



THE PALM-HOUSE AT KEW.

ALTHOUGH London, with its extensive parks for recreation, when we would behold nature without going far to see it; with its magnificent Museum, when we would make acquaintance with the precious relics of antiquity; the theatres, when we would be amused without thought or care of our own; to say nothing of its public buildings, its scientific institutions, its busy streets, with their many shows both by night and by day, would seem enough to satisfy in the way of amusement the most exacting demands that could be made upon it; it is yet doubtful whether the two sights which depend on nature alone do not offer more general attraction than all that art and the busy brain of man has devised for our solace and entertainment. The Zoological Gardens, that ark of modern times; and the Royal Gardens at Kew, the emporium of the vegetable

kingdom, offer fields of attraction so wide and various, that the most capricious taste will find something to interest it therein. The rarest specimens of nature, animate and inanimate, are there congregated together, from the four quarters of the globe, to satisfy our curiosity; and few, we think, will be found among us that will not readily admit that for once the reality of enjoyment has exceeded the pleasure of anticipation.

The Gardens of Kew have long been familiar to the minds of the British public as somehow connected with Queen Charlotte and the younger members of the family of George III. The Pagoda, a veritable copy of the one at Nankin, has lifted its time-honoured head in view of a third generation, and served as a landmark to the tourist threading the mazy windings of the Thames. Until late years, however, the Gardens maintained a reputation rather venerable from their antiquity than as possessing any extraordinary

interest of their own. A few ardent lovers of botanical research, chiefly in private stations, became its principal benefactors. By their liberality were the stoves and greenhouses principally furnished or replenished; and thus, whilst enjoying some reputation in virtue of their origin and professed object, they existed to the general public as a sealed book, whose pages were only to be scanned by the learned and initiated.

Within the last ten years, however, a very striking and agreeable change has taken place within their walls. The late King William IV. cherishing pleasant reminiscences of his early youth as connected with them, bestowed a grant of land and a handsome greenhouse upon them. But it was not until the accession of her present Majesty that much has been done towards their substantial renovation. At an early period of her reign the general wishes of the country became known that the Gardens should either be dispensed with altogether, or be maintained on a footing worthy a great nation. This call on Parliament was liberally responded to; the Queen added to the grant conceded by her predecessor; a new infusion of spirit became visible; and a liberal vote of money enabled the director to carry out plans already matured for their benefit. The old and unsightly edifices that had existed for a century gave place to buildings raised with all the skill that modern science has made available in useful and ornamental architecture. Their vegetable stores were enriched by modern discoveries; and finally, we have now within ten miles of London the finest and best-furnished arboretum and botanical garden in the world.

These alterations and improvements, sanctioned by the public, redounded eventually to their own benefit. These stately Gardens are no longer restricted to the enjoyment of any privileged order. A decent appearance and quiet demeanour are the only passports needful. During the summer months, for six hours in the day, its gates are open alike to the rich and the poor: all are free to come and to go without let or hindrance, without fee or reward.

On a spot where so much that is attractive presents itself, it seems rather a

question, on our entrance, which way we should direct our steps; but happily we cannot go far wrong, where every plot of earth has something attractive to exhibit. The most determined sight-seer cannot hope even to glance at the hundred and fifty thousand specimens of plants that are enclosed within the walls; we must be content, therefore, to notice what appears most noticeable in a casual survey, leaving it to future visits to gain an insight into the inexhaustible treasures that are spread out around us on every side.

The trees alone, ordinary and extraordinary, that form the rich *bosquets* that stud the smooth greensward, would be a study of themselves; but we are in a land of strangers, and to them we must chiefly direct our attention. The "architectural greenhouse," the gift of the late King, on the right, as we enter the grounds, contains foreigners, from New Holland, Australia, and the Cape: grey tinted, with zig-zag leaves, how strange is their appearance. As we proceed, our steps are detained by the sight of a group of pine-trees planted in tubs, presenting a sight of surpassing beauty. Never before were collected together three pines of such remarkable attractions. They are of different species, but all lovely; the first, the *Araucaria excelsa*, well deserves the priority claimed by its name. Its feathery branches swaying in the wind, almost vie with the plume of the ostrich. Another, scarcely less attractive, grows beside it; and the Bedwill pine (named after its discoverer) is the third; this last, by the way, bears cones as large as a child's head, but of the form of the pine-apple without its crown: its seeds, of the size and flavour of the chestnut, are used at desert in South America, and as common food by the native Australian.

