

**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	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{with spark ignition}</li> </ul> </li> </ul>
F23Q 2/287	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{piezo-electric}</li> </ul> </li> </ul> </li> </ul>
F23Q 2/30	<ul style="list-style-type: none"> <li>Lighters characterised by catalytic ignition of fuel (<a href="#">catalytic igniters without fuel C06C</a>)</li> </ul>
F23Q 2/32	<ul style="list-style-type: none"> <li>Lighters characterised by being combined with other objects (<a href="#">combinations with smokers' equipment A24F</a>)</li> </ul>
F23Q 2/325	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{combined with clock, timer or counter}</li> </ul> </li> </ul> <p><b>WARNING</b></p> <p>groups <a href="#">F23Q 2/325</a> is not complete, pending reorganisation. See also <a href="#">F23Q 2/32</a></p>
F23Q 2/34	<ul style="list-style-type: none"> <li>Component parts or accessories</li> </ul>
F23Q 2/345	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Scent-distribution or flame-colouring devices}</li> </ul> </li> </ul> <p><b>WARNING</b></p> <p>[N: WARNING, groups <a href="#">F23Q 2/345</a> is not complete, pending reorganisation. See also <a href="#">F23Q 2/34</a></p>
F23Q 2/36	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Casings</li> </ul> </li> </ul>
F23Q 2/365	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{Tabletop lighters}</li> </ul> </li> </ul> </li> </ul> <p><b>WARNING</b></p> <p>groups <a href="#">F23Q 2/365</a> is not complete, pending reorganisation. See also <a href="#">F23Q 2/36</a></p>
F23Q 2/38	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>with containers for flints or tools</li> </ul> </li> </ul> </li> </ul>
F23Q 2/40	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Cover fastenings</li> </ul> </li> </ul>
F23Q 2/42	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Fuel containers; Closures for fuel containers</li> </ul> </li> </ul>
F23Q 2/44	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Wicks; Wick guides or fastenings</li> </ul> </li> </ul>
F23Q 2/46	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Friction wheels; Arrangement of friction wheels</li> </ul> </li> </ul>
F23Q 2/48	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Flint (<a href="#">composition, manufacture C06C 15/00</a>); Guides for, or arrangements of, flints</li> </ul> </li> </ul>
F23Q 2/50	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Protecting coverings</li> </ul> </li> </ul>
F23Q 2/52	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Filling devices (<a href="#">in general B67D</a>)</li> </ul> </li> </ul>
<b>F23Q 3/00</b>	<b>Igniters using electrically-produced sparks (<a href="#">sparking-plugs H01T 13/00</a>)</b>
F23Q 3/002	<ul style="list-style-type: none"> <li>{using piezo-electric elements}</li> </ul>
F23Q 3/004	<ul style="list-style-type: none"> <li>{Using semiconductor elements}</li> </ul>
F23Q 3/006	<ul style="list-style-type: none"> <li>{Details (<a href="#">sparking-plugs H01T 13/00</a>)}</li> </ul>
F23Q 3/008	<ul style="list-style-type: none"> <li>{Structurally associated with fluid-fuel burners}</li> </ul>
F23Q 3/01	<ul style="list-style-type: none"> <li>Hand-held lighters, e.g. for cigarettes</li> </ul>
<b>F23Q 5/00</b>	<b>Make-and-break ignition, i.e. with spark generated between electrodes by breaking contact therebetween (<a href="#">specially adapted for internal-combustion engines F02P 15/00</a>)</b>

