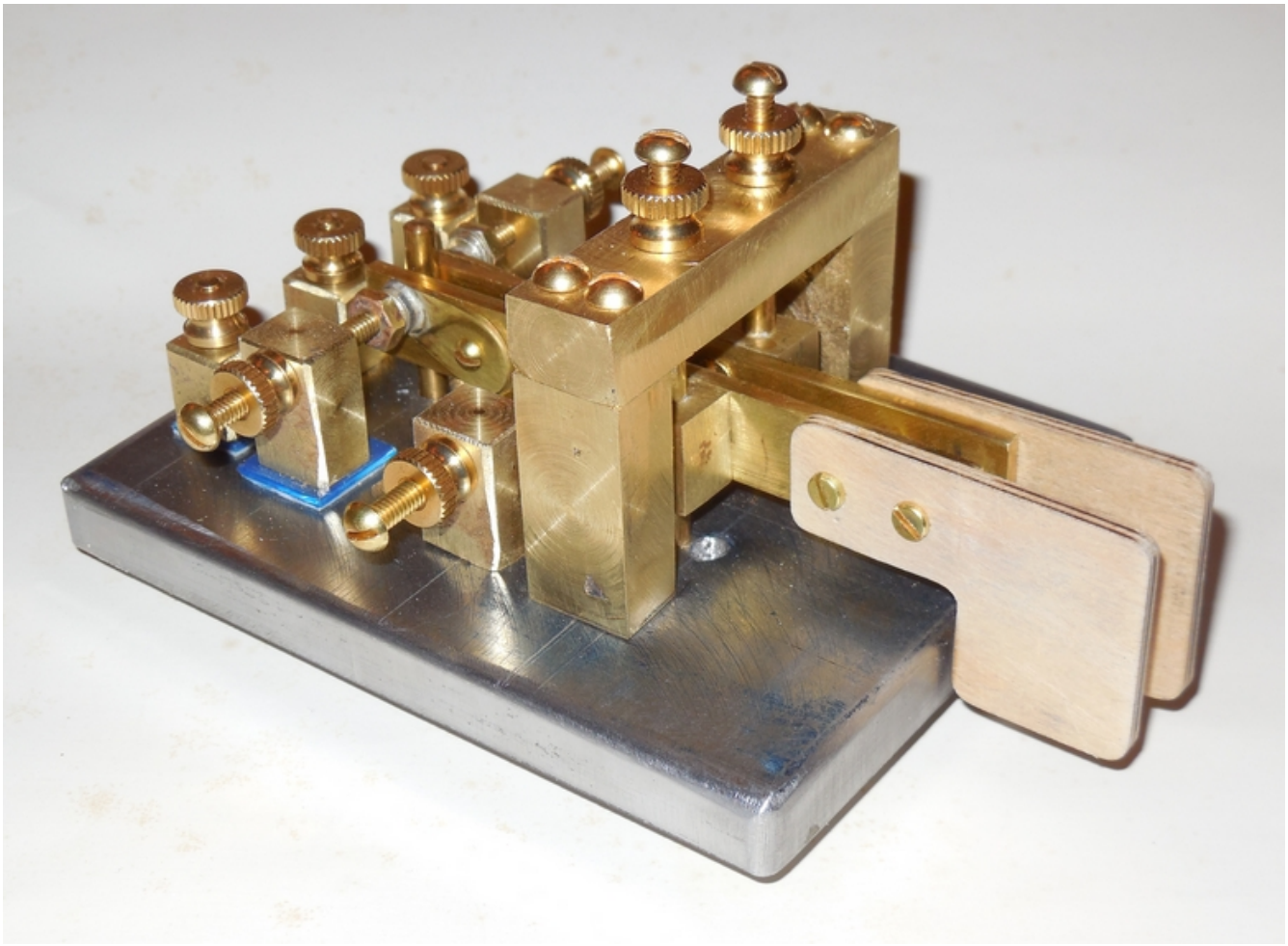
DIY Dual Lever Paddle Diagrams by Ken, KM4NFQ



Introduction

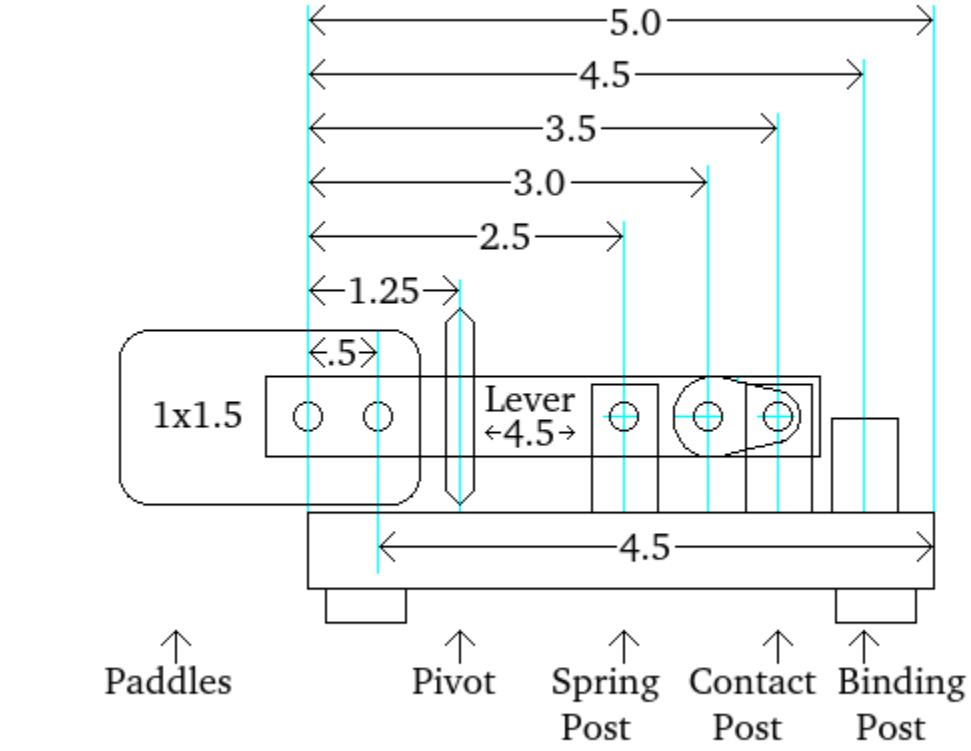
This document contains various diagrams that I made during the build of my brass DIY Dual Lever Paddle. The diagrams evolved as the design process progressed. I began the project in the beginning of September 2019 and had a functioning paddle on 11 November 2019.

