

Title (en)  
GRATE BAR FOR GRATE LININGS, ESPECIALLY IN FURNACES

Publication  
**EP 0103202 B1 19851113 (DE)**

Application  
**EP 83108115 A 19830817**

Priority  
DE 3230597 A 19820817

Abstract (en)  
[origin: US4672947A] A grate bar has an elongated top wall, two longitudinally extending sidewalls, transversely extending front and rear walls, a bottom wall, and several longitudinally extending ribs at the underside of the top wall. The walls define an air heating chamber which receives fresh air from a first opening below the rear wall and discharges heated air by way of a second opening which is provided in one of the sidewalls close to the front wall. The ribs divide the chamber into several elongated channels and a compartment which is located immediately behind the front wall and communicates with the channels as well as with the second opening. At least one of the ribs which are nearest to the one sidewall is spaced apart from the bottom wall so that the channels which flank such rib can communicate with one another along the upper side of the bottom wall. Any solid particles which descend onto the bottom wall by entering the chamber via the second opening are free to travel rearwardly and to leave the channels by way of the first opening. Such evacuation can be promoted by providing some of the ribs with apertures which allow for communication between neighboring channels and/or by inclining the foremost portion of the bottom wall downwardly and rearwardly so that such foremost portion and the adjacent portion of the bottom wall define an additional opening and the foremost portion constitutes a chute for evacuation of solid particles by way of the additional opening.

IPC 1-7  
**F23H 3/02**

IPC 8 full level  
**F23H 7/08** (2006.01); **F23H 3/02** (2006.01); **F23H 17/12** (2006.01)

CPC (source: EP US)  
**F23H 17/12** (2013.01 - EP US)

Cited by  
EP3023694A1; DE10163670A1; DE102014004660A1; EP0458108A3; US5197397A; KR100837124B1; DE102014015916A1; US10309648B2

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