Project	Fence and Trellis Designs

Perhaps the most popular home project involving the setting of posts is fence building. All fences, from simple two-rail designs to more elaborate split-rail and picket designs, need solid support.

Required Tools & Materials

Fence Posts: Wooden fence posts are usually 4" x 4" (100mm x 100mm) square or 3" - 4" (75mm to 100mm) round in diameter; and are made from pressure treated lumber. Steel posts are usually 1" (25mm) galvanized. Rails are usually 2" x 4" lumber cut to 6', 8', or 10' lengths. Fence pickets, capping rails, and other decorative pieces are readily available at any reputable lumberyard.

In addition to the tools outlined under Setting Posts, you'll need the following: auger or clamshell digger, measuring tape, string, stakes, saw, hammer, nails, and gate hardware.

Step by Step

1. Before beginning work, check with local authorities to see if there are any ordinances, regulations, or zoning laws concerning the height, location, and materials for fences in your locality. Your property deed may also contain restrictions concerning the construction of fences.

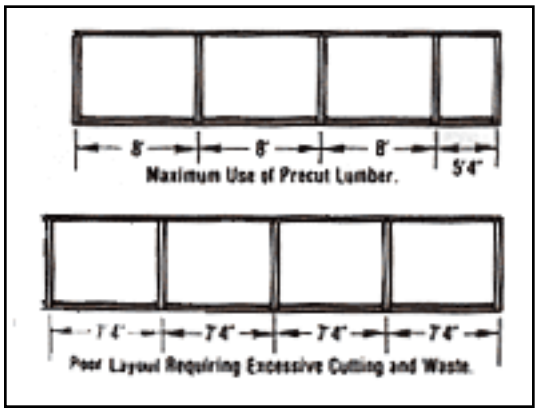
2. Be absolutely certain of your property lines: have the area surveyed if necessary. If you mistakenly build a fence on a neighbor's property, the fence is his, and he has the right to remove it, paint it, etc.

3. It is best to let your neighbors know what you are planning. If you and a neighbor agree to construct a fence centered on your common property line, have a written agreement drawn up and registered by a lawyer concerning the division of construction and maintenance costs. The agreement should bind future owners to the same conditions in case you or your neighbor would move away.

Plotting the Fence

1. Plot the line of the fence to avoid major visible obstacles such as trees and boulders, and also make sure you are away from all underground utilities before digging postholes. In most cases, a call to your phone, gas, cable, and/or electric company will prompt a free visit to your property to make any necessary alterations.

2. Measure the fence's overall length, allowing space for one or more gates, if desired. Divide this length into equal intervals of 6', 8', or 10' (1.8m, 2.4m, or 3m). In this way standard precut lumber can be used for the crossrails, minimizing cutting waste. If one section is smaller, consider using it as a gate location.



3. To find the exact post locations, mark both end points of the fence with wooden stakes and run a line between them. Locate positions for all posts between the end posts by measuring intervals with a tape, or by laying out the precut rails in line along the ground.

Setting Posts

1. Dig the postholes vertically straight and in the correct locations, using a hand or power auger if the soil is free of stones, or a clamshell-type digger if the soil is rocky.

2. Set the first end post on its gravel base, and pour a collar of QUIKRETE® Fast-Setting Concrete Mix. Use a carpenter's level and plum bob to align the post 90° vertically.

3. Set the second end post firmly on its gravel base, but do not immediately pour concrete in its hole. Run a string between the tops of these two posts, carefully aligning and bracing them vertically. Make sure the posts are correctly spaced and that the tops of all posts are level with one another.

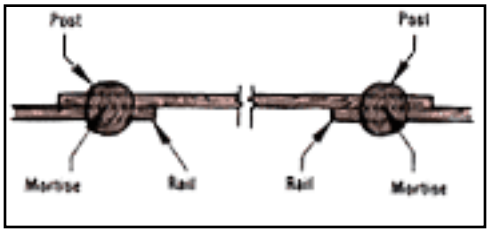
4. Mix and pour collars of QUIKRETE® Fast-Setting Concrete Mix for all remaining posts. Double-check for plumbness. Allow the concrete to cure 3 to 4 days before adding the rails and facing.

Finishing

1. Attach the top rail or stringer first. This rail is usually placed flat on top of posts to keep the fence in alignment.

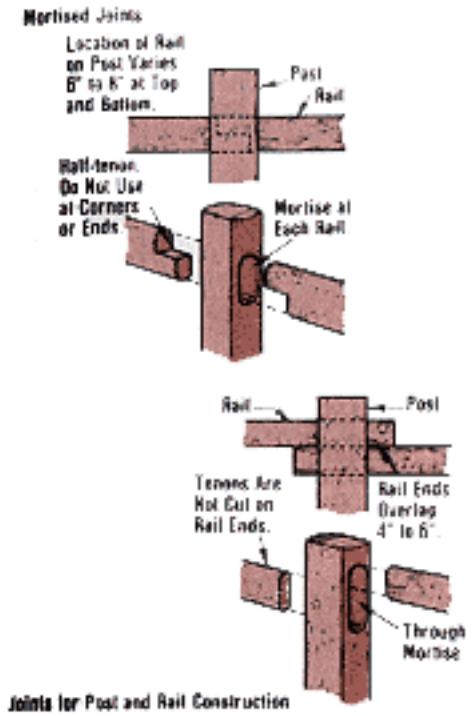
2. Various types of butt, lap, dado, and mortise-and-tenon joints can be used to fasten rails to posts.

