

CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING (NOTE omitted)

LIGHTING; HEATING

F28 HEAT EXCHANGE IN GENERAL (NOTES omitted)

F28C HEAT-EXCHANGE APPARATUS, NOT PROVIDED FOR IN ANOTHER SUBCLASS, IN WHICH THE HEAT-EXCHANGE MEDIA COME INTO DIRECT CONTACT WITHOUT CHEMICAL INTERACTION (safety devices in general [F16P](#); fluid heaters having heat generating means [F24H](#); with an intermediate heat-transfer medium coming into direct contact with heat-exchange media [F28D 15/00](#) - [F28D 19/00](#); details of heat-exchange apparatus of general application [F28F](#))

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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| <p>1/00</p> <p>1/003</p> <p>2001/006</p> <p>1/02</p> <p>1/04</p> <p>1/06</p> <p>1/08</p> <p>1/10</p> <p>1/12</p> <p>1/14</p> <p>2001/145</p> <p>1/16</p> <p>3/00</p> <p>3/005</p> <p>3/02</p> <p>3/04</p> <p>3/06</p> <p>3/08</p> <p>3/10</p> <p>3/12</p> | <p>Direct-contact trickle coolers, e.g. cooling towers
(building construction E04H 5/12; enclosed spaces cooled by trickle F25; components parts of trickle coolers F28F 25/00; {indirect-contact cooling towers F28B 1/06})</p> <p>. {comprising outlet ducts for exhaust gases}</p> <p>. {Systems comprising cooling towers, e.g. for recooling a cooling medium (for condensers F28B 9/06)}</p> <p>. with counter-current only</p> <p>. with cross-current only</p> <p>. with both counter-current and cross-current</p> <p>. Arrangements for recovering heat from exhaust steam</p> <p>. Arrangements for suppressing noise</p> <p>. Arrangements for preventing clogging by frost</p> <p>. comprising also a non-direct contact heat exchange</p> <p>. . {with arrangements of adjacent wet and dry passages}</p> <p>. Arrangements for preventing condensation, precipitation or mist formation, outside the cooler (F28C 1/14 takes precedence)</p> <p>Other direct-contact heat-exchange apparatus</p> <p>. {one heat-exchange medium being a solid (F28C 3/10 takes precedence)}</p> <p>. the heat-exchange media both being gases or vapours</p> <p>. the heat-exchange media both being liquids</p> <p>. the heat-exchange media being a liquid and a gas or vapour (temperators for cooling steam F22)</p> <p>. . with change of state, e.g. absorption, evaporation, condensation (generating steam under pressure F22)</p> <p>. one heat-exchange medium at least being a fluent solid, e.g. a particulate material</p> <p>. . the heat-exchange medium being a particulate material and a gas, vapour, or liquid</p> | <p>3/14</p> <p>3/16</p> <p>3/18</p> | <p>. . . the particulate material moving by gravity, e.g. down a tube</p> <p>. . . the particulate material forming a bed, e.g. fluidised, on vibratory sieves</p> <p>. . . the particulate material being contained in rotating drums</p> |
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