(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 September 2007 (13.09.2007)

PCT

(10) International Publication Number
WO 2007/102015 A1

(51) International Patent Classification:
E04H 17/16 (2006.01) *E04G 21/32* (2006.01)

(21) International Application Number:
PCT/GB2007/000832

(22) International Filing Date: 5 March 2007 (05.03.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0604764.1 9 March 2006 (09.03.2006) GB
0621016.5 23 October 2006 (23.10.2006) GB

(71) Applicant and
(72) Inventor: **MCINTYRE, George, Raymond** [GB/GB]; 365 Fareham Road, Gosport, Hampshire PO13 0AD (GB).

(74) Agent: **BROOKS, Nigel**; Hill Hampton, East Meon, Petersfield, Hampshire GU32 1QN (GB).

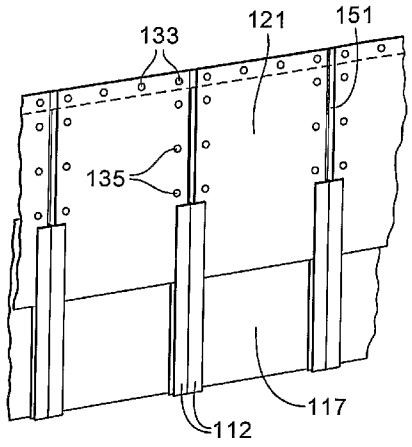
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** TEMPORARY HOARDING



(57) **Abstract:** A temporary hoarding has a framework (102) of plastics material extrusions, including a pair of upright sides (103, 104) and top, intermediate and bottom cross members (105, 106, 107). The uprights are hollow, square section (110) extrusions with integral F-section guides (112) provided at their front faces, for a non-adjustable front panel (117) and an adjustable rear panel (121), these also being of plastics material. Telescopically received inside the uprights are secondary uprights (151), slotted (152) at their tops. The hoarding is secured in place both at its top and its bottom. At the bottom, a hook and loop fastener strip (153) is bonded to the underside of the bottom cross member, with a complementary strip (154) bonded to the floor F. At the top, an F section extrusion (131) is fixed in any suitable manner, particularly with screws to the ceiling C. It has a first flange (132) against which the top of the adjustable panel (121) is abutted and fixed with screws indicated at (133). The secondary uprights are lifted to the ceiling extrusion, their slots (152) receiving the second flange (134) of the extrusion (131). End ones of the screws (133) fasten the panel (121), the uprights (151) and the extrusion (131) together.

WO 2007/102015 A1

TEMPORARY HOARDING

The present invention relates to a temporary hoarding, particularly though not exclusively, for use during construction or refurbishment of a building.

Temporary hoardings are typically used to conceal construction and building work from general view for safety, security and aesthetic reasons. They are normally single use apparatuses built to the specific dimensions of the particular area that is to be covered by the hoarding.

The object of the present invention is to provide an improved temporary hoarding.

According to the invention there is provided a temporary hoarding for erection between a floor and a ceiling, the hoarding comprising:

- a generally rectangular framework, adapted to stand on a floor,
- a non-adjustable hoarding panel supported on the framework to extend up from the floor,
- an adjustable hoarding panel supportable on the framework between the top of the fixed panel and the ceiling, and
- support means attachable to the ceiling for supporting the top of the adjustable hoarding panel.

It is envisaged that the temporary hoarding may include:

- a stabiliser hinged to the framework for deployment behind the hoarding to stabilise the hoarding in an upright position.

Preferably the stabiliser for such a temporary hoarding will have an adjustable leg for adjusting the uprightness of the hoarding.

In another embodiment the temporary hoarding will include:

- fastening means for fastening the bottom of the frame to the floor.

Preferably, the fastening means is a hook and link fastener.

Normally, the panels will be arranged with the non-adjustable panel overlapping in front of a part of the adjustable panel. However the panels can be arranged with the adjustable panel overlapping in front of the non-adjustable panel.

The framework and the non-adjustable panel can be arranged with the panel surrounded by frame members. However in the preferred embodiment, the non-adjustable panel and the adjustable panel can be arranged in front of the frame members, being located in channels incorporated in the frame members.

Normally, the framework will be a rectangular framework and include:

- a pair of upright in use, non-adjustable side members along respective sides of the non-adjustable panel and
- a respective pair of adjustable side members for the adjustable panel, these latter side members being telescopically received in the former side members.

