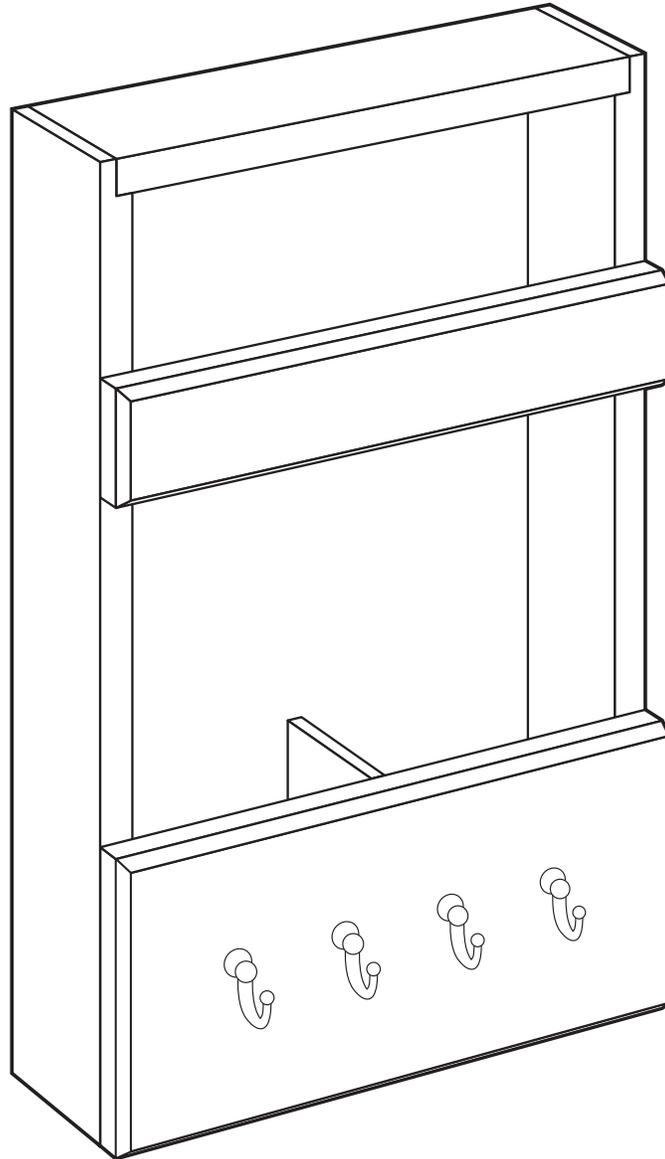


**WOODWORKS: BEGINNER PROJECT 2012-2013**  
**MAIL AND KEY ORGANIZER**



Sometimes it's hard to keep track of your household items. Keys and mail are likely to get scattered all over the house, leaving you searching endlessly. But with this key and mail organizer you can have a practical and attractive place to put both. It's easy to build, and beginning woodworkers will gain practice in thickness planing, cutting dados and bandsaw resawing. And after you build it, you will learn more about applying stain and using finishes to protect the wood and keep it looking beautiful.

## TOOLS REQUIRED

### Hand Tools

- Bevel square
- Sanding block
- Pipe or bar clamps, C-clamp
- Adjustable square

### Power Tools

- Belt sander
- Table saw
- Miter saw
- Bandsaw
- Orbital or finish sander

### Miscellaneous

- Tape measure
- Pencil
- Wood glue
- Safety glasses
- 120-grit sandpaper
- Clean, lint-free cloths
- Gloves for finishing
- Good quality synthetic brush  
(only for alternate finish)

## SHOPPING LIST

**Recommended Wood:** Oak

**Alternate Wood:** Pine

| Parts      | Material                               | Quantity | Source         |
|------------|--|----------|----------------|
| A, B, C, D | 1 × 4 × 7'                             | 1        |                |
| E, F, G    | 1 × 6 × 3'                             | 1        |                |
| H          | Hooks                                  | 4        | Hardware store |
| I          | #6 × 5/8" flathead<br>brass woodscrews | 10       | Hardware store |

