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(54) Device and method for removably associating a gangway to a boat

(57) A device (1) for removably associating a gangway to a boat, comprising at least one hitching and support element (2), able to be connected to a fastening bracket (7) of a load-bearing stay (6) of the boat and provided with at least one housing seat (3), into which at least one projection (4) of the gangway can be inserted,

possibly after interposing a cup (5). A method for removably associating a gangway to a boat, comprising a step of connecting a hitching and support element (2) to a fastening bracket (7) of a load-bearing stay (6) of the boat and a step of associating said gangway to said hitching and support element (2).

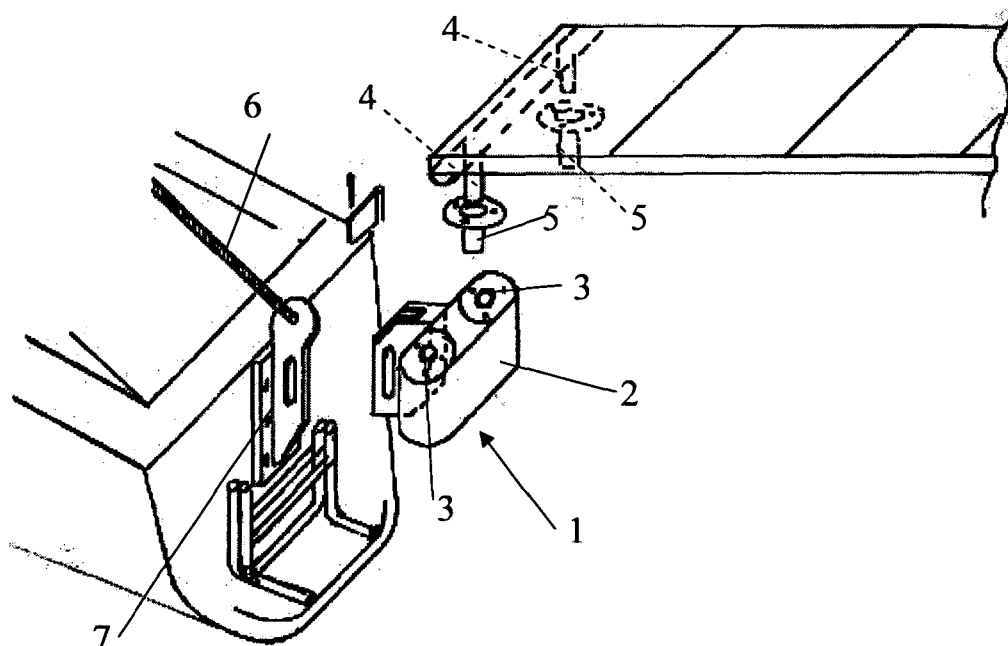


FIG. 2

Description

[0001] The present invention relates to a device and method for removably associating a gangway to a boat.

[0002] Within the boating field, gangways are used, which allow persons to move from the boat to a jetty or a dock and vice versa, when the boat is moored. Large boats are ordinarily provided with gangways that are irremovably fastened to the boats themselves. On the contrary, in other types of boats, e.g. in sailboats, gangways are associated to the stem of the boat, in an operative position that allows persons to come aboard and go ashore only when the boat is moored, whereas they are removed from said operative position while underway. Therefore, the problem arises of associating a gangway to a boat in removable fashion. In this light, it should be noted that gangways, in particular for sailboats, are usually provided with one or two projecting elements, of substantially tubular shape, able to be inserted in housings, as illustrated in the patent documents FR2686940 and GB2226799. Moreover, some gangway builders provide hollow tubular elements, commonly known as cups, into which are inserted the projecting elements of the gangways, constituting in turn projecting elements to be associated to the stem of the boat.

[0003] In some cases, housing are obtained for said projecting elements providing recesses on the top of the hull. In other cases, a shelf, for instance made of fibreglass-reinforced plastic, is fastened to the hull, to define recesses to house the projecting elements. However, it should be noted that said shelves have poor reliability and safety, since they are fastened to non load-bearing elements of the boat.

