

variegated. It has been proved that cuttings taken from an Ivy which has assumed the tree form (as climbing Ivies do at an advanced age), and grafted on the common Irish Ivy, at once take the tree form without having to pass through the climbing state. To show how popular tree Ivies have become, we may mention that something like ten thousand plants of them are grafted in these nurseries every year. Perhaps no tree or shrub succeeds better in towns or smoky districts than Ivy, and for such places tree Ivies are invaluable, and, indeed, every arboretum or garden that does not already possess such plants should be enriched with a collection of them. In addition to these, Mr. Smith grows large numbers of climbing Ivies, including most of the varieties in cultivation, many of which are of a very striking character.

Here the eye and palate are great rivals, for one hardly knows which receive most favourable attention, Roses or fruits; undoubtedly the latter form quite a *spécialité*, for the many thousands of trees one sees in walking round are perfectly astonishing. One wonders where they all go to. Fancy 60,000 trees, all trained for walls or espaliers, ready for one season's sale! Why, at four yards apart, they would plant a length of eight miles and a half! Then there are besides immense numbers of standards, dwarfs, pyramids, and other forms of tree required for gardens, orchards, or houses.

The quality and symmetry of Mr. Smith's fruit trees must be well known throughout the country, for there is not a county in the United Kingdom into which there have not been introduced large supplies, and that they give universal satisfaction is proved by the largely increasing business. Perfection in cultivation is not easily attainable, but it is evidently striven after here. Half a million stakes are annually used in forming the trees, and no pains appear to be spared. Correctness of name is of primary consideration; for what is so annoying, after waiting for a fruit tree to bear, as to find that you have been deceived in the sort? The greatest care was given years ago to collect the sorts direct from their original sources where possible, and, in default of that, from the most reliable authority; and when doubt arose, proof was obtained by fruiting the kind in an orchard house. Stock plants of every particular variety are kept, and the most scrupulous attention is paid to the naming of the various sorts. During the time of budding and grafting, the greatest possible care is used to avoid confusion, and as from twenty-five to thirty men are employed at this work, it is not to be wondered at if an occasional error does occur; but in order to meet such an occurrence, the fruit foreman carefully examines every row when the trees are coming into leaf, when in full leaf, and again at the fall of the leaf, so that his practised eye inevitably detects an error should one have occurred, and the tree is at once destroyed.

Before walking round, Mr. Smith begged us carefully to try if we could find one blighted tree or one that appeared untrue, judging by others in the same row; it is only fair to say we did not observe one incorrect or diseased in all the stock. Of course aphides will occasionally attack almost every kind of plant, but they do not by choice feed on healthy trees; they no sooner make their appearance here than the trees are well washed with soft soap and water (the most effectual and speedy remedy) until there is no sign of a living insect; during the blight season some trustworthy men are always on the look-out for these pests, so that they have no possible chance of continuing their ravages for any length of time.

To give an idea of the importance attached to Roses, it is worthy of remark that 60,000 are yearly grown in pots under glass; 500,000 Rose cuttings for stock were put in last autumn, and there is a square of five acres and a half planted out entirely with Rose stocks for next summer's budding. Ten acres in the open air are devoted to Roses.

The collection of Oaks gathered together here is one of the most beautiful ever made, and besides the flowering and ornamental-foliaged shrubs, in which this nursery is very rich, there are forest trees, hedge plants, creepers, herbaceous plants, &c., all cultivated with the greatest care, frequently transplanted to render them safe for removal, and each plant from its earliest growth formed to make a handsome specimen. Thus, by early and constant care,

the most perfect shape that can be desired is obtained without stiffness or formality. For years past the object has been to collect and multiply all the good varieties that could be obtained, and he must be difficult to please who cannot be satisfied in such a choice collection.

We were particularly struck by the cleanliness of the nursery—there was almost a total absence of weeds. Much attention is paid to this, so that every plant may be free and healthy in growth, for, where weeds prevail, stock must suffer more or less.

