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(54) **An accessory for use in a demountable panelling system.**

(57) The invention relates to a junction pole, for use in a demountable panelling system, that can serve as a junction between panelling walls defining a four way junction, a T-junction, or a corner. The junction pole includes a lower pole section (10), an upper pole section (12) and one or more pole covers (14), the pole sections (10,12) being securable to the upright side members (26) of framework sections, forming part of panelling walls, at their point of juncture and the pole covers (14) being adapted to cover the exposed sides of the pole sections (10,12) in their operative configuration.

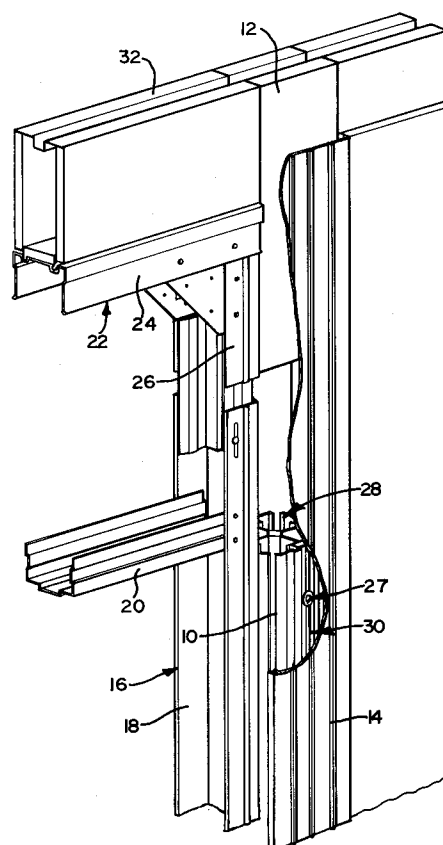


FIG 2

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THIS INVENTION relates to a demountable paneling system and, particularly, to a junction pole for use in this demountable paneling system.

The invention relates specifically to a junction pole for use in a demountable paneling system, which system includes individual framework sections that can be erected and secured together in a side-by-side relationship to form a complete framework support structure for paneling. Each framework section can then have panels releasably attached thereto on opposite sides thereof, to form a panelling wall.

Particularly, where paneling walls so formed define a four-way junction, a T-junction or a corner, a junction pole conventionally forms the junction between the panelling walls that form the junction or corner, framework sections being secured to and extending from the sides of the junction pole, with one side of the junction pole remaining exposed in the case of a T-junction and two sides of the junction pole remaining exposed in the case of a corner. Known junction poles used for the above purpose are dedicated for particular applications and where the position of panelling requires to be altered, these junction poles often cannot be re-used and completely new junction poles will thus be required. The reason for this is that particular junction poles may have to fulfil different functions when the position of panelling requires to be altered and, as such, these junction poles may have holes, or the like, formed in side faces thereof that will remain exposed when fulfilling their new function. Furthermore, the exact height requirements of the junction poles may vary.

It is an object of this invention to alleviate the problems associated with the known junction poles, as explained above.

Any reference hereinafter to a demountable paneling system must be interpreted as a reference to a system of the above defined general type.

According to the invention there is provided a junction pole for use in a demountable panelling system for serving as a junction between perpendicularly disposed paneling wall sections at the point of juncture of the wall sections and in which the wall sections comprise framework sections having operatively upright side members, which framework sections can be erected and secured together in a side-by-side relationship with similar framework sections and have panels releasably attached thereto on opposite sides thereof to form panelling walls, the junction pole comprising

a pole structure including an upper pole section defining four sides that are perpendicularly disposed with respect to one another and a lower pole section defining four sides that are perpendicularly disposed with respect to one another, the

sides of the pole sections being releasably securable to the operative upright side members of framework sections of the demountable panelling system at a point of juncture of the framework sections for joining the framework sections together, in a configuration in which the upper pole section is located along the upper end of the framework sections and the lower pole section is located along the lower end of the frameworks sections; and

a pole cover for each of the exposed sides of the pole sections in their operative configuration connecting framework sections together, each pole cover being releasably attachable to the pole structure.

The pole sections forming the pole structure preferably comprise hollow sections and, as such, each pole section may have four perpendicularly disposed walls forming the four sides thereof, the walls being adapted to cooperate with particular upright side members of framework sections of a demountable paneling system to facilitate them being releasably secured together.