[0004] In any case, known technical solutions provide for permanent alterations to the hull, with the risk of damaging it and of worsening its appearance. Moreover, the housings thus obtained, together with the cups which may be supplied by gangway builders, are irremovably fastened to the boat. This entails a further disadvantage, because it is often desirable to remove any element that is not essential for navigation in order to lighten the boat, especially during races. In addition, known solutions must be adapted not only to the type of gangway, but also to the type of boat, so they do not provide a general method for removably associating a gangway to a boat.

[0005] An object of the present invention is to eliminate the aforesaid drawbacks and to make available a device for removably associating a gangway to a boat, in order to assure the utmost safety for persons and without altering the hull of the boat. Said aims are fully achieved by the device of the present invention, which is characterised by the contents of the appended claims and in particular in that it comprises a hitching and support element for the gangway, operatively connected to a fastening bracket of at least one load-bearing stay of said boat.

[0006] A further object of the present invention is to make available a method for removably associating a

gangway to a boat, which is characterised by the contents of the appended claims and in particular in that it comprises the following steps:

- 5 - connecting a hitching and support element substantially to a fastening bracket of a load-bearing stay of the boat;
- associating the gangway to said hitching and support element.

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[0007] This and other characteristics shall become more readily apparent from the following description of a preferred embodiment, illustrated purely by way of non limiting example in the accompanying drawing tables, in which:

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- Figure 1 shows a perspective view of the apparatus of the present invention;
- Figure 2 shows the apparatus as in Figure 1, but in an embodiment variant for gangways with two projecting elements;
- Figure 3 shows a side view of the device of the present invention;
- Figure 4 shows a top view of the device, in the embodiment for gangways with one projecting element;
- Figure 5 shows a top view of the embodiment of the device for gangways with two projecting elements.

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[0008] In Figure 1, the reference number 1 designates the device of the present invention, comprising a hitching and support element 2. As shown in Figure 1, said hitching and support element has a housing seat 3, able to receive a projecting 4 of a gangway. Moreover, a cup 5 is shown, i.e. a hollow element into which said projection 4 is inserted and which, in turn, is inserted into the housing seat 3. Said cup 5, when it is present, is supplied together with the gangway and is not included in the scope of the present invention. Figure 2 shows an embodiment of the device 1, in which the hitching and support element 2 defines two housing seats 3. Said embodiment is able to associate to a boat gangways comprising two projections 4 and, possibly, two cups 5. In Figures 1 and 2, the reference number 6 designates a backstay of a sailboat and the reference number 7 a bracket where to said backstay is fastened. It should be specified that the present invention can be applied on any boat, not necessarily a sailboat, comprising at least one bracket 7 for fastening a load-bearing stay 6.

[0009] In Figures 3, 4 and 5 the reference number 8 designates two projections defined by the housing body 2, each of which defines a slot 9. These projections, in an embodiment not illustrated herein, are defined on a support element connected to the housing body 2. Moreover, the object of the present invention may comprise one or two projections 8; the illustrated embodiment, comprising two projections, is characterised by greater stability.

[0010] The device of the present invention comprises

means, not shown in the figures, for connecting the hitching and support element 2 to a fastening bracket 7 of at least one load-bearing stay 6 of the boat. In particular, in the case of sailboats, the connecting means act on a bracket 7 of the backstay 6. In some cases, the bracket 7 has a projection defining a slot, as schematically shown in Figures 1 and 2. The connecting means substantially have two embodiments. According to the first embodiment, the connecting means comprise an insert, or bolt, able to be inserted into the slots 9 and into the slot of the bracket 7, the projections 8 being coupled to the projection of the bracket in such a way that the bracket is interposed between the projections and the three aforesaid slots are aligned. In the second embodiment, the connecting means comprise a clamp or any other fastening means able to be inserted into the slots 9 embracing the backstay 6. This second embodiment is suited for use even in the cases in which the bracket 7 of the backstay 6 does not have a projection with slot. The device of the present invention also comprises an interposition means, not shown in the figures, preferably, but not necessarily, constituted by a nylon insert, which is positioned on the contact surface between the hitching and support element 2 and the bracket 7 of the backstay 6. The reference number 10 designates recesses for the insertion of screws (not shown) for fastening said interposition means. The interposition means serves the purpose of limiting vibrations and friction between the device 1 and the bracket 7.

