11) Publication number:

0 357 214 A3

12

EUROPEAN PATENT APPLICATION

(21) Application number: 89307520.0

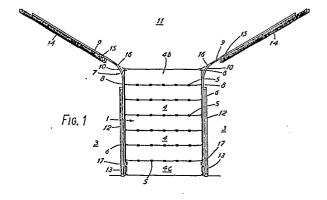
22 Date of filing: 24.07.89

(s) Int. Cl.⁵: **E 05 F 1/16**

E 05 F 15/02

- 30 Priority: 22.07.88 GB 8817499
- 43 Date of publication of application: 07.03.90 Bulletin 90/10
- 24 Designated Contracting States: DE FR IT NL
- Bate of deferred publication of search report: 28.03.90 Bulletin 90/13
- (7) Applicant: THE HENDERSON GROUP LIMITED Tapton Park Road Sheffield S10 3FS (GB)
- (72) Inventor: Marshall, Michael Albert Sidney Eskdale Janmead Hutton Essex CM13 2PU (GB)
- (74) Representative: Lambert, Hugh Richmond et al D. YOUNG & CO. 10 Staple Inn London, WC1V 7RD (GB)

- (54) An opening and closing assembly for a sectional up and over panel.
- An up and over door assembly is disclosed comprising a door (1) constructed of hinged horizontal panels (4) guided by inverted L-shaped tracks (not shown) between a vertical closed position and a raised open position in which the door panel lies horizonally above the door opening. Characteristically the lift mechanism comprises two pairs of preferably rodless piston and cylinder units (12,14), one pair (12) to lift and take the weight of the door initially, and the other pair (16) to pull it into the open position.



EUROPEAN SEARCH REPORT

89 30 7520

	DOCUMENTS CONSIDERED	TO BE RELEVAN	т	
Category	Citation of document with indication, wi		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Α	US-A-2 625 390 (J.D. McFA * Column 1, lines 5-21; co 36-44; column 2, line 53; lines 41-42; figure 1 *	lumn 2. lines	1,4	E 05 F 1/16 E 05 F 15/02
A	CH-A- 194 711 (A. SPAGNO * Page 1, column 2, lines column 1, paragraph 3; fig	6-11; page 2.	1	
A	US-A-4 519 297 (R. LIPINS * Column 1, lines 15-24; f	KI) igure 1 *	2	
				TECHNICAL FIELDS SEARCHED (Int. Cl.5)
				E 05 F E 05 D
	The present search report has been drawn u	o for all claims		
THE		nate of completion of the search	GUIL	Examiner LAUME G.E.P.
	CATEGORY OF CITED DOCUMENTS icularly relevant if taken alone	T : theory or principl E : earlier patent doc after the filing da	ument, but publi	invention ished on, or

- 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

- after the filling date

 D: document cited in the application
 L: document cited for other reasons
- & : member of the same patent family, corresponding document