## CUTTING LIST

| Overall dimension: 16 3/8" h × 10 7/8" w × 3 3/8" d |                |     |                          |
|---|----------------|-----|--------------------------|
| Part  | Name           | Qty | Dimension                |
| A   | Sides          | 2   | 5/8" × 2 3/4" × 16 1/2"  |
| B   | Top and bottom | 2   | 5/8" × 2 3/4" × 10 1/4"  |
| C   | Shelf          | 1   | 5/8" × 2 1/2" × 10 1/4"  |
| D   | Upper front    | 1   | 5/8" × 2" × 10 7/8"      |
| E   | Lower front    | 1   | 5/8" × 5" × 10 7/8"      |
| F   | Divider        | 1   | 1/4" × 2 1/2" × 4 3/8"   |
| G   | Back           | 1   | 1/4" × 10 1/4" × 15 7/8" |

## WOOD FINISHING PRODUCTS

### Recommended Finish

Stain/Finish: Minwax® Express Color, Oak

### Alternate Finish

Prep: Minwax® Water Based Pre-Stain Wood Conditioner

Stain: Minwax® Water Based Stain, Sangria

Finish: Minwax® Polycrylic® Protective Finish, Semi-Gloss

## BEFORE YOU BEGIN

Good craftsmanship begins and ends with good work habits, so make the following steps part of your routine workshop practice. If you have any doubts or questions about how to proceed with a project, always discuss them with your shop instructor.

- Carefully and fully review plans and instructions before putting a tool to the project lumber.
- Work sensibly and safely. Wear safety goggles. Wear the appropriate respirator whenever making sawdust or working with thinners or other solvents.
- At the end of every work session, clean up your shop area and put away all portable tools.

## CUTTING AND ASSEMBLY PROCEDURE

1. Plane required material to  $\frac{5}{8}$ " thickness, A, B, C, D, E.

**Woodworker's Tip:** *It's a good idea to make a test  $\frac{5}{8}$ " dado, then plane material to fit tightly into the dado.*

2. Cut parts to required size. Be careful to cut parts of like length to exactly the same dimensions. An easy way to do this is to cut similar parts in a stack.
3. Set up a  $\frac{5}{8}$ "-wide dado head in the table saw and set the cutting height to  $\frac{5}{16}$ ". Position the fence to cut the rabbet joints at the top and bottom of the two side pieces, A, and make those cuts. It's a good idea to have a sacrificial backing piece on the miter gauge that will prevent chip-out as the dado head exits the cut. See Fig. 2.
4. Reposition the fence so it is  $5\frac{1}{4}$ " from the face of the fence to the right side of the dado head. Cut the dados for the shelf, C.
5. Reposition the fence to expose  $\frac{1}{4}$ " of the dado head's width. Cut the rabbets in the back edges of the four frame pieces, A, B. Be sure to cut the sides such that you create left and right pieces.
6. Sand the interior face of all the pieces and glue the frame/shelf assembly together. Make sure the assembly is perfectly square. See Fig. 3.
 

**Woodworker's Tip:** *Be sure to wipe off any excess glue immediately. Dried glue will seal the pores of the wood and prevent it from absorbing your wood stain. Use an absorbent cloth soaked in water to remove the excess. Make sure the cloth is soaked (not just damp) with water. The water will dilute the glue, permitting the fibers of the cloth to absorb the glue with the excess water.*
7. Cut the upper and lower fronts, D, E, to size to fit the frame/shelf assembly. At the router table, cut a 45-degree chamfer ( $\frac{1}{4}$ "  $\times$   $\frac{1}{4}$ " ) on the front edge of both fronts.
8. Sand the interior faces of the fronts. Glue and clamp the fronts to the frame/shelf assembly. Make the bottom edge of the lower piece even with the bottom of the frame, and the bottom edge of the upper piece even with the bottom of the shelf. See Fig. 4.

9. Make the back by resawing a piece and gluing the two parts together. It's easiest to resaw wider boards by first making starter cuts on the table saw with the blade set approximately 2" high. Then go to the bandsaw, align the bandsaw blade with the table saw kerf, and complete the resaw. Be sure to use a feather board to hold the material against the fence. See Fig. 5.

10. Make the divider by resawing or planing a piece to  $\frac{1}{4}$ " thickness. Cut the piece to size. Locate the center of the inside face of the lower front and glue the divider in place. Always wipe off excess glue as soon as it appears. See Fig. 6.