The two pole sections forming a pole structure may inter-engage one another in their operative configuration, while permitting effective length adjustment of the pole structure, but because the pole sections are separately securable to the upright side members of framework sections, this inter-engagement of the pole sections is not required. As such, the pole sections may be separate sections defining either the same or different cross-sectional profiles.

Furthermore, either one of the pole sections and each pole cover may define complementary attachment formations that can cooperate for releasably attaching each pole cover to the pole structure. Alternatively, both pole sections and each pole cover may define complementary attachment formations that can cooperate for releasably attaching each pole cover to the pole structure. The complementary attachment formations may permit each pole cover to releasably clip onto the pole structure.

The length of each pole cover typically is equal to the effective height of the panels that are releasably attachable to framework sections for forming paneling walls.

The junction pole of the invention may be adapted particularly for use with framework sections which each include a main part, having two parallel spaced operatively lower upright side members held apart by a bottom framework member, and a top part, having two parallel, spaced side elements that are slidably located with respect to the side members of the main part for rendering the framework section height adjustable, the side elements being held together by a top framework

member, and for such a junction pole the upper pole section of the pole structure may be releasably securable to the side elements of the top part of framework sections at their point of juncture and the lower pole section of the pole structure may be releasably securable to the side members of the main part of framework sections at their point of juncture.

Further according to the invention, the upper pole section may be formed to cooperate with auxiliary members of a complete demountable panelling system, which provide for the top end of framework sections to be located in position along their required lines. Particularly, the sides of the upper pole sections may define planar, continuous side faces and the upper pole section may be adapted to serve particularly at a junction between one of two framework sections, three framework sections and four framework sections. The lower pole section may be a universal section that can be used for all purposes, i.e. at a junction between one of two framework sections, three framework sections and four framework sections.

The pole sections forming the pole structure of the junction pole of the invention may be releasably securable to framework sections by screws engaging aligned holes formed in the pole sections and in the upright side members of frameworks sections and it is envisaged that suitable holes may be provided for the purpose within the pole sections.

Further according to the invention there is provided a demountable panelling system, which comprises

framework sections, which each include two parallel spaced operatively upright side members held in their spaced relationship by a top framework member and a bottom framework member and which can be erected and secured together in a side-by-side relationship along a line along which paneling is required;

panels that can be releasably attached to the framework sections on opposite sides thereof to form panelling walls; and

junction poles which can serve as junctions between perpendicularly disposed wall sections for connecting together the framework sections forming these wall sections at their point of juncture, each junction pole structure including an upper pole section defining four sides that are perpendicularly disposed with respect to one another and a lower pole section defining four sides that are perpendicularly disposed with respect to one another, with the sides of the pole sections being releasably securable to the operative upright side members of framework sections at their point of juncture for joining the framework sections together in a configuration in which the upper pole section is

located along the operative upper end of the framework sections and the lower pole section is located along the operative lower end of the framework sections, and pole covers for covering each of the exposed sides of the pole sections in their operative configuration connecting framework sections together, each pole cover being releasably attachable to a side of the pole sections forming a pole structure.

Once again, the pole sections of the junction poles of the demountable paneling system may comprise hollow sections and, particularly, each pole section of the junction pole may have four perpendicularly disposed walls forming the four sides thereof, the walls being adapted to cooperate with particular upright side members of framework sections of the demountable paneling system to facilitate them being releasably secured together. Also, either one of the pole sections and each pole cover of the junction poles may define complementary attachment formations that can cooperate for releasably attaching the pole covers to the pole sections forming the pole structures. Alternatively, both pole sections and each pole cover of the junction poles may define complementary attachment formations that can cooperate for releasably attaching the pole covers to the pole sections forming pole structures. These complementary attachment formations may permit each pole cover to releasably clip onto pole structures.

Furthermore, the length of each pole cover of the junction poles of a demountable panelling system, in accordance with the invention, may be equal to the effective height of the panels that are releasably attachable to framework sections for forming paneling walls.

For a demountable panelling system in which the upright side members of each framework section comprise operatively lower side member sections, held apart by the bottom framework member to form a main framework part, and side elements, that are slidably located with respect to the side member sections of the main framework part for rendering the framework section height adjustable, the side elements being held together by the top framework member, the upper pole sections of the pole structures of junction poles may be releasably securable to the side elements of the upright side members of framework sections at their point of juncture and the lower pole sections of the pole structures of junction poles may be releasably securable to the lower side member sections of the main part of framework sections at their point of juncture.

