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(54) **Post for barriers delimiting external and internal spaces**

(57) A post (10) for making barriers for delimiting spaces, comprising a tubular support (12) with a shaped base plate (13) for the attachment to the floor or to a platform, a main profile (20) able to be inserted on the tubular support and blocked thereto, and auxiliary profiles (21) able to be applied and fixed to the main profile (20) thus determining with it and between them vertical seats (40) able to house the edge of a glass panel (50).

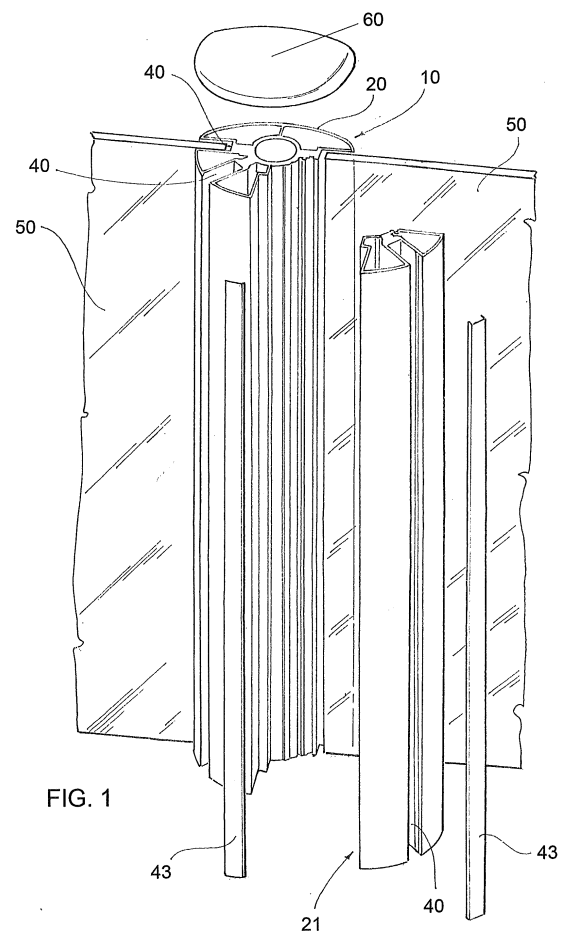


FIG. 1

EP 2 853 646 A1

Description

[0001] The present invention relates to barriers for delimiting external and internal spaces, in particular for delimiting and enclosing the public space outside bars, restaurants, terraces, villas, swimming pools, sports areas, etc., acting as protection against wind and bad weather. More particularly the object of the invention is a post for the making of these barriers, with glass panels, which are less invasive from the environmental viewpoint.

[0002] Herein below, for the sake of simplicity, these barriers will be referred to as wind barriers, even if, as mentioned, they can have different applications.

[0003] Present wind barriers in glass are somewhat complex and laborious to assemble, above all due to the type of attachment of the glass panels to the uprights which normally requires drilling of the glass and which is also not pleasing aesthetically.

[0004] Moreover the uprights normally allow assembly of the panels only at certain angles, usually in alignment or orthogonal one in relation to the other, so that an adequate number of different uprights has to be provided in order to be able to meet the different needs of installation, as well as ad hoc uprights made for angles of the panels different from those indicated above.

[0005] EP 2453074 A2 describes a post for making barriers comprising a main profile and an auxiliary profile determining in coupling two vertical seats, normally opposed, suitable for housing a vertical edge of a panel of glass.

[0006] DE 10 2010 018368 describes a post made up of auxiliary profiles which determine with a main profile vertical seats, normally aligned or orthogonal one in relation to the other.

[0007] The object of the invention is that of eliminating or at least reducing the disadvantages of the prior art illustrated above.

[0008] More particularly an object of the invention is that of providing a post for making wind barriers which does not require the drilling of the glass panels for their assembly. Yet another object of the invention is that of providing such a post which allows the assembly of the panels at different angles.

[0009] Yet another object is that of providing such a post suitable for housing fittings, such as led lighting elements or others.

[0010] Yet another object is that of providing such a post which is versatile, of pleasing aesthetic appearance and simple and fast to assemble.

[0011] These and other objects of the post for barriers in glass according to the invention are achieved with the features of the appended independent claim 1.

