devices.

[0040] Figure 8 shows a further plant holder system 101 orderly stacked on the plant holder system 1. The holder fixating devices 6A-D are positioned in the support position 17 and supporting the further plant holder system 101. The holder fixating device 6A-D of the fourth embodiment and the functioning thereof is shown in detail in the fig. 9 and 10. The holder fixating device 6A-D comprises a limiter 14 for limiting the movement of the further plant holder system 101, more specifically the further base frame 103, even more specifically the further holder support part 105, supported by said holder fixating device 6A-D. This prevents that the further plant holder system 101 from sliding of the plant holder system 1 when orderly stacked. The limiter 14 comprises limiting protrusions 18 extending from the support member 10. The limiting protrusions 18 are located at opposite sites of the support member 10. It is also possible that the limiter 14 comprises limiting protrusions 18 located at another position near the support member 10. The limiter 14 comprises an engaging member 15 for engaging the further plant holder system 101, more specifically the further base frame 103, even more specifically the further holder support part 105, supported by said holder fixating device 6A-D. This ensures that the further plant holder system 101 is located in a secured fixed position when orderly

stacked on the plant holder system 1. The engaging member 15 comprises engaging rims 19 located on the limiting protrusions 18. The engaging rims 19 snap the further plant holder system 101 when positioned on the support member 10. It is also possible to use other types of engaging members.

[0041] Figure 9 shows an enlarged view in perspective of the holder fixating devices 6A-B and 106A-B of the embodiment of the plant holder system of figure 8.

[0042] Figure 10 shows a view in perspective of the holder fixating device of the plant holder system of figure 7-9.

[0043] Figure 11 shows a schematically side view of the plant holder system of fig. 7-10.

[0044] It will be clear to the person skilled in the art that many modifications of the plant holder system according the invention and holder fixating device according the invention are possible without departing from the scope of protection as defined in this patent (application).

Claims

1. Plant holder system for supporting a plant holder, said plant holder system comprising;

- a base frame comprising a frame fixating part for fixating the base frame to an item, such as a wall or balcony rim, and a holder support part for supporting the plant holder, and
- at least one holder fixating device for fixating the plant holder supported by the holder support part, wherein the at least one holder fixating device comprises;

-- at least one coupling part for coupling the holder fixating device to the base frame,
-- at least one engaging part for engaging the plant holder supported by the holder support part,
-- at least one support member for supporting a further plant holder system with the at least one holder fixating device coupled to the base frame,
-- at least one fixating member for fixating the at least one the holder fixating device when supporting the further plant holder, wherein

the at least one holder fixating device is configured to in use support the further plant holder system such that the further plant holder system is orderly stacked on the plant holder system.

2. Plant holder system according to claims 1, wherein in use the further plant holder system comprises a further base frame and the at least one holder fixating device is configured to in use support the further base frame such that the further plant holder system is orderly stacked on the plant holder system.

3. Plant holder system according to claims 2, wherein in use the further base frame comprises a further holder support part and the at least one holder fixating device is configured to in use support the further holder support part such that the further plant holder system is orderly stacked on the plant holder system.

4. Plant holder system according to any of the preceding claims, wherein
the holder support part defines a support surface for receiving the plant holder,
in use the further plant holder system comprises a further base frame with a further holder support part which defines a further support surface for receiving a further plant holder,
the at least holder fixating device is configured to in use support the further plant holder system such that the support surface and the further support surface extend substantially substantially parallel to each other.

5. Plant holder system according to claims 4, wherein the at least one holder fixating device is configured to in use support the further plant holder system such that the base frame and the further base frame extend substantially parallel to each other.

6. Plant holder system according to any of the preceding claims, wherein
at least one fixating member of at least one holder fixating device is configured to abut against the base frame when in use the further plant holder system is supported by said at least one holder fixating device.

7. Plant holder system according to any of the preceding claims, wherein
at least one fixating member of at least one holder fixating device is configured to abut against the holder support part when in use the further plant holder system is supported by said at least one holder fixating device.

8. Plant holder system according to any of the preceding claims, wherein
the frame fixating part comprises a frame section extending upwardly relative to the holder support part, and
at least one coupling part of at least one holder fixating device is configured to be coupled to said frame section when in use the further plant holder system is supported by said at least one holder fixating device.

9. Plant holder system according to any of the preceding claims, wherein

the base frame comprises a holder boundary extending upwardly relative to the holder support part for defining a boundary for the holder support part, and at least one coupling part of at least one holder fixating device is configured to be coupled to said holder boundary when in use the further plant holder system is supported by said at least one holder fixating device.

10. Plant holder system according to claims 9, wherein the plant holder system comprises a first holder fixating device and a second holder fixating device,
the first holder fixating device is configured to be coupled to the frame fixating part and the second holder fixating device is configured to be coupled to the holder boundary when in use the further plant holder system is supported by the first fixating device and second fixating device.

11. Plant holder system according to claims 10, wherein the plant holder system comprises a third holder fixating device and a fourth holder fixating device,
the third holder fixating device is configured to be coupled to the frame fixating part and the fourth holder fixating device is configured to be coupled to the holder boundary when in use the further plant holder system is supported by the third fixating device and fourth fixating device.

12. Plant holder system according to any of the preceding claims, wherein
at least one holder fixating device comprises a limiter configured to in use limit the movement of the further plant holder system supported by said holder fixating device.

13. Plant holder system according to claims 12, wherein the limiter comprises an engaging member configured to in use engage the further plant holder system supported by said holder fixating device.

14. Plant holder system according to any of the preceding claims, wherein
at least one coupling part of at least one holder fixating device is configured to releasable couple said holder fixating device to the base frame.

15. Plant holder system according to any of the preceding claims, wherein
all holder fixating devices are identical to each other.

