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(54) Refrigerator for cryogenic gas separation system

(57) A cryogenic gas separation system which comprises a refrigerator and utilizes cold produced by the refrigerator as a cold source for separation of a gas. The refrigerator incorporates a rotary valve which comprises a rotary element rotatable about an axis thereof and having a circular cross section perpendicular to the axis, and a housing accommodating the rotary element in a rotatable manner. The rotary element has a plurality of ports provided in an outer peripheral portion thereof, the housing having a plurality of ports provided in a peripheral wall thereof in association with the ports of the rotary element, the rotary valve being operative to be switched between a position where predetermined ones of the ports of the rotary element are aligned with corresponding ones of the ports of the housing for communication therebetween and a position where the predetermined ones of the ports of the rotary element are displaced in non-alignment with the corresponding ones of the ports of the housing for non-communication therebetween by rotation of the rotary element. The valve incorporated in the refrigerator has a smaller size and an extended service, and the cryogenic gas separation system can obtain a sufficient amount of cold with the use of the refrigerator.

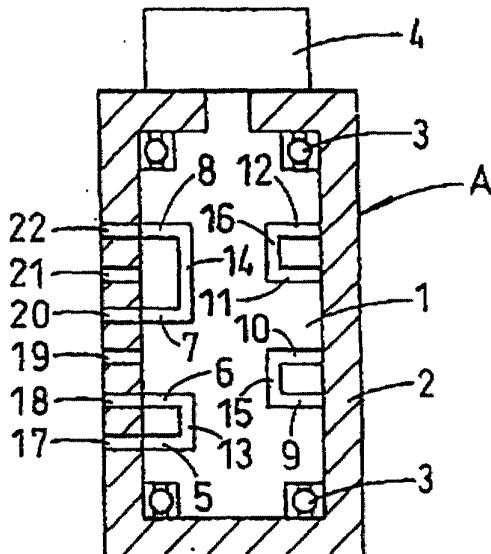


Fig. 1



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EUROPEAN SEARCH REPORT

Application Number
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Place of search	Date of completion of the search	Examiner	
MUNICH	2 August 2002	Göritz, D	
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X : particularly relevant if taken alone	T : theory or principle underlying the invention		
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