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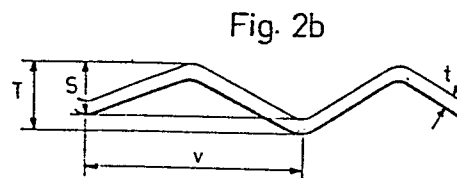
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(54) **Plate heat exchanger.**

(57) The heat exchanger designed for heat exchange between gaseous media, preferably air, comprises a plurality of thin plates (1a-c) stacked upon each other and provided with distance members (2) lengthwise in the flow direction in the form of pleats. Every second plate is offset 90° in relation to the adjacent plate in order to form throughgoing ducts (3) of largely rectangular cross-sections. In order to reduce the material thickness and to increase the heat transfer capacity and at the same time to maintain the flow resistance at a low level, the plates between the lengthwise distance members (2) are furnished with a friction pressure drop forming fine structure (4) in the form of corrugations essentially at right angles to the distance members. Moreover, means are provided to obtain an efficient seal between the separate gas flow passages in the heat exchanger. Thus each contact plate at its two end sides (10a,b) terminating along the distance members displays a lengthwise edge zone area (11a,b), that each contact plate at its two end sides (20a,b) terminating across the distance members displays a lengthwise part (21a,b) within which a folding edge (22a,b) is arranged. The edges are in order to be joined with an adjacent plate folded around the edge zone area of the adjacent plate and thus form a folded edge (23) which extends over the corresponding edge zone area and encloses it. The folded edge and the enclosing material display a lengthwise pleating (24) which extends along the whole width of the plate in order to lock

the folding edge. Within the pleating fine structure is partly deformed by being pressed against each other and thus forms an effective seal between the plates. The heat exchanger plates are preferably made of aluminium.





European Patent
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EUROPEAN SEARCH REPORT

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Application number

EP 84 11 6425

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	GB-A- 510 206 (WAGNER) * Whole document *	1,5,6	F 28 F 3/08 F 28 D 9/02
Y	---	2-4,7 13	
Y	GB-A-2 071 838 (HISAKA WORKS) * Page 1, lines 86-101; figure 3 *	2	
Y	FR-A-2 318 398 (MUNTERS) * Claims 1,3,8,11; figures 1-4,5c *	3,4,7 13	
Y	US-A-3 893 509 (SATCHWELL) * Column 2, lines 23-38; figures 4,5 *	3,4,7	TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
A	US-A-4 298 061 (HOEFFKEN) * Summary; figure 4 *	3,8	F 28 D F 28 F F 24 F B 23 P
A	US-A-2 596 642 (BOESTAD) * Column 3, lines 30-51; column 4, lines 29-51; figures 1-3 *	1,9,12	
A	FR-A-2 377 598 (MUNTERS) * Page 3; page 5, lines 1-24; figures 2,5,6 *	1,5,7 11,12	
A	FR-A-2 317 617 (ALUMINIUM SUISSE) * Claims 1,3,4,7; figure 6 *	3,13, 16	
The present search report has been drawn up for all claims/ -			
Place of search THE HAGUE		Date of completion of the search 19-07-1985	Examiner JEST Y.G.A.
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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
A	GB-A- 510 197 (WAGNER) --- -----		
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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 19-07-1985	Examiner JEST Y.G.A.
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