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(12) **United States Patent**
Taylor et al.

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(54) **HEAT EXCHANGER**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
This patent is subject to a terminal disclaimer.

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(51) **Int. Cl.**
C21C 5/00 (2006.01)

(52) **U.S. Cl.**
USPC **266/194; 266/193**

(58) **Field of Classification Search**

USPC 266/193, 194, 241, 46, 190; 165/170, 165/142, 168; 432/233, 238; 373/74, 76
See application file for complete search history.

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(57) **ABSTRACT**

A heat exchanger 10 includes a conduit 12 for conveying cooling fluid relative to a body to be cooled. A heat transfer arrangement 62 is arranged in communication with an interior of the conduit 12, the heat transfer arrangement 62 and the conduit 12 together defining an assembly that is mountable adjacent the body to be cooled, convective heat exchange occurring, in use, due to movement of the cooling fluid relative to the body and to the heat transfer arrangement 62 of the assembly and radiant heat exchange occurring between the body and at least part of the heat transfer arrangement 62 of the assembly.

30 Claims, 16 Drawing Sheets

