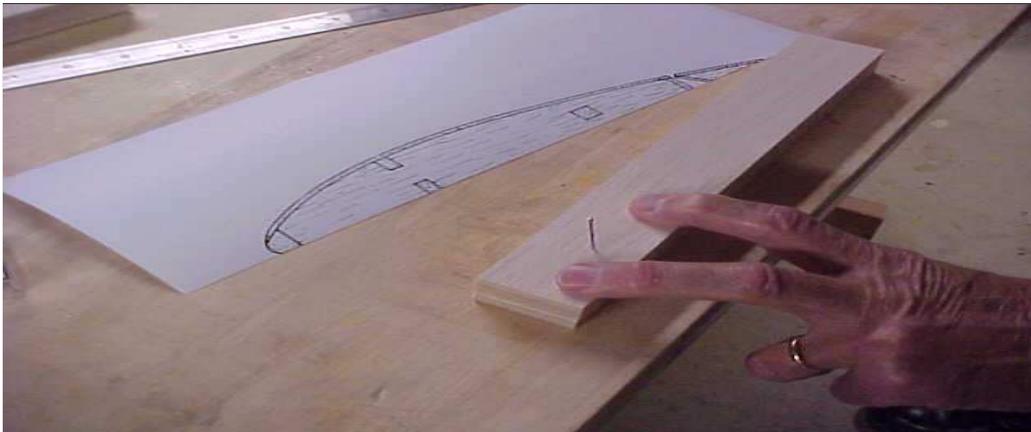


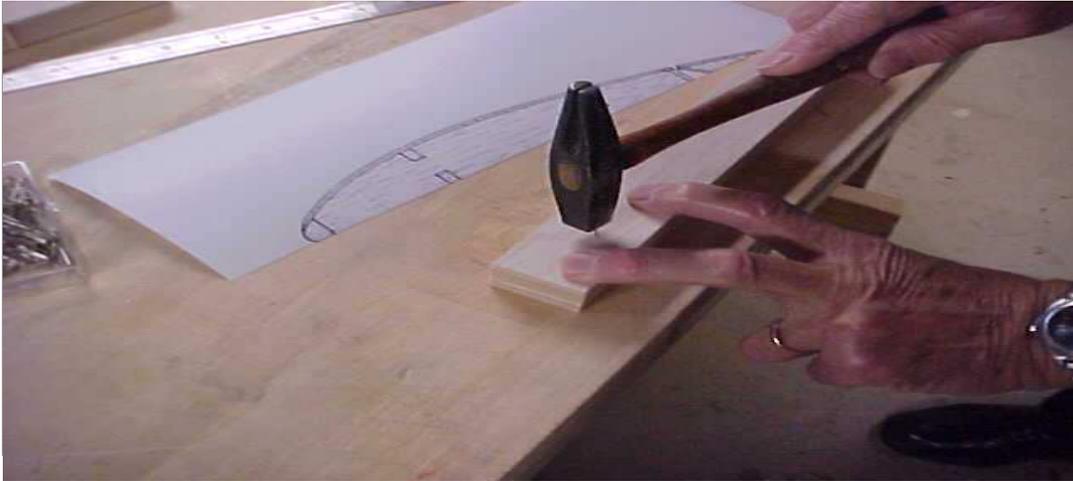
GANG CUTTING RIBS FROM TEMPLATE
JIM TAYLOR
Photo's by Doc Ferguson



In preparing the balsa it is important that the length and width are close as possible.



