

12 **EUROPEAN PATENT APPLICATION**

21 Application number: 80303431.3

51 Int. Cl.<sup>3</sup>: **F 28 F 1/08**  
**F 28 D 1/02**

22 Date of filing: 29.09.80

30 Priority: 30.11.79 JP 156070/79

43 Date of publication of application:  
10.06.81 Bulletin 81/23

68 Date of deferred publication of search report: 16.12.81

84 Designated Contracting States:  
DE FR GB IT

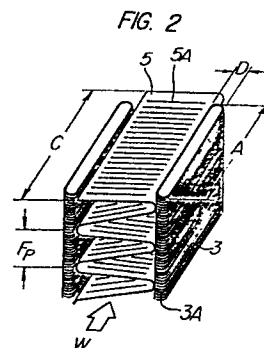
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54 **Heat exchangers and methods of fabricating heat exchangers.**

57 In a heat exchanger including a flat tube (3) made of metal, and corrugated fins (5) joined by welding to the tube (3), a multiplicity of projections (3A) are successively formed on one side of the flat tube (3) and arranged in a direction intersecting the axis of the tube (3). The projections (3A), which may be triangular, arcuate, trapezoidal or any other suitable shape in cross section, each extend by a distance less than the thickness of a wall of the tube (3).





European Patent  
Office

# EUROPEAN SEARCH REPORT

0030072

Application number

EP 80 30 3431

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	<p>DE - A - 2 912 723 (MULOCK)</p> <p>* Page 8, lines 1-22; page 9, line 16 - page 10, line 12; figures 2,4-6 *</p> <p>--</p> <p>FR - A - 1 586 070 (CEGEDUR)</p> <p>* Page 2, line 38 - page 4, line 22; figures 2-6,12 *</p> <p>--</p> <p>FR - A - 2 243 037 (CHAUSSEON)</p> <p>* Page 3, line 21 - page 4, line 16; figure 1 *</p> <p>&amp; GB - A - 1 482 288</p> <p>--</p> <p>GB - A - 489 061 (HEISS)</p> <p>* Page 1, line 95 - page 2, line 30; figures 2a,6a *</p> <p>--</p> <p>DA US - A - 1 993 872 (CHASE)</p> <p>DA US - A - 2 011 854 (EMMONS)</p> <p>----</p>	<p>1,3,6</p> <p>1</p> <p>1,6</p> <p>6</p>	<p>F 28 F 1/08 F 28 D 1/02</p> <p>TECHNICAL FIELDS SEARCHED (Int. Cl.)</p> <p>F 28 D F 28 F</p> <p>CATEGORY OF CITED DOCUMENTS</p> <p>X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons</p> <p>&amp;: member of the same patent family, corresponding document</p>
<p><input checked="" type="checkbox"/> The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
The Hague	02-10-1981	WEIS	