11. Cut the back to size and screw it into the rabbets on the back of the frame.

12. To lay out the positions of the four hooks, first locate the outer hooks  $2\frac{1}{8}$ " from the beveled ends of the lower front. Then locate the two inner hooks  $2\frac{1}{8}$ " in from those marks (see Fig. 1). Cut a 1" wide, 10" long spacer and clamp it flush with the top bevel edge of the lower front. Place each hook in its position, making sure it's vertical and butted into the spacer, and predrill for screws. After the piece is finished, fasten the hooks you've chosen.

## STAINING AND FINISHING

**Woodworker's Tip:** *Though you may be tempted to cut short your sanding, preparation and application time, don't do it. These tasks are very important steps in obtaining a high-quality finish. Remember, it is the finish, just as much as the fit and smoothness of the parts, that will have an impact on how people judge your craftsmanship. To ensure an excellent result, follow the steps listed in this section and also the instructions the finish manufacturer puts on its products.*

## FINISHING TIPS

- Test the stains and finishes you are planning to use on scraps of wood. On the back of the scrap, mark the stain/finish combination and the type of wood. Allow all samples to dry thoroughly before making your final finish selection. Save your samples for quick reference on future projects.
- All stains and finishes must be allowed to dry thoroughly between coats. Remember that drying times can vary due to temperature, humidity and other climatic conditions.
- If you have some leftover stain or finish, wipe the can rim so that stain or finish in the rim won't dry out and prevent the lid from forming a tight seal.

## Recommended Finish

13. To apply Minwax Minwax® Express Color first shake the tube gently. Point the tube toward the wood surface and squeeze gently. Apply with a clean, lint-free cloth. Remove any excess by wiping lightly, in the direction of the wood grain, with a clean cloth. For a deeper color and sheen, wait 1 hour, then apply a second coat. Wait overnight before subjecting the wood to normal use.

14. For extra durability without added color, wait 3 hours and then apply a coat of Minwax® Polycrylic® Protective Finish following the label directions.

### Alternate Finish

15. Before using Minwax® Water Based Wood Stain, apply Minwax® Water Based Pre-Stain Wood Conditioner following the directions on the can. Applying it will help to ensure even absorption of stain, prevent blotchiness that can occur and minimize grain raise. After 1 to 5 minutes, wipe off all excess conditioner using a clean, soft cloth. Wait 15 to 30 minutes, then use 220-grit or finer sandpaper to sand off any “whiskers” raised by the conditioner. Do not use steel wool. Proceed to the staining within 2 hours.

16. Apply the Minwax® Water Based Wood Stain color you have chosen to the wood using either a synthetic brush or a clean cloth. Allow stain to penetrate no longer than 3 minutes. While stain is still wet, wipe off all excess with a clean cloth that's been lightly dampened with stain. Allow the piece to dry for 2 hours before applying a second coat, if desired.

17. After allowing the piece to dry for at least 3 hours, apply Minwax® Polycrylic® Protective Finish following the directions on the can. Stir the can contents thoroughly before starting and periodically during your work session.

18. Working a small area at a time to maintain a wet edge, apply the first coat. Work quickly and make the final strokes in each newly finished section with the grain of the wood.

19. Allow the finish to dry a minimum of 2 hours. Then sand lightly with 220-grit or finer sandpaper wrapped around a soft backup block. Do not use steel wool. Thoroughly dust off and wipe all surfaces with a cloth lightly dampened with water.

20. Repeat steps 18 and 19 to apply the second and final coat. Do not sand after the final coat. Allow the finish to cure for 24 hours before using the piece.

### PRODUCT SAFETY

For your safety and the safety of those you work with, always read the directions and safety warnings, which manufacturers print on their labels, and follow them to the letter.

**WARNING!** Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved), and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in U.S.) or contact your local health authority.

**CAUTIONS:** Use Only With Adequate Ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, wear respiratory protection (NIOSH approved), or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

**FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, get medical attention immediately.

### DELAYED EFFECTS FROM LONG-TERM OVEREXPOSURE.

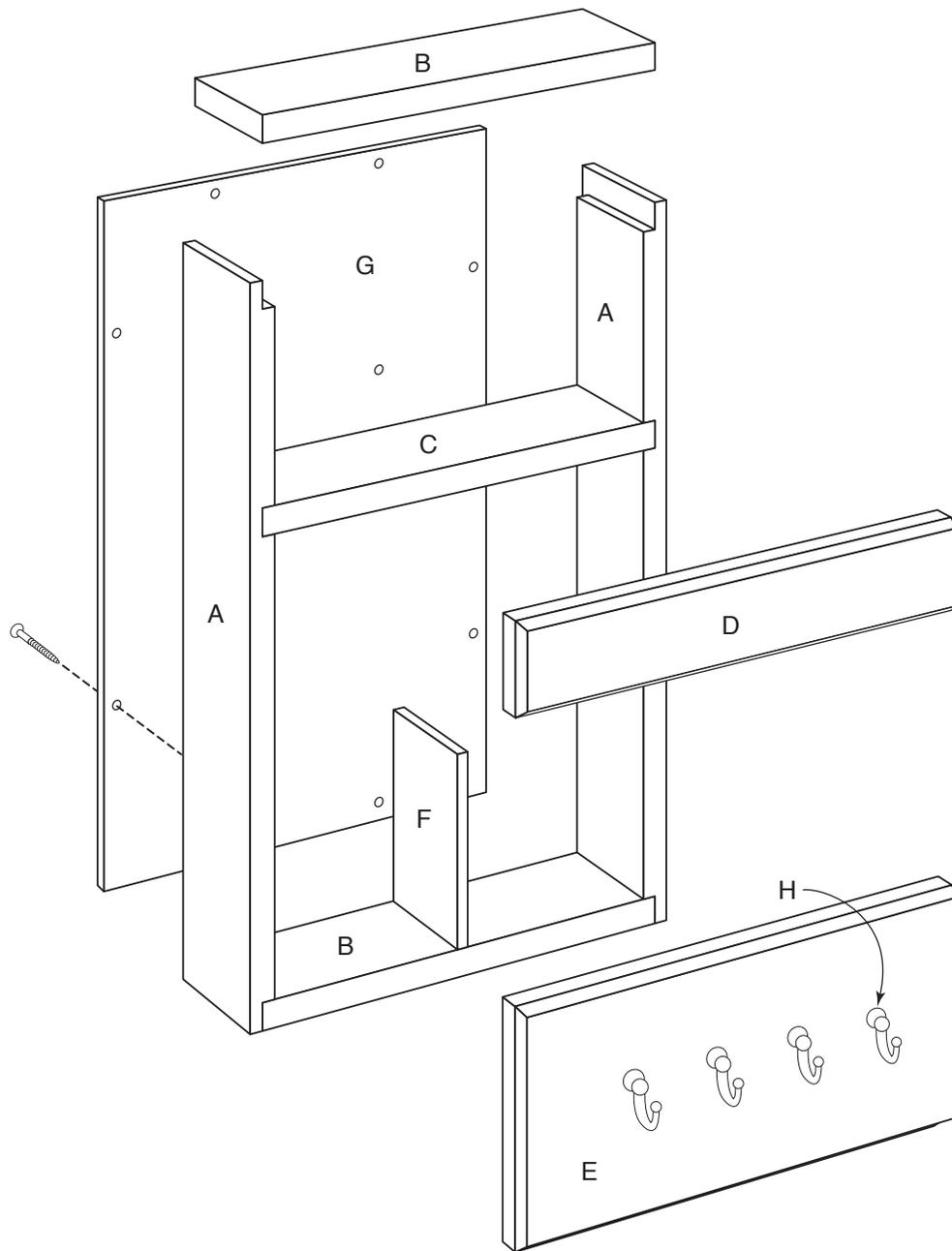
Contains solvents, which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