[0012] Advantageous embodiments of the invention are disclosed by the dependent claims.

[0013] Substantially the post according to the invention comprises a tubular support with a shaped base plate for the attachment to the floor or to a platform, a main profile suitable for being inserted on the tubular support and

fixed thereto, and auxiliary profiles suitable for being applied and fixed to the main profile so that vertical seats (40) able to house a vertical edge of a glass panel are formed between adjacent auxiliary profiles and between auxiliary profiles and the main profile.

[0014] The invention also relates to wind barriers made with the post according to the invention.

Further features of the invention will be made clearer by the following detailed description, referred to a purely non-limiting example thereof, illustrated in the accompanying drawings in which:

- Fig. 1 is a partial view, partially blown up, of a post for glass barriers according to the invention, showing schematically two glass panels, one assembled and one being assembled;
- Figs. 2 and 2a are, respectively, a front elevation view and a plan view from above of the support of the post according to the invention;
- Fig. 3 is a blown-up plan view from above, or in cross section, showing the profiles which are mounted on the support to make the post according to the invention;
- Fig. 3a is a partial view like Fig. 3 showing the attachment of the edge of a pane of glass;
- Fig. 4 is a sectioned view of the post according to the invention, with a fixed panel and a door-panel assembled;
- Fig. 5 is a possible barrier configuration which can be obtained with posts according to the invention.

[0015] Referring to these drawings, the post according to the invention has been denoted overall by reference numeral 10. It comprises a support 11 and profiles 20, 21 suitable for being assembled on the support 11 to determine the outer contour of the post, and provided with seats and means for the attachment of panes of glass, as will be described in greater detail here below.

[0016] The support 11 is conveniently made up of a metal pipe 12 and by a shaped base plate 13 having holes 14 for the attachment to the floor or to a platform by means of screws not shown. The shaped plate 13 has a contour which reproduces that of the profiles 20, 21 when they are assembled which, in the attached drawings, is round, substantially semicircular with rounded base, it being however evident that this contour is not limiting and could take on other configurations.

[0017] The profile 20, which will be referred to as main profile, has a central tubular element 22 for the assembly on the pipe 12 of the support 11 and the securing thereto by means of dowels 30. Two almost diametrically opposed straight sections 23 project from the tubular element 22 (in actual fact placed on the extensions of a chord of the circular section of the tubular element 22 at a short distance from the diameter parallel thereto) joined by a wide radius curved section 24 suitable for forming a portion of the outer contour of the post 10, which contour

is completed by a plurality of auxiliary profiles 21, two in the example given in the drawings.

[0018] The auxiliary profiles 21 are sections approximately shaped as circular sectors having in section straight lateral sections 25 oriented approximately radially towards the axis of the tubular element 22, externally joined by a circular section 26, centrally where to a rectangular groove or seat 40 open frontally and directed radially is provided.

[0019] The auxiliary profiles 21 are attached to the main profile 20 by means of screws 27 which traverse holes provided on the base of said seats 40 and are screwed in protuberances 28 provided on said tubular element 22.

[0020] In the assembled condition the straight lateral sections 25 of adjacent auxiliary profiles 21 form one in relation to the other and with the corresponding straight sections 23 of the main profile 20 other seats 40 wholly similar to those provided in the auxiliary profiles.

In the example given, the seats 40, as will be illustrated more clearly here below, serve to house the edges of panes of glass 50, are five in total and are suitable for housing panes of glass positioned at 0°, 45°, 90°, 135° and 180°.

[0021] On the flat walls 23, 25 of the seat 40 opposite vertical seats 41 are provided for housing gaskets 42 suitable for sealing against the glass panel 50.

[0022] For the assembly, if a seat 40 is used, formed in one of the auxiliary profiles 21, the glass panel 50 is assembled by insertion therein. If instead a seat 40 is used between adjacent auxiliary profiles 21 or between secondary profiles and main profile 20 an edge of the glass panel 50 can be positioned against a flat wall 23 or 25 and blocked in position following assembly of the corresponding auxiliary profile 21.

[0023] The seats 40 which are not used in the composition of the barrier can be closed by filling profiles 43, or used to house fittings, such as led lighting elements or the like.

