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(54) **Electrode with brazed separator and method of making same**

(57) An electrode for a plasma arc torch and method of fabricating the same are disclosed, and wherein the electrode comprises a copper holder defining two coaxial cavities. An emissive element is secured to one of the cavities and serves as the cathode terminal for the arc during operation. A relatively non-emissive separator is disposed about the emissive element within the other cavity, and acts to separate the copper holder and the emissive element, as well as resisting detachment of the arc from the emissive element and attachment to the copper holder.

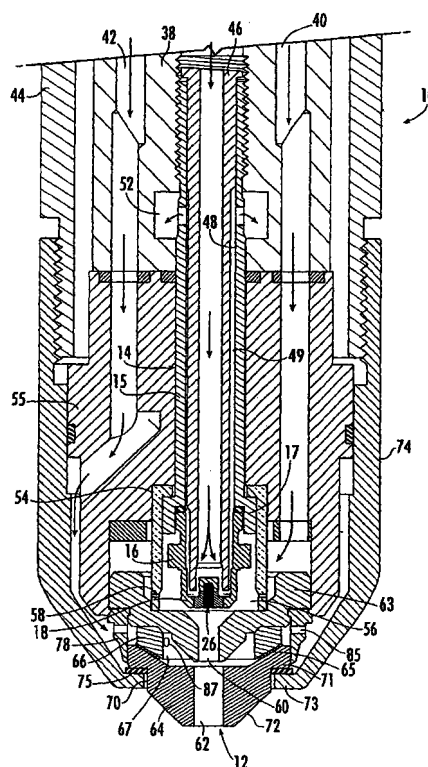


FIG. 1.

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EUROPEAN SEARCH REPORT

Application Number
EP 01 30 8236

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A	PATENT ABSTRACTS OF JAPAN vol. 0101, no. 18 (M-475), 2 May 1986 (1986-05-02) & JP 60 247491 A (KOIKE SANZO KOGYO KK), 7 December 1985 (1985-12-07) * abstract *	14-16, 19, 24-26, 35,36,38	
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 19 April 2004	Examiner Capostagno, E
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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