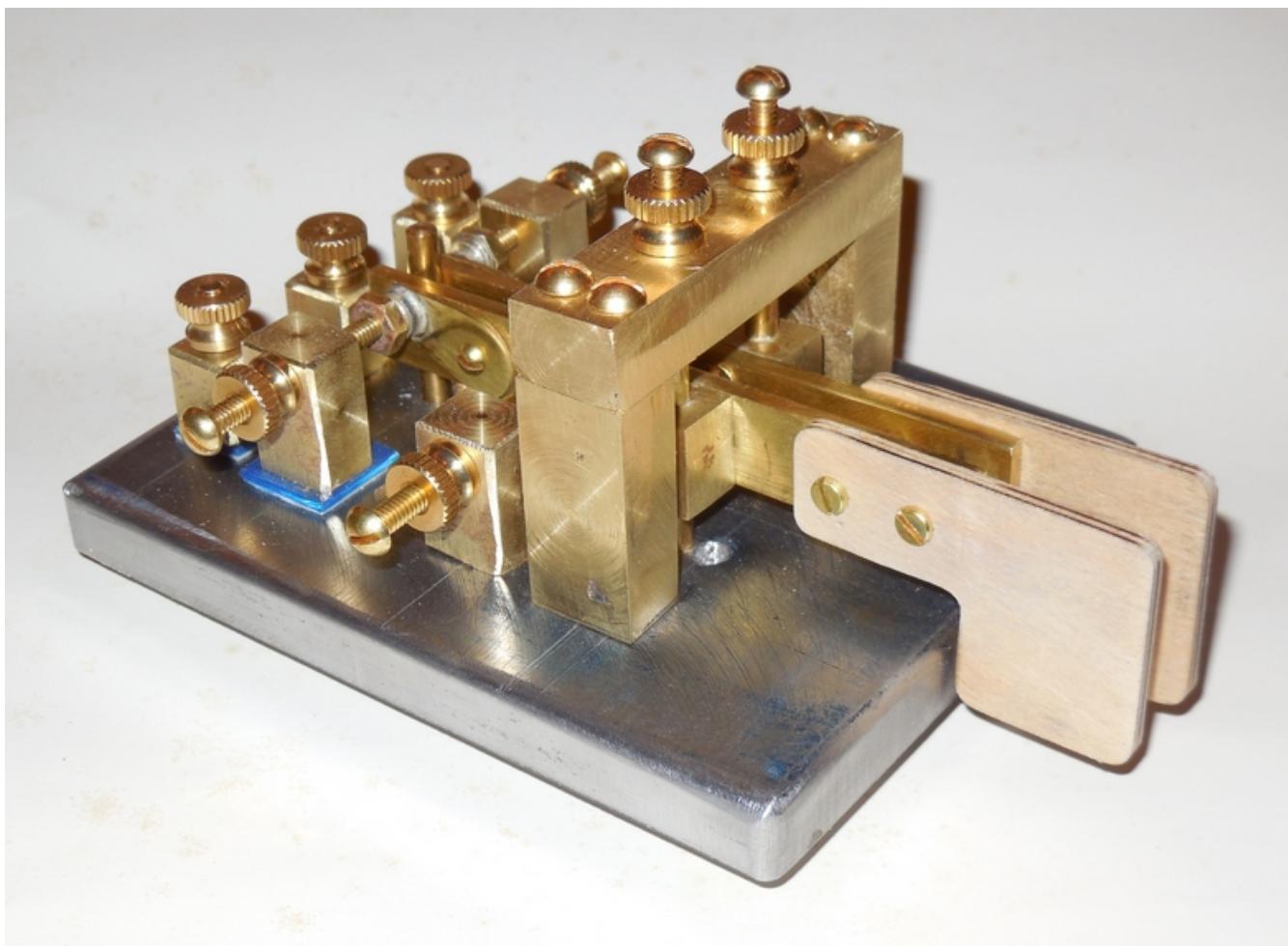


**DIY Dual Lever  
Paddle Snapshots  
by  
Ken, KM4NFQ**

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## Introduction

This document contains snapshots that I took during the build of my brass DIY Dual Lever Paddle. These snapshots are all cropped and resized from the original images. I began the project in the beginning of September 2019 and had a functioning paddle on 11 November 2019.

