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(54) **Manifold with multiple passages and crosscounterflow heat exchanger incorporating the same**

(57) A manifold (22) having multiple chambers for use in a cross-counterflow heat exchanger assembly (20) includes a first member (24) having arms (26) extending from a base (28) to arm ends (30). A second member (42) is secured to the first member to define the manifold. The second member includes an inner plate edge (50) that defines a first mating surface (54) that extends inwardly along the inner plate edge from each of the plate ends to mate with the arm ends (30). A wall (46) extends transversely to the inner plate edge to a wall end (56). The wall end mates with an inner base surface (34) to divide the interior of the manifold into a plurality of chambers (58,60). At least one lip (64) extends transversely to the inner plate edge to define a second mating surface that extends perpendicularly from the first mating surface and mates with an inner arm surface of the arms.

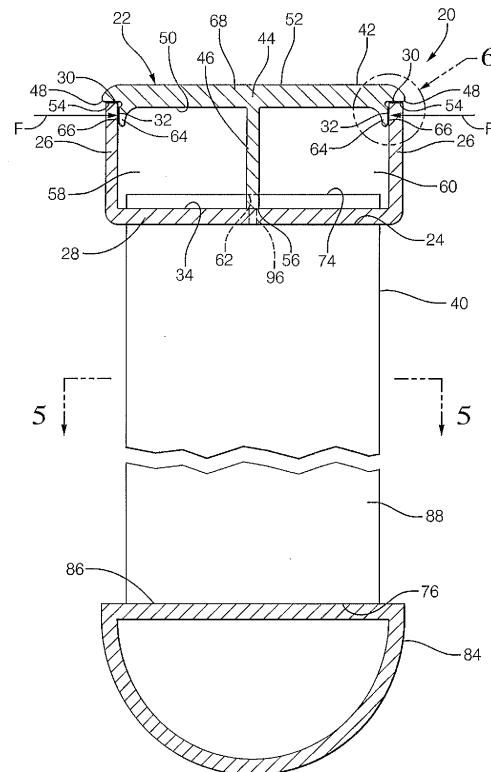


FIG. 2



## EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	JP H07 305991 A (ZEXEL CORP) 21 November 1995 (1995-11-21) * abstract; figures 1-5 * -----	1-15	INV. F28F9/02 F28D1/053
X	US 2005/161200 A1 (HOFFMANN HANSKARL [DE] ET AL) 28 July 2005 (2005-07-28) * paragraphs [0064], [0086]; figure 7c * -----	1-15	
A	US 2002/144805 A1 (KIM YONGHO [KR] ET AL) 10 October 2002 (2002-10-10) * figure 22 * -----	1-15	
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			TECHNICAL FIELDS SEARCHED (IPC)
			F28D F28F
The present search report has been drawn up for all claims			
1	Place of search	Date of completion of the search	Examiner
	Munich	11 September 2013	Martínez Rico, Celia
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			
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