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(54) **ADAPTER FOR A BASIN MOUNTED SANITARY FITTING**

(57) The invention relates to an adapter (1) for connecting water guiding tubes of a building to a sanitary fitting (16) mounted to a basin (15), comprising a main body (2) with two inlet openings (3) for receiving the water from the water guiding tubes and two outlet openings (4) for providing the water to the sanitary fitting, wherein each outlet opening (4) is in fluid connection with one inlet opening (3) for diverting a water stream, the inlet openings (3) being arranged on a lateral side of the main body (2) and the outlet openings (4) being arranged on a upper side (6) of the main body (2), wherein the adapter (1) further comprises a connection means (7) with which the adapter (1) can be mechanically fastened to the sanitary fitting.

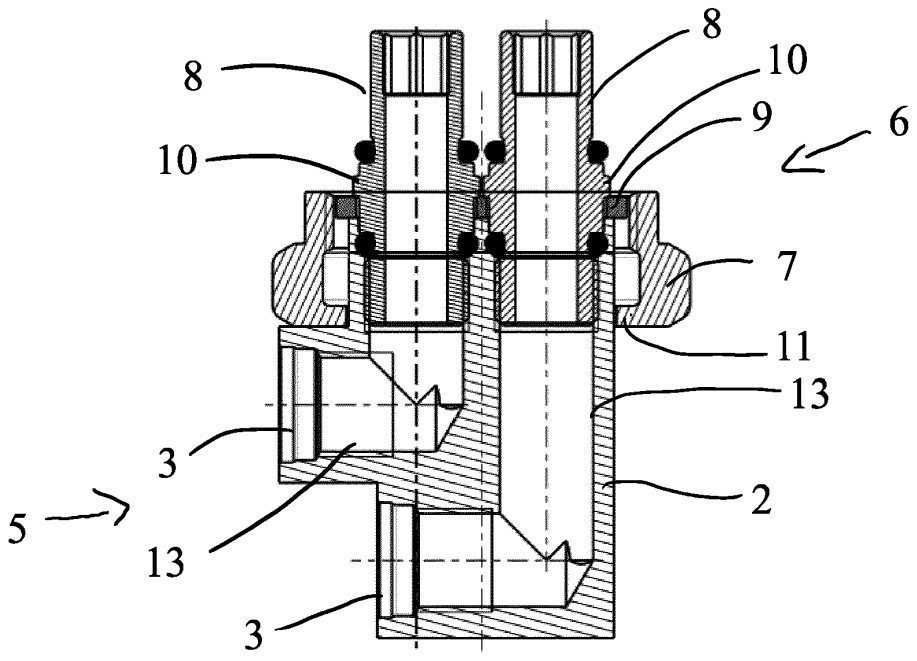

Fig. 3

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Description

[0001] The present invention relates to an adapter for connecting water guiding tubes of a building to a sanitary fitting mounted to a basin.

[0002] Within health care environments it is common to use hand basins which form at their rear a hollow cavity, in which the water guiding pipes need to be connected to the sanitary fitting and in which the outlet of the basin is connected to a waste water pipe. This hollow cavity is not accessible from underneath the basin but only from the rear of the basin, which is placed against the wall in a mounted state. Accordingly, there is only limited space to connect the water guiding tubes of the building to the sanitary fitting which reaches with a tail from an upper surface of the basin into the hollow cavity.

[0003] Therefore, it is an object of the present invention to solve the known problems and to provide means to simplify the mounting process of such a basin.

[0004] This object is solved by the adapter and the sanitary assembly according to the independent claims. Preferred embodiments are described in the dependent claims and in the description, wherein single features of the preferred embodiments can be combined in a technical suitable manner.

[0005] In particular, the object is solved by an adapter for connecting water guiding tubes of a building to a sanitary fitting mounted to a basin, comprising a main body with two inlet openings for receiving the water from the water guiding tubes and two outlet openings for providing the water to the sanitary fitting, wherein each outlet opening is in fluid connection with one inlet opening for diverting a water stream, the inlet openings being arranged on a lateral side of the main body and the outlet openings being arranged on an upper side of the main body, wherein the adapter further comprises a connection means with which the adapter can be mechanically fastened to the sanitary fitting.

[0006] The invention has the advantage that diverting the water streams by about 90 degrees can be performed in a very small space within the adapter. Accordingly, the water guiding tubes do not need to be bent. As the water guiding tubes do not need to be directly fixed into the sanitary fitting there is a greater degree of operation freedom during the mounting process.