Though impatient to reach the Palm-house, already in view, we cannot pass that venerable cedar without a glance of sympathy; itself a wreck, it seems difficult to believe that England now possesses more of this stately fir than all the range of Lebanon put together. "How are the mighty fallen and the lowly exalted," when the isles of the West are thus honoured, and the land of the East is become bare of the tree whose very presence once gave that land renown.

As a specimen of the freaks of nature to be seen in the Gardens, we may notice a very rare tree from a land with which we are as little familiar. It is a native of Japan, with a tall, taper stem, and looks as regularly and perfectly twisted as the horn of the narwhal, but without even a name to distinguish it. But we must linger no longer by the way to admire the young avenue of *Deodars*, or the beautiful groups of shrubs and flowers that present themselves on either side; for the Palm-house is too near and too attractive not to demand our undivided attention. To most of our London readers this beautiful glass structure is probably well known. To those in the country a brief description may be acceptable. It comprises an area of three hundred and sixty-two feet in length; the centre is a hundred feet wide, and sixty-six feet in height; with wings fifty feet in length, and thirty feet high. It is covered with an extent of glass (slightly tinted with green to temper the rays of the sun), of no less than fifty-four thousand feet; and is, without question, the most elegant building of its kind extant.

This beautiful structure is warmed by water, so disposed in pipes that almost any degree of heat may be generated; but during the three years in which it has been in operation it has never been found necessary to use the full force at command. In the sharpest days of winter, eleven furnaces have been lighted to raise the temperature to the point required by its delicate inmates. In the months of July and August four fires have been found sufficient; and it is possible that, like other tropical plants, its inhabitants may eventually be found to possess an innate capacity of living and flourishing in a temperature below their natural one. Such power of adaptation has been found to exist in the tea-shrub of China; and in the Gardens may be seen specimens of both the black and the green tea growing in the open air. Nor must we omit to call attention to another Chinese plant for which these Gardens are renowned. At the end of one of the stoves is to be seen the Tree-Peony of China—the showy and delicate *Moutan*, originally introduced into this country by Sir Joseph Banks, and which is said to be the parent of all the *Moutans* in Europe. Who would think that a single shrub should have been the means of disseminating upwards of a hundred thousand pounds among the various nursery-men at home and abroad? But such is the fact.

However beautiful the Palm-house may be in itself, its contents will be found at least worthy of the shrine. We live in a wonderful age, when these gigantic children of the sun can be induced to live and flourish amongst us, not in a dwarfish decrepitude, but stately and vigorously, as though they determined to forget their native land, and even in exile to maintain the character that Linnaeus assigned them, as princes of the vegetable kingdom.

And who can look upon the various specimens before us nor feel that of the two hundred thousand plants that science has drilled into species and ranked into orders, Nature herself has stamped on the Palms the sovereignty of their kind? Adorning every quarter of the globe, they seem to demand the homage of every nation and people. Europe, however, can boast of only two specimens of the tribe growing spontaneously within it. Spain, Portugal, and Italy are the countries thus favoured with the Dwarf Fan-Palm and a species of the date, and which are supposed to have been originally derived from the sands of Africa, where they abound. It is a fact rather remarkable that in the time of Linnaeus only fifteen species of this beautiful tree were known; we now number four hundred and forty, and it is considered probable that not less than a thousand varieties will eventually be discovered to exist.

The view on the preceding page is taken from the top of the staircase, a point admirably adapted to enable the spectator to see the trees from above, as well as for the purpose of airing and watering them. It will afford a general idea of the effect, but what picture can do justice to the exquisite foliage exhibited on all sides? The two loftiest palms represented in the plate, are different kinds of cocoa-nut. The one, *Cocos plumosa*, is an old inhabitant of the Gardens.