[0011] If cups 5 are present, usually made of metallic material, the present invention provides for fastening said cups to the hitching and support element 2 by means of screws (not shown) inserted into the recesses 11. Moreover, between each projection 4 of the gangway, or cup 5 where present, and the surface of the housing seat 3 is interposed a bushing, not shown for the sake of simplicity. Said bushings, preferably but not necessarily made of Teflon, serve the purpose of preventing direct contact between metal surfaces. The device of the present invention is particularly strong and reliable, as it can be constructed of steel or other highly resistant material, and originally associated to a load-bearing element of the boat. Moreover, said device entails an advantage from the aesthetic viewpoint, since it is small and does not interfere with the hull. It should be noted that the device of the present invention has an embodiment variant, not shown in the figures, in which the hitching and support element 2 has at least one projection able to be inserted into a corresponding housing on the gangway. This embodiment variant originally allows to associate to a boat a gangway that has at least one housing, or recess, instead of a projection 4, for its hitching to the boat.

[0012] The present invention also makes available a method for removably associating a gangway to a boat. Said method originally provides for connecting a hitching and support element to a fastening bracket of a load-bearing stay of the boat and for associating the gangway to said hitching and support element. Said

method is particularly advantageous, because it entails no interventions on the hull. Moreover, it can be applied in all boat types, possibly, though not necessarily entailing an intervention on the load-bearing elements, e.g. the welding of a slot. A further advantage of the described method is that it originally comprises a step of disconnecting said hitching and support element from the boat, without intervening on the hull.

Claims

1. A device for removably associating a gangway to a boat, comprising at least one hitching and support element (2) for the gangway, **characterised in that** said hitching and support element is operatively connected to a fastening bracket (7) of at least one load-bearing stay (6) of said boat.
2. Device as claimed in claim 1, wherein said hitching and support element (2) has at least one housing seat (3) able to receive a projection (4) of said gangway.
3. Device as claimed in claim 2, comprising means for connecting said hitching and support element (2) to a fastening bracket (7) of at least one load-bearing stay (6) of said boat.
4. Device as claimed in claim 3, wherein the hitching and support element (2) has at least one projection (8) having at least one slot (9).
5. Device as claimed in claim 4, **characterised in that** the connecting means comprise an insert or bolt, able to be inserted into said slot (9) of the hitching and support element (2) and into a corresponding slot present on said fastening bracket (7).
6. Device as claimed in claim 5, comprising an interposition means, inserted at a contact surface between the hitching and support element (2) and said fastening bracket (7).
7. Device as claimed in claim 3, wherein the connecting means comprise at least one clamp that embraces said load-bearing stay (6) and is inserted into the slot (9).
8. Device as claimed in claim 1, wherein said hitching and support element (2) has a pair of housing seats (3) into which corresponding projections (4) of the gangway are inserted.
9. Device as claimed in claim 2 or 8, comprising bushings able to be inserted into said housing seats (3), in such a way as to be interposed between an inner surface of said seats and the projections (4) of the

gangway.