Furthermore, for the demountable paneling system of the invention, the upper pole sections of the junction poles may be formed to cooperate with auxiliary members of the complete demountable

paneling system which provide for the top end of framework sections to be located along their required lines. As such the sides of the upper pole sections of junction poles may define planar continuous side faces and, furthermore, the upper pole sections of the junction poles may be adapted to serve particularly at a junction between one of two framework sections, three framework sections and four framework sections.

The pole sections forming the pole structures of junction poles of a demountable panelling system, in accordance with the invention, may be releasably securable to framework sections by screws engaging aligned holes in the pole sections and in the upright side members of the framework sections, although they also can be secured together in any other suitable manner, e.g. by bolts and nuts, or the like.

The invention extends also to the individual components and parts for forming a junction pole, in accordance with the invention and, as such, the invention extends separately to a first pole section, a second pole section and a pole cover that can combine to form a junction pole for use with a demountable panelling system, in accordance with the invention.

For use, by having the two pole sections forming a junction pole separately securable to the upright side members of a framework section, the effective length of the junction pole is rendered adjustable and, as such, the same two pole sections can be utilized for forming a junction pole that can serve the general purpose of the junction pole of the invention. The or each pole cover utilized in conjunction with a junction pole for a particular application will effectively cover exposed sides of the pole and by being rendered releasably attachable, it will be understood that the complete junction pole could be conveniently re-used for different applications, particularly when a restructuring of paneling formed of a demountable paneling system is required.

Further features of the accessory of the invention, including the mode of use thereof, are described in more detail hereinafter, with reference to the accompanying diagrammatic drawings, in which;

Figure 1 illustrates schematically in elevational front view the configuration of the three components forming a junction pole for use in a demountable paneling system, in accordance with the invention; and

Figure 2 illustrates in three dimensions the operative configuration of the junction pole of Figure 1, within a demountable panelling system.

Referring to the drawings, a junction pole for use in a demountable panelling system, in accordance with the invention, comprises generally a

pole structure that is made up of a lower pole section 10 and an upper pole section 12 and one or more pole covers 14.

The junction pole is adapted particularly for use with a demountable framework system which incorporates the use of height adjustable framework sections that can combine to form a complete framework structure onto which panels can be releasably attached for the formation of panelling walls. Typical framework sections for use in such a system are shown in dotted lines in Figure 1 and in solid lines in Figure 2, each framework section including a main framework part generally indicated by the reference numeral 16, the said main framework part including parallel spaced apart uprights 18 (only one shown for each framework section) that are held in a spaced configuration by cross members 20 (only one upper cross member being shown for each framework section while a bottom cross member is not shown). Each framework section includes further an adjustable top section 22, the top section 22 including a top cross member 24 and two short upright members 26, the upright members 18 and 26 being adapted to cooperate with one another in order to adjust the position of the members 26 with respect to the members 18 and thereby rendering the effective height of a complete framework section adjustable. As the mode of adjustment between the upright members 26 and 18 do not form a part of the present invention, this is not described in any further detail herein.

In practice, where framework sections have to be erected in a configuration in which either a corner between two panelling walls must be defined, or a three or four way junction must be defined, the lower pole section 10 and upper pole section 12 are used in combination between the frameworks sections to form an effective pole structure between the sections, that serves as a junction between them, thus facilitating the formation of a required corner or junction.

Particularly, the lower pole section 10 of a pole is secured to an upright member 18 by means of screws that can be screwed into holes 27 provided in the walls of the lower pole section 10, this section effectively defining a square cross-sectional outer perimeter profile as illustrated clearly in Figure 2 of the drawings. As is also apparent from Figure 2 of the drawings, the lower pole section 10 is a hollow section defining four separate passages 28 therethrough, the passages 28 being particularly suitable to carry electric wiring, and the like. Furthermore, the four faces of the lower pole section 10 define formations 30 into which complementary formations on the rear of pole covers 14 can clip for the effective location of the pole covers 14 on the lower pole section 10.

It is anticipated that three different upper pole sections 12 can be provided for different applications, one pole section being particularly adapted where a corner is required, another pole section being particularly adapted for use where a three way or T-junction is required and the third upper pole section being adapted for use where a four-way junction between four panelling walls is required.

