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(54) **Perfected positioning and supporting group for the wall assembly of a piece of furniture and method of use thereof**

(57) A positioning and supporting group for the wall assembly (P) of a piece of furniture (M) cantilever extending from the wall (P) itself, wherein a plurality of plates (20B) is envisaged, destined for being fixed to said wall (P), by means of first fixing means (30B), and a plurality of devices (21B) fixed inside the shoulders (22B) of said piece of furniture (M), and destined for being connected by means of hooks (23B) to windows (24B) of said plates (20B), and wherein the interaxis "A" between the windows (24B) of said plates (20B) is substantially identical to the interaxis "A" between said hooks (23B).

According to the invention, the positioning and supporting group comprises the combination of a plurality of said plates (20B) with a positioning bar (25B) of the plates (20B) onto the bar (25B) itself, said bar (25B) is suitable for being fixed to the wall (P) by means of second fixing means (27B), said plates (20B) and said bar (25B) also being equipped with third reciprocal centering and coupling means (32B, 33B), so that, at the moment of assembly of the piece of furniture (M), the above interaxes "A" and "A" are substantially the same.

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Description

[0001] The present invention relates to a perfected positioning and supporting group for the rapid wall assembly of a piece of furniture which cantilever extends from the wall itself.

[0002] The invention also relates to a method for using said group.

[0003] The group according to the invention is used, preferably but not necessarily, for the cantilevered assembly to the wall of a base of a piece of furniture using so-called base-bracket devices of the visible type.

[0004] Visible base-brackets are well-known to experts in the field and, in short, consist of a device which is fixed inside the shoulder of the base. A hook extends from said device, which is suitable for being connected, for example, to the window of a plate fixed to the wall.

[0005] The position of the hook can be regulated in height (vertical) and in depth (horizontal), so as to register the position of the base on the wall, and with respect to other adjacent bases.

[0006] A base-bracket of this type is described for example in European patent application EP2303068, to which reference should be made if further clarifications are necessary, and which should be considered an integral part of the present patent application.

[0007] An example of a plate which can be used, in its general configuration, with said base-brackets is described, for example, in Italian patent applications MI2010A001674 of September 15, 2010 and MI2011A000590 of April 11, 2011, to which reference should be made and which should be considered an integral part of the present patent application.

[0008] An easy, rapid and safe assembly of furniture bases, using the base-bracket devices mentioned above, implies fixing the plates to the wall in a correct position, above all with a reciprocal interaxis substantially identical to that between the hooks of the base-brackets.

[0009] Even small positioning errors, in fact, make it impossible to assemble the piece of furniture, which requires re-positioning of the plates on the wall, with a considerable loss of time and therefore with significant additional costs.

[0010] This drawback mainly arises when various adjacent bases must be assembled wherein even small differences in height of the interaxes of the plates accumulate, making it practically impossible to assemble all of the bases without adjusting the position of the plates fixed to the wall.

[0011] For the above reasons, the fixing of plates to the wall is an extremely delicate operation, which requires the intervention of expert assemblers.

[0012] The objective of the invention is to overcome the above drawback of the known art, by providing a positioning and supporting group wherein the fixing of the plates to the wall is effected automatically at a reciprocal interaxis which is perfectly identical to that between the hooks of the base-brackets fixed inside the shoulder of

the bases.

[0013] The above objective is achieved by a group having the characteristics specified in the enclosed claim 1 and dependent claims, and by the method of use of the same group claimed in claims 6-8.

[0014] The structural and functional characteristics of the invention and its advantages with respect to the known art, can be clearly understood from the following description, referring to the enclosed drawings which illustrate embodiment examples of the invention itself.

[0015] In the drawings:

- figure 1 is a raised front view illustrating the group according to the invention;
- figure 2 is an enlarged partial view of the group of figure 1;
- figure 3 is a perspective view of figure 2;
- figure 4 is a perspective view of the group of figure 1;
- figure 5 is a sectional view according to the traced plane V-V of figure 2;
- figure 6 is a sectional exploded view according to the traced plane VI-VI of figure 2;
- figures 7 to 10 are perspective views illustrating a method of use of the group of figures 1-6;
- figures 11 and 12 are two views respectively illustrating a base of a piece of furniture equipped with a base-bracket, and a positioning and supporting group according to the invention, these figures indicating the dimensional conditions to be satisfied so that the base can be correctly assembled on said group; and
- figure 13 is a detail of a possible way of fixing the group, according to the invention, to the wall.

[0016] A group according to the invention is indicated, as a whole, in the drawings with the letter G.

