

C A router inlay set (*above*) consists of a precision inlay bushing, a bushing retaining nut, a bit-centering pin, a $\frac{1}{8}$ " downcut spiral bit, and a $\frac{9}{16}$ "-diameter collar.

Shapes as simple as a heart, star, and moon (*left*) make attractive inlays. You'll find their templates easy to make, too.

12 easy steps to routed inlays

In the following steps you'll learn how to make a template and rout and fit the butterfly-shaped inlays for the serving tray. You can use this same method to make inlays of any design, such as those shown in **Photo B**. You'll need a router inlay set, shown in **Photo C**, to form the openings and the inlays. See the Buying Guide *below* for our source.

1 Cut two $3 \times 13\frac{1}{2}$ " pieces from $\frac{1}{8}$ " hardboard, then face-glue the pieces together to form a router-inlay template blank. (The template needs to be slightly thicker than the projection of the inlay bushing from the router baseplate. Because the $\frac{1}{4}$ "-long bushing is partially recessed in the baseplate, it

projects a little less than $\frac{1}{4}$ ". We found that two pieces of $\frac{1}{8}$ " hardboard are thicker than $\frac{1}{4}$ " hardboard and provide just the right clearance between the template and the end of the bushing.)

2 Draw a line across the 3" width of the template located $4\frac{1}{2}$ " from one end for aligning the inlay pattern.

3 Photocopy the full-size butterfly inlay pattern in the **WOOD PATTERNS**® insert. Trim the pattern; then, using spray adhesive, attach it to the template, aligning the pattern's horizontal centerline with your marked line on the template.

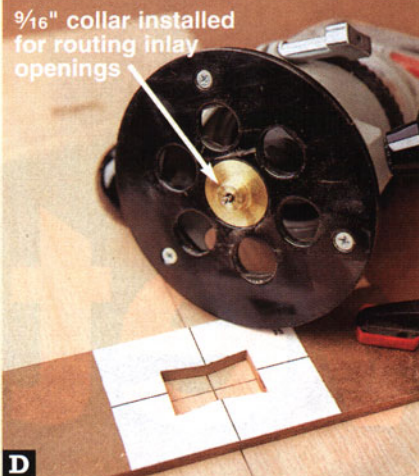
4 Drill a $\frac{1}{4}$ " starter hole (for inserting your scrollsaw or jigsaw blade) through the template, where shown on the pattern. Then, using a fine-tooth

blade, cut just inside the pattern lines to shape the opening. Finish shaping the opening by carefully filing or sanding to the lines.

5 On the top face of the tray bottom (A), mark vertical and horizontal centerlines for each inlay location, where dimensioned on **Drawing 1a**. Make the lines long enough so you can align the template's centerlines with them.

6 Install the inlay bushing and center the $\frac{1}{8}$ " downcut spiral bit in your router, as directed in the manufacturer's instructions.

7 Holding the template against your router's baseplate, adjust the bit to extend $\frac{1}{16}$ " beyond the template. Position the template on the tray bottom to rout a $\frac{1}{16}$ "-deep inlay opening, as shown in **Photo D**. Install the $\frac{9}{16}$ "-diameter collar on the inlay bushing.



D

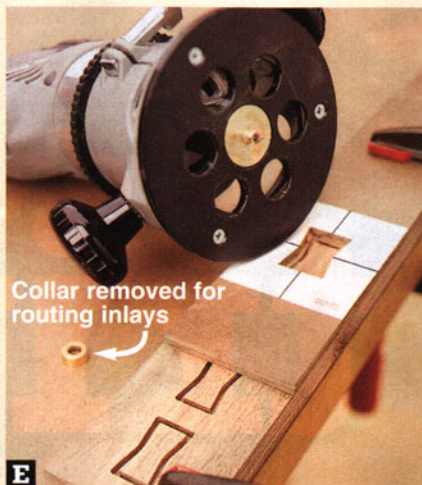
Align the template's centerlines with the marked inlay centerlines, and clamp the template to the tray bottom.

8 Plunge the router bit into the tray bottom through the center of the template opening; rout around the opening in a clockwise direction while keeping the collar flush against the template, and remove the waste from the inlay opening. Repeat this process to form the remaining openings.

Note: The corners of the inlay openings will be round. You'll need to chisel them out to fit the inlays later.

9 From $\frac{3}{4}$ "-thick walnut, cut a 3×13" blank for forming the butterfly inlays (C). Adjust the router bit to extend $\frac{1}{8}$ " beyond the thickness of the template. Then, place the template against a face of the walnut blank, flush with an end, and clamp both to your workbench.

10 Remove the $\frac{9}{16}$ "-diameter collar from the bushing. Keeping the bushing continuously flush against the template opening, plunge the bit into the blank and rout around the opening. The area inside the routed

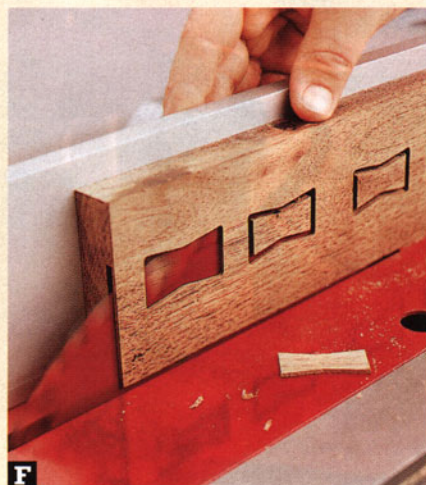


E

After routing the first inlay, reposition the template along the walnut blank to form the remaining inlays.

groove forms the inlay piece. Repeat the process with the template repositioned, as shown in **Photo E**, to form the remaining inlays.

11 Place the walnut blank on your tablesaw with the nonrouted side against the fence. Position the fence to place slightly more than $\frac{1}{16}$ " of the routed side of the blank on the waste side of the blade. Adjust the blade height $\frac{1}{8}$ " above the top of the inlays. Then, rip



F

With your saw fence and blade height adjusted as required, rip through the walnut blank to separate the inlays.

the blank to separate the inlays, as shown in **Photo F**.

12 Chisel out the corners of the inlay openings so the inlays will fit into them. (As an alternative to chiseling, you can round the corners of the inlays by sanding them to fit the openings.) Then, glue the inlays in the openings, using a mallet and a wood scrap to fully seat them. With the glue dry, sand the inlays flush to the bottom.

4 SHOP TIPS

...for designing and routing inlays

- Draw your own inlay designs by hand or with computer graphics software, or use existing designs from such sources as computer clip art.
- Make patterns large enough so the $\frac{9}{16}$ "-diameter router inlay collar will fit into the pattern openings. Note that rounded corners need to have a $\frac{3}{32}$ " minimum radius for the $\frac{9}{16}$ " collar to fit into them.
- For your inlay to be a desired size, make the image for the template pattern at least $\frac{9}{16}$ " larger all around to account for the offset of the bushing and collar.
- For safety's sake, make your template of sufficient size to allow proper support for your router.