[0007] Each outlet opening is connected to one inlet opening by a water guiding channel within the main body. The surface of the water guiding channels comprises preferably material with antibacterial properties. This material is preferably a copper based alloy. The surface of the water guiding channel might be coated with copper or an alloy comprising of copper. The two water guiding channels preferably guide the respective water stream by approximately 90 degrees from the lateral side to the upper side.

[0008] Preferably inner threads are formed on the inlet openings and the outlet openings for connecting the adapter to the water guiding tubes or to other water guiding elements.

[0009] The connecting means is preferably formed on that area of the adapter that is directed to the sanitary fitting. Preferably, the connection means is arranged on a radial surface of the main body, in particular near the upper side.

[0010] For example, the connection means might be formed as a flange, with which the main body can be connected to the sanitary fitting by respective screws extending through through holes within the flange. Alternatively the connection means might be formed by an outer thread formed on the main body, on which a nut can be screwed, that is connected with the sanitary fitting. Most preferably the connection means is a nut captively attached to the main body. The nut comprises an inner thread which can be screwed on an outer thread of the sanitary fitting.

[0011] In a preferred embodiment the adapter comprises nipple elements which protrude over the upper side of the main body to be plugged into receiving openings of the sanitary fitting. The nipple elements can be formed in one piece with the main body but it is preferred, that the nipple elements are separate elements that are fixed to the outlet openings. In particular, the nipple elements extend into the outlet openings. In this regard, the nipple elements might be directly connected to the main body, for example by a thread and/or glue connection. Sealing washers may be arranged between the nipple element and the main body.

[0012] In order that the above mentioned nut is captively attached to the main body the adapter may comprise a clamping plate that is attached to the upper side of the main body and that extends radially over the upper side of the main body. The clamping plate might be attached to the upper side of the main body by respective connection means, such as screws. An inwardly extending projection of the nut engages with that part of the clamping plate that radially extends over the main body. This way the nut can not be lost from the main body.

[0013] In order to avoid additional fastening means at least one nipple element forms a radially extending shoulder, which fixes the clamping plate to the top or upper side of the main body. In this regard it is preferred that the nipple element is screwed into the outlet opening of the main body and extends through a hole in the clamping plate. This way the shoulder of the respective nipple element retains the clamping plate onto the upper side of the main body.

[0014] In a preferred embodiment the inlet openings are arranged above each other on the lateral side of the main body and the outlet openings are arranged beside each other on the upper side of the main body. Accordingly, the water guiding channel of the upper inlet opening is shorter than the water guiding channel of the lower inlet opening. By such an arrangement the adapter can have relatively small width at its lower side.

[0015] In order that the water guiding tubes can be fixed easily to the inlet openings the inlet openings can be dis-

placed to each other in the radial direction. Accordingly, the inlet openings are arranged above each other and displaced to each other towards the longitudinal center axis of the main body.

[0016] Preferably the whole main body is made of brass.

[0017] The above objects are also solved by a sanitary assembly comprising a basin and a sanitary fitting fixed to the basin, wherein the sanitary fitting protrudes with a tail from an upper surface of the basin to a hollow cavity, which is only accessible from the rear of the basin, wherein an inventive adapter is connected to the sanitary fitting inside the hollow cavity.

[0018] The invention will be described with respect to the embodiment shown in the figures in a way of example. The figures show

Fig. 1: an embodiment of the adapter in a perspective view,

Fig. 2: the adapter in an exploded view,

Fig. 3: the adapter in a sectional view and

Fig. 4: the adapter in another sectional view perpendicular to the sectional view of figure 3 and

Fig. 5: a sanitary assembly with an adapter.

[0019] Figures 1 to 4 show an adapter 1 with a main body 2, a nut 7, a clamping plate 9 and two nipple elements 8.

[0020] As best can be seen from figure 2, the main body 2 comprises two inlet openings 3 on its lateral side 5. The main body 2 further comprises two outlet openings on its upper side 6. Each inlet opening 3 is connected to an outlet opening 4 by a water guiding channel 13 (see figure 3).

[0021] The nipple elements 8 are screwed with an outer thread into the outlet openings 4 which comprise an inner thread. The nipple elements 8 have radially extending shoulders 10 which protrude over a hole in the clamping plate 9. By screwing the nipple elements 8 into the outlet openings 4 the clamping plate 9 is fastened to the upper side 6 of the main body 2, as the shoulder 10 retains the clamping plate 9 against the upper side 6. The nipple elements 8 have an internal hexagonal drive which permits the use of a key for tightening into the main body 2.