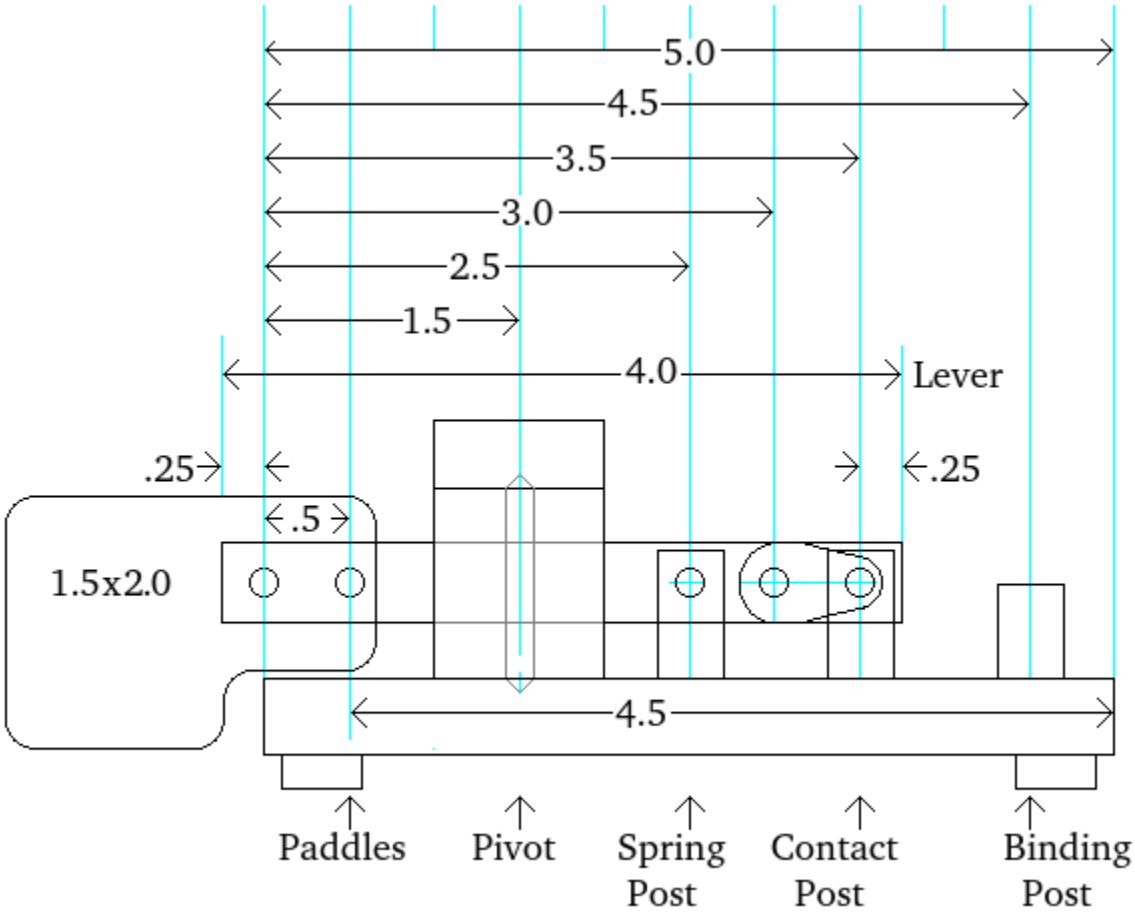
Construction Details

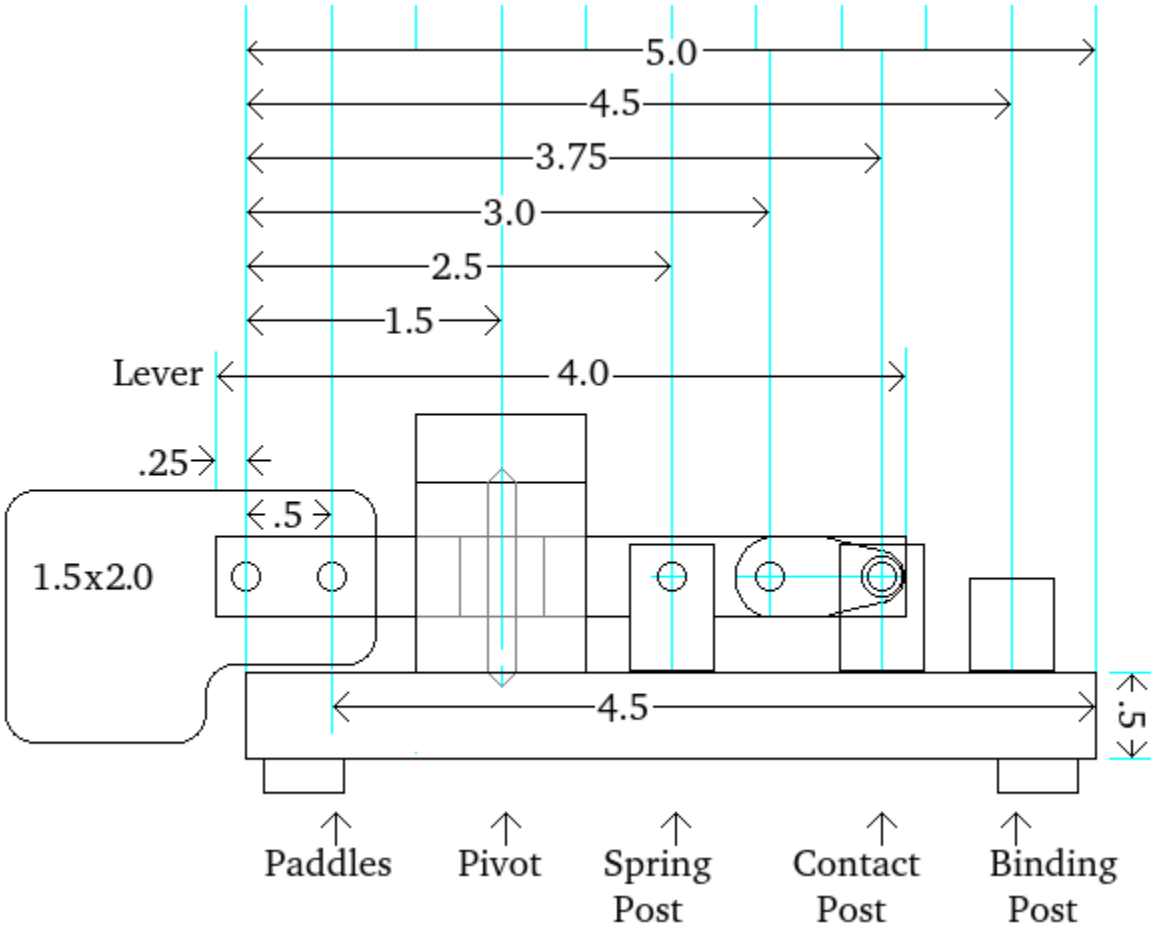
The base was cut from a piece of 4 inch wide, ½ inch thick steel. The levers were cut from 9/16 inch wide, 1/8 inch thick flat bar. The pivots were cut from 3/16 inch diameter brass rod. The brass blocks were cut from scrap cast brass. Screws, and knurled nuts were purchased at the local Ace hardware store. The finger pads were cut from a piece of 1/8 inch thick model airplane 5-ply plywood.

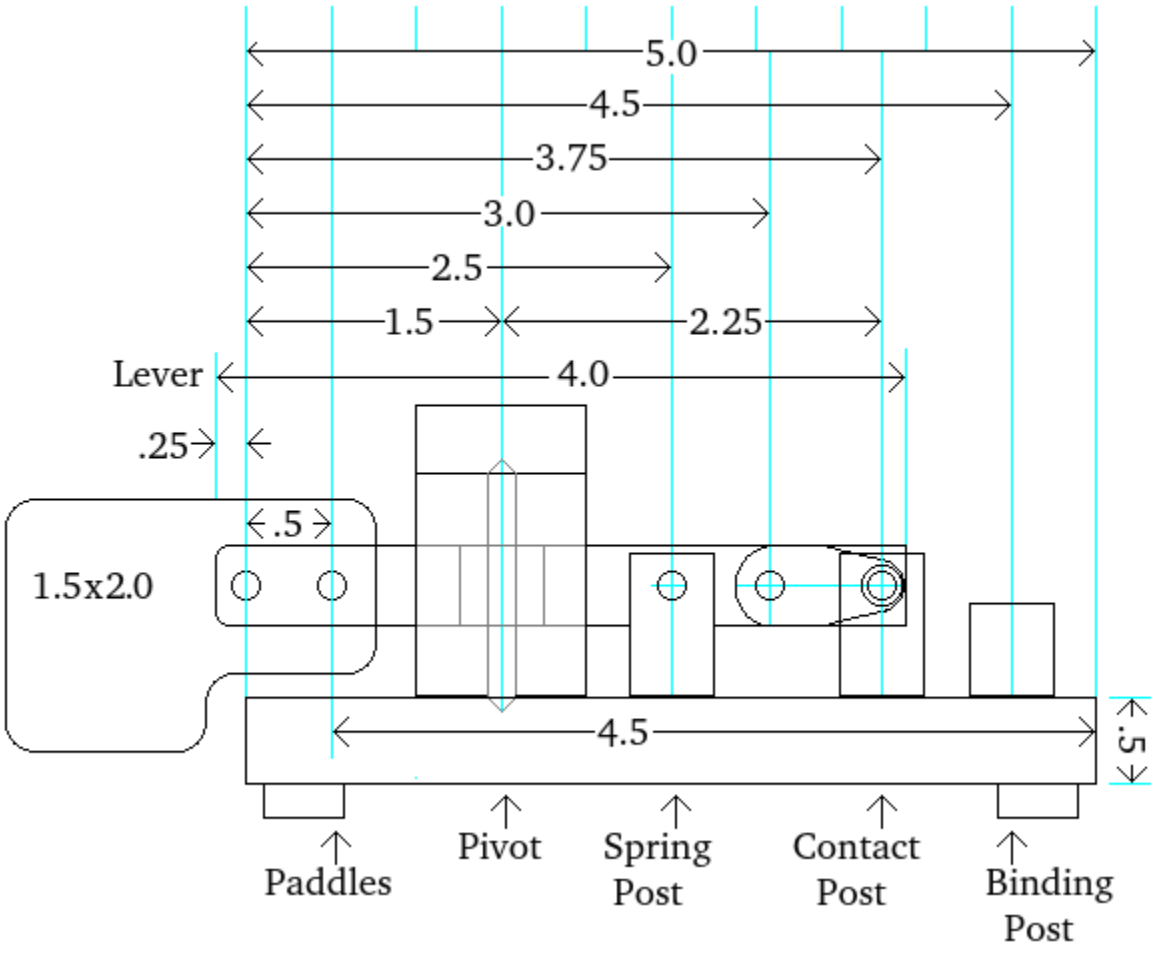
Plates

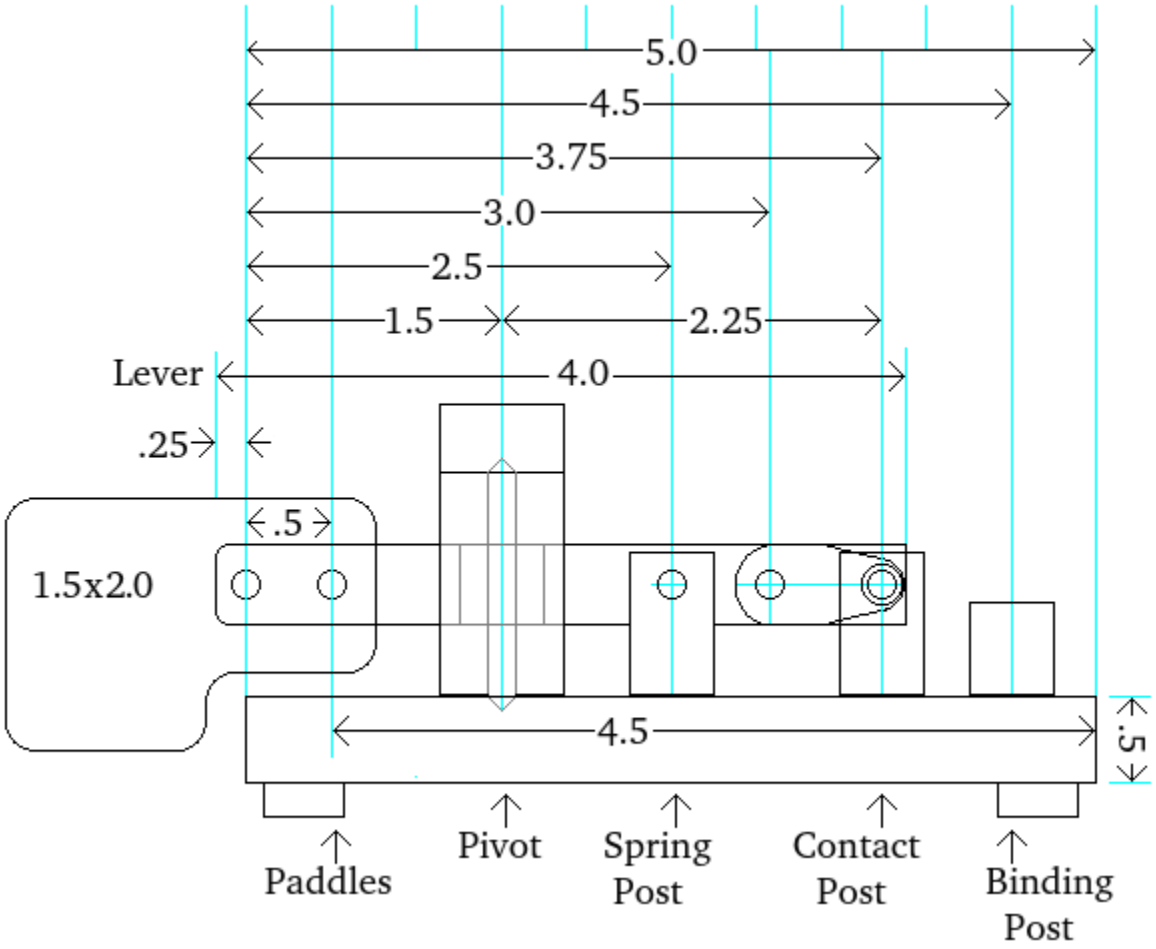
Plate 1. Dimensions of the paddle.
Plate 2. Dimensions of the paddle.
Plate 3. Top – Dimensions. Bottom- Layout of the paddle.
Plate 4. Layout of the paddle.
Plate 5. Layout of the paddle.
Plate 6. Steel base drilling guide.
Plate 7. Top – Drilling guide. Bottom – Detail of Pivots.
Plate 8. Pivot details.
Plate 9. Pivot details.
Plate 10. Pivot details.
Plate 11. Top – Pivot detail. Bottom – Posts detail.
Plate 12. Top – Levers detail. Bottom – Posts detail.
Plate 13. Posts detail.
Plate 14. Top - Posts detail. Bottom – Drilling jig.
Plate 15. Ruler.

