SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING

F28 HEAT EXCHANGE IN GENERAL

F28C HEAT-EXCHANGE APPARATUS, NOT PROVIDED FOR IN ANOTHER SUBCLASS, IN WHICH THE HEAT-EXCHANGE MEDIA COME INTO DIRECT CONTACT WITHOUT CHEMICAL INTERACTION (heat-transfer, heat-exchange or heat-storage materials C09K 5/00; 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)

1/00 Direct-contact trickle coolers, e.g. cooling towers (building construction E04H 5/12; enclosed spaces cooled by trickle F25; component parts of trickle coolers F28F 25/00) **[1, 2006.01]**

1/02 • with counter-current only **[1, 2006.01]**

1/04 • with cross-current only **[1, 2006.01]**

1/06 • with both counter-current and cross-current **[1, 2006.01]**

1/08 • Arrangements for recovering heat from exhaust steam **[1, 2006.01]**

1/10 • Arrangements for suppressing noise **[1, 5, 2006.01]**

1/12 • Arrangements for preventing clogging by frost **[3, 2006.01]**

1/14 • comprising also a non-direct contact heat exchange **[3, 2006.01]**

1/16 • Arrangements for preventing condensation, precipitation or mist formation, outside the cooler (F28C 1/14 takes precedence) **[3, 2006.01]**

3/00 Other direct-contact heat-exchange apparatus [1, 2006.01]

3/02 • the heat-exchange media both being gases or vapours **[1, 2006.01]**

3/04 • the heat-exchange media both being liquids **[1, 2006.01]**

3/06 • the heat-exchange media being a liquid and a gas or vapour (temperators for cooling steam F22) **[1, 2006.01]**

3/08 • • with change of state, e.g. absorption, evaporation, condensation (generating steam under pressure F22) **[1, 2006.01]**

3/10 • one heat-exchange medium at least being a fluent solid, e.g. a particulate material **[1, 2006.01]**

3/12 • • the heat-exchange medium being a particulate material and a gas, vapour, or liquid **[1, 2006.01]**

3/14 • • • the particulate material moving by gravity, e.g. down a tube **[1, 2006.01]**

3/16 • • • the particulate material forming a bed, e.g. fluidised, on vibratory sieves **[1, 2006.01]**

3/18 • • • the particulate material being contained in rotating drums **[1, 2006.01]**