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(54) Bracket for furniture elements and the like

(57) Bracket for furniture elements and the like, comprising an arm (10;210;310) and supporting and fastening means (20), said arm (10) being of the tubular type and said supporting and fastening means consisting of an L-shaped dihedron provided with means (23) for guiding and means (24, 25) for locking the tubular element (10).

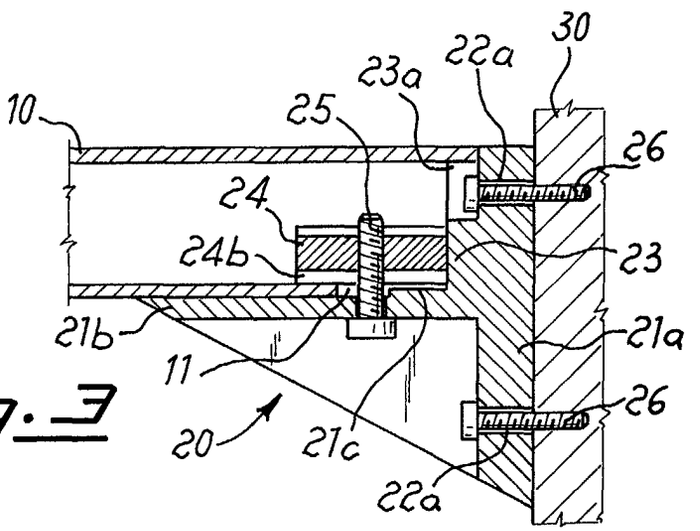

Fig. 3

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Description

[0001] The present invention relates to a bracket in particular for furniture components such as cupboards and the like.

[0002] In the art many constructional forms of brackets for supporting elements such as shelves for cupboards, bookcases and the like are known, these constructional forms, however, having a fixed configuration with a limited degree of applicational flexibility.

[0003] The technical problem which is posed, therefore, is that of providing a bracket for furniture elements and the like, which is easy and inexpensive to produce and assemble and which allows rapid and safe installation in situ also by non-specialised personnel.

[0004] Within the context of the this problem a further requirement is that said bracket should be modular and allow the formation of different support elements and at the same time should have an aesthetically pleasing form in view of the particular applications for which it is intended.

[0005] These technical problems are solved according to the present invention by a bracket for furniture elements and the like, comprising a projecting arm and means for supporting and fastening said arm to a surface, said arm being of the tubular type and said supporting and fastening means consisting of an L-shaped dihedron provided with means for guiding and means for locking the tubular element (10).

[0006] Further details may be obtained from the following description of a non-limiting example of embodiment of the invention, provided with reference to the accompanying plates of drawings, in which:

- Figure 1 shows an exploded view of the support element according to the present invention;
- Figure 2 shows a perspective view of the support element assembled and mounted on a vertical surface;
- Figure 3 shows a cross-section along the plane indicated by III-III in Fig. 2;
- Figure 4 shows an element for hanging objects, formed by means of a plurality of support elements according to the invention;
- Figure 5 shows a support surface formed by means of support elements according to the invention; and
- Figure 6 shows a variation of embodiment of the bracket according to Fig. 5.

[0007] As illustrated, the bracket according to the present invention is composed of a tubular element 10, with a square cross-section, forming the projecting arm of the same bracket and means 20 for supporting and fastening the said arm to the surface 30 to which the bracket must be fastened.

[0008] In greater detail, said supporting and fastening means 20 consist of a substantially L-shaped dihedron 21 which has a vertical side 21a and a horizontal side 21b in which respective through-holes 22a and 22b are formed.

[0009] A guide shoulder 23 which has a groove 23a for allowing access to the said hole 22a extends from the inner surface of the vertical side 21a.

[0010] A guide tooth 21c, the function of which will become clearer below, is formed on the horizontal surface 21b of the dihedron 21.

[0011] Said supporting and fastening means 20 comprise, moreover, a clamp 24 provided with an associated threaded hole 24a able to engage with a corresponding locking screw 25.