[0024] The post according to the invention likewise provides the possibility of assembling, in the aforesaid seats 41 for gaskets, a door support profile 51, securely blocked against the base of the corresponding seat 40 by means of at least one dowel 55, and suitable for housing, in a manner in itself known, hinges 52 for rotationally supporting a glass panel 53 acting as leaf door, as schematically shown in Figure 4.

[0025] The post 10 is completed by an upper closure plug 60 (Fig. 1), preferably in aluminium like the various profiles which compose it.

[0026] Figure 5 shows, purely by way of an example, a possible barrier composition which can be obtained with the posts according to the invention.

[0027] The minimum distance between the posts 10 has been considered as 2.0 m and the height of the glass panels 50 as 1.70 m, measurements to be intended in any case as purely indicative and dependent on design needs. The thickness of the glass, conveniently of a hard-

ened type, was considered as 8.0 or 10 mm.

[0028] An important aspect of the post according to the invention is that it allows assembly of glass without having to make holes and therefore simplifying the phase of assembly. In fact the posts with the various fittings can be supplied to the various operators who can perform the installation and the insertion of the glass at local level.

[0029] Naturally the invention is not limited to the particular embodiment previously described and illustrated in the accompanying drawings, but numerous detail changes may be made thereto, within the reach of the person skilled in the art, without thereby departing from the scope of the invention itself as defined in the appended claims.

Claims

1. A post (10) for making barriers for delimiting areas, comprising a tubular support (12) with a shaped base plate (13) able to be fixed to a floor or to a platform, a main profile (20) able to be inserted on the tubular support and fixed thereto, and an auxiliary profile (21), **characterized in that** it comprises further auxiliary profiles (21) able to be applied and fixed to the main profile (20) such that vertical seats (40) able to house a vertical edge of a glass panel (50) are formed between adjacent auxiliary profiles (21) and between auxiliary profiles and the main profile (20).
2. Post according to claim 1, wherein said main profile (20) has a central tubular element (22) for the mounting on and the stabilization to said tubular support (12) by means of dowels (30), from the tubular support (22) projecting two almost diametrically opposed straight sections (23) joined by a wide radius curved section (24) apt to form a portion of the outer contour of the post (10), which contour is completed by a plurality of said auxiliary profiles (21).
3. Post according to claim 2, wherein said auxiliary profiles (21) are sections substantially shaped as circular sectors having straight lateral sections (25) oriented almost radially towards the axis of said tubular element (22), externally joined by a circular section (26), the straight lateral sections (25) of adjacent auxiliary profiles (21) forming therebetween and with the corresponding straight sections (23) of the main profile (20) at least some of said seats (40) apt to house the edge of a glass panel (50).
4. Post according to any one of the previous claims, wherein each of said auxiliary profiles (21) has centrally a respective vertical seat (40) frontally opened and radially oriented, apt to house the edge of a glass panel (50).
5. Post according to anyone of the previous claims,

wherein opposed vertical seats (41) for housing gaskets (42) apt to seal the glass panel (50) are provided in said seats (40).

6. Post according to claim 5, wherein said seats (41) 5
for gaskets are able to house a profile for supporting
a door (51), securely blocked against the bottom of
the corresponding seat (40) by means of at least a
dowel (55), and able to house hinges (52) for rota- 10
tionally supporting a glass panel (53) acting as a leaf
door.
7. Post according to any one of the previous claims,
wherein said seats (40) are five in total and are ar- 15
ranged to house glass panels disposed at 0°, 45°,
90°, 135° and 180°.
8. Post according to any one of the previous claims,
wherein filling profiles (43) are provided, able to close 20
the seats (40) which are not used in the composition
of the barrier, and an upper closure plug (60).
9. Post according to any one of the previous claims,
wherein said seats (40) which are not used in the 25
composition of the barrier are able to house fittings,
such as led lighting elements or the like.
10. A barrier for delimiting areas formed with a plurality
of posts (10) according to any one of the previous 30
claims.

