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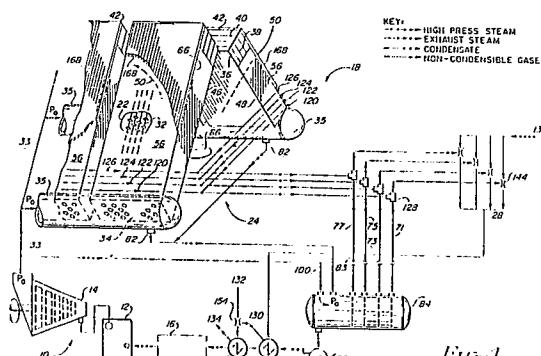
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54 **Improved air-cooled vacuum steam condenser.**

57 An improved air-cooled vacuum steam condenser in a steam turbine cycle comprising a turbine (14) for generating mechanical power, a boiler (12) for generating steam, a conduit arrangement coupling the boiler (12) to the turbine (14) and then another conduit arrangement coupling the turbine exhaust back to the boiler (12) through steam condensing mechanisms. The steam condensing mechanisms include a plurality of finned tubes (32) through which the expanded exhaust steam may flow counter to its condensate and be condensed; a plurality of front headers (34) at the lower ends of the condensing tubes for conveying the exhaust steam from the turbine (14) and receiving the condensate from the finned tubes (32); a plurality of rear headers (36, 38, 40, 42) at the upper ends of the condensing tubes (56) for receiving the non-condensable gasses; and means in the rear headers to remove non-condensable gasses from the rear headers (36, 38, 40, 42).





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. 4)
X	DE-B-1 082 286 (ARBED)	1	F 28 B 9/10
A	* Whole document *	2,5-7, 13,14	F 28 B 1/06

D,A	GB-A-2 017 894 (KLUPPEL)	1	
	* Whole document *		

D,A	US-A-4 220 121 (MAGGIORANA)	1	
	* Whole document *		

D,A	GB-A-2 135 206 (LARINOFF)	1	
	* Whole document *		

D,A	US-A-3 922 880 (MORRIS)	1	
	* Whole document *		

D,A	US-A-2 217 410 (HOWARD)	1	
	* Whole document *		

D,A	US-A-3 887 002 (SCHOONMAN)	1	
	* Whole document *		

A	US-A-4 417 619 (MINAMI)	1	
	* Whole document *		

A	FR-A-1 389 944 (HAPPEL)	1	
	* Whole document *		

D,A	FR-A-1 386 255 (HAPPEL)	1	
	* Whole document *		

The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 10-11-1989	Examiner SMETS E.D.C.
CATEGORY OF CITED DOCUMENTS			
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	