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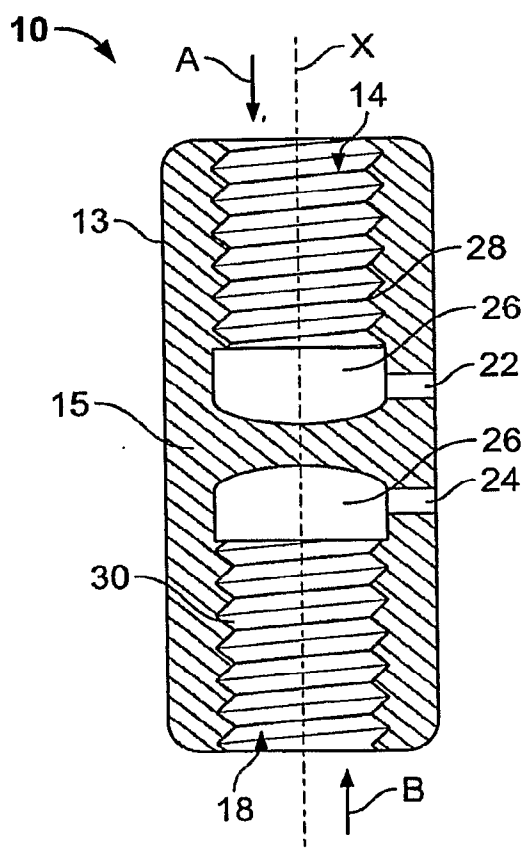
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[Continued on next page]

(54) Title: FASTENER ASSEMBLY



(57) Abstract: A fastener coupler (10) includes a first securing member configured to receive and retain a first fastener within a first inner cavity (14), wherein at least one passage (22) is formed through the first securing member, and a setting indication material (26) within at least a portion of the first inner cavity. The setting indication material (26) is configured to extrude through the first passage (22) when the first fastener is urged into the setting indication material in order to indicate that the first fastener is properly secured to the first securing member.



FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,
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INTERNATIONAL SEARCH REPORT

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B. FIELDS SEARCHED

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F16B

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 27 07 492 A1 (BOSTIK GMBH) 24 August 1978 (1978-08-24)	1,2,4, 6-11, 13-19
Y	page 15, paragraph 2 - page 16, paragraph 1; figures 3,4	3,12
Y	----- US 2005/244216 A1 (MAGRAW MICHAEL [US]) 3 November 2005 (2005-11-03) paragraph [0028] - paragraph [0040] paragraphs [0042], [0046], [0052], [0053]; figure 3b	3,12
X	----- GB 990 402 A (NUTS & BOLTS DARLASTON LTD) 28 April 1965 (1965-04-28) page 1, line 27 - line 46 page 2, line 57 - line 70 figures 7,8 ----- -/-	1,6-9, 18,19

☒ 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	US 5 752 795 A (D ADAMO BRUCE [US]) 19 May 1998 (1998-05-19) column 7, line 5 - line 42; figure 8 -----	1,6-9, 15-19
X	US 4 752 151 A (ASHIDA MASANOBU [JP] ET AL) 21 June 1988 (1988-06-21)	1,2, 6-11, 14-20
Y	claims 1-3,11; figures -----	5,14
Y	US 1 988 813 A (SEGUIN OSCAR J) 22 January 1935 (1935-01-22) left-hand column, line 24 - line 35; figure 1 -----	5,14

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
DE 2707492	A1	24-08-1978	JP	53103223 A	08-09-1978
US 2005244216	A1	03-11-2005	WO	2005111449 A2	24-11-2005
GB 990402	A	28-04-1965	NONE		
US 5752795	A	19-05-1998	NONE		
US 4752151	A	21-06-1988	JP	2835837 B2	14-12-1998
			JP	62078334 A	10-04-1987
US 1988813	A	22-01-1935	NONE		