

CPC**COOPERATIVE PATENT CLASSIFICATION****F23Q**

IGNITION (devices or installations peculiar to internal-combustion engines [F02P](#); of cigarettes or tobacco [A24F](#); compositions therefor, chemical igniters [C06C](#));
EXTINGUISHING-DEVICES

F23Q 1/00

Mechanical igniters (lighters containing fuel [F23Q 2/00](#); matches [C06F](#))

F23Q 1/02

- . using friction or shock effects

F23Q 1/04

- . . on a part moved by the fuel-controlling member, e.g. by a tap on a gas cooker

F23Q 1/06

- . . Portable igniters

F23Q 2/00

Lighters containing fuel, e.g. for cigarettes

F23Q 2/02

- . Lighters with liquid fuel {fuel which is fluid at atmospheric pressure}

F23Q 2/04

- . . with cerium-iron alloy and wick {with friction ignition}

F23Q 2/06

- . . . with friction wheel

F23Q 2/08

- with ignition by spring action of the cover

F23Q 2/10

- . . . with other friction member

F23Q 2/12

- . . with cerium-iron alloy without wick

F23Q 2/14

- . . with cerium-iron alloy and torch ignited by striking or pushing

F23Q 2/16

- . Lighters with gaseous fuel, e.g. the gas being stored in liquid phase

F23Q 2/161

- . . {with friction wheel}

WARNING

groups [F23Q 2/161](#) and [F23Q 2/165](#) are not complete, pending reorganisation. See also [F23Q 2/16](#)

F23Q 2/162

- . . {with non-adjustable gas flame (if electrically ignited [F23Q 2/28](#))}

F23Q 2/163

- . . . {Burners (gas valves)}

F23Q 2/164

- . . {Arrangements for preventing undesired ignition}

F23Q 2/165

- . . {with more than one flame}

F23Q 2/167

- . . with adjustable flame

F23Q 2/173

- . . Valves therefor (valves in general [F16K](#))

F23Q 2/18

- . Lighters with solid fuel

F23Q 2/20

- . . with cerium-iron alloy and friction wheel

F23Q 2/22

- . . with cerium-iron alloy and tinder

F23Q 2/24

- . . ignition pills or strips with inflammable parts {(ignition pills [C06C 9/00](#), [C06C 15/00](#); corresponding lighters with fluid fuel [F23Q 2/10](#))}

F23Q 2/26

- . . combined with liquid fuel lighters

F23Q 2/28

- . Lighters characterised by electrical ignition of the fuel (lighter with electrically-produced sparks but without fuel [F23Q 3/00](#))

F23Q 2/282

- . . {with incandescent ignition (lighters with incandescent ignition but without fuel [F23Q 7/00](#))}

- F23Q 2/285 . . {with spark ignition}
- F23Q 2/287 . . . {piezo-electric}
- F23Q 2/30 . Lighters characterised by catalytic ignition of fuel ([catalytic igniters without fuel C06C](#))
- F23Q 2/32 . Lighters characterised by being combined with other objects ([combinations with smokers' equipment A24F](#))
- F23Q 2/325 . . {combined with clock, timer or counter}

WARNING

groups [F23Q 2/325](#) is not complete, pending reorganisation. See also [F23Q 2/32](#)

- F23Q 2/34 . Component parts or accessories
- F23Q 2/345 . . {Scent-distribution or flame-colouring devices}

WARNING

[N: WARNING, groups [F23Q 2/345](#) is not complete, pending reorganisation. See also [F23Q 2/34](#)

- F23Q 2/36 . . Casings
- F23Q 2/365 . . . {Tabletop lighters}

WARNING

groups [F23Q 2/365](#) is not complete, pending reorganisation. See also [F23Q 2/36](#)

- F23Q 2/38 . . . with containers for flints or tools
- F23Q 2/40 . . Cover fastenings
- F23Q 2/42 . . Fuel containers; Closures for fuel containers
- F23Q 2/44 . . Wicks; Wick guides or fastenings
- F23Q 2/46 . . Friction wheels; Arrangement of friction wheels
- F23Q 2/48 . . Flint ([composition, manufacture C06C 15/00](#)); Guides for, or arrangements of, flints
- F23Q 2/50 . . Protecting coverings
- F23Q 2/52 . . Filling devices ([in general B67D](#))

