


## FENCE BUILDING BASICS



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Here are tips and suggestions on how to build wood fences. These tips can save you time, money and effort. Read all suggestions carefully before beginning the job.


## Adding Rails To Fence Posts



## Selecting The Fence Style



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| Boards \＆Posts | Power Saw | Post Hole <br> Digger | Paint or <br> Outdoor Stain |
| :---: | :---: | :---: | :---: |
| Hand Saw | Steel Tape | Marking Pencil | Hammer |
| Small Axe or <br> Hatchet | Gravel or Sand | Nails | Work Gloves |
| Level | Ready－Mix <br> Concrete | Wood Chisel | Tamping Rod |
|  |  |  |  |

Special Note：Check your state and local codes before starting any project．Follow all safety precautions．
Every effort has been made to ensure accuracy and safety．The retailer can not be held responsible for damages or injuries from the use of the information in this document．


- As a rule, you should set fence posts about 6' to 8' apart. The spacing of the posts depends on the type of fence you build, the terrain, the purpose of the fence, and other such factors.
- Set the corner or end post first. Then stretch a line from each corner or end post to align all the posts in between.
- Drive a stake every 6 ' to $8^{\prime}$ at the exact position where the post hole is to be dug (Fig. 1).

- Take time to measure and position the posts accurately. The appearance and the structural strength of your fence depends a great deal on the positioning of the fence posts.

- Set all wood fence posts at least 2 feet in the ground . This is especially important on corner posts and any posts that will carry heavy weight or withstand high wind pressure.
- Use a regular post hole digger to dig the post holes. Dig the holes straight to the proper depth at each stake marker.
- You can anchor the posts more firmly by making the holes slightly larger at the bottom than at the top (Fig. 2). Place a large stone or two shovels full of gravel in the bottom of each hole. This provides drainage to avoid excessive moisture at the base of each
 post.


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－You can pack the posts with either dirt or concrete．（Concrete is best especially in high wind areas．）In either case，place two or three shovels full of gravel in the bottom of each hole before the post is placed into position．
－Be sure the posts are in an exact，upright position（Fig．3）．You can check the alignment of each post with a regular level．You can also check the alignment of the posts in one direction by sighting from one end of the row of posts to the other．
－Brace each post with stakes after it is properly aligned（Fig．3）．Keep the stakes in

Fig． 3

Use a level to make sure each post is in an exact，upright position． position until the concrete（if used）has thoroughly set．Remove the nails holding the braces and readjust the post until it is in accurate alignment．
－When the post is properly aligned，tamp it thoroughly to pack the dirt（if used）around the base of the post．Be sure you do not alter the alignment of the post during the tamping process．

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－When the post is firmly in position，build a mound around it to help eliminate water standing at the post base（Fig．4）．Slope the concrete slightly away from the post and round it off with a trowel．Tamp the concrete

Fig． 4


Build a mound around each post to eliminate standing water． lightly to eliminate any air bubbles left in the mixture that can act as water pockets．

－Provide extra bracing at all corners（Fig．5）．A corner post must carry the weight of fence stretched in two directions，so it should be set in both directions．
－Allow the posts to stand several days and settle firmly in position before adding the fence．

Fig． 6


The heads of posts should be rounded， capped or slanted to shed water．
－The heads of posts should be rounded，capped or slanted to help eliminate accumulating water， which can cause rotting．This is well－worth the effort since it allows the posts to last．

－Attach a top and bottom rail to the fence posts（Fig．7）．There are three basic ways to do this．A fourth way（not shown）is to use metal brackets．Which is the easiest．


There are three ways to attach top rails．
－The center illustration shows the top rail being nailed to the top of the post．This is an ideal installation for many types of fencing structures． The top rail can always be joined to another rail in the center of a post this way．
－If the rail is added on the body of the post rather than at the top，attach it with a groove，a wood block or a metal bracket．
－You can attach the bottom rail to the post by either of the two outside illustrations．

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－Fig． 8 illustrates several other ways to attach a rail to a fence post．Study these illustrations carefully．The type of joint you use to attach the fence supports to the post depends primarily on the type of fence you are building．

