

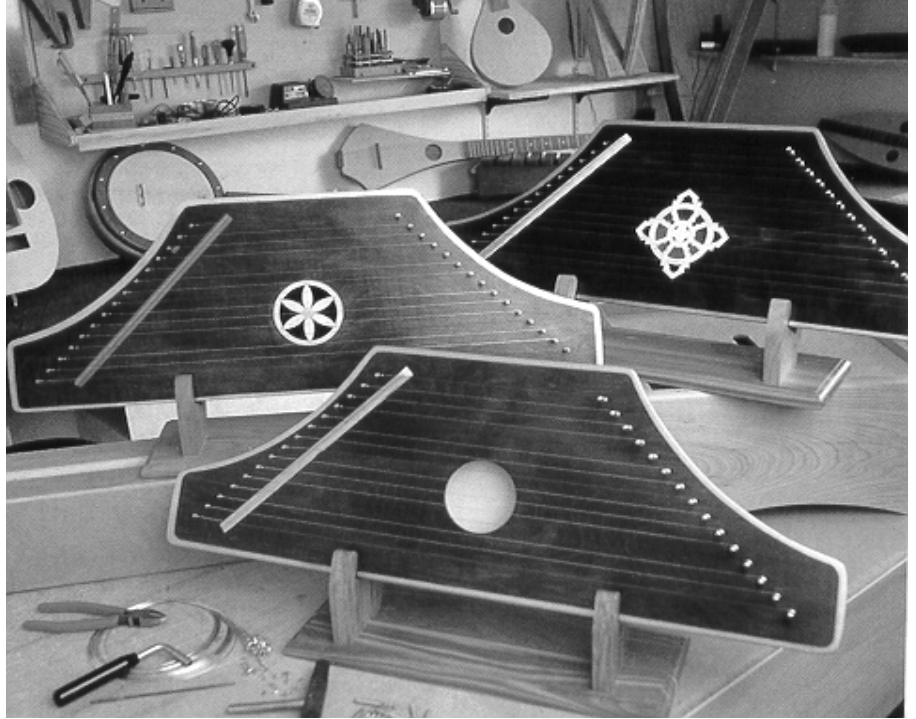
HOG-NOSED PLUCKED PSALTERY

Wooden Parts:

- 1 Plywood top, (pre-cut and marked)
- 1 Plywood bottom
- 2 Pin blocks
- 1 Short side
- 1 Long side
- 1 Bridge
- 1 Scrap of plywood

Hardware:

- 1 Tuning key
- 1 Drill bit 3/16"
- 1 Drill bit 3/32"
- 15 Tuning pins
- 15 Brass eyelets (small)
- 15 Strings:
 - 3 -.018
 - 4 -.016
 - 4 -.014
 - 4 -.012
- 1 Flatpick
- 1 Set of Song Sheets
- 1 Set Assembly Instructions



ASSEMBLY INSTRUCTIONS:

___1. Please take time right away to check over all the parts to your kit. If anything is missing or unsatisfactory, don't hesitate to notify us so we can correct it promptly.



PLYWOOD SIDES also.

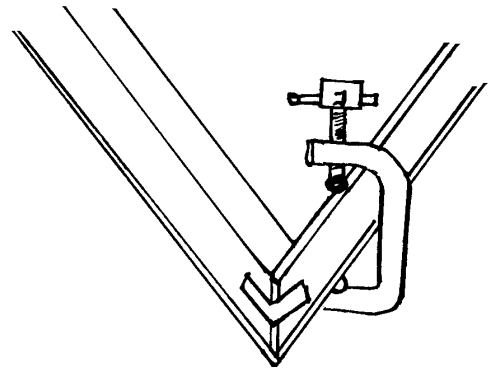
___2. Find the PLYWOOD BOTTOM and place the best surface facedown on your work table. Measure up 1/4" along the long edge and draw a straight line near that edge, as shown.

Test-fit the PIN BLOCKS on either side, flush with the edges, and just touching the line you drew. Check the fit of the two

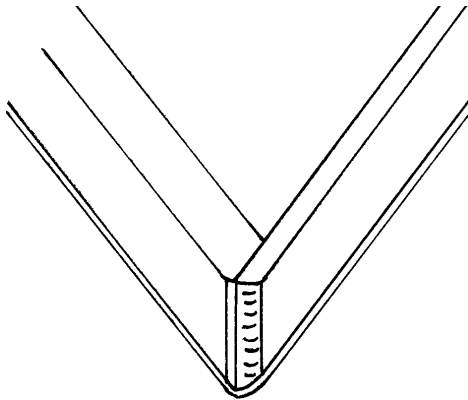
___3. Begin by gluing the PIN BLOCKS to the BOTTOM. Use a good woodworking glue (such as Elmer's Carpenter's Glue) and some weights or clamps to fasten the PIN BLOCKS

to the PLYWOOD BOTTOM. You want enough glue so that a little bit squeezes out around the joints as they are clamped together. Take care to prevent the PIN BLOCKS from sliding out of position when clamped.

