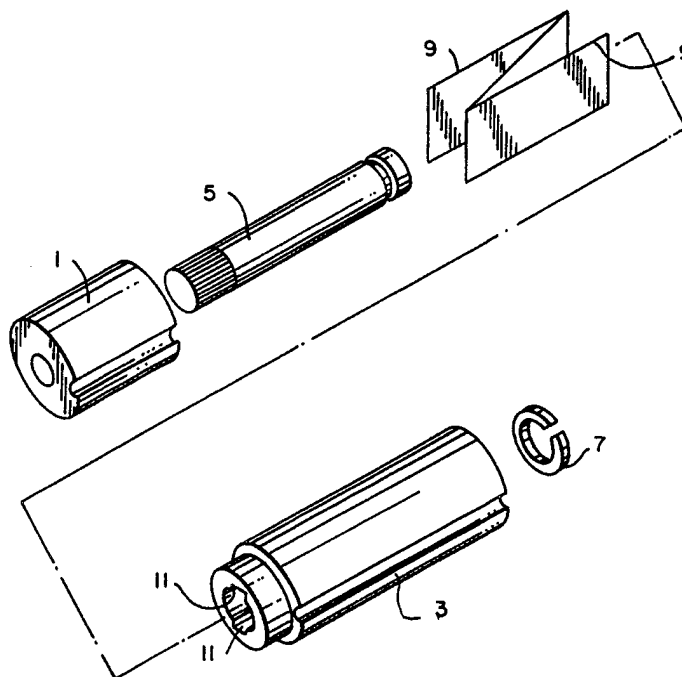




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(54) Title: FRICTION HINGE WITH DETENT CAPABILITY



(57) Abstract

The present invention provides a small, cylindrical hinge, or pivoting pin (5), which can be configured to produce various profiles of torque versus angle. The desired profile of torque versus angle is achieved by the shapes of the hinge shaft and the spring plates (9) of the hinge. Detents at one or more angular positions can be achieved, with or without frictional damping torque at other angles. The friction of our hinge is produced symmetrically about the hinge axis, eliminating the problems associated with asymmetric construction.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US98/05475

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :E05D 11/08

US CL :16/278,342

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. : 16/278,303,342; 296/97.12

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.
X	US 2,591,246 A (EVEREST et al) 01 April 1952 (01/04/52), 1993 (17-08-93) See Figs 1-3.	1-6,8 and 9
P, X	US 5,715,575 A (KUBOTA) 10 FEBRUARY 1998 (10/02/98), See Figs 4,16 and 18.	1-4,6,7 10-13 and 17
X	US 2,772,916 A (JONES) 04 DECEMBER 1956 (04/12/56), See Fig. 7.	1,3,6-9 and 13-15
X	SU 1,559,080 A (DENI) 23 APRIL 1990 (23.04/90). See Figs. 1-5	1,6,8,10 18 and 19

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

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 4,234,760 A (BENNSTEDT) 21 April 1994 (21/04/94), See Figs 1-4.	1,6 AND 9-11
A	US 3,910,627 A (MEYER) 07 October 1975 (07/10/75).	
A	US 4,617,699 A (NAKAMURA) 21 October 1986 (21/10/86).	
A	US 5,364,149 A (AYMERICH et al) 15 November 1994 (15/11/94).	