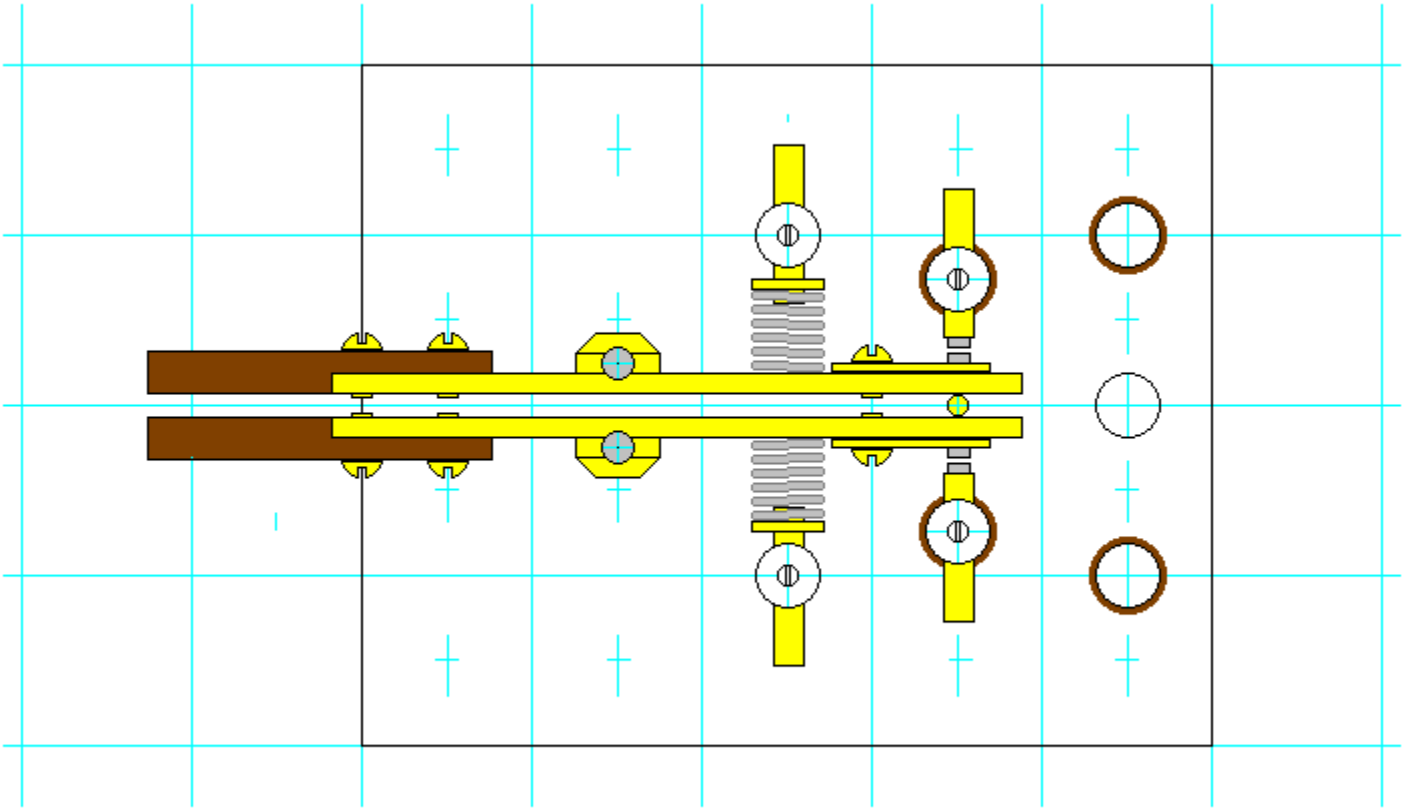

5.0
4.5
3.5
3.0
2.5
1.25
.5
1x1.5
Lever
4.5
4.5
Paddles
Pivot
Spring Post
Contact Post
Binding Post

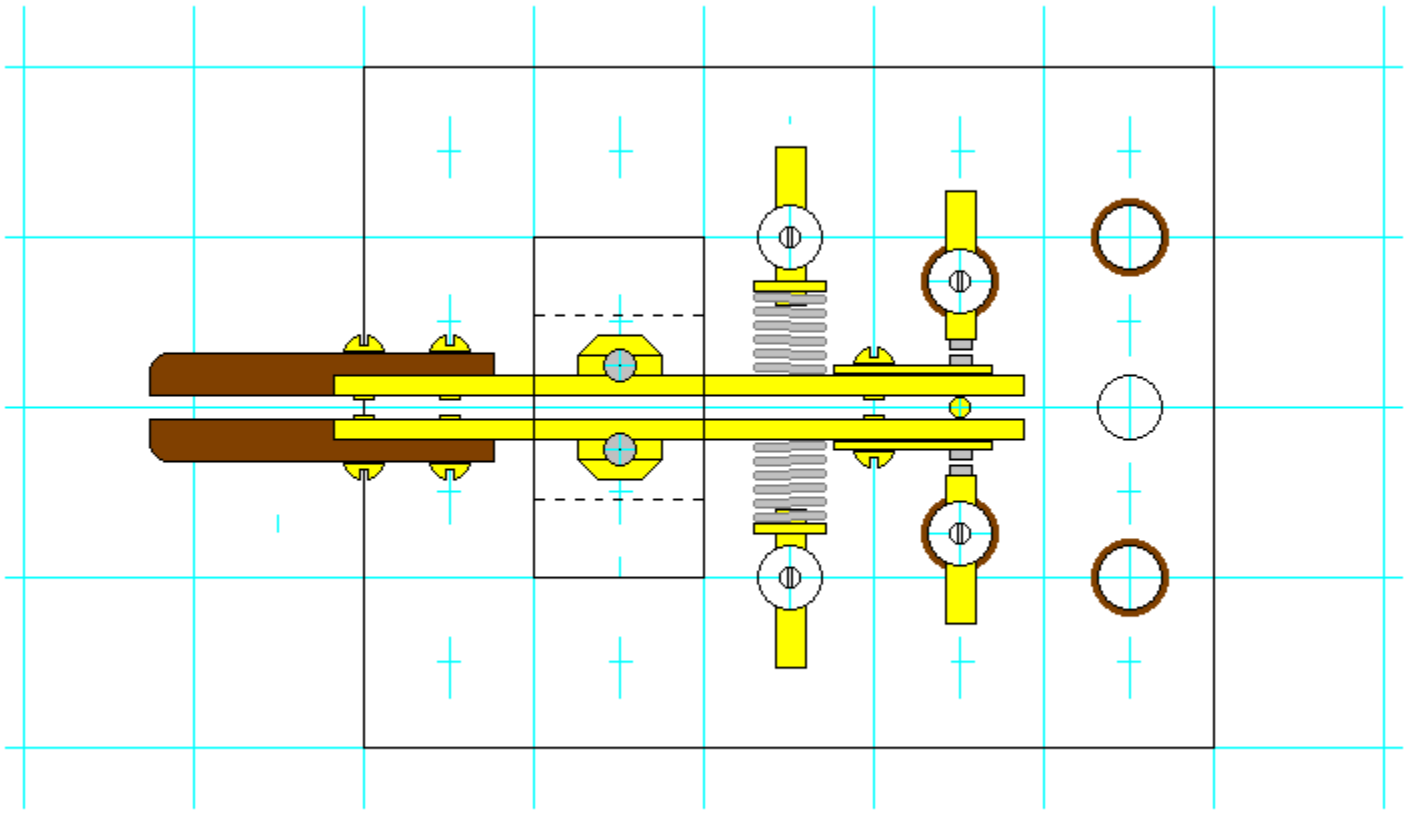

5.0
4.5
3.5
3.0
2.5
1.5
4.0
Lever
.25
.25
.5
1.5x2.0
4.5
Paddles
Pivot
Spring Post
Contact Post
Binding Post

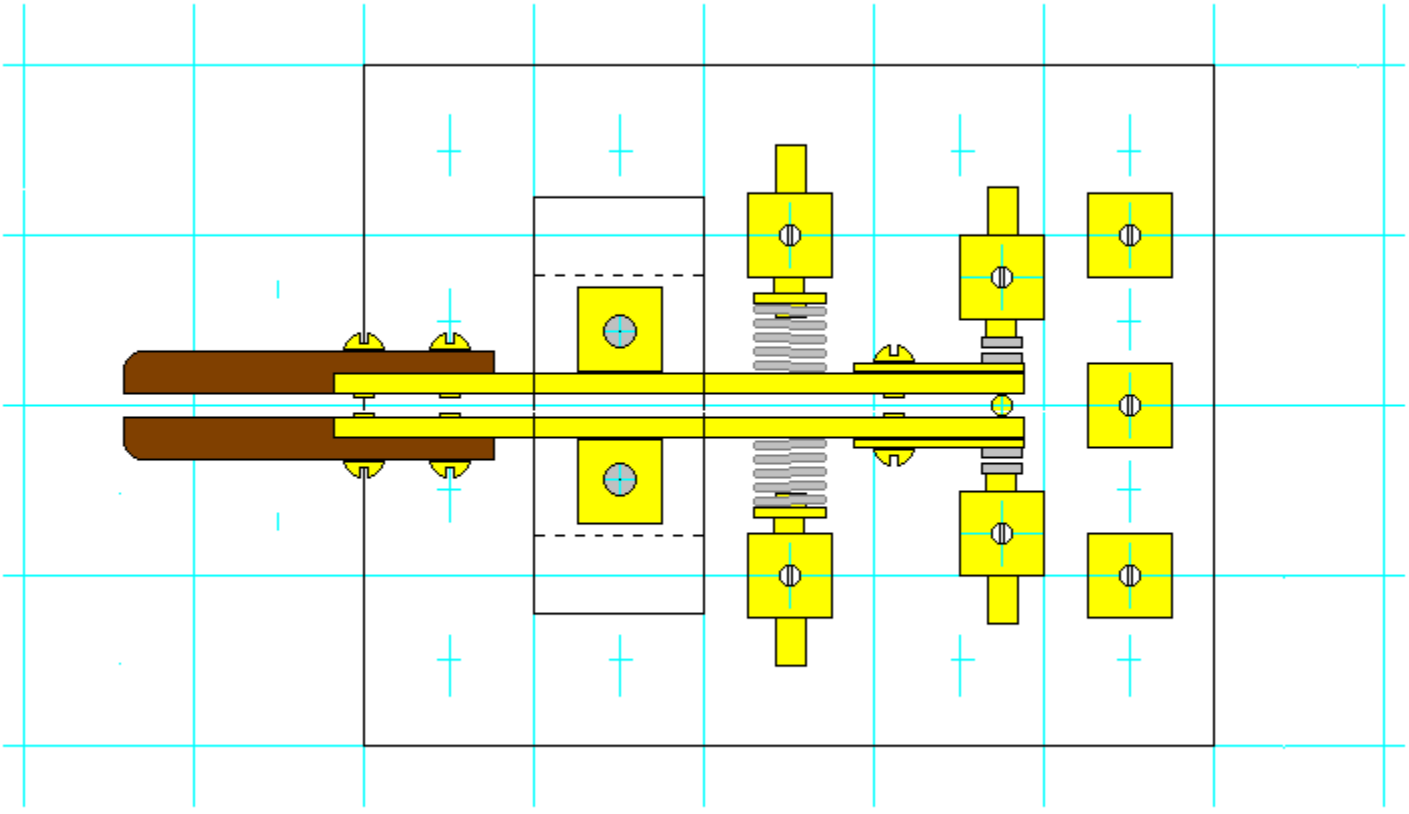

5.0
4.5
3.75
3.0
2.5
1.5
Lever
4.0
.25
.5
1.5x2.0
4.5
.5
Paddles
Pivot
Spring Post
Contact Post
Binding Post