Preferably wherein the temporary hoarding is adapted by provision of apertures in either or both of the pairs of side members to be secured to another adjacent temporary hoarding as by fastenings engaging in the apertures.

The support means can be brackets securing the adjustable hoarding panel the ceiling. Alternatively:

- the support means can be a channel member fixable to the ceiling for receiving the top of the adjustable panel and/or the top of adjustable side members and securing it and/or them to the ceiling;
- the support means can be a flanged member fixable to the ceiling providing abutment against which the top of the adjustable panel and/or the adjustable members can abut for securing it and/or them to the ceiling.

To help understanding of the invention, a specific embodiment thereof will now be described by way of example and with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a wall of temporary hoardings of the invention;

Figure 2 is a cross-sectional side view of one of the hoardings of Figure 1;

Figure 3 is a front view of the frame only of one of the hoardings of Figure 1, with its stabiliser folded in;

Figure 4 is a side view of the frame of Figure 3, with its stabiliser folded out;

Figure 5 is a scrap plan view of a joint between two temporary hoardings at a level where an upper adjustable and lower non-adjustable panels over lap;

Figure 6 is a perspective view of another series of temporary hoardings of the invention;

Figure 7 is a horizontal cross-sectional view of the one hoarding of Figure 6, taken on the line VII-VII in Figure 8; and

Figure 8 is a vertical cross-sectional view of the hoarding, taken on the line VIII-VIII in Figure7.

Referring first to Figures 1 to 5 the drawings, a series of temporary hoardings 1 are erected between a ceiling C and a floor F.

Each individual hoarding has plastic coated steel box section framework 2, comprised of a pair of uprights 3,4, top, intermediate and bottom cross-members 5,6,7 and a panel height clamping member 8 depending from the intermediate cross member.

The upright 3 has a pair of longitudinally extending slots 9, whilst the upright 4 has captive nuts 10 at corresponding heights, whereby adjacent hoardings can be bolted 11 together at slightly varying heights, to accommodate floor unevenness.

The uprights have F-section guides 12 (of aluminium or plastics material) riveted to them along side faces 14. The guides provides a channel 15 at its flanges 16 in which a non-adjustable panel 17 of fire-resistant material is positioned with the edge trims 18 accommodating slack between the width of the channel and the thickness of the panel. Tight fit of the panel and its trims in the channel is not necessary, since in the use the panel can rest on the floor.

The guides define a further channel 18 between the inner flange 16 and the front face 19 of the uprights for an adjustable panel 21, also having edge trims 22. This panel can be adjusted up to the ceiling. It is held in position be a clamp 23 having a clamp bolt 24 for securing its position on the depending member 8. The clamp is secured to the adjustable panel at a position behind the non-adjustable panel 17.

A further F channel 31 is secured to the ceiling and receives the top of the adjustable pane. Thus the hoarding closes the floor to the ceiling with similar adjacent panels providing a continuous wall.

The hoardings are stabilised individually in their up right positions by stabilising arms 41 hinged to one of the uprights. Each arm has a triangulation brace 42 and a height adjustable foot, for accommodating unevenness of the floor.

Turning now to Figures 6, 7 & 8, a second, lighter weight temporary hoarding will now be described. It has a framework 102 of plastics material extrusions, including a pair of upright sides 103,104 and top, intermediate and bottom cross members 105,106,107.

The uprights are hollow, square section 110 extrusions with integral F-section guides 112 provided at their front faces, for a non-adjustable front panel 117 and an adjustable rear panel 121, these also being of plastics material. The cross members are bonded to the inside faces 114 of the uprights.

Telescopically received inside the uprights are secondary uprights 151, of square section plastics extrusion, internally reinforced with steel tube where the application is expected to place considerable bending stresses on these uprights. These uprights are slotted 152 at their tops.

The hoarding is secured in place both at its top and its bottom. At the bottom, a hook and loop fastener strip 153 is bonded to the underside of the bottom cross member, with a complementary strip 154 bonded to the floor F. At the top, an F section extrusion 131 is fixed in any suitable manner, particularly with screws (not

shown) to the ceiling C. It has a first flange 132 against which the top of the adjustable panel 121 is abutted and fixed – again with screws indicated at 133. This fixing will normally support the panel's weight. The secondary uprights are lifted to the ceiling extrusion, their slots 152 receiving the second flange 134 of the extrusion 131. End ones of the screws 133 fasten the panel 121, the uprights 151 and the extrusion 131 together. Further screws 135 fix the panel to the uprights down their extent to the frame work 102.

