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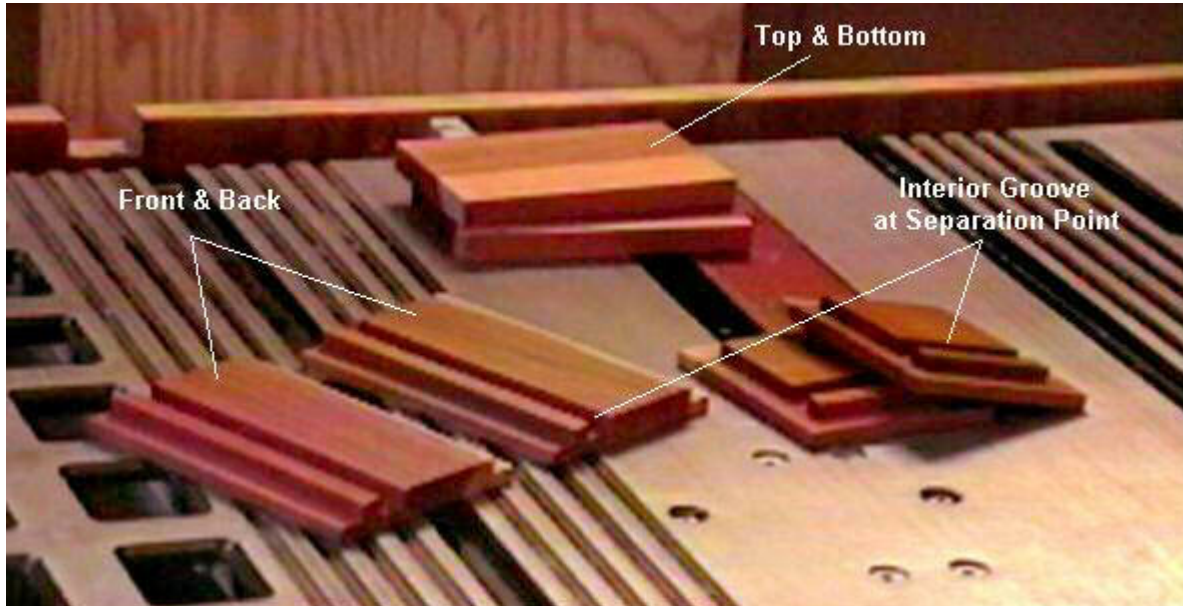
SMALL BOXES



The box can be made from any 3/8" wood.

Some exotic wood seems usually to come in 3" x 24" pieces so that kind of dictates the size of your small box. So I cut 4 pieces 4 1/8" long for the front, back, top & bottom, and 2 - 2 7/8" for the ends. I was left with a piece no more than 5/8" as scrap because of wastage due to the thickness of the saw cuts. Set the pieces

which will be your top and bottom aside till later.



ROUTING THE RABBETTS & GROOVE

On the front, back, and end pieces, cut 3/8" rabbetts, about half the thickness of the stock deep, (with a 3/8" straight bit) lengthwise **ONLY** along the inside of

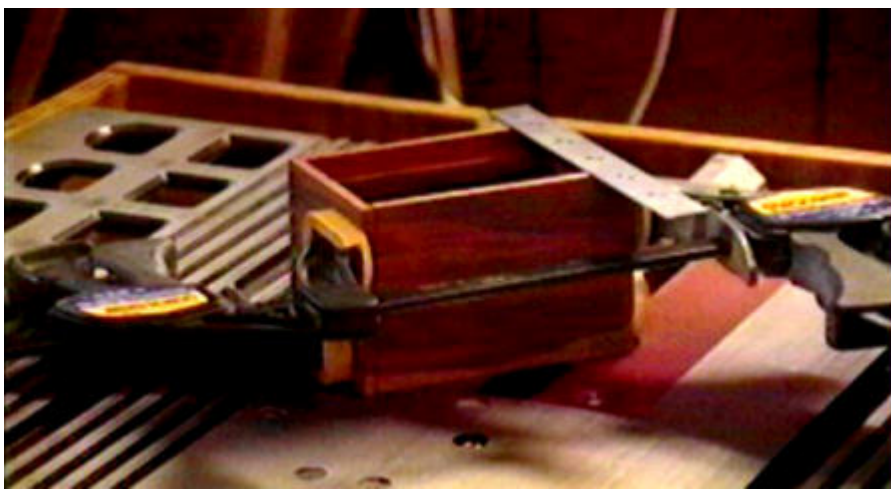
the TOP AND BOTTOM EDGES ONLY. On your end pieces **ONLY**, cut 3/8" rabbetts across the inside of the other two edges.

Move your router's fence away from the bit about 1/4" and leaving your router's 3/8" straight bit at the same depth, rout a groove length wise on these 4 pieces. This groove will become a necessary element of the way the top fits on the finished box.

For more details, see drawing below.

IMPORTANT With a soft lead pencil, mark a line end to end, on the outside of these 4 pieces indicating where the bottom edge of your interior groove is - once your box is glued together you need to know where that bottom edge is.

