# How to Build a Wire and Timber (Stock) Fence.

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#### **1.** Determining the Line of the Fence.

Obstacles to avoid if possible are large areas of rock, deep bogs, dense woodland, cliffs, streams and rivers. It is possible to fence through or over all of the above but you are making your job harder so avoid them if you can. The fence line will need to be clear of obstructions before you begin.

Once you have your line, try to get an idea of the overall length to help you work out how much material you need. It will also help if you make a note of the changes in direction or height because this is where you will want to place your corner posts. If you are lucky enough not to have any of these then allow a big post every 50m.

Next work out how many gates you need and where. You will need posts to hang these on. In addition note any streams or ditches you have to cross or sharp undulations of ground. It is difficult to bend a rylock fence sharply up and down so traditionally under-railing and small water gates are used to fill in under the fence. You will need to know how many and what size.

If you are replacing a fence you can use the old fence as a template for the new one. Take a note of the materials used before you strip the old fence down.

## 2. Deciding on the Specification of the Fence.

The most important question is what you are trying to fence in or out. Have a look at the fences around you and find the ones that successfully achieve the same thing you are looking to do. If you are fencing in/out sheep or cattle find a stock fence; if deer, find a deer height fence (6' high (1.8m) roughly). Take a tape measure, note the

different components of the fence and how they work together, and ask yourself what you would change.

Once you have an idea what you want to build then consult the section in Information and Help entitled "How to Choose Fencing Materials". If that doesn't help then feel free to email or telephone us.

#### **3.** Basic Principle of Fence Erection

The strength of a fence and its lifetime are greatly increased if the fence remains still and to make it remain still it must be tensioned.

#### 4. Safety Notes

You will need gloves and safety boots and you should also wear safety glasses or a visor when appropriate. Full chainsaw protective equipment should be worn if using a chainsaw.

Don't over tension the wire - it can snap, particularly in cold weather. This should only be a problem if you are using wire pullers or gripple tools where the gripple may burst. Tensioned wire is extremely dangerous.

If you are roadside fencing wear high visibility clothing.

Ensure your fence line is cleared of obstructions before you begin.

## **5.** Putting In the Strainer/Corner Posts

At the start of your fence line you will need a large post and you are going to need another at every change of direction or height, for gateposts, and otherwise every 50m or so. Begin by digging your holes, or some of them. The holes should be about 4 feet deep (1.2m) and the sides should be as straight as you can manage – double handled shuvholers can be useful here. The hole should be 2 -3" (50 - 75mm) larger than the diameter of the post.

(Lucky people with access to a post thumper can buy pointed strainer posts and have them thumped in - it is worth asking whether there is a thumper in your area for hire - expect to hire the operator too.)

In sand or shingle you may end up with a very large hole indeed. One trick traditionally used is to attach a short length of rail (10" - 12" (400 - 450mm)) or longer) to the bottom of the strainer post. It should be nailed on a few inches from the post base. This will help to prevent the post from moving. In extreme cases you may need another, round by 90 degrees, further up.

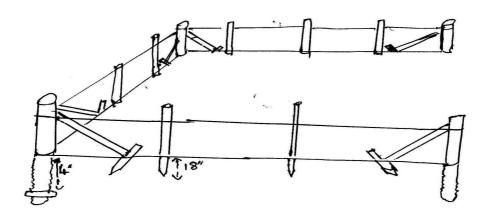
Having put the post in, ideally pack the hole with 4" layers of stone and earth around the strainer post. Stones are used to jam against the sides of the hole. If you don't have any then improvise. If you can't improvise then this is the moment to start using

Rapid Post Mix (10 minutes to set) or Concrete (with appropriate temporary stays to hold posts while it sets).

Now put in your second post, or more if you wish.

#### 6.Fixing Your Line with Line Wire

Next you need to lay your line wire out by rolling it. The wire should run the length of the fence line to the next strainer or corner post. Loop the wire round the first corner post and fasten the loop loosely using line connectors or gripples. Lay the wire out to the next strainer and make another loop. Keep the line wire slack enough to cut it and put a raddisseur in the run but make sure it is straight between the posts. To check it is straight lift it until it is fully tensioned and use the line created as your fence line. Repeat as required to complete fence or section of it.



