Classic Arts & Crafts inlay

BY KEVIN RODEL

The inlay design that I developed for the head- and footboard of my bed (see pp. 30–37) is based on Glasgow-style motifs that I have adapted to inlay work. I've used some version of this design on several different pieces. Here I'll give you the basic steps so you can try it in your own work.
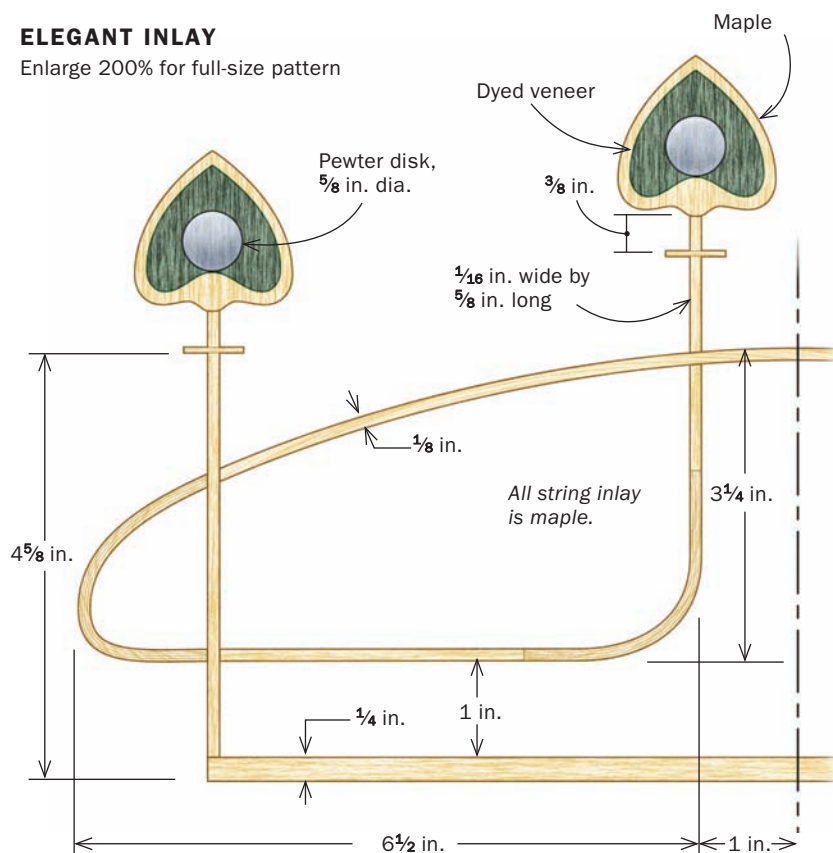
Templates guide the work

For this design, you'll need several templates made out of ¼-in.-thick Masonite. One is for the curved channels of the pattern and the other two are for the spade and the heart-shaped inserts. These templates will be used several times for each cutting sequence, so they must be "squared" and have a marked centerline for accurate registration.
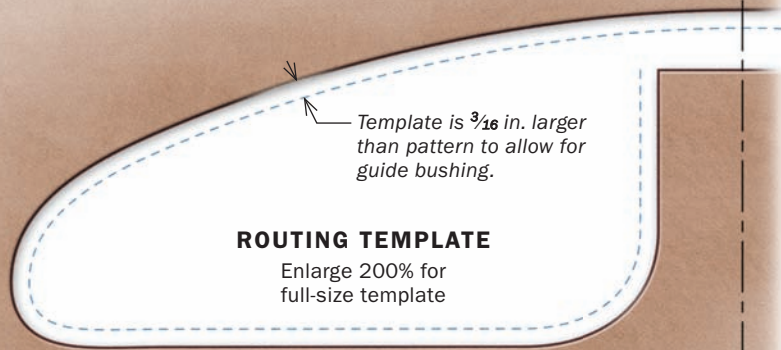
Rout the channels first