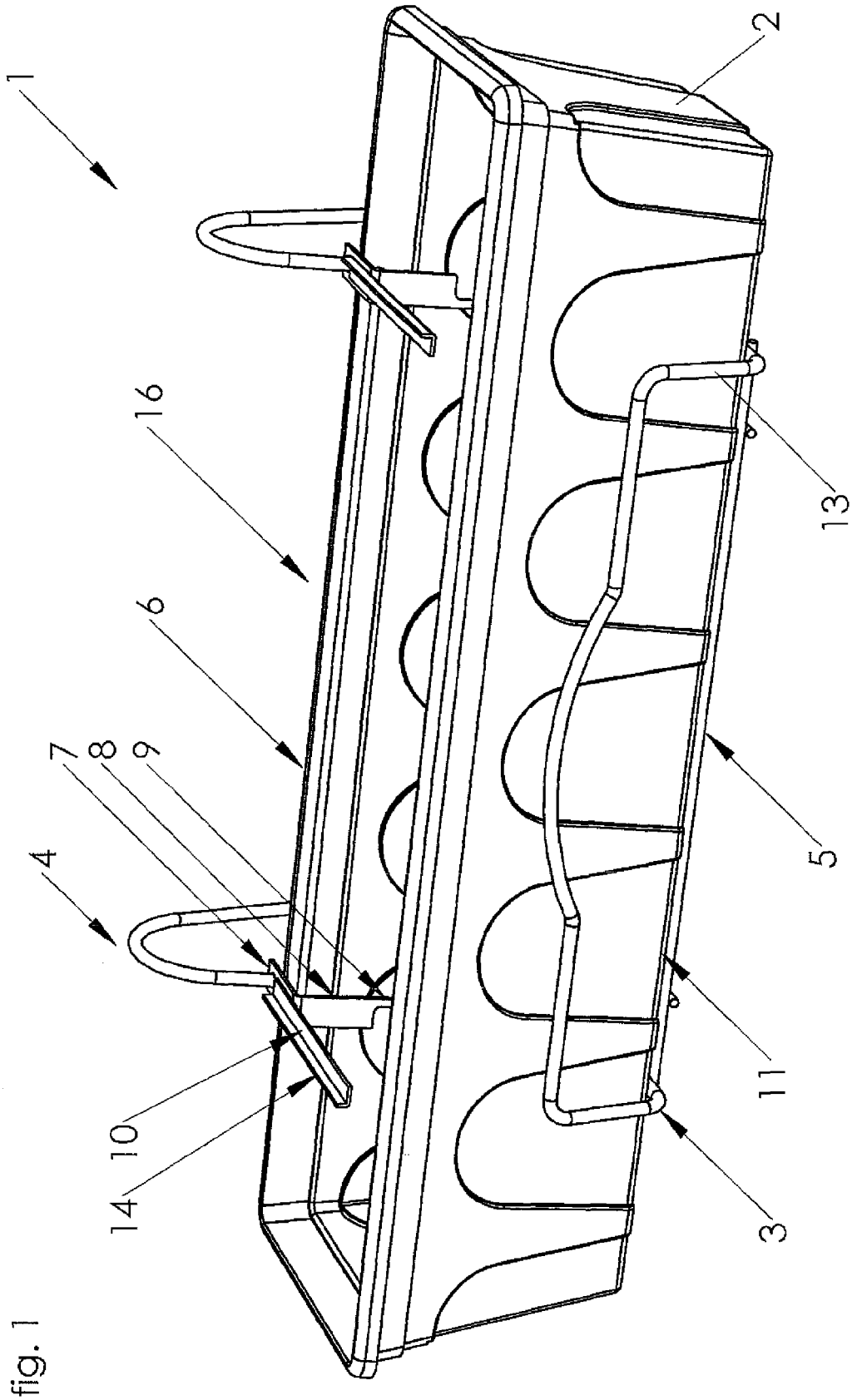


fig. 1

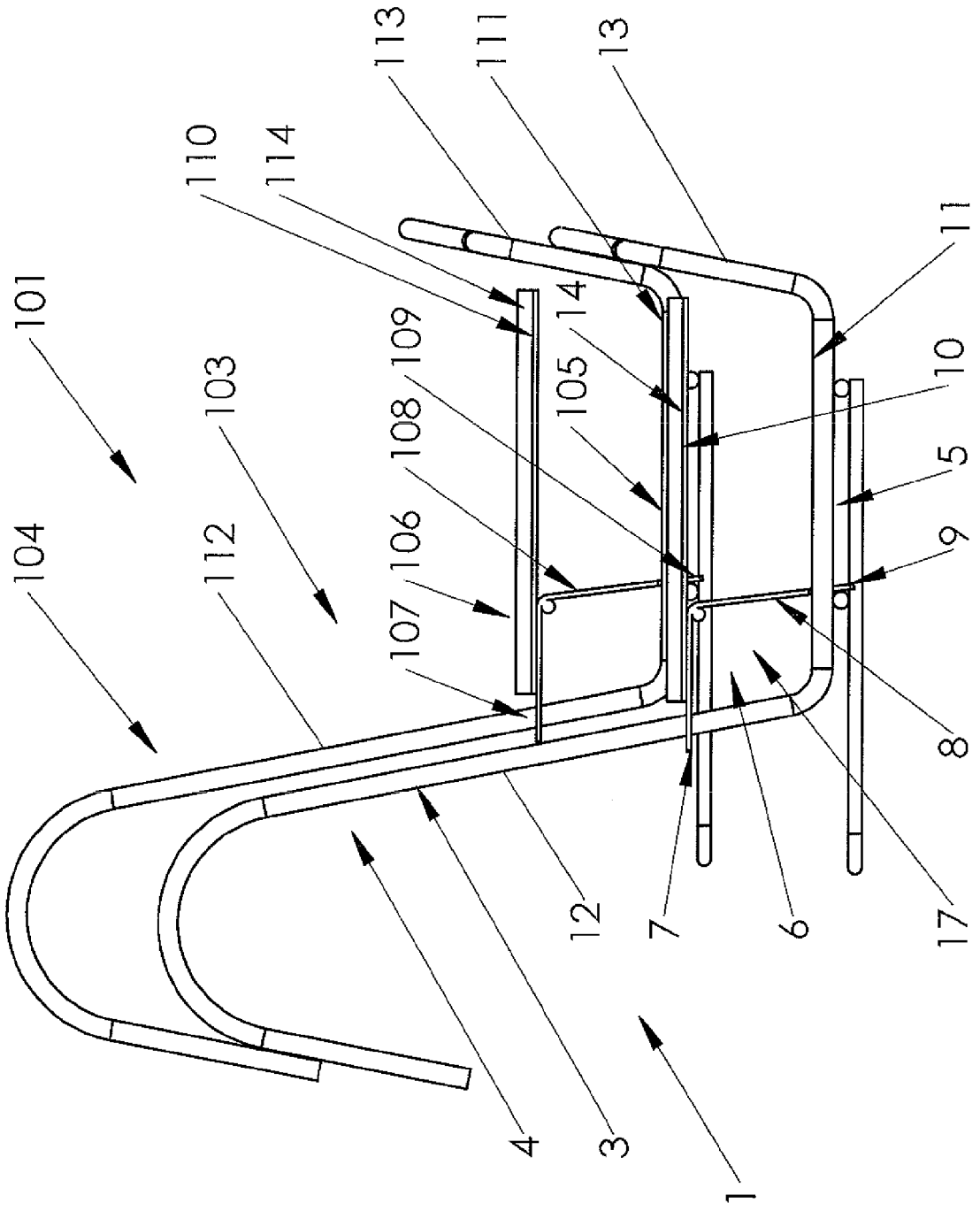

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fig. 2

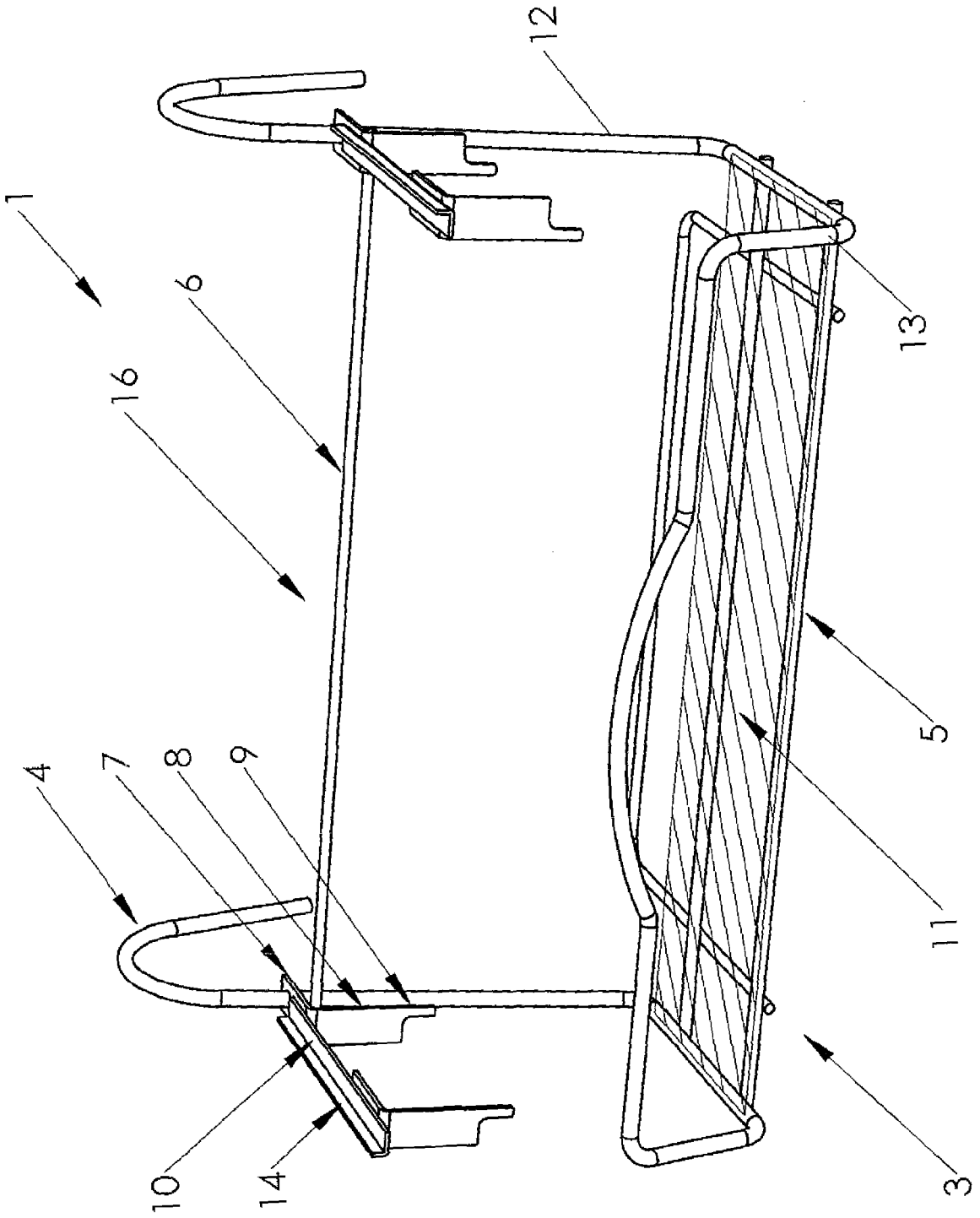


fig. 3

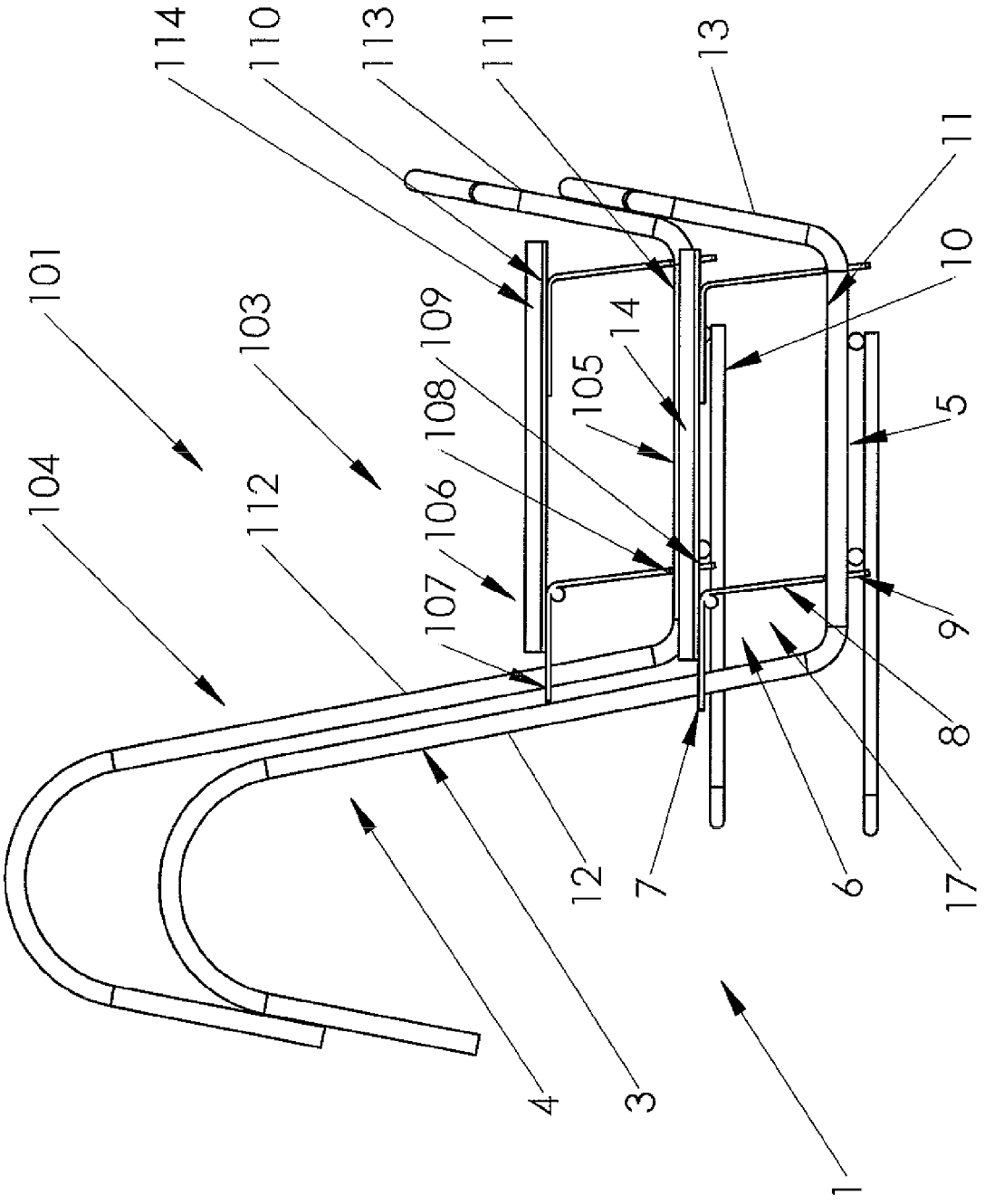

