

Title (en)
COMBUSTION DEVICE

Title (de)
VERBRENNUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE COMBUSTION

Publication
EP 2738459 A1 20140604 (EN)

Application
EP 11870296 A 20111005

Priority
• KR 20110075700 A 20110729
• KR 2011007335 W 20111005

Abstract (en)
The present invention pertains to a combustion device which is mounted to a wood boiler or the like and generates high thermal power while decreasing soot by means of a simple structure. According to the present invention, a combustion device comprises: a burner main body (10) having a porous plate (12) which is formed inside and on which injected fuel is stacked; a fuel injection hole (14) communicating with one side of the upper portion of the burner main body (10); a first air supply section (18) communicating with the lower portion of the porous plate (12) of the burner main body (10) and supplying air; an ignition section (20) formed to be adjacent to the porous plate (12) of the burner main body (10) and igniting the fuel; a flame discharge hole (24) extending from the other side of the upper portion of the burner main body (10) and discharging flame and heat caused by combustion; a cyclone section (30) formed in the shape of a short cylinder and expanding in a lateral direction from the outer peripheral surface of the flame discharge hole (24) so as to partially expand the flame discharge hole (24); and a second air supply section (32) communicating with one side of the periphery of the cyclone section (30) and supplying atmospheric air to the cyclone section (30) in a tangential direction.

IPC 8 full level
F23B 90/00 (2011.01); **F23D 1/02** (2006.01); **F23G 5/027** (2006.01); **F23L 1/00** (2006.01); **F23L 9/00** (2006.01)

CPC (source: EP KR US)
F23B 10/02 (2013.01 - EP US); **F23B 50/12** (2013.01 - EP US); **F23B 60/02** (2013.01 - EP US); **F23B 90/04** (2013.01 - EP US);
F23D 1/02 (2013.01 - KR); **F23G 5/027** (2013.01 - EP US); **F23L 9/02** (2013.01 - KR); **F24B 1/024** (2013.01 - EP US);
F24B 5/023 (2013.01 - EP US); **F24B 5/028** (2013.01 - EP US); **F24B 7/02** (2013.01 - EP US); **F24B 13/006** (2013.01 - US);
F23D 2201/20 (2013.01 - KR); **F23D 2209/10** (2013.01 - KR); **F23G 2209/261** (2013.01 - EP US); **F24D 2200/067** (2013.01 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2738459 A1 20140604; **EP 2738459 A4 20150415**; CN 103703315 A 20140402; JP 2014524006 A 20140918; KR 101185034 B1 20120921;
US 2014158108 A1 20140612; WO 2013018954 A1 20130207

DOCDB simple family (application)
EP 11870296 A 20111005; CN 201180072427 A 20111005; JP 2014522725 A 20111005; KR 2011007335 W 20111005;
KR 20110075700 A 20110729; US 201114234428 A 20111005