

ROCKET FIRING CANNON

A rocket firing cannon can be made exactly like a normal cannon; the only difference is the ammunition. A rocket fired from a cannon will fly further than a rocket alone, since the action of shooting it overcomes the initial inertia. A rocket that is launched when it is moving will go further than one that is launched when it is stationary. Such a rocket would resemble a normal rocket bomb, except it would have no fins. It would look like the image below. The fuse on such a device would, obviously, be short, but it would not be ignited until the rocket's ejection charge exploded. Thus, the delay before the ejection charge, in effect, becomes the delay before the bomb explodes. Note that no fuse need be put in the rocket; the burning powder in the cannon will ignite it, and simultaneously push the rocket out of the cannon at a high velocity.

REINFORCED PIPE CANNON

In high school, a friend and I built cannons and launched COý cartridges, etc, etc. However, the design of the cannon is what I want to add here. It was made from plain steel water pipe, steel wire, and lead.

Here is a cross section:

We dug into the side of a sand pile and built a chimney out of firebrick. Then we stood the assembled pipe and wire on end in the chimney, sitting on some bricks. We then had a blowtorch heating up the chimney, so that the pipe was red hot. Then we poured molten lead into the space between the pipes. If the caps aren't screwed on real tight, some of the lead will leak out. If that happens, turn off the blowtorch and the pipe will cool enough and the lead will stiffen and stop the leak.

We used homemade and commercial black powder, and slow smokeless shotgun powder in this thing. After hundreds of shots we cut it up and there was no evidence of cracks or swelling of the inner pipe.