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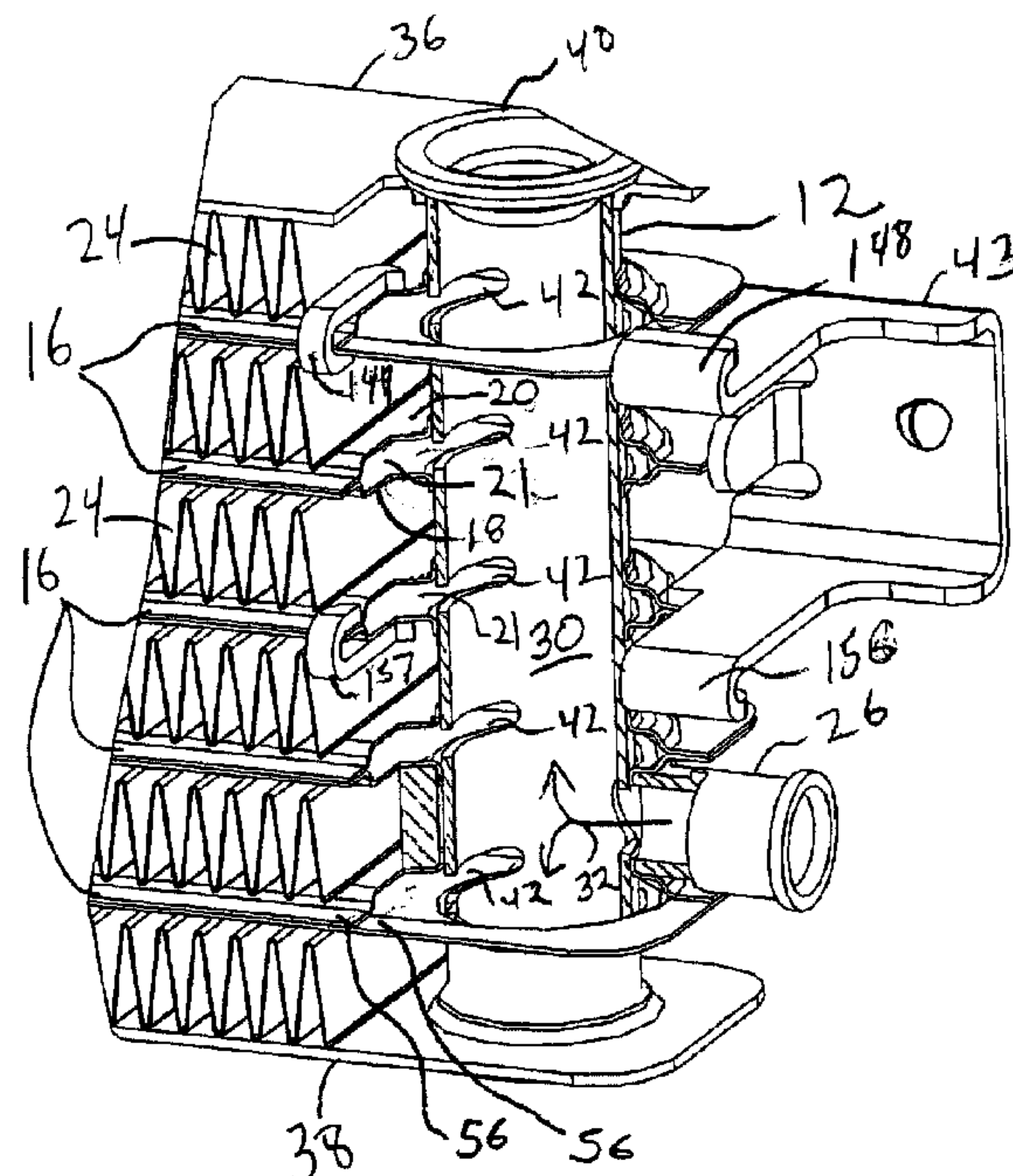
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(54) Titre : ECHANGEUR THERMIQUE A COLLECTEUR A FENTES INTERNE

(54) Title: HEAT EXCHANGER WITH INTERNAL SLOTTED MANIFOLD



(57) Abrégé/Abstract:

A heat exchanger that includes a manifold tube having a plurality of spaced apart openings formed through its wall in flow communication with a flow passageway, and a plurality of stacked flat tube elements each including a first plate and a second plate defining a flow channel therebetween, the plates each being provided with an aperture therethrough, the apertures in the first and second plates being substantially in alignment with each other. The manifold tube is received through the apertures in the first and second plates of each of the flat tube elements with each of the spaced apart openings in flow communication with the flow channel of a respective one of the flat tube elements. During assembly, the wall of the manifold tube is radially enlarged so that an outer surface of the manifold tube engages an inner surface surrounding the aperture in each of the first and second plates to secure the flat tube elements to the manifold tube. Also provided is a stacked plate heat exchanger having a manifold tube with an error proofing hole for ensuring a baffle cup is in place in the manifold tube, and a stacked plate heat exchanger having a manifold tube and a port fixture having an annular flow way in communication with a flow passage in the manifold tube through a plurality of radially spaced openings through the manifold tube.



HEAT EXCHANGER WITH INTERNAL SLOTTED MANIFOLD

ABSTRACT

A heat exchanger that includes a manifold tube having a plurality of spaced apart openings formed through its wall in flow communication with a flow passageway, and a plurality of stacked flat tube elements each including a first plate and a second plate defining a flow channel therebetween, the plates each being provided with an aperture therethrough, the apertures in the first and second plates being substantially in alignment with each other. The manifold tube is received through the apertures in the first and second plates of each of the flat tube elements with each of the spaced apart openings in flow communication with the flow channel of a respective one of the flat tube elements. During assembly, the wall of the manifold tube is radially enlarged so that an outer surface of the manifold tube engages an inner surface surrounding the aperture in each of the first and second plates to secure the flat tube elements to the manifold tube. Also provided is a stacked plate heat exchanger having a manifold tube with an error proofing hole for ensuring a baffle cup is in place in the manifold tube, and a stacked plate heat exchanger having a manifold tube and a port fixture having an annular flow way in communication with a flow passage in the manifold tube through a plurality of radially spaced openings through the manifold tube.