For the rearing and cultivation of stock there are two acres and a half of glass, composed of 1,750 pit-lights, and twenty-four houses, from whence several millions of plants are produced annually, requiring 150 tons of garden pots and 100,000 wooden labels every year. The nurseries occupy upwards of 150 acres of fully-cropped ground. The principal drive, going straight through the nursery, is one mile long. This is crossed by another seven-eighths of a mile long. There are thirty-two miles of walks, though no more than are necessary to attend properly to the stock. 250,000 Rhododendrons, Conifers, and other evergreens, flowering shrubs, Clematis, &c., are annually grafted under glass.

The packing is carried on in four large sheds, the largest 145 feet long by 19 feet wide, to which a crane is attached for lifting heavy packages into the railway waggons, which call daily. To give an idea of the extent of this department, it is sufficient to mention that, from the commencement of October to the end of the year, from eighty to one hundred men are constantly engaged in executing orders, and the following material is required for one season's supply:—100 tons of straw for packing, 350 bundles of willow bands (each 3 feet round), 5,000 bast mats, 1½ ton string, £200 worth of baskets, £100 worth of crates, and 80,000 parchment labels.

Of the Weeping Beech—to the picturesque appearance exhibited by which we have on several occasions alluded—Mr. Smith has a beautiful specimen, which we have thought worthy of separate illustration (see p. 299). This fine tree is upwards of 25 feet in height, and has a stem some 6 feet in circumference at the base. The spread of its branches varies from 35 to 40 feet in diameter. It was struck by lightning during the summer of 1857, but instead of being riven to pieces, like the generality of lightning-struck trees, the electric fluid only seared some of the main branches, and the health of the tree has in no way suffered from the shock. As will be seen, it is a grand example of this variety of Beech.

**Rain and Vegetation.**—*The Bulletin* of the Torrey Botanical Club contains a suggestive paragraph in reference to the influence of trees upon rain and atmospheric moisture, as shown by the experience of the island of Santa Cruz in the West Indies. This island is said to have been a garden of freshness, beauty, and fertility twenty years ago; it was covered with woods, trees were everywhere abundant, and rains were profuse and frequent. The recent visit of a gentleman who had known the island in its palmier days, revealed a lamentable change, one-fourth of the island having become an utter desert. The forests and trees had been cut away, rainfalls had ceased, and the process of desiccation, beginning at one end of the island, had advanced gradually and irresistibly upon the land, until for seven miles it had become dry and barren as the sea shore. Houses and plantations had been abandoned, and the advance of desolation was watched by the people, wholly unable to prevent it, but knowing, almost to a certainty, the time when their own habitations, their gardens and fresh fields would be a part of the waste. Indeed, the whole island seems doomed to become a desert. This sad result is owing entirely, according to the belief of the inhabitants, to the destruction of the trees upon the island some years ago.

**Dimensions of the London Parks.**—The Ordnance Survey Department gives the following: St. James's, 58.5 acres; Green Park, 60.3 acres; Hyde Park, 386 acres; Kensington Gardens, 245.5 acres; the Regent's Park, 406.2 acres; Victoria, 223.8 acres; Southwark, 63 acres; Kennington, 19.7 acres; Battersea, 199.4 acres; Greenwich, 190.4 acres; These ten parks, together containing 1,852.8 acres, are all within the registration division designated "London," which comprises 78,080 acres. Beyond these limits, but still within the district served by the Metropolitan Police, there is also Richmond Park, with 2,015.5 acres; Kew Gardens, &c., with 322.8 acres; Old Deer Park, with 357.2 acres; Bushey Park, 993.9 acres; and Hampton Court Park, 576.7 acres. These last five parks contain together 4,266.1 acres, which, added to the area of the ten parks first above-named, make a total of 6,118.9 acres of public park in or about London.