# Construction Details

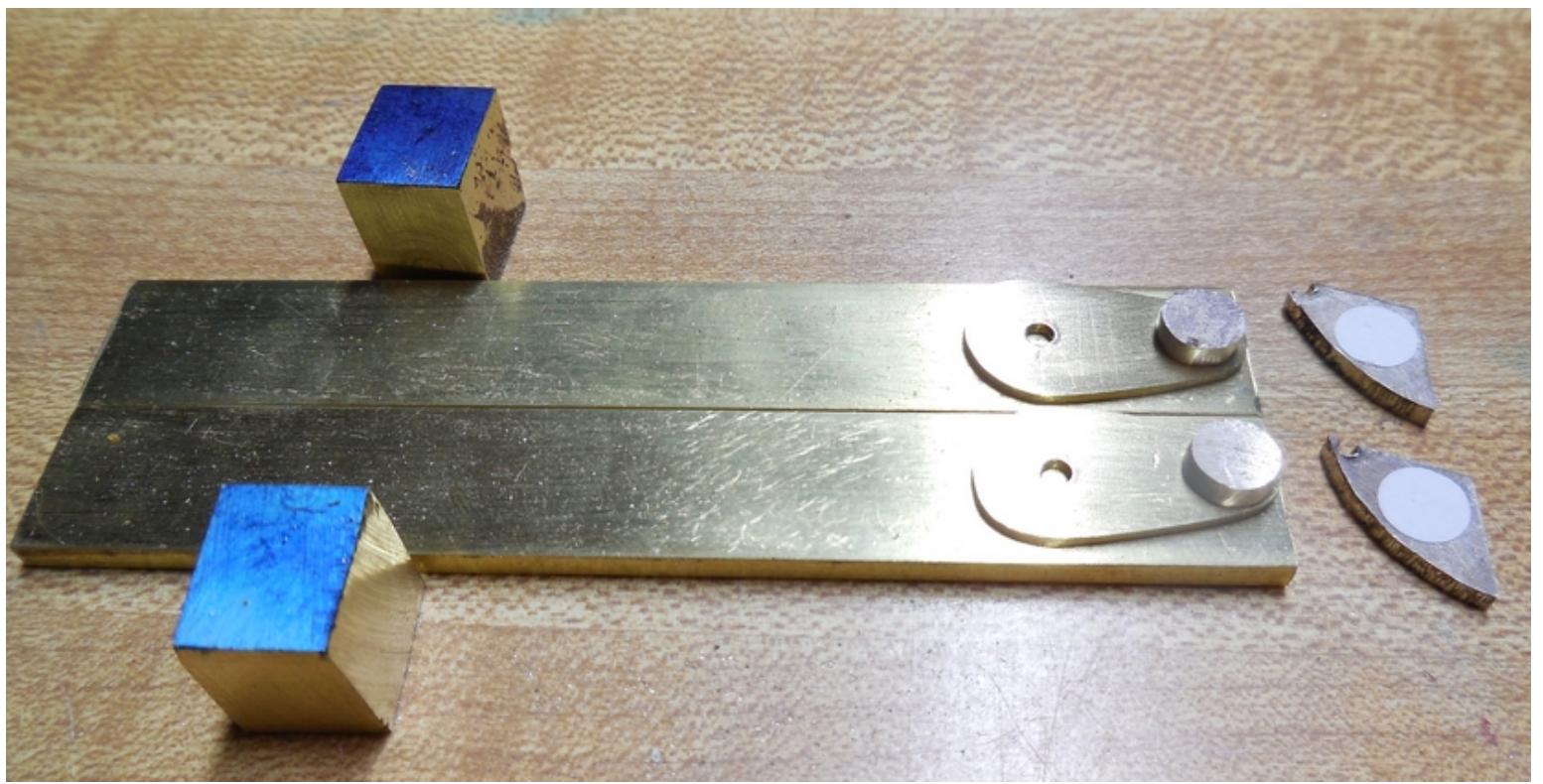
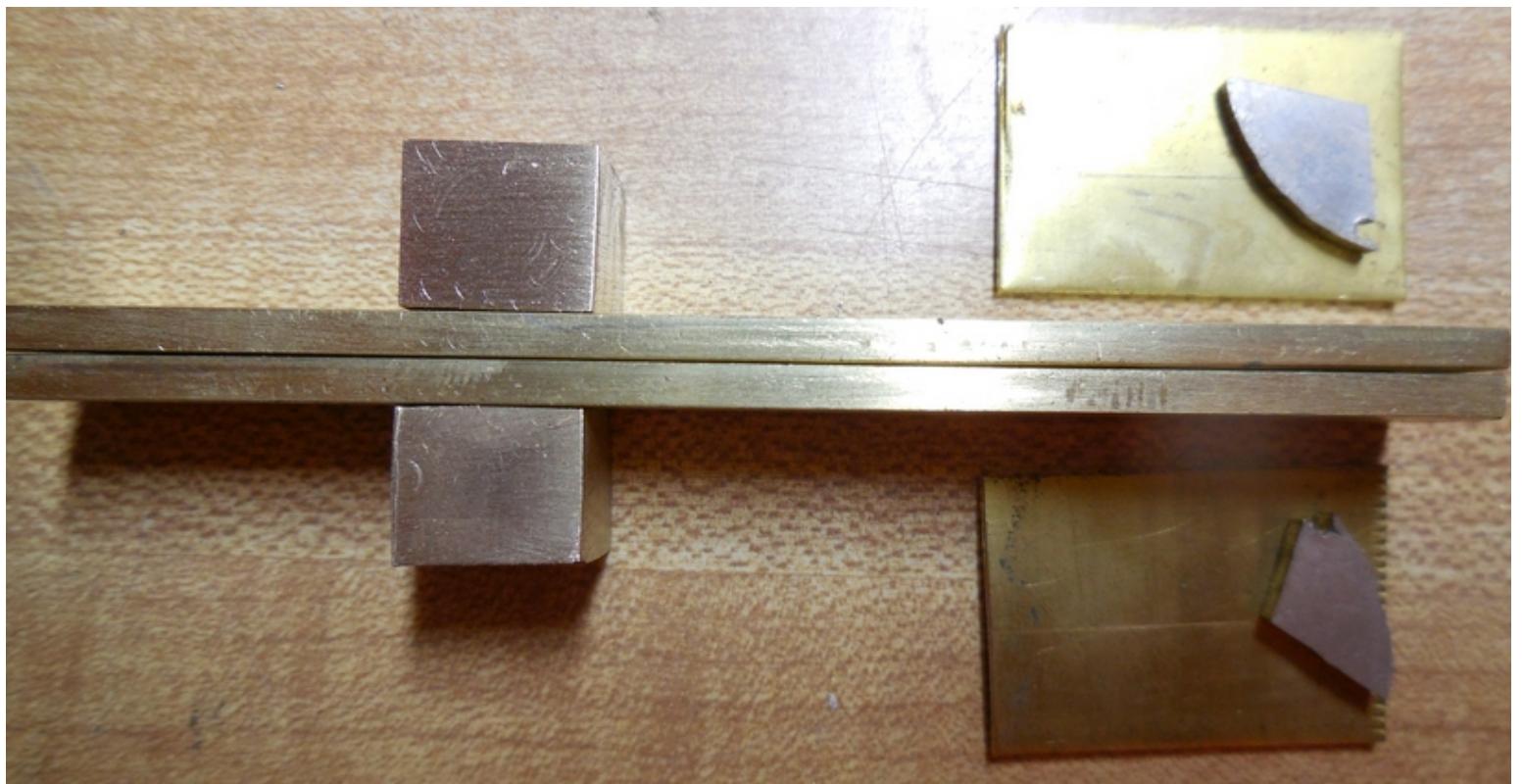
The base was cut from a piece of 4 inch wide,  $\frac{1}{2}$  inch thick steel. The levers were cut from 9/16 inch wide, 1/8 inch thick flat bar. The pivots were cut from 3/16 inch diameter brass rod. The brass blocks were cut from scrap cast brass. Screws, and knurled nuts were purchased at the local Ace hardware store. The finger pads were cut from a piece of 1/8 inch thick model airplane 5-ply plywood. Three 5/16 inch thick rubber feet are on the bottom of the paddle.

