

CPC COOPERATIVE PATENT CLASSIFICATION

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

LIGHTING; HEATING

F24 **HEATING; RANGES; VENTILATING** (protecting plants by heating in gardens, orchards, or forests [A01G 13/06](#); baking ovens and apparatus [A21B](#); cooking devices other than ranges [A47J](#); forging [B21J](#), [B21K](#); specially adapted for vehicles, see the relevant subclasses of [B60](#) - [B64](#); combustion apparatus in general [F23](#); drying [F26B](#); ovens in general [F27](#); electric heating elements and arrangements [H05B](#))
(NOTE omitted)

F24B DOMESTIC STOVES OR RANGES FOR SOLID FUELS

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|---------------|--|---------------|---|
| 1/00 | Stoves or ranges | 1/187 | . . . Condition responsive controls for regulating combustion (valves or dampers for air supply F23L ; regulating or controlling combustion F23N ; controlling or regulating in general G05) |
| 1/003 | . {on which a removable cooking element is arranged} | 1/1875 | {combined with extinguishing devices} |
| 1/006 | . {incorporating a catalytic combustor} | 1/188 | . . . characterised by use of heat exchange means, {e.g. using a particular heat exchange medium, e.g. oil, gas} (F24B 1/187 takes precedence) |
| 1/02 | . Closed stoves | 1/1881 | {the heat exchange medium being either water or air} |
| 1/022 | . . {easily collapsible or easily removable} | 1/1883 | {the heat exchange medium being both water and air} |
| 1/024 | . . {for pulverulent fuels} | 1/1885 | {the heat exchange medium being air only} |
| 1/026 | . . {with several combustion zones} | 1/1886 | {the heat exchanger comprising only tubular air ducts within the fire} |
| 1/028 | . . {with means for regulating combustion} | 1/1888 | {with forced circulation} |
| 1/04 | . . built-up from glazed tiles (F24B 1/08 , F24B 1/14 take precedence) | 1/189 | . . . characterised by air-handling means, i.e. of combustion-air, heated-air, or flue-gases, e.g. draught control dampers (F24B 1/187 , F24B 1/188 take precedence) |
| 1/06 | . . . Construction of tiles and bracing means therefor, e.g. shim liner (forming of tiles B28B ; glazing of tiles C04B) | 1/1895 | {flue-gas control dampers} |
| 1/08 | . . with fuel storage in a single undivided hopper within stove or range | 1/19 | Supplying combustion-air |
| 1/10 | . . . with combustion in horizontal direction (F24B 1/14 takes precedence) | 1/1902 | {in combination with provisions for heating air only} |
| 1/14 | . . . with predistillation in the hopper | 1/1905 | {in combination with provisions for heating water only} |
| 1/16 | . . with fuel storage in multiple or divided hoppers within the stove or range | 1/1907 | {in combination with provisions for heating both air and water} |
| 1/18 | . Stoves with open fires, e.g. fireplaces | 1/191 | . . Component parts; Accessories |
| 1/1802 | . . {adapted for the use of both solid fuel and another type of fuel or energy supply (for stoves F24C 1/02)} | 1/1915 | . . . {Means for removing ash} |
| 1/1804 | . . {Reverse-draught fireplaces} | 1/192 | . . . Doors; Screens; Fuel guards {(fire-screens A47G 5/04 , protective guards F24C 15/36)} |
| 1/1806 | . . {Mounting of closed stoves in a fireplace} | 1/193 | . . . Grates; Irons |
| 1/1808 | . . {Simulated fireplaces} | 1/195 | . . . Fireboxes; Frames; Hoods; Heat reflectors |
| 1/181 | . . Free-standing fireplaces, e.g. for mobile homes{; Fireplaces convertible into stoves} | 1/1952 | {Multiple fire-boxes} |
| 1/182 | . . with additional provisions for cooking (other stoves with additional provisions for cooking F24B 1/26) | 1/1955 | {Hoods} |
| 1/183 | . . with additional provisions for heating water | 1/1957 | {Heat reflectors} |
| 1/185 | . . with air-handling means, heat exchange means, or additional provisions for convection heating (F24B 1/183 takes precedence; component parts or accessories having air-handling means, heat exchange means, or additional provisions for convection heating F24B 1/191); Controlling combustion | 1/197 | . . . Hearths |
| | | 1/198 | . . . Surrounds-fronts |
| | | 1/199 | . . . Fuel-handling equipment |
| | | 1/20 | . Ranges |
| | | 1/202 | . . {specially adapted for travelling} |
| | | 1/205 | . . . {collapsible} |