<b>F23Q 7/00</b>	<b>Incandescent ignition; Igniters using electrically-produced heat, e.g. lighters for cigarettes (circuits therefor <a href="#">H01T 15/00</a>); Electrically-heated glowing plugs</b>
F23Q 7/001	<ul style="list-style-type: none"> <li>• {Glowing plugs for internal-combustion engines}</li> </ul>
F23Q 2007/002	<ul style="list-style-type: none"> <li>• • {with sensing means}</li> </ul>
F23Q 2007/004	<ul style="list-style-type: none"> <li>• • {Manufacturing or assembling methods}</li> </ul>
F23Q 2007/005	<ul style="list-style-type: none"> <li>• • • {pressure sensors}</li> </ul>
F23Q 2007/007	<ul style="list-style-type: none"> <li>• • • {ion current sensors}</li> </ul>
F23Q 2007/008	<ul style="list-style-type: none"> <li>• • • {temperature sensors}</li> </ul>
F23Q 7/02	<ul style="list-style-type: none"> <li>• for igniting solid fuel</li> </ul>
F23Q 7/04	<ul style="list-style-type: none"> <li>• • with fans for transfer of heat to fuel</li> </ul>
F23Q 7/06	<ul style="list-style-type: none"> <li>• structurally associated with fluid-fuel burners (<a href="#">lighters containing fuel F23Q 2/00</a>)</li> </ul>
F23Q 7/08	<ul style="list-style-type: none"> <li>• • for evaporating and igniting liquid fuel, e.g. in hurricane lanterns</li> </ul>
F23Q 7/10	<ul style="list-style-type: none"> <li>• • for gaseous fuel, e.g. in welding appliances</li> </ul>
F23Q 7/12	<ul style="list-style-type: none"> <li>• • • actuated by gas-controlling device</li> </ul>
F23Q 7/14	<ul style="list-style-type: none"> <li>• Portable igniters</li> </ul>
F23Q 7/16	<ul style="list-style-type: none"> <li>• • with built-in battery</li> </ul>
F23Q 7/18	<ul style="list-style-type: none"> <li>• • with built-in generator</li> </ul>
F23Q 7/20	<ul style="list-style-type: none"> <li>• • with built-in mains transformer</li> </ul>
F23Q 7/22	<ul style="list-style-type: none"> <li>• Details</li> </ul>
F23Q 7/24	<ul style="list-style-type: none"> <li>• • Safety arrangements</li> </ul>
F23Q 7/26	<ul style="list-style-type: none"> <li>• • • Provision for re-ignition</li> </ul>
<b>F23Q 9/00</b>	<b>Pilot flame igniters</b>
F23Q 9/02	<ul style="list-style-type: none"> <li>• without interlock with main fuel supply</li> </ul>
F23Q 9/04	<ul style="list-style-type: none"> <li>• • for upright burners, e.g. gas-cooker burners</li> </ul>
F23Q 9/045	<ul style="list-style-type: none"> <li>• • • {Structurally associated with a main-burner}</li> </ul>
F23Q 9/06	<ul style="list-style-type: none"> <li>• • for inverted burners, e.g. gas lamps</li> </ul>
F23Q 9/08	<ul style="list-style-type: none"> <li>• with interlock with main fuel supply</li> </ul>
F23Q 9/10	<ul style="list-style-type: none"> <li>• • to determine the sequence of supply of fuel to pilot and main burners</li> </ul>
F23Q 9/12	<ul style="list-style-type: none"> <li>• • to permit the supply to the main burner in dependence upon existence of pilot flame</li> </ul>
F23Q 9/14	<ul style="list-style-type: none"> <li>• • • using electric means, e.g. by light-sensitive elements</li> </ul>
<b>F23Q 11/00</b>	<b>Arrangement of catalytic igniters (<a href="#">catalytic igniters per se C06C</a>)</b>
F23Q 11/04	<ul style="list-style-type: none"> <li>• at the burner</li> </ul>
F23Q 11/06	<ul style="list-style-type: none"> <li>• remote from the burner, e.g. on the chimney of a lamp</li> </ul>
F23Q 11/08	<ul style="list-style-type: none"> <li>• on a part moved by the fuel controlling member</li> </ul>
F23Q 11/10	<ul style="list-style-type: none"> <li>• • and moving out of the flame after ignition</li> </ul>
<b>F23Q 13/00</b>	<b>Igniters not otherwise provided for</b>

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
<b>F23Q 21/00</b>	<b>Devices for effecting ignition from a remote location</b>
<b>F23Q 23/00</b>	<b>Testing of ignition installations</b> (peculiar to internal combustion engines <a href="#">F02P 17/00</a> )
F23Q 23/02	• Testing of ignition timing
F23Q 23/08	• Testing of components (of sparking plugs <a href="#">H01T 13/58</a> , <a href="#">F02P 17/12</a> )
F23Q 23/10	• . electrically
<b>F23Q 25/00</b>	<b>Extinguishing-devices, e.g. for blowing-out or snuffing candle flames</b> (for cigarettes <a href="#">A24F</a> )