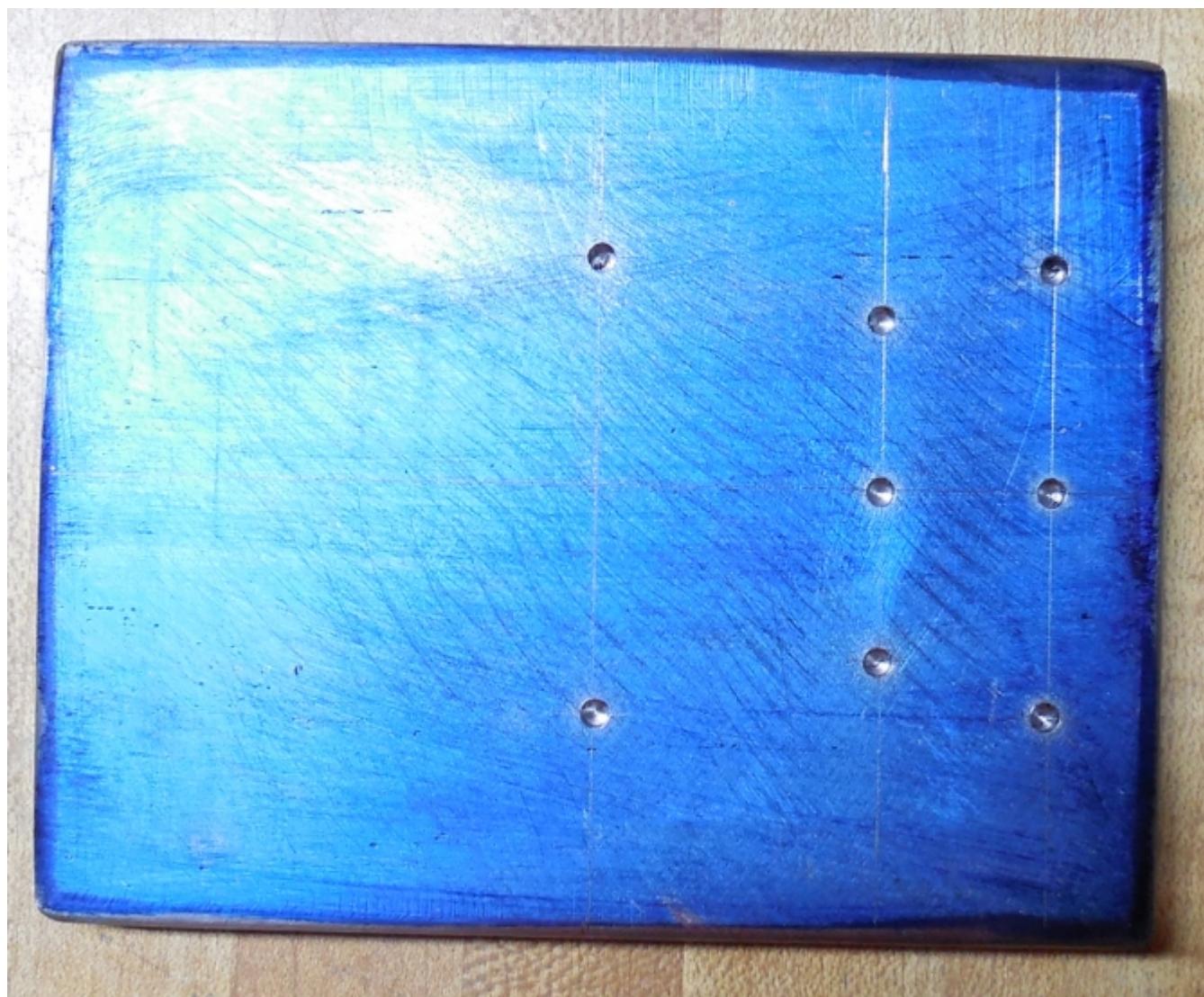
The steel base was ground and sanded to round the edges, then blued using Prussian Blue Oil Paint. An awl and steel ruler were used to scribe the construction lines for drilling. All the holes in the steel base were drilled using a bench drill press. A #20 drill bit was used to drill holes for non-insulated brass screws. A #11 drill bit was used to drill holes for insulated screws. None of the holes in the steel base were tapped for screw threads.