[0012] In a preferred embodiment said clamp 24 is substantially in the form of an H so as to form a lowered seat 24b.

[0013] The bottom surface of the end of the tubular arm 10 which must be fastened to the supporting and fastening means 20 is provided with a U-shaped groove 11 extending in the longitudinal direction and able to engage with the tooth 21c on the horizontal surface 21b of the dihedron 21 so as to guide displacement of the same tubular element.

[0014] In a preferred embodiment, said supporting and fastening means 20 may be completed by a cover 40 having a shape corresponding to that of said means, for covering the various component parts and providing the assembly with a continuous surface finish (Fig. 2).

[0015] Said cover 40 has two lugs 41a at the end of respective vertical flanges 40, which lugs are able to engage in corresponding seats 21d on the opposite lateral surfaces of the vertical side 21a of the dihedron.

[0016] In addition to this, it is envisaged that the free end of the arm 10 may be closed by a plug 50 provided with suitable lugs 51 for friction fastening to the internal surface of the tubular element.

[0017] With reference to Figures 1 and 3, the assembly sequence for the bracket will be described below.

- after fastening the clamp 24 to the horizontal surface 21b of the dihedron 21, by means of the screw 25 and without tightening the said screw so that the clamp itself has play in the vertical direction,
- the support means 21 are fixed to the surface 30 by means of screws 26 passing through the respective holes 22a of the vertical surface 21a of the dihedron 21;
- the arm 10 is rested on the said horizontal surface 21b of the dihedron 21, causing it to slide in the longitudinal direction until the groove 11 engages with the guide tooth 21c and the end of the tube thus guided comes into contact with the vertical surface 21a of the dihedron 21, also engaging with the vertical shoulder 21, which penetrates inside the tubular element 10;
- at this point tightening the screw 25 causes stable fastening of the dihedron 21 and the tubular arm 10 which remains fixed in position by the action of the clamp 24;

- after locking of the parts has been completed, the masking piece 40 is mounted, the lugs 41a thereof engaging in the corresponding seats 21d of the dihedron 21 in order to keep it stably in position, the assembly thus being provided with a continuous finished appearance.

[0018] An example of use of the bracket according to the present invention is illustrated in Fig. 2, showing a surface 60 supported by the bracket and forming for example a shelf of a cupboard, a bookcase or the like (not shown).

[0019] As illustrated in Figure 4, the bracket according to the present invention may be associated with bars 100 extending parallel to the support surface 30 so as to form means for hanging objects such as hangers, clothes racks/bags or the like.

[0020] Said bars are integral with uprights 101 which have means for stable, but reversible coupling'with the free end of the arm 10 of the bracket; said coupling means are of the fitted joint type which are conventional per se and therefore not described in detail.

[0021] Owing to the modular nature of the bracket and, where applicable, the bars 100, it is possible to obtain lengths depending on the requirements of the object-support means.

[0022] Fig. 5 shows a further embodiment of use of the bracket according to the invention, in which it is envisaged that the tubular arm 210 has holes 211 on the inner side of the said arm; said holes being able to engage with bars 200 for example with a circular cross-section.

[0023] The example of Fig. 5 shows a support surface formed by two support elements 210 connected by said transverse bars 200 which may in turn be used to hang objects, trousers or the like or as a support surface, for example for hats or the like.

[0024] It is envisaged moreover (Fig. 6) providing arms 310, which are not of the end type, with holes 311 on both its opposite vertical sides so as to allow extension of the surface as required.

Claims

1. Bracket for supporting furniture elements and the like, comprising an arm (10;210;310) and supporting and fastening means (20), **characterized in that** said arm (10) is of the tubular type and said supporting and fastening means consist of an L-shaped dihedron provided with means (23) for guiding and means (24, 25) for locking the tubular element (10).

2. Bracket according to Claim 1, **characterized in that** said tubular element (10) has a square cross-section.

3. Bracket according to Claim 1, **characterized in that** said tubular element has a groove (11) extending in the longitudinal direction at the end where the arm (10) is coupled with the supporting and fastening means (20).