The upper pole section 12 is generally a plain section which has holes formed in required side walls to permit securing to a member 26 of the adjustable top section 24 of a framework section, thus ensuring that the pole section 12 is displaceable together with the said top section 24 and thereby rendering a pole comprising a lower pole section 10 and an upper pole section 12 length adjustable. The upper pole section 12 also is particularly adapted to cooperate with any other structural members used in conjunction with a particular paneling system which, particularly, may include members 32 that serve the purpose of locating the upper end of framework sections along lines along which paneling walls are required.

In the particular configuration of the junction pole as shown, the pole covers will not be directly attached to the upper pole sections of poles utilized, but will merely cover these pole sections along the length of the pole sections that will be ordinarily exposed in the operative configuration of a complete panelling structure.

It will be appreciated that when the position of panelling walls must be changed, lower pole sections 10, upper pole sections 12 and pole covers 14 can be rendered easily separable from their associated framework sections and can thus easily be re-used for forming different junctions. Conventionally, dedicated poles are utilized for the purpose and because holes are formed in the side walls of such poles to permit their securing onto framework sections, these poles cannot be re-used as any holes formed therein may become exposed in possible new applications of these poles. Conventional poles also are not length adjustable and, therefore, cannot accommodate height variations which often have to be accommodated when erecting panelling structures.

The junction pole as described clearly is particularly suitable for use in a demountable paneling system having framework sections as described, but it must be understood that the junction pole also can be use in other demountable wall paneling systems that include the use of different framework sections, e.g. framework sections that are not height adjustable.

Claims

1. A junction pole for use in a demountable panelling system for serving as a junction between perpendicularly disposed panelling wall sections at the point of juncture of the wall sections and in which the wall sections comprise framework sections having operatively upright side members, which framework sections can be erected and secured together in a side-by-side relationship with similar framework sections and have panels releasably attached thereto on opposite sides thereof to form paneling walls, characterized in that the junction pole comprises
a pole structure including an upper pole section defining four sides that are perpendicularly disposed with respect to one another and a lower pole section defining four sides that are perpendicularly disposed with respect to one another, the sides of the pole sections being releasably securable to the operative upright side members of framework sections of the demountable panelling system at a point of juncture of the framework sections for joining the framework sections together, in a configuration in which the upper pole section is located along the upper end of the framework sections and the lower pole section is located along the lower end of the framework sections; and
a pole cover for each of the exposed sides of the pole sections in their operative configuration connecting framework sections together, each pole cover being releasably attachable to the pole structure.
2. A junction pole as claimed in Claim 1, characterized in that the pole sections comprise hollow sections.
3. A junction pole as claimed in Claim 2, characterized in that each pole section has four perpendicularly disposed walls forming the four sides thereof, the walls being adapted to cooperate with particular upright side members of framework sections of a demountable paneling system to facilitate them being releasably secured together.
4. A junction pole as claimed in any one of Claims 1 to 3, characterized in that either one of the pole sections and each pole cover define complementary attachment formations that can cooperate for releasably attaching each pole cover to the pole structure.

