

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](#)

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

F42D 3/00	Particular applications of blasting techniques{ explosive welding B23K 20/08 ; explosive bolts or actuators F42B 3/006; explosive valves F16K 13/06 ; cutting devices actuated by explosion B23D 15/145; pyrotechnical actuators F15B 15/19 ; switching devices actuated by explosion H01H 39/00 }
F42D 3/02	. for demolition of tall structures, e.g. chimney stacks
F42D 3/04	. for rock blasting
F42D 3/06	. for seismic purposes
F42D 5/00	Safety arrangements
F42D 5/02	. Locating undetonated charges
F42D 5/04	. Rendering explosive charges harmless, e.g. destroying ammunition({ F42B 39/14 and F42B 39/20 take precedence } ; extracting primers, dismantling ammunition F42B 33/04 , F42B 33/06 ; { chemical deactivating of explosives C06B 21/0091 }); 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
F42D 99/00	Subject matter not provided for in other groups in this subclass