

# 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.

<b>1/00</b>	<b>Grates with solid bars</b>	11/10	• with special provision for supply of air from below and for controlling air supply
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	11/12	• inclined travelling grates; Stepped travelling grates
1/04	• having a variable burning surface	11/14	• serving as auxiliary grates
1/06	• having bars at different levels ( <a href="#">double grates F23H 5/00</a> )	11/16	• for multi-layer stoking
1/08	• Vertical grates	11/18	• Details
<b>3/00</b>	<b>Grates with hollow bars</b>	11/20	• . Driving-means
3/02	• internally cooled	11/22	• . Moving fuel along grate; Cleaning of grate
3/04	• externally cooled, e.g. with water, steam or air	11/24	• . Removal of ashes; Removal of clinker
<b>5/00</b>	<b>Double grates</b>	11/26	• . . by dumping
<b>7/00</b>	<b>Inclined {or stepped} grates (<a href="#">inclined travelling grates F23H 11/12</a>)</b>	11/28	• . Replaceable burning-surface
7/02	• with fixed bars	<b>13/00</b>	<b>Grates not covered by any preceding group</b>
7/04	• . in parallel disposition	13/02	• Basket grates, e.g. with shaking arrangement
7/06	• with movable bars disposed parallel to direction of fuel feeding	13/04	• Telescoping-grates
7/08	• . reciprocating along their axes	13/06	• Dumping-grates
7/10	• . rocking about their axes	13/08	• Grates specially adapted for gas generators and also applicable to furnaces
7/12	• with movable bars disposed transversely to direction of fuel feeding	<b>15/00</b>	<b>Cleaning arrangements for grates (<a href="#">not forming part of the grate F23J 1/00</a>); <a href="#">Moving fuel along grate (rocking-grates modified for moving fuel F23H 9/10; for travelling-grates F23H 11/22)</a></b>
7/14	• . reciprocating along their axis	<b>17/00</b>	<b>Details of grates</b>
7/16	• . rocking about their axes	17/02	• End fittings on bars
7/18	• . reciprocating in an upward direction	17/04	• . of travelling-grates
<b>9/00</b>	<b>Revolving-grates; Rocking-grates (<a href="#">F23H 7/00 takes precedence</a>)</b>	17/06	• Provision for vertical adjustment of grate
9/02	• Revolving cylindrical grates	17/08	• Bearers; Frames; Spacers; Supports
9/04	• Grates rocked as a whole	17/10	• . Dead plates; Imperforate fuel supports
9/06	• the bars being rocked about axes transverse to their lengths	17/12	• Fire-bars
9/08	• the bars being rocked about their longitudinal axes	<b>2700/00</b>	<b>Grates characterised by special features or applications</b>
9/10	• . and modified to move fuel along the grate	2700/001	• Grates specially adapted for steam boilers
9/12	• the bars being vertically movable in a plane	2700/002	• Inclined grates with longitudinally movable gratebars
<b>11/00</b>	<b>Travelling-grates</b>	2700/003	• Stepped grates with rotatable or slidable gratebars
11/02	• with the bars disposed on transverse bearers	2700/004	• Rotary grates with horizontal axis
11/04	• with the bars pivoted at one side	2700/005	• Rotary grates with vertical axis
11/06	• with the bars movable relatively to one another	2700/006	• Grates of basket-type
11/08	• with several individually-movable grate surfaces	2700/007	• Basket grates with shaking arrangement
		2700/008	• Mobile grates

## F23H

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