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fig. 4

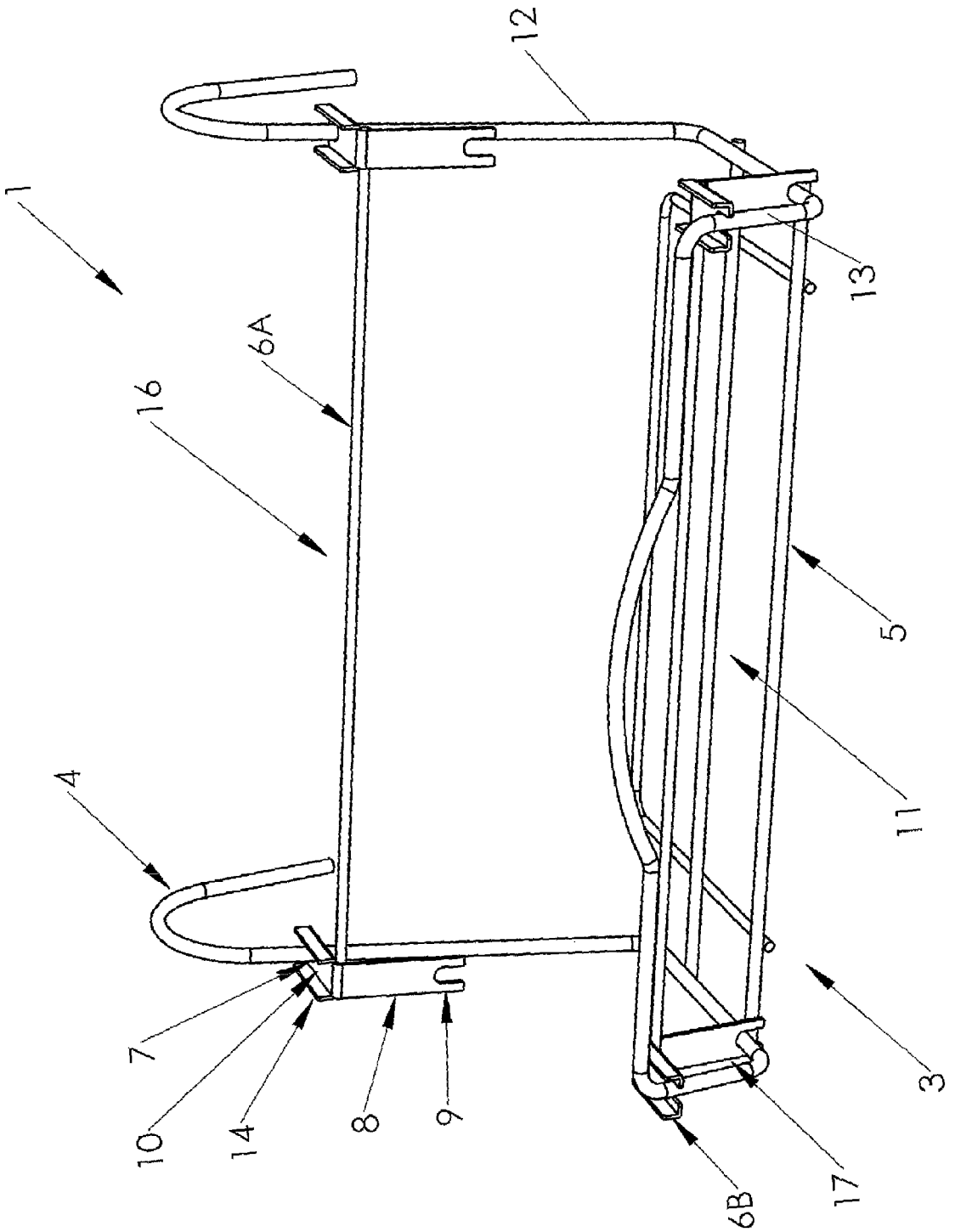


fig. 5

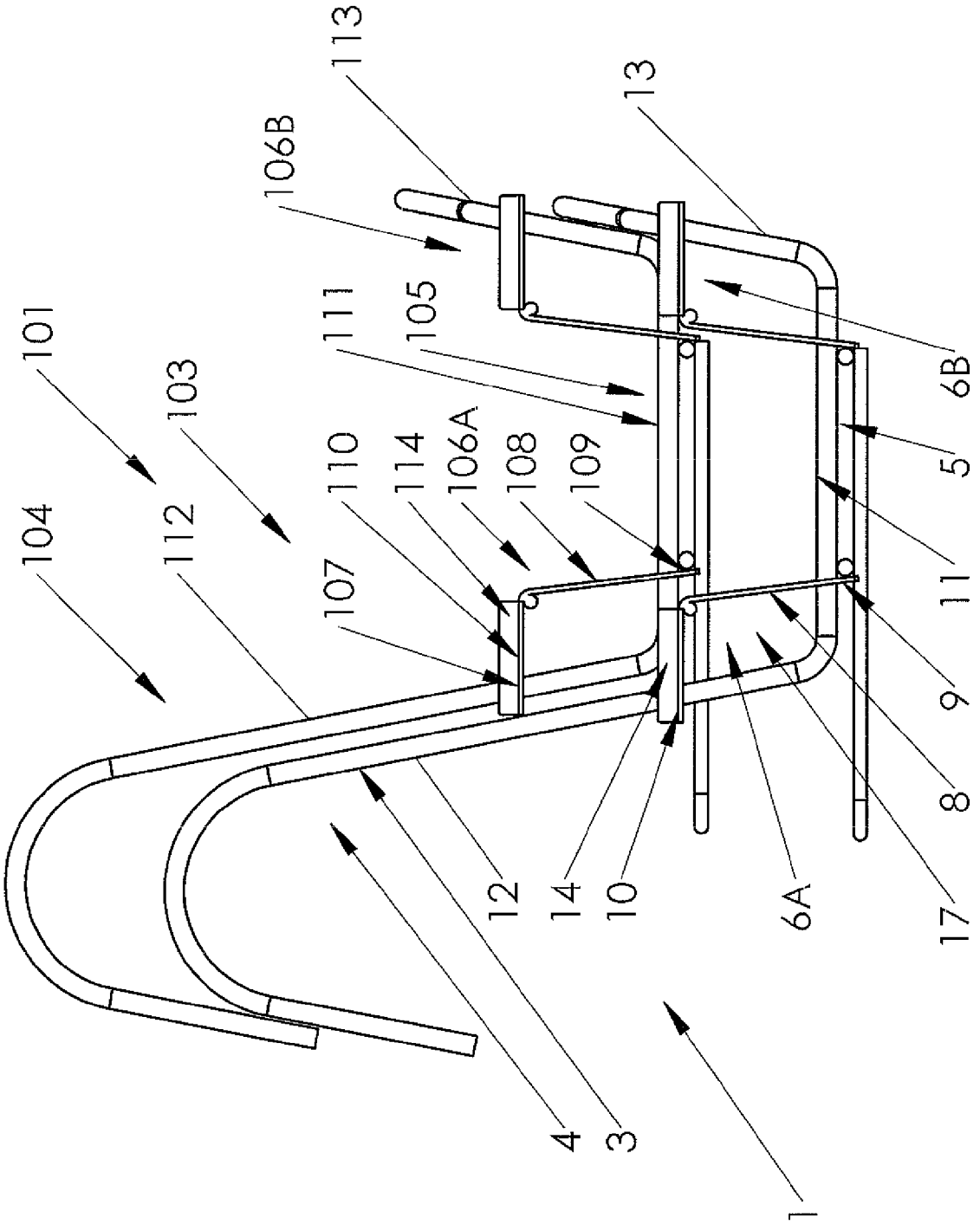

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fig. 6