[0017] Figures 7-10 of the drawings illustrate a piece of furniture M (for example a base), which must be cantilever-connected to a series of plates 20B fixed to a wall P (figure 10).

[0018] The connection is effected by means of a corresponding series of base-bracket devices 21B, each of which is fixed inside the shoulder 22B of the piece of furniture M.

[0019] For this purpose, the base-brackets 21B are equipped with a protruding hook 23B which is connected to a deep-drawn window 24B of the relative plate 20B.

[0020] As already specified, the base-brackets 21B and plates 20B, in their general configuration, can be, for example, of the type widely described and illustrated in the above-mentioned patent applications, to which reference should be made for any possible further clarifications.

[0021] As is evident from figures 10-12 of the drawings, and as is well-known to experts in the field, the interaxis "A" between the windows 24B of the plates 20B and the interaxis "A" between the hooks 22B must be the same, to allow the piece of furniture M (base) to be connected

to the plates 20B. Only if this condition is satisfied, can the hooks 23B be connected to the corresponding window 24B, without the necessity of effecting difficult repositioning interventions of the plates 20B on the wall P.

[0022] The group G, according to the invention, satisfies this requirement rapidly and automatically.

[0023] With reference to figures 1-6 of the drawings, the group according to the invention is indicated as a whole with the letter G and is structurally composed of the characteristic combination of a bar or drawn wire 25B (made of metal or plastic material, for example) and a plurality of plates 20B.

[0024] The bar 25B and the plates 20B are suitable for being fixed to the wall P by means of respective fixing means 27B and 30B.

[0025] Hereinafter, the fixing means 27B are also called first fixing means, whereas the fixing means 30B are also called second fixing means.

[0026] The bar 25B has a plurality of holes 26B for fixing the fixing pegs 27B (first fixing means) of the bar 25B itself to the wall P.

[0027] According to the invention, third reciprocal coupling means are also envisaged between the bar 25B and plate 20B, in the form of respective pairs of reference or reciprocal centering means 32, 33.

[0028] More specifically, said pairs of reference or reciprocal centering means consist of a pair of holes 32B in the bar 25B and of a pair of deep-drawn bushes 33B (with a reamed inlet) in the plate 20B.

[0029] The pairs of bushes 33B are accurately inserted in the respective pairs of holes 32B.

[0030] Said pairs of reference and centring means 32B, 33B also have the function of ensuring the reciprocal positioning of the plates 20B at the desired interaxis, without the necessity of fixing the same plates 20B to the bar 25B.

[0031] As is clearly illustrated and explained in figures 11 and 12 of the drawings, the heights B, and D between the components of each plate 20B, are such as to ensure that at the moment of assembly of the piece of furniture M to the wall, the hooks 23B of the base-brackets 21B can be rapidly and automatically connected to the windows 24B of the relative plates 20B.

[0032] More specifically, according to the invention, the following conditions are satisfied: $A=A'$, wherein $A=B+D+D=B+2D$. Wherein A is the interaxis between the windows 24B of the plates 20B. And wherein A' is the interaxis between the hooks 23B of two base-bracket devices 21B fixed to the opposite shoulders 22b of the piece of furniture M (figures 11 and 12).

[0033] The group G according to the invention is used following the operative phases illustrated in figures 7-10 of the drawings.

[0034] More specifically, the bar 25B is fixed to the wall P at the desired height and perfectly levelled (figure 7).

[0035] A plurality of pairs of plates 20B corresponding to the number of bases M to be assembled, is subsequently correctly positioned on the bar 25B (figure 8),

using the pairs of holes 32B and reference bushes 33B (centering), and the same plates 20B are then firmly fixed directly to the wall P (figure 9) by means of the pegs 30B, without the necessity of previously fixing them to the bar 25B.

[0036] In addition, if desired, further fixing pegs 35B of the group to the wall (fourth fixing means), can be inserted through the reamed inlet of the bushes 33B.

[0037] At this point, the base M of the piece of furniture can be cantilever assembled on the wall P by introducing and connecting the hooks 23B of the base-brackets 21B to the corresponding windows 24B of the plates 20B, which will automatically be in position (figure 10) for the reasons described above.

[0038] The objective mentioned in the preamble of the description has therefore been achieved.

[0039] The protection scope of the invention is defined by the enclosed claims.

