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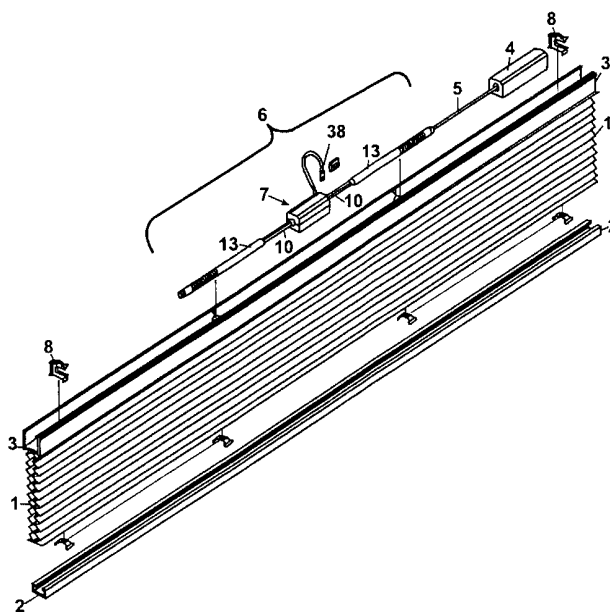
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(54) Title: CONTROL AND MOTORIZATION SYSTEM



(57) Abstract: A system for effecting and controlling opening and closing of window shades (1) which recognizes and responds to obstructions as well as provides touch control of the lift system of the shade (1). The device has a head rail (3), a moving rail (2) and a shade (1) therebetween. The head rail (3) has a motor (4) therein to operate a drive shaft (5). The drive shaft (5) extends through a hollow shaft (10) and sliding shaft (13) and is connected to a torque sensing and control mechanism (7). The drive shaft (5) drives the torque sensing and control mechanism (7) which in turn drives hollow shaft (10) which drives and slidingly engages sliding shaft (13), around which lift cords (9) are wound and unwound as the shade (1) is raised and lowered, respectively.



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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.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :A47H 5/00
US CL :160/84.02

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)

U.S. : 160/84.02, 84.06, 168.1R, 171R, 173R

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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,178,200 A (HAGEN) 12 January 1993, see entire document.	1-12
Y, P	US 6,047,760 A (JUDKINS) 11 April 2000, see entire document.	6,12
X ---, P Y	US 6,116,320 A (PETERSON) 12 September 2000, see entire document.	13-16 ----- 1-12

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

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"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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"O" document referring to an oral disclosure, use, exhibition or other means		
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