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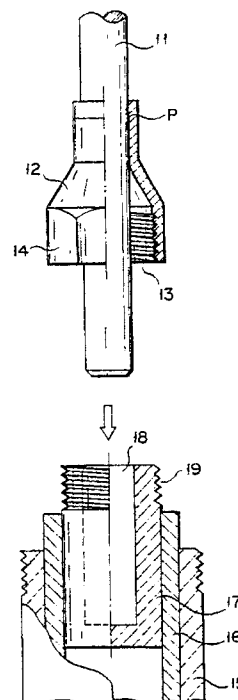
(11) Publication number:

0 380 231 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **90300465.3**(51) Int. Cl.⁵: **H01Q 1/12**(22) Date of filing: **17.01.90**(30) Priority: **23.01.89 JP 6213/89**(43) Date of publication of application:
01.08.90 Bulletin 90/31(84) Designated Contracting States:
DE ES FR GB IT SE(88) Date of deferred publication of the search report:
27.03.91 Bulletin 91/13(71) Applicant: **HARADA INDUSTRY CO., LTD.**
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A.A. THORNTON & CO. Northumberland
House 303-306 High Holborn
London WC1V 7LE(GB)(54) **A whip antenna for use in vehicles.**

(57) A whip antenna for vehicles including an antenna element (11) with a skirt-form coupling member (12, 22, 32) provided on the antenna element. The coupling member is, at a predetermined point on the antenna, prevented from moving toward the lower end of the antenna and has a screw thread (13, 23, 33) on its inner surface. The lower end of the antenna is inserted into an antenna attachment base (15) installed in a vehicle body, and the coupling member is screwed to this antenna attachment base.

**FIG. 1****EP 0 380 231 A3**



Application Number

EP 90 30 0465

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)
X,Y	US-A-2 886 814 (WILLIAMS) * column 2, lines 9 - 51; figures 1, 2 * - - -	1,2,4,6	H 01 Q 1/12
X,Y	US-A-3 138 660 (CEJKA) * column 2, lines 5 - 68; figure 1 * - - -	1,2,4,6	
Y	GB-A-2 046 529 (WELLS) * page 4, lines 69 - 122; figure 10 * - - -	2,4,6	
E	EP-A-0 370 715 (HARADA) * abstract; figures 1-14 * - - - - -	1,2,5	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			H 01 Q F 16 D F 16 B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of search 29 January 91	Examiner ANGRABEIT F.F.K.
CATEGORY OF CITED DOCUMENTS 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	