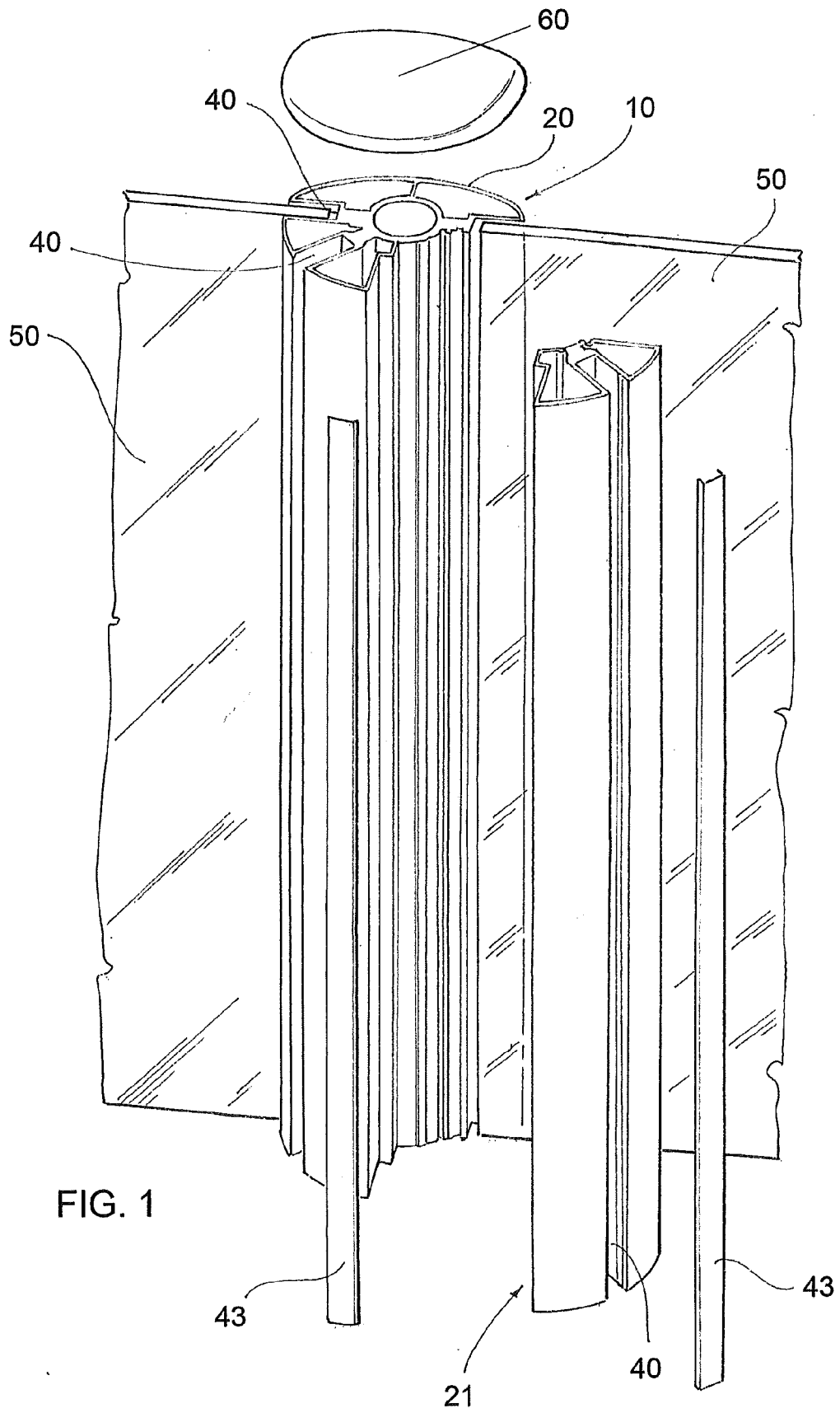
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