- 1/207 . . . {movable}
- 1/22 . . in which the baking oven is arranged above the fire-box
- 1/24 . . with built-in masses for heat storage or heat insulation
- 1/26 . Stoves with additional provisions for cooking (stoves with open-fires with additional provisions for cooking [F24B 1/182](#))
- 1/28 . Combined installations of stoves or ranges, e.g. back-to-back stoves with a common fire-box
- 3/00 Heaters not covered by group [F24B 1/00](#), e.g. charcoal brazier (for cooking [A47J 27/00](#) - [A47J 37/00](#))**
- 5/00 Combustion-air or flue-gas circulation in or around stoves or ranges (stoves with open fires with air-handling means [F24B 1/185](#))**
 - 5/02 . in or around stoves
 - 5/021 . . {combustion-air circulation (regulating combustion [F23N](#); air supply for combustion apparatus [F23L](#))}
 - 5/023 . . . {Supply of primary air for combustion}
 - 5/025 . . . {Supply of secondary air for completing combustion of fuel}
 - 5/026 . . . {Supply of primary and secondary air for combustion}
 - 5/028 . . {Arrangements combining combustion-air and flue-gas circulation}
 - 5/04 . . the air or gas passing downwards through the bottom of the stove or fire grate
 - 5/06 . in or around ranges
 - 5/08 . . around the baking oven
 - 5/082 . . . {several ovens}
 - 5/085 . . . {the oven in arranged under the fire-box}
 - 5/087 . . . {Regulable circulation}
- 7/00 Stoves, ranges or flue-gas ducts, with additional provisions for convection heating (stoves with open fires characterised by use of heat exchange means [F24B 1/185](#); air heaters having heat generating means [F24H 3/00](#))**
 - 7/002 . {Ranges}
 - 7/005 . {Flue-gas ducts}
 - 7/007 . {Stoves or ranges with additional provisions for heating both air and water}
 - 7/02 . with external air ducts
 - 7/025 . . {with forced circulation}
 - 7/04 . with internal air ducts
 - 7/045 . . {with forced circulation}
 - 7/06 . without air ducts {no material}
- 9/00 Stoves, ranges or flue-gas ducts, with additional provisions for heating water ([F24B 1/182](#), [F24B 1/183](#) take precedence)**
 - 9/003 . {Ranges}
 - 9/006 . {flue-gas ducts}
 - 9/02 . in open containers, e.g. bain-marie
 - 9/04 . in closed containers

- 13/00 Details solely applicable to stoves or ranges burning solid fuels (component parts or accessories for stoves with open-fires [F24B 1/191](#); removing ash, clinker or slag from combustion chambers [F23J 1/00](#); removing solid residues from passages or chambers beyond the fire [F23J 3/00](#); joints or connections for chimneys or flues [F23J 13/04](#); mouths or inlet holes for chimneys or flues [F23J 13/06](#); means for supervising combustion [F23M 11/04](#))**
 - 13/002 . {Surrounds}
 - 13/004 . {Doors specially adapted for stoves or ranges (doors for open fires [F24B 1/192](#))}
 - 13/006 . {Arrangements for cleaning, e.g. soot removal; Ash removal}
 - 13/008 . . {Ash containers}
 - 13/02 . Arrangement or mountings of fire-grate assemblies (grates [F23H](#)); Arrangement or mountings of linings for fire-boxes, e.g. fire-back (ceramic materials [C04B 33/00](#), [C04B 35/00](#); casings, linings, walls for combustion chambers [F23M](#))
 - 13/04 . Arrangements for feeding solid fuel, e.g. hoppers (feeding solid fuel to combustion apparatus in general [F23K](#))
- 15/00 Implements for use in connection with stoves or ranges (ash sieves {in general} [B07B](#); fire lighters [C10L 11/00](#); removal of ashes [F23J](#); other devices for igniting [F23Q](#))**
 - 15/002 . {Scratchers or pokers}
 - 15/005 . {Igniting devices; Fire-igniting fans (bellows [F04B 45/02](#); gas pokers [F23Q 13/02](#))}
 - 15/007 . {Ash-sifters}
 - 15/02 . for breaking coal
 - 15/04 . Coal hods; Coal boxes
 - 15/06 . Shovels with ejectors
 - 15/08 . Shovels with sifters
 - 15/10 . Coal tongs