4. Bracket according to Claim 1, **characterized in that** respective through-holes (22a,22b) are formed in the vertical side (21a) and horizontal side (21b) of the dihedron (21), for receiving corresponding elements (26) for performing fixing to the surface (30) on which the bracket must be mounted.

5. Bracket according to Claim 1, **characterized in that** a shoulder (23) for guiding the tubular element (10) extends from the inner surface of the vertical side (21a) of the dihedron (21).

6. Bracket according to Claim 5, **characterized in that** said shoulder (23) has a groove (23a) for allowing access to the said hole (22a) in the vertical surface of the dihedron.

7. Bracket according to Claim 1, **characterized in that** a guide tooth (21c) able to co-operate with said groove (11) of the tubular element (10) is formed on the horizontal surface (22b) of the dihedron (21).

8. Bracket according to Claim 1, **characterized in that** said means for locking the tubular element (10) consist of a clamp (24) provided with an associated threaded hole (24a) and a screw (25) able to engage with said hole (24a).

9. Bracket according to Claim 1, **characterized in that** said clamp (24) is substantially in the form of an H so as to form a lowered seat (24b).

10. Bracket according to Claim 1, **characterized in that** it comprises an element (40) covering the said supporting and fastening means (20).

11. Bracket according to Claim 10, **characterized in that** said cover has the shape of an L corresponding to that of the dihedron (20).

12. Bracket according to Claim 10, **characterized in that** said cover has vertical flanges provided with lugs (41a) able to engage with corresponding seats (21d) in the vertical side of the dihedron for stable mutual coupling.

13. Bracket according to Claim 1, **characterized in that** it is associated with bars (100) extending parallel to the support surface (30) for forming means for hanging objects.

14. Bracket according to Claim 13, **characterized in**

that it is coupled with uprights (101) which are integral with said bars (100) and which have means for stable, but reversible coupling with the free end of the tubular element (10).

15. Bracket according to Claim 14, **characterized in that** said couplings means between the uprights (101) and the bars (100) are of the fitted joint type.

16. Bracket according to Claim 1, **characterized in that** the tubular arm (210) has holes (211) on the inner side of the said arm, said holes being able to be engaged with bars (200) having a corresponding cross-section.

17. Bracket according to Claim 1, **characterized in that** said arm (31) has holes (311) on both its opposite parallel sides.

18. Bracket according to Claim 1, **characterized in that** it has an element (50) for closing the free end of the tubular arm.

