Title (en)

PLIANT FIREARM PROJECTILES

Title (de)

WEICHES FEUERWAFFENGESCHOSS

Title (fr)

PROJECTILES SOUPLES D'ARMES A FEU

Publication

EP 1272807 A2 20030108 (EN)

Application

EP 01932526 A 20010409

Priority

- US 0111484 W 20010409
- US 19635300 P 20000412

Abstract (en)

[origin: WO0179782A2] A less lethal ammunition round includes a highly pliant projectile that may impregnated with fine heavy particles. The projectile has an interior void into which is placed a force transfer member that engages an interior surface at the forward end of the projectile in front of the center of gravity. Upon ignition of a powder charge, a piston in the cartridge chamber engages the transfer member which, in turn, elongates the projectile as the projectile forward end is driven, pulling the remainder of the projectile, reducing its diameter. This allows a release from the cartridge and passage through the barrel of the weapon from which it is being fired. Stabilizing fins at the projectile base deploy as the projectile exits the muzzle. A breaching round is impregnated with a greater weight of heavy particles and its transfer member has an initial large diameter portion and a terminal smaller diameter portion. The breaching projectile similarly has a large diameter initial void and a smaller diameter terminal void. As the transfer member is urged forward, the forward part of the projectile is extended until the transfer member shoulder engages a similar shoulder in the void and no further elongation of the projectile occurs. The elongation is sufficient to release the projectile from the cartridge and permit it to travel through the weapon barrel without obstruction and without damage to the projectile.
[origin: WO0179782A2] A less lethal ammunition round (10) includes a highly pliant projectile (24) that may impregnated with fine heavy particles. The projectile has an interior void (32) into which is placed a force transfer member (30) that engages an interior surface at the forward end of the projectile in front of the center of gravity. Upon ignition of a powder charge, a piston (26) in the cartridge chamber engages the transfer member which, in turn, elongates the projectile as the projectile forward end is driven, pulling the remainder of the projectile, reducing its diameter. This allows a release from the cartridge and passage through the barrel of the weapon from which it is being fired. Stabilizing fins (39) at the projectile base deploy as the projectile exits the muzzle. A breaching round is impregnated with a greater weight of heavy particles and its transfer member has an initial large diameter portion and a terminal smaller diameter portion. The breaching projectile similarly has a large diameter initial void and a smaller diameter terminal void. As the transfer member is urged forward, the forward part of the projectile is extended until the transfer member shoulder engages a similar shoulder in the void and no further elongation of the projectile occurs. The elongation is sufficient to release the projectile from the cartridge and permit it to travel through the weapon barrel without obstruction and without damage to the projectile.

IPC 1-7

F42B 12/34; F42B 12/74

IPC 8 full level

F42B 12/34 (2006.01); **F42B 5/02** (2006.01); **F42B 12/74** (2006.01)

CPC (source: EP)

F42B 5/02 (2013.01); **F42B 7/08** (2013.01); **F42B 12/74** (2013.01)

Citation (search report)

See references of WO 0179782A2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 0179782 A2 20011025; **WO 0179782 A3 20020328**; AU 5904401 A 20011030; CA 2405998 A1 20011025; CA 2405998 C 20081028; EP 1272807 A2 20030108; IL 152192 A0 20030529; IL 152192 A 20061031; JP 2003531351 A 20031021; ZA 200208137 B 20030722

DOCDB simple family (application)

US 0111484 W 20010409; AU 5904401 A 20010409; CA 2405998 A 20010409; EP 01932526 A 20010409; IL 15219201 A 20010409; JP 2001576404 A 20010409; ZA 200208137 A 20021009