－The lap joint is one of the easiest to use．The grooved joint does basically the same job，but the rail is grooved into the post rather than being nailed to the post surface．
－The butt joint is a little more difficult to make but is often better．The mortised joint is even neater than the butt joint，but you must cut a mortise into the post for this joint．
－The slotted joint is commonly used on decorative fences．Treat all slotted joints with preservative to prevent rotting in the grooved areas．
－Take time to measure from the top rail to be su each is in perfect alignment（Fig．9）．After you $r$ cut a measuring stick to prevent having to makı on each post．The stick can be used to apply th each post．

Fig． 9


Measure from the top rail to atign each bottom rail on each post．


- There are literally hundreds of variations in fence styles and construction materials. There is pre-assembled wood fencing sections as well as fencing materials made from recycled milk jugs. The type of fence you use depends primarily on the purpose.
- Fences like the type shown in Fig. 10 are used primarily for barriers. They are easy to build and provide an adequate barrier. However, they are usually not very decorative and they provide very little, if any, privacy.


Fig. 11


Barriers like these can enhance the appearance of your yard.

- Fences like those illustrated in Fig. 11 provide barriers and are more attractive than an ordinary fence. With a little shrubbery or plants, such fences can provide very attractive barriers along property lines.


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- Fences such as those illustrated in Fig. 12 are primarily privacy screens. They can be built as tall as needed out of many different materials. Their primary purpose is privacy.

Fig. 12

These fences are primarily used to provide privacy.

- Consider your needs when selecting the style of your fence. If you want a simple barrier, a wire fence or a simple style fence such as illustrated in Fig. 10, will work fine.
- For a barrier that enhances the appearance, consider styles similar to those illustrated in Fig. 11.
- For added privacy, consider the styles illustrated in Fig. 12.
- Regardless of the type of fence you plan to build, be sure you know exactly where your property line is located. If you are uncertain about the location of the line, check into it or work out an agreement on the fence location with your neighbor.


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－Also，check any local ordinances applying to fences before beginning construction．Call the building department of your local city hall or ask for the local government office that regulates construction to be sure you abide by city codes．
－Try to keep the bottom rail of any fence at least 2＂above the ground． This helps eliminate the problem of decay and makes it easier to trim grass around the base of the fence．
－Picket fences are very popular and easy to build．With a little ingenuity you can create attractive picket designs．Study the designs in Fig．14．Use the designs shown in Fig． 14 or your own designs to create a distinctive picket fence．

Fig． 14


Picket fences can be styled in many ways．
－Make sure that all the pickets are spaced by inserting a loose picket between the picket previously nailed into position and the picket to be nailed．（Fig．15）Use this easy method throughout the entire fencing


Use a loose picket to ensure even spacing． construction．

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－A simple board fence is easy to build and can be quite attractive（Fig．17）．You can place the boards on one side or alternate them from side to side．

Fig． 17


This board fence is easy to build．
－The board fence provides both a barrier and privacy．It can be built as tall as needed and then stained，painted or left natural．
－You can design a siding fence to match the siding on your home of this style．In fact，you can use the same siding that was used on the home to build the fence．
－The siding fence can be covered on one side or both．Then，you can paint it to match or harmonize with the paint on your home．
－These are only a few of the many styles of fencing available．Fences are easy to build，and the materials are readily available．


## Please fill out the form below to help calculate the cost of your fencing project．

1．Total Distance of Fence：

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2．Total \＃of Gates：

3．Size of Posts： $\qquad$

4．\＃of Posts： 8.8080888

To calculate the number of posts take the total distance divide by preferred spacing，no more than 8 Ft ．
－Make sure to add 1 post extra for each gate．
Example： 187.5 ft of fence with 2 gates｜ $187.5 \div 7.5=25+2$ gates $=27$ Posts

5．\＃of Horizontal Rails：

Usually 2 per section．（depending on your design ．．．．could be as many as 5）
Example： 27 sections $\times 2$ Rails per section $=54$ Rails

6．\＃of vertical pickets or boards：


Total length in inches divided by the actual width of fence board you are using．
Example：We have 187.5 feet of fence $\times 12=2250$ inches $\div 5.5$ inch（board）$=409$ boards

Special Note：The higher quality material you use the long your fence will last！
Using ground contact，pressure treated posts．Pressure treated or cedar rails and pressure treated or cedar fence boards may add a few dollars to the cost of your project but could make your fence last twice as long．

