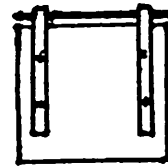


H2e

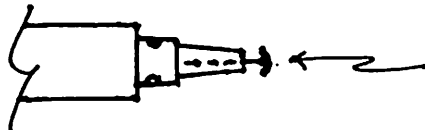


Gun Port Lid Hinges

by Tom Palen.

On model scales of  $\frac{1}{4}'' = 1'$  or smaller, ready-made hinges with stock-sized brass pins for bolts may have a somewhat "heavy" appearance. The shank size of the pins determines how much the pin head may be reduced, and how narrow the hinge strap may be made in order to lighten the appearance. The pins supplied with the kit for the "Endeavour" had a shank of .028" and a head of .065" diam., which translates to a bolt head size of 3.9" on the scale of  $\frac{1}{5}'' = 1'$  used for this model. I replaced the pins with lill pins (.021" shank) and proceeded as follows:---

- a) Place the pins in the chuck of a small lathe and file down the heads to .025" - .028" diam. (It helps to have a micrometer to check, because the head almost disappears. If you don't have a lathe, spin the pins in a drill press). Then file the head thickness down a bit (with lathe stopped), and smooth with #400 or #600 "wet-or-dry" paper, and polish with rubbing compound if you wish. (The .025" diam. gives a bolt head of 1.5")



Lill pin, .021" shank, .060" head.

Lathe chuck

- b) Cut hinge straps from .010" brass sheet, approx.  $\frac{1}{16}''$  wide, and long enough to form loops in one end. Start the loop with small round-nose pliers, and finish by crimping around a .020" brass rod held in a vise. (Soldering should not be necessary). You may want to polish the brass before cutting the straps. Then drill two bolt holes with a #74 drill (.0225"), and trim strap to length. If the  $\frac{1}{16}''$  width looks heavy on your lids, file edges down while holding in a square-nose plier. Better drill the holes before reducing the width. The .010" sheet brass and .020" rod are available at your hobby shop from the K & S metal display.



- c) To hang the lids on the hull, use #26 brass wire (.016" dia.), available at your model train shop (Little Depot at Hobby City in Anaheim). Comes in a 20' pack by Walthers. I used a single length to hang both hinges. This wire is stiff enough to form a rigid hanging rod.