

Title (en)
ELECTROTHERMAL CHEMICAL CARTRIDGE

Title (de)
CHEMISCHE ELEKTROTHERMISCHE KATEREDER

Title (fr)
CARTOUCHE CHIMIQUE ELECTROTHERMIQUE

Publication
EP 0820578 A1 19980128 (EN)

Application
EP 95914744 A 19950323

Priority
US 9503360 W 19950323

Abstract (en)
[origin: WO9629565A1] An electrothermal chemical cartridge (10) with a fuse (18) of tapering cross section enables higher impulse energy to be imparted to a projectile (6) by means of complete controlled burning of propellant (24). A long, narrow tube (16) filled with propellant (24) has a fuse (18) on its inside surface with a cross section that tapers toward the discharge end, separated from the electrical ground of the cartridge casing by a layer of insulation sufficiently thin to be destroyed as the fuse ignites the propellant. A high-voltage electrode (26) connected at the back end (14) of the tube (16) provides for application of a pulse of sufficient current density to ohmically heat or burn the fuse in a controlled fashion from the discharge end (12) to the back end (14). Many such tubes (152) can be bundled together in a large casing (150) for wide barrel guns.

IPC 1-7
F42B 5/08

IPC 8 full level
F42B 5/08 (2006.01)

IPC 8 main group level
F42B (2006.01)

CPC (source: EP KR)
F42B 5/08 (2013.01 - EP KR)

Designated contracting state (EPC)
AT CH DE FR GB LI SE

DOCDB simple family (publication)
WO 9629565 A1 19960926; AU 2186595 A 19961008; AU 708028 B2 19990729; BR 9510547 A 19980609; CA 2215239 A1 19960926; CA 2215239 C 20050322; EP 0820578 A1 19980128; EP 0820578 A4 20000419; FI 973751 A0 19970922; FI 973751 A 19970922; JP 3585930 B2 20041110; JP H11502301 A 19990223; KR 19980703195 A 19981015; NO 974362 D0 19970922; NO 974362 L 19971117

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US 9503360 W 19950323; AU 2186595 A 19950323; BR 9510547 A 19950323; CA 2215239 A 19950323; EP 95914744 A 19950323; FI 973751 A 19970922; JP 52835196 A 19950323; KR 19970706598 A 19970922; NO 974362 A 19970922