PROPELLANT SEALING SYSTEM FOR STACKABLE PROJECTILES

ABSTRACT

A projectile for use in a barrel with stacked projectiles, particularly for a weapon which can be reloaded by a user in the field. The projectile includes a chamber containing a propellant charge, with an exit from the chamber for release of propulsion gases into the barrel. A seal blocks the exit and is opened by ignition of the propellant within the chamber but is resistant to gases produced by ignition of propellant in other projectiles in the barrel. The exit and seal are provided in a range of different forms. The exit may be an aperture in a wall of the chamber with the seal as a moveable barrier, such as a valve-like structure, for example. The seal may also include a rupturable or deformable barrier across the aperture. Alternatively the seal is a thin barrier around the charge such as a wax coating and the exit involves a disintegrable character of the barrier. The seal may also be an inherent property of the geometry of the chamber.

Figure 1