Assembling The Rocker Box

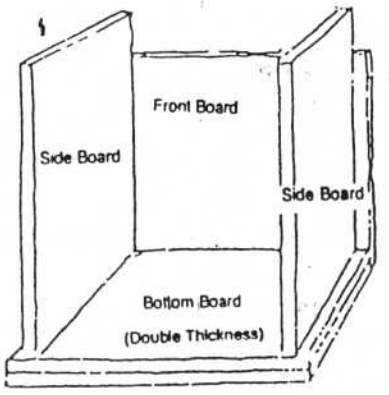
1) Glue and nail two PART C pieces together for the **Bottom Board** (i.e. make it DOUBLE THICKNESS for added stability)

2) Glue and nail the bottom ends of the **Side Boards** (Part C) to the top surface of the Bottom Board the correct distance apart (use formula on page 29 for correct spacing between **Side Boards**). Be sure that the front edges of the **Side Boards** are even with the front edge of the **Bottom Board**, because we will need an even surface on which to glue and nail the Front Board
(**Note:** The **Side Boards** are attached to the top surface of the **Bottom Board** "long side" up. The **Front Board** is attached to the front edge of the **Bottom Board** "short side" up and should cover the front edge of the bottom board.)

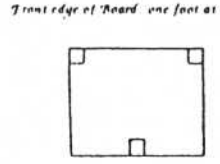
3) After the **Side Boards** are glued and nailed, set the **Front Board** in place to see how far up the front edges the glue needs to go. Then glue and nail the **Front Board** to the front edge of the **Bottom Board**. Check to make sure that the spacing between the **Side Boards** is correct (see page 29) before nailing the front board to them

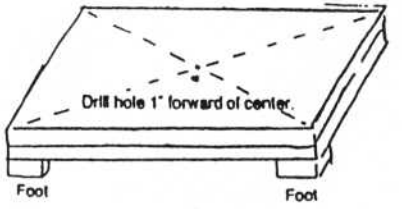
4) Glue and nail together the two remaining Part C pieces to make the **Ground Board**. (As with the Bottom Board, the wood is doubled (for added stability)

5) Find and mark the the center of the **Ground Board**. Then turn the **Ground Board** upside down and glue and nail the three **Feet** (Part D--three pieces) in place as shown (the TWO feet go in FRONT):



ROCKER BOX



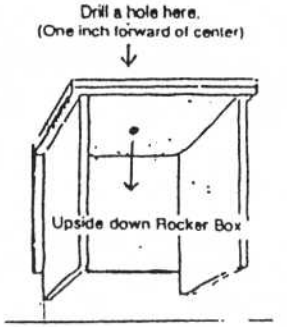


GROUND BOARD
(Double Thickness)

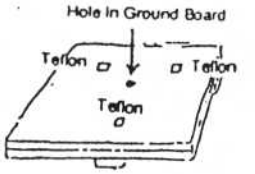
6) Now turn the **Ground Board** right-side-up. Make a mark one inch forward (toward the TWO front feet) of the center. Drill a hole on this mark for the lag screw. This hole should be one sixteenth of an inch smaller in diameter than the lag screw to insure a tight fit

Assembling the Rocker, Continued

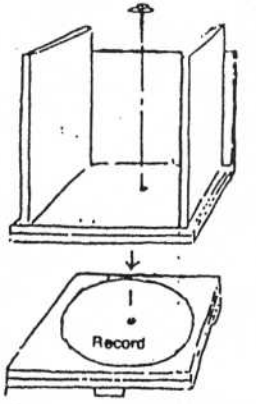
7) Turn the **Rocker Box** upside down. Find the center of the **Bottom Board** (do not count the width of the **Front Board** when finding the center of the **Bottom Board**.) Drill a hole one inch forward of center ("forward" means toward the **Front Board**.) for the lag screw. This hole should be the same diameter as the lag screw. The hole in the record will not be big enough for the lag screw to fit through, so you will have to enlarge it with the drill. Use the same bit you used to drill the hole in the Bottom Board, i.e., the same size as the diameter of the lag screw. (CAUTION: Have someone hold down the record for you while you drill it or it will madly ride up on the bit.)



8) On the **Ground Board** (which should be right-side-up, i.e. with the feet on the ground), nail three squares of Teflon in a circle at three angles of an equilateral triangle about half way between the "center" hole and the feet. (The phonograph record will ride on these Teflon squares, so check to make sure the squares don't extend past the edge of the record.) Use finish nails (small heads) to nail the Teflon onto the **Ground Board**, and use a nail set to inset the nail heads. (The record must ride smoothly on the Teflon and not be scraped by the nail heads.)



9) Now we are ready to assemble the **Rocker Box**. Place the record over the **Ground Board** and the **Rocker Box** over the record on the **Ground Board**, so that all the holes are lined up. Insert the lag screw (with its washer) and screw it in. (Be vigilant as you do this to make sure that the lag screw goes in straight, not at an angle). Tighten the screw until it is snug and then back off a bit. The **Rocker Box** should swivel smoothly on the **Ground Board**.



Teflon squares are underneath the record

10) Now we are ready to balance the telescope and attach the **Cradle Boards** (Part B)