

Project 15018EZ: Kitchen Cart

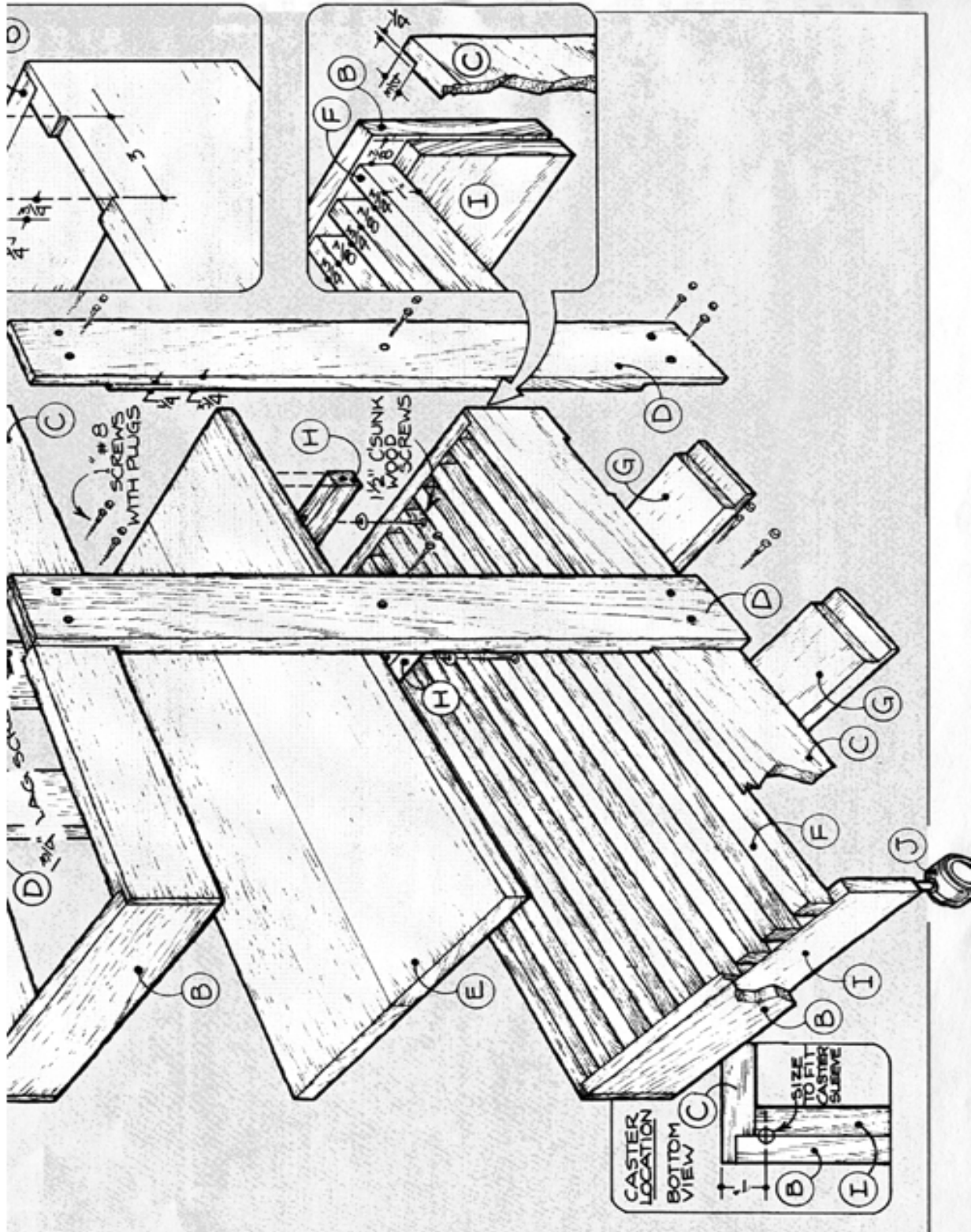


In designing this mobile cutting board/cart, it was our intention to create a truly versatile portable work area. Whether in the kitchen as a work center, in the dining room for serving, or on the patio for a barbecue, there are many uses for this attractive, well-made cart. The easy-to-build, simple construction makes it a project even the beginning woodworker can undertake. In fact, the entire project can be made with only two power tools: the table saw and the electric drill.