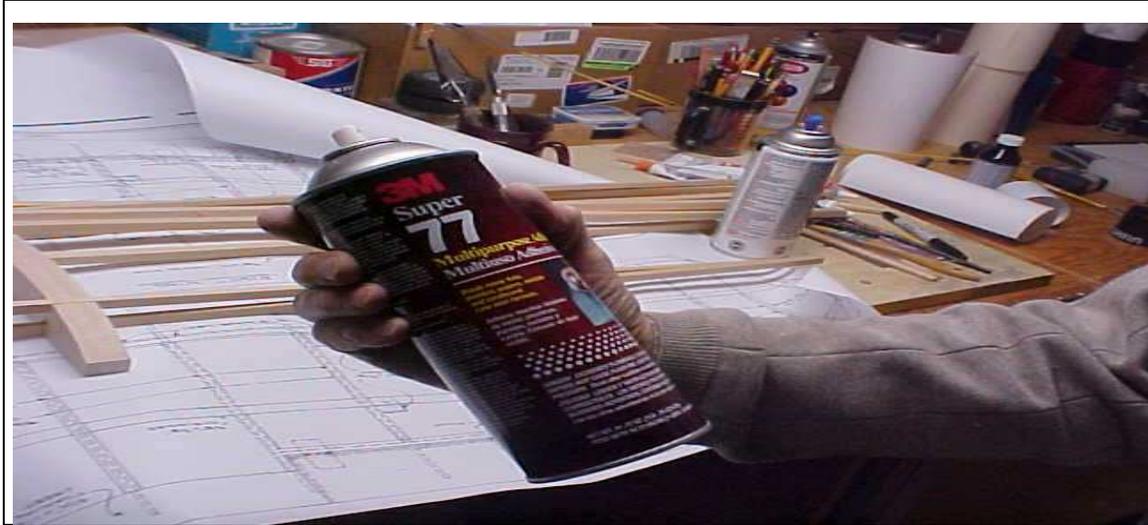
Use a sturdy straight pin to insert into our ten pieces of balsa.



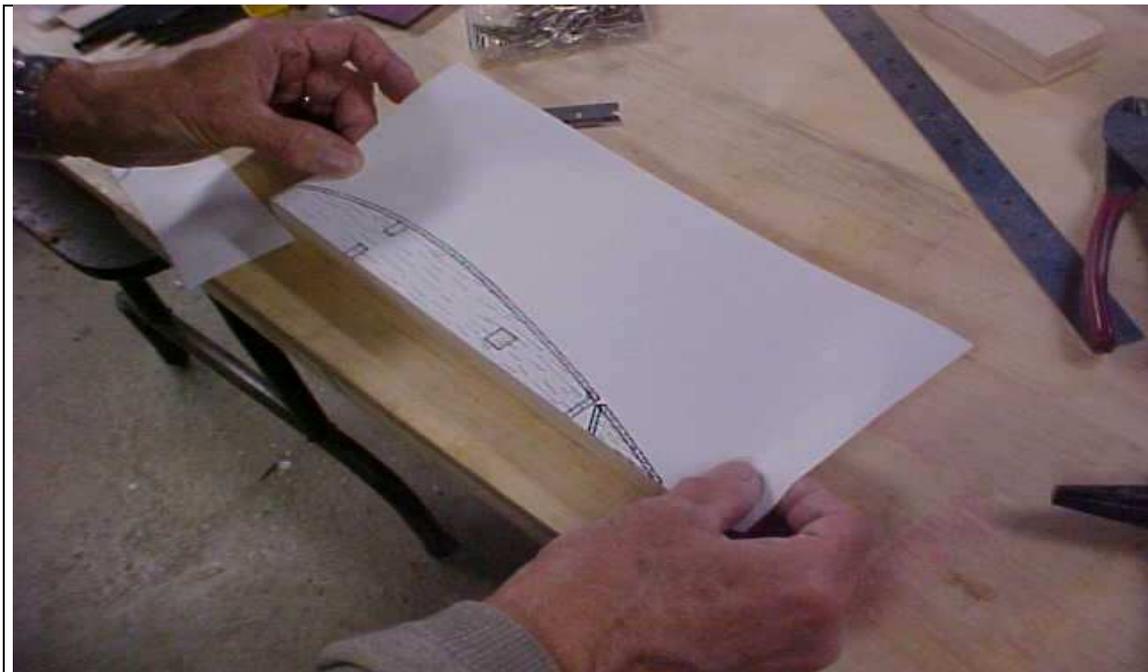
The pin is driven through all ten pieces of balsa.



A side cutter makes short work of trimming the pins as close as possible to the wood.



