

**CPC****COOPERATIVE PATENT CLASSIFICATION****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**

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[F42D 7/00](#) covered by [F42D 1/00](#) , [F42D 3/00](#)

**Guidance heading:****F42D 1/00****Blasting methods or apparatus, e.g. loading or tamping**

- F42D 1/02 . Arranging blasting cartridges to form an assembly ( adaptation of blasting cartridges therefor [F42B 3/02](#) )
- F42D 1/04 . Arrangements for ignition { ( ignition systems for shaped charge perforators [E21B 43/1185](#) ; ignition devices for seismic energy generators [G01V 1/06](#) ) }
- F42D 1/041 .. { Tools for adapting cartridges for the mounting of detonators ( Cartridges specially adapted for the mounting of detonators [F42B 3/26](#) ) }
- F42D 1/042 .. { Logic explosive circuits, e.g. with explosive diodes }
- F42D 1/043 .. { Connectors for detonating cords and ignition tubes, e.g. Nonel tubes ( mounting of detonators in blasting cartridges [F42B 3/26](#) ) }
- F42D 1/045 .. Arrangements for electric ignition ( dynamo-electric generators [H02K](#) )
- F42D 1/05 ... Electric circuits for blasting
- F42D 1/055 .... specially adapted for firing multiple charges with a time delay
- F42D 1/06 .. Relative timing of multiple charges ( { [F42D 1/043](#) and } [F42D 1/055](#) take precedence )
- F42D 1/08 . Tamping methods ; Methods for loading boreholes with explosives ; Apparatus therefor
- F42D 1/10 .. Feeding explosives in granular or slurry form ; Feeding explosives by pneumatic or hydraulic pressure
- F42D 1/12 .. Feeding tamping material by pneumatic or hydraulic pressure
- F42D 1/14 .. Hand-operated tamping or loading
- F42D 1/16 ... Tamping tools
- F42D 1/18 .. Plugs for boreholes
- F42D 1/20 .. Tamping cartridges, i.e. cartridges containing tamping material ( flexible or deformable blasting cartridges [F42B 3/087](#) )
- F42D 1/22 .. Methods for holding or positioning for blasting cartridges or tamping cartridges
- F42D 1/24 .. characterised by the tamping material
- F42D 1/26 ... Tamping with foaming agents

F42D 1/28	. . . Tamping with gelling agents
<b>F42D 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 3/00</a> D; explosive valves <a href="#">F16K 13/06</a> ; cutting devices actuated by explosion <a href="#">B23D 15/14</a> B; pyrotechnical actuators <a href="#">F15B 15/19</a> ; switching devices actuated by explosion <a href="#">H01H 39/00</a> }
F42D 3/02	. for demolition of tall structures, e.g. chimney stacks
F42D 3/04	. for rock blasting
F42D 3/06	. for seismic purposes
<b>F42D 5/00</b>	<b>Safety arrangements</b>
F42D 5/02	. Locating undetonated charges
F42D 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
F42D 5/045	. . Detonation-wave absorbing or damping means
F42D 5/05	. . . Blasting mats
F42D 5/055	. . Silencing means for blasting operations
F42D 5/06	. Unloading boreholes
<b>F42D 99/00</b>	<b>Subject matter not provided for in other groups in this subclass</b>