Claims

1. A positioning and supporting group for the wall assembly (P) of a piece of furniture (M) cantilever extending from the wall (P) itself, wherein a plurality of plates (20B) is envisaged, destined for being fixed to said wall (P), by means of first fixing means (30B), and a plurality of devices (21B) fixed inside the shoulders (22B) of said piece of furniture (M), and destined for being connected by means of hooks (23B) to windows (24B) of said plates (20B), and wherein the interaxis "A" between the windows (24B) of said plates (20B) is substantially identical to the interaxis "A'" between said hooks (23B), **characterized in that** it comprises the combination of a plurality of said plates (20B) with a positioning bar (25B) of the plates (20B) onto the bar (25B) itself, said bar (25B) is suitable for being fixed to the wall (P) by means of second fixing means (27B), said plates (20B) and said bar (25B) are also equipped with third reciprocal coupling and centering means (32B, 33B), so that, at the moment of assembly of the piece of furniture (M), the above interaxes "A" and "A'" are substantially the same.
2. The group according to claim 1, **characterized in that** said third means (32B, 33B) consist of holes (32B) in the bar and deep-drawn bushes (33B) in the plate (20B).
3. The group according to claim 1, **characterized in that** said second fixing means consist of pegs (27B) passing through holes (26B) in the bar (25B).
4. The group according to claim 1, **characterized in that** it comprises fourth fixing means (35B) passing through said bushes (33B).

5. The group according to claim 1, **characterized in that** said interaxis A is equal to $B+2D$, wherein B is the height between said means (32B, 33B), and D is the height between said means (32B, 33B) and said windows (24B). 5
6. A method of use of a group (G) according to any of the claims from 1 to 5, **characterized in that** it comprises the following phases: 10
- a, fixing the bar (25B) to the wall (P) at the desired height and levelled;
 - b. positioning a plurality of pairs of plates (20B) on the bar (25B), corresponding to the number of bases to be assembled using the pairs of reciprocal coupling and centering means (32B, 33B); 15
 - c. fixing the plates (20B) directly to the wall (P), without having to previously fix them to the bar (25B); and 20
 - d. cantilever assembling the base of the piece of furniture (M) on the wall (P) by introducing and connecting the hooks (23B) of the devices (21B) to the corresponding windows (24B) of the plates (20B). 25
7. A method according to claim 6, **characterized in that** the plates (20B) are fixed to the wall (P) by means of pegs (30B). 30
8. A method according to claim 6, **characterized in that** the plates (20B) are fixed to the wall (P) by means of said fourth fixing means (35B). 35