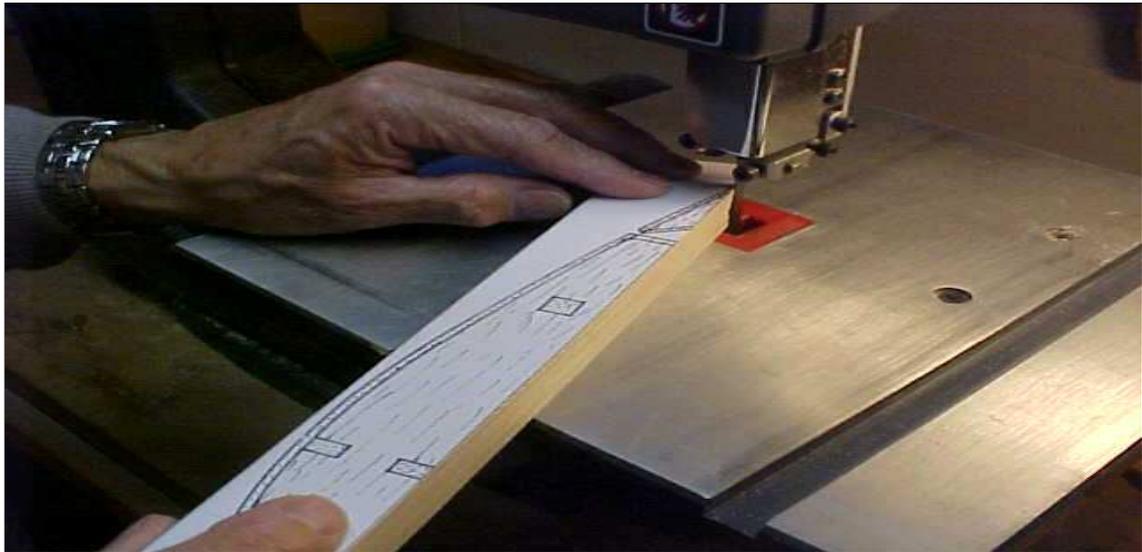
3M has a wonderful product Super 77. Any mounting adhesive will work. I like the Super 77 as it dries quickly and tacks well to the template that we will affix to our balsa.



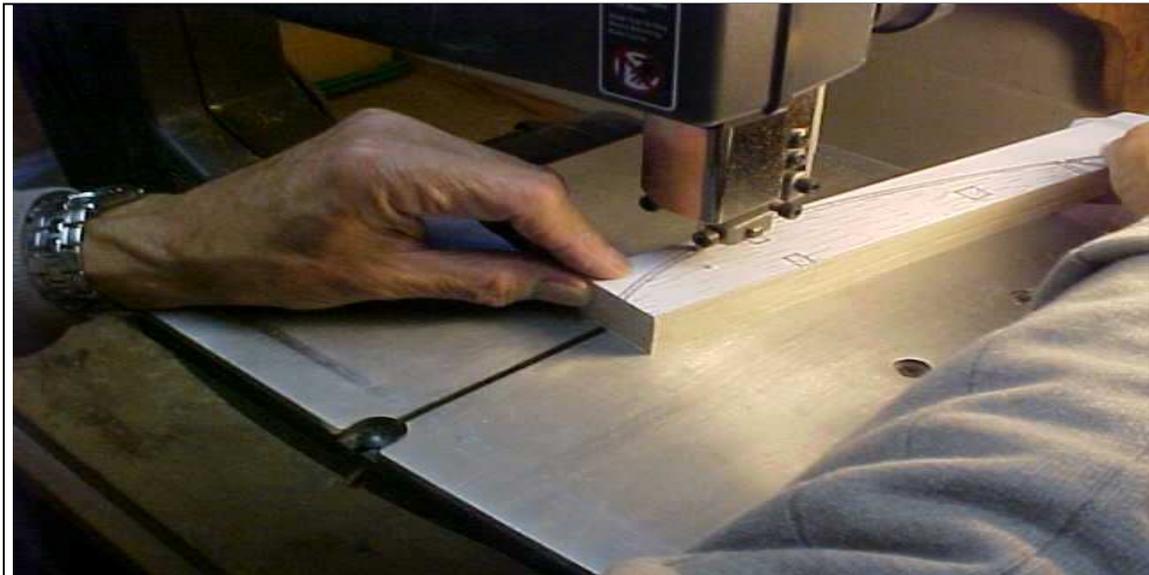
The back of the template has been sprayed and now it needs to be aligned to our balsa. The base of the balsa has been sanded even. We position the template to the base of our balsa and begin smoothing down.



