Pattern Platform
Sequence:

Dimensions assume 5/4 x 6 Home Depot Radiata Pine. Minor changes may have to be made if other stock is used. Prioritize on having a 2” gap for plywood pattern platform, and being able to put magnets centered on lathe bed rails.

Determine height of base: The base height is calculated to fit under your lathe chuck. Subtract the chuck diameter from the swing diameter and divide by 2. Then subtract ½”. For instance for a Powermatic 3520B and a Oneway Stronghold it would be ((20-4.5)/2) -1/2 = 7-1/4.

Crosscut two 5/4 x 6 Radiata pine pieces to the height. Leave one piece as is for the base. To make base rails and platform support rip the other piece 7/8” wide at 30° off both edges.

With two screws fasten one rail to a large face at the edge of base. Nest Platform Support in base rail. Bring up other base rail and fasten with two screws with slight gap between rail and support. Make sure you can slide Platform Support in between rails.

Drill for two large rare earth magnets in bottom of base. Try to center on lathe rails. Glue or screw on magnets (Consider AmazingMagnets.com # CUPT750 as they can be mounted with #8 screws, so they don’t fall out and can easily be reused).

Determine height of Platform Support. Measure the height of your banjo (toolrest) crosspiece above the lathe bed. Use this for the height of Platform Support—this way the banjo will always be adjustable without disturbing the pattern location.

Drill ¾” hole 5/8” deep and 1” from center bottom of Platform Support. Drill Concentric through hole with #7 hole. Tap with 1/4x20.

Mount ¾” dowel in lathe chuck. Drill ¼” deep hole with ¼” drill. At last 1” of dowel, reduce dowel diameter so it slips in ¼” hole above. Cut off 5/8”. Place in ¼” hole of Platform Support with ¼” hole facing in. Screw in 1/4x20 thumbscrew from other side. Dowel will prevent denting face of base.

Cut ¼” plywood 2” long and 8” wide. Screw to top of Platform Support.

Cut ¼” plywood to slightly less width of gap between lathe rails and 2-1/4” long. Screw to bottom of Base so that when jig is assembled the centerline of Platform is aligned with centerline of lathe. The Base assembly should have some wiggle room for fine adjustments rather than fit tightly between lathe rails.