

are shortened so that there is no liability of cramping when permanent planting is in progress, whilst the immersion in a puddle of soil and water has the far-reaching effect of protecting the root-system from exposure, generally so unavoidable during transit. All bundles are now temporarily heeled in, and if the soil be well firmed, the transference of trees to plantation may be delayed for a month or more without risk being incurred.

Poorly-developed trees, or those possessing double leaders, should now be pulled up and carted to the sizing-shed, where removal of superfluous shoots and final classifying is conducted. Undergrown trees are usually put aside, and eventually lined out again; but malformed specimens are at once rejected and committed to the rubbish-heap for conversion into ashes. Of course, it is not always possible or desirable to carry out the bundling-work on any fixed principle—for instance, when large-sized trees are being dealt with the bundles cannot be securely fastened with one tie only. The shortening-in of lateral branches is also a necessary labour with some varieties, and attention to details of this kind before transferring trees from the nursery considerably reduces the future maintenance item of expense.

TRANSPORT OF TREES.

Local plantations are connected with each tree-raising station, and the transportation of trees—which is effected by specially constructed hooded wagons, each with a maximum carrying-capacity of 30 cwt.—presents no difficulties. The proximity of the Hanmer Springs Plantation to the district nursery (between two and three miles) permits of two trips daily being made when circumstances warrant. Our Otago stations, however, are not so fortunate in possessing suitable adjacent planting areas, and the return wagon journey in each case occupies a full day. The ground at present being operated upon at Naseby is situated about nine miles from the associated nursery at Ranfurly, whilst the distance between Conical Hills Plantation and Tapanui Nursery is recognized as thirteen miles by road. Perhaps the most arduous journey is the latter-mentioned one, during which the negotiation of several steep inclines make it compulsory to work a five-horse team.

In loading the trees from the nursery trenches to the wagon, all bundles are counted and recorded in a duplicate delivery-book, which is taken by the driver, and duly handed to the receiving Forester for acknowledgment and receipt. Visitors frequently show curiosity with regard to the number of trees delivered in one wagon-load.

When one considers the difference in size and weight between bundles of various trees grown, credence must be given to the fact that three-year-old oak are frequently six times more bulky, and therefore require a correspondingly greater amount of cartage than pines of the same age. As many as 100,000 small two-year-old larch and pines have been conveyed to the planting-ground in one load, whilst, on the other hand, 7,000 oak have at times constituted a still heavier load. It is somewhat difficult to determine accurately what number forms an average wagon-load of trees of an approximate 25 cwt., but based on the past season's carting, the number works out at 29,600, and the transport cost at 6½d. per 1,000 trees.

In cases where railing or shipping of plants is inevitable, a totally different packing course is followed. The deciduous and hardier trees are encased in a covering of wheat straw, and made up into the familiar bottle-shaped bundles, although the inclination to "heating" of pines and other evergreens make it a wiser policy to use crates or partially latticed cases when dealing with these varieties.

FENCING AREAS ACQUIRED FOR TREE-PLANTING.

The presence of rabbits and hares in each district where planting operations are being carried out make it absolutely necessary to enclose each area by a combined stock- and rabbit-proof fence, 3 ft. 9 in. to 4 ft. in height. The requirements of no two districts are exactly similar, and the type of fence constructed, of course, varies. At Conical Hills and Naseby Plantations kowhai posts are erected a chain apart, with seven divisional standards.

Three plain wires make an excellent support to the 42 in. wire netting, which is securely let into the ground to a depth of 6 in.

The rigidity and stock-resisting character of the fence is much increased by one and sometimes two barb wires being fixed near the top. Miles of this class of fencing have been constructed at an average cost of £1 5s. 6d. per chain. At one period so troublesome were the hares at Naseby Plantation through gaining access to the planted area by jumping that an additional attachment to the top of the original fence of one-half width of netting was necessary before an effective barrier was created. There being no liability to the ingress of cattle at Hanmer Springs, the height of the divisional fences was accordingly reduced, and barb wire was not required.

Angle iron (1½ in. by 1½ in.) also proved a worthy substitute for posts at this station, and, being much lighter and less bulky, the carriage expenses were considerably curtailed.

EXTERMINATION OF GROUND-GAME.

Precautionary measures having been taken against the further entry of rabbits, the extermination of the pest may now be commenced in the enclosure. To facilitate the eradicating-work, large areas are subdivided into blocks of about 500 acres by temporary netting fences, which are dismantled and re-erected as occasion requires. On a plantation staff we generally include an expert rabbitier, who, with his dogs, ferrets, and traps, is fully occupied until the area is clear. Periodically, phosphorized pollard is laid; but, although occasionally successful results issue from this practice, it is mostly the young rabbits that fall a prey to the poison. A Suddeth fumigating-machine for pumping carbon-bisulphide fumes into the burrows is also used, but this method is only satisfactory when the ground is