



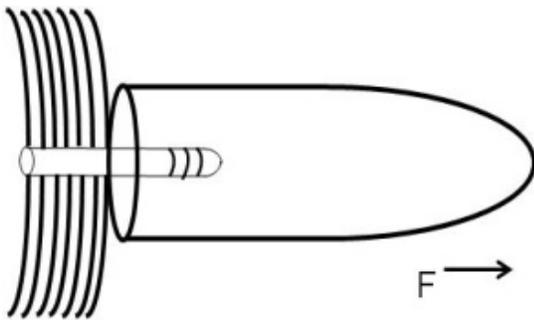
## Safety Projectile for Firearms

### INTRODUCTION

A projectile package loaded in a firearm includes a projectile having a rod attached to its rear region. The rod is attached to a drag member or vanes having elastic properties. When fired, the projectile is expelled from the barrel of the firearm. Upon exiting the barrel and until the projectile reaches its effective range, reactionary air forces caused by the projectile traveling through the air result in the elastic vanes orienting themselves in a tight formation behind the rear region of the projectile. As a result, the vanes do not detrimentally affect the aerodynamics of the projectile's flight within the effective range of the projectile. However, once the effective range of the projectile has been exceeded, the slower velocity of the projectile causes the elastic vanes to laterally fan or spread out so as to impede the forward progress of the projectile.

### CONCEPT

The invention provides full use of its effective weapon range but reduces the maximum range of the weapon resulting in increased safety.



### INVENTION OVERVIEW

The technology allows shotgun slugs, rifle, and pistol projectiles to be used at their maximum effective ranges and then a set of vanes attached to the back of the projectile will expand and reduce the maximum range of the projectile.

Specific material properties/design of the vanes will be different for each projectile type depending on muzzle velocity, weight, coefficient of drag, diameter, and maximum effective range. (Technology is at TRL 3)

- U.S. Patent Number: [8,794,156 B1](#)
- Application Number: 13/784,471
- Date of Patent: 5 Aug 2014

### POTENTIAL MARKET

- Firearms and Ammunition industries

### BUSINESS WITH AMRDEC

AMRDEC is a leader in partnering with domestic firms.

Successfully developed and implemented innovative tools to ease the technology transfer process such as:

- Patent License Agreements
- Cooperative Research and Development Agreements
- Test Services Agreements

### CONTACT INFORMATION

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