

**CPC****COOPERATIVE PATENT CLASSIFICATION****F23H**

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

**F23H 1/00****Grates with solid bars**[F23H 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

[F23H 1/04](#)

- having a variable burning surface

[F23H 1/06](#)

- having bars at different levels ([double grates F23H 5/00](#))

[F23H 1/08](#)

- Vertical grates

**F23H 3/00****Grates with hollow bars**[F23H 3/02](#)

- internally cooled

[F23H 3/04](#)

- externally cooled, e.g. with water, steam or air

**F23H 5/00****Double grates****F23H 7/00****Inclined {or stepped} grates** ([inclined travelling grates F23H 11/12](#))[F23H 7/02](#)

- with fixed bars

[F23H 7/04](#)

- in parallel disposition

[F23H 7/06](#)

- with movable bars disposed parallel to direction of fuel feeding

[F23H 7/08](#)

- reciprocating along their axes

[F23H 7/10](#)

- rocking about their axes

[F23H 7/12](#)

- with movable bars disposed transversely to direction of fuel feeding

[F23H 7/14](#)

- reciprocating along their axis

[F23H 7/16](#)

- rocking about their axes

[F23H 7/18](#)

- reciprocating in an upward direction

**F23H 9/00****Revolving-grates; Rocking-grates** ([F23H 7/00 takes precedence](#))[F23H 9/02](#)

- Revolving cylindrical grates

[F23H 9/04](#)

- Grates rocked as a whole

[F23H 9/06](#)

- the bars being rocked about axes transverse to their lengths

[F23H 9/08](#)

- the bars being rocked about their longitudinal axes

[F23H 9/10](#)

- and modified to move fuel along the grate

[F23H 9/12](#)

- the bars being vertically movable in a plane

**F23H 11/00****Travelling-grates**[F23H 11/02](#)

- with the bars disposed on transverse bearers

[F23H 11/04](#)

- with the bars pivoted at one side

[F23H 11/06](#)

- with the bars movable relatively to one another

[F23H 11/08](#)

- with several individually-movable grate surfaces

<a href="#">F23H 11/10</a>	<ul style="list-style-type: none"> <li>with special provision for supply of air from below and for regulating air supply</li> </ul>
<a href="#">F23H 11/12</a>	<ul style="list-style-type: none"> <li>inclined travelling grates; Stepped travelling grates</li> </ul>
<a href="#">F23H 11/14</a>	<ul style="list-style-type: none"> <li>serving as auxiliary grates</li> </ul>
<a href="#">F23H 11/16</a>	<ul style="list-style-type: none"> <li>for multi-layer stoking</li> </ul>
<a href="#">F23H 11/18</a>	<ul style="list-style-type: none"> <li>Details</li> </ul>
<a href="#">F23H 11/20</a>	<ul style="list-style-type: none"> <li>Driving-means</li> </ul>
<a href="#">F23H 11/22</a>	<ul style="list-style-type: none"> <li>Moving fuel along grate; Cleaning of grate</li> </ul>
<a href="#">F23H 11/24</a>	<ul style="list-style-type: none"> <li>Removal of ashes; Removal of clinker</li> </ul>
<a href="#">F23H 11/26</a>	<ul style="list-style-type: none"> <li>by dumping</li> </ul>
<a href="#">F23H 11/28</a>	<ul style="list-style-type: none"> <li>Replaceable burning-surface</li> </ul>
<b>F23H 13/00</b>	<b>Grates not covered by any preceding group</b>
<a href="#">F23H 13/02</a>	<ul style="list-style-type: none"> <li>Basket grates, e.g. with shaking arrangement</li> </ul>
<a href="#">F23H 13/04</a>	<ul style="list-style-type: none"> <li>Telescoping-grates</li> </ul>
<a href="#">F23H 13/06</a>	<ul style="list-style-type: none"> <li>Dumping-grates</li> </ul>
<a href="#">F23H 13/08</a>	<ul style="list-style-type: none"> <li>Grates specially adapted for gas generators and also applicable to furnaces</li> </ul>
<b>F23H 15/00</b>	<b>Cleaning arrangements for grates (not forming part of the grate <a href="#">F23J 1/00</a>); Moving fuel along grate (rocking-grates modified for moving fuel <a href="#">F23H 9/10</a>; for travelling-grates <a href="#">F23H 11/22</a>)</b>
<b>F23H 17/00</b>	<b>Details of grates</b>
<a href="#">F23H 17/02</a>	<ul style="list-style-type: none"> <li>End fittings on bars</li> </ul>
<a href="#">F23H 17/04</a>	<ul style="list-style-type: none"> <li>of travelling-grates</li> </ul>
<a href="#">F23H 17/06</a>	<ul style="list-style-type: none"> <li>Provision for vertical adjustment of grate</li> </ul>
<a href="#">F23H 17/08</a>	<ul style="list-style-type: none"> <li>Bearers; Frames; Spacers; Supports</li> </ul>
<a href="#">F23H 17/10</a>	<ul style="list-style-type: none"> <li>Dead plates; Imperforate fuel supports</li> </ul>
<a href="#">F23H 17/12</a>	<ul style="list-style-type: none"> <li>Fire-bars</li> </ul>
<b>F23H 2700/00</b>	<b>Grates characterised by special features or applications</b>
<a href="#">F23H 2700/001</a>	<ul style="list-style-type: none"> <li>Grates specially adapted for steam boilers</li> </ul>
<a href="#">F23H 2700/002</a>	<ul style="list-style-type: none"> <li>Inclined grates with longitudinally movable gratebars</li> </ul>
<a href="#">F23H 2700/003</a>	<ul style="list-style-type: none"> <li>Stepped grates with rotatable or slidable gratebars</li> </ul>
<a href="#">F23H 2700/004</a>	<ul style="list-style-type: none"> <li>Rotary grates with horizontal axis</li> </ul>
<a href="#">F23H 2700/005</a>	<ul style="list-style-type: none"> <li>Rotary grates with vertical axis</li> </ul>
<a href="#">F23H 2700/006</a>	<ul style="list-style-type: none"> <li>Grates of basket-type</li> </ul>
<a href="#">F23H 2700/007</a>	<ul style="list-style-type: none"> <li>Basket grates with shaking arrangement</li> </ul>
<a href="#">F23H 2700/008</a>	<ul style="list-style-type: none"> <li>Mobile grates</li> </ul>
<a href="#">F23H 2700/009</a>	<ul style="list-style-type: none"> <li>Grates specially adapted for incinerators</li> </ul>
<b>F23H 2900/00</b>	<b>Special features of combustion grates</b>
<a href="#">F23H 2900/03021</a>	<ul style="list-style-type: none"> <li>Liquid cooled grates</li> </ul>

- F23H 2900/09041 . Vibrating grates for solid fuels ([specially adapted for incinerators F23G 2203/107](#))
- F23H 2900/17001 . Specific materials therefor
- F23H 2900/17002 . Detachable or removable worn-out parts