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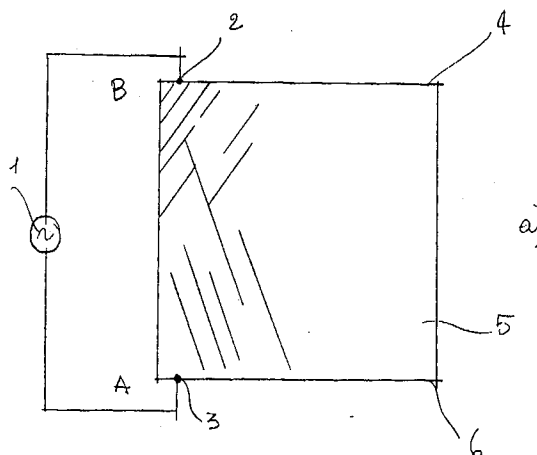
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**09.12.92 Bulletin 92/50**(71) Applicant: **SELENIA SPAZIO S.p.A.**  
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**Patentanwalt Dipl.-Ing. Gerhard Gustorf**  
**Bachstrasse 6 A**  
**W-8300 Landshut(DE)**(54) **Carbon-fiber based device for heating antennas, preferably for use in space.**

(57) Heating device for reflecting surfaces of antennas based on carbon fiber, which besides performing a structural function and reflecting electromagnetic waves also provides the heating of the same surfaces in order to melt ice or snow, and is also capable of controlling thermal deformations. This consists essentially of one or more layers of carbon fiber (5), immersed in a resin wherein the electrodes (A), (B) are located, which connected to a generator (G) allow the current to pass into the fabric of carbon fibers providing the heating to a desired temperature depending on the applied voltage, the characteristics of the fiber layer and the shape and arrangement of the electrodes (A), (B).

The invention relates to the technical field of reflectors for microwave antennas and finds its preferred application in the field of satellite communications.

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## EUROPEAN SEARCH REPORT

Application Number

EP 92 10 1035

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	US-A-4 972 197 (MCCAULEY ET AL.) * column 2, line 32 - line 68; figures 1-6 *	1-3	H01Q1/02
X	US-A-4 955 129 (MCCAULEY ET AL.) * claim 1; figures 1-8 * ---	1-3	
A	EP-A-0 030 479 (RAYCHEM) * abstract * -----	1-3	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			H01Q
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06 OCTOBER 1992	Examiner ANGRABEIT F.F.K.
<b>CATEGORY OF CITED DOCUMENTS</b>			
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	