For efficiency and speed, I use two routers for this task. Both have the same size bit, but one is used with a guide bushing and template (for the curved sections); the other with a straightedge for the straight cuts.
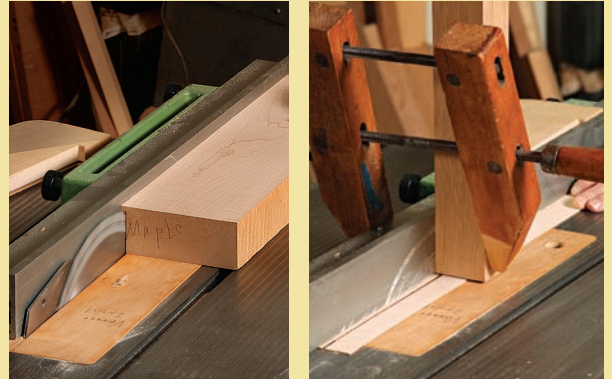
ELEGANT INLAY
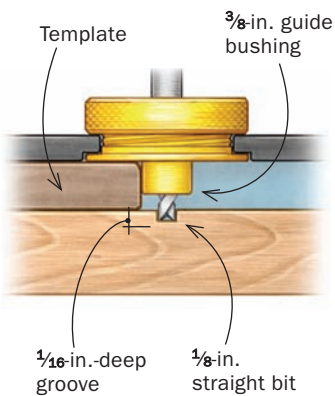Enlarge 200% for full-size pattern

Maple

Dyed veneer

Pewter disk, ⅝ in. dia.

⅜ in.

1/16 in. wide by ⅝ in. long

⅛ in.

All string inlay is maple.

4⅝ in.

3¼ in.

¼ in.

1 in.

6½ in.

1 in.

Photos: Anissa Kapsales; drawings: John Hartman

A template for routing

Template is ³⁄₁₆ in. larger than pattern to allow for guide bushing.

ROUTING TEMPLATE
Enlarge 200% for full-size template

Template

³⁄₈-in. guide bushing

¹⁄₁₆-in.-deep groove

¹⁄₈-in. straight bit

One template, two routers. Align the centerline of the template with the center of the panel. Rout the vertical, straight sections first, using a router with a guide bushing.

Ditch the template and add a straightedge. Using a second router, with no guide bushing, finish the vertical, straight channels. Use a straightedge to guide the work.

Glue the stringing. Squeeze glue into the straight sections, then glue in the pieces of inlay. Use a mallet and block to seat the inlay firmly in the channel (right).
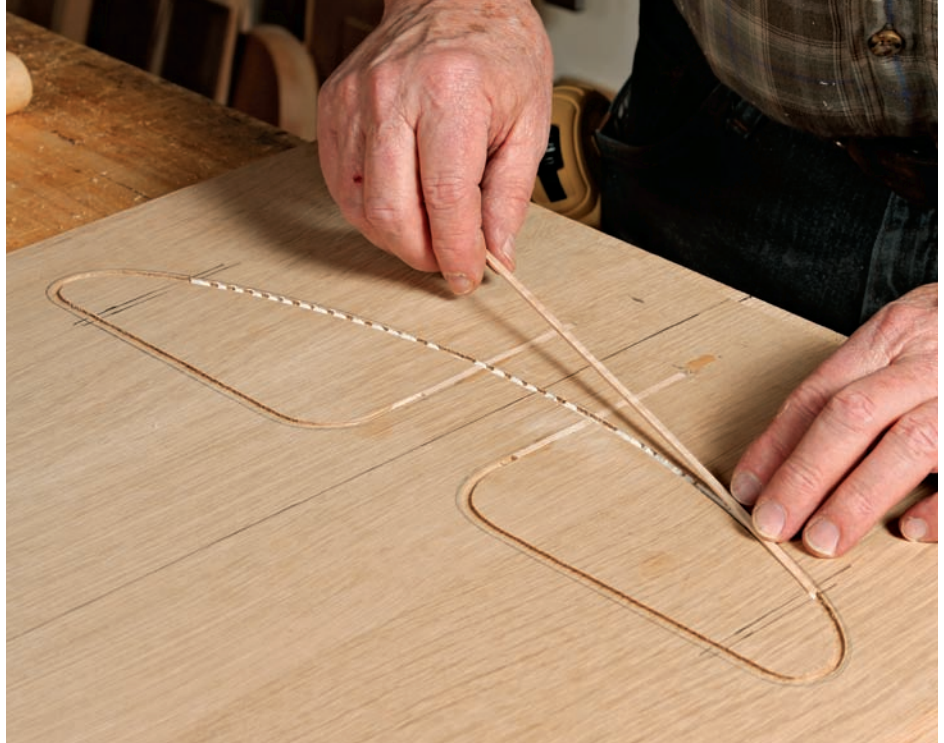
Get it flush. After the glue dries, plane and scrape the inlay flush.