10. Device as claimed in claim 1, wherein said hitching and support element (2) has at least one projection able to be inserted into a housing seat of said gangway. 5
11. A method for removably associating a gangway to a boat, said gangway being able to be associated to a hitching and support element, **characterised in that** it comprises the following steps: 10
- connecting the hitching and support element substantially to a fastening bracket of a load-bearing stay of the boat; 15
 - associating the gangway to said hitching and support element.
12. A method as claimed in claim 11, which comprises a step of disconnecting said hitching and support element from the boat, without any need for intervening on the hull of the boat. 20

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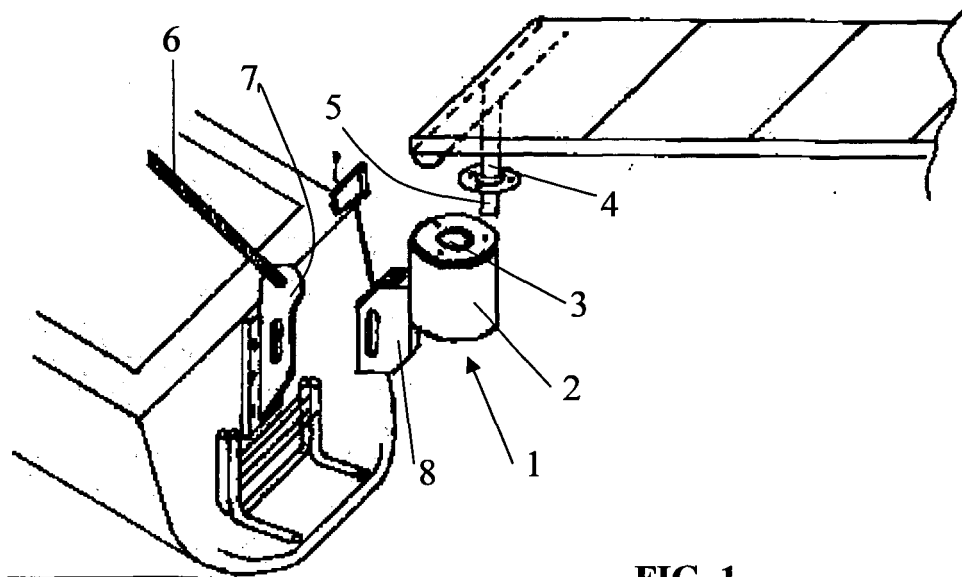