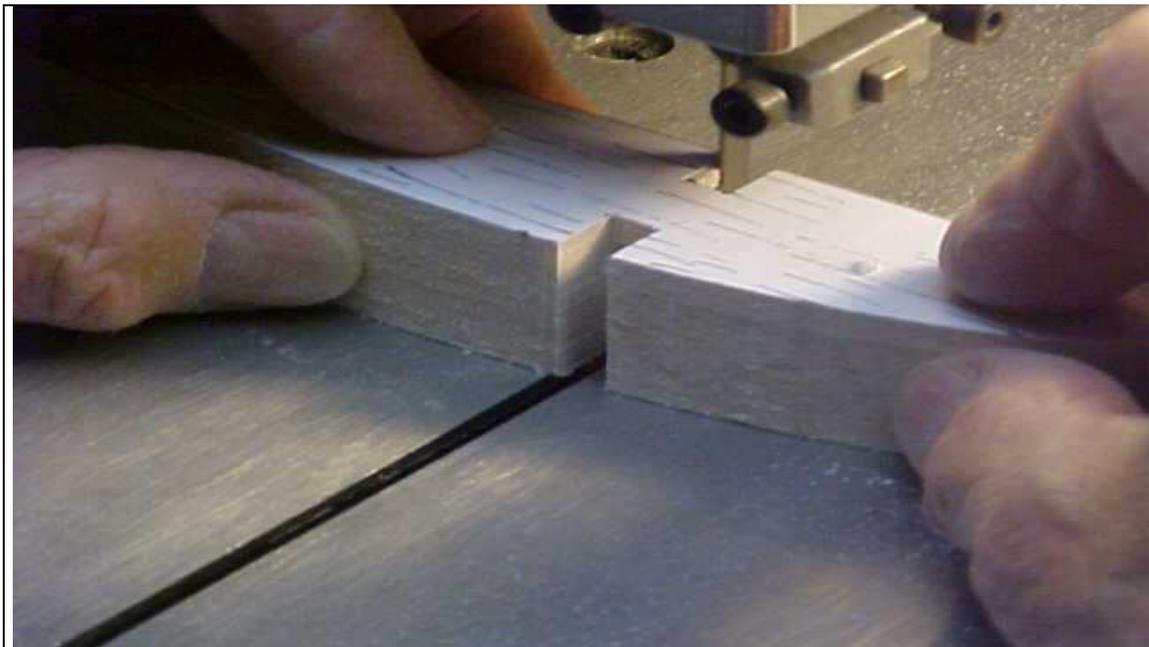
I use a square with my band saw to cut the front of the rib to 90 degrees or what ever is required. The band saw cut straight unlike a scroll saw. Use a metal cutting blade as it has more teeth and a smother cut is made in the soft balsa.



