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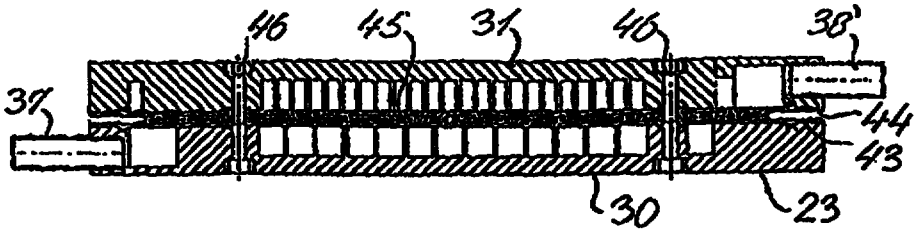
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(54) Title: A HEAT EXCHANGER DEVICE FOR AN AIR CONDITIONING SYSTEM



(57) Abstract

A heat exchanger device for an air conditioning system especially for cars or other vehicles, comprises first and second heat exchanger elements (30, 31), which define separate first and second flow passages (32, 33) for heat transporting medium. Thermoelectric units (45), such as Peltier elements, are arranged between and have opposite heating and cooling surfaces in heat conductive contact with the first and second heat exchanger elements, respectively. Each heat exchanger element (30, 31) defines a tortuous flow passage (32, 33) therein having a length being several times the maximum dimension of the heat exchanger element, or a plurality of coextending separate flow passages each having a small cross-sectional area. Each flow passage (32, 33) is preferably a channel or groove formed in a side surface of the exchanger element (30, 31), and this side surface and the channels formed therein may be covered by a cover plate (43, 44). The thermoelectric units (45) may then be arranged between the cover plates (43, 44) of the first and second heat exchanger elements (30, 31).