

# 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](#))

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