[0022] The nut 7 comprises a protrusion 11 that protrudes radially inwardly so that it overlaps with that part of the clamping plate 9, which radially extends over the main body 2. This way the nut 7 is captively secured to the main body 2. The nut 7 comprises an inner thread, with which the adapter 1 can be screwed on to a tail 17 of a sanitary fitting 16. The nut 7 has a hexagonal body permitting the use of an open ended spanner for tightening.

[0023] Figure 5 depicts a sanitary assembly 14 with a basin 15, to which a sanitary fitting 16 is attached. The sanitary fitting 16 extends from an upper surface of the basin 15 with a tail 17 into a hollow cavity 18. The hollow cavity 18 can only be accessed from a rear 20 of the basin 15. This side is attached to a wall of a building in a mounted state. Such basins 15 are required within some health care environments. The adapter 1 is connected by nut 7 to the tail 17 of the sanitary fitting 16. In the mounted state the nipple elements 8 extend into receiving openings in the tail 17 of the sanitary fitting 16. Furthermore, water guiding tubes 19 are connected to the inlet openings 3 of the adapter 1. This way a water diverting is provided from the water guiding tubes 19 to the sanitary fitting 16 in a small space without the need to bend the water guiding tubes 19.

Reference lists

[0024]

1	adapter
2	main body
3	inlet opening
4	outlet opening
5	lateral side
6	upper side
7	nut
8	nipple element
9	clamping plate
10	shoulder
11	protrusion
12	sealing washer
13	water guiding channel
14	sanitary assembly
15	basin
16	sanitary fitting
17	tail
18	hollow cavity
19	water guiding tubes
20	rear

Claims

1. Adapter (1) for connecting water guiding tubes (19) of a building to a sanitary fitting (16) mounted to a basin (15), comprising a main body (2) with two inlet openings (3) for receiving the water from the water guiding tubes (19) and two outlet openings (4) for providing the water to the sanitary fitting (16), wherein each outlet opening (4) is in fluid connection with one inlet opening (3) for diverting a water stream, the inlet openings (3) being arranged on a lateral side (5) of the main body (2) and the outlet openings (4) being arranged on an upper side (6) of the main body (2), wherein the adapter (1) further comprises a connection means (7) with which the adapter (1) can be mechanically fastened to the sanitary fitting

(16).

2. Adapter (1) according to claim 1, wherein nipple elements (8) protrude over the upper side (6) of the main body (2) to be plugged into receiving openings of the sanitary fitting (16).

3. Adapter (1) according to claim 1 or 2, wherein the connection means is a nut (7) captively attached to the main body (2).

4. Adapter (1) according to claim 3, wherein the adapter (1) comprises a clamping plate (9) that is attached to the upper side (6) of the main body (2) and that extends radially over the main body (2) for captively attaching the nut (7) to the main body (2).

5. Adapter (1) according to claim 2 and 4, wherein at least one nipple element (8) forms a radially extending shoulder (10), which fixes the clamping plate (9) to the upper side (6) of the main body (2).

6. Adapter (1) according to one of the preceding claims, wherein the inlet openings (3) are arranged above each other on the lateral side (5) of the main body (2) and the outlet openings (4) are arranged besides each other on the upper side (6) of the main body (2).

7. Adapter (1) according to claim 6, wherein the inlet openings (3) are displaced to each other in the radial direction.

8. Adapter (1) according to one of the preceding claims, wherein at least the main body (2) is made of brass.

9. Sanitary assembly (14) comprising a basin (15) and a sanitary fitting (16) fixed to the basin (15), wherein the sanitary fitting (16) protrudes with a tail (17) from an upper surface of the basin (15) to a hollow cavity (18), which is only accessible from a rear (20) of the basin (15), wherein an adapter (1) according to one of claims 1 to 7 is connected to the sanitary fitting (16) inside the hollow cavity (18).

