

CPC**COOPERATIVE PATENT CLASSIFICATION****F23M**

CONSTRUCTIONAL DETAILS OF COMBUSTION CHAMBERS, NOT OTHERWISE PROVIDED FOR (construction or support of tube walls for steam boilers [F22B](#); generating combustion products of high pressure or high velocity [F23R](#))

F23M 3/00

Firebridges (baffles non confining the fire [F23M 9/06](#))

F23M 3/02

- . modified for circulation of fluids, e.g. air, steam, water

F23M 3/04

- . . for delivery of gas, e.g. air, steam

F23M 3/06

- . . . into or towards fire

F23M 3/08

- . . . away from fire, e.g. towards smoke outlet

F23M 3/10

- . . . transversely

F23M 3/12

- . characterised by shape or construction ([F23M 3/02](#) takes precedence)

F23M 3/14

- . . with apertures for passage of combustion products

F23M 3/16

- . . built-up in sections, e.g. using bars or blocks

F23M 3/18

- . . double; multiple

F23M 3/20

- . . comprising loose refractory material, wholly or in part

F23M 3/22

- . movable; adjustable

F23M 5/00

Casings; Linings; Walls (casings, linings, or walls of heat-treatment chambers of ovens, kilns, or retorts [F27D](#))

F23M 5/02

- . characterised by the shape of the bricks or blocks used (ceramic materials [C04B 33/00](#), [C04B 35/00](#))

F23M 5/025

- . . {specially adapted for burner openings}

F23M 5/04

- . Supports for linings

F23M 5/06

- . Crowns or roofs for combustion chambers ([F23M 5/02](#), [F23M 5/04](#) take precedence)

F23M 5/08

- . Cooling thereof; Tube walls

F23M 5/085

- . . {using air or other gas as the cooling medium}

F23M 7/00

Doors specially adapted for combustion chambers (in general [E06B](#); for flues or smoke-boxes [F23J 13/08](#))

F23M 7/02

- . Frames therefor

F23M 7/04

- . Cooling doors or door frames

F23M 9/00

Baffles or deflectors for air or combustion products; Flame shields

F23M 9/003

- . {in flue gas ducts}

F23M 9/006

- . . {Backflow diverters}

F23M 9/02

- . in air inlets

F23M 9/04

- . with air-supply passages in the baffle or shield

F23M 9/06

- . in fire-boxes

F23M 9/08

- . Helical or twisted baffles or deflectors

F23M 9/10

- . Baffles or deflectors formed as tubes, e.g. in water-tube boilers (interconnection of such tubes in boilers for fluid flow [F22](#))

F23M 11/00	Safety arrangements (by controlling combustion F23N 5/24)
F23M 11/02	. Preventing emission of flames or hot gases, or admission of air, through working or charging apertures
F23M 11/04	. Means for supervising combustion, e.g. window (alarm systems G08B)
F23M 11/042	. . {Viewing ports of windows}
F23M 11/045	. . {by observing the flame}
F23M 11/047	. . {by observing the flue gas (controlling combustion using gas detectors F23N 5/003)}
F23M 99/00	Subject matter not provided for in other groups of this subclass, { e.g. heat storage from flames}
F23M 99/005	. { Noise absorbing means}
F23M 2700/00	Constructional details of combustion chambers
F23M 2700/005	. Structures of combustion chambers or smoke ducts
F23M 2700/0053	. . Bricks for combustion chamber walls
F23M 2700/0056	. . Bricks for water tube combustion chamber walls
F23M 2700/007	. Automatic fire extinguishing devices
F23M 2700/008	. Preventing outwards emission of flames or hot gases
F23M 2900/00	Special features of, or arrangements for combustion chambers
F23M 2900/05001	. Preventing corrosion by using special lining materials or other techniques
F23M 2900/05002	. Means for accommodate thermal expansion of the wall liner
F23M 2900/05003	. Details of manufacturing specially adapted for combustion chambers
F23M 2900/05004	. Special materials for walls or lining
F23M 2900/05005	. Sealing means between wall tiles or panels
F23M 2900/05021	. Wall blocks adapted for burner openings
F23M 2900/09061	. Moving baffles, e.g. rotating baffles, for creating vortices
F23M 2900/09062	. Tube-shaped baffles confining the flame (flame tubes forming part of the burner head F23D 2900/11403)
F23M 2900/11021	. Means for avoiding accidental fires in rooms where the combustion device is located
F23M 2900/11041	. Means for observing or monitoring flames using photoelectric devices, e.g. phototransistors
F23M 2900/13001	. Energy recovery by fuel cells arranged in the combustion plant
F23M 2900/13002	. Energy recovery by heat storage elements arranged in the combustion chamber
F23M 2900/13003	. Energy recovery by thermoelectric elements, e.g. by Peltier/Seebeck effect, arranged in the combustion plant
F23M 2900/13004	. Energy recovery by thermo-photo-voltaic (TPV) elements arranged in the combustion plant