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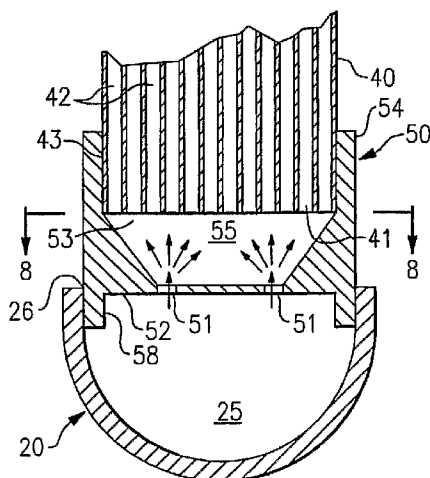
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(54) Title: HEAT EXCHANGER WITH FLUID EXPANSION IN HEADER



(57) Abstract: A heat exchanger includes a plurality of flat, multi-channel heat exchange tubes extending between spaced headers. Each heat exchange tube has a plurality of flow channels extending longitudinally in parallel relationship from its inlet end to its outlet end. A plurality of connectors are positioned between the inlet header and the heat transfer tubes such that the connector inlet ends are in fluid flow communication with the header through a relatively small cross-sectional flow area openings and the connector outlet ends are adapted to receive the inlet end of a heat exchanger tube. The connector defines a fluid flow pathway from the relatively small cross-sectional flow area opening in the inlet end of the connector to an outlet opening in the outlet end of the connector that opens to the flow channels of the heat exchange tube received in the outlet end of the connector.

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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC: F28F 9/04(2007.01);F25B 39/02(2007.01)

USPC: 165/174,178;62/515

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 165/174, 178;62/515

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST search for restrictor for heat exchanger tube/manifold

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,320,165 A (HUGHES) 14 June 1994 (14.06.1994), See Figs. 9-15 embodiments.	1-9 ----- 10
Y	US US 2001/0004935 A1 (SANADA et al.) 28 June 2001 (28.06.2001), See Fig. 2.	10

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

☐ See patent family annex.

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