

*Nurseries and Plantations.*—No nurseries are now kept up, owing to the cessation of planting, for the reasons given above. Any plants required for filling up vacancies, &c., are purchased from the nurserymen, who have also supplied the coniferous seedlings for the small plantations made during the past two years, to be noticed hereafter.

I visited twelve plantations of various ages, varying from those of 1844 to the present season, viz., Bream's Eves, Milk Wall, and Hangerbury, of 1844; Bourtt's and Middle Ridge, of 1847; Churchill, 1856; Moseley Green, 1858; St. John's and Cinderford, of 1859; Little Kensley, 1869-70; Bream New Enclosures, 1871; and Bradley Hill, 1871-72. I had thus an opportunity of judging of the growth of the young trees over a period of nearly thirty years.

The plantations are mainly oak, with fir and larch nurses, which have been removed entirely in those of the earlier dates. Here and there I observed a little chestnut and walnut, but nowhere in any quantity.

The soil cannot be considered generally favourable for the growth of oak or any hard-wood tree. In the hollows it is, as a rule, clay, and only here and there do we find a bed of good loam. The country is very undulating, and on all the upper portions the rock crops out. On the outer edge it is generally limestone, with sandstone and conglomerate in the interior circles.

The larch does well, and the Scotch fir exhibits a very fine and healthy growth; in fact, in some places where there is scarcely any soil over the rock, it is marvellous to see fine straight trees of a most robust appearance.

The Scotch fir is not, however, of much use here in a financial point of view, as there exists a strong prejudice against it for pit-props, for which there is a great demand. I cannot help thinking that this prejudice must be, to a great extent, unfounded or based on insufficient data, for it is the tree mainly used for this purpose in the extensive mines in Lanark and Ayrshire, in Scotland, and I have never heard there of complaints as to its brittleness, which is the reason adduced for its not being used here. The nature of the soil, or other causes, may, however, affect the timber injuriously.

Of the younger plantations, Churchill, which is the first formed by the present deputy surveyor, in 1856, is doing particularly well. Little Kensley (1869-70), extending over 137 acres, newly drained and planted with oak and beech, with nurses of spruce fir, promises well; and Bradley Hill, which is just finished (in fact, some of the nurses have still to be put in), and covers about 80 acres, afforded me an opportunity of observing the healthy state of the recently-transplanted trees, and the few casualties which had taken place.

The deputy surveyor does not plant out the nurses first and hard-woods afterwards, as is done in the New Forest, finding it better to put both out together, the situations not being so exposed as in Hampshire. He digs pits for all descriptions, and considers it advantageous to do so, and that, although the first cost is, of course, greatly beyond that of planting a similar area with the nurses slitted or notched in, it is amply repaid by the immunity from loss, and consequent necessity of re-planting, and by the faster and straighter growth of the trees year by year. I note this particularly, as it is the only instance in which I have found the coniferous trees pitted in this country, and because in my report on the Scotch Forests I have expressed an opinion that we rather over-do the pitting in India, that is, that the results are not commensurate with the great extra expense. Sir James Campbell's experience tends the other way. For oak, he makes use of pits from 10 to 12 inches deep and 18 to 20 inches square, and for the fir and larch nurses, pits of about the same depth and one foot square. These he has dug at not more than 1s. per hundred, which appears very moderate.

The latter plantations of oak with larch nurses are formed in alternate rows of these trees, four feet apart, and the average cost is about £8 per acre, although, in some cases, it is much more or less, according to the nature of the soil, circumstances under which it is planted, &c., &c. This rate contrasts very favourably with that existing in other localities.

Sir James Campbell has experimented very successfully in planting out young trees, principally oak, in common (unenclosed) lands, and, in fact, on what might be termed village greens. No objections have been raised to this, and the villagers are now reaping the advantages in the shape of improved pasture for their cattle and sheep, and shelter from the cold in winter and excessive heat of the sun in summer, whilst the appearance of the village or hamlet is greatly improved by the presence of the grove, or what we should call in Madras *tope*, of trees.

Near Cinderford a considerable tract has been planted out in this way, and a careful record kept of the growth compared with that of seedlings of the same year left untransplanted in and around the nursery. The smallest trees of the former now surpass, both in height and girth at six feet from the ground, the largest of the latter.

Fires are unfortunately not uncommon in the plantations, and I saw several tracts in which the trees had been destroyed by them. A spark from a miner's pipe or gipsy's fire suffices in summer to set the grass on fire, and once lit, it is almost impossible to extinguish. A greater subdivision of the plantations into small blocks by means of ridges, which act as "fire traces," would appear advisable.

*Woods.*—I visited twenty different woods or enclosures, including those of the High Meadow estate, ranging from the scattered trees of 1707 and 1782, to the fine and regularly trained woods of the beginning of the present century. I would particularize those of Astonbridge (1816), Sallow Vallets (1812), Buckholt (1816), Perch (1816), Burnhill (1809), Nag's Head (1814), situated on a gentle slope with a southerly exposure, and Staple Edge (1814), and Cockshot (1815), on the other side of the forest, as the finest I saw, and containing a large capital of finely grown oak timber.

There has been little or no felling of mature trees for some years past, and I believe the Admiralty has now ceased to indent on the forest for supplies.

The blight has done much damage recently, and seems to increase year by year, whole tracts being left leafless during the summer by its action. At the time I visited the forest (in February) there was, of course, none, but Sir James explained to me that it appeared along with the young leaves or leaf buds, in the shape of canker or unhealthy spot; that his attention was invariably attracted to it by the myriads of small flies which hovered about the affected parts; that shortly a sort of caterpillar developed itself, which preys upon the leaves and young shoots until it arrives at the moth stage, when it departs, leaving the tree leafless and sickly.