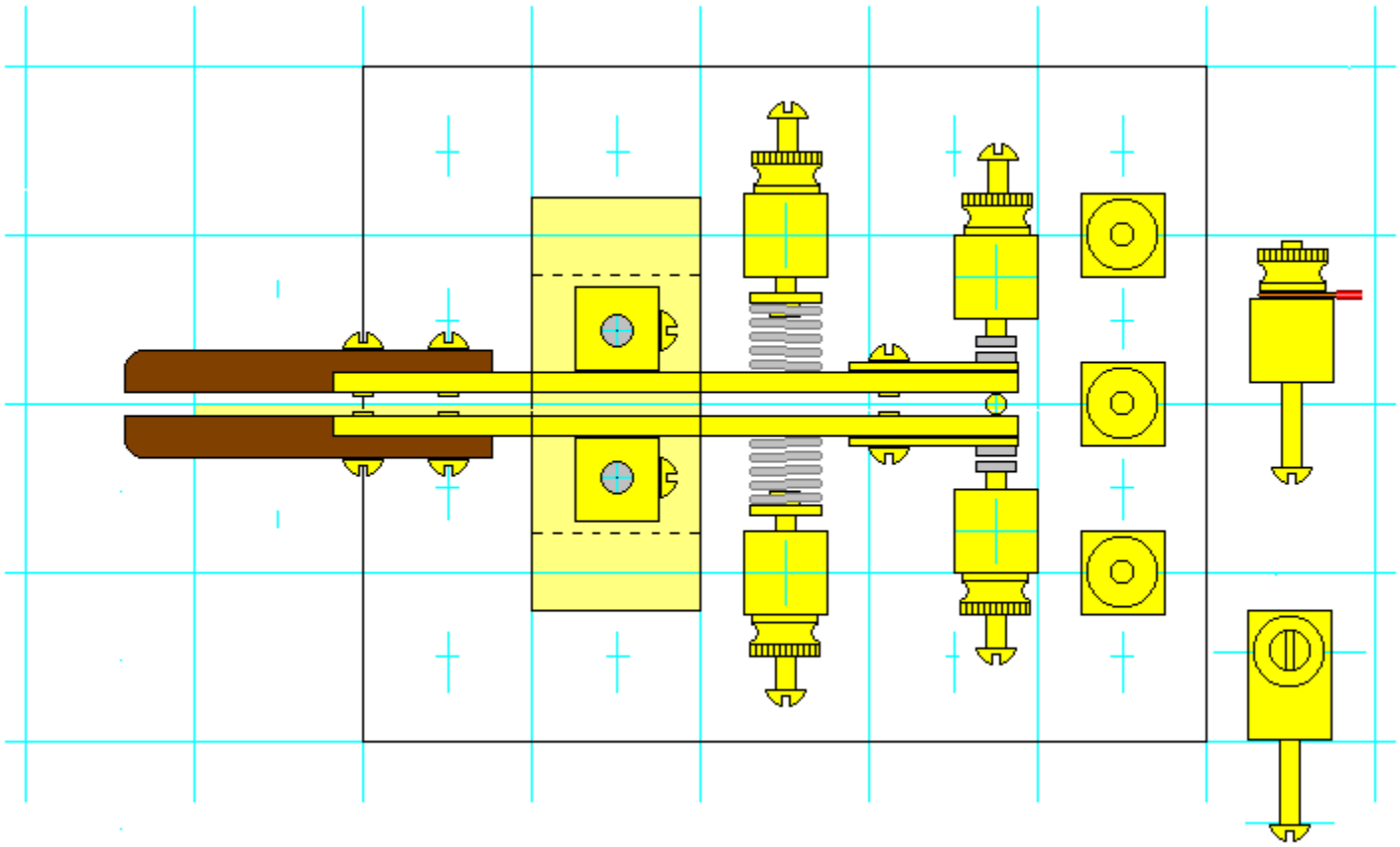

5.0
4.5
3.75
3.0
2.5
1.5
2.25
Lever
4.0
.25
.5
1.5x2.0
4.5
.5
Paddles
Pivot
Spring Post
Contact Post
Binding Post

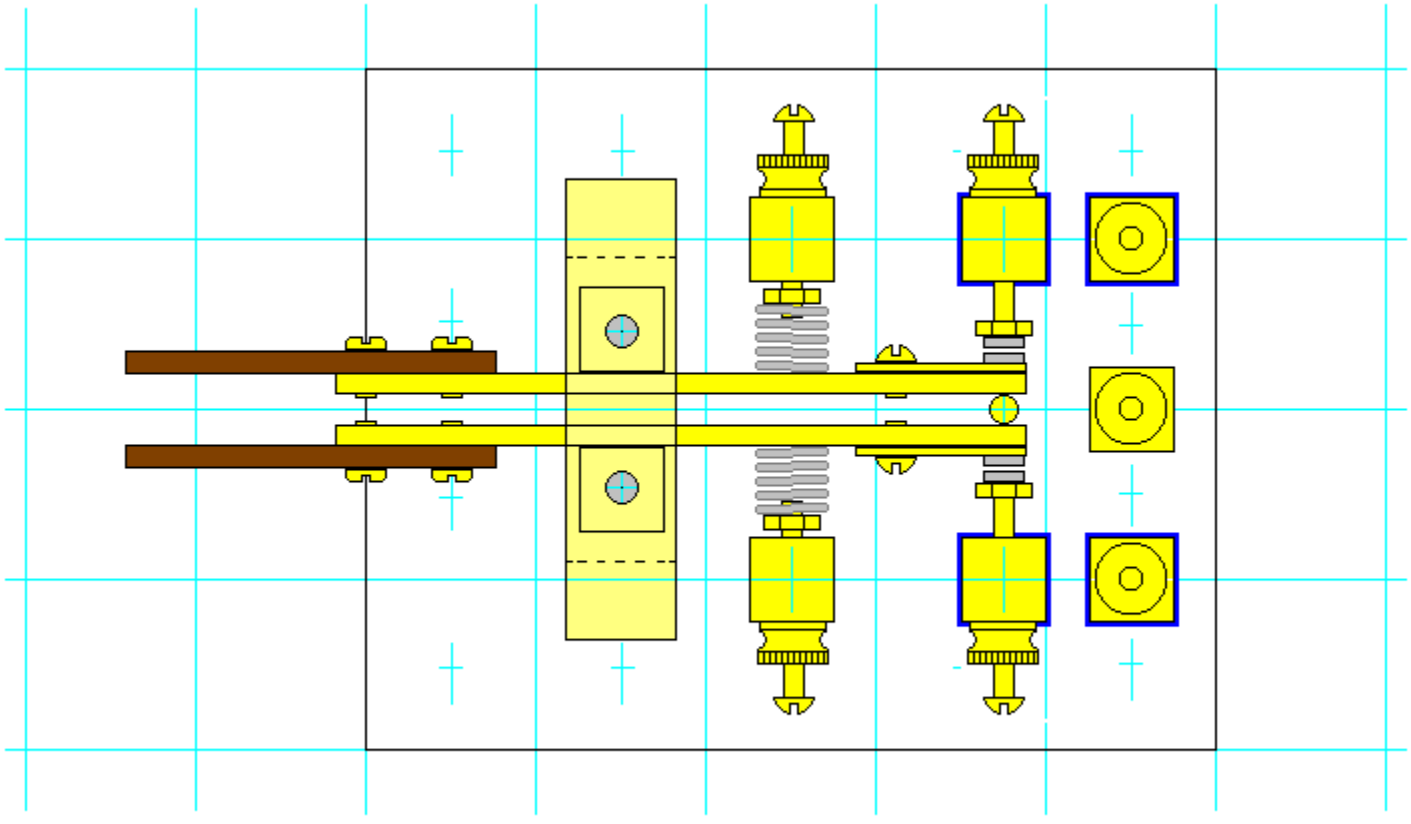

5.0
4.5
3.75
3.0
2.5
1.5
2.25
Lever
4.0
.25
.5
1.5x2.0
4.5
.5
Paddles
Pivot
Spring Post
Contact Post
Binding Post

