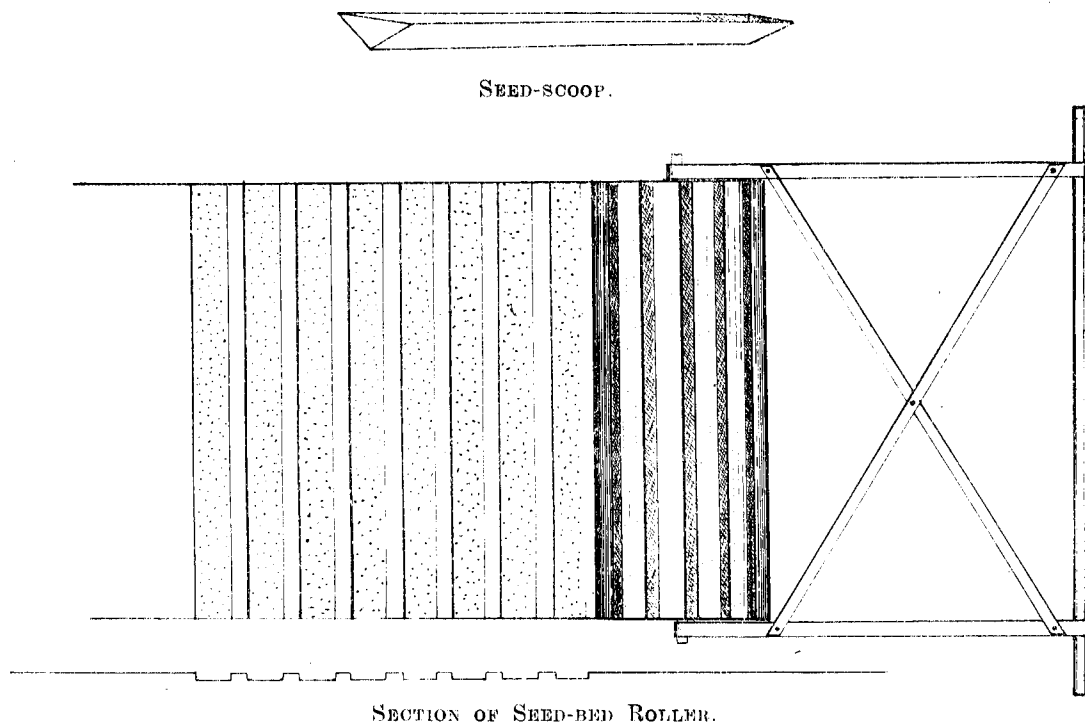




Local seed selection is carefully observed by Captain Fotheringham, and the healthy robust condition generally of his seedlings surely indicates the necessity of strict observance of this important phase of the question if complete success in germination is to be the outcome.

Ford Nursery.—At Ford the Government has established a fairly large nursery, with an output annually of over half a million. As in other parts of Scotland, larch, Scots pine, silver and Douglas fir constitute the principal varieties grown. There was nothing at this station which, in my opinion, could be introduced with beneficial results into any of our New Zealand nurseries.

Benmore Nursery.—The privately owned Benmore Nursery, used exclusively for tree-growing, also provided plenty of scope for favourable comment. There is, however, a tendency here, as at most nurseries seen, to sow much too thickly, with the result that a fair proportion of lined-out trees assume a "leggy" appearance.

Dupplin Nursery.—Practically the same system is in force at Sir John Dewar's Dupplin Nursery and other fair-sized tree-growing stations. Protective frames for covering seed-beds are not so essential as in New Zealand, and in many cases this precaution is entirely dispensed with, thus reducing the initial raising-cost.

Dickson's Nursery, England.—At Dickson's famous 500-acre nursery at Chester a large area is devoted to tree-raising, and, as might be expected, many details of management differ entirely from ours. It was with much surprise that I noticed broadcast sowing (in wide beds) of pines, a method that was banished from New Zealand State nurseries many years ago, owing to the necessary wrenching operation being thus hindered. Much useful information was secured relative to nursery-work generally, but not directly connected with our specialty.

Forest of Dean Nurseries, England.—Several nurseries of approximately 4 or 5 acres each in extent are in existence in various parts of the famous forest, and the trees raised are utilized for afforestation, reforestation, and underplanting purposes generally. The condition of these nurseries did not sufficiently impress me to recommend the adoption of any methods in force.

Avondale Nursery, Ireland.—Ireland's chief tree-raising station is situated at Avondale, and, although not very extensive, is apparently conducted economically. It, however, occupies a highly sheltered position, which would perhaps make the transplanting of trees so raised a difficult problem in New Zealand, where high exposed hills are being afforested. No horse-work in lining out is employed, and although similar ideas are introduced here as at other leading institutions mentioned, perhaps a greater measure of success has attended the efforts of those responsible.

PLANTING-DISTANCES.

Perhaps two of the most established principles in creating satisfactory forests are—

- (1) Correct selection of trees for the existing conditions;
- (2) Providing sufficient density by close planting.

In Germany, and Great Britain, and part of France the planting-distance generally between such trees as pine, spruce, and larch is 4 ft., or at the rate of about 2,722 trees per acre. It is, however, now acknowledged on all sides that no hard-and-fast planting-distance should be adhered to; but that the habits and development of each tree operated with and occupying different situations should be closely watched for results that will lead to economical spacing. On the Continent the thinnings are disposed of at a sufficiently remunerative price to merit the continuance of the close-planting system; but in New Zealand, where we are faced with the necessity of having to pay a high rate of wages and no immediate prospects of making a financial