

Title (en)  
Burner plate

Title (de)  
Brennerplatte

Title (fr)  
Plaque de brûleur

Publication  
**EP 0949453 A2 19991013 (EN)**

Application  
**EP 99302724 A 19990407**

Priority  
• JP 9586298 A 19980408  
• JP 5256699 A 19990301

Abstract (en)  
A burner plate (3a) is incorporated in a gas burner for burning a mixture of a fuel gas and air added at a predetermined excess air ratio in total primary combustion to heat a heat exchanger. The burner plate comprises a heat-resistant plate having a plurality of burner ports (7) defined therein and extending from a surface of the plate to an opposite surface thereof. The burner ports are divided into a plurality of burner port groups (8) which are spaced from each other by gaps (9). The burner port groups include burner port groups each having in a central area (7a) thereof as many burner ports closed as effective to limit an extension of flames produced from the burner port groups and suppress combustion resonant sounds generated by vibrations of the flames in coaction with a natural frequency of the gas burner. <IMAGE>

IPC 1-7  
**F23D 14/58**

IPC 8 full level  
**F23D 14/14** (2006.01); **F23D 14/58** (2006.01)

CPC (source: EP)  
**F23D 14/58** (2013.01); **F23D 2203/1023** (2013.01); **F23D 2210/00** (2013.01)

Cited by  
EP1418382A3; EP3514453A1; NL2020282B1

Designated contracting state (EPC)  
DE ES FR GB IT NL

DOCDB simple family (publication)  
**EP 0949453 A2 19991013**; **EP 0949453 A3 20000223**; **EP 0949453 B1 20031210**; DE 69913414 D1 20040122; DE 69913414 T2 20041007; ES 2210978 T3 20040701; JP 3695201 B2 20050914; JP H11351522 A 19991224

DOCDB simple family (application)  
**EP 99302724 A 19990407**; DE 69913414 T 19990407; ES 99302724 T 19990407; JP 5256699 A 19990301