

Title (en)
HEAT EXCHANGE DEVICE FOR HOT WATER OF SHOWER AND BATH

Title (de)
WÄRMETAUSCHVORRICHTUNG FÜR HEISSES BADE- ODER DUSCHWASSER

Title (fr)
DISPOSITIF D'ÉCHANGE DE CHALEUR POUR EAU CHAUDE DE DOUCHE ET DE BAIN

Publication
EP 2066994 A2 20090610 (EN)

Application
EP 07837994 A 20070911

Priority

- US 2007019689 W 20070911
- US 84370606 P 20060912
- US 89810107 A 20070910

Abstract (en)
[origin: US2008060796A1] The present invention is to provide a heat exchange device for hot water of shower and bath, which comprises a trough base, a metal heat exchanging plate and a diversion plate, wherein, said trough base of hollow cuboid with a top opening on the upper side has a water inlet and a water outlet respectively configured on one pair of corresponding flanks thereat; said metal heat exchanging plate has a plurality of round sinks orderly arrayed on the top surface thereof as well as a inlet orifice and a outlet orifice respectively perforated on one pair of sides corresponding to the flanks of said trough base; And said diversion plate, which being securely attached onto the internal bottom surface of said metal heat exchanging plate, has some isolating raised bars protruded on the top surface thereat. By means of every round sink on the metal heat exchanging plate and the isolating raised bar on the diversion plate, the showered hot water will constantly sprinkle over said metal heat exchanging plate after having showered over the bather body; By means of with uniform specification in design and fabrication so that such multiple heat exchange devices can be jointly arranged and combined in accordance with the sprinkling floor area of the bathing room; Thereby, the showered hot water can be fully collected and utilized to provide more heating source for heat exchange so as to enhance the energy-saving effect in heating action of the water heater.

IPC 8 full level
E03C 1/00 (2006.01); **F28D 9/00** (2006.01); **F28F 3/12** (2006.01); **F28F 13/06** (2006.01)

CPC (source: EP US)
E03C 1/00 (2013.01 - EP US); **F28D 9/00** (2013.01 - EP US); **F28F 3/12** (2013.01 - EP US); **F28F 13/06** (2013.01 - EP US); **E03C 2001/005** (2013.01 - EP US); **F28D 21/0012** (2013.01 - EP US); **Y02B 30/56** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
US 2008060796 A1 20080313; EP 2066994 A2 20090610; EP 2066994 A4 20110824; WO 2008033315 A2 20080320; WO 2008033315 A3 20080807

DOCDB simple family (application)
US 89810107 A 20070910; EP 07837994 A 20070911; US 2007019689 W 20070911