Wait at least 30 minutes before removing the clamps or weights.



___4. To finish the box, glue the LONG and SHORT SIDES in place. It will be a bit of a challenge to apply pressure both at the corners AND downward so that the SIDES are securely attached to the BOTTOM. Use a combination of clamps and tape to hold the parts firmly together. Remember to try to get some glue to squeeze out of the cracks -- that's the sign of a tight joint. Check also to be sure the SIDES are nice and straight along the edges of the PLYWOOD BOTTOM. Allow at least 30 minutes to dry.

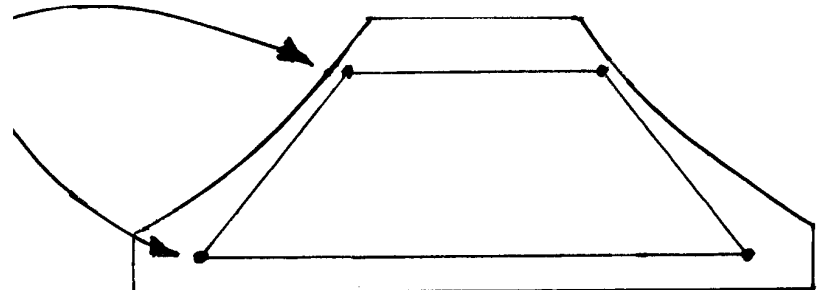


___5. Sand the edges and corners of this BOTTOM assembly before proceeding further. It will look best if all the sharp corners are rounded and the edges sanded smooth. You want to remove all glue spots too, as they will be ugly smudges in the finish if not thoroughly sanded out.

___6. Place the PLYWOOD TOP on your work table with the front facing down (the front has two rows of punch marks for the strings holes). Find the four punch marks on the backside of the TOP and draw pencil lines connecting them in the shape of a trapezoid, as shown.

IMPORTANT! The BOTTOM ASSEMBLY must be positioned according to four punch marks

Test-fit the BOTTOM ASSEMBLY to the backside of the TOP according to your pencil outline. Note that when you turn the assembly right-side up, the TUNING PIN holes should be centered over one PINBLOCK, and the small EYELET holes should fall about 1/8" away from the other PINBLOCK, along the outside edge of the box (see illustration for Step 7).

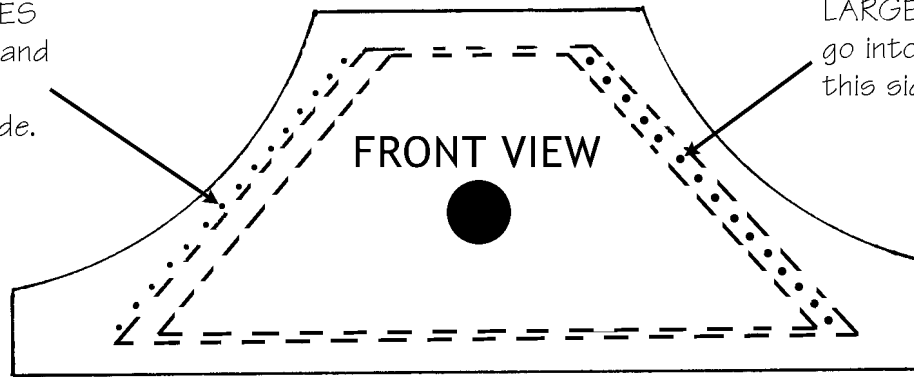


When you are satisfied with the position of the BOTTOM assembly, Apply glue to all edges that will contact the TOP, and use weights or clamps to hold it firmly in place. Check to be sure that it does not slide away from the lines marked. Allow 30 minutes to dry.

___7. Now you are ready to drill the holes for the strings and the tuning pins. The positions for these holes are all marked on the front of the instrument. You want the tuning pin holes to go into the center of one PIN BLOCK and the smaller string holes to go just outside the other PIN BLOCK.

