

means of an electrical pulse. Ignition is virtually instantaneous. And the result is, accuracy that many never thought possible.

The electronic fire control has no moving parts other than the trigger. No sear to be released. No firing pin to strike the primer. Instead, an internal electrical circuit sends a charge through the system to a new electrically responsive primer. Closing the bolt on the cartridge establishes contact between the firing pin and the primer. When the trigger is pulled, the electronic circuit sends an electrical pulse through the firing pin directly to the primer. This all happens in less than the blink of an eye.

Ignition is even faster, with near zero lock time, which virtually eliminates the effects of barrel movement after pulling the trigger. In fact, the bullet exits the barrel before a mechanical firing pin could even hit the primer in a conventional rifle.

#### Detachable Magazine

Many rifles feature detachable magazines that allow for quick loading and/or unloading of the firearm.

*(Where can we find this information?)*

Materials (i.e. titanium, composite, etc.)

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Materials -- new high technology materials have been used for the production of firearms, such as ceramics and composites have been successfully used in rifle barrels and produce barrels that are light weight, more rigid, and handle the heat better than traditional steel barrels. These exotic barrels are very expensive and are generally only found on expensive target or varmint rifles.

## SECTION 2: CENTERFIRE CARTRIDGES

### **Opening**

(To be written)

### **Anatomy of a Centerfire Cartridge**

Cutaway: The rifle cartridge is composed of 11 different parts.

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Using your mouse, rollover and click on the different parts of this cartridge.

The Case is usually made of brass, containing the powder charge, the primer, and the bullet. (Before development of the metallic cartridge, the term was used to mean a roll or case of paper containing powder and shot.

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The Bullet is a single projectile fired from a firearm.

The Crimp is the portion of a cartridge case that is bent inward to hold the bullet in place,

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