

CPC COOPERATIVE PATENT CLASSIFICATION

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

LIGHTING; HEATING

F23 COMBUSTION APPARATUS; COMBUSTION PROCESSES (NOTE omitted)

F23Q IGNITION (devices or installations peculiar to internal-combustion engines [F02P](#); of cigarettes or tobacco [A24F](#); compositions therefor, chemical igniters [C06C](#)); EXTINGUISHING-DEVICES

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|-------------|---|-------------|--|
| 1/00 | Mechanical igniters (lighters containing fuel F23Q 2/00 ; matches C06F) | 2/32 | . Lighters characterised by being combined with other objects (combinations with smokers' equipment A24F) |
| 1/02 | . using friction or shock effects | 2/325 | . . {combined with clock, timer or counter} |
| 1/04 | . . on a part moved by the fuel-controlling member, e.g. by a tap on a gas cooker | 2/34 | . Component parts or accessories |
| 1/06 | . . Portable igniters | 2/345 | . . {Scent-distribution or flame-colouring devices} |
| 2/00 | Lighters containing fuel, e.g. for cigarettes | 2/36 | . . Casings |
| 2/02 | . Lighters with liquid fuel {fuel which is fluid at atmospheric pressure} | 2/365 | . . . {Tabletop lighters} |
| 2/04 | . . with cerium-iron alloy and wick {with friction ignition} | 2/38 | . . . with containers for flints or tools |
| 2/06 | . . . with friction wheel | 2/40 | . . Cover fastenings |
| 2/08 | . . . with ignition by spring action of the cover | 2/42 | . . Fuel containers; Closures for fuel containers |
| 2/10 | . . . with other friction member | 2/44 | . . Wicks; Wick guides or fastenings |
| 2/12 | . . with cerium-iron alloy without wick | 2/46 | . . Friction wheels; Arrangement of friction wheels |
| 2/14 | . . with cerium-iron alloy and torch ignited by striking or pushing | 2/48 | . . Flint (composition, manufacture C06C 15/00); Guides for, or arrangements of, flints |
| 2/16 | . Lighters with gaseous fuel, e.g. the gas being stored in liquid phase | 2/50 | . . Protecting coverings |
| 2/161 | . . {with friction wheel} | 2/52 | . . Filling devices (in general B67D) |
| 2/162 | . . {with non-adjustable gas flame (if electrically ignited F23Q 2/28)} | 3/00 | Igniters using electrically-produced sparks (sparking-plugs H01T 13/00) |
| 2/163 | . . . {Burners (gas valves)} | 3/002 | . {using piezo-electric elements} |
| 2/164 | . . {Arrangements for preventing undesired ignition} | 3/004 | . {Using semiconductor elements} |
| 2/165 | . . {with more than one flame} | 3/006 | . {Details (sparking-plugs H01T 13/00)} |
| 2/167 | . . with adjustable flame | 3/008 | . {Structurally associated with fluid-fuel burners} |
| 2/173 | . . Valves therefor (valves in general F16K) | 3/01 | . Hand-held lighters, e.g. for cigarettes |
| 2/18 | . Lighters with solid fuel | 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) |
| 2/20 | . . with cerium-iron alloy and friction wheel | 7/00 | Incandescent ignition; Igniters using electrically-produced heat, e.g. lighters for cigarettes (circuits therefor H01T 15/00); Electrically-heated glowing plugs |
| 2/22 | . . with cerium-iron alloy and tinder | 7/001 | . {Glowing plugs for internal-combustion engines} |
| 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)} | 2007/002 | . . {with sensing means} |
| 2/26 | . . combined with liquid fuel lighters | 2007/004 | . . {Manufacturing or assembling methods} |
| 2/28 | . Lighters characterised by electrical ignition of the fuel (lighter with electrically-produced sparks but without fuel F23Q 3/00) | 2007/005 | . . . {pressure sensors} |
| 2/282 | . . {with incandescent ignition (lighters with incandescent ignition but without fuel F23Q 7/00)} | 2007/007 | . . . {ion current sensors} |
| 2/285 | . . {with spark ignition} | 2007/008 | . . . {temperature sensors} |
| 2/287 | . . . {piezo-electric} | 7/02 | . for igniting solid fuel |
| 2/30 | . Lighters characterised by catalytic ignition of fuel (catalytic igniters without fuel C06C) | 7/04 | . . with fans for transfer of heat to fuel |
| | | 7/06 | . structurally associated with fluid-fuel burners (lighters containing fuel F23Q 2/00) |

- 7/08 . . for evaporating and igniting liquid fuel, e.g. in hurricane lanterns
- 7/10 . . for gaseous fuel, e.g. in welding appliances
- 7/12 . . . actuated by gas-controlling device
- 7/14 . Portable igniters
- 7/16 . . with built-in battery
- 7/18 . . with built-in generator
- 7/20 . . with built-in mains transformer
- 7/22 . Details
- 7/24 . . Safety arrangements
- 7/26 . . . Provision for re-ignition

9/00 Pilot flame igniters

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

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

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

13/00 Igniters not otherwise provided for

- 13/005 . {using light, e.g. sunlight or laser}
- 13/02 . using gas burners, e.g. gas pokers
- 13/04 . using portable burners, e.g. torches, fire pots

21/00 Devices for effecting ignition from a remote location

23/00 Testing of ignition installations (peculiar to internal-combustion engines [F02P 17/00](#))

- 23/02 . Testing of ignition timing
- 23/08 . Testing of components (of sparking plugs [H01T 13/58](#), [F02P 17/12](#))
- 23/10 . . electrically

25/00 Extinguishing-devices, e.g. for blowing-out or snuffing candle flames (for cigarettes [A24F](#))