

Title (en)  
GRATE AND FUEL FIRED BOILER INCORPORATING SUCH A GRATE

Publication  
**EP 0437759 A3 19911113 (DE)**

Application  
**EP 90124391 A 19901217**

Priority  
DE 4000973 A 19900116

Abstract (en)  
[origin: US5069146A] A grate for a fuel boiler, consisting of plates arranged stepwise or in a cascading fashion, with at least two fixed plates and a movable plate disposed between the two fixed plates. The movable plate is capable of reciprocating to and fro and is provided with an appropriate drive. Combustion air passes through the interspace between the movable and fixed plates and allows for controlled and complete combustion of the fuel. The fixed plates are fastened to a common first holder and the movable plates are fastened to a common second holder. The fastening of each plate to its individual holder is vertically-adjustable. Preferably, the air utilized for combustion of the fuel is only that which has passed through, and preferably been drawn through, the interspace between the movable and fixed plates.

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**F23H 7/08**; **F23H 17/06**; **F23B 1/20**

IPC 8 full level  
**F23G 5/00** (2006.01); **F23H 3/02** (2006.01); **F23H 7/08** (2006.01); **F23H 11/00** (2006.01); **F23H 11/06** (2006.01); **F23H 11/12** (2006.01); **F23H 11/22** (2006.01); **F23H 17/06** (2006.01); **F27D 15/02** (2006.01)

CPC (source: EP KR US)  
**F23B 1/20** (2013.01 - EP US); **F23H 7/08** (2013.01 - EP US); **F23H 11/00** (2013.01 - KR)

Citation (search report)  
• [Y] US 4676176 A 19870630 - BONOMELLI VAIFRO V [IT]  
• [Y] DE 2522658 B2 19780406  
• [A] BE 904557 A 19860731 - VYNCKE N V

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CN101846324A; US11815265B2; WO9518333A1

Designated contracting state (EPC)  
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)  
**US 5069146 A 19911203**; AT E91334 T1 19930715; AU 630062 B2 19921015; AU 6938691 A 19910718; BR 9100153 A 19911022; CA 2033919 A1 19910717; CN 1028898 C 19950614; CN 1053669 A 19910807; CS 9100074 A2 19910915; CZ 279593 B6 19950517; DE 4000973 C1 19910228; DE 59001920 D1 19930812; DK 0437759 T3 19930823; EP 0437759 A2 19910724; EP 0437759 A3 19911113; EP 0437759 B1 19930707; ES 2023785 A4 19920216; ES 2023785 T3 19931201; FI 910056 A0 19910104; FI 910056 A 19910717; GR 910300102 T1 19911210; HU 212083 B 19960228; HU 910116 D0 19910828; HU T56935 A 19911028; IL 96807 A0 19910916; JP H04214112 A 19920805; JP H0735891 B2 19950419; KR 910014656 A 19910831; MA 22098 A1 19911231; NO 174482 B 19940131; NO 174482 C 19940511; NO 905492 D0 19901219; NO 905492 L 19910717; NZ 236747 A 19931026; PL 288695 A1 19911007; RU 1838724 C 19930830; SK 278178 B6 19960306; TR 25978 A 19931101; ZA 91322 B 19911127

DOCDB simple family (application)  
**US 63890491 A 19910110**; AT 90124391 T 19901217; AU 6938691 A 19910116; BR 9100153 A 19910115; CA 2033919 A 19910110; CN 91100224 A 19910115; CS 7491 A 19910115; DE 4000973 A 19900116; DE 59001920 T 19901217; DK 90124391 T 19901217; EP 90124391 A 19901217; ES 90124391 T 19901217; FI 910056 A 19910104; GR 910300102 T 19911210; HU 11691 A 19910115; IL 9680790 A 19901227; JP 1585391 A 19910116; KR 910000606 A 19910116; MA 22313 A 19910115; NO 905492 A 19901219; NZ 23674791 A 19910111; PL 28869591 A 19910114; SK 7491 A 19910115; SU 4894313 A 19910115; TR 3891 A 19910110; ZA 91322 A 19910116