Tackle the curves

Rout the remaining design. Clamp the template back in place, with the centerlines aligned. Then use the router and guide bushing to excavate the remaining parts of the design.

Gentle curves go in easy. Trim the lower ends of the straight sections where they meet the curves. Then glue in the gentle-curved sections. Tap it in with a block and mallet, let the glue dry, then flush the inlay to the panel.

Mini bending form. To make it easier to install the strips in the sharp bends, Rodel makes a small bending form out of Masonite and laminates six ³⁄₁₂₈-in. strips of the inlay around the form, using tape to clamp the plies in place (top right). Let the glue dry, clean up the laminates, and install these sections.

Clamp the main template to the panel, which in this case is the wide slat of the bed's head- or footboard. The top of this template should be flush with the tenon shoulder, with the centerlines of the workpiece and template aligned. Rout the vertical, straight portion of the channels first, using the router with guide bushing and following the template part of the way (see photos, previous page).

Remove the template, then use a spacer or the trim router itself to set up a straight edge for these channels. Finish the cuts with the router and straightedge. Glue in these two inlay strips. When the glue has set, scrape and sand the inlay flush.

Re-clamp the main template, align it carefully, and rout the curved channels. Now you're ready to install the curved strips of inlay. You'll have to square up the lower ends of the straight pieces already installed. Put glue in the channel and press in the strips using a block. To help the strips conform to the tight curves, I actually make a miniature bending form and laminate six of the commercial inlay strips around it.

After the glue dries, plane and sand the inlay flush. Then complete the pattern, routing the rest of the straight components. Once that's done, rout the ¼-in.-wide horizontal channel below

Complete the stringing

Add the last sections. *Cut and fit the rest of the string inlay, then flush the entire pattern to the panel.*

Wide sections are next. *Use a router with a straightedge to cut the channels for the ¼-in.-wide sections of inlay. Then glue in those pieces.*

the main pattern. Use a straightedge to guide the router for these cuts. Glue in the straight pieces and plane and sand them flush. Now you're ready to cut out and add the spade and heart elements.

Spades and hearts
For the spade and heart-shaped inlay, I use maple veneer and a green dyed veneer. Flatten two boards of a scrap of soft-wood (pine or poplar), coat one face with glue, and apply a sheet of newspaper. Coat the newspaper with glue and apply

one of the veneers. Press all this together and let the assembly dry overnight. Make up the same for the other veneer.

When the glue has set, you'll use the spade- and heart-shaped templates with a brass bushing on the plunge router to cut the inserts. Be sure to remove the collar from the bushing for this and set the depth of cut to be slightly more than the veneer thickness. Rout as many insert shapes as you need. When you're finished, pry the pieces away from the backer using a sharp chisel.