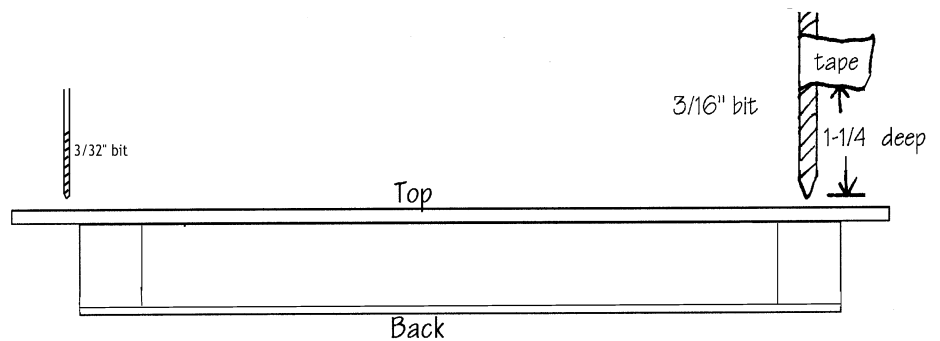
SMALL (3/32") HOLES go through the TOP and poke out near the PINBLOCK on this side.

LARGE (3/16") HOLES go into PINBLOCK on this side.



___8. The 15 string holes should be drilled so that the drill just misses the PINBLOCK where it joins the top. Use the 3/32" (smaller) drill bit provided for these holes. These holes should go straight through the TOP and be visible just outside the left PINBLOCK.

___9. The 15 tuning pin holes should be drilled vertically to a depth of 1-1/4 inch, using the 3/16" (larger) bit provided. Put masking tape on the drill bit to mark the proper depth (1-1/4"), and hold your drill as steadily as you can, so all 15 holes are clean and straight. Take care not to wobble the drill, or the tuning pins may not fit tightly.



___10. Make one last pass around the instrument with 120 grit sandpaper (medium) or finer. Check for any rough edges or sharp corners. Your fingers will tell you when the wood feels smooth. Check again for any blotches of glue residue -- sand them out completely!



___11. If you wish to decorate the soundhole, we recommend adding one of our laser-cut ROSETTES (also shown in our catalog). We have drilled a soundhole just large enough to allow the ROSETTE to be glued to the rim, so it rests on top of the SOUNDBOARD.

___12. Now you are ready to apply the finish. Here are some ideas to consider:

STAIN -- STAINS are coloring agents and should only be used if you dislike the natural color of the wood. We usually do not apply stains to our projects, especially when they are made with naturally beautiful hardwoods such as cherry or walnut. These woods look very nice with just a clear finish. But, if you want to color the wood differently, your staining should be accomplished before applying a surface finish such as oil, varnish, or lacquer. We like ANILINE DYES for darkening the wood without obscuring the grain. Our 3-color powdered dyes (code *FINI-40*) can be mixed with denatured alcohol to the desired shade. The advantage of these dyes are quick drying time, deep colors, even penetration, and the opportunity to create a "sunburst" shading effect.

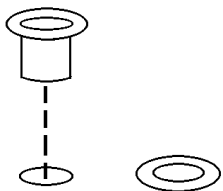
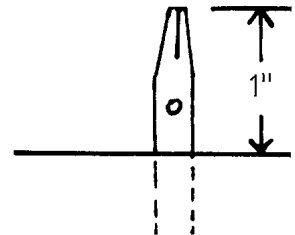
OIL -- An oil finish will give your wood a low luster appearance, bringing out the natural color of the grain, but it tends to soak into the wood and appear dry and "thirsty" after awhile. The principal advantage of an oil finish is that it can be applied and wiped dry immediately, so you can proceed to installing hardware (and strings) right away. The disadvantages of oil are that it usually does not give much surface protection or sheen, although there are some brands that include waxes and/or varnishes to give more surface build-up and luster.

VARNISH -- Any regular varnish will work fine on this project, but we recommend our wipe-on polyurethane called MUSICMAKER'S INSTRUMENT FINISH. Our complete finishing kit (code *FINI-20*) includes detailed instructions, sandpaper sheets, tack cloth, foam applicator, and lint-free wiping cloth, along with a 1/2 pint can of semi-gloss polyurethane varnish. The advantages of finish are its simple application, durability, and deep, soft luster. It also works well for protecting Heat Transfer decorations.

LACQUER -- Many professional instrument makers still use lacquer for their finish. The most readily available lacquer is called Deft Clear Wood Finish. It is best to purchase a can of liquid to brush on as a sealer coat first, and then use an aerosol can of the same product to spray on the final coats. The advantage of this finish is its quick drying time, but the disadvantage is the strong odor of the toxic lacquer fumes. CAUTION: Lacquer finish will not work over Heat Transfer decorations -- it dissolves the toner.

