

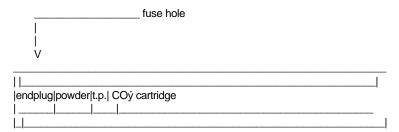
The fuse is put in the bottom engine.

Two, three, or even four stages can be added to a rocket bomb to give it a longer range. It is important, however, that for each additional stage, the fin area gets larger.

## 211.Basic Pipe Cannon by Exodus

A simple cannon can be made from a thick pipe by almost anyone. The only difficult part is finding a pipe that is extremely smooth on its interior. This is absolutely necessary; otherwise, the projectile may jam. Copper or aluminum piping is usually smooth enough, but it must also be extremely thick to withstand the pressure developed by the expanding hot gasses in a cannon.

If one uses a projectile such as a COý cartridge, since such a projectile can be made to explode, a pipe that is about 1 « - 2 feet long is ideal. Such a pipe MUST have walls that are at least 1/3 to « an inch thick, and be very smooth on the interior. If possible, screw an endplug into the pipe. Otherwise, the pipe must be crimped and folded closed, without cracking or tearing the pipe. A small hole is drilled in the back of the pipe near the crimp or endplug. Then, all that need be done is fill the pipe with about two teaspoons of grade blackpowder or pyrodex, insert a fuse, pack it lightly by ramming a wad of tissue paper down the barrel, and drop in a COý cartridge. Brace the cannon securely against a strong structure, light the fuse, and run. If the person is lucky, he will not have overcharged the cannon, and he will not be hit by pieces of exploding barrel. Such a cannon would look like this:



An exploding projectile can be made for this type of cannon with a COý cartridge. It is relatively simple to do. Just make a crater maker, and construct it such that the fuse projects about an inch from the end of the cartridge. Then, wrap the fuse with duct tape, covering it entirely, except for a small amount at the end. Put this in the pipe cannon without using a tissue paper packing wad.

When the cannon is fired, it will ignite the end of the fuse, and shoot the COý cartridge. The explosive-filled cartridge will explode in about three seconds, if all goes well. Such a projectile would look like this: