of subsequent labour in weeding this operation dispenses with, particularly in the tropics, but the use of the machine is connected almost solely with seed-sowing and pricking off in boxes. Most of the seed-sowing of the eucalypts and various ornamental trees is conducted in shallow boxes, and pricked off some eight weeks later into trays, in which they are finally transported to the planting-areas. Needless to say a very high growing percentage eventuates from such measures. The raised germinating-houses are covered with light wire gauze to prevent ingress of the troublesome ants, from which perhaps the greatest drawback in propagating is experienced here.

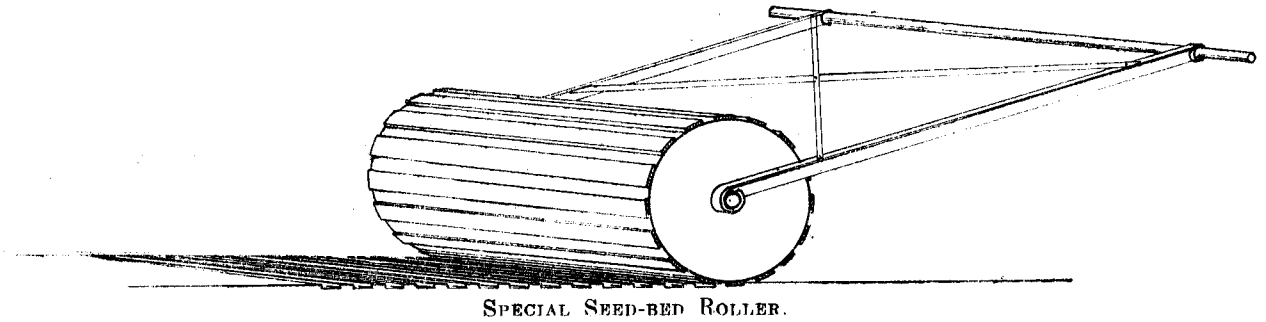
Creswick Nursery, Victoria.—Output about 1,000,000 trees annually, including the free distribution to public institutions. The area utilized for tree-raising here is situated in a sheltered valley, and much labour was devoted to still further enriching the surface by depositing light fertile soil obtained elsewhere. *Pinus radiata*, *P. Laricio* and *P. ponderosa*, *Eucalyptus corynocalyx* and *E. leucoxylon* constitute the principal trees grown, and, although the nursery is limited to about 8 or 10 acres, excellent results are obtained. Seeds of pines are sown in open drills, in which they remain for twelve months before being transplanted into lines for another season. Lining out is conducted by the ordinary spade trench method, which is evidently a very much more costly method than that adopted in New Zealand. The eucalypts are sown in cool frames, and after a few weeks are pricked off in shallow trays, to be delivered later to the plantations. This is in reality an expensive system; but complete success usually eventuates. Spade pitting for tree-planting is conducted at about the New Zealand rate, while trees are planted by another worker, who closely follows up. Fire-breaks, about 1 chain in width, are marked out so as to divide blocks into about 250 acres. About five furrows are ploughed annually on each side of the barrier, which provision for checking the spread of fire seems to meet the position. The progress of *Pinus radiata* on being planted out at 8 ft. apart is excellent, and compares at least favourably with that recorded in the Dominion. Among other varieties of trees grown in nursery may be mentioned *Pinus sylvestris* (much affected with *Chermes laricis*), *Quercus pedunculata*, *Fraxinus excelsior*, *Salix* (vars.), *Populus* (vars.), &c. Generally no methods used out of the ordinary are in evidence here.

Gosford Nursery, New South Wales.—Rainfall, 56 in. annually, on 150 days; output, 150,000 trees The function of the nursery is principally to provide trees for the creation of State softwood forests, as it is contended that aided natural reforestation of the eucalypts will dispense with any immediate necessity of raising plantations of hardwoods artificially. The pine-seeds are sown in single drills, covered with soil, and receive no rolling or frame covering. Being such a wet locality, the Superintendent considers the battering influence of rains gives sufficient firmness to seed-beds. The eucalypts, pepper-trees, araucarias, &c., of course receive more careful treatment, and are sown under a screen 7 ft. in height. After two years' progress in the drill, during which time frequent wrenchings are effected, the trees are sufficiently strong for permanent planting; but I doubt if we should be able to use such large stock in operating upon exposed hillsides. Only the more weakly plants are transplanted, and these are put into lines 2 ft. apart. Spade pitting is also adopted here, and is merely a reversed sod, and the number prepared daily by an individual depends entirely upon the nature of the surface—a fair average may be set down at 350. Trees are planted by the combined efforts of a man and boy, the latter assistant being fully occupied in carrying trees and holding each one in its place, while the man fills in with spade and completes the operation by firming. The pair of workmen usually plant 1,200 trees daily in this manner. Fire-breaks at 2½ chains wide are laid off where considered essential, but no fire-resisting trees are introduced. No horse cultivation on these barriers is applied, although an annual spring burn is carried out. Almost phenomenal growth of *Pinus radiata* is made in the associated plantation, and the planting distance (8 ft. apart) is evidently quite close enough for satisfactory bole-development.

Scotland.—Some twelve Government and private nurseries were visited in various parts of Scotland, and, although State-owned institutions were perhaps on a larger scale, the delegates were certainly more favourably impressed with the tree-raising stations managed by private landowners, who until comparatively recent years, however, had been for generations practising forestry based chiefly on systems not conducive to the best results.

Murthly Nursery.—Perhaps the most interesting nursery visited was that at Murthly, belonging to Captain Fothringham, who, having studied German methods exhaustively, has endeavoured to introduce and even improve upon such ideas. Although raising less than a million trees annually, the Murthly Nursery is evidently worked on sound commercial lines. Interesting demonstrations, as follows, were given:—

(1.) Rendering tree-seeds distasteful to birds by immersing in powdered red-lead.
(2.) Rapid seed-sowing in narrow drills made by special roller on which battens have been attached. Seeds were measured out in a long triangular scoop and tipped out with a rapid shake into the drills.
(3.) "Lining out" with special planting-board after a spade trench is made. This system absolutely prevents the undesirable bending-up of the tap roots of delicate seedlings, but is certainly an expensive process.
(4.) Extraction of pine-seeds from locally gathered cones.



SPECIAL SEED-BED ROLLER.