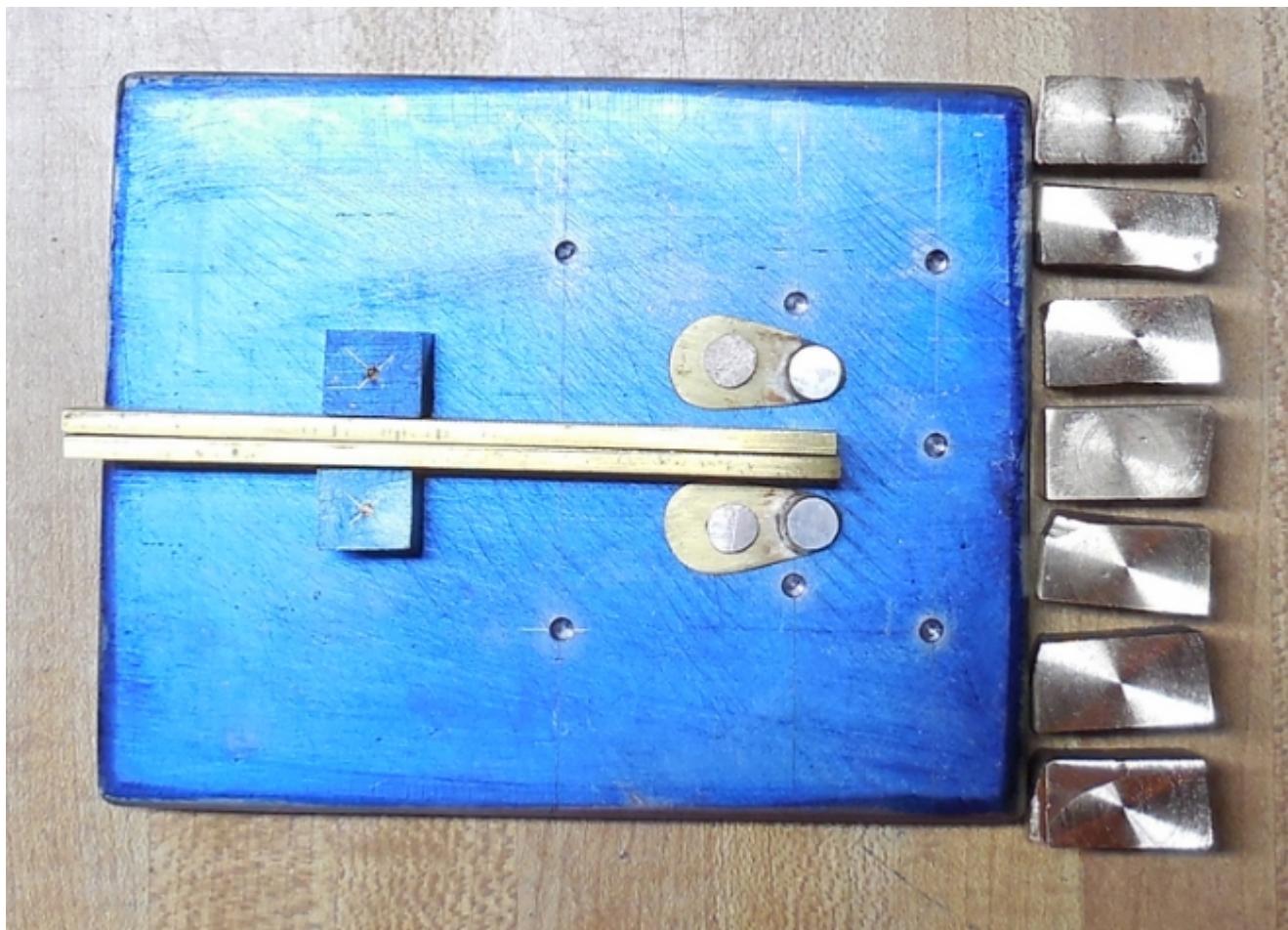
Most of the brass parts were cut from scrap cast brass, then faced off with a micro lathe and a four jaw chuck using a carbon steel cutting tool. The brass blocks were drilled with a #29 drill bit and tapped for 8-32 brass screws. 4-40 brass screws were used to fasten the pivot blocks to the levers, and the finger pads to the levers. The pivots were cut from 3/16 inch diameter rod.

