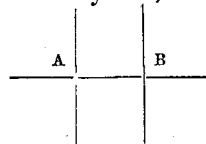


average fully 25 feet in height. The nurses are now being gradually removed. The pits cost 4s. per acre, containing about two hundred.

At Lynedoch we inspected a mixed plantation of Scotch fir, larch, and spruce, all doing fairly; and on an adjoining piece of moorland I had a favourable opportunity of seeing draining and planting operations in progress. The drains were 36 feet apart, 2 feet deep, $2\frac{1}{2}$ feet wide at top, and a spade's width (or about 1 foot) at bottom, the main drain being 3 feet deep and $3\frac{1}{2}$ feet wide at top.

The land is very spongy, with a clay soil at top, but gravel is reached at 2 feet from the surface. It is being planted with Douglas pines in pits, as already described, and made up with larch at about 6 feet, and Scotch fir at about 3 feet apart.

The nurses were being put in on what Mr. McCorquodale terms the "double notch system," an idea of his own, which he finds efficacious in fixing the young tree very firmly in the ground. It consists in making two cross cuts with the spade instead of one, as is usual, canting by a turn of the wrist a portion of the turf a little to one side on making the second cut, introducing the plant at A, and passing along to B, then treading the turf well down and all round. The men do this very quickly after a little practice, and the plan seems a very good one.



As already stated, Mr. McCorquodale does not consider it impossible to re-plant land from which a crop of timber has been recently removed, and does not agree with Mr. Grant Thomson that it is necessary to wait until the natural herbage or vegetation returns; but he does consider that, in order to plant such land successfully, special treatment is necessary. He appears to have given the matter much attention, and has arrived at the conclusion that it is the beetle, and the beetle only, which interferes with the growth of young trees planted on land recently cleared of conifers. He has contributed several papers on the subject to the Scotch Arboricultural Society, and tried various methods for overcoming the difficulty, arriving at last at the following, which he has now no hesitation in recommending:—

Allow the land to lie entirely waste for one year, excluding all cattle and sheep, in order to allow grass, &c., to grow. Then burn it when dry, and plant out by the double notching system. This plan should not cost more than 15s. per acre, all told, and the saving by not allowing the land to lie waste for a number of years, as in Strathspey, is very considerable.

Mr. McCorquodale also succeeded in raising the young trees, after a "clean cut," by burning and pitting, but this was too expensive, amounting, in one instance, to 45s. per acre. I saw plantations of both descriptions, and can vouch for the trees being healthy, and having attained to heights of 30 and 35 feet in 24 years, and from the one last alluded to as pitted, £40 was realized last year by thinning 20 acres. This plantation was originally very unfortunate, 32,000 young trees having been "thrown out" of the ground by severe frost during their first winter, which raised the expenditure to 45s. per acre, as already stated.

The other plantations visited do not demand special notice, save a fine piece of Scotch fir, extending over 60 acres. This was planted about 20 years ago, and the trees, which now stand eight or nine feet apart, average fully 30 feet high. The thinning of this wood, two years ago, realized £60, and it will be thinned again next year.

Woods.—In the Policy Grounds adjoining Scone Palace and Logie Almond are some very fine specimens of *P. douglasii*, *menziesii*, *nobilis*, and *excelsa* (Indian), and old Scotch firs and beech of great size.

Close to Scone there is an oak wood, with hazel undergrowth, containing some very fine trees, one of which was measured two years ago by Captain Douglas and Mr. McCorquodale, and found to contain upwards of 100 cubic feet of timber, being then 63 years old, and there are many nearly as good in the vicinity. Mr. Brown appears to have measured this same tree in 1850, and found it to contain 48 cubic feet, and if this is correct, and the measurements were both conducted on the same system, it appears that the cubical contents has more than doubled in 13 years, which is very remarkable.

In another wood of 30 acres, 50 years old, mixed hard-woods and larch, the growth of the former is very fine, but I did not obtain any measurements.

There is a considerable extent of oak coppice on the estate, but the rates now realized by sales are not remunerative, and Mr. McCorquodale is therefore not extending it, but prefers keeping the best oaks as standards and planting Scotch firs.

I saw several oak trees of various ages pruned, and the selection of Scotch fir and spruce to be felled in an old wood.

Timber here realizes rather more remunerative rates than Strathspey or Dunkeld, as the woods are close to a market at Perth, and the surrounding country is highly cultivated.

Fencing.—Mr. McCorquodale's wire fences, which are very substantial, cost him only 6d. per running yard. He has a greater command of labour than Mr. Grant Thomson, and the carriage of the wire is less. He states that he seldom uses the "collar" to hold the wire when straining, finding an iron wedge sufficient. He uses the strainer referred to in the report on Strathspey, which he finds the best.

Saw Machinery.—I inspected a portable steam-engine at work for a wood merchant, who spoke very highly of its work, and stated that he had had the same engine at work for several years in different places. This engine is by Abernethy, of Aberdeen, 20-horse power, with 15-inch cylinders, on the same principle as that of Chrystie, of Perth, of which I have obtained plans and specifications. It is adapted for burning wood chips and shavings, the refuse of the trunks sawn up.

THE DUKE OF ATHOL'S WOODS AND PLANTATIONS AT BLAIR ATHOL AND DUNKELD, PERTHSHIRE, N.B.

I spent several days in visiting these woods, and met with great attention from Mr. McGregor, the Duke of Athol's wood manager.

The woodlands extend to upwards of 10,000 acres, divided into five districts (including Strathord, which is detached from the rest), each under a separate forester.