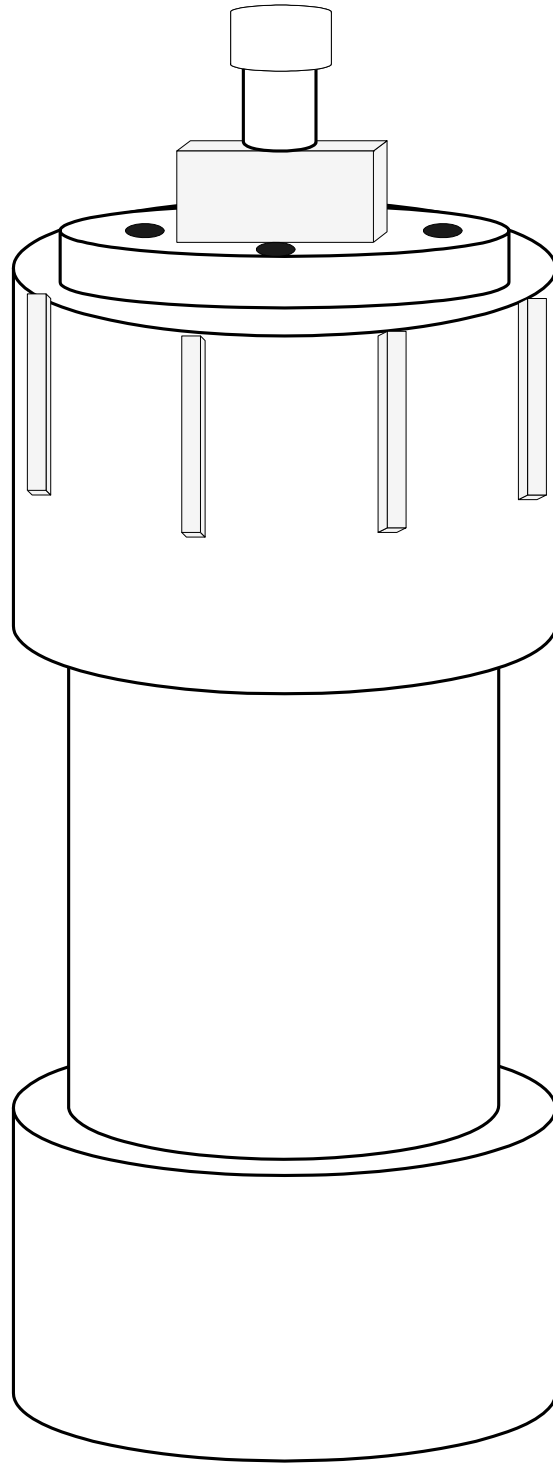


CO2 Powered Land Mine



J. Gary Oprendeck Copyright 2009

Parts List



1 - 1 1/2" PVC Pipe X 3 1/4" Long



1 - 3/4" PVC Pipe X 3" Long



1 - 1 1/2" PVC Slip Cap



1 - 1 1/2" Female Adapter



1 - 1 1/2" Male Clean Out Plug



1 - 1/2" CPVC Pipe X 2 3/4" Long (has a yellow tint to it)



1 - 1/2" CPVC Slip Cap (has a yellow tint to it)



2 - 1/2" Self Tapping Screws



1 - Tiny Ass Drill Bit (smaller than 1/8") for pilot holes



1 - 1/8" Drill Bit



1 - 1/4" Drill Bit



1 - 5/8" Drill Bit



2 Part PVC Cement

I made these plans based on the land mine designed by Matt Carroll. This is his idea and he should get the credit. I just reverse engineered it and drew up these plans. This is a Co2 powered land mine. It is filled with baby powder or flour and buried. When stepped on the plunger pushes down on the Co2 cartridge inside and it is punctured forcing the powder or flour up and into the air. These plans assume you have already cut the pipes to the correct length.

