

Title (en)  
HEAT EXCHANGER

Publication  
**EP 0265726 B1 19900926 (DE)**

Application  
**EP 87114629 A 19871007**

Priority  
DE 3635548 A 19861020

Abstract (en)  
[origin: US4800955A] A heat exchanger having an inlet duct for admission of a first fluid to be heated, an outlet duct for discharge of the first fluid after heating thereof, the ducts being arranged in substantially parallel relation, and an assembly of a plurality of heat exchanger tubes connected to the inlet and outlet ducts for receiving the first fluid from the inlet duct to convey the first fluid through the tubes for discharge into the outlet duct. The heat exchanger tubes are of U-shape, each including first and second straight leg portions respectively connected to the inlet and outlet ducts and a curved bend region connecting the straight leg portions for reversing the direction of flow of the first fluid from the first leg portion to the second leg portion. The assembly of heat exchanger tubes projects laterally of the ducts into the path of travel of a second fluid which flows around the tubes in a passage area. The heat exchanger tubes are arranged in a matrix of rows and columns in which the straight leg portions of the tubes are spaced apart a greater distance than the spacing between the curved bend regions of the tubes.

IPC 1-7  
**F28D 7/06**

IPC 8 full level  
**F28D 1/047** (2006.01); **F28D 7/06** (2006.01)

CPC (source: EP US)  
**F28D 7/06** (2013.01 - EP US); **Y10S 165/436** (2013.01 - EP US); **Y10S 165/91** (2013.01 - EP US)

Cited by  
DE4139104C1; US5318110A

Designated contracting state (EPC)  
FR GB IT NL

DOCDB simple family (publication)  
**DE 3635548 C1 19880303**; EP 0265726 A1 19880504; EP 0265726 B1 19900926; JP H0689991 B2 19941114; JP S63105397 A 19880510; US 4800955 A 19890131

DOCDB simple family (application)  
**DE 3635548 A 19861020**; EP 87114629 A 19871007; JP 26295387 A 19871020; US 10623787 A 19871008