

The pins with which the holes through the post are made are necessarily all alike. The post is tapered. As a result the small part of the hole through which the shank of the nail passes is longer nearer the bottom of the post than at the top. Consequently the nails at the top stick out too far and when bent around the fence wire the points strike the bottom of the groove and make it difficult to pull the

The annual consumption of cedar posts on a large railroad runs into hundreds of thousands. Rot and grass fires eat them up, unruly steers break them off and the ever-present hobo finds them good fuel for his campfire, provided he can get them without too much labor. None of these agencies except the steer have any effect upon concrete posts and there is a large field for their use. They must be produced cheaply and in large quantities, however, and must be strong enough to stand rough handling as well as to resist the forces which come upon them in service.

The machine we are using will turn out 400 posts per ten-hour day. As previously stated, we do not yet know how low the cost can be gotten, but we are satisfied it can be made such that they will compete with cedar posts.

It must not be expected that a concrete post will stand the degree of rough handling which can be given a wooden post. It is easy enough to make them strong enough to withstand the loads which come upon

them in a fence and they are in no sense fragile. But some degree of care must be used in handling them or cracked posts will result.

If they are used with the same degree of care and intelligence required in any other form of permanent construction it is very certain that most satisfactory results may be obtained.

TRACK ELEVATION AT MONTREAL.

Montreal is still awaiting an arrangement with the Grand Trunk Railway regarding the elevation of the company's tracks. It is now at least three or four years since the matter was taken up seriously, it having been in the realms of discussion for years previous to that. Some few years ago, however, the company and the city got as far forward as to discuss plans. Plans were even drawn up, and, if not actually approved of, were at least given favorable consideration. At the present time, the railway passes into the city from the west on a surface track, the crossings being very numerous, and being on a level with the street. The track coming up from the south crosses the Victoria Bridge and joins the track entering the city from the west. The work of elevating the tracks will naturally be very costly, and this may, to a considerable extent, explain the many years' delay which has taken place in carrying out the work to completion.

The whole subject was to have been taken up at the last meeting of the Railway Commission, held here a few days ago. The city had previously consented to contribute \$2,000,000 towards the work, and it was generally thought that the railway regarded this as sufficient. In fact, it was generally understood to be the sum originally asked by the railway. Now, however, the Grand Trunk expresses its dissatisfaction at the amount, the work being much more costly than previously supposed. The public do not quite understand why the city should pay anything towards elevating railway tracks, but the principle seems to have been accepted by the city council. The Commission will deal with the matter at its next meeting.

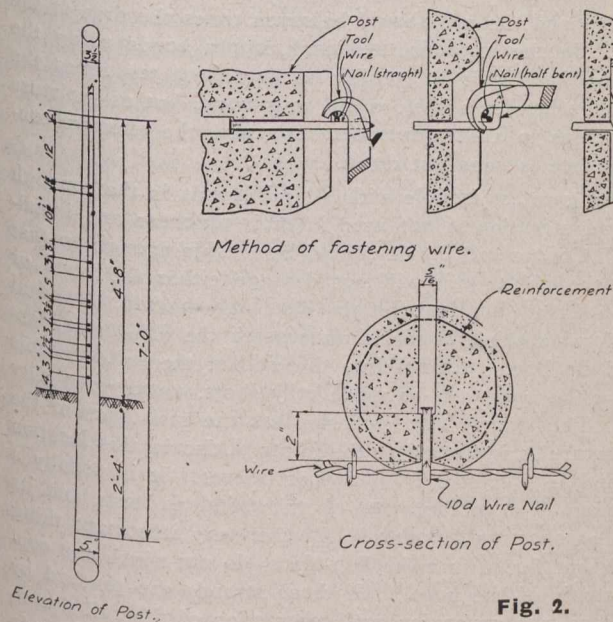


Fig. 2.

wire up close to the post. A tapered strip is now attached to the outside of the mould under the heads of the pins. It is of such a thickness that the offset in the holes is a uniform distance from the grooved side of the post and all nails project the correct distance to insure proper fastening of the wire.

Another method of fastening the wires is shown in Fig. 3. It will be seen that the hole through the post is of uniform diameter and a piece of wire with one end doubled

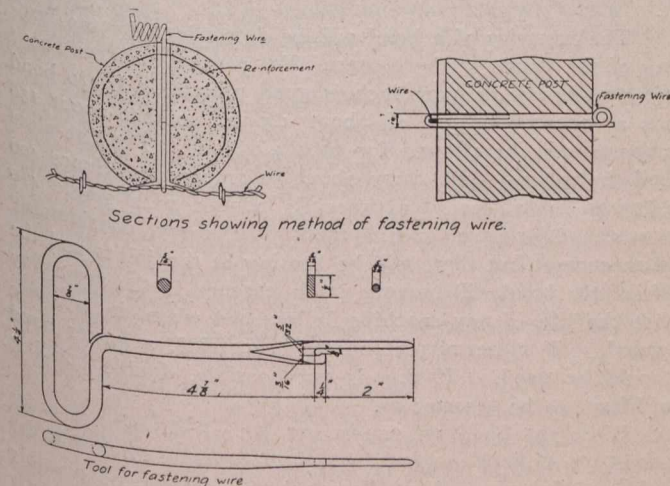


Fig. 3.

back is substituted for the nail. The other end of the wire projects at the back of the post, and by means of the tool shown this is twisted up into a corkscrew. The fastening has not yet been tried out in practice, but its use on an experimental post seems to indicate that it is simple and efficient. It was designed for use with a round post having no groove. As our moulds are all grooved, we expect to use it with this type of post.