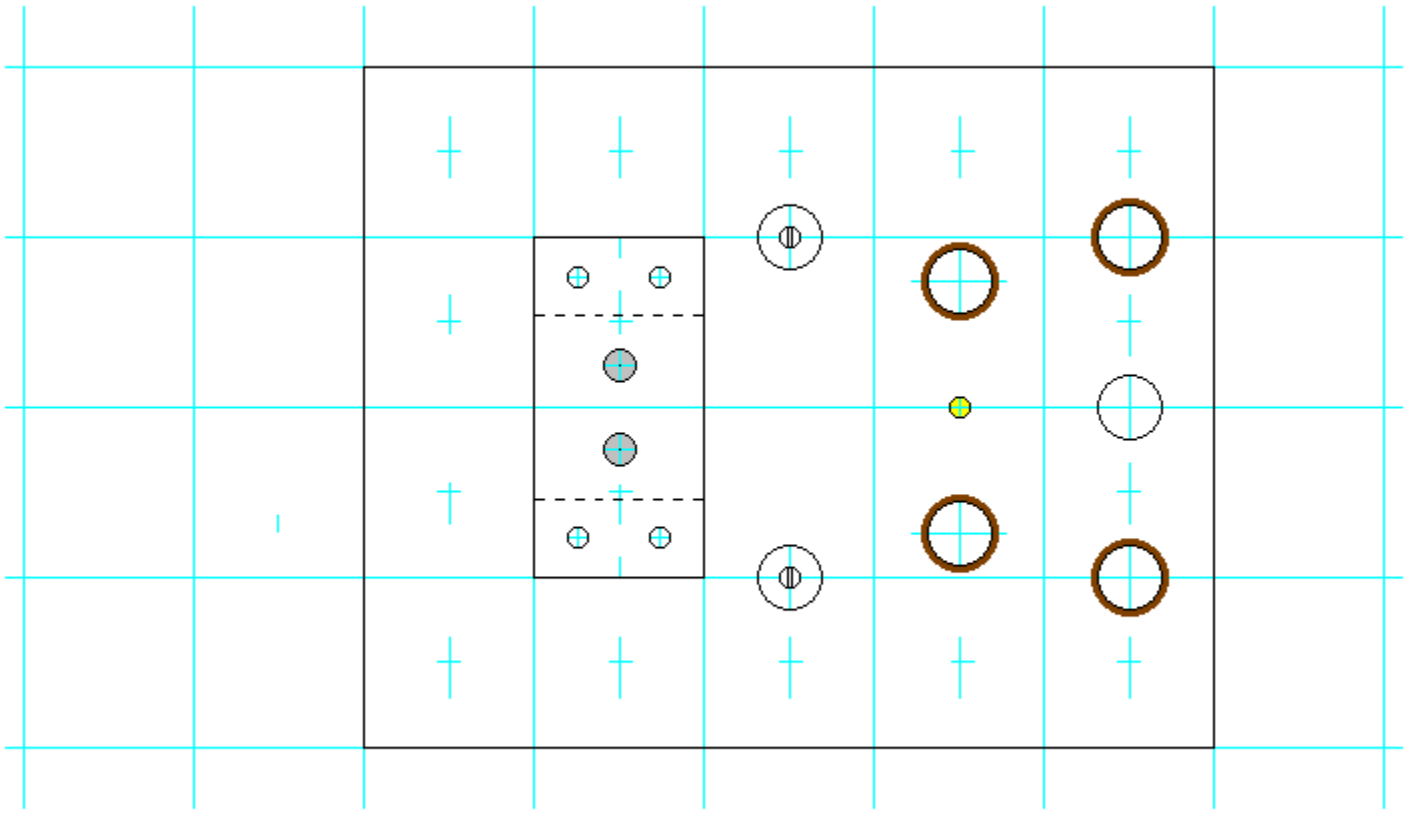


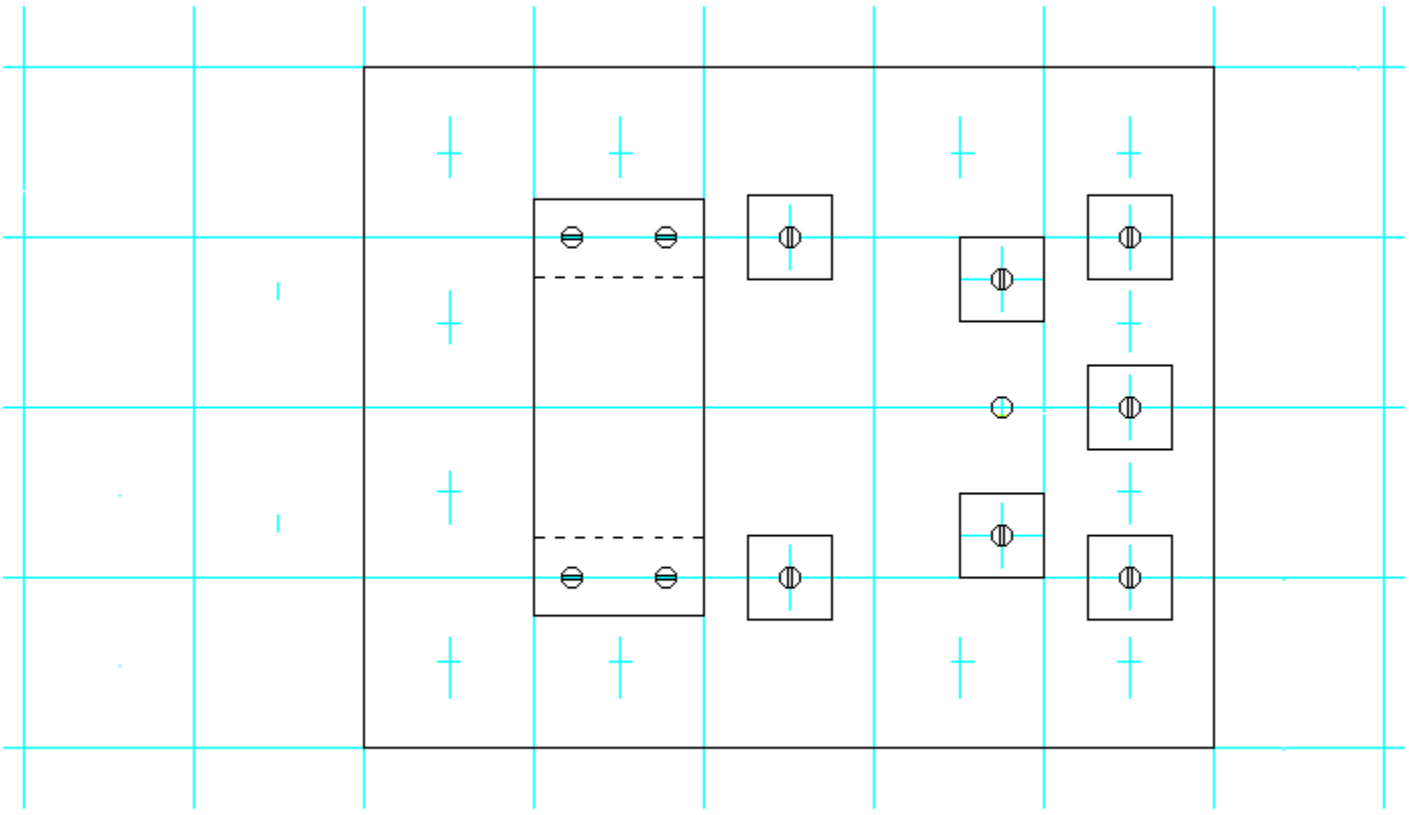


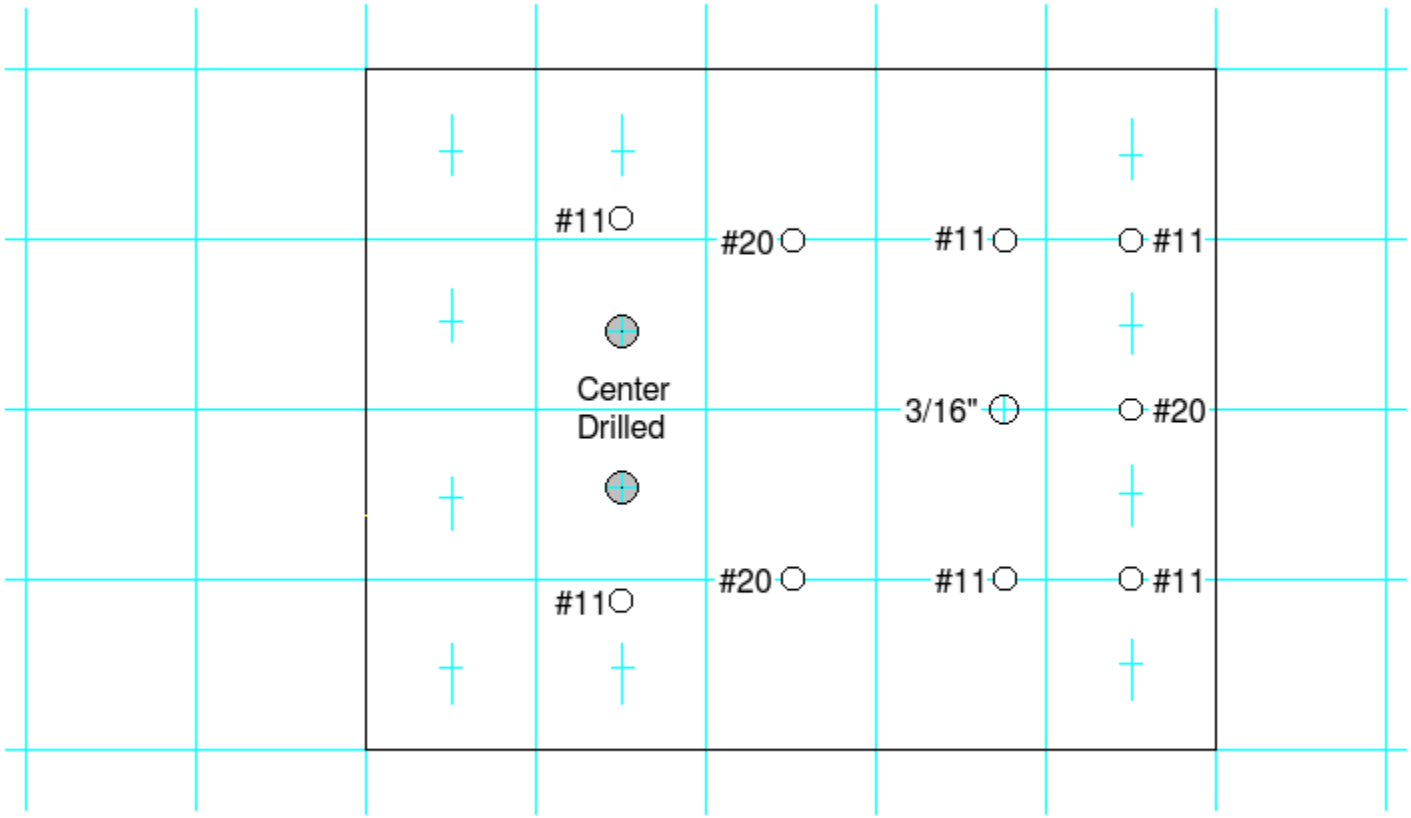


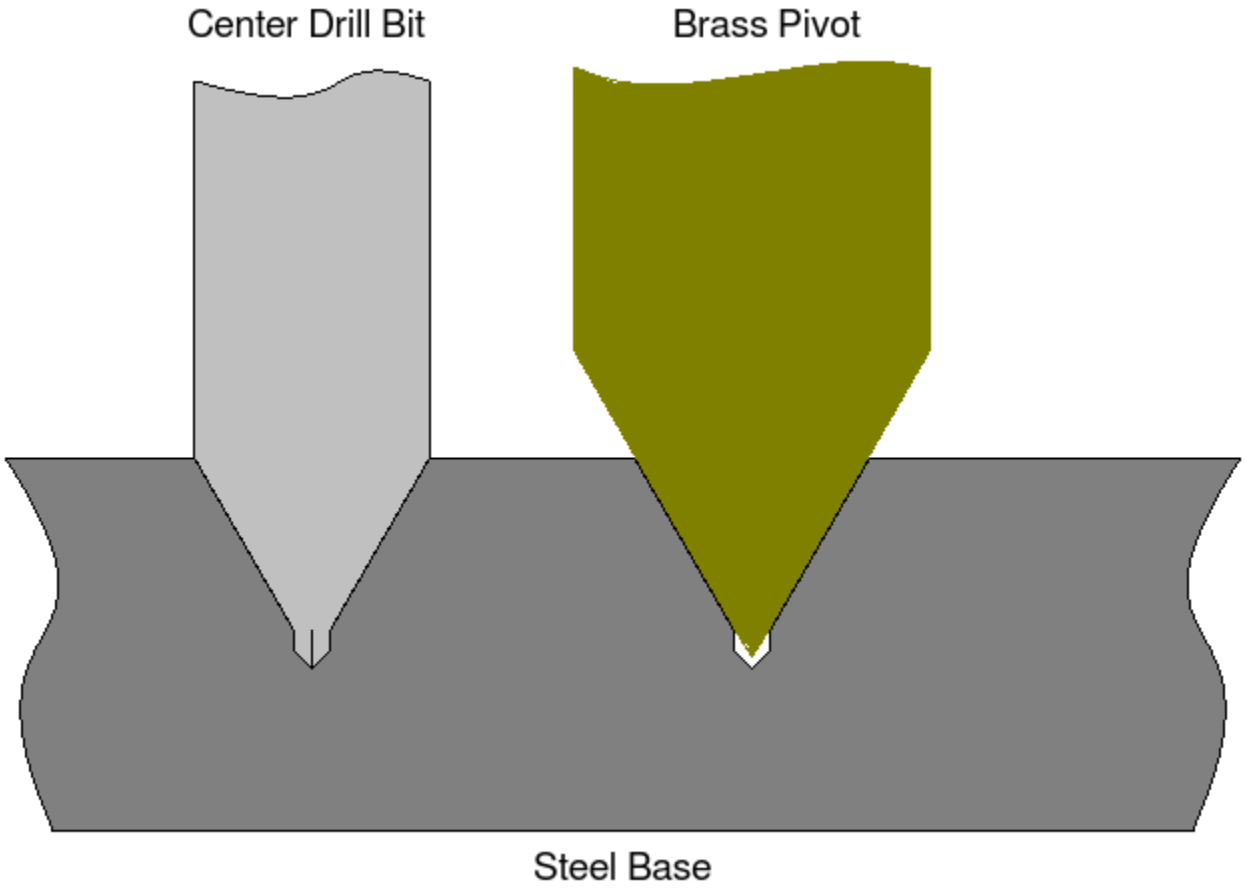


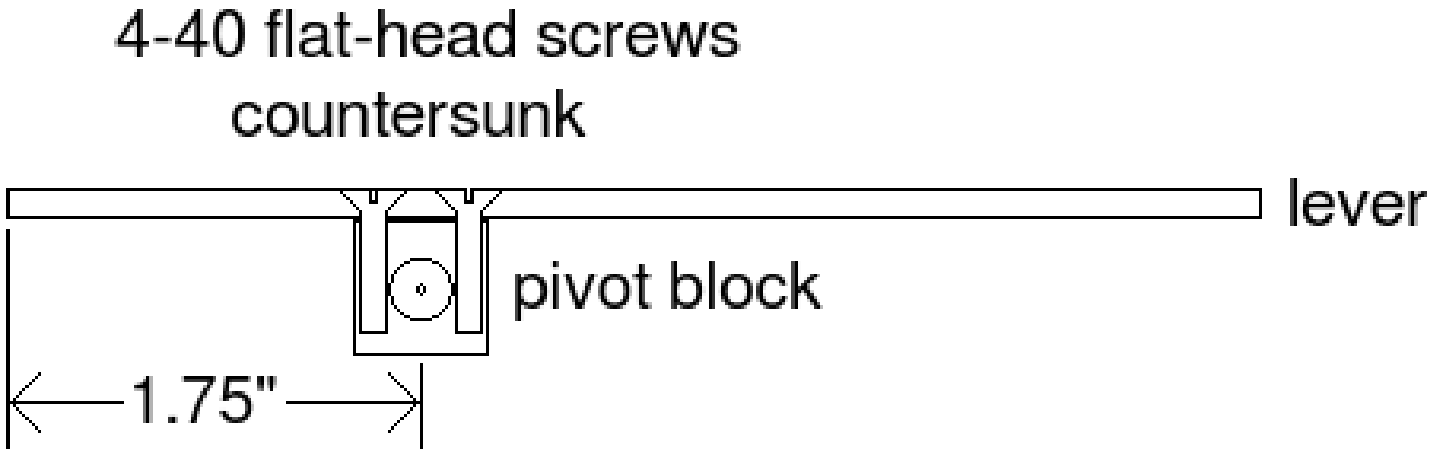


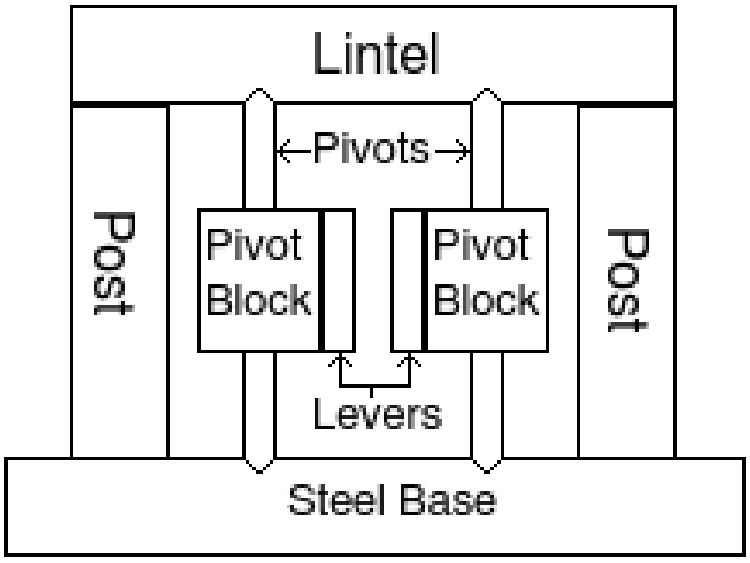