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Fig. 1

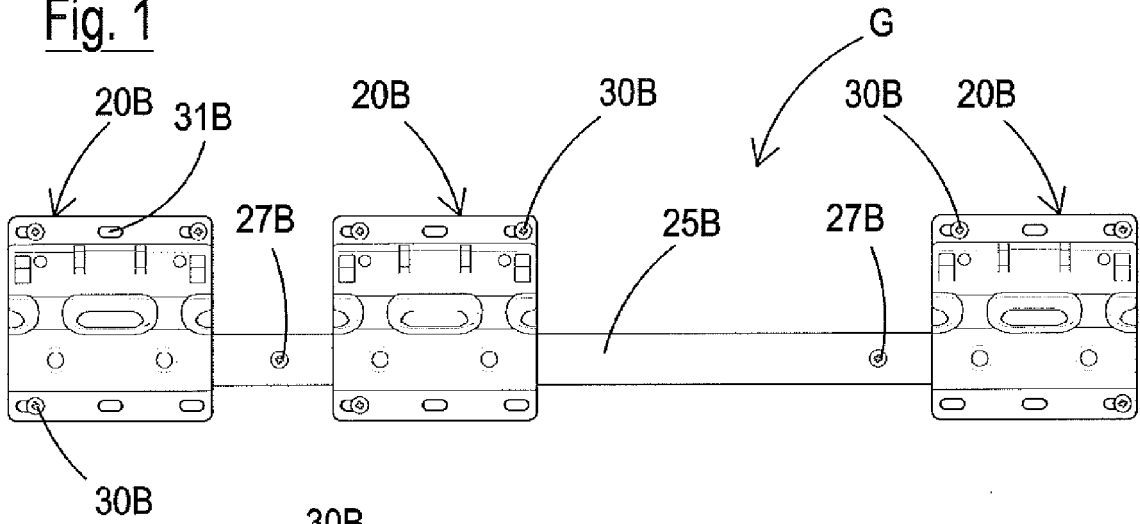


Fig. 2

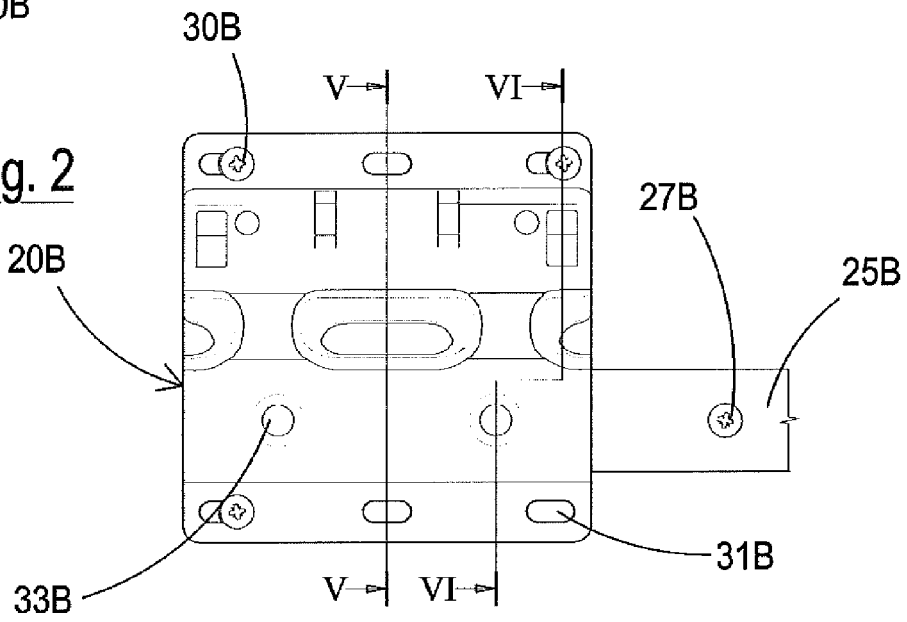
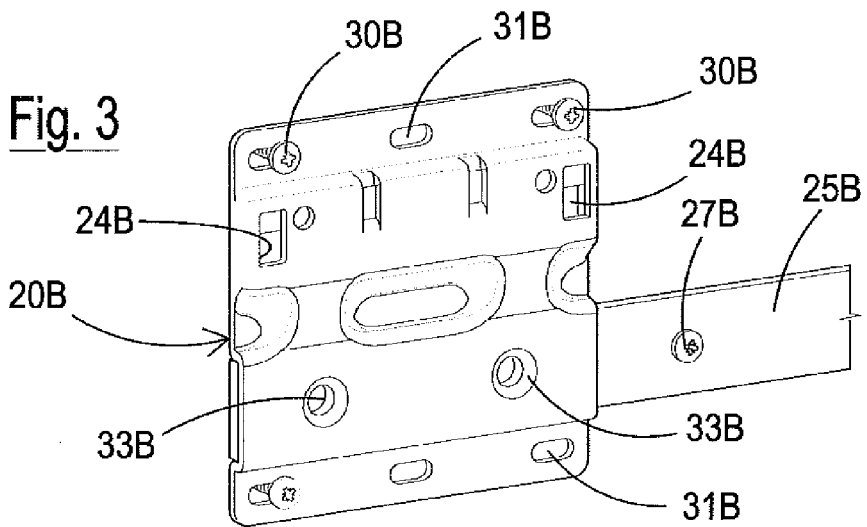