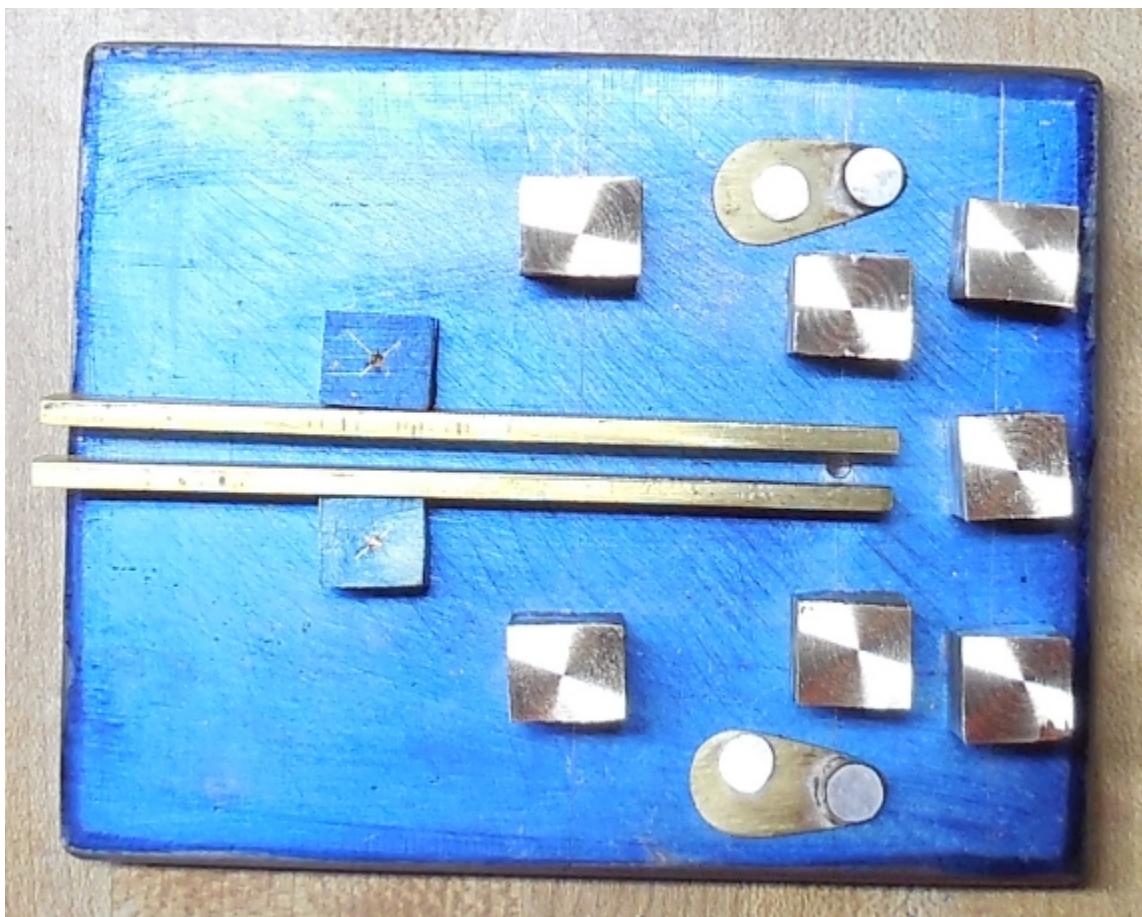
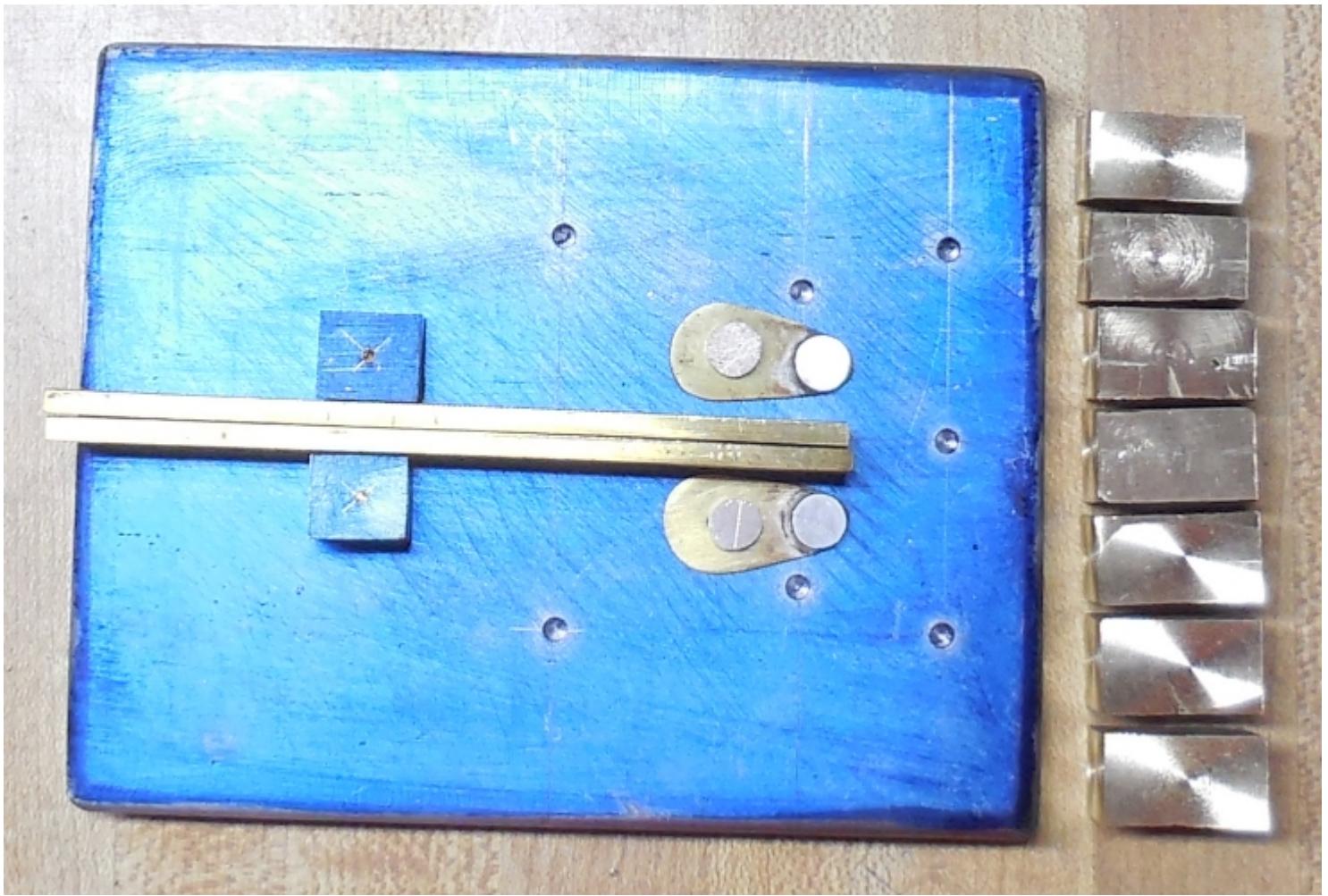
The four contact points are made from 1/16 inch thick sterling silver. Two were silver brazed to pieces of brass sheet and fastened to the