

# CPC COOPERATIVE PATENT CLASSIFICATION

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

### WEAPONS; BLASTING

#### F42 AMMUNITION; BLASTING (NOTES omitted)

#### F42D BLASTING (fuses, e.g. fuse cords, [C06C 5/00](#); {for obtaining fluid from wells [E21B 43/00](#); for mining or quarrying [E21C 37/00](#); for making tunnels or galleries [E21D 9/006](#)}; cartridges [F42B 3/00](#))

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

<p><b>1/00</b> <b>Blasting methods or apparatus, e.g. loading or tamping</b></p> <p>1/02 . Arranging blasting cartridges to form an assembly (adaptation of blasting cartridges therefor <a href="#">F42B 3/02</a>)</p> <p>1/04 . Arrangements for ignition {(ignition systems for shaped charge perforators <a href="#">E21B 43/1185</a>; ignition devices for seismic energy generators <a href="#">G01V 1/06</a>)}</p> <p>1/041 . . {Tools for adapting cartridges for the mounting of detonators (cartridges specially adapted for the mounting of detonators <a href="#">F42B 3/26</a>)}</p> <p>1/042 . . {Logic explosive circuits, e.g. with explosive diodes}</p> <p>1/043 . . {Connectors for detonating cords and ignition tubes, e.g. Nonel tubes (mounting of detonators in blasting cartridges <a href="#">F42B 3/26</a>)}</p> <p>1/045 . . Arrangements for electric ignition (dynamo-electric generators <a href="#">H02K</a>)</p> <p>1/05 . . . Electric circuits for blasting</p> <p>1/055 . . . specially adapted for firing multiple charges with a time delay</p> <p>1/06 . . Relative timing of multiple charges ({<a href="#">F42D 1/043</a> and } <a href="#">F42D 1/055</a> take precedence)</p> <p>1/08 . Tamping methods; Methods for loading boreholes with explosives; Apparatus therefor</p> <p>1/10 . . Feeding explosives in granular or slurry form; Feeding explosives by pneumatic or hydraulic pressure</p> <p>1/12 . . Feeding tamping material by pneumatic or hydraulic pressure</p> <p>1/14 . . Hand-operated tamping or loading</p> <p>1/16 . . . Tamping tools</p> <p>1/18 . . Plugs for boreholes</p> <p>1/20 . . Tamping cartridges, i.e. cartridges containing tamping material (flexible or deformable blasting cartridges <a href="#">F42B 3/087</a>)</p> <p>1/22 . . Methods for holding or positioning for blasting cartridges or tamping cartridges</p> <p>1/24 . . characterised by the tamping material</p> <p>1/26 . . . Tamping with foaming agents</p> <p>1/28 . . . Tamping with gelling agents</p>	<p><b>3/00</b> <b>Particular applications of blasting techniques</b> {(explosive welding <a href="#">B23K 20/08</a>; explosive bolts or actuators <a href="#">F42B 3/006</a>; explosive valves <a href="#">F16K 13/06</a>; cutting devices actuated by explosion <a href="#">B23D 15/145</a>; pyrotechnical actuators <a href="#">F15B 15/19</a>; switching devices actuated by explosion <a href="#">H01H 39/00</a>)}</p> <p>3/02 . for demolition of tall structures, e.g. chimney stacks</p> <p>3/04 . for rock blasting</p> <p>3/06 . for seismic purposes</p> <p><b>5/00</b> <b>Safety arrangements</b></p> <p>5/02 . Locating undetonated charges</p> <p>5/04 . Rendering explosive charges harmless, e.g. destroying ammunition ({<a href="#">F42B 39/14</a> and <a href="#">F42B 39/20</a> take precedence } ; extracting primers, dismantling ammunition <a href="#">F42B 33/04</a>, <a href="#">F42B 33/06</a> { ; chemical deactivating of explosives <a href="#">C06B 21/0091</a> }); Rendering detonation of explosive charges harmless</p> <p>5/045 . . Detonation-wave absorbing or damping means</p> <p>5/05 . . . Blasting mats</p> <p>5/055 . . Silencing means for blasting operations</p> <p>5/06 . Unloading boreholes</p> <p><b>99/00</b> <b>Subject matter not provided for in other groups in this subclass</b></p>
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