

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

3/00	Firebridges	9/10	<ul style="list-style-type: none"> Baffles or deflectors formed as tubes, e.g. in water-tube boilers (interconnection of such tubes in boilers for fluid flow F22)
3/02	<ul style="list-style-type: none"> modified for circulation of fluids, e.g. air, steam, water 		
3/04	<ul style="list-style-type: none"> for delivery of gas, e.g. air, steam 		
3/06	<ul style="list-style-type: none"> into or towards fire 	11/00	Safety arrangements (structurally associated with burners F23D ; for liquid fuel feeding F23K 5/16 ; involving control of combustion F23N 5/24 ; structurally associated with igniters F23Q)
3/08	<ul style="list-style-type: none"> away from fire, e.g. towards smoke outlet 		
3/10	<ul style="list-style-type: none"> transversely 		
3/12	<ul style="list-style-type: none"> characterised by shape or construction (F23M 3/02 takes precedence) 	11/02	<ul style="list-style-type: none"> Preventing emission of flames or hot gases, or admission of air, through working or charging apertures
3/14	<ul style="list-style-type: none"> with apertures for passage of combustion products 	11/04	<ul style="list-style-type: none"> Means for supervising combustion, e.g. window (alarm systems G08B)
3/16	<ul style="list-style-type: none"> built-up in sections, e.g. using bars or blocks 	11/042	<ul style="list-style-type: none"> {Viewing ports of windows}
3/18	<ul style="list-style-type: none"> double; multiple 	11/045	<ul style="list-style-type: none"> {by observing the flame}
3/20	<ul style="list-style-type: none"> comprising loose refractory material, wholly or in part 	11/047	<ul style="list-style-type: none"> {by observing the flue gas (controlling combustion using gas detectors F23N 5/003)}
3/22	<ul style="list-style-type: none"> movable; adjustable 		
5/00	Casings; Linings; Walls (construction or support of tube walls for steam boilers F22B)	20/00	Details of combustion chambers, not otherwise provided for {, e.g. means for storing heat from flames}
5/02	<ul style="list-style-type: none"> characterised by the shape of the bricks or blocks used (ceramic materials C04B 33/00, C04B 35/00) 	20/005	<ul style="list-style-type: none"> {Noise absorbing means}
5/025	<ul style="list-style-type: none"> {specially adapted for burner openings} 		
5/04	<ul style="list-style-type: none"> Supports for linings 	2700/00	Constructional details of combustion chambers
5/06	<ul style="list-style-type: none"> Crowns or roofs for combustion chambers (F23M 5/02, F23M 5/04 take precedence) 	2700/005	<ul style="list-style-type: none"> Structures of combustion chambers or smoke ducts
5/08	<ul style="list-style-type: none"> Cooling thereof; Tube walls 	2700/0053	<ul style="list-style-type: none"> Bricks for combustion chamber walls
5/085	<ul style="list-style-type: none"> {using air or other gas as the cooling medium} 	2700/0056	<ul style="list-style-type: none"> Bricks for water tube combustion chamber walls
		2700/007	<ul style="list-style-type: none"> Automatic fire extinguishing devices
		2700/008	<ul style="list-style-type: none"> Preventing outwards emission of flames or hot gases
7/00	Doors	2900/00	Special features of, or arrangements for combustion chambers
7/02	<ul style="list-style-type: none"> Frames therefor 		
7/04	<ul style="list-style-type: none"> Cooling doors or door frames 	2900/05001	<ul style="list-style-type: none"> Preventing corrosion by using special lining materials or other techniques
9/00	Baffles or deflectors for air or combustion products (structurally associated with burners F23D); Flame shields	2900/05002	<ul style="list-style-type: none"> Means for accommodate thermal expansion of the wall liner
9/003	<ul style="list-style-type: none"> {in flue gas ducts} 	2900/05003	<ul style="list-style-type: none"> Details of manufacturing specially adapted for combustion chambers
9/006	<ul style="list-style-type: none"> {Backflow diverters} 		
9/02	<ul style="list-style-type: none"> in air inlets 	2900/05004	<ul style="list-style-type: none"> Special materials for walls or lining
9/04	<ul style="list-style-type: none"> with air supply passages in the baffle or shield 	2900/05005	<ul style="list-style-type: none"> Sealing means between wall tiles or panels
9/06	<ul style="list-style-type: none"> in fire-boxes 	2900/05021	<ul style="list-style-type: none"> Wall blocks adapted for burner openings
9/08	<ul style="list-style-type: none"> Helical or twisted baffles or deflectors 	2900/09061	<ul style="list-style-type: none"> 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](#))
- 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