

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 | .. {using intermediate heat-transfer fluids} |
| F23L 17/00 | Inducing draught |
| F23L 17/005 | . {using fans} |
| F23L 17/02 | . Tops for chimneys or ventilating shafts; Terminals for flues |
| F23L 17/04 | .. Balanced-flue arrangements, i.e. devices which combine air inlet to combustion unit with smoke outlet |
| F23L 17/06 | .. branched; T-headed |
| F23L 17/08 | .. with co-axial cones or louvres |
| F23L 17/10 | .. wherein the top moves as a whole |
| F23L 17/12 | .. Devices for fastening the top or terminal to chimney, shaft, or flue |
| F23L 17/14 | .. Draining devices |
| F23L 17/16 | . 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 | . Installations for increasing draught in chimneys |
| F23L 2700/002 | . 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 | . Treating oxidant before combustion, e.g. by adding a catalyst |
| F23L 2900/05021 | . Gas turbine driven blowers for supplying combustion air or oxidant, i.e. turbochargers |
| F23L 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 |
| F23L 2900/07002 | . Injecting inert gas, other than steam or evaporated water, into the combustion chambers |
| F23L 2900/07003 | . Controlling the inert gas supply |
| F23L 2900/07004 | . Injecting liquid or solid materials releasing oxygen, e.g. perchlorate, nitrate, peroxide, and chlorate compounds, or appropriate mixtures thereof |
| F23L 2900/07005 | . Injecting pure oxygen or oxygen enriched air |
| F23L 2900/07006 | . Control of the oxygen supply |
| F23L 2900/07007 | . using specific ranges of oxygen percentage |
| F23L 2900/07008 | . Injection of water into the combustion chamber |
| F23L 2900/07009 | . Injection of steam into the combustion chamber |
| F23L 2900/15021 | . using regenerative heat exchanger bodies with different layers of material |
| F23L 2900/15022 | . using pre-purging regenerator beds |
| F23L 2900/15041 | . Preheating combustion air by recuperating heat from ashes |
| F23L 2900/15042 | . 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 |