Farm fencing hints

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BORING the fence-posts to take the wires is an important operation in fence construction. Unless the holes are well aligned and running parallel with the fence-line and the ground, the task of "running" the wires will be made very difficult, and the appearance and effectiveness of the finished fence will suffer.

If the holes are out of alignment, the wires are forced to make a number of slight changes of direction as they are threaded through the posts and the resultant friction makes it hard to drag the wires through a long panel of fence.

Obviously, the larger the holes, the less will be the tendency for the wires to "bind", but large holes weaken the posts, especially when small-diameter jamwood or boree posts are used. A half-inch bit is the size most commonly used for fence-post boring, but a five-eighths bit is permissible on large-diameter split jarrah and white gum posts.

HAND BORING

Most of the fences in this State have been bored by hand after the posts were erected and this is still a popular method, especially among farmers who only have fairly short lengths of fence to erect. A light rod is marked with saw-cuts to indicate the spacing of the holes. This rod is placed against the post and the position of the holes is marked on the post with chalk or a scratching tool. After that, it is merely a matter of boring the holes with a brace and bit.
A tin of grease or mutton fat is kept handy and the bit is dipped in this at frequent intervals to make the work easier. A little practice soon teaches the operator to sight his bit directly along the fence line and to keep it reasonably horizontal when boring.

If posts are being bored immediately after erection, or when the ground is soaked with rain, it is a good idea to use a forked stick as a stay to prevent the posts from being pushed out of plumb while being bored.

The simplest form of forked stay is shown in Fig. 1, but an even better idea is to bore the first hole without a stay and then use a forked stick with a spike through the butt end as shown in Fig. 2.

When boring the holes for the bottom wire of a netting fence, it may be necessary to take out a shovelful of earth to allow room for the sweep of the brace to operate, as this wire is usually not far above ground level.

**PRE-BORING OF POSTS**

Many people favour boring the posts before they are placed in the ground and this method has certain definite advantages. It offers scope for the use of fairly simple mechanical boring appli-
ances, and the boring of posts provides profitable employment for wet days when outside work is impossible or at least highly uncomfortable. The simplest form of mechanical borer is a spindle set up as shown in Fig. 3 with a pulley suitable for operation by a stationary engine or tractor.

An old beater or peg-drum spindle from a harvester together with suitable bearings and collar washers could be made into a very useful boring machine by the average handyman.

One end could be fitted with a chuck, or an even simpler method would be to drill a hole in the end big enough to take the round shank of a bit from which the square tapered portion has been removed. File a flat surface on the bit shank and drill and tap a hole for a set-screw.

A half-inch bullnose auger or a Cleveland woodbit would be good tools for this type of power boring, but if an ordinary twist bit is used it is advisable to file off a portion of the point so that it does not "draw" too fiercely at high speed. The actual speed of the bit will, of course, be governed by the size of the pulleys and the r.p.m. of the engine, and these will have to be determined by trial and error.

The table should be fitted with a few skids such as lengths of angle-iron with the outside angle upward so that the posts slide easily.

Great care should be taken to have all the holes bored on the same plane, so do not allow the posts to roll backward or forward when moving them into position for the drilling of the next hole.

Where a barbed wire is used on the top of the fence, it is a good idea to drill the top hole at right angles to the others instead of parallel with the fence-line. The reason for this will be explained later when we discuss the running of the wires.

If this hole is bored first, a length of round iron or dowel stick can be poked into the hole to serve as a gauge when boring the other holes in the post. If it is kept upright as the post is slid along the table, this will ensure that the remaining holes are bored at right angles and on the same plane.

**MECHANICAL AIDS**

A friend of mine who is an engineer as well as a farmer, invented and constructed a machine which operated six bits simultaneously and bored the six holes in one operation. Such a machine would only be warranted where large numbers of posts had to be bored, but there are a number of other mechanical boring aids available today.

Now that many farmers have 32-volt generators, electric hand drills are widely used to bore fence-posts. They may be used for pre-boring the posts at the homestead or may be mounted on a cart or wheelbarrow and taken along the fence-line using a light air-cooled engine and a long flex which permits several posts to be bored without moving the generator.

A proprietary portable post-boring plant has been on the market for several years. It incorporates a small petrol engine with a flexible drive-shaft terminating in a hand-piece carrying a drill chuck. Some farmers have converted one-stand shearing plants into similar outfits.

Long before portable engines were in common use, various attempts were made to speed up hand boring. Nearly half a century ago, the machine shown in Fig. 4 was invented and constructed in this State and I am told that it was used in erecting the No. 1 Rabbit Proof Fence.

It was made of light piping and angle steel and incorporated cranks similar to those on a bicycle with a chain drive operating a spindle which carried a fly-wheel.

