

CPC COOPERATIVE PATENT CLASSIFICATION

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

LIGHTING; HEATING

F23 COMBUSTION APPARATUS; COMBUSTION PROCESSES (NOTE omitted)

F23L SUPPLYING AIR OR NON-COMBUSTIBLE LIQUIDS OR GASES TO COMBUSTION APPARATUS IN GENERAL ({air-supply arrangements for fluent fuels [F23C](#);} firebridges with means for feeding air or steam [F23M 3/04](#); baffles or shields with air supply passages [F23M 9/04](#)); VALVES OR DAMPERS SPECIALLY ADAPTED FOR CONTROLLING AIR SUPPLY OR DRAUGHT IN COMBUSTION APPARATUS {(dampers and throat restrictors for open fire-places [F24](#); air inlet valves for open fire fronts [F24](#)); INDUCING DRAUGHT IN COMBUSTION APPARATUS; TOPS FOR CHIMNEYS OR VENTILATING SHAFTS; TERMINALS FOR FLUES

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.

1/00	Passages or apertures for delivering primary air for combustion (baffles or deflectors in air inlets F23M 9/02)	9/06	• by discharging the air into the fire bed
	<u>WARNING</u>	11/00	Arrangements of valves or dampers after the fire
	Group F23L 1/00 is impacted by reclassification into group F23M 9/02 .	11/005	• {for closing the flue during interruption of burner function}
	Groups F23L 1/00 and F23M 9/02 should be considered in order to perform a complete search.	11/02	• for reducing draught by admission of air to flues
		13/00	Construction of valves or dampers for controlling air supply or draught
1/02	• by discharging the air below the fire	13/02	• pivoted about a single axis but having not other movement (formed as linked slats each pivoted about an axis F23L 13/08)
3/00	Arrangements of valves or dampers before the fire	13/04	• . with axis perpendicular to face
5/00	Blast-producing apparatus before the fire	13/06	• slidable only
5/02	• Arrangements of fans or blowers	13/08	• operating as a roller blind; operating as a venetian blind
5/04	• by induction of air for combustion, e.g. using steam jet	13/10	• having a compound movement involving both sliding and pivoting
7/00	Supplying non-combustible liquids or gases, other than air, to the fire, e.g. oxygen, steam	15/00	Heating of air supplied for combustion
7/002	• {Supplying water}	15/02	• Arrangements of regenerators
7/005	• . {Evaporated water; Steam}	15/04	• Arrangements of recuperators
7/007	• {Supplying oxygen or oxygen-enriched air}	15/045	• . {using intermediate heat-transfer fluids}
9/00	Passages or apertures for delivering secondary air for completing combustion of fuel (baffles or deflectors in air inlets F23M 9/02)	17/00	Inducing draught; Tops for chimneys or ventilating shafts; Terminals for flues
	<u>WARNING</u>	17/005	• {using fans}
	Group F23L 9/00 is impacted by reclassification into group F23M 9/02 .	17/02	• Tops for chimneys or ventilating shafts; Terminals for flues
	Groups F23L 9/00 and F23M 9/02 should be considered in order to perform a complete search.	17/04	• . Balanced-flue arrangements, i.e. devices which combine air inlet to combustion unit with smoke outlet
9/02	• by discharging the air above the fire	17/06	• . branched; T-headed
9/04	• by discharging the air beyond the fire, i.e. nearer the smoke outlet	17/08	• . with coaxial cones or louvres
		17/10	• . wherein the top moves as a whole
		17/12	• . Devices for fastening the top or terminal to chimney, shaft, or flue

17/14	. . Draining devices
17/16	. Induction apparatus, e.g. steam jet, acting on combustion products beyond the fire
99/00	Subject matter not provided for in other groups of this subclass
2700/00	Installations for increasing draught in chimneys; Specific draught control devices for locomotives
2700/001	. Installations for increasing draught in chimneys
2700/002	. Specific draught control devices for locomotives
2900/00	Special arrangements for supplying or treating air or oxidant for combustion; Injecting inert gas, water or steam into the combustion chamber
2900/00001	. Treating oxidant before combustion, e.g. by adding a catalyst
2900/05021	. Gas turbine driven blowers for supplying combustion air or oxidant, i.e. turbochargers
2900/07001	. Injecting synthetic air, i.e. a combustion supporting mixture made of pure oxygen and an inert gas, e.g. nitrogen or recycled fumes
2900/07002	. Injecting inert gas, other than steam or evaporated water, into the combustion chambers
2900/07003	. Controlling the inert gas supply
2900/07004	. Injecting liquid or solid materials releasing oxygen, e.g. perchlorate, nitrate, peroxide, and chlorate compounds, or appropriate mixtures thereof
2900/07005	. Injecting pure oxygen or oxygen enriched air
2900/07006	. Control of the oxygen supply
2900/07007	. using specific ranges of oxygen percentage
2900/07008	. Injection of water into the combustion chamber
2900/07009	. Injection of steam into the combustion chamber
2900/15021	. using regenerative heat exchanger bodies with different layers of material
2900/15022	. using pre-purging regenerator beds
2900/15041	. Preheating combustion air by recuperating heat from ashes
2900/15042	. Preheating combustion air by auxiliary combustion, e.g. in a turbine
2900/15043	. Preheating combustion air by heat recovery means located in the chimney, e.g. for home heating devices
2900/15044	. Preheating combustion air by heat recovery means using solar or other clean energy