F23Q 3/00 Igniters using electrically-produced sparks ([sparking-plugs H01T 13/00](#))

- F23Q 3/002 . {using piezo-electric elements}
- F23Q 3/004 . {Using semiconductor elements}
- F23Q 3/006 . {Details ([sparking-plugs H01T 13/00](#))}
- F23Q 3/008 . {Structurally associated with fluid-fuel burners}
- F23Q 3/01 . Hand-held lighters, e.g. for cigarettes

F23Q 5/00 Make-and-break ignition, i.e. with spark generated between electrodes by breaking contact therebetween ([specially adapted for internal-combustion engines F02P 15/00](#))

F23Q 7/00**Incandescent ignition; Igniters using electrically-produced heat, e.g. lighters for cigarettes (circuits therefor [H01T 15/00](#)); Electrically-heated glowing plugs**

- F23Q 7/001 . {Glowing plugs for internal-combustion engines}
- F23Q 2007/002 . . {with sensing means}
- F23Q 2007/004 . . {Manufacturing or assembling methods}
- F23Q 2007/005 . . . {pressure sensors}
- F23Q 2007/007 . . . {ion current sensors}
- F23Q 2007/008 . . . {temperature sensors}
- F23Q 7/02 . for igniting solid fuel
- F23Q 7/04 . . with fans for transfer of heat to fuel
- F23Q 7/06 . structurally associated with fluid-fuel burners ([lighters containing fuel F23Q 2/00](#))
- F23Q 7/08 . . for evaporating and igniting liquid fuel, e.g. in hurricane lanterns
- F23Q 7/10 . . for gaseous fuel, e.g. in welding appliances
- F23Q 7/12 . . . actuated by gas-controlling device
- F23Q 7/14 . Portable igniters
- F23Q 7/16 . . with built-in battery
- F23Q 7/18 . . with built-in generator
- F23Q 7/20 . . with built-in mains transformer
- F23Q 7/22 . Details
- F23Q 7/24 . . Safety arrangements
- F23Q 7/26 . . . Provision for re-ignition

F23Q 9/00**Pilot flame igniters**

- F23Q 9/02 . without interlock with main fuel supply
- F23Q 9/04 . . for upright burners, e.g. gas-cooker burners
- F23Q 9/045 . . . {Structurally associated with a main-burner}
- F23Q 9/06 . . for inverted burners, e.g. gas lamps
- F23Q 9/08 . with interlock with main fuel supply
- F23Q 9/10 . . to determine the sequence of supply of fuel to pilot and main burners
- F23Q 9/12 . . to permit the supply to the main burner in dependence upon existence of pilot flame
- F23Q 9/14 . . . using electric means, e.g. by light-sensitive elements

F23Q 11/00**Arrangement of catalytic igniters ([catalytic igniters per se C06C](#))**

- F23Q 11/04 . at the burner
- F23Q 11/06 . remote from the burner, e.g. on the chimney of a lamp
- F23Q 11/08 . on a part moved by the fuel controlling member
- F23Q 11/10 . . and moving out of the flame after ignition

F23Q 13/00**Igniters not otherwise provided for**

- F23Q 13/005 . {using light, e.g. sunlight or laser}

F23Q 13/02

- using gas burners, e.g. gas pokers

F23Q 13/04

- using portable burners, e.g. torches, fire pots

F23Q 21/00

Devices for effecting ignition from a remote location

F23Q 23/00

Testing of ignition installations ([peculiar to internal combustion engines F02P 17/00](#))

F23Q 23/02

- Testing of ignition timing

F23Q 23/08

- Testing of components ([of sparking plugs H01T 13/58, F02P 17/12](#))

F23Q 23/10

- . electrically

F23Q 25/00

Extinguishing-devices, e.g. for blowing-out or snuffing candle flames ([for cigarettes A24F](#))