Where the hoarding is fully extended vertically and extra assurance is required of the support of the adjustable panel and the upper uprights, screws 136 can be secured parallel with the top cross member through the two pairs of uprights where they overlap.

Further adjacent hoardings can also be screwed 137 together at their uprights.

It will be appreciated that the above described temporary hoardings are advantageous in being adjustable in height and assembled width, robust, lightweight, demountable, easily transportable and re-useable.

CLAIMS:

1. A temporary hoarding for erection between a floor and a ceiling, the hoarding comprising:
   - a generally rectangular framework, adapted to stand on a floor,
   - a non-adjustable hoarding panel supported on the framework to extend up from the floor,
   - an adjustable hoarding panel supportable on the framework between the top of the fixed panel and the ceiling, and
   - support means attachable to the ceiling for supporting the top of the adjustable hoarding panel.

2. A temporary hoarding as claimed in claim 1, including:
   - a stabiliser hinged to the framework for deployment behind the hoarding to stabilise the hoarding in an upright position.

3. A temporary hoarding as claimed in claim 2, wherein the stabiliser has an adjustable leg for adjusting the uprightness of the hoarding.

4. A temporary hoarding as claimed in any preceding claim, including:
   - fastening means for fastening the bottom of the frame to the floor.

5. A temporary hoarding as claimed in claim 4, wherein the fastening means is a hook and link fastener.

6. A temporary hoarding as claimed in any preceding claim, wherein the panels are arranged with the non-adjustable panel overlapping in front of a part of the adjustable panel.

7. A temporary hoarding as claimed in any one of claims 1 to 5, wherein the panels are arranged with the adjustable panel overlapping in front of the non-adjustable panel.

8. A temporary hoarding as claimed in any preceding claim, wherein the framework and the non-adjustable panel are arranged with frame members of the framework at least partially surrounding the non-adjustable panel.

9. A temporary hoarding as claimed in any one of claims 1 to 7, wherein the framework and the two panels are arranged with the non-adjustable panel and the adjustable panel in front of the framework, the panels being located in channel members incorporated in the framework.

10. A temporary hoarding as claimed in any preceding claim, wherein the framework is a rectangular framework and includes:

- a pair of upright in use, non-adjustable side members along respective sides of the non-adjustable panel and
- a respective pair of adjustable side members for the adjustable panel, these latter side members being telescopically received in the former side members.

11. A temporary hoarding as claimed in claim 10, wherein the framework has a top frame member attached between the tops of the non-adjustable side members.

12. A temporary hoarding as claimed in any preceding claim, wherein the temporary hoarding is adapted by provision of apertures in either or both of the pairs of side members to be secured to another adjacent temporary hoarding as by fastenings engaging in the apertures.

13. A temporary hoarding as claimed in any preceding claim, wherein the support means comprises brackets for securing the adjustable hoarding panel to the ceiling.