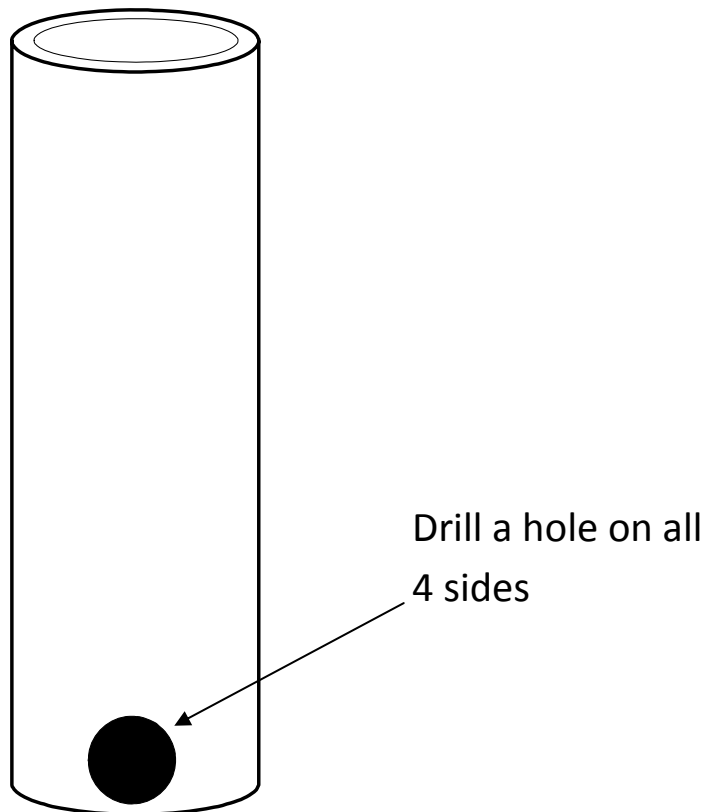
NOTE 1: THESE PLANS ASSUME YOU KNOW HOW TO USE 2 PART PVC CEMENT. IF YOU DON'T, THEN LISTEN! THE PURPLE STUFF IS THE PRIMER. HIT EACH PART TO BE GLUED WITH THIS AT THE CONTACT POINTS. LET IT DRY. THEN COAT THEM WITH THE CEMENT AND STICK THEM TOGETHER. MAKE SURE YOU DO IT RIGHT. ONCE THE JOINTS ARE TOGETHER YOU ARE NOT GOING TO GET THEM APART!

NOTE 2: IF YOU PLAN TO PAINT THE DEVICE THEN MAKE SURE YOU SAND EVERY PART DOWN WITH MEDIUM SANDPAPER BEFORE ASSEMBLY TO MAKE IT ROUGH. YOU WILL NEED TO SPRAY IT WITH PLASTIC PRIMER BEFORE PAINTING OTHERWISE THE PAINT WILL COME RIGHT OFF.

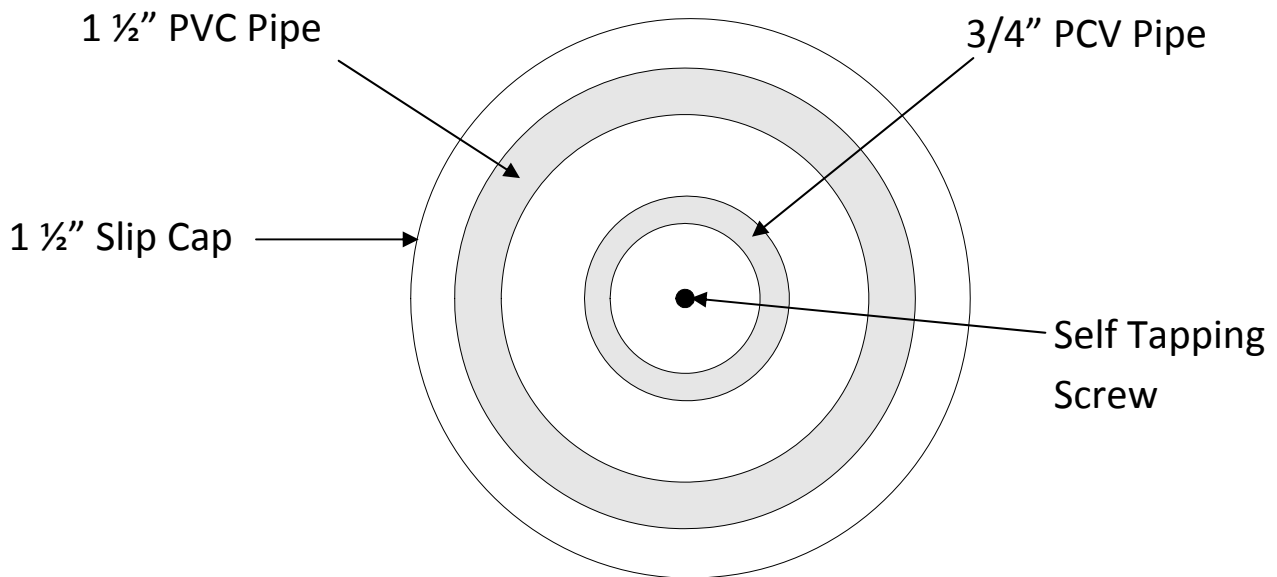
NOTE 3: TAKE YOUR FRIGGIN TIME!

1. Assemble the body.

- Take the 1 ½” slip cap. If you look inside there will be a little nub. Knock this off with a screwdriver. This is the center of the cap. Using the tiny-ass drill bit drill a pilot hole right on top of it. Screw one of the self tapping screws into the hole (from the bottom).
- Take the 1 ½” X 3 ¼” pvc pipe and glue it into the slip cap. Set it aside.
- Take the ¾” X 3” pvc pipe and using the ¼” drill, drill 4 holes in the side near the very bottom. This is where the escaping co2 will leave the pipe to push out the powder.