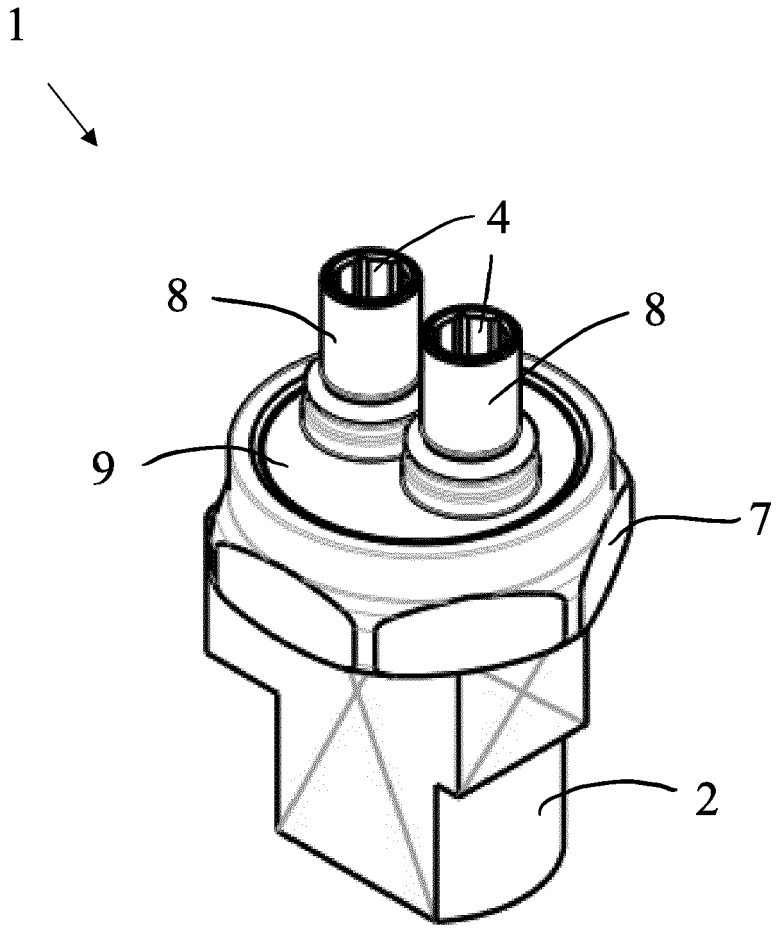

Fig. 1

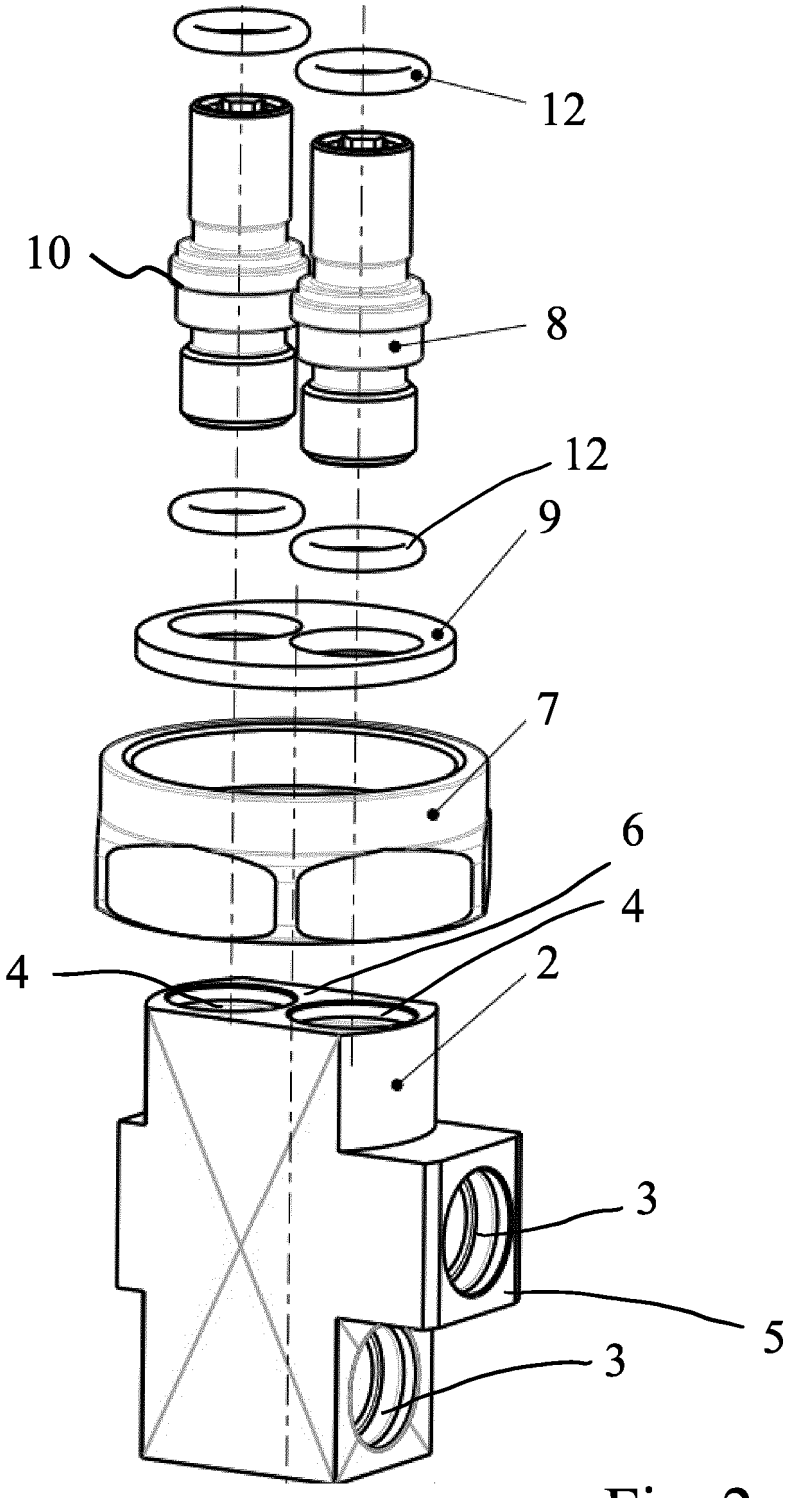

Fig. 2

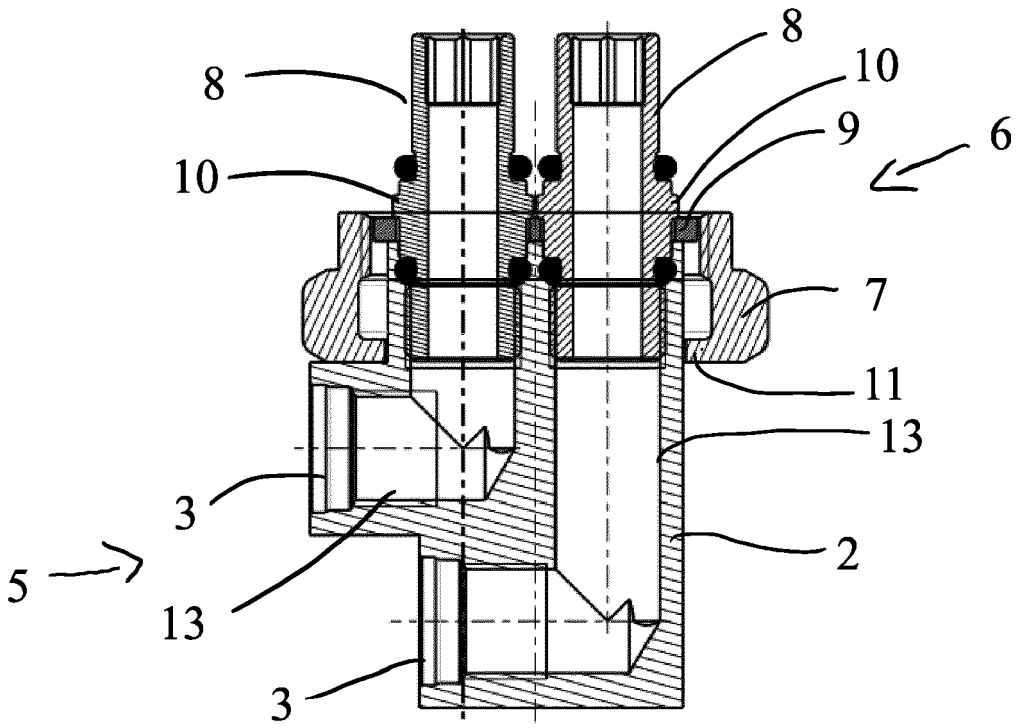

Fig. 3