Fig.1

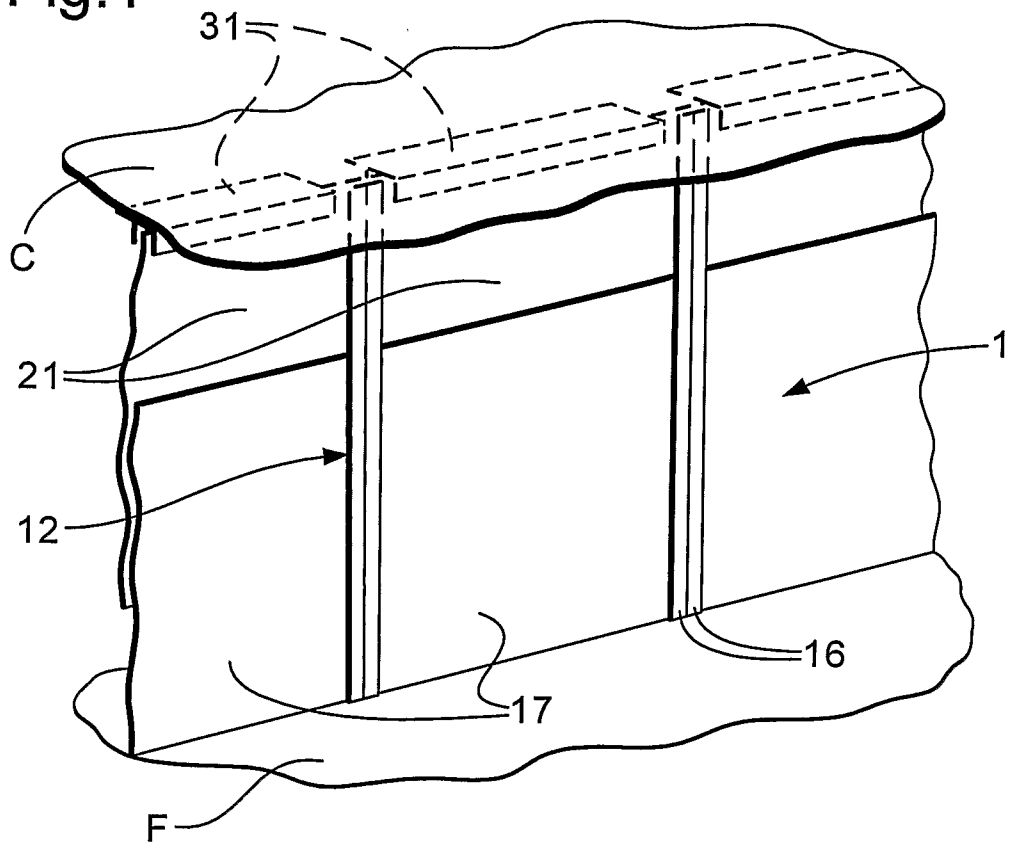


Fig.2

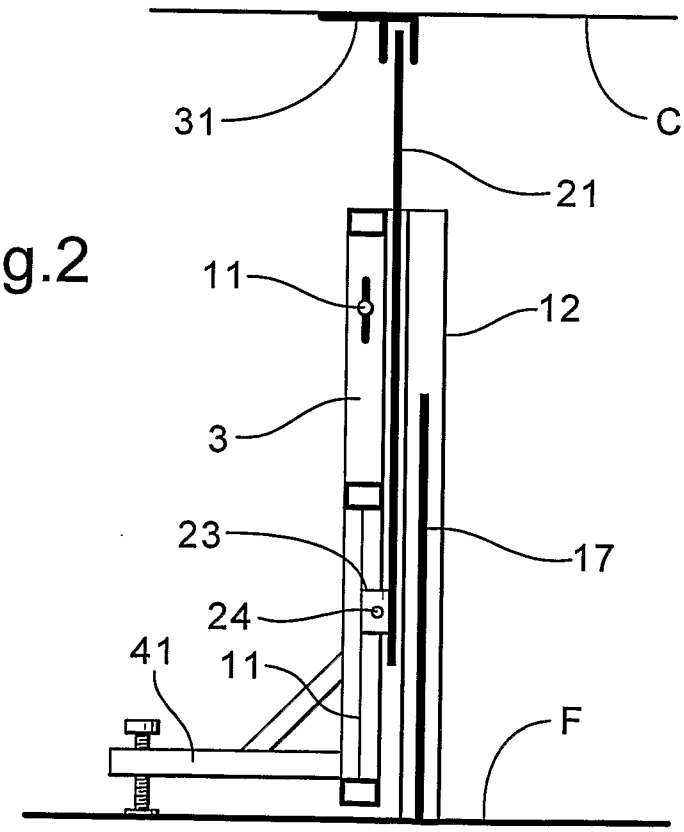


Fig.3

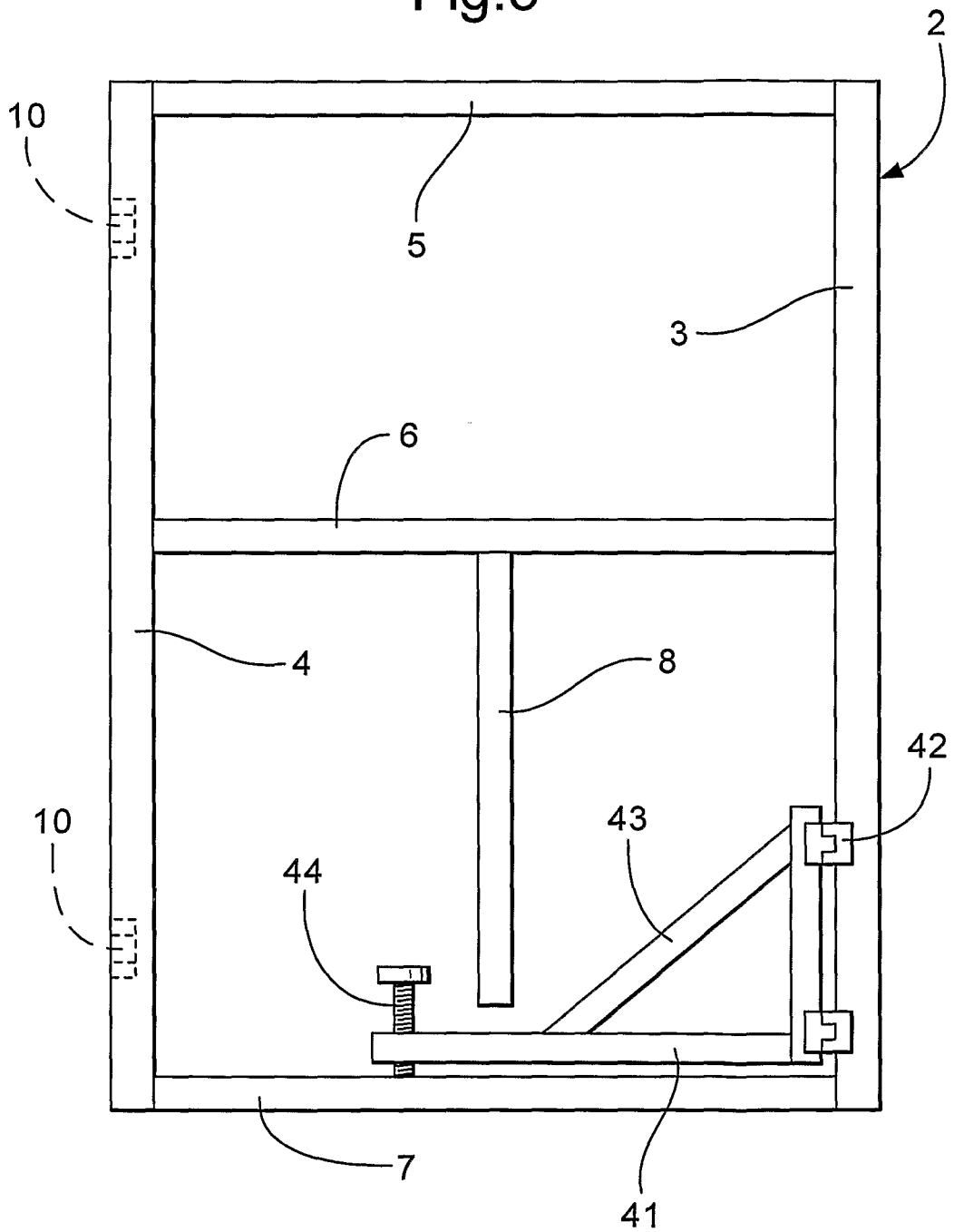


Fig.4

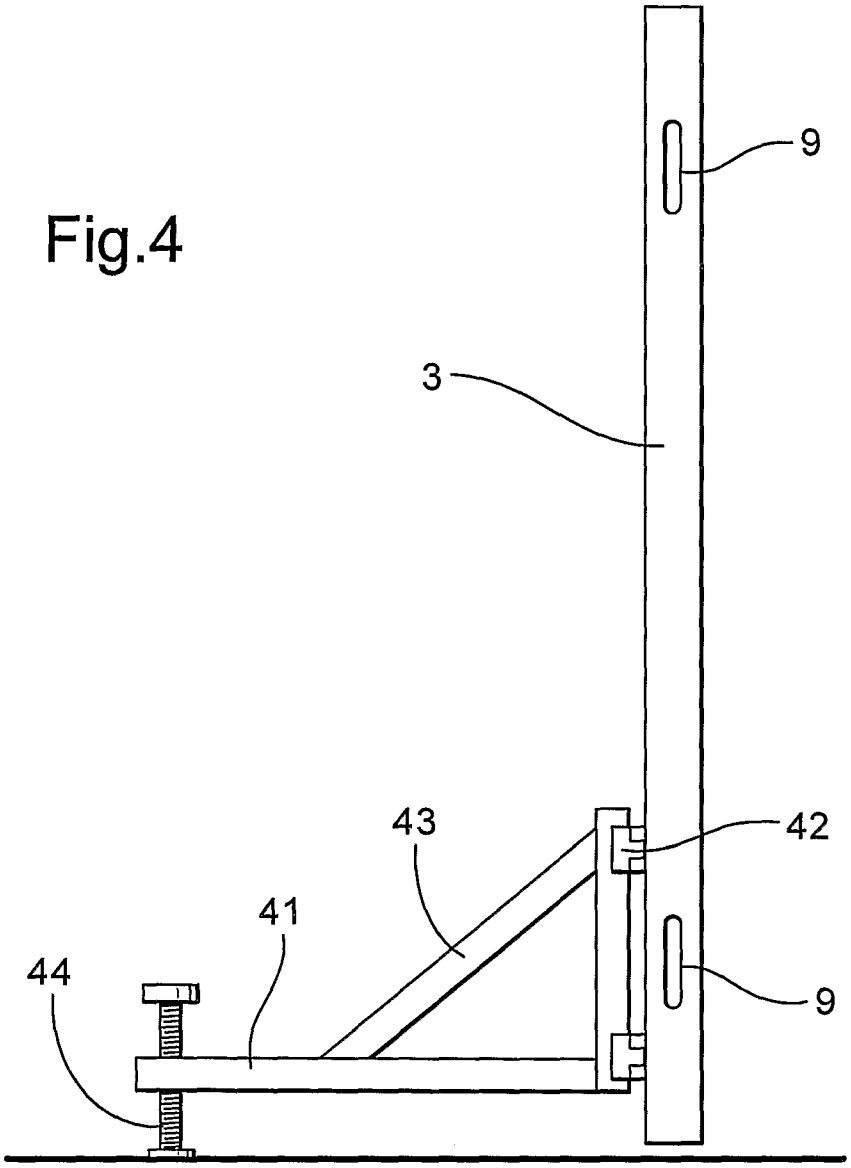


Fig.5

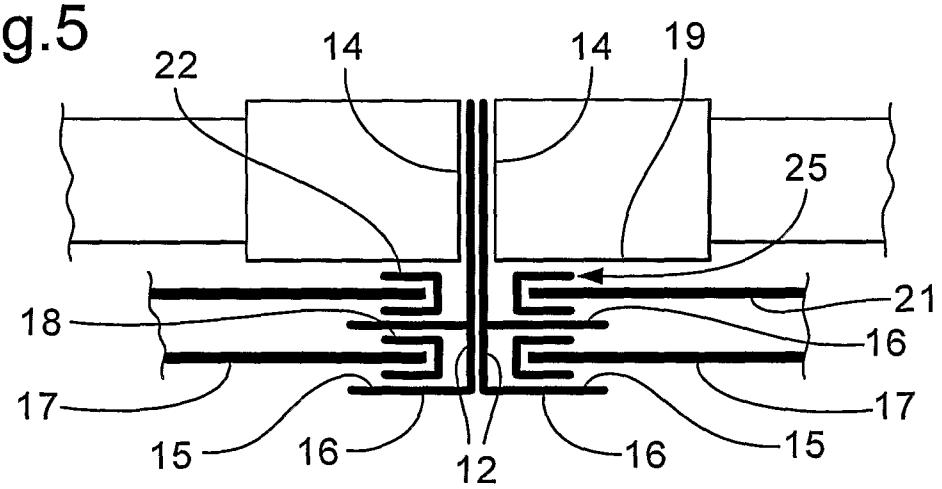


Fig.6

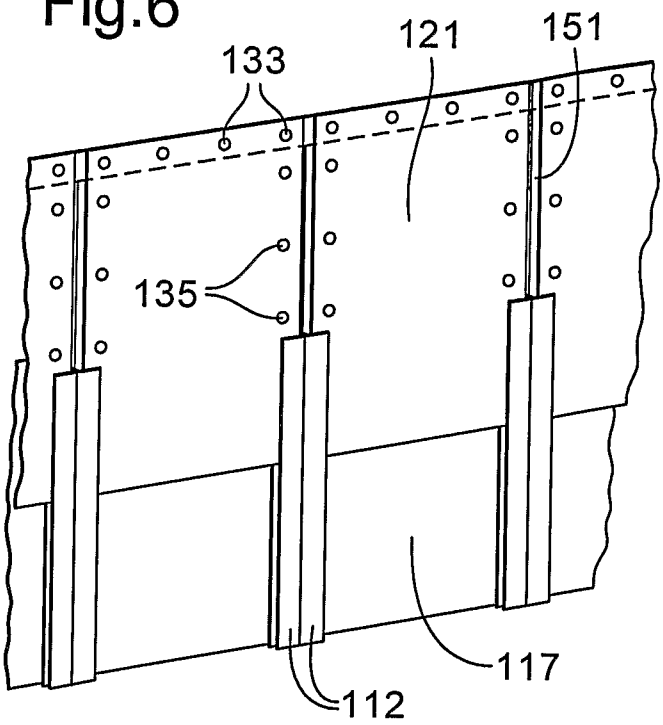


Fig.8

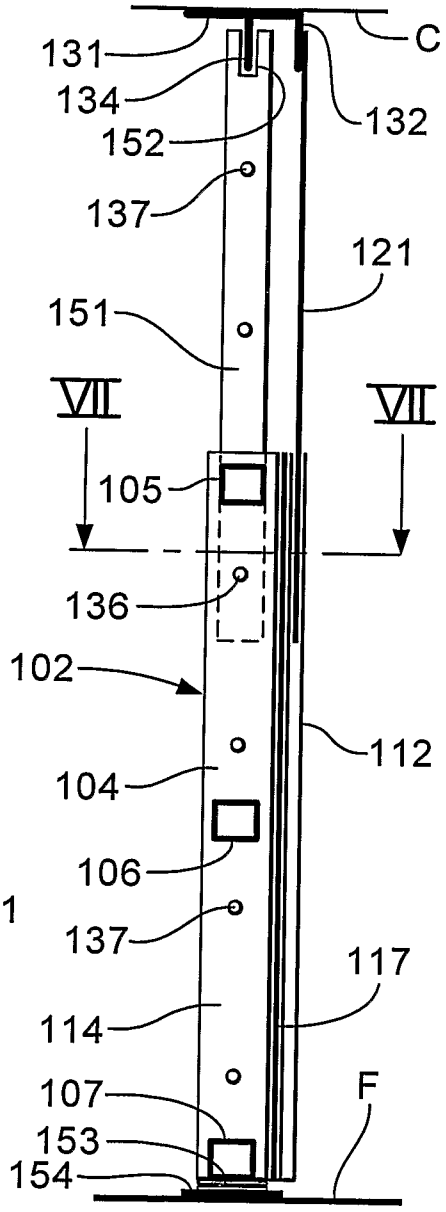
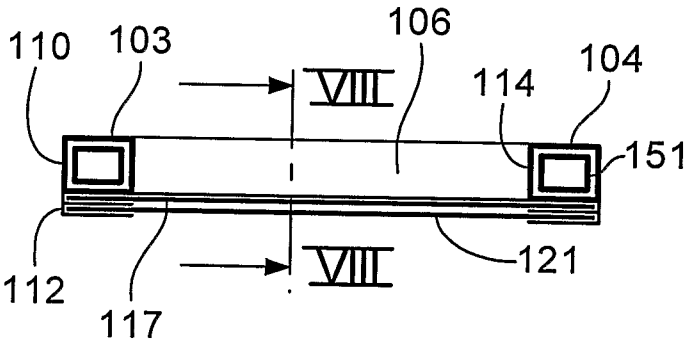