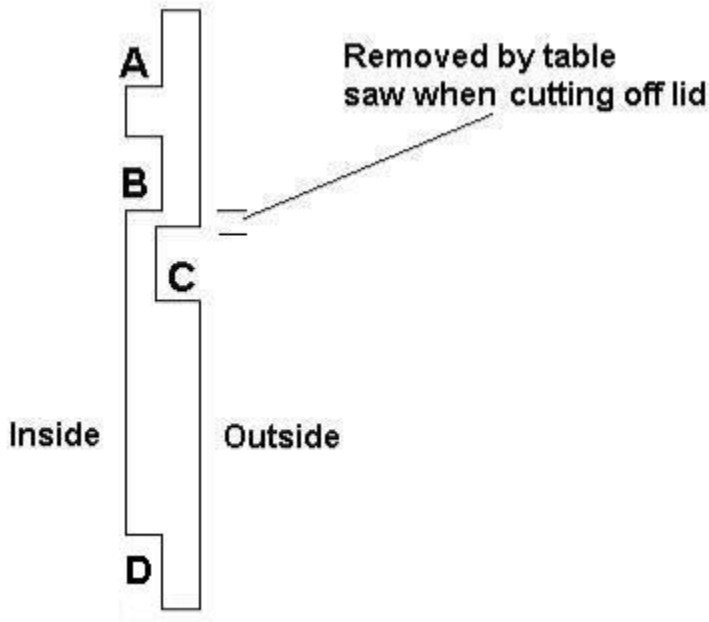
Mark it end to end because you may be rounding over ALL edges and small markings may be cut off



Dry assemble your box and holding it together with some light clamp pressure, measure carefully for the width you need to cut your top and bottom. Oversize your top and bottom if you're unsure of

an exact fit. You can always take a tad more off but you can't put it back.

BE CAREFULL! THIS PIECE WILL BE CUT TO ONLY APPROXIMATELY 2 1/2" WIDE. KEEP YOUR FINGERS AWAY FROM THE BLADE AND USE A GOOD PUSH STICK AND FEATHERBOARD TO PROTECT YOUR HANDS! IF YOU DON'T FEEL COMFORTABLE MAKING THIS CUT, GET SOME HELP FROM SOMEONE WHO IS!



Use LOTS of clamps and glue your box together. When dry, you will make another cut with your router but this time on the outside of the box and just a bit deeper than you previously were using. Position your box against the fence and line up your 3/8" straight bit so that it will make a cut just below the line which you marked on the outside of the box. Leave a small space between the line and the edge of your bit. This is all that will be holding your box together and you must be sure of the placement of this groove for safety reasons, so be sure to measure correctly!

PROFILING THE EDGES

Now we can do the profiles on the edges you choose using a 1/2" round over bit. I decided to do just the top front and top back, but different "looks" of boxes can be attained by selective choices of edges to be routed with the 1/2" roundover bit, for instance another attractive box has all edges rounded over. Another has just all four top edges rounded over.

LOCATION OF GROOVES

This profile shows the location of the grooves & rabbetts. When you are sure you've got your bit positioned properly for this cut (C), extend your

bit just a bit and make your exterior groove. If you wish, you may want to make a couple of shallower passes to insure a clean cut.

For a nice fit of the lid to the bottom, just be sure you extend the bit just a very small amount, like 1/32". Extending it too much will make for a sloppy fit. Not enough may be too snug.

CROSS SECTION DRAWING EXPLANATION

- "A" is the top rabbett on the inside which accepts the top
- "B" is the interior groove which along with the exterior groove "C", forms the mating edges for the 2 sections (top & bottom) of this box

- Note the location of the saw kerf. When cutting off the top, most of the wood which was left between the inner and outer grooves, will be cut away as the lid is cut off. This edge will probably need a bit of cleaning up though for a proper fit before finishing.
- "D" is the bottom rabbett on the inside which accepts the bottom

CUTTING THE TOP OFF

Now it's time to cut off the top of your box. You could do this with a Japanese draw saw, on your table saw or with an Exatco blade. I think this task is best accomplished using your table saw,,, I find less clean up needs to be done afterward that way. No matter how you do this, you will have to clean up this area later with a sander or by hand sanding and/or an Exacto knife.

Here's how I do that job on a table saw. Start with the cuts to the ends of the box first. Turn your box on it's end and position your saw's fence so that the blade will make it's cut adjacent to the line you marked on the outside of the box. Set your blade height to just higher than the thickness of the wood and so that it just takes off the line, and make your cut on each end.

BE CAREFUL!!! THIS STEP MUST BE DONE PROPERLY TO AVOID INJURY BY KICKBACK AND/OR RUINING YOUR PROJECT! Insert a small piece (1" x 1") of 1/8" thick wood into each kerf or cut, and using masking tape, tape these pieces securely to the top and bottom to keep the kerfs open thereby avoiding any problems. You must be sure this arrangement is secure for safety's sake. It's worthwhile noting that your taping must be done so that when you make this next cut, you won't be cutting through your tape job.

Without changing the blade setup in any way, turn the box on it's side and make the length wise cut to the front and then to the back. When all cuts are completed, remove the tape and those small 1/8" thick spacers.

FINAL CLEANUP AND FINISHING

Using sand paper, carving knife, chisel or any other tool you prefer, clean up your project and fit the top to the bottom of the box. It should go on and off easily, but not sloppily! Sand the project with 80 - 120 grit sand paper and then 220 grit, and finish with a top coat of your choice. I used a clear satin finish spray lacquer.