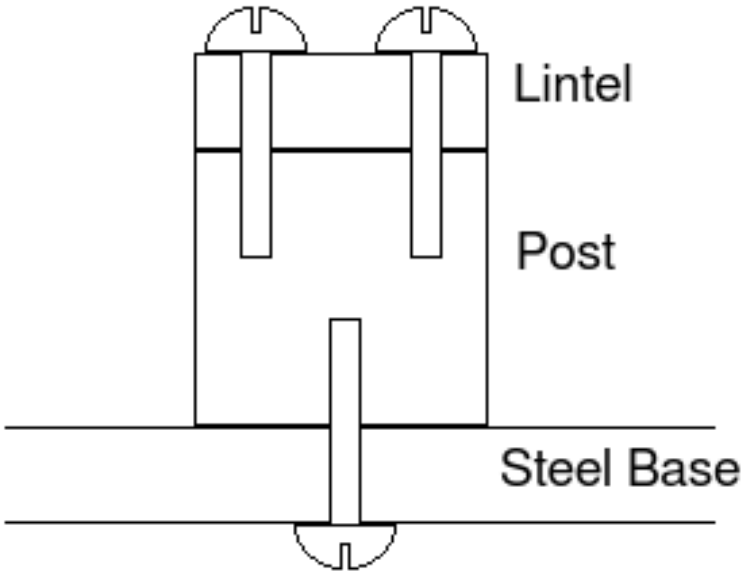


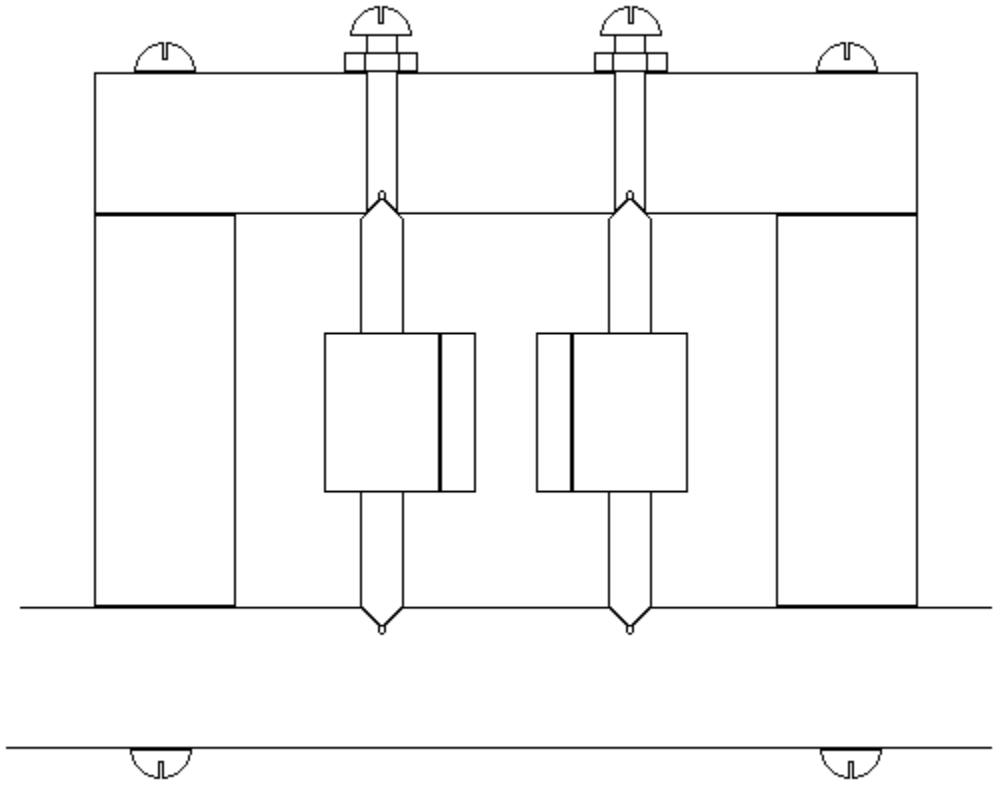

#11
#20
#11
#11
Center
Drilled
3/16"
#20
#20
#11
#11
#11

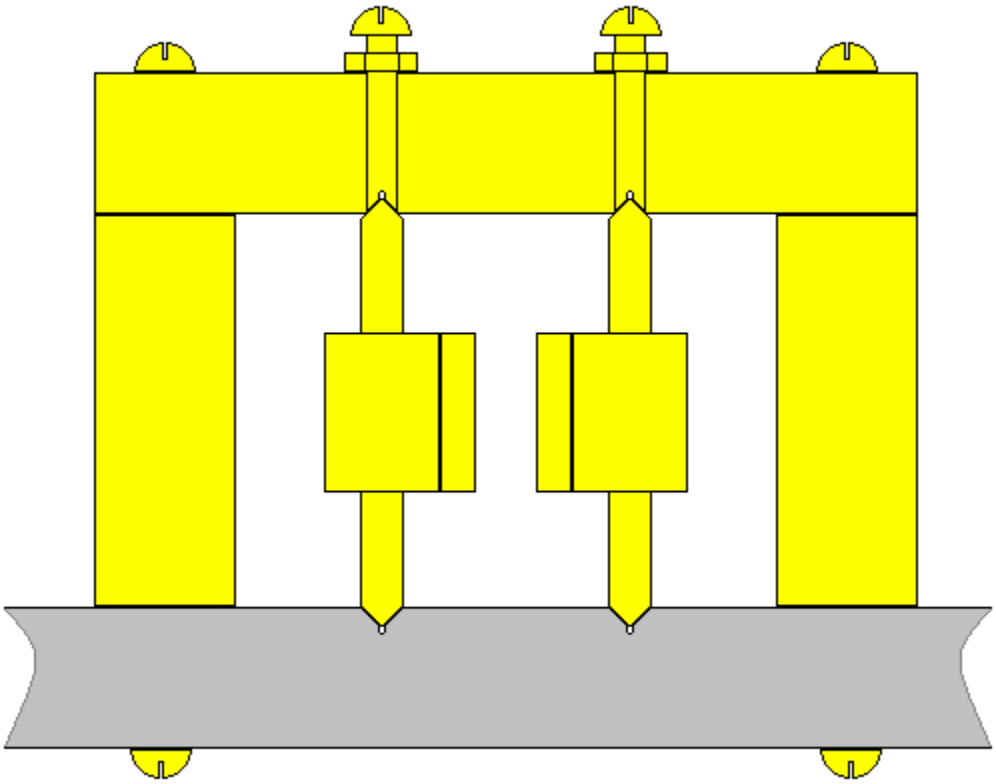

Center Drill Bit
Brass Pivot
Steel Base


4-40 flat-head screws
countersunk
lever
pivot block
1.75"