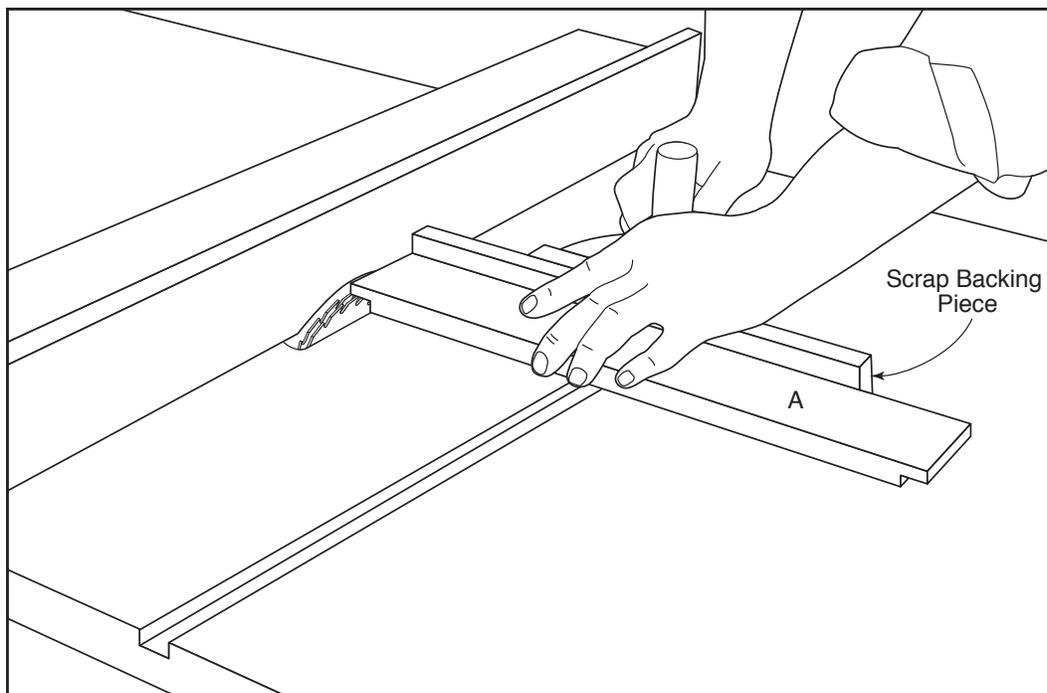
### DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN.

CONFORMS TO ASTM D-4326. Contact a physician for more health information.