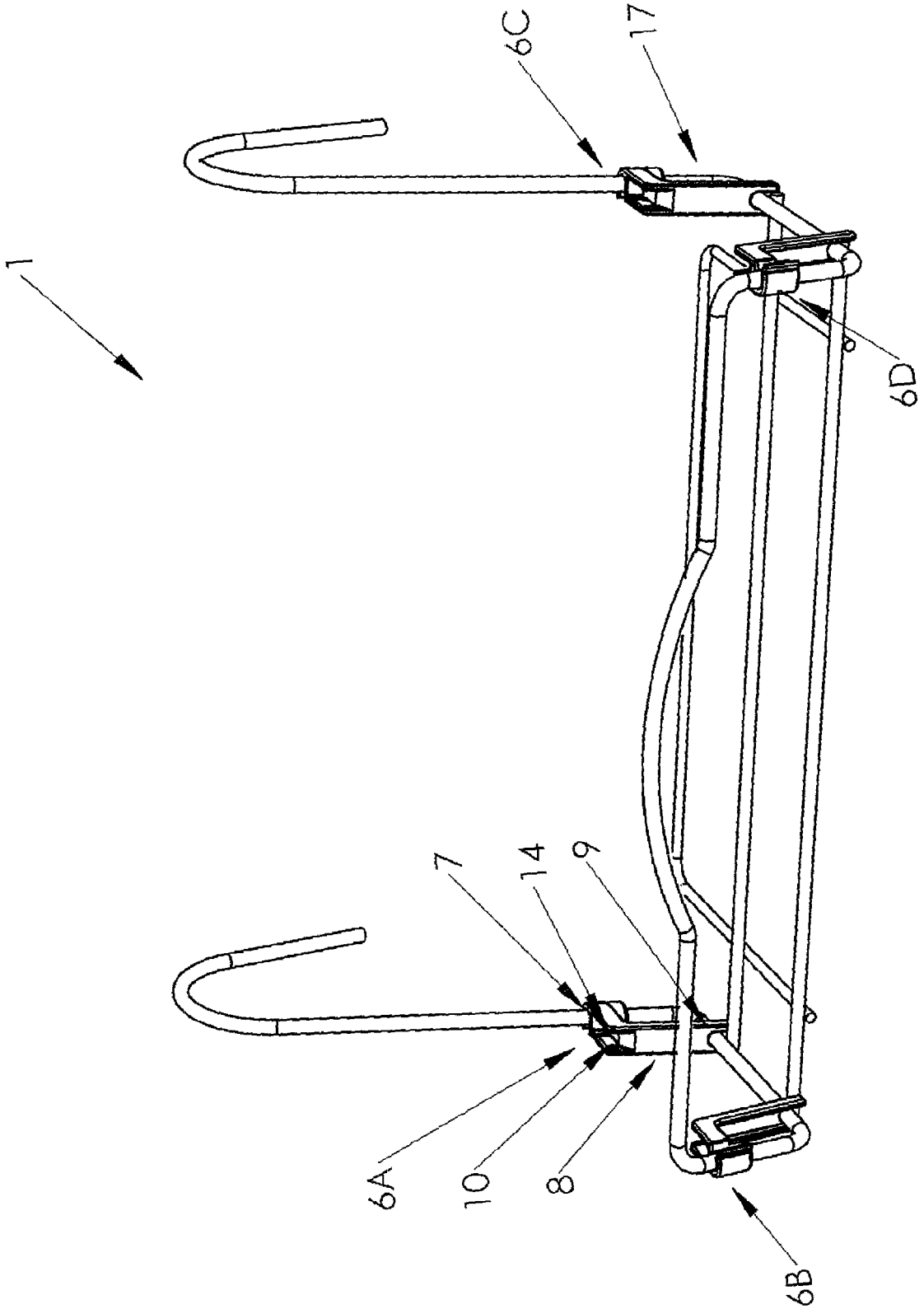


fig. 7

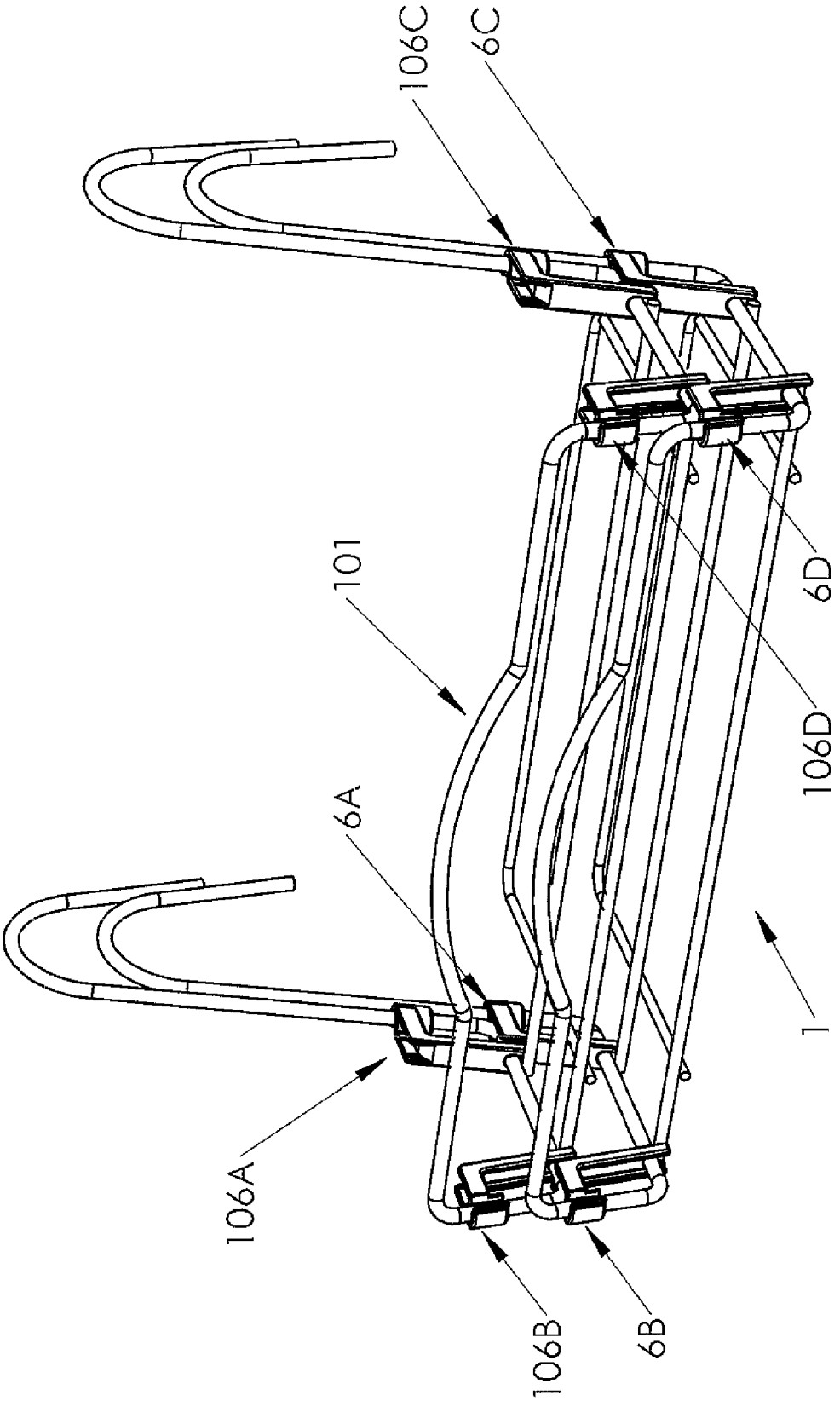


fig. 8

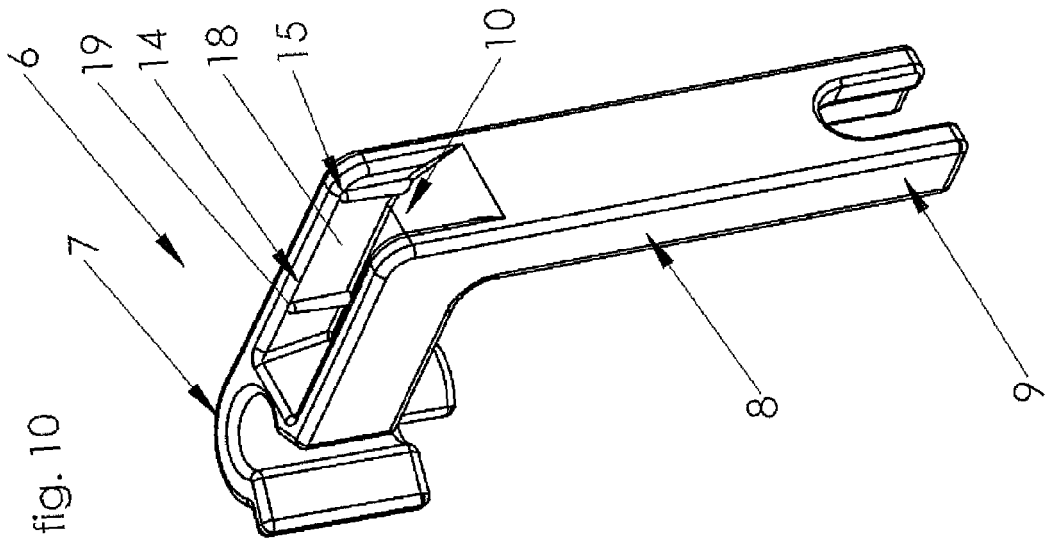


fig. 10

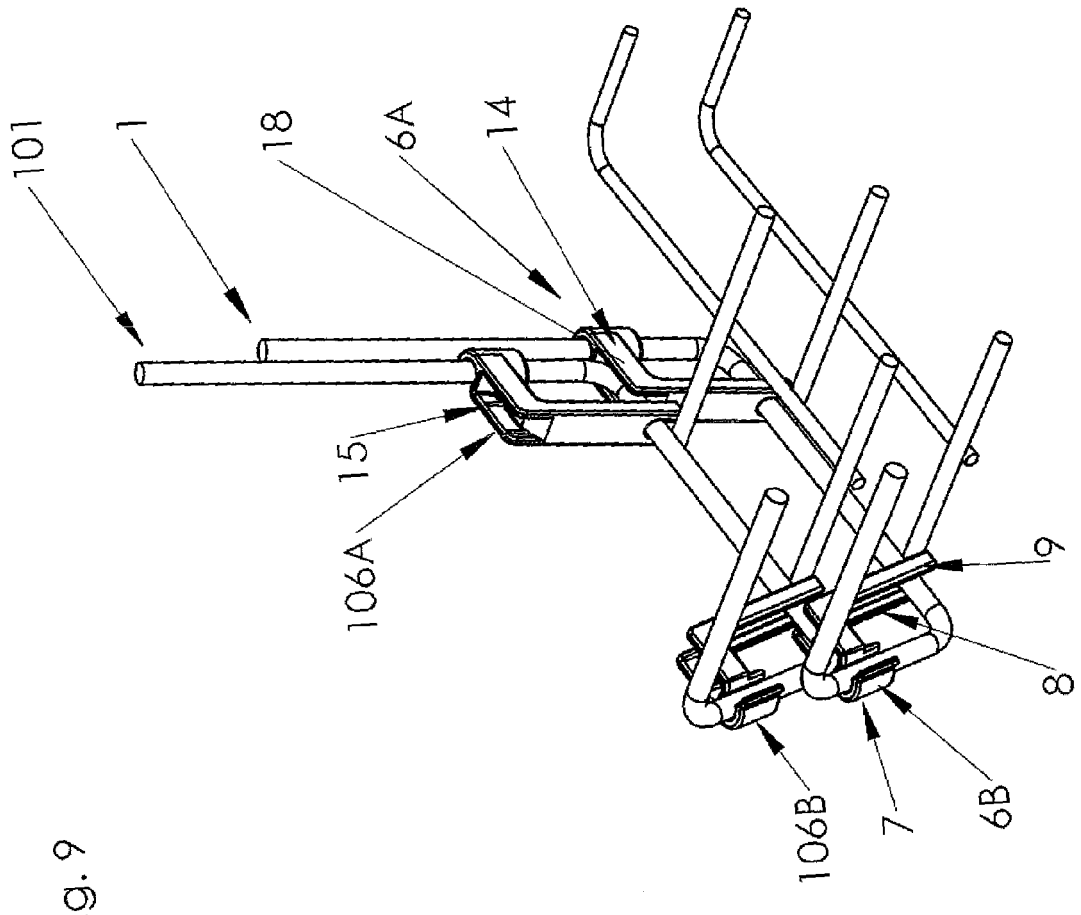


fig. 9

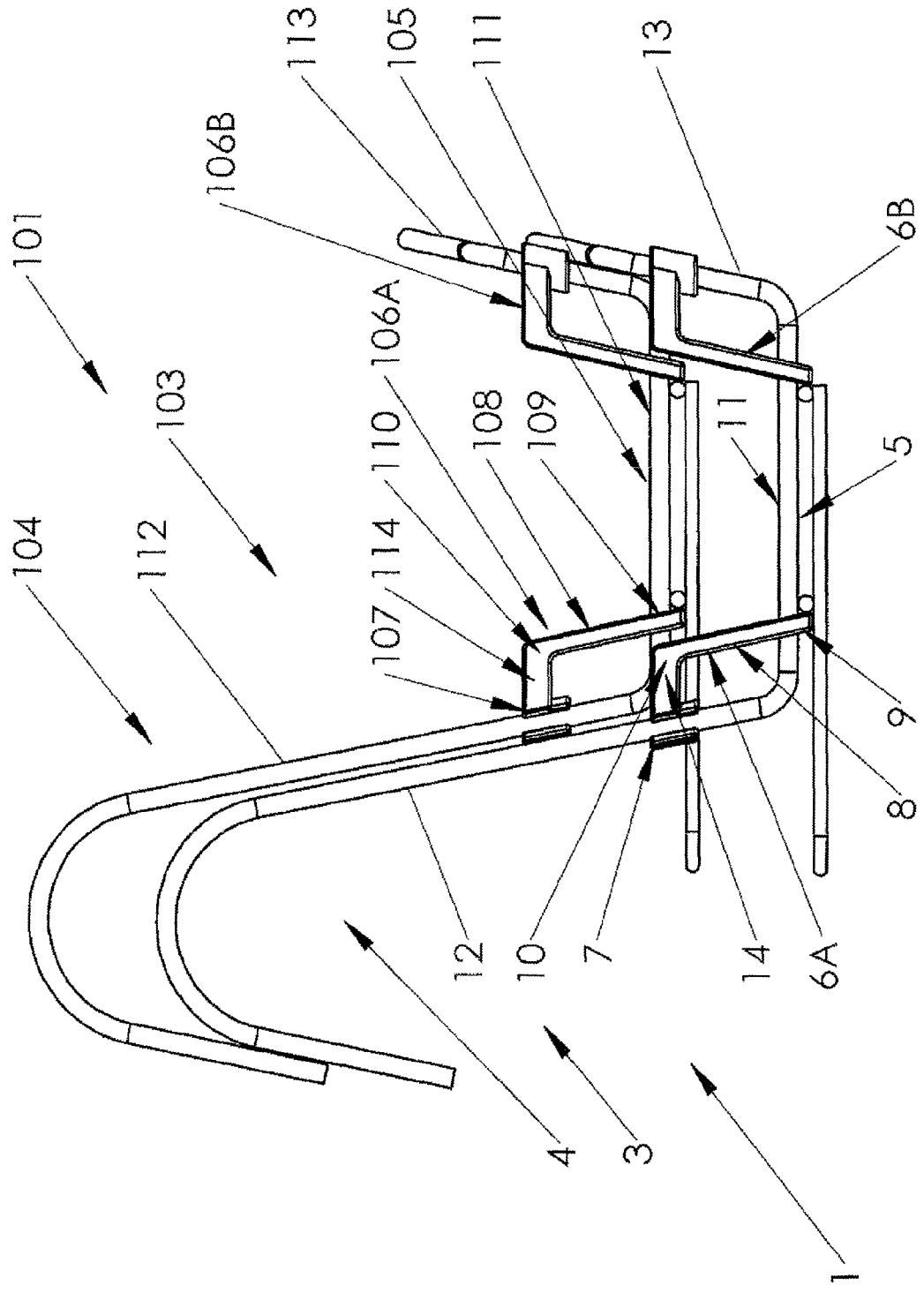

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fig. 11

Europäisches Patentamt
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EUROPEAN SEARCH REPORT

Application Number
EP 09 16 3920

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2008/302943 A1 (LUNATO VICTORIA A [US] ET AL) 11 December 2008 (2008-12-11) * paragraphs [0001], [0017], [0019] - [0021], [0028]; figures 1,7 *	1-15	INV. A47G7/04
X	EP 1 297 739 A (RIVIERA [FR]) 2 April 2003 (2003-04-02) * figures 1-4 *	1-5,8,9, 12	
X	FR 1 471 452 A (M. YVES, MARIE, JEAN PLANTEGENEST) 24 May 1967 (1967-05-24) * page 1; figures 1-10 *	1-5,8-10	
A	FR 2 617 030 A (FOURNIGUET DANIEL [FR]) 30 December 1988 (1988-12-30) * abstract; figures 1-4 *	1	

TECHNICAL FIELDS SEARCHED (IPC)

A47G
A01G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	9 October 2009	Longo dit Operti, T

CATEGORY OF CITED DOCUMENTS

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