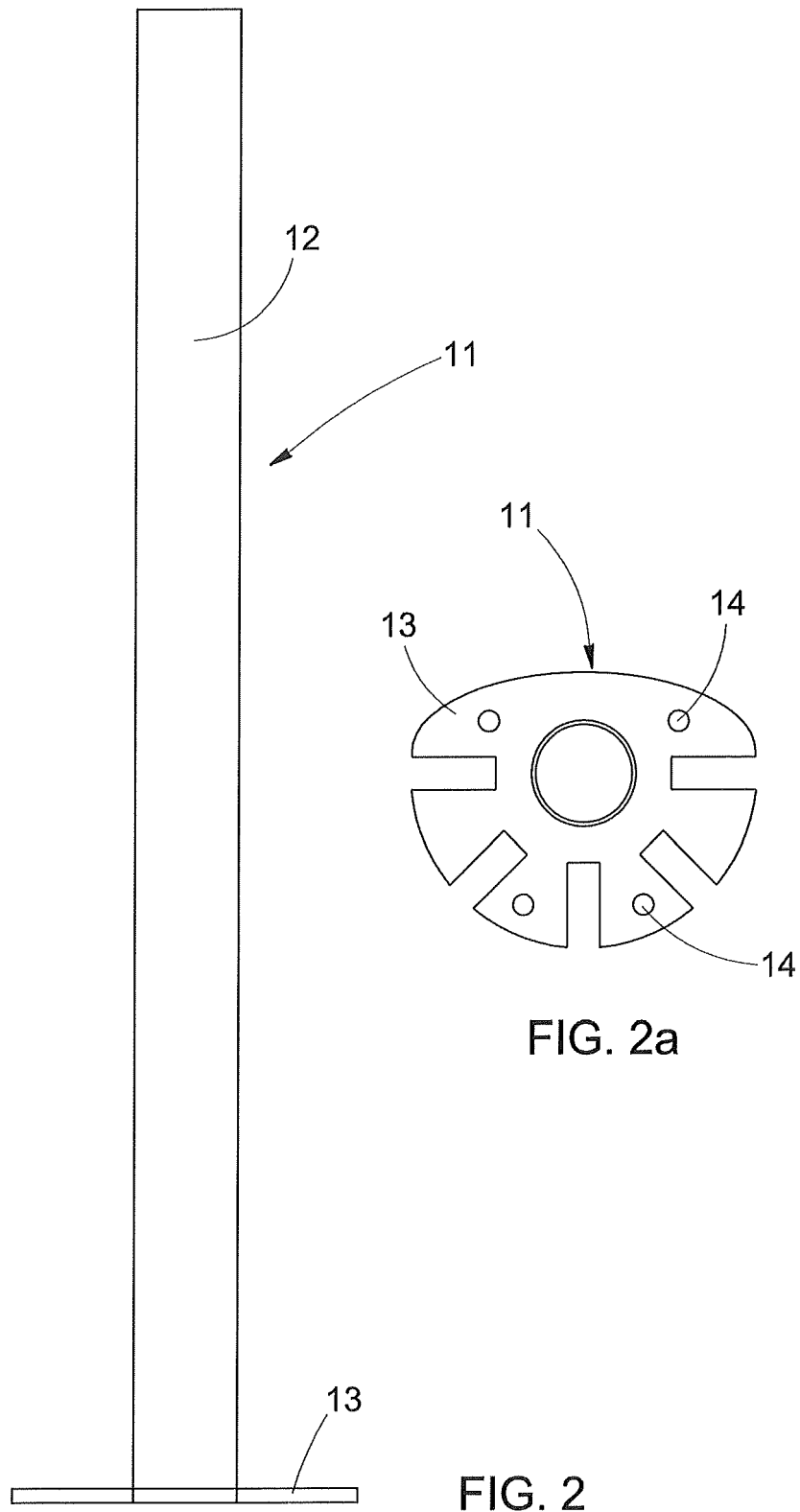
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