The final drive was by rods fitted with universal joints, leading to a handpiece and drill chuck. Two men operated the machine, taking turns at working the cranks.
FIGURE 4.

- **SET SCREW**
- **HEIGHT OF SEAT OFF GROUND, 2'6"**
- **PIPING LEGS.**
- **DRILL CHUCK**
- **HAND PIECE 15" PIPING WITH BUSH BEARINGS EITHER END.**

FIGURE 5.
Several ingenious farmers constructed similar machines which incorporated the same principles and the wheelbarrow arrangement shown in Fig. 5 was a typical example. In this model, the spindle was fitted with a universal joint connecting it to a length of square rod sliding inside a pipe fitted with a square collar.

Another universal joint connected the pipe to the rod leading to the drill chuck. A shorter length of pipe acted as a handpiece and had a thrust washer at the chuck end.

The maker claimed that the time saved by using this machine more than paid for the employment of the extra man, but in these days of scarce and costly labour it would be a simple matter to fit a small petrol engine to take the place of the crankman.

**STAPLED WIRES**

The attachment of wires to posts by staples, in lieu of boring the posts, is not regarded with favour in this State and most financial institutions stipulate that posts must be bored.

Possibly one reason for the unpopularity of staples is that our hardwood timbers do not permit the easy driving of staples when dry. When the staples are driven into green timber posts, our long dry summers are apt to dry out the posts and permit the staples to loosen.

Nevertheless, stapling has certain advantages. Apart from a saving in time as compared with boring, it permits the rapid replacement of posts damaged by bushfires, falling trees, termites and other causes—and the stapling method is useful for the erection of temporary fences.

If staples are used they should be driven in slightly askew so that the two points are not in line along the grain of the wood where they could cause splitting. The individual staples should also be zig-zagged down the post for the same reason.

Staples should not be driven fully home but should have a loop protruding from the wood to facilitate extraction and to prevent jamming of the wires which would interfere with satisfactory straining.

**THE SPINNING JENNY**

With our posts erected and bored, the next task is that of running the wires. This is a simple task if the holes are reasonably well aligned.

First we will need a “spinning jenny” which need not be a particularly elaborate affair. Obtain two pieces of 4in. x 2in. or other suitable timber about 2ft. 6in. long and half-joint them to secure the spindle with a bolt and washers as shown in Fig. 6.
form a cross which serves as a base. Taper off the upper surfaces as shown in Fig. 6 and bore a 1/4in. hole through the centre. Make another similar cross, this time tapering off the undersides of the arms slightly.

Bore two or three holes in each arm of this cross to take wooden pegs or broken drill spokes to hold the coil of wire. The holes should have a slight lean towards the end of the arms so that the pegs slope outwards at the top and prevent the wire from rising too high as it unwinds.

Fit a couple of washers or an old drill-disk between the two crosses and apply a smear of axle-grease. Put a 9in. x 1/4in. bolt through the central holes, driving it into the ground to give extra stability, and the spinning jenny is completed.

Remove the pegs and lay the coil of wire in position on the cross. Replace the pegs and then remove the tie-wires from the coil and you are ready to draw out the wire, preferably from the centre of the coil where it is less likely to tangle.

A useful substitute for a spinning jenny is the coil holder shown in Fig. 7. Take a suitably-sized forked branch, and bolt or wire two cross-pieces across the forked portion as shown in the sketch. Tie two wire loops to the frame as shown, making the loops of such lengths that they will not quite meet when pulled towards the centre. Lay the fork on the ground with the cross-pieces uppermost, put the coil of wire in position on the cross-pieces and bring the loops over the coil where they can be connected with a short strap.

To run the wires, lean the butt end of the fork against the strainer post with the coil of wire downward. Remove the tie-wires from the coil and draw the wire through the fork commencing from the inside of the coil. If the wire runs too freely, tighten the loops by means of the strap.
before securing them so that there is always spare wire on the fence to allow for repairs, if wires are broken at a later date.

Having run and tied the bottom wire, return to the spinning jenny, cut off the wire at a suitable length and stick the end in the ground, then proceed to run the remainder of the wires in a similar manner.

As the degree of effort needed to pull the wires through the posts increases rapidly with the distance of the pull, it is a good plan to place the spinning jenny halfway between the strainer posts on long strains. Wires may then be run to strainer posts in two directions and tied to each. Straining is then carried out from the centre of the span instead of from the post.

end of the crowbar if the bar is not level or if one man gets in advance of the other—and that usually means damage to skin or clothes.

A better idea is to make a reel-holder as shown in Fig. 8. This may be placed on a cart or wheelbarrow which makes its operation a one-man job.

(To be continued.)
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