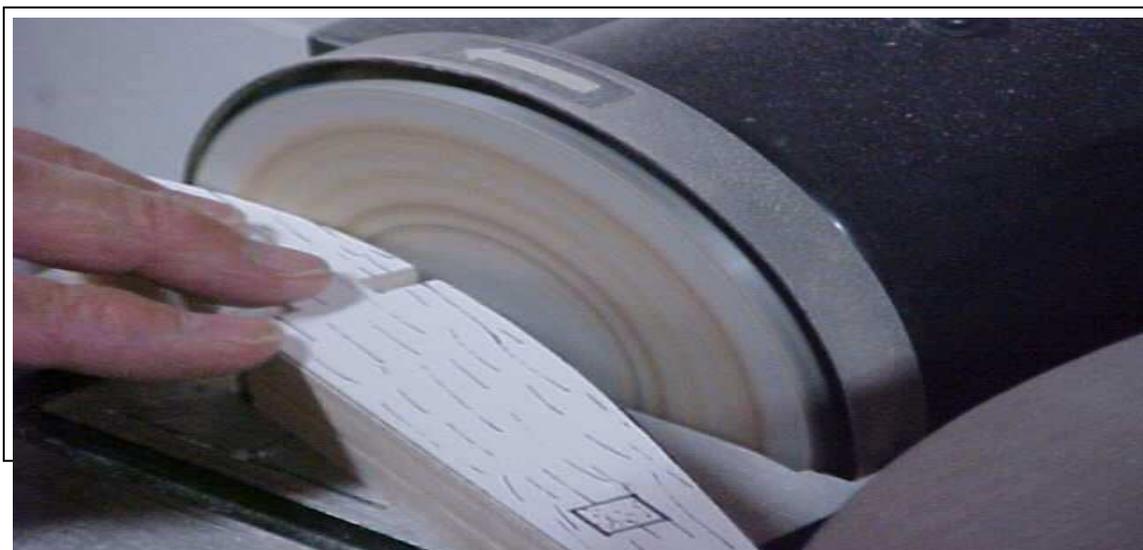
This is where you want to take your time. A steady hand and feed the work slowly cutting as close to the black line as possible.



Again I cannot emphasize to really take your time. No sense in ruining ten pieces of balsa and have to start over. We are trying to save time, so take time.



For our spars I make careful multiple cuts to make a clean channel for our spars.



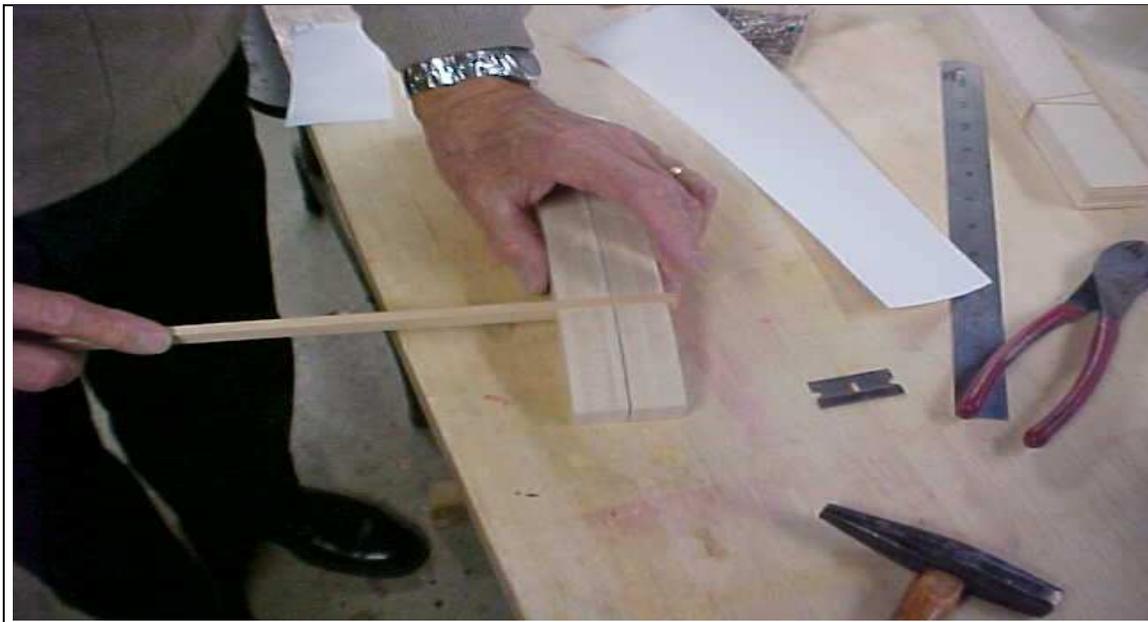
This is a tool that I highly recommend - a sanding disk. If any of those black lines are still there this is where you can get rid of them fast. Again take your time. These disks are really fast at removing material.



