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)

Definition statement

This place covers:

This subclass covers devices and methods for blasting for both civilian and military applications. The documentation is also organised according to the particular blasting operations. Further it includes particular safety arrangements for blasting or detonations.

Relationships with other classification places

C06B : Chemical aspects of explosives, explosive compositions

C06C:Chemical aspects of primers and detonators

References

Limiting references

This place does not cover:

Fuses, e.g. fuse cords	C06C 5/00
Blasting cartridges	F42B 3/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

For obtaining fluid from wells	E21B 43/00
For mining or quarring	E21C 37/00
For making tunnels or galleries	E21D 9/006
Seismic investigation using explosives	G01V 1/104

F42D 1/00

Blasting methods or apparatus, e.g. loading or tamping

Definition statement

This place covers:

Devices and methods for blasting, including the arrangement of blasting cartridges as the smallest explosive unit into assemblies, pyrotechnic, electric and electronic ignition arrangements, in particular for the timed ignition of a multitude of single blasting units, and methods and apparatus for the tamping or loading of explosives. Further includes set-ups for breaching of doors or walls.

F42D 1/042

{Logic explosive circuits, e.g. with explosive diodes}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Electric circuits for blasting	F42D 1/05

F42D 1/043

{Connectors for detonating cords and ignition tubes, e.g. Nonel tubes (mounting of detonators in blasting cartridges F42B 3/26)}

References

Limiting references

This place does not cover:

Mounting of detonators in blasting cartridges	F42B 3/26

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fuze connectors	C06C 5/06

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)}

Relationships with other classification places

Cleaning by explosions	B08B 7/0007
Well/Drilling blast units, perforating guns	E21B

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cutting devices actuated by explosion	B23D 15/145
Explosive welding	B23K 20/08
Pyrotechnical actuators	F15B 15/19
Explosive valves	F16K 13/06
Explosive bolts or actuators	F42B 3/006

Switching devices actuated by explosion	H01H 39/00

F42D 3/06

for seismic purposes

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Generating seismic energy using explosive charges	G01V 1/104

F42D 5/00

Safety arrangements

Definition statement

This place covers:

Methods and devices for increasing the safety of blasting operation, e.g. during blasting operation by providing a physical detonation wave absorbing shield, or the identification, neutralisation and removal of explosives in cases where the explosive did not detonate (abort of operation, malfunction/dud or decommissioning).

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

References

Limiting references

This place does not cover:

Fitting or extracting primers in or from fuzes or charges	F42B 33/04
Dismantling fuzes, cartridges, projectiles, missiles, rockets or bombs	F42B 33/06
Explosion or fire protection arrangements on packages or ammunition	F42B 39/14
Packages or ammunition having valves for pressure-equalising; Packages or ammunition having plugs for pressure release, e.g. meltable	F42B 39/20

Informative references

Attention is drawn to the following places, which may be of interest for search:

Elimination of undesirable or temporary components of an intermediate or finished product, e.g. making porous or low density products, purifying, stabilising, drying; Deactivating; Reclaiming	C06B 21/0091

F42D 5/045

Detonation-wave absorbing or damping means

Definition statement

This place covers:

This group includes all means to avoid the propagation of the detonation or blast wave during the destruction of ammunition by controlled detonation in a pressure chamber which is able to withstand a detonation inside. Also includes detonation wave guiding means.

References

Limiting references

This place does not cover:

Dismantling fuzes, cartridges, projectiles, missiles, rockets or bombs by combustion	F42B 33/067