#### 7. Staying Your Strainer Posts

If you haven't used concrete, or even sometimes if you have, this is the moment to stay your corner post. The stay should run against the direction of the fenceline, ideally it should be positioned alongside where your net will run. Begin by laying your stay on the ground in its final position. It will run diagonally into the ground from **halfway up** the strainer and will hold the strainer post against the pull of the line wire and rylock. At the base of the stay will be a small post jamming the base into position (half a stob (height wise) is usually used). The stay will be attached to the corner post half way up either using a 6"(150mm) nail or two, or you can chisel a notch out of the strainer post and insert the slightly shortened point of the stay before nailing it. The stay should now touch the ground at the other end. The half stob now needs to be driven into the ground at the end of the stay to hold it in position and then the stay and half stob are nailed together. To drive the stob into the ground, first create a small hole - a pinchbar is ideal for this job, then drive the stob in using a mell. Once the stob is well in the ground (1 - 1.5' (30 - 45cm)) cut its top off and nail it to the stay to secure them.

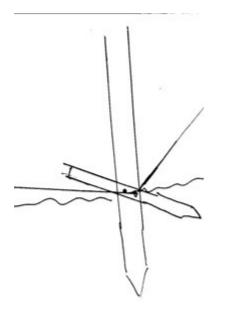
Continue with this for the length of the fence until all your strainer posts, gate posts, stays and line wire are in place. Corner posts may need two stays, one against each direction of the fence. Gate posts may need to be stayed away from the gate. As a rule, if you can't get your strainer post in deeply or if it doesn't appear to be holding well then you will always need stays, otherwise they simply improve the strength of the fence and allow it to be strained properly.

#### 8. Putting In Intermediate Post / Stobs

Your first line wire is the one that runs at ground level. Following this line exactly this is the moment to put your intermediate posts (fenceposts/stobs) into the ground. For each post create a hole ideally half the width of the post away from your line wire. The hole should be 2" (50mm) or so in diameter and deep enough to give the stob point purchase – a pinchbar is ideal for the job. If you're not clear on this look at the picture of a pinchbar on our website. Place the stob in or above the hole and drive it down using a mell or a double handled thumper. It is important to keep the post vertical and, hopefully, in line with the other stobs using the fence line as a guide. The assistance of a second person is invaluable at this point. If you are using square stobs the side of the stob must be kept flat to the fenceline. There is a device called a post holder which can help you with this - see website. If you are really struggling to keep your stobs straight and in line you can put up a second run of line wire at the height of the top of the rylock (80cm for a stock fence) or slightly above it (2") if you are using lashing rods, but this will get in the way slightly. Stobs should be 2 to 3.5m (7'-12') apart. Stobs should be driven 1.5 to 2' (45 -60cm)t into the ground.

## 9. Using Tie Downs Where the Ground Dips Slightly

Where the ground dips tensioning the rylock can cause the attached stobs to lift out of the ground. To avoid this happening tie-downs are used. Drive half a stob (cut heightwise) into the ground beside the stob you are holding down. The half stob should be driven in at 4 o'clock to the stob so that the end is beside the stob and can be nailed on and the point is at an angle which gives extra purchase on the ground.



#### **10. Encountering Interesting Ground**

If you encounter sharp dips or ditches at this point use longer stobs to cross them. You will then need to under-rail the bottom of the fence to make it stock proof. You are aiming to have no gaps much wider than the rylock holes. It is sometimes easier to build your under-rail at this point when you have no rylock to climb over to reach both sides of the fence.

If you are trying to fence through bog or very soft ground it helps to put in the occasional longer stob to create a stronger fence line. In extremely soft ground you may need to come back later and pragg up occasional stobs with others creating triangular supports.

If you hit sheet rock you will need to hire a drill, drill holes in the rock and set in iron standards (see website under "Specialist fencing") using a two pack fixative. Originally lead was used. Wooden posts can then be nailed to the standards. A standard with metal stay can be used as a corner or strainer post.

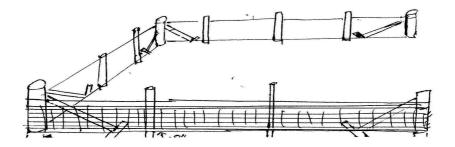
For cliffs, fence to the edge, preferably while remaining roped on to something solid and unyielding. Try to end on a strainer post or, more probably, an iron standard. Go to the bottom of the cliff and start again. Use railings where appropriate at fence ends.

