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(54) Title: APPARATUS AND METHODS FOR UTILIZING HEAT EXCHANGER TUBES

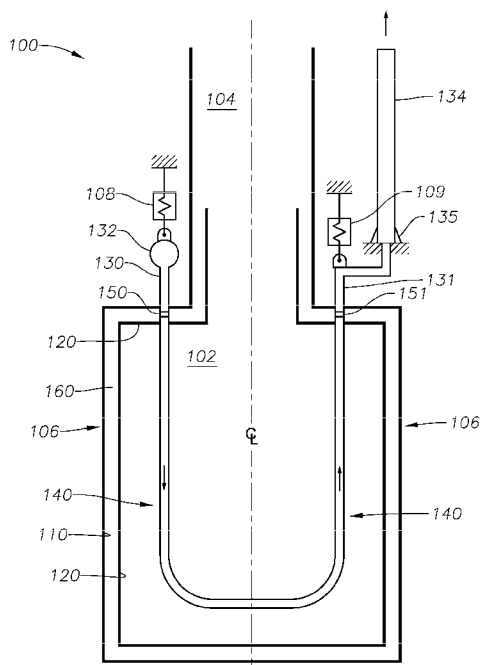


Fig. 1

(57) Abstract: In one aspect, the present techniques include a heat exchange apparatus including: a) a body comprising an interior cavity, the body including: a first surface and a second surface defining at least a portion of the body and the first surface positioned exterior with respect to the second surface and the interior cavity, and the second surface positioned exterior with respect to the interior cavity and interior with respect to the first surface; b) a first conduit for conveying a fluid to the body; c) a second conduit in fluid communication with the first conduit wherein the second conduit is positioned at least partially within the interior cavity of the body; and d) a joint between the first conduit and the second conduit, wherein the joint moves between a first location and a second location based on the temperature within the interior cavity, wherein at least one of said first location and said second location is positioned intermediate the first surface and the second surface.



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