FIG. 1

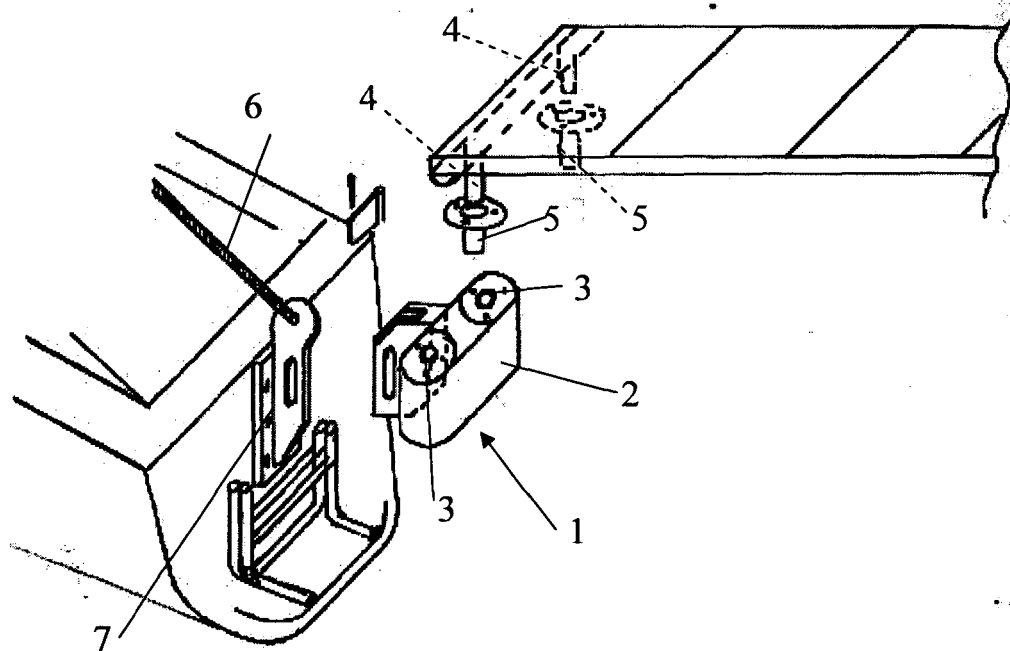


FIG. 2

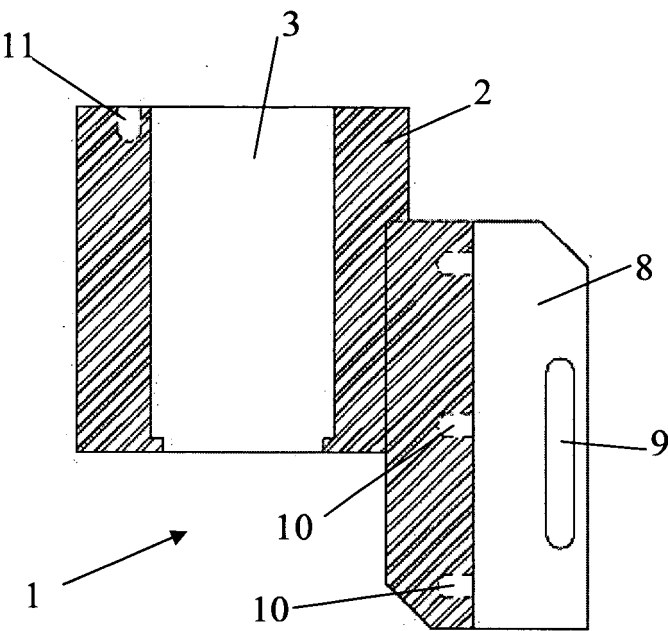


FIG. 3

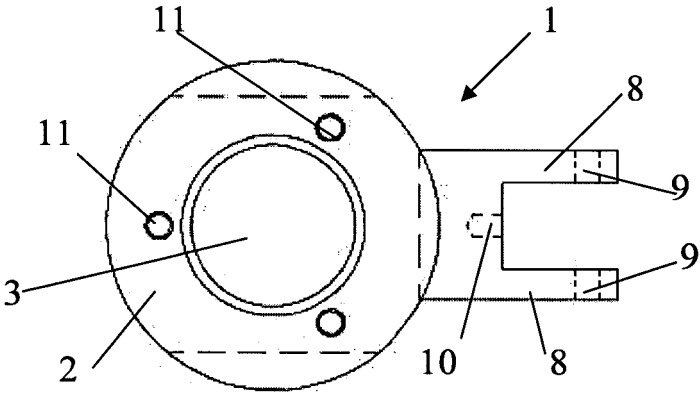


FIG. 4

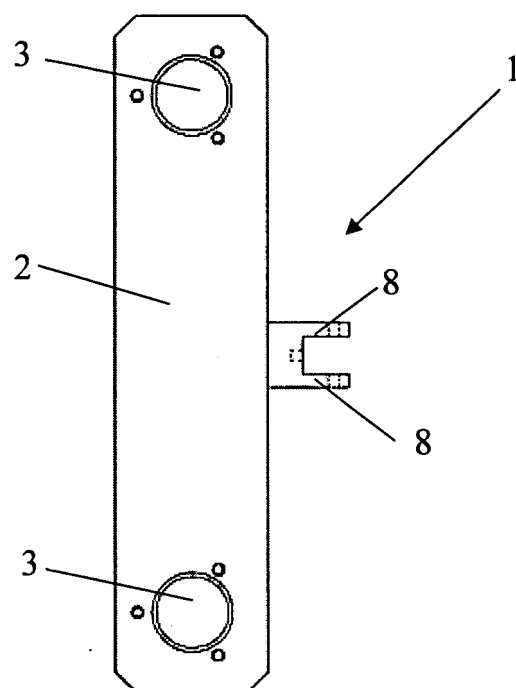


FIG. 5