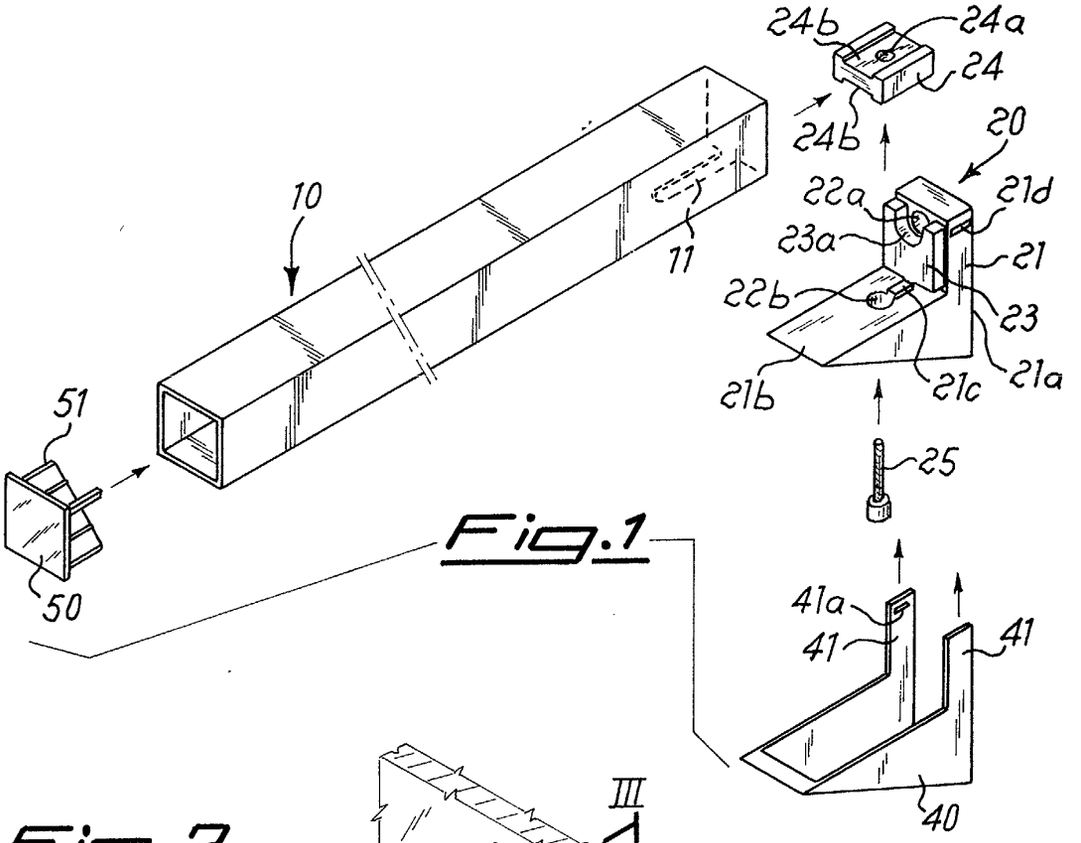

Fig.1

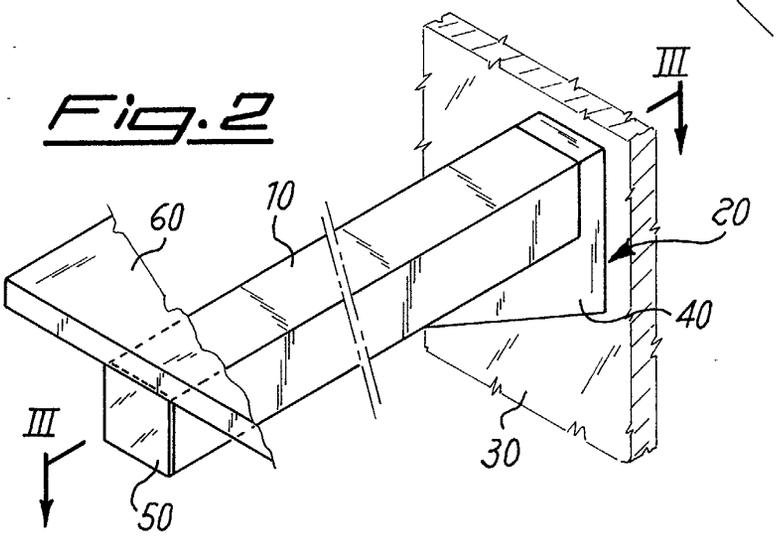

Fig.2

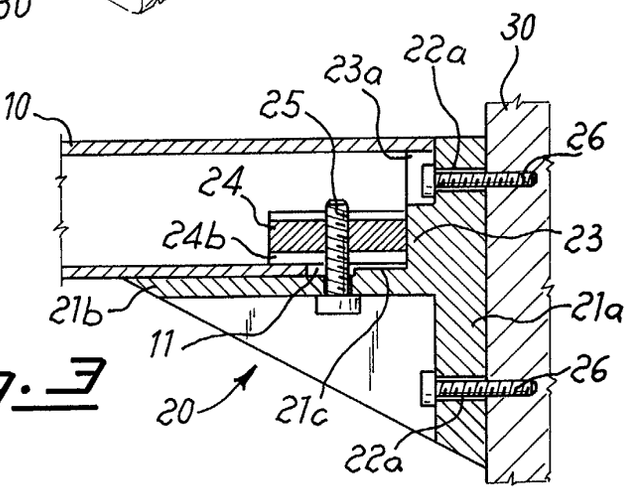

