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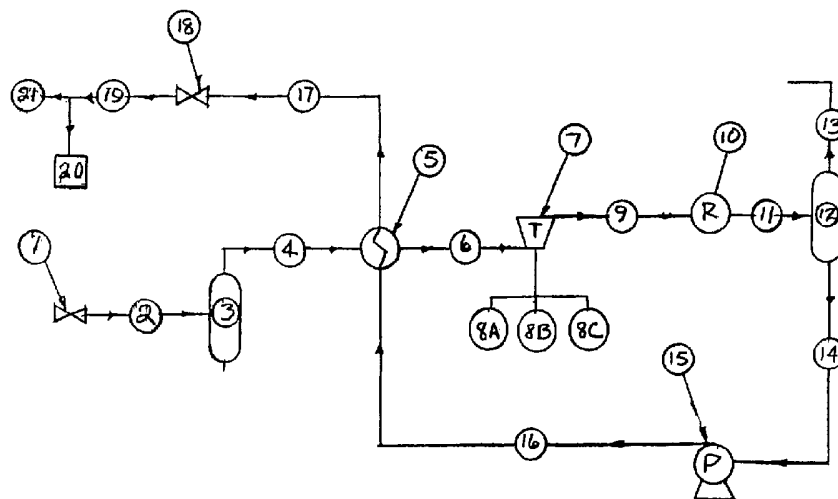
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- (54) Title:** METHOD AND APPARATUS FOR PRESSURIZING A GAS



- (57) Abstract:** A gas pressurization system comprising a gas inlet valve configured to receive an inlet gas stream. A clean-up system is coupled to the gas inlet valve. A recovery heat exchanger coupled to the clean-up system. The recovery heat exchanger is configured to remove thermal energy from the inlet gas stream and cool the inlet gas stream to one of a pre-cooled gas and liquid stream. An expander coupled to the recovery heat exchanger is configured to expand the pre-cooled liquid stream. A refrigeration unit coupled to the expander and configured to cool the expanded pre-cooled liquid stream to a liquid phase. A buffer storage unit is coupled to the refrigeration unit. A pump is coupled to the buffer storage unit at a pump suction and has a pump discharge coupled to the recovery heat exchanger. A high-pressure storage unit coupled to the pump discharge downstream of the recovery heat exchanger.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/10206

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : F25J 1/00; F17C 9/02, 7/02; B65B 1/20
US CL : 62/50.2, 50.3, 612, 614; 141/11, 82

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B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
None

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
None

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,505,232 A (BARCLAY) 09 April 1996 (09.04.1996), see entire document.	1,2,5,7,8,10-13,16,17,18,20
Y		3,4,6,9,14,15,19
A	US 6,023,933 A (LANGAN et al) 15 February 2000 (15.02.2000), see entire document.	1-20
A	US 3,195,316 A (MAHER et al) 20 July 1965 (20.07.1965), see entire document.	1-20
A	US 5,934,081 A (NOTARO et al) 10 August 1999 (10.08.1999), see entire document.	1-20
A	US 6,089,028 A (BOWEN et al) 18 July 2000 (18.07.2000), see entire document.	1-20
A	US 3,331,214 A (PROCTOR et al) 18 July 1967 (18.07.1967), see entire document.	1-20
A	US 6,333,445 B1 (O'BRIEN) 25 December 2001 (25.12.2001), see entire document.	1-20
A,P	US 6,412,302 B1 (FOGLIETTA) 02 July 2002 (02.07.2002), see entire document.	1-20

☒ Further documents are listed in the continuation of Box C.

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3,229,472 A (BEERS) 18 January 1966 (18.01.1966), see entire document.	1-20
A	US 4,961,325 A (HALVORSON et al) 09 October 1990 (09.10.1990), see entire document.	1-20