



(11) Publication number : **0 612 904 A3**

(12) **EUROPEAN PATENT APPLICATION**

(21) Application number : **94301392.0**

(51) Int. Cl.<sup>5</sup> : **E05D 1/00, E05D 1/02**

(22) Date of filing : **28.02.94**

(30) Priority : **26.02.93 GB 9303919**

(43) Date of publication of application :  
**31.08.94 Bulletin 94/35**

(84) Designated Contracting States :  
**DE ES FR IT**

(88) Date of deferred publication of search report :  
**10.05.95 Bulletin 95/19**

(71) Applicant : **Smith, Michael Thomas**  
**85 St Georges Road,**  
**Swanley**  
**Dartford, Kent DA8 8AZ (GB)**

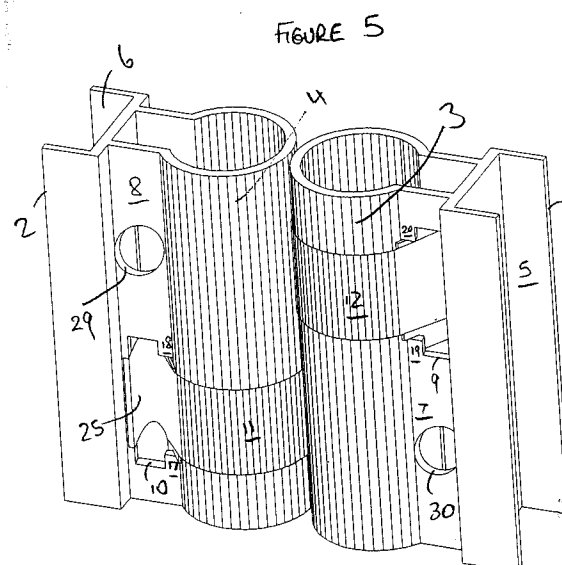
(72) Inventor : **Smith, Michael Thomas**  
**85 St Georges Road,**  
**Swanley**  
**Dartford, Kent DA8 8AZ (GB)**

(74) Representative : **Stancliffe, Terence**  
**Christopher**  
**18 Ryfold Road,**  
**Wimbledon**  
**London SW19 8BZ (GB)**

(54) **Hinge arrangements, their construction and use.**

(57) A frictionless hinge arrangement comprises two hinge components (1,2), each having a hinge surface (3,4), the hinge surfaces (3,4) confronting each other, and connected hingedly close together by a plurality of thin pliable connecting straps (11,12), of which each such strap passes between the confronting surfaces (3,4) of the two hinge components (1,2), thus very slightly separating them; the straps (3,4) being disposed in approximately s-shape and reverse s-shape arrangement alternately in one sense and in the other to allow the adjacent hinge surfaces (3,4) to roll on each other (with the straps (11,12) in between) when the hinge is opened or closed, each strap being secured fixed on each side in relation to a respective one of the hinge components; wherein on each side, each of the flexible straps (11,12) is provided with a lug (13,14) accommodated in a slot or socket formation (9,10) associated with one of the hinge parts (thus fixing the lug in relation to one of the hinge parts), so that the slot or socket formation (9,10) retains the lug (13,14) and the associated end of the strap against movement lengthwise relative to the hinge parts (1,2) as well as against disassembly by any pulling-forces exerted on the flexible strap (11,12). The end of the flexible strap that forms part of the snap-in fixing can be accessible by a user's hand or by a tool to allow the complementary formations to be dislodged and thereby disassembled. The hinges (and kits of parts for making them) are applicable for example to fold-up displays, space frames, constructional display systems, folding or other hinged doors and partitions for office furniture, dividers, doors and gates, as well as almost any

other application requiring hinge function. In such hinge arrangements the ends of the flexible straps can be provided with springy folded-back tongue extensions to help retain the lugs in engagement with the socket formations.





European Patent  
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# EUROPEAN SEARCH REPORT

Application Number  
EP 94 30 1392

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
D,X Y	GB-A-2 189 290 (COMO & CO) * column 4, line 115 - line 118; figures 5-8 *	1,2,7 3,4,8	E05D1/00 E05D1/02
Y A	FR-A-2 015 976 (NEWTON AND TAYLOR) * page 1, line 40 - page 2, line 12 * * page 2, line 29 - page 3, line 33 * * page 4, line 19 - page 5, line 14 * * page 5, line 22 - page 6, line 13; figures 1-8 *	3,4 5	
A	US-A-3 516 115 (KOLESKE) * column 3, line 37 - line 55; figures 1-8 *	3,4	
D,Y	GB-A-2 101 202 (KEPAC) * column 4, line 94 - line 114; figure 17 *	8	
The present search report has been drawn up for all claims			<b>TECHNICAL FIELDS SEARCHED (Int.Cl.5)</b>  E05D
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>3 March 1995</b>	Examiner <b>Guillaume, G</b>
<b>CATEGORY OF CITED DOCUMENTS</b> 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			

EPO FORM 1503 03.92 (P04C01)