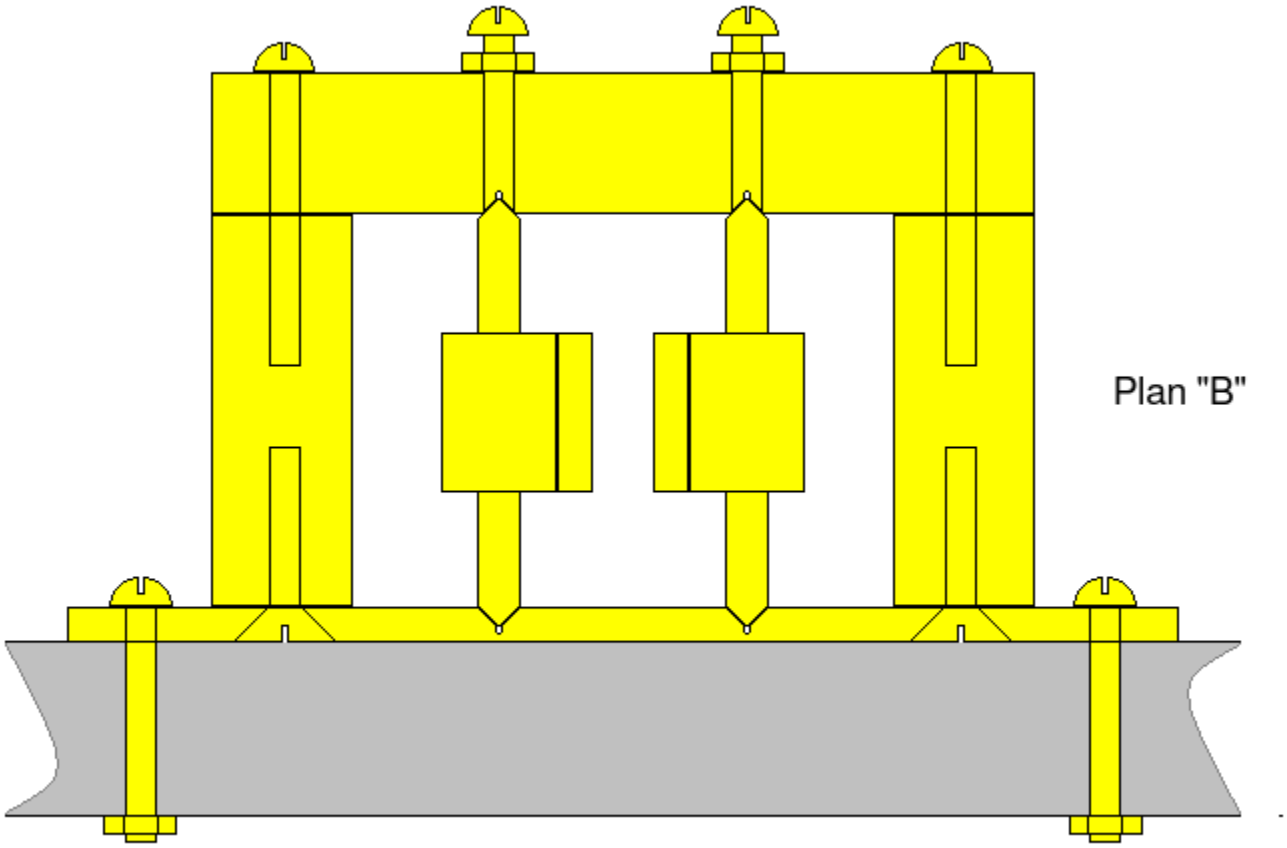

Lintel
Pivots
Post
Pivot Block
Pivot Block
Post
Levers
Steel Base


Lintel
Post
Steel Base

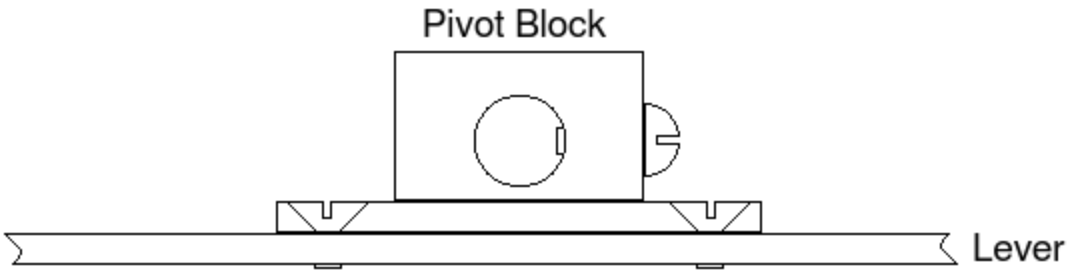


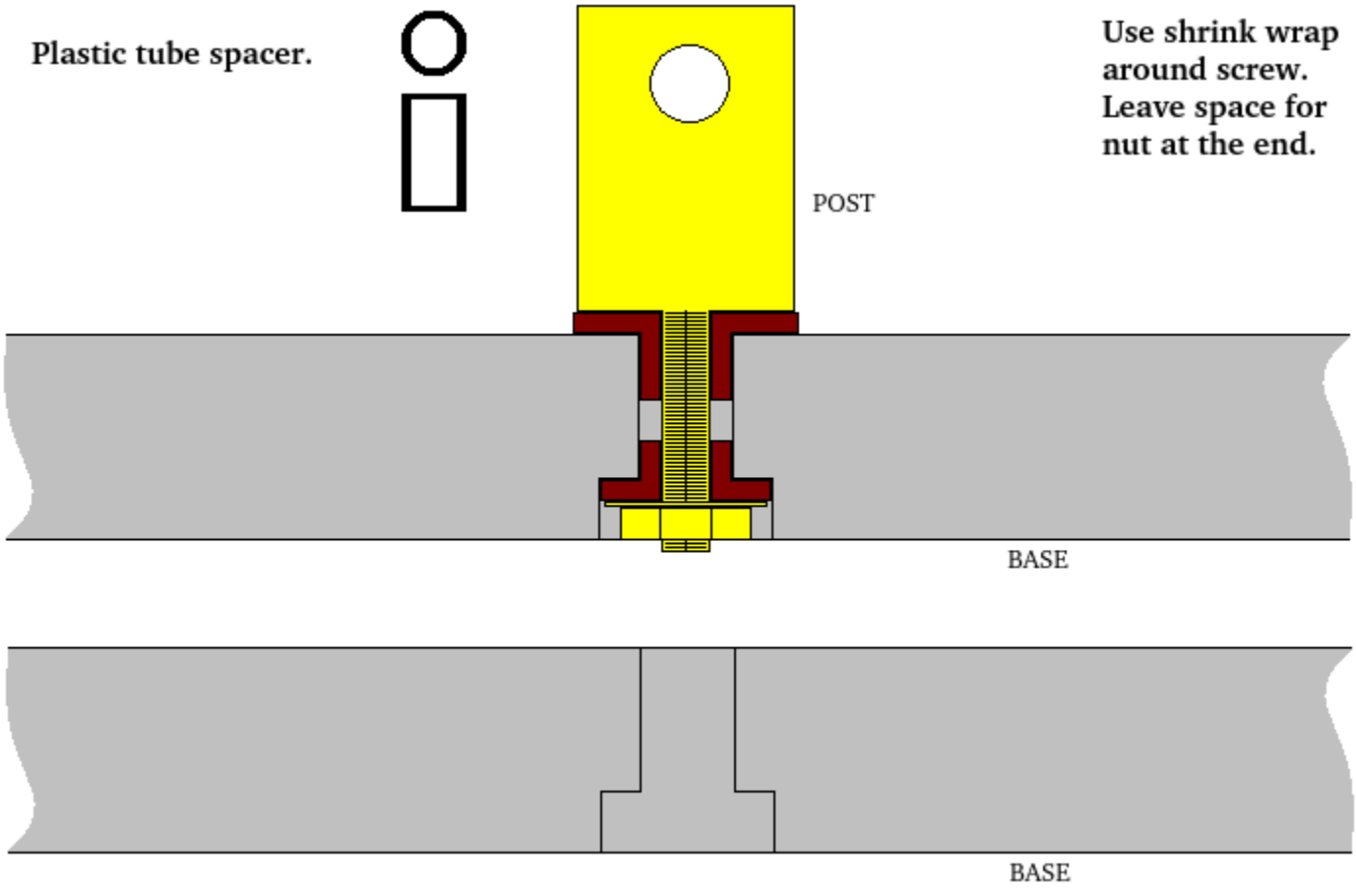


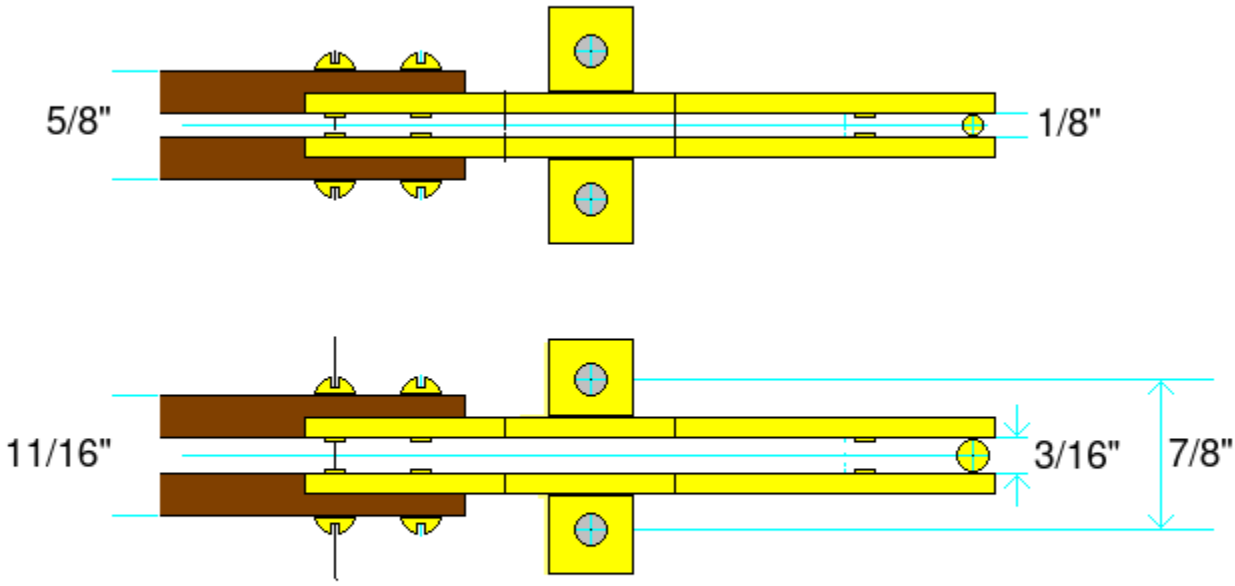
Plan "A"

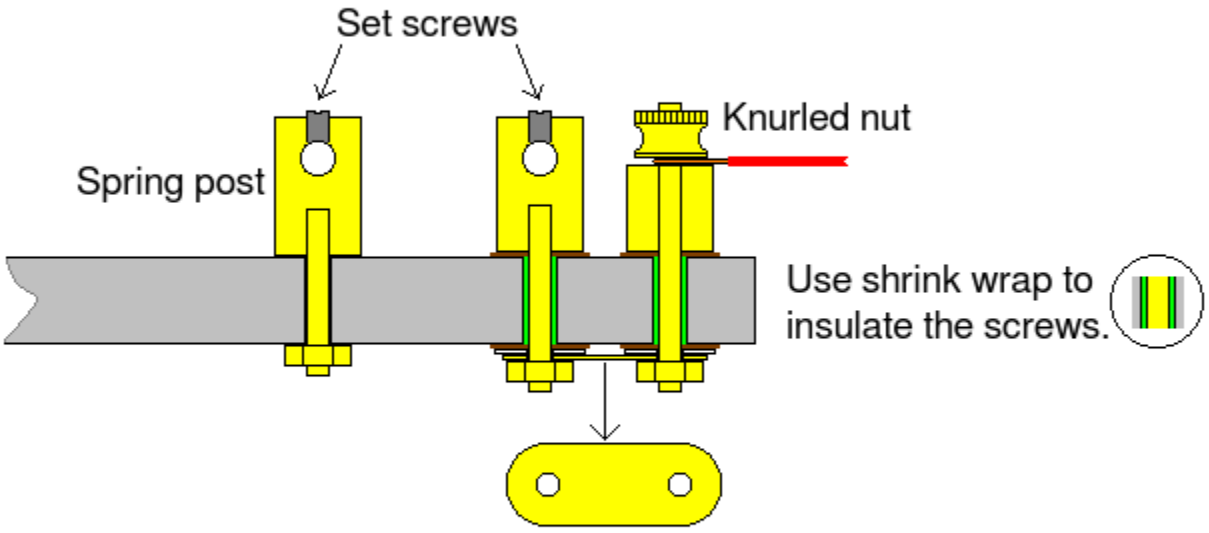


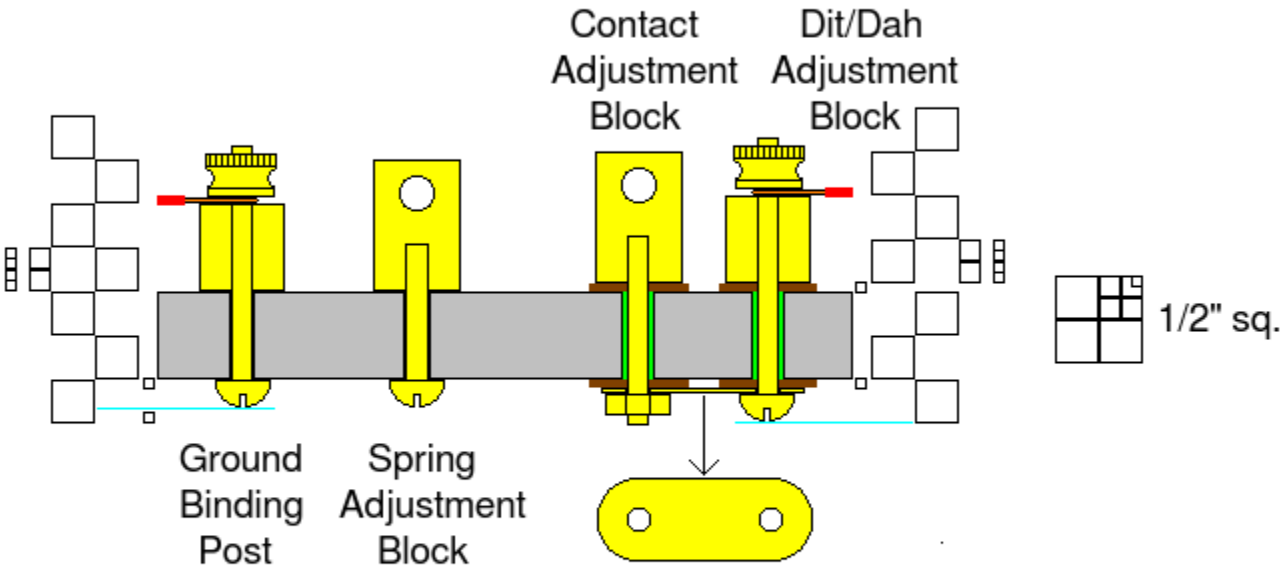
Plan "B"

