

CPC COOPERATIVE PATENT CLASSIFICATION

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

LIGHTING; HEATING

F23 COMBUSTION APPARATUS; COMBUSTION PROCESSES (NOTE omitted)

F23M CASINGS, LININGS, WALLS OR DOORS SPECIALLY ADAPTED FOR COMBUSTION CHAMBERS, e.g. FIREBRIDGES; DEVICES FOR DEFLECTING AIR, FLAMES OR COMBUSTION PRODUCTS IN COMBUSTION CHAMBERS; SAFETY ARRANGEMENTS SPECIALLY ADAPTED FOR COMBUSTION APPARATUS; DETAILS OF COMBUSTION CHAMBERS, NOT OTHERWISE PROVIDED FOR 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.}

| | | | |
|-------------|---|----------------|---|
| 3/00 | Firebridges | 9/10 | • Baffles or deflectors formed as tubes, e.g. in water-tube boilers |
| 3/02 | • modified for circulation of fluids, e.g. air, steam, water | | |
| 3/04 | • . . for delivery of gas, e.g. air, steam | 11/00 | Safety arrangements |
| 3/06 | • . . . into or towards fire | 11/02 | • Preventing emission of flames or hot gases, or admission of air, through working or charging apertures |
| 3/08 | • . . . away from fire, e.g. towards smoke outlet | | |
| 3/10 | • . . . transversely | 11/04 | • Means for supervising combustion, e.g. windows |
| 3/12 | • characterised by shape or construction | 11/042 | • . {Viewing ports of windows} |
| 3/14 | • . . with apertures for passage of combustion products | 11/045 | • . {by observing the flame} |
| 3/16 | • . . built-up in sections, e.g. using bars or blocks | 11/047 | • . {by observing the flue gas (controlling combustion using gas detectors F23N 5/003)} |
| 3/18 | • . . double; multiple | | |
| 3/20 | • . . comprising loose refractory material, wholly or in part | 20/00 | Details of combustion chambers, not otherwise provided for {, e.g. means for storing heat from flames} |
| 3/22 | • movable; adjustable | 20/005 | • {Noise absorbing means} |
| 5/00 | Casings; Linings; Walls | | |
| 5/02 | • characterised by the shape of the bricks or blocks used | 2700/00 | Constructional details of combustion chambers |
| 5/025 | • . {specially adapted for burner openings} | 2700/005 | • Structures of combustion chambers or smoke ducts |
| 5/04 | • Supports for linings | 2700/0053 | • . Bricks for combustion chamber walls |
| 5/06 | • Crowns or roofs for combustion chambers | 2700/0056 | • . Bricks for water tube combustion chamber walls |
| 5/08 | • Cooling thereof; Tube walls | 2700/007 | • Automatic fire extinguishing devices |
| 5/085 | • . {using air or other gas as the cooling medium} | 2700/008 | • Preventing outwards emission of flames or hot gases |
| 7/00 | Doors | 2900/00 | Special features of, or arrangements for combustion chambers |
| 7/02 | • Frames therefor | 2900/05001 | • Preventing corrosion by using special lining materials or other techniques |
| 7/04 | • Cooling doors or door frames | 2900/05002 | • Means for accommodate thermal expansion of the wall liner |
| 9/00 | Baffles or deflectors for air or combustion products (baffles or deflectors for air or combustion products structurally associated with burners F23D); Flame shields | 2900/05003 | • Details of manufacturing specially adapted for combustion chambers |
| 9/003 | • {in flue gas ducts} | 2900/05004 | • Special materials for walls or lining |
| 9/006 | • . {Backflow diverters} | 2900/05005 | • Sealing means between wall tiles or panels |
| 9/02 | • in air inlets | 2900/05021 | • Wall blocks adapted for burner openings |
| 9/04 | • with air supply passages in the baffle or shield | 2900/09061 | • Moving baffles, e.g. rotating baffles, for creating vortices |
| 9/06 | • in fire-boxes | | |
| 9/08 | • Helical or twisted baffles or deflectors | 2900/09062 | • Tube-shaped baffles confining the flame |

F23M

- 2900/11021 . Means for avoiding accidental fires in rooms where the combustion device is located
- 2900/11041 . Means for observing or monitoring flames using photoelectric devices, e.g. phototransistors
- 2900/13001 . Energy recovery by fuel cells arranged in the combustion plant
- 2900/13002 . Energy recovery by heat storage elements arranged in the combustion chamber
- 2900/13003 . Energy recovery by thermoelectric elements, e.g. by Peltier/Seebeck effect, arranged in the combustion plant
- 2900/13004 . Energy recovery by thermo-photo-voltaic [TPV] elements arranged in the combustion plant