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ADRIAN [CA/CA]; 5145 Cote St-Luc, Apt. 17, Montreal, Québec H3W 2H5 (CA). **ROBERGE, Raymond** [CA/CA]; 363 Louis Quevillon, Boucherville, Québec J4B 1E4 (CA).

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(74) Agents: **SWABEY OGILVY RENAULT** et al.; Suite 1600, 1981 McGill College Avenue, Montréal, Québec H3A 2Y3 (CA).

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(71) Applicant (*for all designated States except US*): **H POWER ENTERPRISES OF CANADA INC.** [CA/CA]; 6140 Henri Bourassa, St-Laurent, Québec H4R 3A6 (CA).

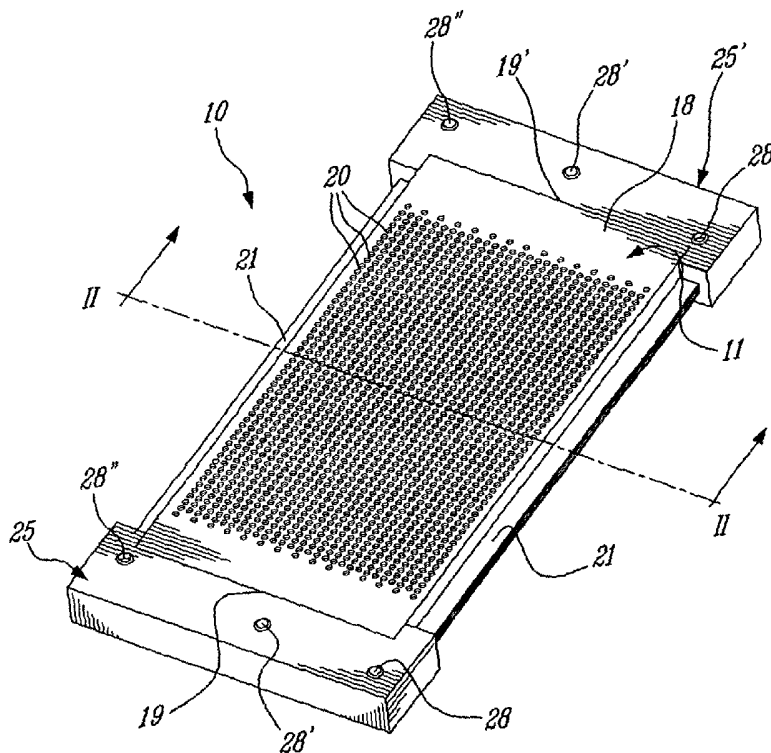
(72) Inventors; and

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(75) Inventors/Applicants (*for US only*): **CONDEESCU,**

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(54) Title: BIPOLAR SEPARATOR PLATE ASSEMBLY FOR A FUEL CELL



(57) Abstract: A liquid cooled bipolar separator plate assembly for use in the construction of a fuel cell, is described. The bipolar separator plate assembly comprises a pair of rectangular perforated distributor plates disposed in spaced parallel relationship by an intermediate structure. This structure may be comprised of two separated plates (12,12') of undulated cross-section with each plate defining longitudinal peaks and valleys. The separator plates are also rectangular plates and are interconnected in back-to-back relationship at the peaks (13) to form a group of inner adjacent cooling liquid channels (15) therebetween and a first and second group of outer gas channels (16,17) on opposed outer sides of the interconnected separator plates. The peaks on the outer sides are secured to a respective one of the perforated distributor plates (11,11'). The perforated distributor plates and separator plates are sealingly secured together along their opposed side edges. The inner cooling liquid channels and the outer gas channels

are opened at opposed end edges of the interconnected separator and distributor plates. An end manifold (25) is sealingly secured to each of the opposed end edges. The end manifolds each have interconnecting conduits to interconnect the cooling liquid channels together and the first and second groups of gas channels, respectively, together.



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 A. CLASSIFICATION OF SUBJECT MATTER  
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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, WPI Data, PAJ, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 00 31815 A (INST GAS TECHNOLOGY) 2 June 2000 (2000-06-02) page 3, line 4 -page 4, line 1 page 6, line 3 -page 7, line 1 figures 1,3	1,2,6,9, 14
A	EP 0 851 518 A (GEN MOTORS CORP) 1 July 1998 (1998-07-01) page 3, line 14 - line 37 page 4, line 12 - line 56 figures 2,5,6	1,2,4,14
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 Patent family members are listed in annex.

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 Name and mailing address of the ISA  
 European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Gamez, A

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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