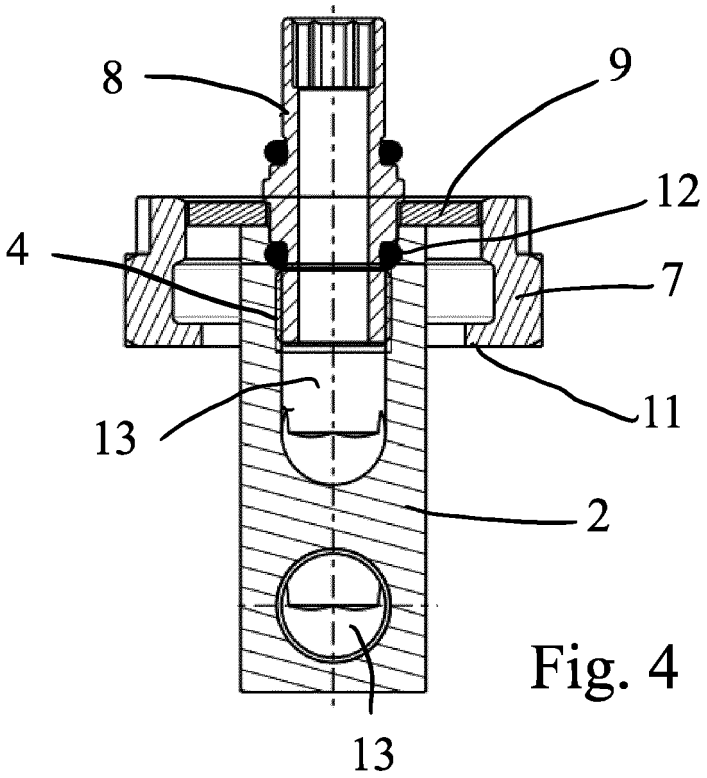

Fig. 4

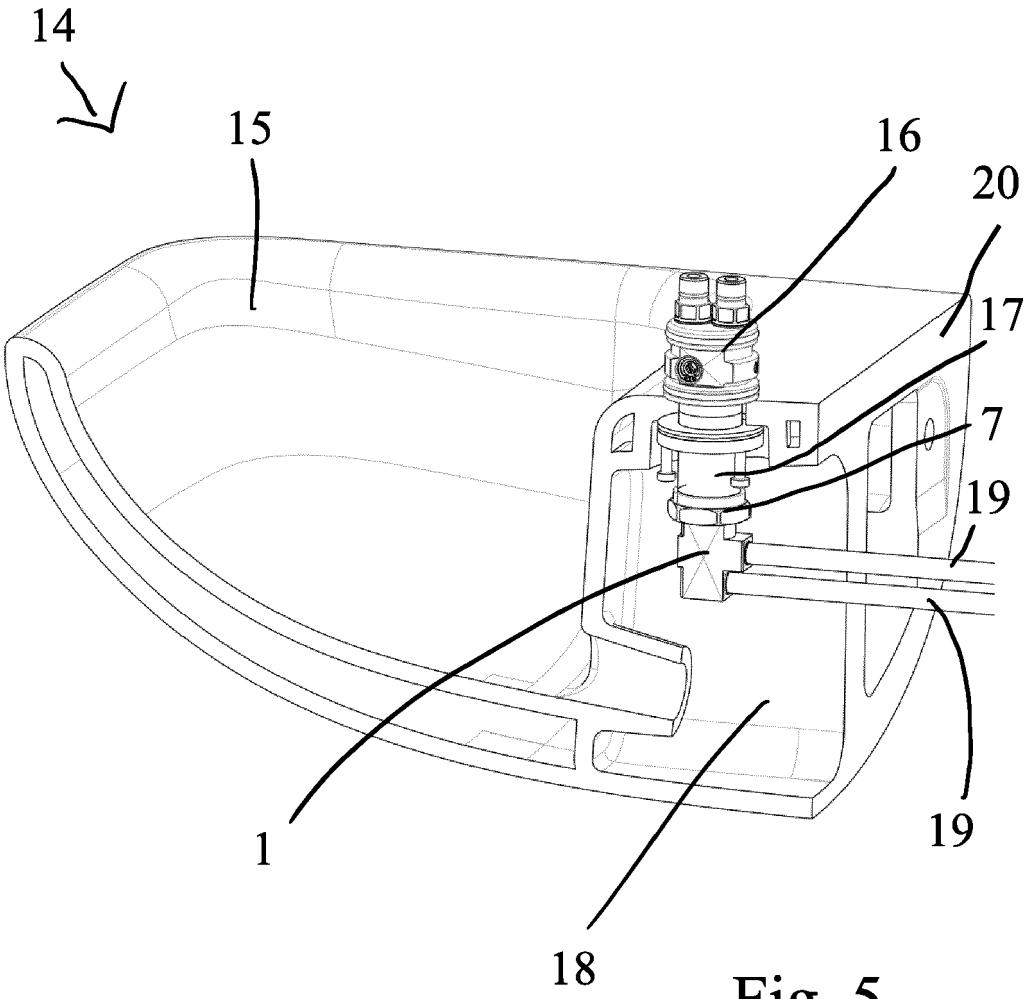

Fig. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 18 15 0278

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	30 May 2018	Pieper, Fabian

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