levers with 4-40 flat-head brass screws. The other two were silver brazed to brass 8-32 nuts.

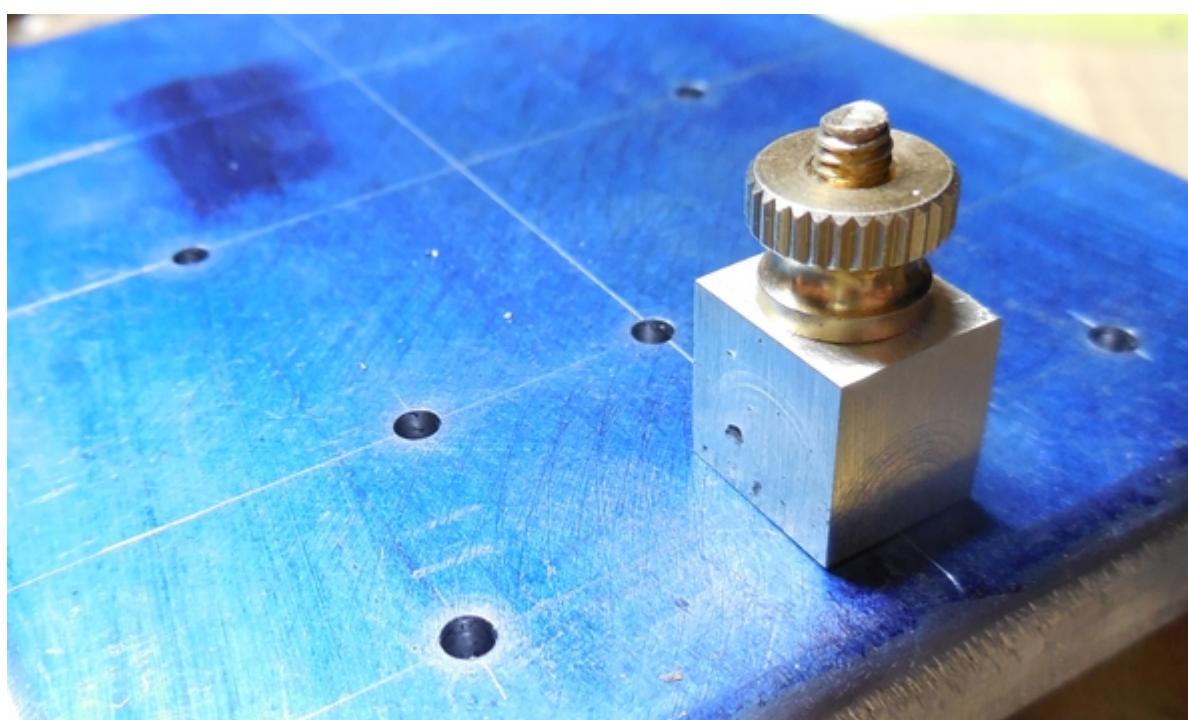
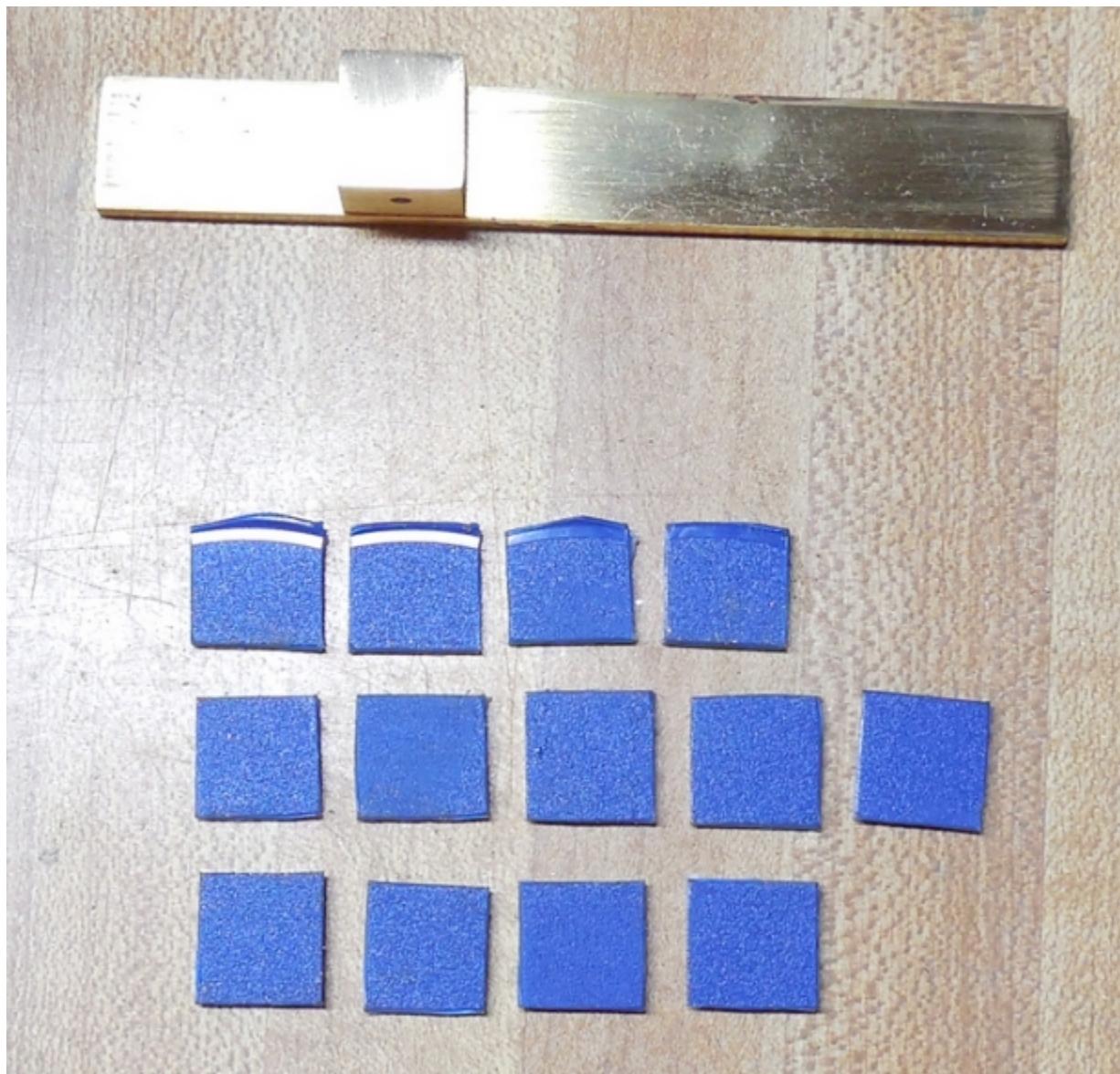
Heat shrink was used for insulation on the brass screws. Pieces cut from plastic mayonaise jar lids were used to insulate blocks from the steel base.













**ALL BINDING POST BLOCKS  
SHOULD BE DRILLED WITH  
A #29 DRILL BIT AND TAPPED  
FOR AN 8-32 BRASS SCREW.**