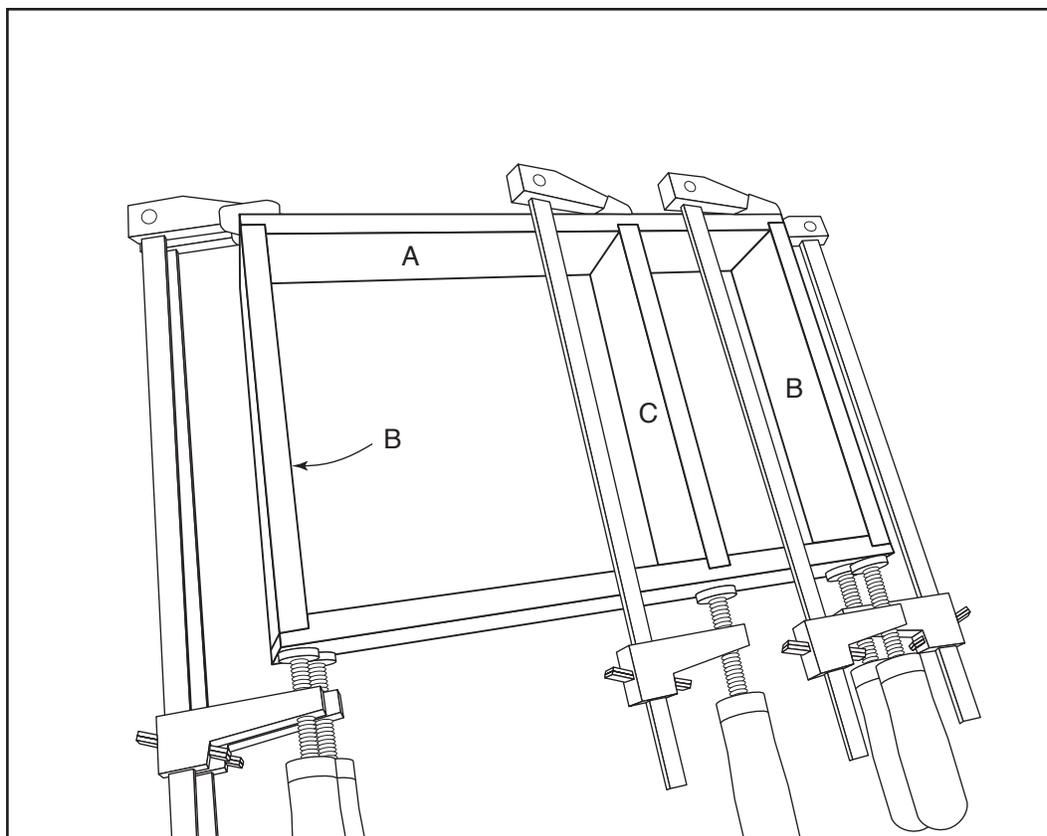
**FIG 1.**



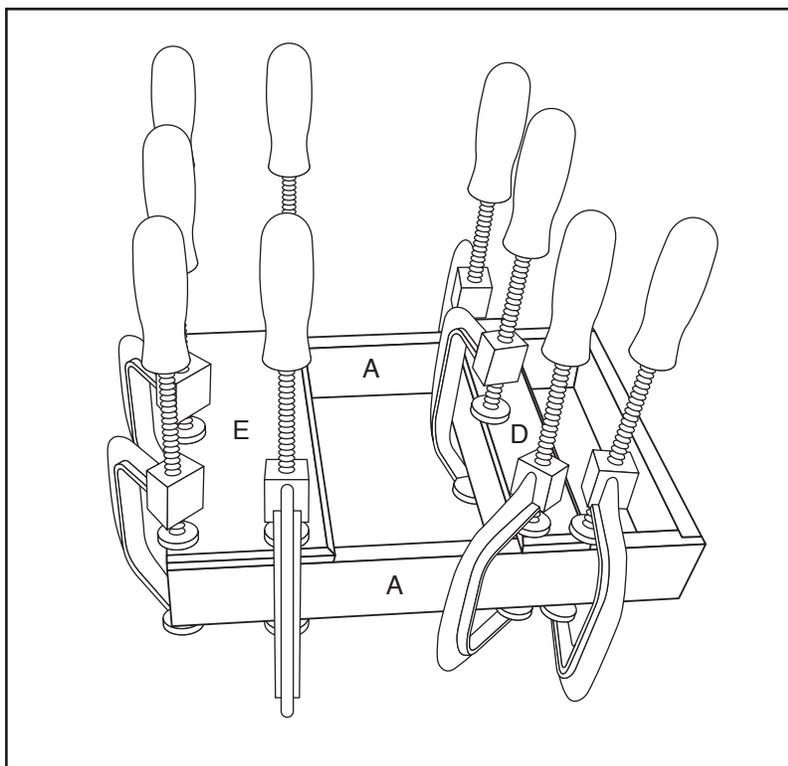
**FIG 2.**



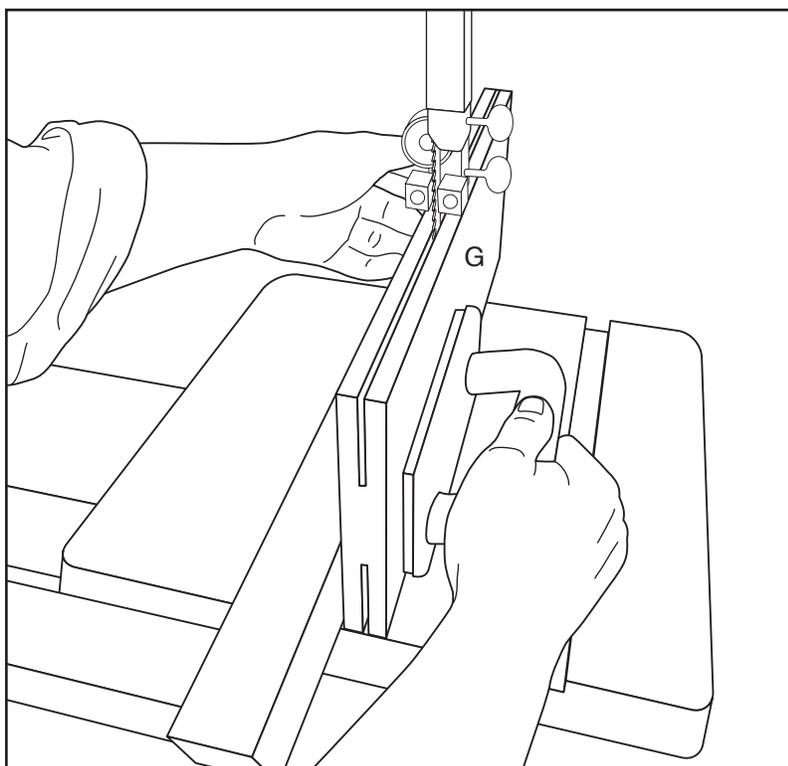
**FIG 3.**



**FIG 4.**



**FIG 5.**



**FIG 6.**