Fig.7



INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2007/000832

A. CLASSIFICATION OF SUBJECT MATTER
INV. E04H17/16 E04G21/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
E04H E04G E01F G09F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01/20105 A (MATHIAS ANDREW [AU]; REDWIN ANDREW [AU]) 22 March 2001 (2001-03-22) page 9, line 3 - page 11, line 24; figures 4-9	1,4, 8-10,12
A	CA 2 292 262 A1 (FENCE PEOPLE LTD [CA]) 16 June 2001 (2001-06-16) page 1, line 7 - line 16 page 3, line 23 - page 8, line 25; figures 1-8	1-4,8, 10-12
A	US 2002/095843 A1 (EDMUNDS MARC [GB] ET AL) 25 July 2002 (2002-07-25) page 1, paragraph 2 page 2, paragraph 24 page 3, paragraph 40 - paragraph 51; figures 1-3,6A-8	1-4, 10-12

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
29 June 2007	05/07/2007
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Stefanescu, Radu

3

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2007/000832

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0120105 A	22-03-2001	EP 1230462 A1	14-08-2002
		US 2002121063 A1	05-09-2002
CA 2292262 A1	16-06-2001	US 6557666 B1	06-05-2003
US 2002095843 A1	25-07-2002	GB 2371627 A	31-07-2002