

**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}
<b>F23L 17/00</b>	<b>Inducing draught</b>
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
<b>F23L 99/00</b>	<b>Subject matter not provided for in other groups of this subclass</b>
<b>F23L 2700/00</b>	<b>Installations for increasing draught in chimneys; Specific draught control devices for locomotives</b>
F23L 2700/001	. Installations for increasing draught in chimneys
F23L 2700/002	. Specific draught control devices for locomotives
<b>F23L 2900/00</b>	<b>Special arrangements for supplying or treating air or oxidant for combustion; Injecting inert gas, water or steam into the combustion chamber</b>
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