

Title (en)  
**BURNER**

Publication  
**EP 0348646 A3 19910703 (DE)**

Application  
**EP 89108576 A 19890512**

Priority  
DE 3822004 A 19880630

Abstract (en)  
[origin: JPH0237206A] PURPOSE: To contrive to allow only combustion gas to flow back into a suction- back region, by a method wherein a guiding shield of a burner guides fluid of a mixture of expanding air for combustion and combustion gas and directs flames toward the center of a combustion chamber, thereby the flames are prohibited to reverse toward the suction-back region. CONSTITUTION: A guiding shield 20 forms a cone, thereby only directing flames toward a lengthwise axis of a combustion chamber 5. Secondary air passing through an air pipe 4 and the guiding shield 20 and being fluidized produces an injection action inside the guiding shield 20, thereby sucking combustion gas out from the combustion chamber 5. The combustion gas passes through a ring space 27 and is supplied to a starting part of the flames between a primary air-feeding part (through an air pipe 4) and a secondary air-feeding part (through a hollow space 23). An outside gas lance 14 is projectingly provided inside the ring space 27, and flammable gas originating therefrom is mixed with returned combustion gas to reduce a specific heating value. As a result, formation of nitrogen oxides is prohibited, and the injection action is strengthened at the same time.

IPC 1-7  
**F23D 17/00**

IPC 8 full level  
**F23D 14/84** (2006.01); **F23C 9/00** (2006.01); **F23C 99/00** (2006.01); **F23D 17/00** (2006.01)

CPC (source: EP US)  
**F23C 9/006** (2013.01 - EP US); **F23D 17/002** (2013.01 - EP US)

Citation (search report)  
• [AD] DE 3327597 A1 19850207 - BABCOCK WERKE AG [DE]  
• [A] DE 2820297 A1 19791115 - MUELLER WERNER  
• [A] EP 0227637 A2 19870701 - BRUCKER & ZEMAN & MAG SEYR CON [AT]

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