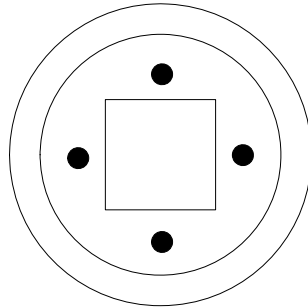
- Take the female adapter and glue it to the top of the body assembly.
- Take the $\frac{3}{4}$ " x 3" pvc pipe and prime and glue the end (with the holes you just drilled) and center in the middle of the body. It must be centered correctly or the Co2 cartridge will not puncture and you just created a paperweight. Here is a view looking at it from the top:



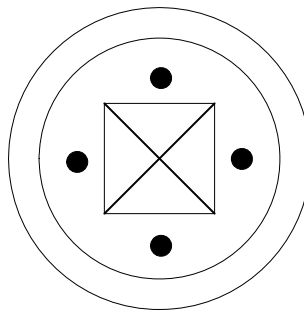
NOTE: THE CENTER PIECE OF PIPE WILL NOT STAY PUT UNTIL THE GLUE SETS UP AND DRIES. SO ONCE YOU SET IT IN PLACE PUT THE ASSEMBLY ASIDE AND LET IT SIT OVER NIGHT.

2. Assemble the cap

- Take the **cpvc** pipe and **cpvc** slip cap and glue them together. This is the plunger. Using the tiny ass drill bit drill a pilot hold near the bottom of the pipe. Set it aside.
- Take the male cleanout plug and flip it over so you are looking at it from the bottom. Then using the 1/8" drill bit drill 4 holes (one on each side of the square hole). Example:

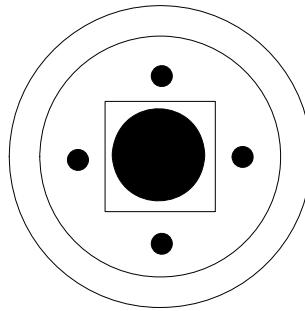


- Turn it over so you are facing it from the top. Using a straight edge draw a line from corner to corner on the square part to find the center:

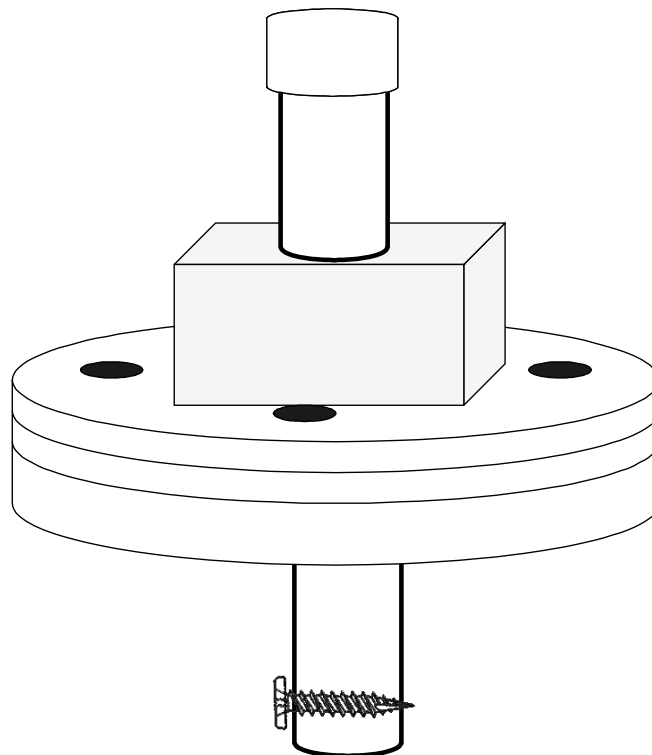


- Using the tiny-ass drill bit drill a pilot hole.

- Then using the 5/8" drill bit drill out the rest of the hole. When you are through the piece wiggle the drill bit around to ream it out a little. The 5/8" hole is a little tight for the plunger and a 3/4" is too big, so ream out the 5/8" hole.



- Insert the plunger assembly into the center hole. Then screw the other self tapping screw into the pilot hole to keep the plunger from falling out of the cap.



- Screw the cap into the body and the device is now complete.

NOTE: IF YOU WISH TO PAINT THE DEVICE SAND OFF ANY RESIDUAL PVC PRIMER AND CEMENT. PAINT WITH PLASTIC PRIMER (CAN GET IN A SPRAY CAN AT WALMART) AND THEN PAINT THE COLOR YOU WISH.

3. Usage

- Insert a Co2 cartridge (can be gotten at any sporting goods or paintball supply store) into the center pipe with the tip pointing down.
- Fill the gap between the center pipe and the outer pipe with flour or baby powder (or if you want revenge on someone for something use chili powder).
- Screw the cap on. The device is now armed and ready to go.
- Bury the device with the top of the plunger even with the top of the hole. Fill LOOSELY with dirt and clean up so it is not noticeable.
- Sit back and watch.

Finished product:

