

CIRCULAR SAW: A 7 $\frac{1}{4}$ -in. model will handle all the crosscuts. But if you really want to speed things up while increasing accuracy and cut quality, use a power miterbox. A sliding version can be set to make partial cuts so you can zip through the lap joints on the legs.



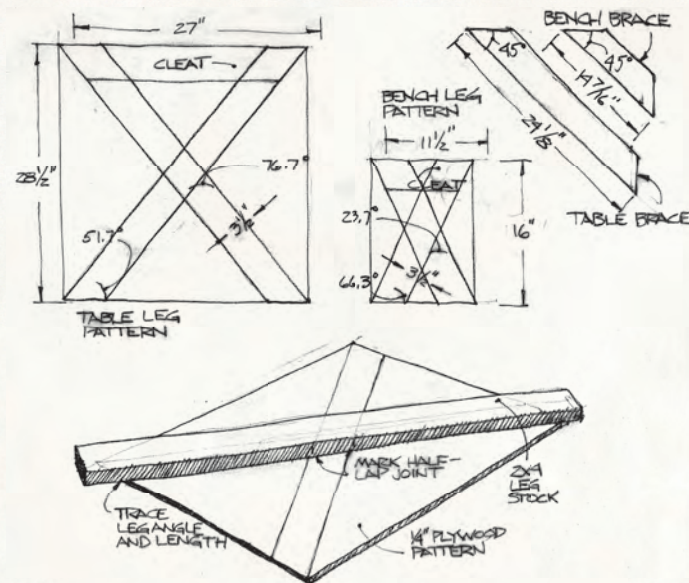
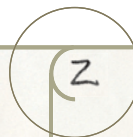
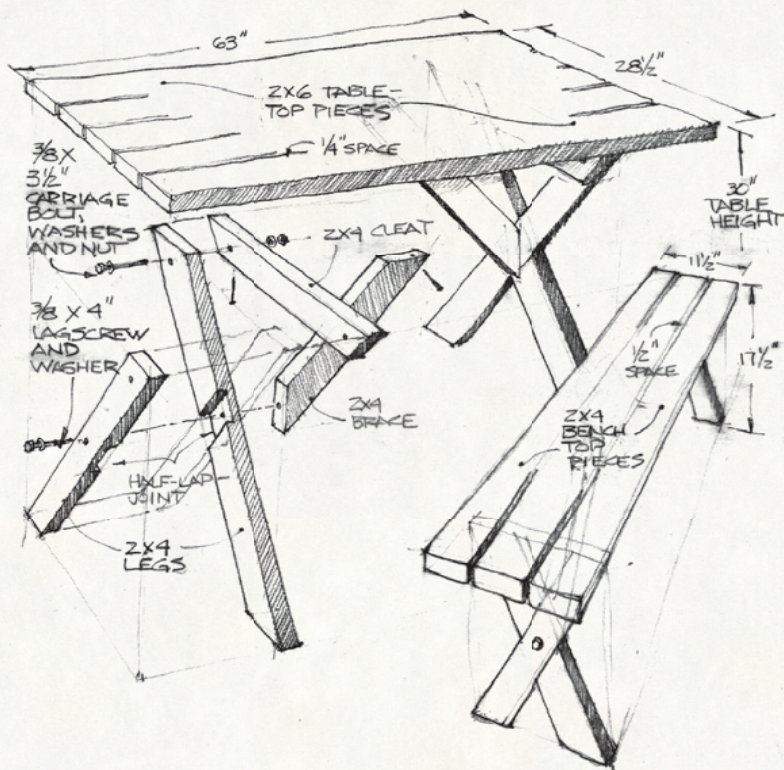
DRILL/DRIVER: A cordless version is handy to drive the screws. A small drill press, though, will do a better job on the holes and counterbores. **DRILL BITS:** We used $\frac{7}{32}$ - and $\frac{3}{8}$ -in. twist bits and Forstner bits for the counterbores.

Tools & Hardware

PICNIC TABLE

PLEASE CUT HERE

Popular Mechanics



The easiest way to cut the legs to length and at the correct angle is to mark them from a full-size template. Cut a piece of $\frac{1}{4}$ -in. plywood to the height and width of the X pattern. Make sure it's absolutely square. Then lay 2 x 4 stock across the panel so that opposite edges intersect opposite diagonal corners as shown. Trace the outline of the 2 x 4, then trace the opposite leg to lay out the intersecting lap joint.

Rough cut all leg stock slightly longer than finished length. Lay each piece in place on the template, trace the finished angled end cuts, and mark the lap joints.

The table and bench differ in proportion in that the tabletop is made of 2 x 6s while the bench top is made of 2 x 4s. The top boards are held together by 2 x 4 cleats screwed from underneath, the legs are bolted to the cleats, and the whole assembly is stiffened by diagonal braces.

SANDPAPER:

Use it to soften sawn corners. For a crisper look, cut bevels with a sharp block plane.

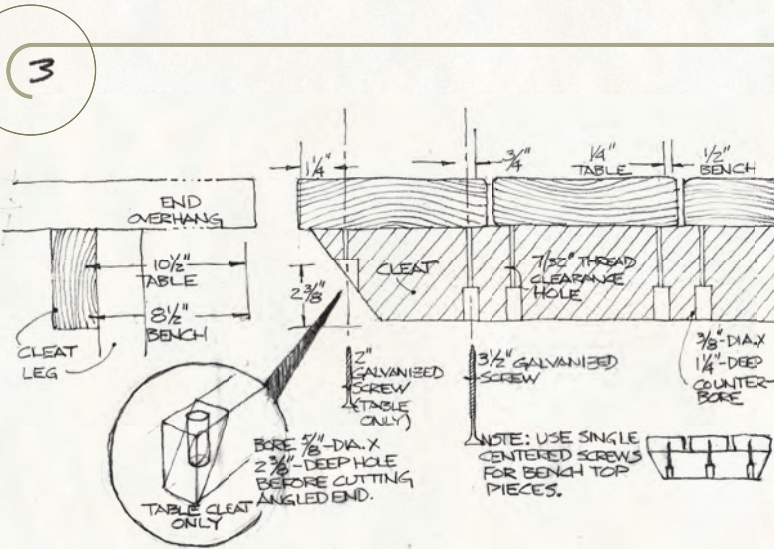
RAFTER

SQUARE: This oversize square is best for aligning large assemblies.

1-IN. CHISEL: For cleaning the half-lap joints.

HARDWARE:

If you're putting a lot of money into the wood, don't skimp with the fasteners. Stainless steel is the best for projects exposed to the weather. If you opt for galvanized, make sure it's hot-dipped rather than electroplated. The latter has a shiny, smooth, thin coating that won't last long in the elements.

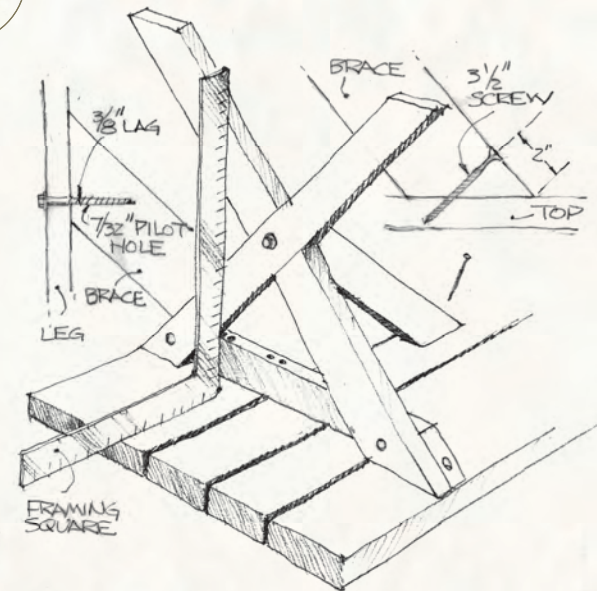


Because the cleat ends are angled, it's tricky to place a screw near the edge of the table, yet this is just where you need a fastener. Our approach is to bore a stopped 5/8-in. hole in the angled face to provide a seat for a 2-in. screw. If you have a drill press, you can bore the hole with a Forstner bit. Otherwise, first cut the stock squarely to length, bore the stopped holes, then cut the angled ends.

Use 1/4-in. shims to space the tabletop boards (1/2-in. shims for the seats), hold the boards in place with a pipe clamp, and check that they're aligned squarely at the end. Then, mark the remaining screw locations and bore the screwholes in the cleats. With a soft wood like cedar, you don't need pilot holes in the top pieces.

Quick Tip

Don't power drive the 3 1/2-in. screws all the way home. You may accidentally drive them through the top or damage the heads. Instead, set your drill's clutch to stop just short of tight, and make the last few turns by hand.



Clamp a pair of legs to each cleat, bore 3/8-in. holes for the carriage bolts, and install the bolts. Place each brace in position and check that the legs are square to the top before securing the braces. Bore the 3/8-in. lagbolt clearance hole through the legs first. Then, follow with a pilot hole in the brace end. After installing the lagbolt and washer, bore a clearance hole in the opposite brace end and drive a 3 1/2-in. screw into the center top piece.

CUTTING THE LAP JOINT

Set the depth of cut of your circular saw blade equal to half the thickness of your stock, and cut a series of kerfs in the waste area of the joint. Make sure that the saw is set accurately by making tests on scrap wood. Remove the remaining waste with a sharp chisel.