We used white oak for our cart, although rock maple would also be an excellent choice. Avoid using soft or open grained woods, as these are inappropriate for butcher-block applications. Soft woods, such as pine, won't stand up to wear, while open-grain woods, like red oak, are too porous. The entire project can be crafted from 3/4" thick stock.

Kitchen Cart Materials List

Part	Description	Size	No. Req'd
A	Butcher Block	2" x 18" x 28"	1
B	Apron End	3/4" x 3-1/2" x 15-1/2"	4
C	Apron Side	3/4" x 3-1/2" x 25-3/4"	4
D	Leg	3/4" x 3-1/2" x 28"	4
E	Shelf	3/4" x 15-1/8" x 25-3/4"	1
F	Ribs	3/4" x 1" x 24-1/4"	8
G	Stretcher Support	3/4" x 3" x 16"	4
H	Shelf Support	3/4" x 1-1/2" x 15-1/2"	2
I	Cleat	3/4" x 2-1/2" x 14-1/2"	2
J	Casters	2-3/8" height	4



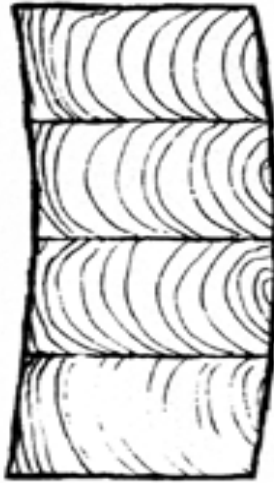


FIGURE 1.

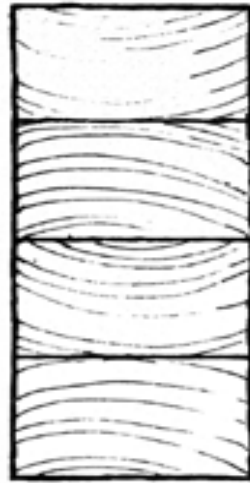


FIGURE 3.

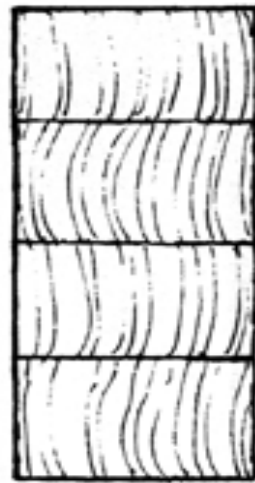


FIGURE 4.

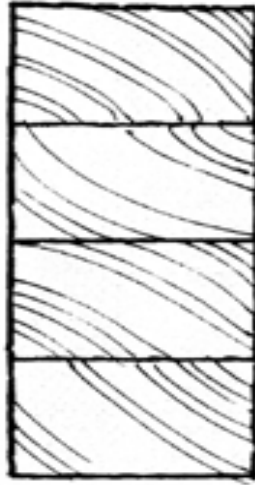


FIGURE 2.