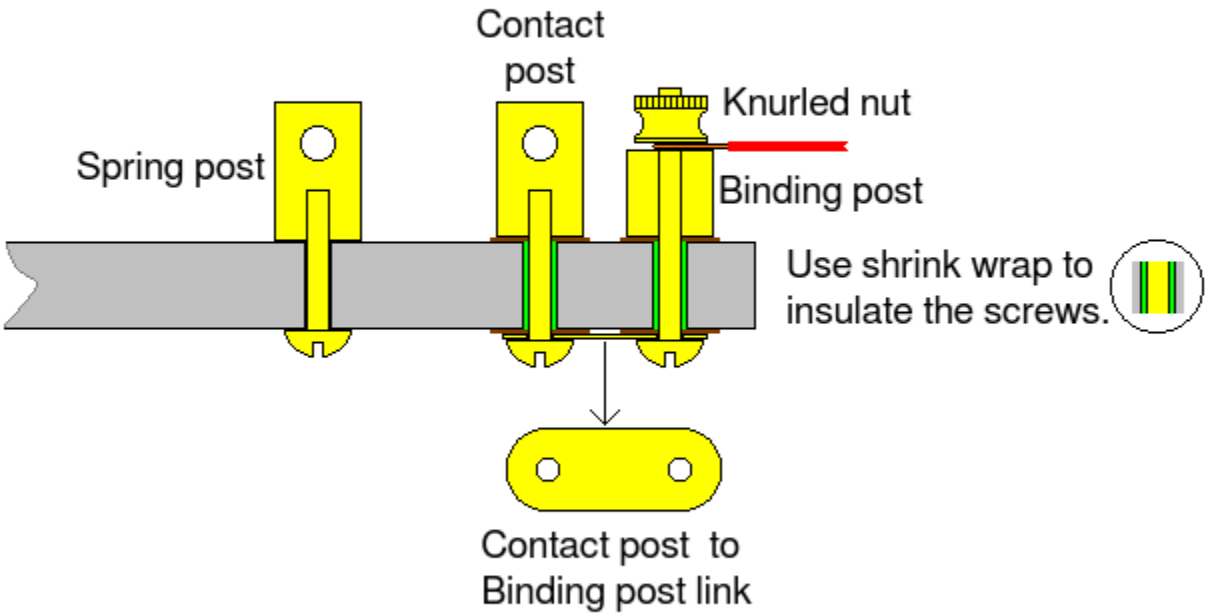

Pivot Block
Lever

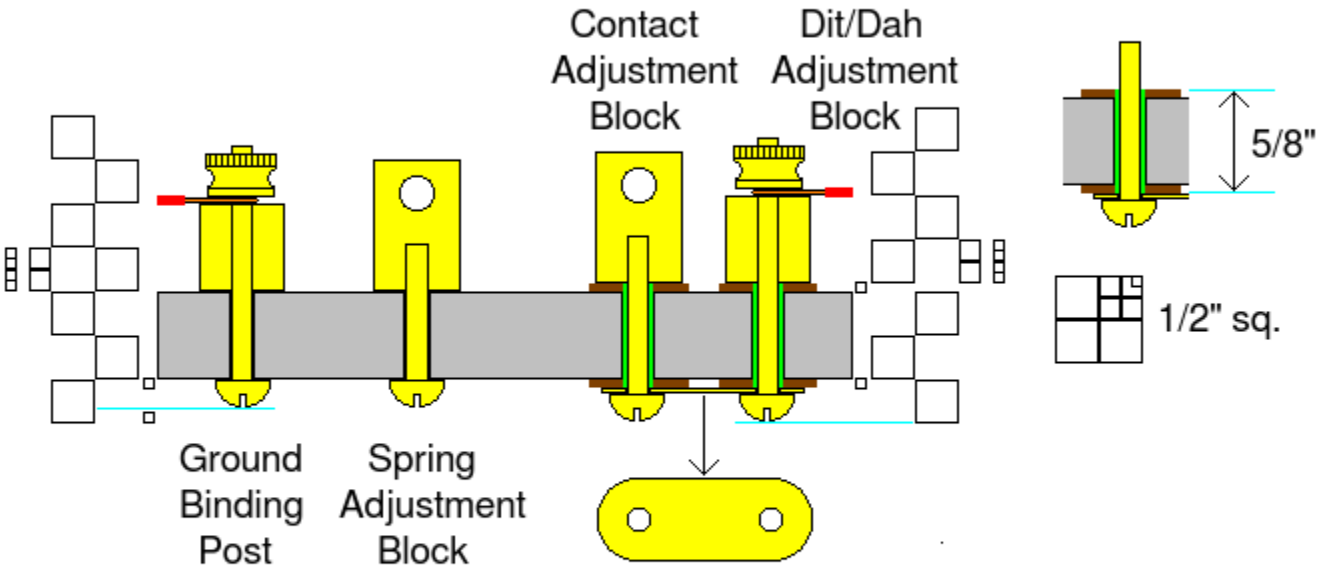

Plastic tube spacer.
POST
Use shrink wrap around screw. Leave space for nut at the end.
BASE
BASE

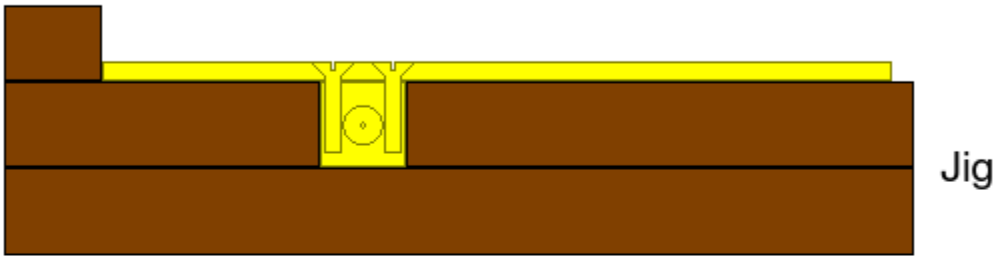

5/8"
1/8"
11/16"
3/16"
7/8"

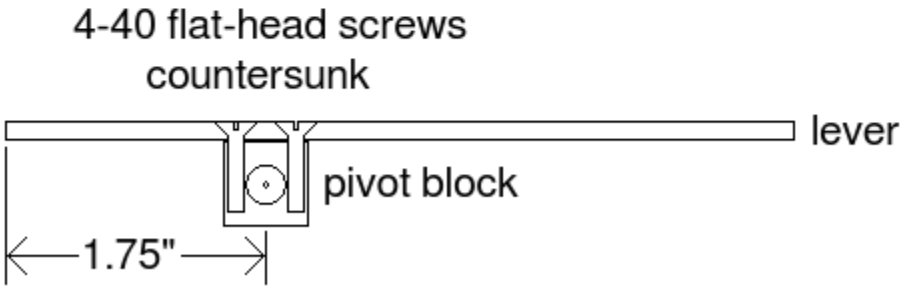

Set screws
Knurled nut
Spring post
Use shrink wrap to
insulate the screws.

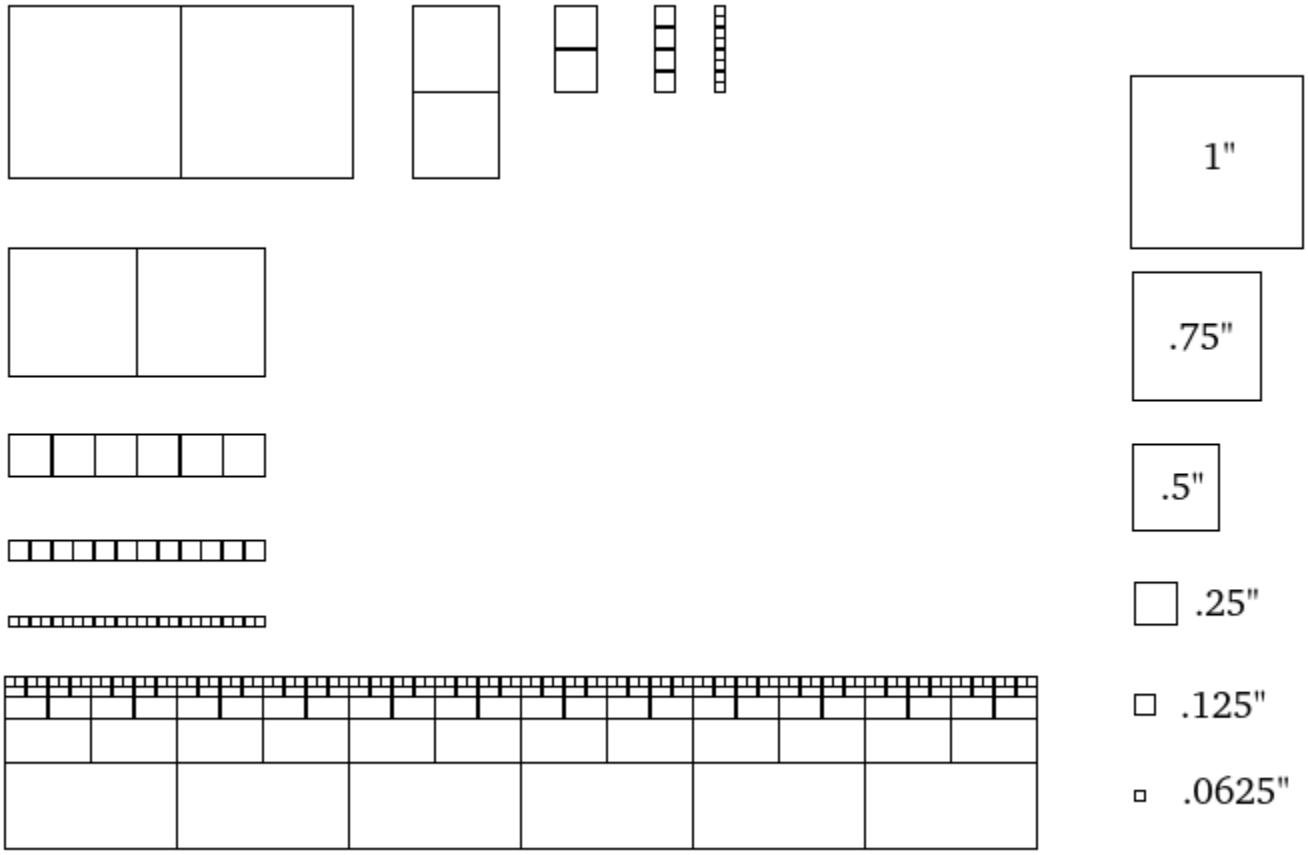

Contact
Adjustment
Block
Dit/Dah
Adjustment
Block
1/2" sq.
Ground
Binding
Post
Spring
Adjustment
Block


Contact
post
Knurled nut
Spring post
Binding post
Use shrink wrap to
insulate the screws.
Contact post to
Binding post link


Contact
Adjustment
Block
Dit/Dah
Adjustment
Block
5/8"
1/2" sq.
Ground
Binding
Post
Spring
Adjustment
Block


Jig


4-40 flat-head screws
countersunk
lever
pivot block
1.75"


1"
.75"
.5"
.25"
.125"
.0625"