Fig. 3



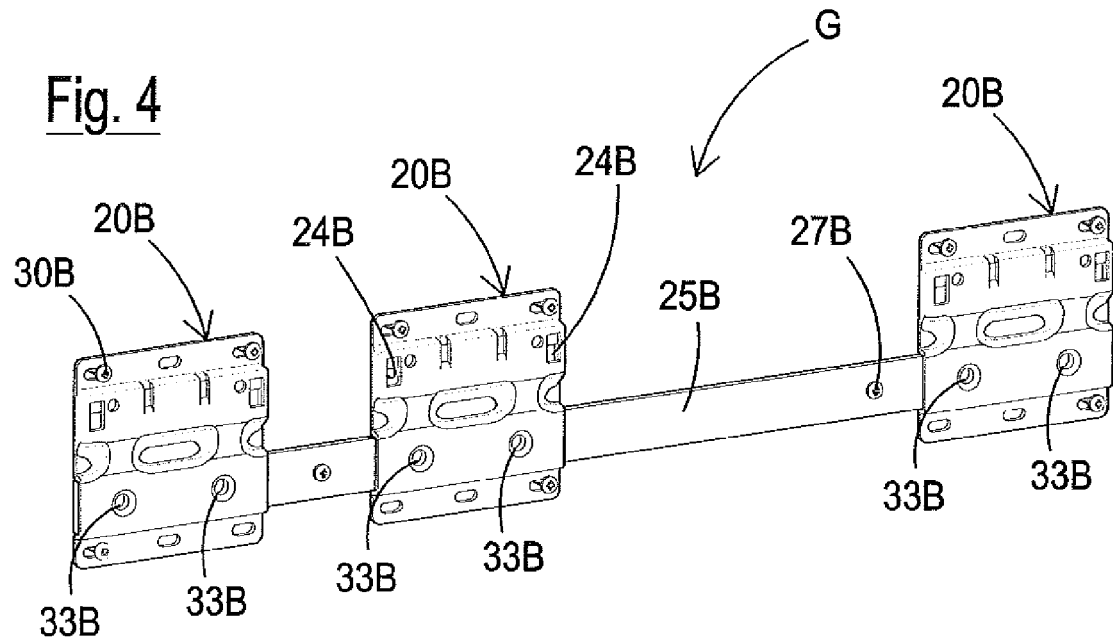


Fig. 5

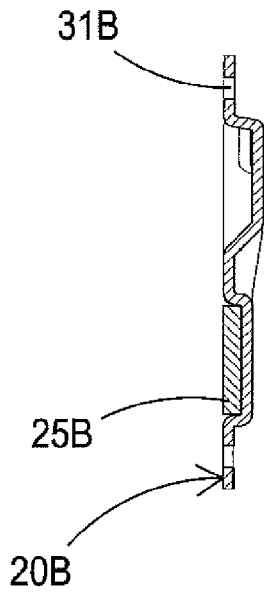


Fig. 6

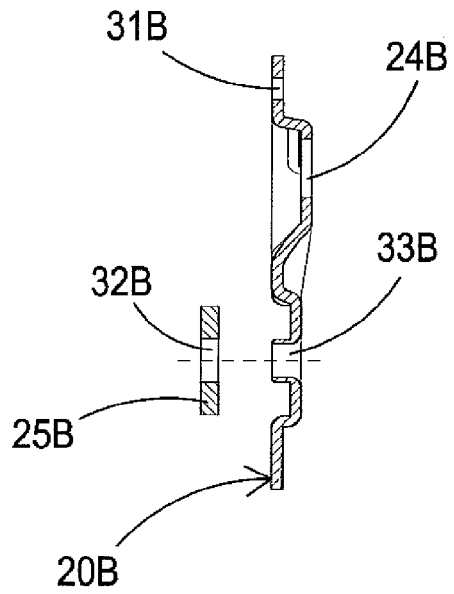


Fig. 7

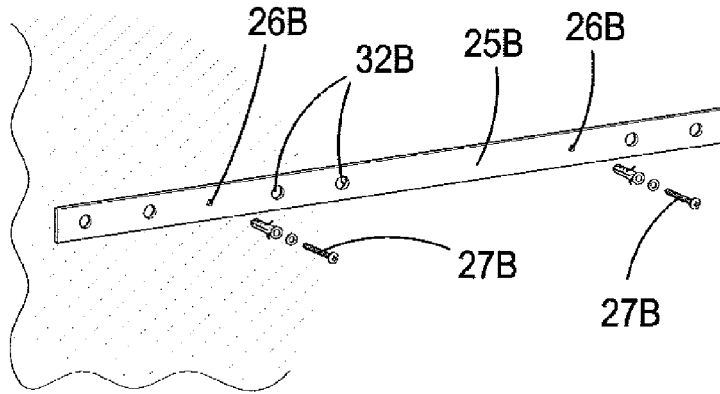


Fig. 8

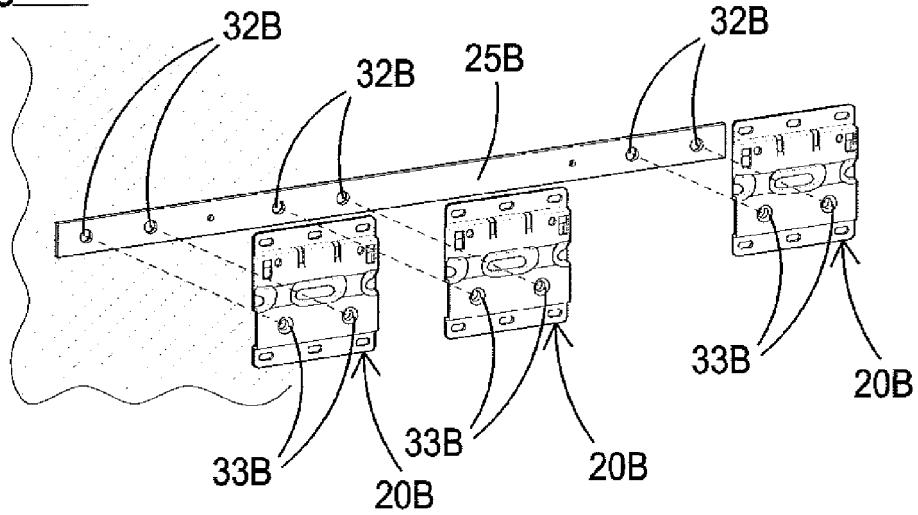