3. With the top rail in place, measure down the post to position bottom and middle rails. Before attaching rails to posts, apply paint or wood preservative to cut ends of the lumber.

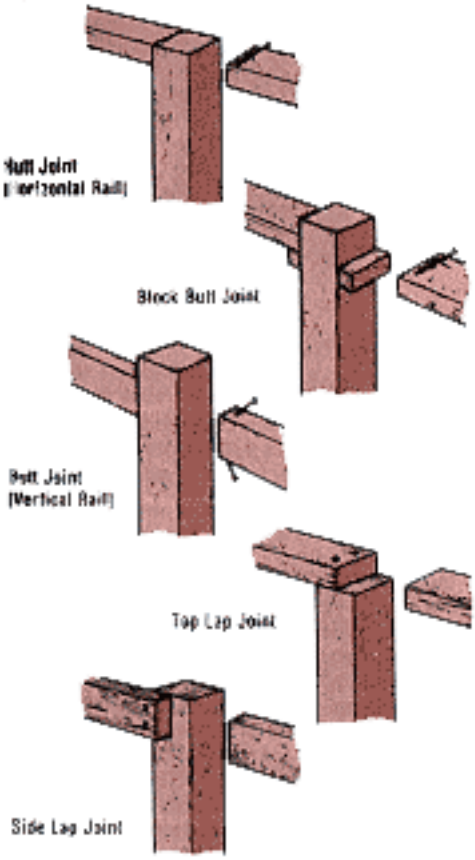


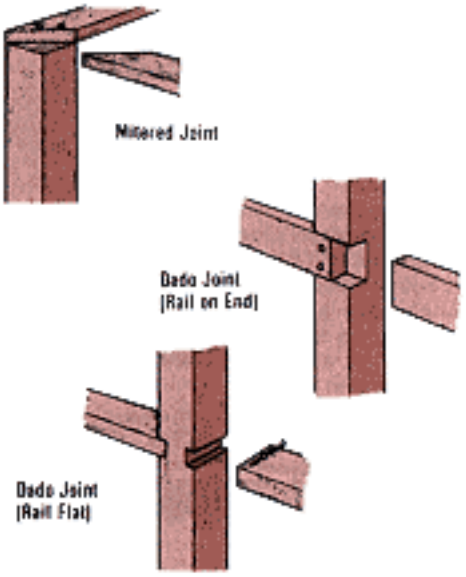
4. Facing can be done with wood patterns, pickets, wire screen, or solid panels.

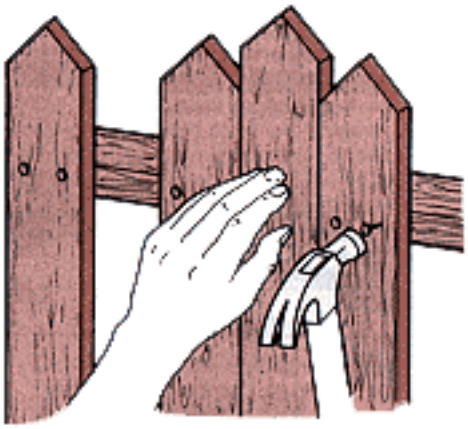
Illustrations



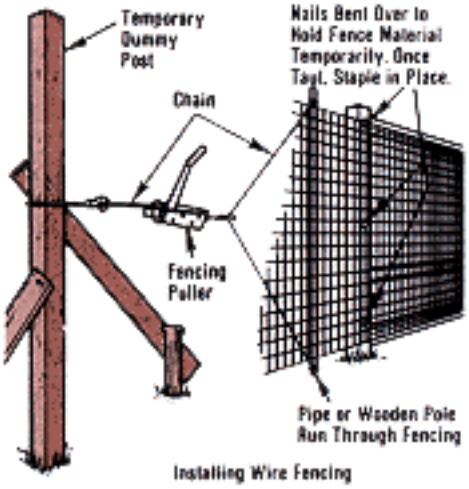
Joints for Post and Rail Construction







Simple Method for Uniform Spacing of Pickets for Fences

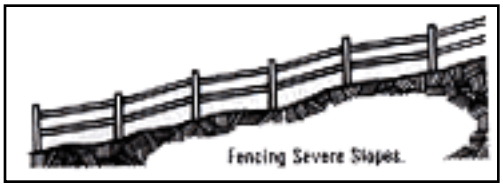


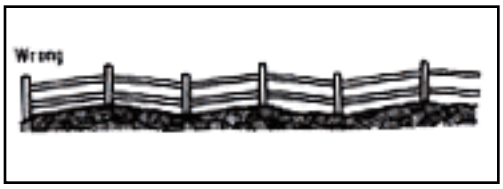
Installing Wire Fencing

For Best Results

- If the ground is not level, make sure that you account for differences so that the fence is even. The ground should be build up and cut back so as not to give a choppy appearance.

- On severely sloping ground, be sure to erect posts plumb to one another and then tilt the rails as needed to follow the slope. Tilting the rails changes the lengths required to span posts, so make sure you don't come up short when using standard lengths of lumber.





Trellises

A trellis to support perennial vines or roses can make a handsome addition to any garden, patio, or landscaped area. Trellises can stand alone, against a building or entranceway, or as part of a fence/windbreak construction.

Although young vines start out quite slender and fragile, by the end of the growing season they can be extremely heavy and full. Use posts of the dimensions used in fence construction, and attach sturdy rail and cross-pieces.

For Best Results

- Treat the trellis with nontoxic wood preservative (never creosote).

- Apply three coats of quality outdoor paint. Consider matching the color of your house or that of the vine blossoms