5. A junction pole as claimed in any one of Claims 1 to 3, characterized in that both pole sections and each pole cover define complementary attachment formations that can cooperate for releasably attaching each pole cover to the pole structure. 5
6. A junction pole as claimed in Claim 4 or Claim 5, characterized in that the complementary attachment formations permit each pole cover to releasably clip onto the pole structure. 10
7. A junction pole as claimed in any one of the preceding claims, characterized in that the length of each pole cover is equal to the effective height of the panels that are releasably attachable to framework sections for forming panelling walls. 15
8. A junction pole as claimed in any one of the preceding claims, characterized in that it is adapted for use with framework sections which each include a main part, having two parallel spaced operatively lower upright side members held apart by a bottom framework member, and a top part, having two parallel, spaced side elements that are slidably located with respect to the side members of the main part for rendering the framework section height adjustable, the side elements being held together by a top framework member, the upper pole section of the pole structure being releasably securable to the side elements of the top part of framework sections at their point of juncture and the lower pole section of the pole structure being releasably securable to the side members of the main part of framework sections at their point of juncture. 20 25 30 35
9. A junction pole as claimed in Claim 8, characterized in that the upper pole section is formed to cooperate with auxiliary members of a complete demountable paneling system which provides for the top end of framework sections to be located in position along their required lines. 40 45
10. A junction pole as claimed in any one of the preceding claims, characterized in that the sides of the upper pole section define planar, continuous side faces. 50
11. A junction pole as claimed in any one of the preceding claims, characterized in that the upper pole section is adapted to serve particularly at a junction between one of two framework sections, three framework sections and four framework sections. 55
12. A junction pole as claimed in any one of the preceding claims, characterized in that the pole sections forming the pole structure are releasably securable to framework sections by screws engaging aligned holes formed in the pole section and in the framework sections.
13. A demountable panelling system, which comprises framework sections, which each include two parallel, spaced, operatively upright side members held in their spaced relationship by a top framework member and a bottom framework member and which can be erected and secured together in a side-by-side relationship along a line along which paneling is required; panels that can be releasably attached to the framework sections on opposite sides thereof to form paneling walls; and junction poles which can serve as junctions between perpendicularly disposed wall sections for connecting together the framework sections forming these wall sections at their point of juncture, characterized in that each junction pole comprises a pole structure including an upper pole section defining four sides that are perpendicularly disposed with respect to one another and a lower pole section defining four sides that are perpendicularly disposed with respect to one another, with the sides of the pole sections being releasably securable to the operative upright side members of framework sections at their point of juncture for joining the framework sections together in a configuration in which the upper pole section is located along the operative upper end of the framework sections and the lower pole section is located along the operative lower end of the framework sections, and pole covers for covering each of the exposed sides of the pole sections in their operative configuration connecting framework sections together, each pole cover being releasably attachable to a side of the pole sections forming a pole structure.
14. A demountable paneling system as claimed in Claim 13, characterized in that the pole sections of the junction poles comprise hollow sections.
15. A demountable paneling system as claimed in Claim 14, characterized in that each pole section of the junction poles has four perpendicularly disposed walls forming the four sides thereof, the walls being adapted to cooperate with particular upright side members of framework sections of the demountable panelling

system to facilitate them being releasably secured together.

16. A demountable paneling system as claimed in any one of Claims 13 to 15, characterized in that either one of the pole sections and each pole cover of the junction poles define complementary attachment formations that can cooperate for releasably attaching the pole covers to the pole sections forming pole structures. 5 10
17. A demountable panelling system as claimed in any one of Claims 13 to 15, characterized in that both pole sections and each pole cover of the junction poles define complementary attachment formations that can cooperate for releasably attaching the pole covers to the pole sections forming pole structures. 15 20
18. A demountable panelling system as claimed in Claim 16 or Claim 17, characterized in that the complementary attachment formations permit each pole cover to releasably clip onto pole structures. 25
19. A demountable panelling system as claimed in any one of Claims 13 to 18, characterized in that the length of each pole cover of the junction poles is equal to the effective height of the panels that are releasably attachable to framework sections for forming panelling walls. 30
20. A demountable panelling system as claimed in any one of Claims 13 to 19, characterized in that the upright side members of each framework section comprise operatively lower side member sections, held apart by the bottom framework member to form a main framework part, and side elements, that are slidably located with respect to the side member sections of the main framework part for rendering the framework section height adjustable, the side elements being held together by the top framework member, and in which the upper pole sections of the pole structures of junction poles are releasably securable to the side elements of the upright side members of framework sections at their point of juncture and the lower pole sections of the pole structures of junction poles are releasably securable to the lower side member sections of the main part of framework sections at their point of juncture. 35 40 45 50
21. A demountable paneling system as claimed in Claim 20, characterized in that the upper pole sections of the junction poles are formed to cooperate with auxiliary members of the com- 55

plete demountable panelling system which provide for the top end of framework sections to be located along their required lines.

22. A demountable paneling system as claimed in any one of Claims 13 to 21, characterized in that the sides of the upper pole sections of junction poles define planar, continuous side faces. 5
23. A demountable panelling system as claimed in any one of Claims 13 to 22, characterized in that the upper pole sections of the junction poles are adapted to serve particularly at a junction between one of two framework sections, three framework sections and four framework sections. 10
24. A demountable panelling system as claimed in any one of Claims 13 to 23, characterized in that the pole sections forming the pole structures of junction poles are releasably securable to framework sections by screws engaging aligned holes in the pole sections and in the upright side members of the framework sections. 15 20 25
25. A junction pole for use in a demountable panelling system substantially as described in the specification with reference to and as illustrated in the accompanying diagrammatic drawings. 30
26. A demountable paneling system substantially as described in the specification with reference to and as illustrated in the accompanying diagrammatic drawings. 35 40 45 50