Fig. 9

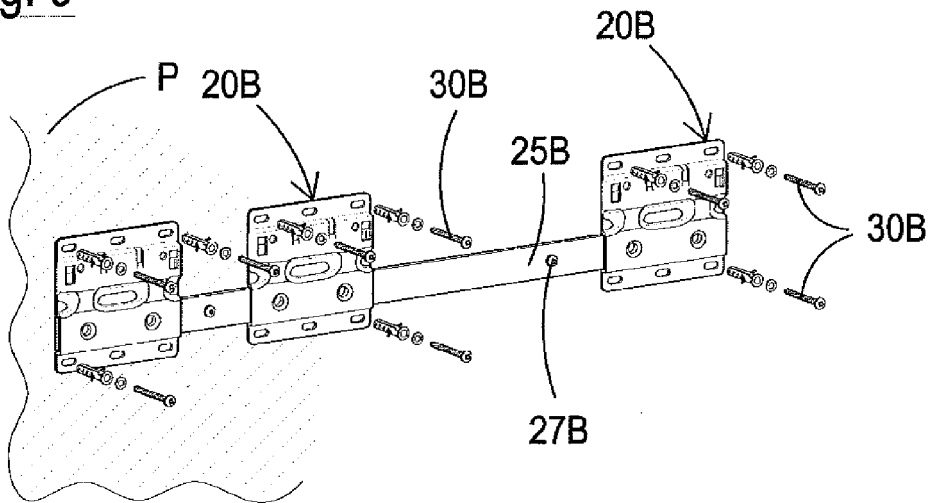


Fig. 10

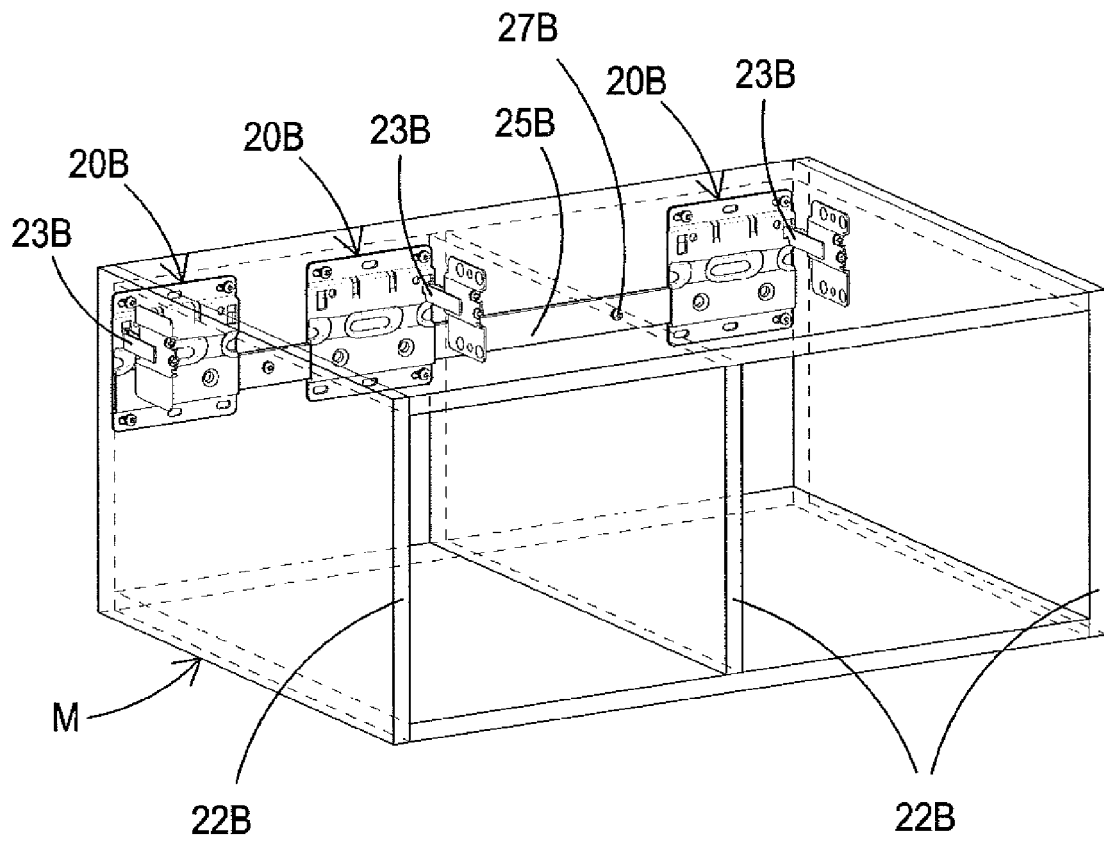


Fig. 11

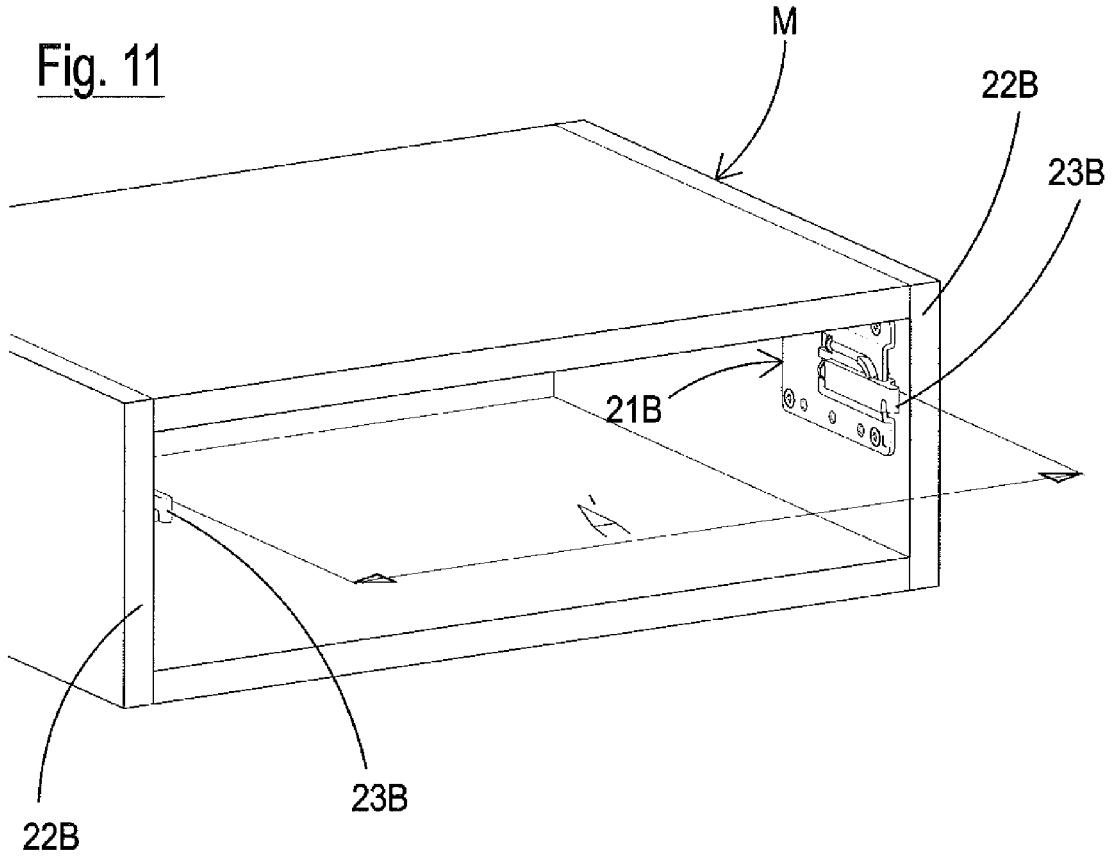
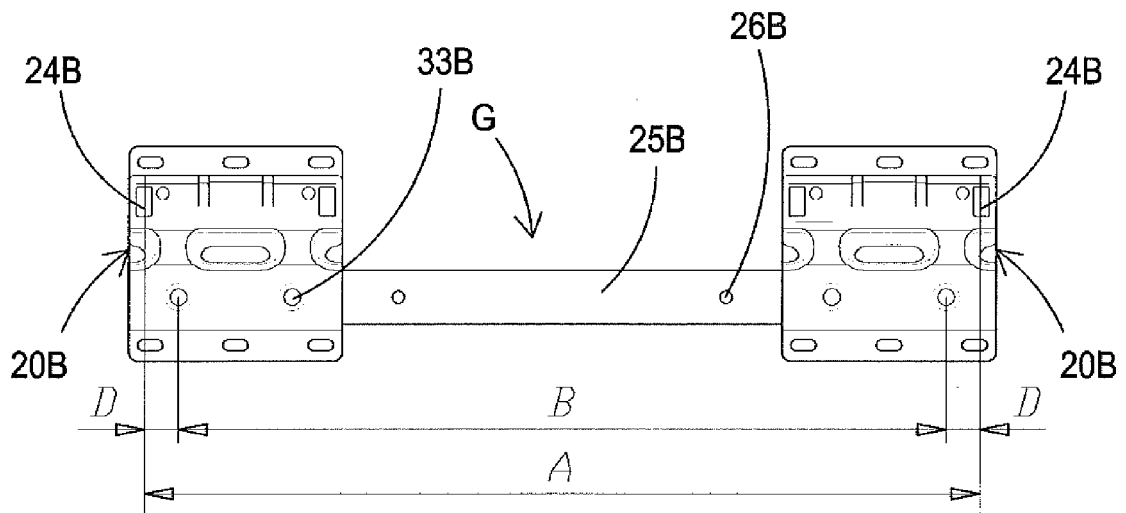
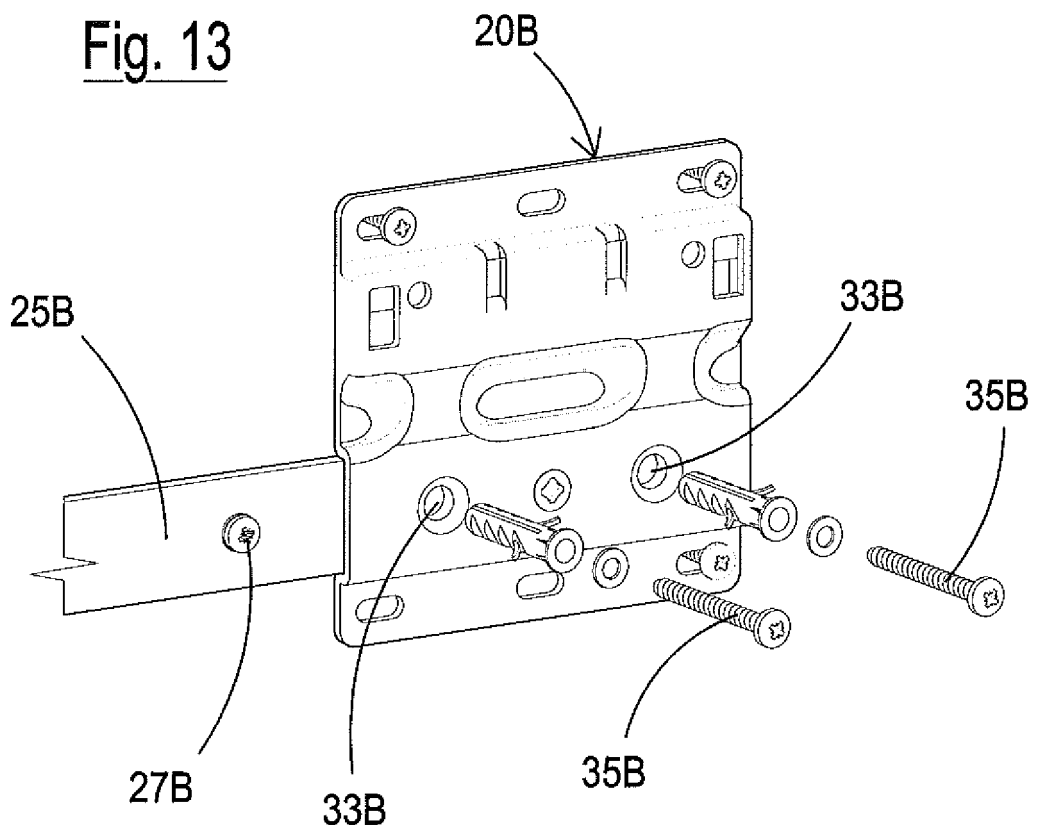


Fig. 12



$$A = B + D + D = B + 2D$$

Fig. 13





EUROPEAN SEARCH REPORT

Application Number
EP 12 18 6779

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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
The Hague		5 February 2013	Ottesen, Rune
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X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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05-02-2013

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