Concrete and Pipes

Concrete posts used in conjunction with galvanised-steel pipes, though costly, make the strongest and most permanent type of fence. Such fences are sometimes used in Australian sheepyards where presumably other methods of construction would also be costly. Advantages of concrete post and pipe construction are that sheep are less likely to be bruised and that where there is an outbreak of blood poisoning the fences are very easy to disinfect thoroughly. They would also be fireproof and insect-proof. Similar remarks apply to the all-concrete fence

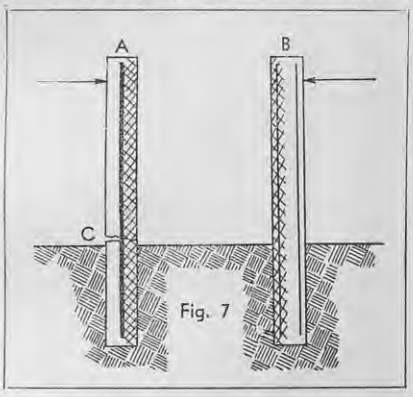

Fig. 7

built with concrete posts and reinforced, pre-cast concrete panels.

Concrete Posts and Wooden Rails

Concrete post and wooden rail construction is frequently used and many expedients for attaching the rails to the posts are found. These include tying with wire through holes in the post, nailing to a batten which is bolted to the post, bolting the rails directly to the post, nailing to a wooden strip which is placed in the mould when the post is being cast, and many other more or less ingenious methods. Fig. 9 illustrates one such method, where the posts have grooves cast in their sides into which the ends of the rails are fitted. Rails are kept at the correct spacing by being nailed to a batten.

Height of Fences

Height of fences may vary considerably. Provided a fence is high enough to keep in any sheep ever likely to be in the yards, it can be considered satisfactory. Sheep vary greatly in type and temperament. A wild Merino or a crossbred from the backblocks can jump like an antelope; a stud Southdown is its antithesis. As always, cost comes into the question. In the quest for economy it is possible to cut down the safety margin of height, but it is also possible to overdo the cutting down.

Again, with the yards on the flat, fences can be lower than where they are on a steep slope and a sheep can get a good take-off when jumping.

The external or "boundary" fence of the yards can be up to 4ft. or even 5ft. high. On the other hand the fences of the crush pens and other small pens do not need to be so high, because the sheep cannot get a run at them to jump, and because if they are higher than about 3ft. 3in. they are more difficult for men and dogs to get over.

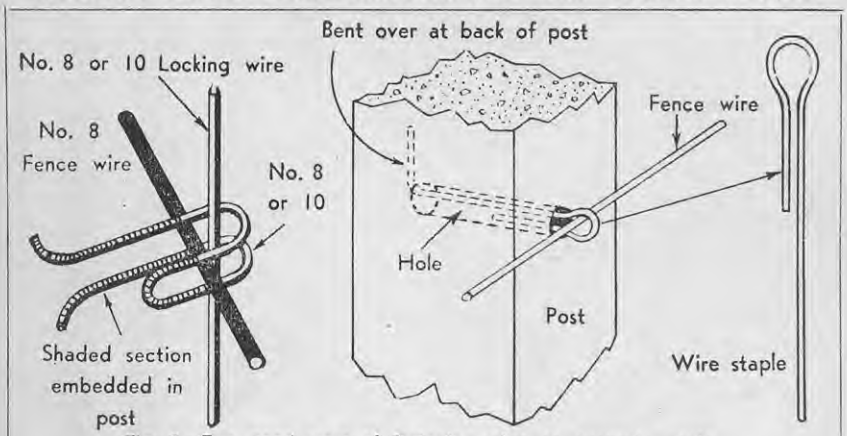

Fig. 8—Two good ways of fastening wires to concrete posts.

The height of a gate should be in keeping with the height of the fence in which it is placed.

GATES

Several types of gates are used in yards. They may be classified under five main headings:—

1. The ordinary swing gate.
2. Lift-up gates.
3. Slide-back gates.
4. Tip-up gates.
5. "Freak" or unusual gates.

The above types will be dealt with individually later in this article, but the following points apply to gates generally. It is an advantage, though of course more costly, to have gates bolted together rather than nailed, as this not only gives a stronger gate, but if the gate is smashed at any time, it is much simpler to replace the broken members.

In building gates the ordinary carriage bolt with a small square section below the rounded head should not be used, as when the thread gets rusty the square shoulder is quite insufficient to prevent the bolt from turning when an attempt is made to unscrew the nut. Use either square- or hexagon-head bolts.

Bolts and nuts should be well painted or they will soon rust away. Modern steels are not nearly so resistant to rust as the old-fashioned wrought iron. The painting or creosoting of gates is worth while, but even if they are not done all over, the joints at least should be done before assembly, as these are the first parts to rot if untreated.

The width of a gate is of course governed by the nature of the traffic it will have to handle. It is an advantage in many cases to be able to take a dray or a motor-truck into yards for carting in posts or clay or metal for the gateways, etc. The gates should be wide enough to allow passage of any such vehicles. Usually 10ft. gates should be ample for normal requirements.

Wherever possible avoid hanging gates from strainer-posts, since there is then an increased chance of the gate getting out of plumb. Separate gateposts should be used. However, in yards where post-and-rail fences are used, the gatepost can also serve as a fence post, because there is no strain on it as in a wire fence. In the case of gateways used frequently by vehicles it is a good policy to put in short, sturdy guide posts on the inside of the gateposts to protect them and prevent them from being knocked out of plumb.

The merits and disadvantages of the five main types of gates already enumerated may be summarised as follows:—

Common Swing Gate

The common swing gate is so well known that no description is needed.

Advantages

1. It is relatively cheap and easy to construct.

2. For wide openings it is the most practical type. Where openings are very wide double swing gates can be used.

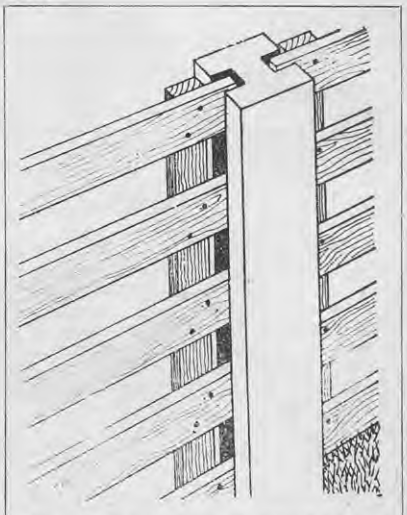
Fig. 9—One method of attaching rails to a concrete post.