

CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
(NOTE omitted)

LIGHTING; HEATING

F23 COMBUSTION APPARATUS; COMBUSTION PROCESSES
(NOTE omitted)

F23H GRATES ([inlets for fluidisation air for fluidised bed combustion apparatus F23C 10/20](#));
CLEANING OR RAKING GRATES

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Grates with solid bars (double grates F23H 5/00)

- 1/02 . having provision for air supply or air preheating, e.g. air-supply or blast fittings which form a part of the grate structure or serve as supports
- 1/04 . having a variable burning surface
- 1/06 . having bars at different levels
- 1/08 . Vertical grates

3/00 Grates with hollow bars

- 3/02 . internally cooled
- 3/04 . externally cooled, e.g. with water, steam or air

5/00 Double grates

7/00 Inclined {or stepped} grates (inclined travelling grates F23H 11/12)

- 7/02 . with fixed bars
- 7/04 . . in parallel disposition
- 7/06 . with movable bars disposed parallel to direction of fuel feeding
- 7/08 . . reciprocating along their axes
- 7/10 . . rocking about their axes
- 7/12 . with movable bars disposed transversely to direction of fuel feeding
- 7/14 . . reciprocating along their axis
- 7/16 . . rocking about their axes
- 7/18 . . reciprocating in an upward direction

9/00 Revolving-grates; Rocking or shaking grates (inclined grates F23H 7/00)

- 9/02 . Revolving cylindrical grates
- 9/04 . Grates rocked as a whole
- 9/06 . the bars being rocked about axes transverse to their lengths
- 9/08 . the bars being rocked about their longitudinal axes ([inclined grates with movable bars disposed parallel to the direction of fuel feeding and rocking about their axes F23H 7/10](#))
- 9/10 . . and modified to move fuel along the grate
- 9/12 . the bars being vertically movable in a plane

11/00 Travelling-grates

- 11/02 . with the bars disposed on transverse bearers
- 11/04 . with the bars pivoted at one side
- 11/06 . with the bars movable relatively to one another

- 11/08 . with several individually-movable grate surfaces
- 11/10 . with special provision for supply of air from below and for controlling air supply
- 11/12 . inclined travelling grates; Stepped travelling grates
- 11/14 . serving as auxiliary grates
- 11/16 . for multi-layer stoking
- 11/18 . Details
 - 11/20 . . Driving-means
 - 11/22 . . . Moving fuel along grate; Cleaning of grate
 - 11/24 . . . Removal of ashes; Removal of clinker
 - 11/26 . . . by dumping
 - 11/28 . . Replaceable burning-surface

13/00 Grates not covered by any of groups F23H 1/00-F23H 11/00

- 13/02 . Basket grates, e.g. with shaking arrangement
- 13/04 . Telescoping grates
- 13/06 . Dumping grates
- 13/08 . Grates specially adapted for gas generators and also applicable to furnaces

15/00 Cleaning arrangements for grates (not forming part of the grate F23J 1/00); Moving fuel along grates (grates with bars rocked about their longitudinal axes and specially adapted for moving fuel along the grate F23H 9/10; for travelling-grates F23H 11/22)

17/00 Details of grates

- 17/02 . End fittings on bars
- 17/04 . . of travelling-grates
- 17/06 . Provision for vertical adjustment of grate
- 17/08 . Bearers; Frames; Spacers; Supports
- 17/10 . . Dead plates; Imperforate fuel supports
- 17/12 . Fire-bars

2700/00 Grates characterised by special features or applications

- 2700/001 . Grates specially adapted for steam boilers
- 2700/002 . Inclined grates with longitudinally movable gratebars
- 2700/003 . Stepped grates with rotatable or slid able gratebars
- 2700/004 . Rotary grates with horizontal axis
- 2700/005 . Rotary grates with vertical axis
- 2700/006 . Grates of basket-type

2700/007 . Basket grates with shaking arrangement

2700/008 . Mobile grates

2700/009 . Grates specially adapted for incinerators

2900/00 Special features of combustion grates

2900/03021 . Liquid cooled grates

2900/09041 . Vibrating grates for solid fuels ([specially adapted for incinerators F23G 2203/107](#))

2900/17001 . Specific materials therefor

2900/17002 . Detachable or removable worn-out parts