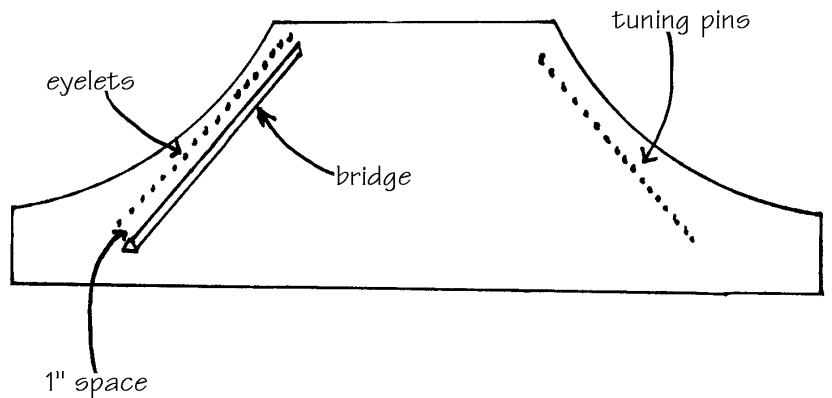
Be sure to varnish the wood BRIDGE also!

___13. Locate your bag of 15 tuning pins. Use a hammer to pound in the pins until they are well seated, leaving about 1 inch above the wood. Use the tuning key to turn them clockwise to go deeper, or counter-clockwise to raise them up to an even height.

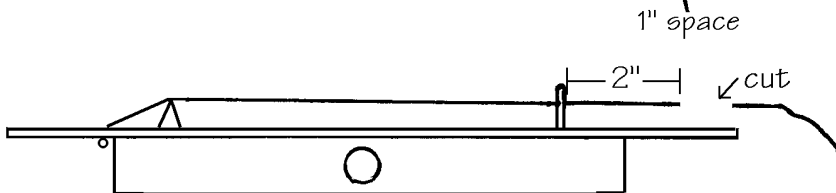


___14. Push the small BRASS EYELETS into the other holes (from the front side of the instrument). They will prevent the strings from cutting into the wood.

___15. Use masking tape to hold the BRIDGE temporarily in place, approximately 1 inch from the BRASS EYELETS, as shown. Once a few strings are installed, you may remove the tape.



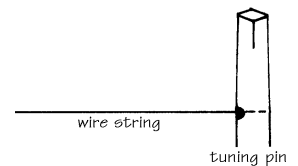
___16. String the instrument as follows:



a) Beginning with the longest string on the instrument, take one .018" string and poke it through the first string hole, from the backside of the instrument,

pulling it all the way until the ball end contacts the wood underneath. Stretch it across the instrument to the farthest TUNING PIN and clip off the excess length of wire so that it measures only about 2 inches beyond the TUNING PIN.

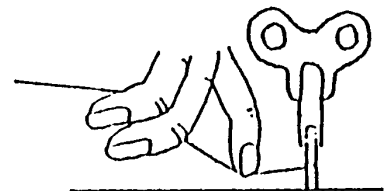
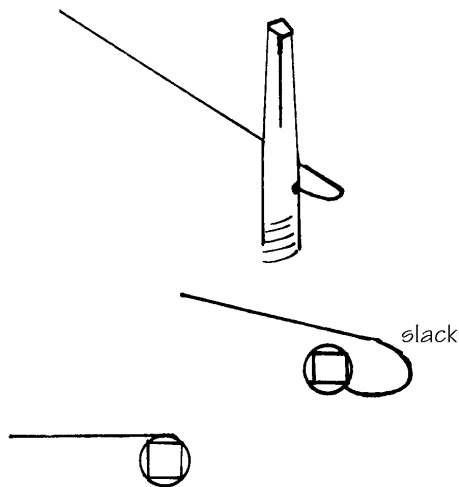
b) Put the wire into the pin so that the end just shows through the other side of the pin.



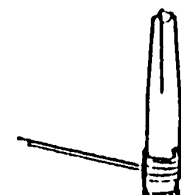
c) Use the TUNING KEY to turn the pin clockwise about one-half turn before putting tension on the wire.

d) Pull on the wire to "set" it in the pin. This puts a sharp kink in the wire where it enters the tiny hole. If the wire jumps out when you pull, you may need to clip off the kinked end and try again.

NOTE: This may seem like a silly detail to worry about, but we like to hide the ends of the wires inside the TUNING PINS so they don't poke your fingers or catch on your clothes when you handle the instrument. Believe me, this does make a difference!



e) Keeping tension on the wire at all times, turn the pin clockwise until you take up all the slack. You should be able to make about two or three complete turns of the pin before the wire is tight.



f) Install the remaining strings, using this chart for string size placement:

The three longest:	.018"
The next four:	.016"
The next four:	.014"
The four shortest:	.012"

___17. Tune your PSALTERY, beginning with middle C for the lowest string. Then go up the scale matching the white keys on a piano, for two

octaves above middle C. Refer to the songsheets included in your kit -- each note is named along one edge.

Congratulations! We hope you have enjoyed making this project and that someone in your family will enjoy many hours of musical pleasure by playing it.

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