

## Building a Barrel Plater

Steve Shearer Jan 2014

A barrel plater is great for small objects to be plated because you do not have to individually wire them which is time consuming and tends to leave stains where the wire obscures the object being plated.

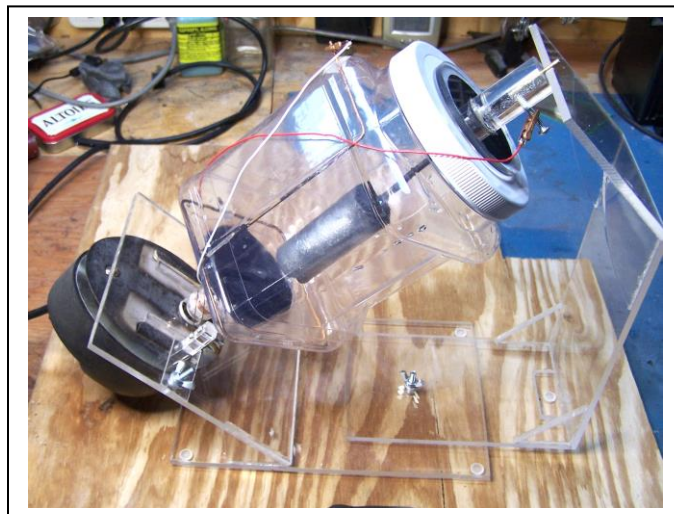
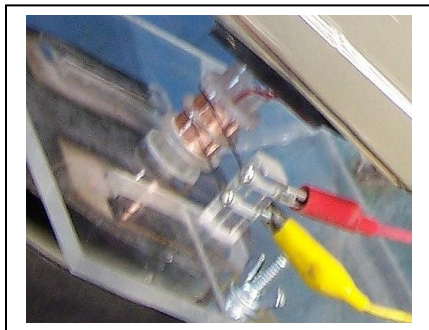
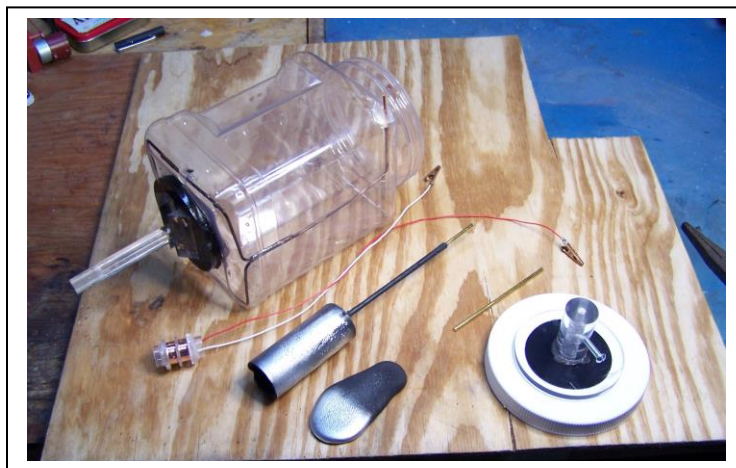
Working from top left, the plating barrel. A square plastic bottle with a square shaft attached to the bottom to act as a rotating drive shaft. A copper wire inside the bottle acts as the cathode which all the parts connect to, either directly or through one-another.

The slip ring allows current to be transferred to the anode and cathode as the barrel rotates.

The anode was cast in zinc. It has a brass rod tapped into the top which is covered in plasti-dip to protect it from electrolysis and contaminating the electrolyte. Next to the anode is the remains of the molten zinc – half of which had been immersed in the plating solution which makes it black.

The lid has a fixture where the brass rod passes through the center, can be adjusted to the correct height in the solution, and held in place by the screw.

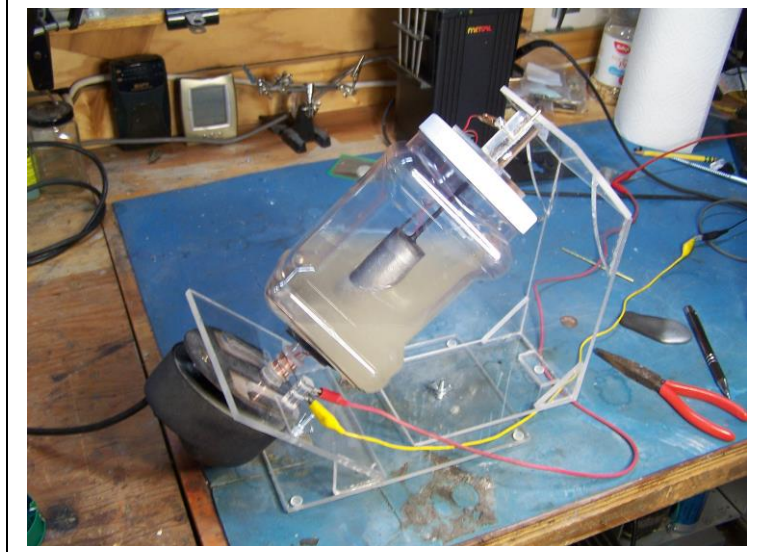
An old barbecue motor is used to rotate the barrel, and some acrylic sheet glued up to make the chassis. Note the insert showing the slip ring assembly and the piano wire brushes.



A shot of the whole system loaded up with electrolyte and some parts.

And an embedded short movie showing the operation. One can here the parts rattling around as the barrel rotates.

(removed for size reasons)



Lastly some of the first plated parts after "blue" passivation.