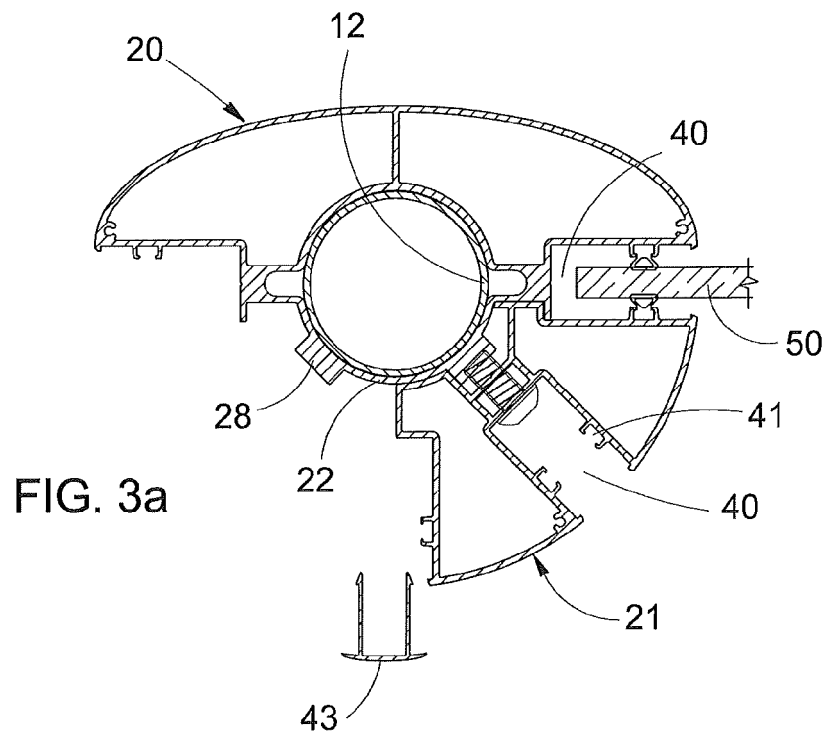
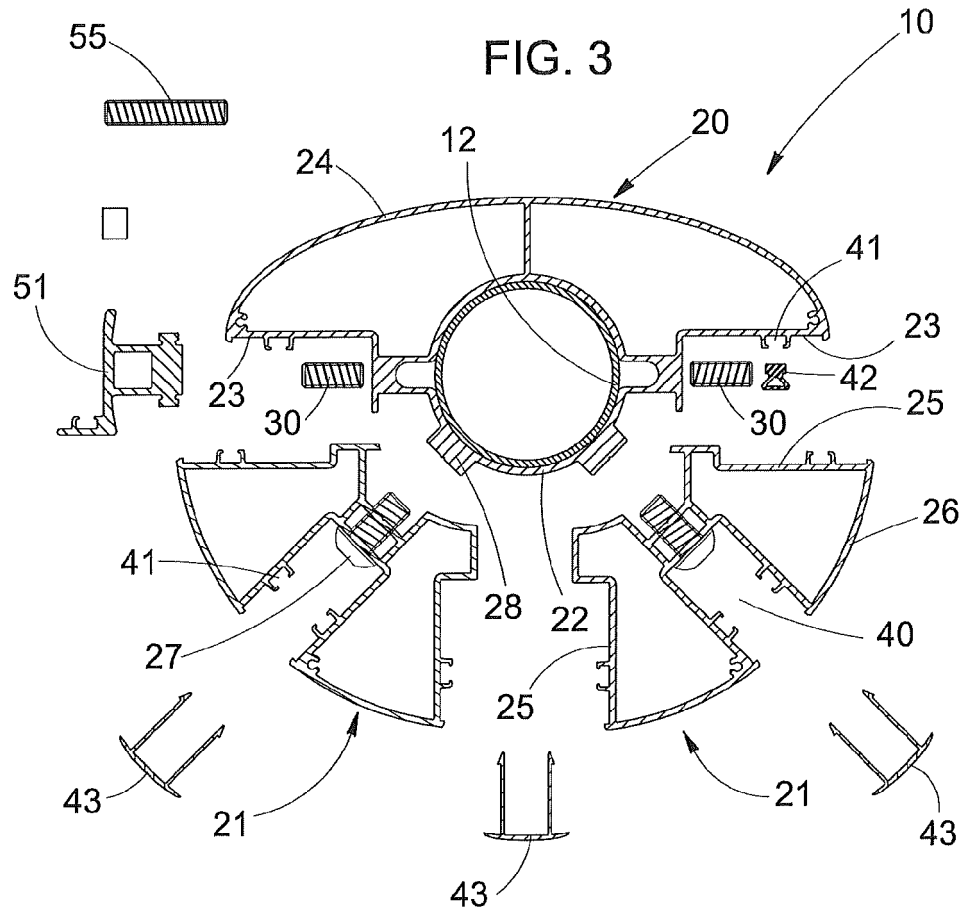
