

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 internalcombustion 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](#))