I had already cut out ten other ribs. Now we place them together and check of differences in ht. By using a sharps pen we can trace along the high end and take those ten to the belt or disk sander to make everything even.



We can trim up our tail pieces of ribs on the band saw using the square once again.



This is where we test fit our spar to the top and bottom of our prepared ribs. If necessary use a spar sanding tool to expand or deepen the slot.



These particular ribs have a square hole that needs to be made through all ten ribs. Choose a fosner bit and center it in the intended hole. Chose a bit that is close to the sides to remove as much material as possible, making a round hole into a square hole. I prefer this to using a scroll saw. Scroll saws want to wander from side to side and you cannot get a clean square cut. By removing as much material as possible another tool that you can make yourself makes a better square hole.

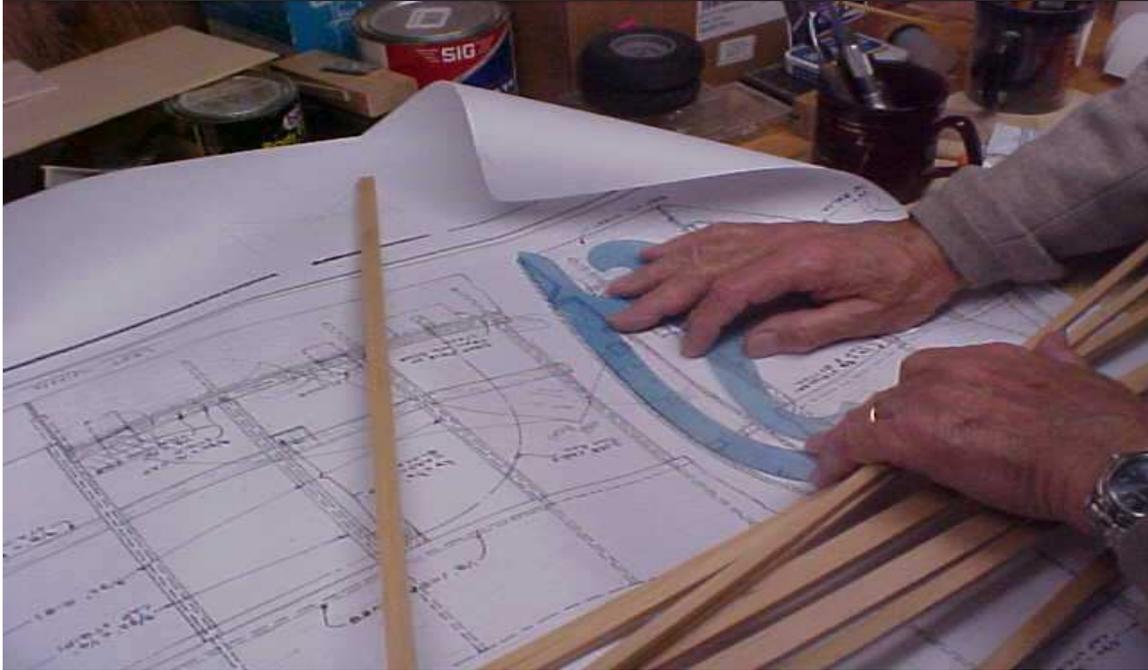




Use a small square piece of balsa and glue sand paper to two sides. Work the tool top to bottom and side to side to get a nice square hole. Don't over do it as you are going to test fit the main center spar that runs through all the ribs.



Spar is test fitted through all ten ribs top bottom. Note round hole which will be used for the wiring of the servo. Note the square hole. That was also test fitted with the spar for proper fit.



Using the French square. Use of the French curve is more time consuming than duplicating your plan. However if you want to make permanent templates from plywood the French square duplicates the original rib very close. This can be done by pinning down the plans over a piece of tracing paper and paper underneath the tracing paper.

We will cover that step by step next: