

Title (en)

Flame retention plate for a burner.

Title (de)

Flammenhalterplatte für Brenner.

Title (fr)

Plaque de rétention de flamme pour brûleur.

Publication

**EP 0462695 A2 19911227 (EN)**

Application

**EP 91303855 A 19910429**

Priority

US 54007990 A 19900619

Abstract (en)

A flame retention plate (46) for a power burner (10) is designed to alter the direction of flow of air passing through openings (52, 54, 56) in the flame retention plate (46). The direction of air flow is altered by a ramped surface (58) forming a portion of each opening (54) in a ring of intermediate openings disposed between inner small openings (52) and outer large openings (56). The ramped surface (58) is oriented for directing air radially outwardly to mix with air flowing through the outer large openings (56). This action creates a partial vacuum at discharge orifices (49, 50) formed in a gas supply tube (20), with the orifices (49, 50) being disposed downstream of the flame retention plate (46), to actively suck gas out of the gas tube (20) to enhance mixing of gas with air. Highly efficient combustion of the mixed gas and air results, providing a flame close to the flame retention plate (46). <IMAGE>

IPC 1-7

**F23D 14/22**; **F23D 14/36**; **F23D 14/74**

IPC 8 full level

**F23D 14/22** (2006.01); **F23D 14/36** (2006.01); **F23D 14/74** (2006.01)

CPC (source: EP)

**F23D 14/22** (2013.01); **F23D 14/36** (2013.01); **F23D 14/74** (2013.01)

Cited by

FR2700830A1; US5486108A; US5520537A; US5399085A; WO9401720A1; WO0077449A1

Designated contracting state (EPC)

DE FR IT NL

DOCDB simple family (publication)

**EP 0462695 A2 19911227**; **EP 0462695 A3 19920311**

DOCDB simple family (application)

**EP 91303855 A 19910429**