Fig.3

Fig.4

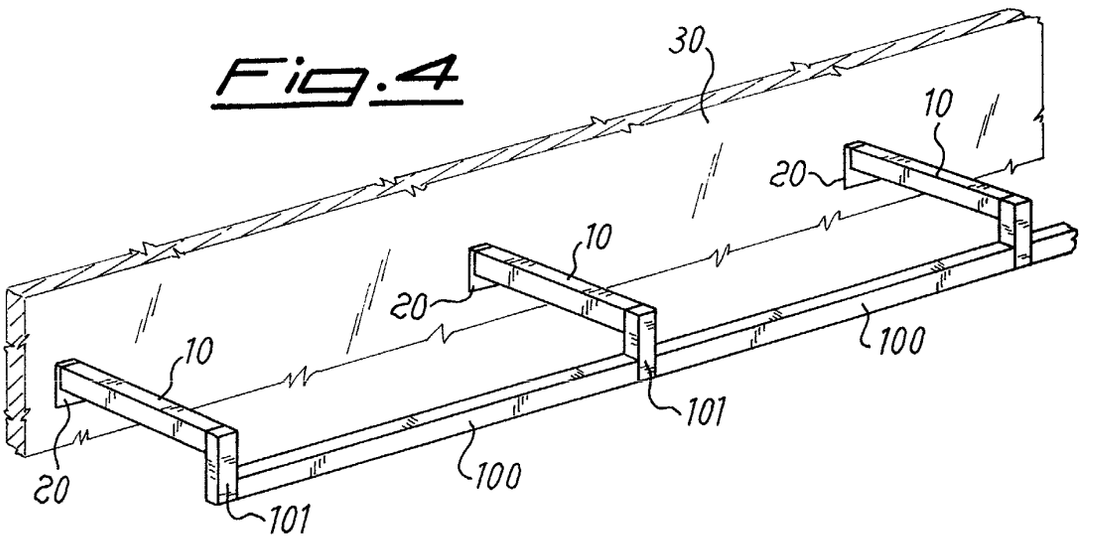

Fig.5

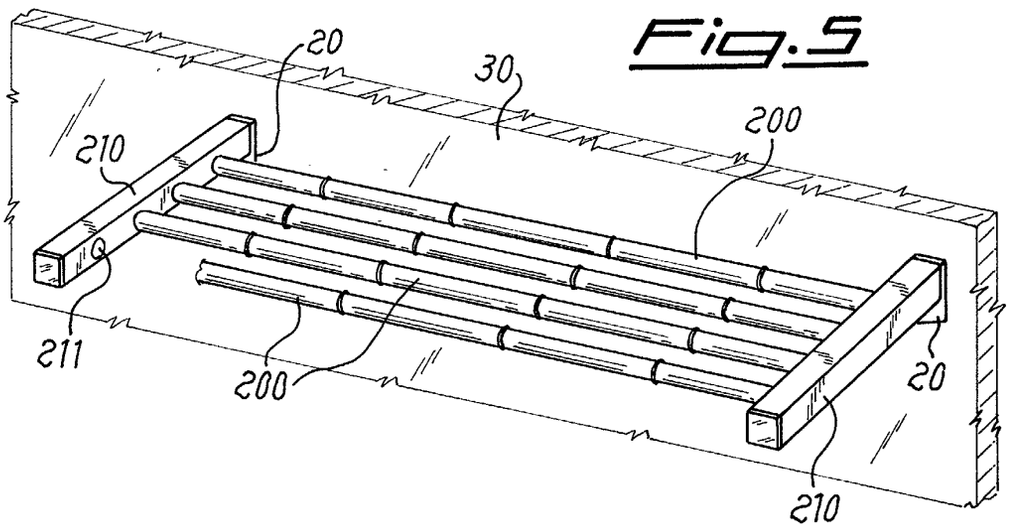

Fig.6