

Claims

1. An arrangement for mounting a plane (2) on a wall (1), the arrangement comprising said plane (2) and, supporting said plane (2), a first support arm (4) and a second support arm (5), which support arms (4, 5) are connectable to the wall (1) by their first end (4', 5') by means of a first joint arrangement (6, 7) provided with a substantially vertical turning axis and corresponding to each support arm (4, 5) so that the support arms (4, 5) are turnable in a substantially horizontal plane in relation to the wall (1), and the support arms (4, 5) being mounted in connection with the plane (2) by their second end (4'', 5'') by means of a second joint arrangement (10, 11) connected the second end (4'', 5'') of the support arm (4, 5), the second joint arrangement (10, 11) of the support arm (4, 5) comprising a joint (14, 15) provided with a substantially horizontal turning axis, whereby said plane (2) is turnable to a substantially horizontal usage position and a substantially vertical storage position by means of said joints (14, 15) provided with a substantially horizontal turning axis, and wherein the second joint arrangement (10, 11) comprises a substantially vertical joint shaft (12, 13) arranged in connection with the second end (4'', 5'') of the support arm (4, 5), and that the joint (14, 15) provided with a substantially horizontal turning axis is arranged in said substantially vertical joint shaft (12, 13), characterized in that the substantially vertical joint shaft (12, 13) of the second joint arrangement (10, 11) comprises in the vertical direction of the support arm (4, 5) a portion extending below the second end (4'', 5'') of the support arm (4, 5), and in that the joint (14, 15) of the second joint arrangement (10, 11), which is provided with a substantially horizontal turning axis is arranged directly or indirectly to the portion of the vertical joint shaft (12, 13), which extends below the second end (4'', 5'') of the support arm (4, 5).

2. An arrangement as claimed in claim 1, characterized in that the joint (14, 15) of the second joint arrangement (10, 11), which is provided with a substantially horizontal turning axis, is arranged to the portion of the vertical joint shaft (12, 13), which extends below the second end (4'', 5'') of the support arm (4, 5).

3. An arrangement as claimed in claim 1 or 2, characterized in that a joint shaft (16, 17) of the joint (14, 15) of the second joint arrangement (10, 11), provided with a substantially horizontal turning axis, is arranged to run through the portion of the substantially vertical joint shaft (12, 13), which extends below the second end (4'', 5'') of the support arm (4, 5).

4. An arrangement as claimed in any one of the preceding claims 2 or 3, characterized in that the substantially vertical joint shaft (12, 13) of the second joint arrangement (10, 11) is arranged to run in a substantially vertical direction through the second end (4'', 5'') of the support arm (4, 5).

5. An arrangement as claimed in any one of the preceding claims, characterized in that the arrangement comprises a support structure (18, 19) connected to each support arm (4, 5), the support structure (18, 19) being arranged in connection with a bottom (2f) of the plane (2), and the support structure (18, 19) connects to the corresponding support arm (4, 5) by means of the joint (14, 15) of said second joint arrangement (10, 11), which is provided with a substantially horizontal turning axis.

6. An arrangement as claimed in claim 5, characterized in that the substantially vertical joint shaft (12, 13) of the second joint arrangement (10, 11) forms a first joint part of the joint (14, 15) provided with a substantially horizontal turning axis, and the support structure (18, 19) forms a second joint part of the joint (14, 15) provided with a substantially horizontal turning axis.

7. An arrangement as claimed in claim 5 or 6, characterized in that the support structure (18, 19) comprises a first portion (18', 19') oriented substantially vertically, and in connection with it a second portion (18'', 19'') oriented substantially horizontally and arranged in connection with the bottom (2f) of the plane (2), whereby said substantially vertically oriented first portion (18', 19') of the support structure (18, 19) forms the portion of the support structure (18, 19), which is connected to the joint (14, 15) provided with said horizontal turning axis.

8. An arrangement as claimed in claim 7, characterized in that the substantially horizontally oriented second portion (18'', 19'') of the support structure (18, 19) is a support structure running substantially in the lateral direction of the plane (2).

9. An arrangement as claimed in any one of claims 5 to 8, characterized in that the bottom (2f) of the plane (2) comprises recesses (20, 21), that match the second portions (18'', 19'') of the support structures (18, 19) to be positioned in connection with the bottom (2f) of the plane (2), to receive said portions (18'', 19'') of the support structures without adding to the height of the plane (2).

10. An arrangement as claimed in any one of the preceding claims, characterized in that the joint shaft (16, 17) of the joint (14, 15) provided

with a horizontal turning axis is arranged over the top surface (2e) of said plane (2) when the plane (2) is in the substantially horizontal usage position.

11. An arrangement as claimed in any one of the preceding claims, characterized in that the first joint arrangement (6, 7) comprises a substantially vertical joint shaft (8, 9) which is arranged to run in a substantially vertical direction through the first end (4', 5') of the support arm (4, 5).

12. An arrangement as claimed in any one of the preceding claims, characterized in that the substantially vertical joint shaft (13) of the second joint arrangement (10, 11) of the second support arm (5) is arranged to slide in a substantially vertical direction in relation to the second end (5'') of the second support arm (5), whereby said joint shaft (13) forms a height adjustment bar by means of which the rear end (2b) of the plane (2) may be lowered down to achieve an inclined position for the plane (2), and raised back up to restore the substantially horizontal position of the plane (2).

13. An arrangement as claimed in claim 12, characterized in that the second support arm (5) has a forced-control element which guides the substantially vertical joint shaft (13) of the second joint arrangement (11) of the second support arm (5) to lower as the support arm (5) is turning away from the wall (1) and to rise when the support arm (5) is turning towards the wall (1).

14. An arrangement as claimed in claim 13, characterized in that the substantially vertical joint shaft (13) of the second joint arrangement (11) of the support arm (5) comprises a portion extending in the vertical direction over the second end (5'') of the second support arm (5), and in that the forced-control element is a guide rod (23), which guide rod (23) is by its first end (23') fixed in a pivoted manner in connection with the portion of the vertical joint shaft (13) of the second joint arrangement (11), which extends over the second end (5'') of the second support arm (5), and in that the guide rod (23) is fixed in a pivoted manner by its second end (23'') to the second support arm (5) to the portion between the first joint arrangement (7) and the second joint arrangement (11).

15. An arrangement as claimed in any one of the preceding claims, characterized in that the support arm (4, 5) comprises in the portion between the first joint arrangement (6, 7) and the second joint arrangement (10, 11) an obliquely running portion so that the first end (4', 5') and second end (4'', 5'') of the support arm (4, 5) are at mutually different heights.