

MAKING TRAILING EDGE STOCK

Bu Bernie Crowe

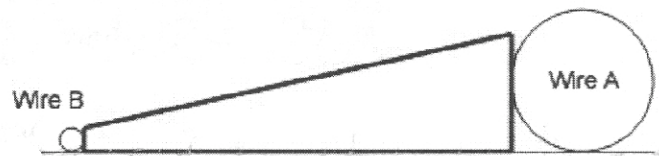
Published in the December Heart of America Free Flight Association newsletter, Kevin Sherman, Editor

Finding the right size trailing edge stock at the hobby shop is tough, especially for the smaller rubber models, and even if you are lucky enough to locate some it's probably made out of something resembling oak or maybe concrete. So most modelers make their own, and a lot of folks do it the right way, using a table saw with a tilting arbor capability. For those of us not so well endowed in the tool department and that includes this writer, an alternate method has to be found. This is the one I've evolved over the years and it works well for me. The method involves making a jig *for* each size of trailing edge needed, so there is an initial investment in labor, especially if you use a wide range of sizes. But jig is fairly inexpensive and can be made in less than half an hour, and will last for many years. The jigs consist of two pieces of piano wire, or other steel rod, a piece to establish the major thickness of the T E, and a smaller one to define the minimum thickness. The larger jig has two sets of wires for different size TEs. The wires are glued — I use cyano, but name your own poison — to a straight hardwood board. The two wires are spaced from each other (Fig 2) by an amount equal to the width of the rectangular stock you are going to use to make the TE. This may be the same as the TE width, or if not, the TE can be trimmed to the desired width later. The length can be anything you wish, but I make mine 36" long to accommodate standard pieces of rectangular balsa stock. A couple of stops are made from scrap and glued to the board between the wires to prevent the rectangular stock from slipping while you work it. The jig is placed on a stable surface such as the work bench and secured. I use bench dogs on my woodworking bench, but a couple of screws or low profile clamps will work just as well.



The rectangular stock is pressed into place between the wires with the far end resting against the stop. It is then stripped down with a hand razor plane using the piano wires as guides to set the angle and get the required thickness. Once the work piece is close to the desired thickness, it can be finished off with a sanding block of suitable grade paper. The attached pictures make all of this pretty clear.

Selecting the correct wires to get the desired thickness is a little trickier than it might seem at first glance. Because of the slope of the finished TE piece, the maximum thickness is going to be somewhat less than the diameter of the larger wire. I have found that to cut a 1/2" x 1/8" thick TE the larger wire needs to be about 0.156" dia. A 4mm wire works well for this. Other sizes Some math whiz out there can probably calculate the correct diameter rather than use trial and error!



Choose a good, straight piece of hardwood for the base of the jig. The two jigs shown here are constructed on oak bases, but I have used poplar and pine too. Pre-cut boards are available at the local DIY store in suitable sizes. Glue the wires so that the stock will be close to the edge of the board on the small side of the TE. This will make it easier to use the razor plane. Clean the wire with a suitable solvent before gluing. Use a straight edge to set the larger wire in place, tack gluing it in a few spots and then running a bead of glue along the length once you have it secured. Use kicker to cure the glue if you are using cyano. Place small samples of the rectangular stock you plan to use at intervals along the length of the wire to space off the smaller wire. Put the cleaned smaller wire in place and repeat the process, keeping the tack glues away from the temporary spacers - you don't want them to become permanent! I [usually use 1/32" wire as the smaller piece. This gives a thickness of around 38 thou for a typical TE width. A little imagination will let you use existing jigs for other sizes of TE. For example, make a piece of 1/2 x 1/8 and then run it through your balsa stripper to bring it down to 3/8 x 3/32. Or slip a piece of 1/64 ply under the "fat" edge of the rectangular stock to produce a 1/2 x 0.1" TE. You get the idea. Enjoy!