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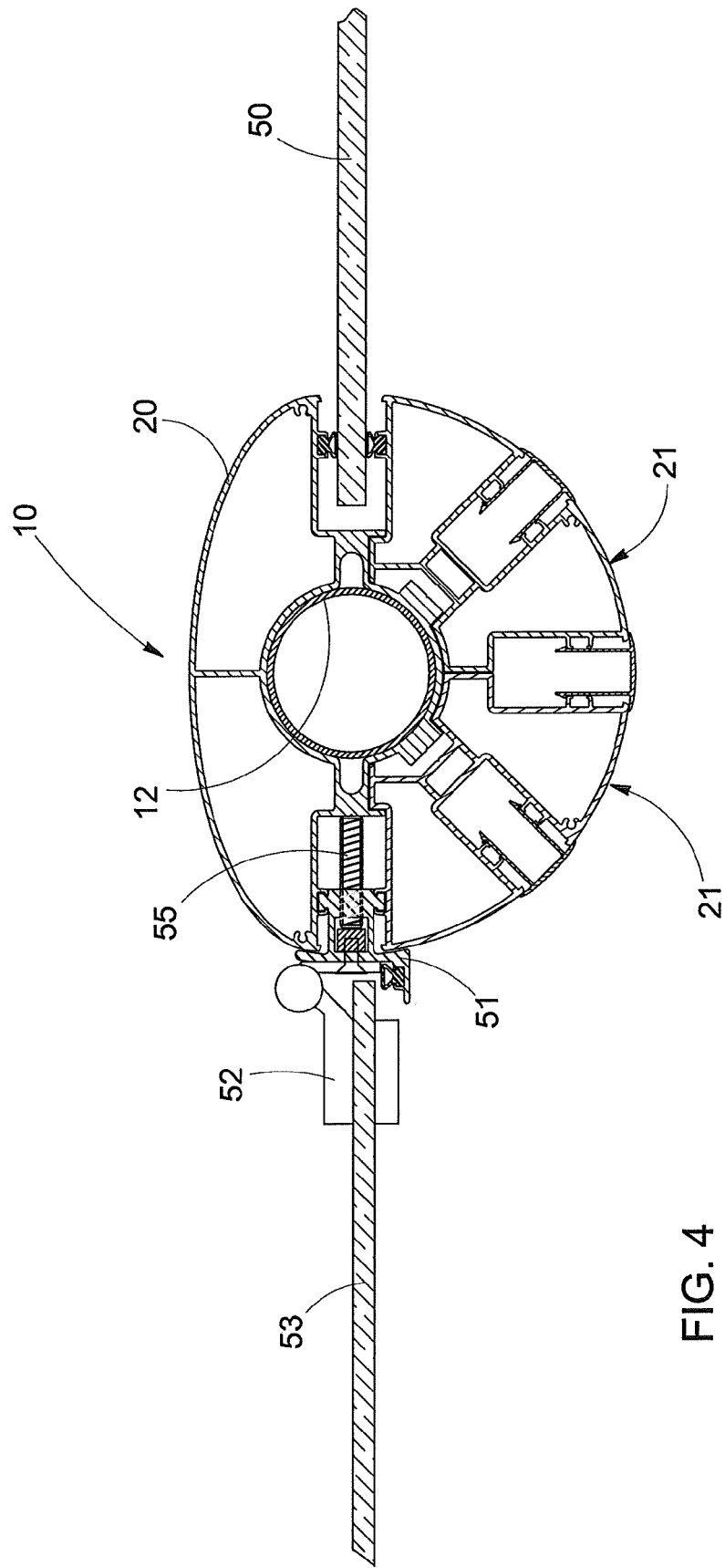


