

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}

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	<ul style="list-style-type: none"> Lighters characterised by being combined with other objects (combinations with smokers' equipment A24F)
F23Q 2/325	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {combined with clock, timer or counter}
F23Q 2/34	<ul style="list-style-type: none"> Component parts or accessories
F23Q 2/345	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {Scent-distribution or flame-colouring devices}
F23Q 2/36	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Casings
F23Q 2/365	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {Tabletop lighters}
F23Q 2/38	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> with containers for flints or tools
F23Q 2/40	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Cover fastenings
F23Q 2/42	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Fuel containers; Closures for fuel containers
F23Q 2/44	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Wicks; Wick guides or fastenings
F23Q 2/46	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Friction wheels; Arrangement of friction wheels
F23Q 2/48	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Flint (composition, manufacture C06C 15/00); Guides for, or arrangements of, flints
F23Q 2/50	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Protecting coverings
F23Q 2/52	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Filling devices (in general B67D)
F23Q 3/00	Igniters using electrically-produced sparks (sparking-plugs H01T 13/00)
F23Q 3/002	<ul style="list-style-type: none"> {using piezo-electric elements}
F23Q 3/004	<ul style="list-style-type: none"> {Using semiconductor elements}
F23Q 3/006	<ul style="list-style-type: none"> {Details (sparking-plugs H01T 13/00)}
F23Q 3/008	<ul style="list-style-type: none"> {Structurally associated with fluid-fuel burners}
F23Q 3/01	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> {Glowing plugs for internal-combustion engines}
F23Q 2007/002	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {with sensing means}
F23Q 2007/004	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {Manufacturing or assembling methods}
F23Q 2007/005	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {pressure sensors}
F23Q 2007/007	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {ion current sensors}
F23Q 2007/008	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {temperature sensors}
F23Q 7/02	<ul style="list-style-type: none"> for igniting solid fuel
F23Q 7/04	<ul style="list-style-type: none"> <ul style="list-style-type: none"> with fans for transfer of heat to fuel
F23Q 7/06	<ul style="list-style-type: none"> structurally associated with fluid-fuel burners (lighters containing fuel F23Q 2/00)
F23Q 7/08	<ul style="list-style-type: none"> <ul style="list-style-type: none"> for evaporating and igniting liquid fuel, e.g. in hurricane lanterns
F23Q 7/10	<ul style="list-style-type: none"> <ul style="list-style-type: none"> for gaseous fuel, e.g. in welding applicances
F23Q 7/12	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> actuated by gas-controlling device

F23Q 7/14	<ul style="list-style-type: none"> Portable igniters
F23Q 7/16	<ul style="list-style-type: none"> <ul style="list-style-type: none"> with built-in battery
F23Q 7/18	<ul style="list-style-type: none"> <ul style="list-style-type: none"> with built-in generator
F23Q 7/20	<ul style="list-style-type: none"> <ul style="list-style-type: none"> with built-in mains transformer
F23Q 7/22	<ul style="list-style-type: none"> Details
F23Q 7/24	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Safety arrangements
F23Q 7/26	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> Provision for re-ignition
F23Q 9/00	Pilot flame igniters
F23Q 9/02	<ul style="list-style-type: none"> without interlock with main fuel supply
F23Q 9/04	<ul style="list-style-type: none"> <ul style="list-style-type: none"> for upright burners, e.g. gas-cooker burners
F23Q 9/045	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {Structurally associated with a main-burner}
F23Q 9/06	<ul style="list-style-type: none"> <ul style="list-style-type: none"> for inverted burners, e.g. gas lamps
F23Q 9/08	<ul style="list-style-type: none"> with interlock with main fuel supply
F23Q 9/10	<ul style="list-style-type: none"> <ul style="list-style-type: none"> to determine the sequence of supply of fuel to pilot and main burners
F23Q 9/12	<ul style="list-style-type: none"> <ul style="list-style-type: none"> to permit the supply to the main burner in dependence upon existence of pilot flame
F23Q 9/14	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> using electric means, e.g. by light-sensitive elements
F23Q 11/00	Arrangement of catalytic igniters (catalytic igniters per se C06C)
F23Q 11/04	<ul style="list-style-type: none"> at the burner
F23Q 11/06	<ul style="list-style-type: none"> remote from the burner, e.g. on the chimney of a lamp
F23Q 11/08	<ul style="list-style-type: none"> on a part moved by the fuel controlling member
F23Q 11/10	<ul style="list-style-type: none"> <ul style="list-style-type: none"> and moving out of the flame after ignition
F23Q 13/00	Igniters not otherwise provided for
F23Q 13/005	<ul style="list-style-type: none"> {using light, e.g. sunlight or laser}
F23Q 13/02	<ul style="list-style-type: none"> using gas burners, e.g. gas pokers
F23Q 13/04	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Testing of ignition timing
F23Q 23/08	<ul style="list-style-type: none"> Testing of components (of sparking plugs H01T 13/58, F02P 17/12)
F23Q 23/10	<ul style="list-style-type: none"> <ul style="list-style-type: none"> electrically
F23Q 25/00	Extinguishing-devices, e.g. for blowing-out or snuffing candle flames (for cigarettes A24F)