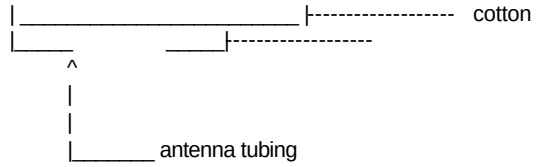


The front primer is attached to the tubing with a drop of super glue. The tubing is then filled with an explosive, and the rear primer is glued on. Finally, a tassel, or a small piece of cotton is glued to the rear primer, to insure that the projectile strikes on the front primer. The entire projectile should be about 3/4 of an inch long.

SPECIAL AMMUNITION FOR .22 CALIBER PELLET GUNS

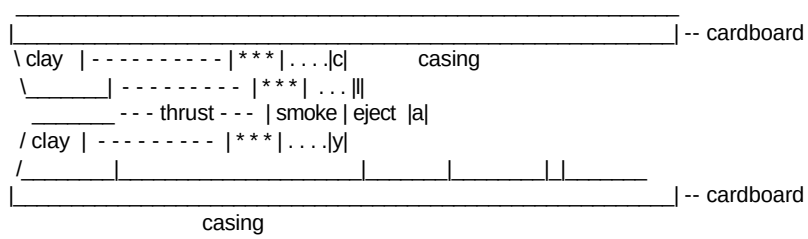
A .22 caliber pellet gun usually is equivalent to a .22 cal rifle, at close ranges. Because of this, relatively large explosive projectiles can be adapted for use with .22 caliber air rifles. A design similar to that used in the begining of this document is suitable, since some capsules are about .22 caliber or smaller. Or, a design similar to that in this document could be used, only one would have to purchase black powder percussion caps, instead of ammunition primers, since there are percussion caps that are about .22 caliber. A #11 cap is too small, but anything larger will do nicely.

210.Rocketry by Exodus

Rockets and cannon are generally thought of as heavy artillery. Perpetrators of violence do not usually employ such devices, because they are difficult or impossible to acquire. They are not, however, impossible to make. Any individual who can make or buy black powder or pyrodex can make such things. A terrorist with a cannon or large rocket is, indeed, something to fear.

ROCKETS

Rockets were first developed by the Chinese several hundred years before the myth of Christ began. They were used for entertainment in the form of fireworks. They were not usually used for military purposes because they were inaccurate, expensive, and unpredictable. In modern times, however, rockets are used constantly by the military, since they are cheap, reliable, and have no recoil. Perpetrators of violence, fortunately, cannot obtain military rockets, but they can make or buy rocket engines. Model rocketry is a popular hobby of the space age, and to launch a rocket, an engine is required. Estes, a subsidiary of Damon, is the leading manufacturer of model rockets and rocket engines. Their most powerful engine, the "D" engine, can develop almost 12 lbs of thrust; enough to send a relatively large explosive charge a significant distance. Other companies, such as Centuri, produce even larger rocket engines, which develop up to 30 lbs of thrust. These model rocket engines are quite reliable, and are designed to be fired electrically. Most model rocket engines have three basic sections. The diagram below will help explain them.



The clay nozzle is where the igniter is inserted. When the area labeled "thrust" is ignited, the "thrust" material, usually a large single grain of a propellant such as black powder or pyrodex, burns, forcing large volumes of hot, rapidly expanding gasses out the narrow nozzle, pushing the rocket forward.

After the material has been consumed, the smoke section of the engine is ignited. It is usually a slow-burning material, similar to black powder that has had various compounds added to it to produce visible smoke, usually black, white, or yellow in color. This section exists so that the rocket will be seen when it reaches its maximum altitude, or apogee.

When it is burned up, it ignites the ejection charge, labeled "eject". The ejection charge is finely powdered black powder. It burns very rapidly, exploding, in effect. The explosion of the ejection charge pushes out the parachute of the model rocket. It could also be used to ignite the fuse of a bomb...

Rocket engines have their own peculiar labeling system. Typical engine labels are: 1/4A-2T, 1/2A-3T, A8-3, B6-4, C6-7, and D12-5. The letter is an indicator of the power of an engine. "B" engines are twice as powerful as "A" engines, and "C" engines are twice as powerful as "B" engines, and so on. The number following the letter is the approximate thrust of the engine, in pounds. the final number and letter is the time delay, from the time that the thrust period of engine burn ends until the ejection charge fires; "3T" indicates a 3 second delay.

NOTE: An extremely effective rocket propellant can be made by mixing aluminum dust with ammonium perchlorate and a very small amount of iron oxide. The mixture is bound together by an epoxy.