For rivers, end your fence on strainer posts on either bank, preferably far enough back to avoid the post being washed away by winter floods. In between these posts you will need to build what is known as a water gate. This is a combination of chains, ropes, rails, pipes and even weld mesh depending on what is suitable, which is hung across the river and reaches to just above the normal water level. It usually consists of sections or vertically hung rails which can swing upwards in the event of the river flooding to prevent the whole gate being carried away by the force of the water or caught debris. The sections normally hang straight down and prevent animals from crossing the fenceline by walking or swimming through the river.

#### 11. Add a Second Line Wire and Tension

The first line wire is the one at ground level. The second needs to go at the height of the rylock plus approx 2" (50mm) if you are using lashing rods, or at the height of the rylock if not. Repeat as for the first line wire and use staples to fix the line wires to the corner posts.

Using the slack you have left in your line wires cut them approximately 6" (150mm) from a corner post in each run between posts (or where appropriate) then attach your raddisseur to one side, tying the wire onto the hole in the flat end of the raddisseur, and wind the other wire end through and onto the raddisseur mechanism. Use the raddisseur to ensure the line wire is taught.



## **12. Attaching the Rylock**

Roll the rylock out on the same side of the stobs as the line wire. Wrap the end of the rylock around the first strainer.

Note: it is important to make sure that the smallest of the rylock holes are at the bottom and that the netting is parallel with the line wires.

Use a staple on each of the horizontal wires in the rylock to attach them to the strainer post while it's strained. If you are going to tie the netting on ensure you have enough net to go right round the strainer post and (6")150mm extra to tie off. If you are using gripples to stop the ends you will need less spare. They may be easier for a novice. See product information under "Fencing Accessories". Lift the rylock against the stobs and begin tensioning it.

## **13.** Tensioning the Rylock.

On short pulls (5 -10m/16' -30') 2 hammers may be used to tension the netting. One is used to pull the netting using the hammer claw and the other is used to hammer a staple in to grip the wire. Work up and down netting as you go trying to ensure an even tension throughout. Alternatively for longer pulls, wire strainers (Hayes 300 in Fencing tools) can be used to pull the horizontal lines individually at each strainer post or where necessary.

Professional fencers sometimes use clamps with rylock pullers (Stock clamp and Hayes 406 in Fencing tools, a pair of each) and tension one piece of rylock to another.

Once the rylock is tensioned onto the second strainer attach it to the first strainer by tying it to itself round the first strainer post and cut the excess off. You can also use Gripple Ends as previously mentioned.

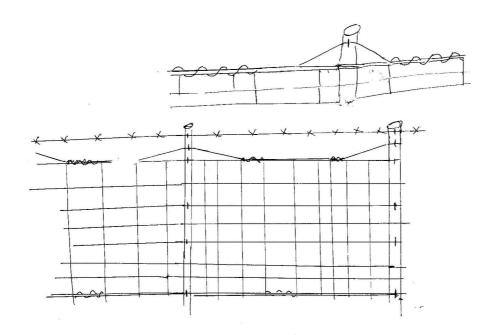
Continue along the fence line. Rylock can be tied together at roll ends or grippled. Gripples allow you to tension the rylock further. If you are planning to use gripples at a join be careful not to staple the rylock in until after you have used the gripples to tension it.

#### 14. Stapling the Rylock

The rylock should be stapled using four staples at every stob. The lowest staple should hold the bottom line wire as well as the lowest line of the rylock. If you are not using lashing rods the top line wire can be stapled using the same staple as the top wire of the rylock. Staple thoroughly to strainer posts.

#### 15. Using Lashing Rods (Optional)

Attach a lashing rod to the netting about 6-8" (150 - 200 mm) from the stob. Pull the line wire down and wind the lashing rod around both rylock and the netting. Repeat 6" - 8" before the next stob is reached. The aim is to pull the rylock upwards using the tension in the line wire. You can also use lashing rods to lash the rylock to the bottom line wire, this further strengthens the fence.



#### 16. Using a Top Line Wire or Barbed Wire

The top line wire is usually placed 6" (150mm) above the rylock. It is attached as in the instructions for the first line wire – see "Fixing Your Line with Line Wire" above.

Barbed wire would be placed in roughly the same position. The barbed wire is tied around the first corner or straining post, then tension it as best you can to the next strainer post using hammers or line wire pullers (Hayes 300). It is much easier to use wire pullers as barbed wire is unpleasant stuff to work with. You can't use raddisseurs with barbed wire. Having tensioned the barbed wire to the strainers go back and staple it to the stobs.