

CPC**COOPERATIVE PATENT CLASSIFICATION****F23L**

AIR SUPPLY; DRAUGHT-INDUCING; SUPPLYING NON-COMBUSTIBLE LIQUID OR GAS ([air-supply arrangements for fluent fuels F23C](#); [dampers and throat restrictors for open fire-places F24](#); [air inlet valves for open fire fronts F24](#))

F23L 1/00

Passages or apertures for delivering primary air for combustion

F23L 1/02

- by discharging the air below the fire

F23L 3/00

Arrangements of valves or dampers before the fire

F23L 5/00

Blast-producing apparatus before the fire

F23L 5/02

- Arrangements of fans or blowers ([fans or blowers per se F04](#))

F23L 5/04

- by induction of air for combustion, e.g. using steam jet

F23L 7/00

Supplying non-combustible liquids or gases, other than air, to the fire, e.g. oxygen, steam

F23L 7/002

- {Supplying water}

F23L 7/005

- . {Evaporated water; Steam}

F23L 7/007

- {Supplying oxygen or oxygen-enriched air}

F23L 9/00

Passages or apertures for delivering secondary air for completing combustion of fuel

F23L 9/02

- by discharging the air above the fire

F23L 9/04

- by discharging the air beyond the fire, i.e. nearer the smoke outlet

F23L 9/06

- by discharging the air into the fire bed

F23L 11/00

Arrangements of valves or dampers after the fire

F23L 11/005

- {for closing the flue during interruption of burner function}

F23L 11/02

- for reducing draught by admission of air to flues

F23L 13/00

Construction of valves or dampers for controlling air supply or draught (in general F16K)

F23L 13/02

- pivoted about a single axis but having not other movement ([formed as linked slats each pivoted about an axis F23L 13/08](#))

F23L 13/04

- . with axis perpendicular to face

F23L 13/06

- slidable only

F23L 13/08

- operating as a roller blind; operating as a venetian blind

F23L 13/10

- having a compound movement involving both sliding and pivoting

F23L 15/00

Heating of air supplied for combustion

F23L 15/02

- Arrangements of regenerators

F23L 15/04

- Arrangements of recuperators

F23L 15/045	<ul style="list-style-type: none"> • {using intermediate heat-transfer fluids}
F23L 17/00	Inducing draught
F23L 17/005	<ul style="list-style-type: none"> • {using fans}
F23L 17/02	<ul style="list-style-type: none"> • Tops for chimneys or ventilating shafts; Terminals for flues
F23L 17/04	<ul style="list-style-type: none"> • • Balanced-flue arrangements, i.e. devices which combine air inlet to combustion unit with smoke outlet
F23L 17/06	<ul style="list-style-type: none"> • • branched; T-headed
F23L 17/08	<ul style="list-style-type: none"> • • with co-axial cones or louvres
F23L 17/10	<ul style="list-style-type: none"> • • wherein the top moves as a whole
F23L 17/12	<ul style="list-style-type: none"> • • Devices for fastening the top or terminal to chimney, shaft, or flue
F23L 17/14	<ul style="list-style-type: none"> • • Draining devices
F23L 17/16	<ul style="list-style-type: none"> • Induction apparatus, e.g. steam jet, acting on combustion products beyond the fire
F23L 99/00	Subject matter not provided for in other groups of this subclass
F23L 2700/00	Installations for increasing draught in chimneys; Specific draught control devices for locomotives
F23L 2700/001	<ul style="list-style-type: none"> • Installations for increasing draught in chimneys
F23L 2700/002	<ul style="list-style-type: none"> • Specific draught control devices for locomotives
F23L 2900/00	Special arrangements for supplying or treating air or oxidant for combustion; Injecting inert gas, water or steam into the combustion chamber
F23L 2900/00001	<ul style="list-style-type: none"> • Treating oxidant before combustion, e.g. by adding a catalyst
F23L 2900/05021	<ul style="list-style-type: none"> • Gas turbine driven blowers for supplying combustion air or oxidant, i.e. turbochargers
F23L 2900/07001	<ul style="list-style-type: none"> • Injecting synthetic air, i.e. a combustion supporting mixture made of pure oxygen and an inert gas, e.g. nitrogen or recycled fumes
F23L 2900/07002	<ul style="list-style-type: none"> • Injecting inert gas, other than steam or evaporated water, into the combustion chambers
F23L 2900/07003	<ul style="list-style-type: none"> • Controlling the inert gas supply
F23L 2900/07004	<ul style="list-style-type: none"> • Injecting liquid or solid materials releasing oxygen, e.g. perchlorate, nitrate, peroxide, and chlorate compounds, or appropriate mixtures thereof
F23L 2900/07005	<ul style="list-style-type: none"> • Injecting pure oxygen or oxygen enriched air
F23L 2900/07006	<ul style="list-style-type: none"> • Control of the oxygen supply
F23L 2900/07007	<ul style="list-style-type: none"> • using specific ranges of oxygen percentage
F23L 2900/07008	<ul style="list-style-type: none"> • Injection of water into the combustion chamber
F23L 2900/07009	<ul style="list-style-type: none"> • Injection of steam into the combustion chamber
F23L 2900/15021	<ul style="list-style-type: none"> • using regenerative heat exchanger bodies with different layers of material
F23L 2900/15022	<ul style="list-style-type: none"> • using pre-purging regenerator beds
F23L 2900/15041	<ul style="list-style-type: none"> • Preheating combustion air by recuperating heat from ashes
F23L 2900/15042	<ul style="list-style-type: none"> • Preheating combustion air by auxiliary combustion, e.g. in a turbine

- F23L 2900/15043

 - Preheating combustion air by heat recovery means located in the chimney, e.g. for home heating devices
- F23L 2900/15044

 - Preheating combustion air by heat recovery means using solar or other clean energy