



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 0 859 376 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
03.02.1999 Bulletin 1999/05

(51) Int Cl.⁶: **H01B 17/32**

(43) Date of publication A2:
19.08.1998 Bulletin 1998/34

(21) Application number: **98301061.2**

(22) Date of filing: **13.02.1998**

(84) Designated Contracting States:
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventors:
• **Fujii, Shuji**
Virginia Beach, VA 23452 (US)
• **Koshino, Yukihiro**
Tajimi City, Gifu Pref. (JP)

(30) Priority: **13.02.1997 JP 28687/97**

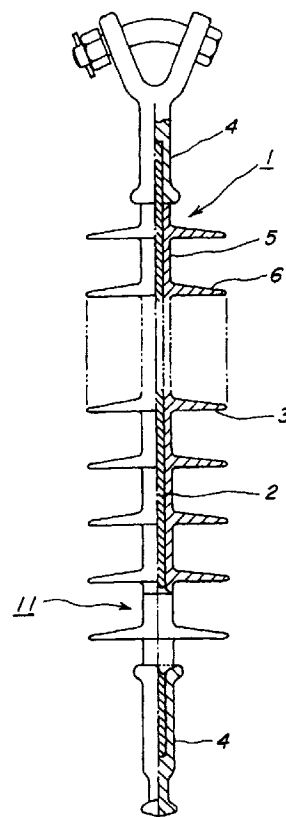
(74) Representative: **Paget, Hugh Charles Edward et al**
MEWBURN ELLIS
York House
23 Kingsway
London WC2B 6HP (GB)

(71) Applicant: **NGK INSULATORS, LTD.**
Nagoya City Aichi Pref. (JP)

(54) **Polymer insulator**

(57) A disclosed polymer insulator has an FRP rod, an insulation overcoat member made of rubber which is arranged on an outer surface of the FRP rod, and securing metal fittings which are secured and fixed to both ends of the FRP rod. In the polymer insulator mentioned above, a reinforcing portion for achieving a long life thereof which is arranged on a line side portion of the insulation overcoat member to which a high stress of electric field is applied (first aspect). Moreover, in the polymer insulator mentioned above, the line side portion of the insulation overcoat member is made of a low temperature vulcanizing rubber (second aspect) or a high elastic rubber (third aspect).

FIG. 1



EP 0 859 376 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 30 1061

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.6)
X	EP 0 439 411 A (SOC. NOUVELLE DES ETABL. DERVAUX) 31 July 1991 * column 3, line 56 - column 5, line 17 *	1	H01B17/32
A	* column 5, line 46 - column 6, line 17; figures 3,5 *	2,5,7	
X	EP 0 675 509 A (NGK INSULATORS) 4 October 1995 * column 4, line 1 - column 7, line 54; figure 1 *	1	
A		2,5,7	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 10 December 1998	Examiner Demolder, J
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	

EPO FORM 1503 03/82 (P04.C01)