

A Cartridged Projectile

Abstract

[0028] The present invention describes an improved cartridged projectile (100). The cartridged projectile (100) comprises a projectile (110) seating at a mouth of a cartridge case (130). The cartridge case (130) has a base (134) that houses a high pressure chamber (150). A side of the high pressure chamber is capped by a pressure disc (170), which is secured onto the base of the cartridge case by a nozzle ring (160). The nozzle ring (160) has a tapered or conical surface that allows the pressure disc (170) to flex, and a surface (171) of the pressure disc (170) exterior of the high pressure chamber has intersecting V-shaped grooves (172). When propellant in the high pressure chamber (150) is burned efficiently, high pressure gases developing inside the high pressure chamber cause the pressure disc (170) to rupture at a predetermined pressure along the grooves (172) so that the gases propel the projectile (110) out of a barrel at a higher speed of about 100 m/s or more.

[0029] FIG. 3 for publication.