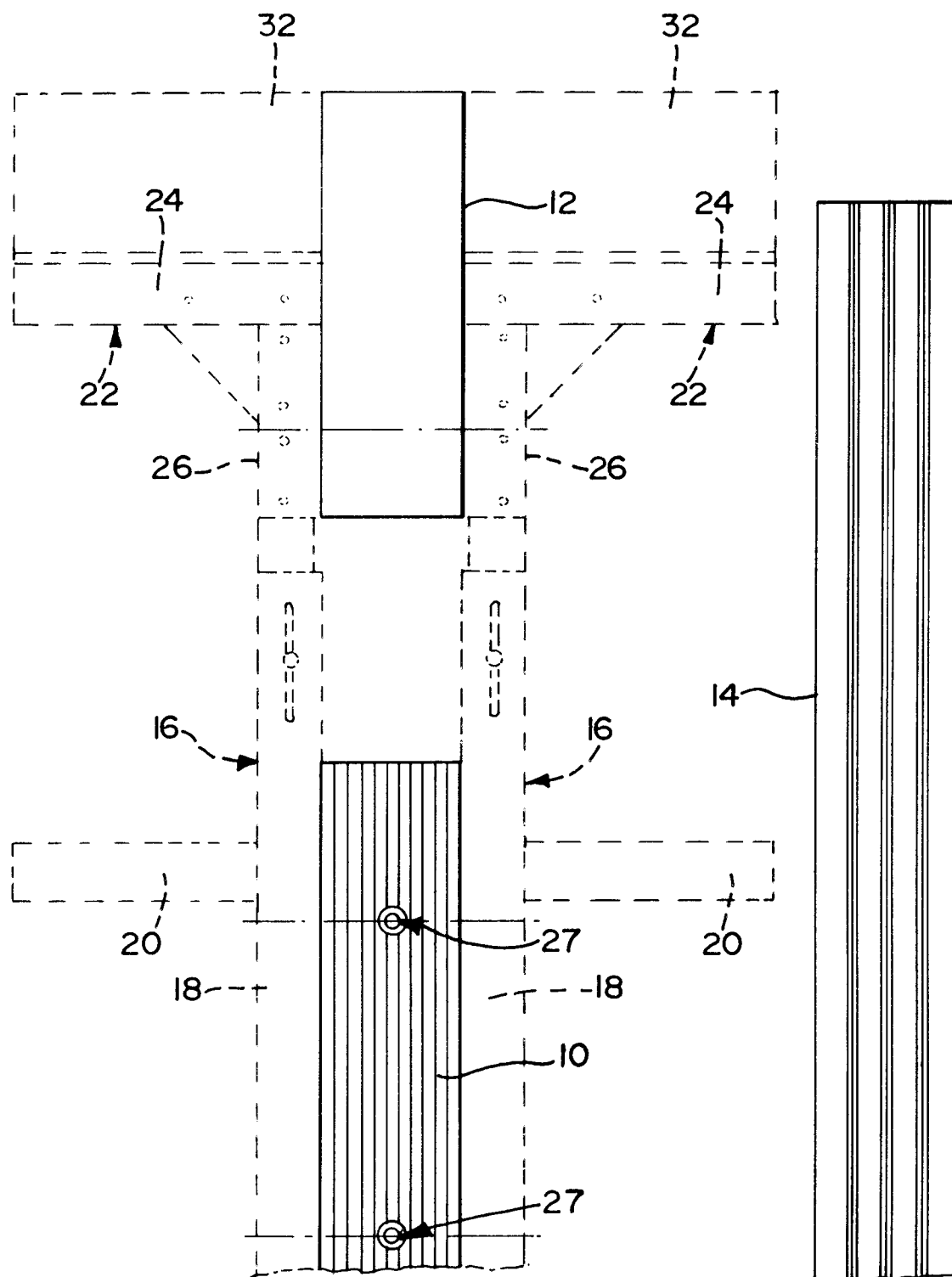


FIG 1

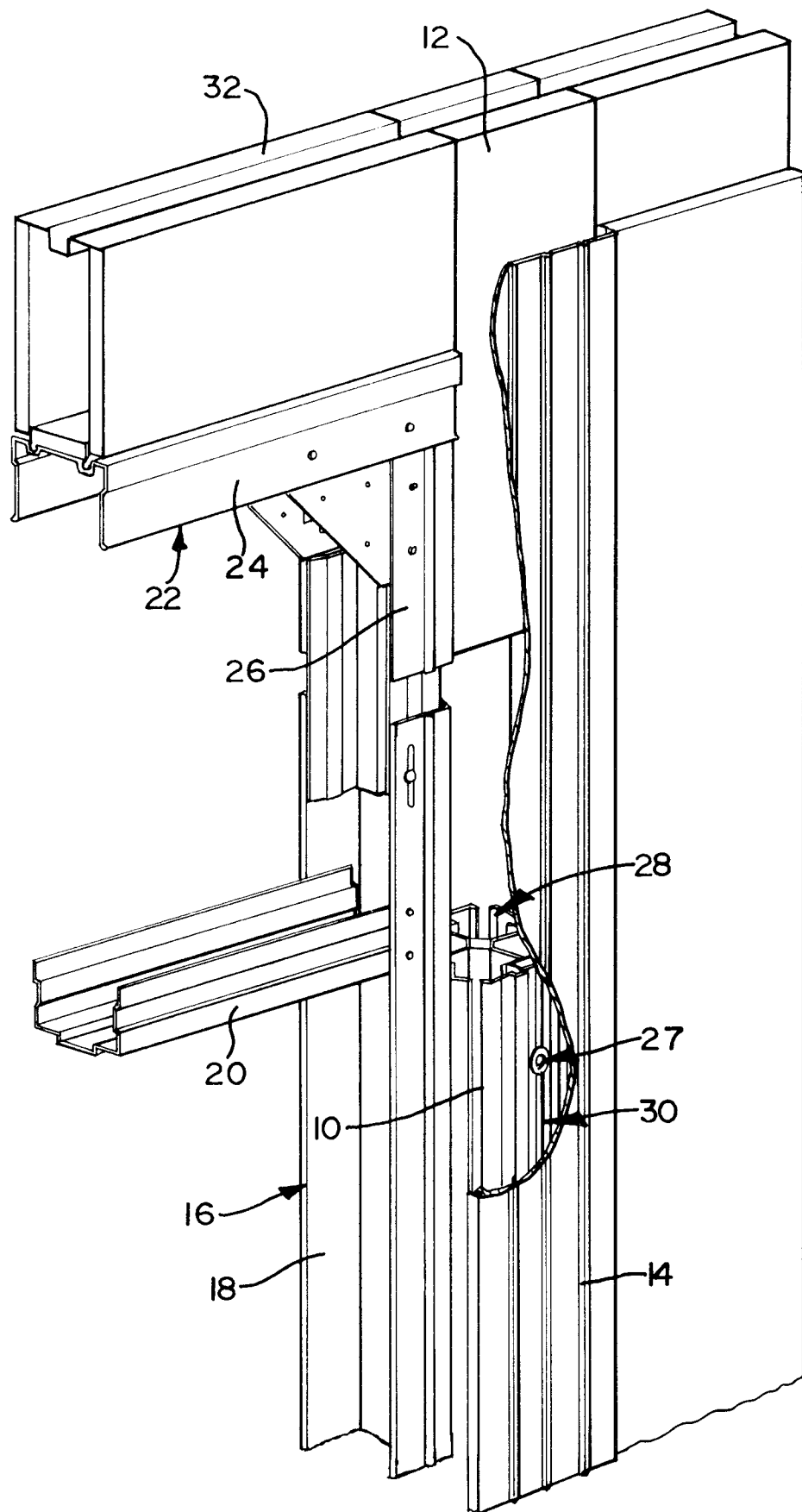


FIG 2



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 93 30 8981

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	EP-A-0 458 488 (R. DELONG) * column 5, line 9 - column 6, line 41 * * column 9, line 14 - line 41; claim 1; figures 1-4 *	1-7, 10, 11, 13-19, 22, 23, 25, 26
A	---	8, 20
A	US-A-5 134 826 (R. LA ROCHE) * column 7, line 31 - column 8, line 24; figures 11A-12A *	1-7, 13-19
A	---	
A	US-A-3 691 709 (J. OSTBORG) * column 2, line 49 - column 3, line 10; figure 1 *	1, 13
A	---	
A	CA-A-1 019 921 (G. PARENTEAU) -----	
The present search report has been drawn up for all claims		
Place of search	Date of completion of the search	Examiner
THE HAGUE	13 April 1994	Kriekoukis, S
CATEGORY OF CITED DOCUMENTS		
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		