To cut the recesses for the inserts,

draw a centerline down all the ⅛-in.-wide vertical inlay lines and extend it up beyond the inlay. Now position the spade template where you want the insert to go. Make sure the template's centerline aligns with the centerline you just marked. Put the collar back on the bushing and set the depth of cut to be slightly less than the thickness of the insert. Plunge down and remove all the material. Now glue in the spades and plane or sand them flush. Follow the same process to install the heart inserts. After they have been glued and flushed,

Hearts and spades cap off the design

Veneer

Newsprint

Backer board

SPADE
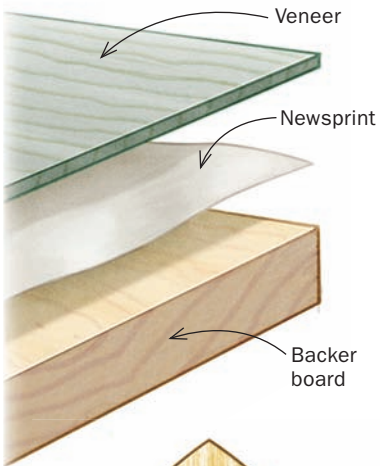
HEART

Actual size

Glue the veneers to a backer. *For the spades and heart inlay, Rodel glued the veneers to a backer board first, with the veneer separated by newsprint.*
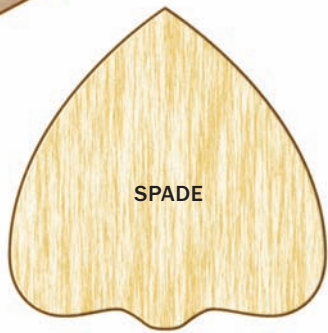
Rout out and free the shapes. *Use a ¼-in.-thick Masonite template and a ⅛-in. straight bit and bushing to cut each shape (above). Then use a chisel to pop the shapes off of the backer board (right).*


I like to insert a metal disk to finish the design. I have mostly used pewter in the past but it is nearly impossible to find in the appropriate sheet thickness anymore. Aluminum will work. The ⅝-in.-diameter disks are punched out using a jeweler's punch set. It works best if the metal sheet is not thicker than 14 gauge. All these supplies can be ordered from jewelrysupply.com. I use a ⅝-in. straight bit on the plunge router to make the recess. No template is needed, just secure the router with a clamp to make the recess accurately. The metal disk must be glued in with epoxy and the closer to the surface the better. Scraping

Punch out the centers. *In the center of the spade and heart inlay, Rodel inserts a ⅝-in.-dia. metal disk. He uses a special punch to make the disks (jewelrysupply.com).*

master class *continued*
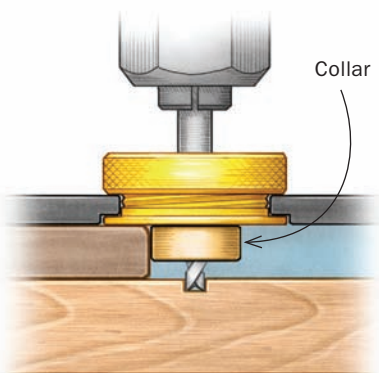
Rout the recesses

Collar

Add a collar for the recesses. *To create the recesses for the spades and hearts, use the same template and bit, but add a collar to the bushing.*

Rout for the spades. *The spades go in first. Excavate all of the areas, aligning the centerlines of the template with centers marked on the panel.*

and sanding them flush is difficult. A plane maker's float (see center photo, below) is helpful with removing the excess epoxy and soft metal.

The final step in this inlay design is the narrow $\frac{1}{16}$-in.-thick by $\frac{5}{8}$-in.-long maple strips just under each spade insert. Lay out the locations, mark for starts and stops, and cut with the trim router against a straightedge. It's easy work after everything else. ☐

Kevin Rodel will be a featured presenter at Fine Woodworking Live 2017 this April.

Inlay the spades and rout for the hearts. *After gluing in and flushing the spades, install the hearts following the same method.*

Add the centers. *Use a $\frac{5}{8}$-in. straight bit and plunge router to make way for the decorative disks. Glue in the disks with epoxy, then scrape away the excess glue.*

Finish off with a cross piece. *The final piece of the puzzle is the narrow straight sections that sit under the spades and hearts. Use a router and straightedge to cut the channels.*