FIG. 4

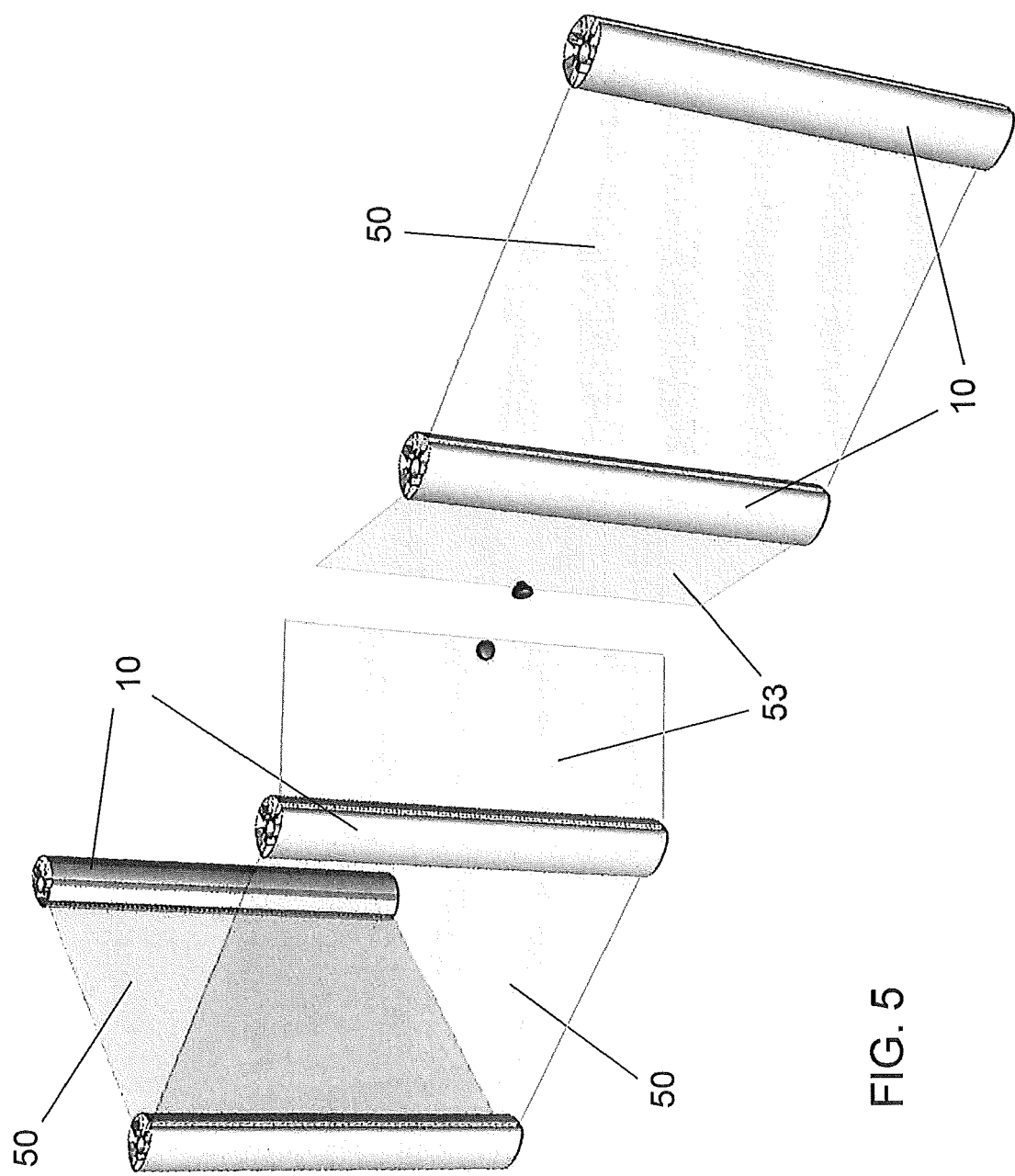


FIG. 5



EUROPEAN SEARCH REPORT

Application Number
EP 14 18 6276

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	EP 2 453 074 A2 (HUBBARD ARCHITECTURAL METALWORK LTD [GB]) 16 May 2012 (2012-05-16) * paragraphs [0009], [0014], [0015]; figures 1a,1b,2,3,4 *	1-10	INV. E04B2/74 E04F11/18 E04H17/16
A	DE 10 2010 018368 A1 (DORMA GMBH & CO KG [DE]) 4 November 2010 (2010-11-04) * claims 1,8; figures 1-5 *	1-10	
A	NL 1 023 729 C2 (AXEDEX SPECIAL PRODUCTS B V [NL]) 28 December 2004 (2004-12-28) * figure 2 *	1-10	
			TECHNICAL FIELDS SEARCHED (IPC)
			E04B E04F E04H
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 16 January 2015	Examiner Rosborough, John
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 14 18 6276

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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16-01-2015

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- EP 2453074 A2 [0005]
- DE 102010018368 [0006]