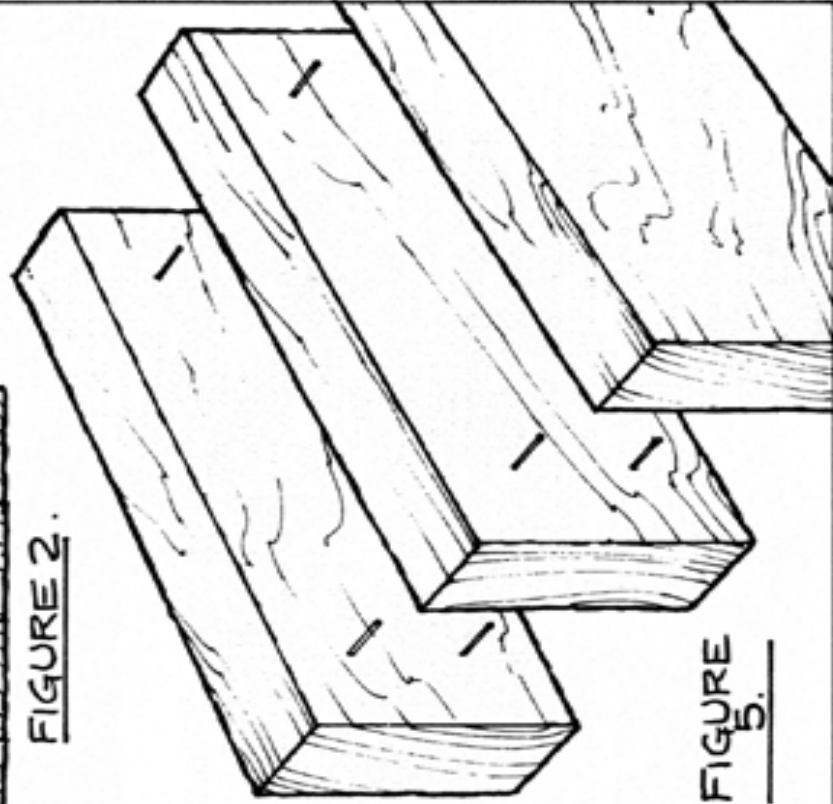


FIGURE 5.

Kitchen Cart Step-by-Step Instructions

1. Cut the material for the butcher-block top (A): 24 pieces, each 3/4" x 2-1/4" x 28-1/2". The extra length and width are necessary to allow for trimming and surfacing after the glue-up is complete.
2. Inspect the grain on the butcher-block pieces, as how you put them together depends on the type of boards (quartersawn, flatsawn, etc.) available to you.
3. **DO NOT** face all the boards in the same direction. This leads to cupping, as shown in **Figure 1**.
4. Choose the best way to line up the grain for your pieces from **Figure 2**, **Figure 3**, or **Figure 4**.
5. Inspect the surfaces of the pieces where they will be joined. If you have flat factory surfaces on all parts, proceed to the next step. If not, you must use a #6 or #8 hand plane to smooth all surfaces.
6. Obtain waterproof glue, such as plastic resin glue, for glue-up.
7. Insert small nails into each alternating surface as shown in **Figure 5**, then cut the heads off leaving 1/8" above the surface. This will simplify clamping.
8. Apply a thin coat of glue to each mating surface, being sure that the glue covers the entire surface.
9. Join the pieces and place clamps no more than 8" apart.
10. Allow the glue to dry, then clean up any squeeze out.
11. Use a thickness planer to surface the butcher block.
12. Apply a non-toxic finish that is safe to use with food once dry, such as a salad bowl finish, to the block.
13. Cut to length and width all the remaining component pieces, parts B through I. **NOTE: It will probably be necessary to glue up several boards to achieve a sufficient width for the center shelf (E).**
14. **NOTE** that the cart frame consists of two identical boxes joined with legs and stretchers.
15. Form each box is formed by rabbeting the two sides (C) to accept the ends (B).
16. Notch the apron sides as shown to accept the stretchers (G).
17. Rabbet the stretchers to fit the notches you cut for them in the apron sides.
18. Glue the two cleats (I) in place on the lower box has two cleats (I) glued in place to support the eight ribs (F).
19. Add the ribs to the lower box, spacing the about 7/8" apart.
20. Notch the four legs (D) 1/4" deep on both ends, as illustrated.

21. Add the two shelf supports (H) to hold the center shelf, which is sized 3/8" less than the support to accommodate humidity changes.
 22. Screw, counterbore, and plug the frame construction.
 23. Anchor the center shelf with 1-1/2" screws fastened through slotted holes in the shelf supports.
 24. Sand the cart, being sure to soften all sharp edges.
 25. Finish all the cart parts, excluding the butcher-block top, with tung or penetrating oil.
 26. Use 1-3/4" long lag screws to fasten the butcher block to the assembled frame, fastening one side permanently, the other through slotted holes to permit expansion and contraction across the butcher-block width.
 27. Drill for and mount the casters as shown in the illustration to complete the project.
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