The other, *Cocos coronata*, a remarkably fine tree, was the gift of Sir George Staunton; and, notwithstanding its great size, was actually transported by rail-road from Leigh Park, Hampshire: how much care and anxiety this precious freight occasioned to all connected with it, can be easily imagined. The two stoutest palms in the collection are the West Indian Fan-palms, with fan-shaped leaves: these are considered very fine specimens, weighing, with the earth and tubs in which they are planted, not less than seventeen tons each! Another, *Caryota urens*, bears a leaf much divided, each leaflet of which resembles in form the fin of a fish.

Among the most interesting species in the collection is the Date-Palm of commerce and of Scripture. This family is about thirty years in coming to maturity; it remains about seventy years in its prime, and then decays. Thus, as the Arabs say, "it lives three lives," or generations. Its fruit grows in clusters, from the trunk of the tree, between the leaves. In a good season, a vigorous plant will produce from fifteen to twenty of these clusters, each weighing about as many pounds. Burchard states that he was told that one hundred different varieties grew in the immediate neighbourhood of Medina. Dates intended for commerce are not allowed to attain to full maturity; and it is a saying among the Arabs, that a good housewife may produce a dish of dates differently dressed every day for a month. Even the stones of this fruit are famous, as furnishing (when soaked) food for camels, cows, and sheep.

The most difficult Palm to rear is said to be one of the most useful—the Guinea Oil-Palm, from which the well-known African palm-oil is extracted; and the common Cocoa-nut, of which the various uses are said to be as numerous as the days in the year; producing for the native inhabitants of its clime bread-fruit, milk, oil, wine or toddy, wood, fibre, &c. Then there is the Cabbage-Palm, distinguished for its single crown; and the Palm with the unpronounceable name given it by Dr. Willich, with its remarkable stem, the spines being united like the fingers of the hand, and possessing a foliage quite unmatched. Its leaves, when full-grown and expanded, are so long as to seem to need support, and are actually supplied by nature with hooks, by means of which they attach themselves to other trees, to sustain their weight. There is also the Wild Date-Palm;

Cut by the Indian for its juicy balm.

The beautiful Ivory-Palm from New Granada finds a home here also. It is remarkable that its nuts (known as vegetable ivory) possess a hardness exceeding that of the tusk of the elephant; which yet soften in water, and are again hardened when dried. They are used for such ornamental carvings as their size will admit of. The Wax-Palm is not less remarkable for its leaves than for its singular trunk; it grows from the earth on myriads of separate stems, scarcely thicker than a willow wand; but which, at a distance from the ground, unite themselves to form a massive pillar, with cross-bars at equal distances, formed by the falling of their leaves, which we know to have extended to twenty feet in length. A recent traveller asserts that, in their native wilds, he has seen monkeys gambolling together between the various roots that support this noble tree! In the Andes of New Granada it is covered with a substance like wax, from which it derives its name.

Before we conclude this brief sketch of some of the Palm tribe now before us, we may, perhaps, mention that science has discovered their remains among us in the wealden strata of Tilgate Forest. Nor are they confined to this locality alone. In the Isle of Sheppey, composed entirely of what is called London clay, no less than thirteen species have been discovered, with upwards of a hundred varieties of its fruits. The quantity of both animal and vegetable remains that have recently been discovered, of a tropical character, leads to the supposition that our climate must have undergone great changes, as the perfect state of preservation in which they are found, together with their numbers, hardly admit of a supposition that they were transported from any great distance before they found their final resting-place among us.

Bandanas and plantains may always be seen here in their various stages of flowers or fruits, towering over the lesser trees: even in this country they have borne clusters of fruit weighing eighty pounds. The grass-like sugar-cane and the papyrus of the ancients flourish side by side: the tall, triangular reed-like stem of the latter plant is of peculiar interest when we reflect that from the pith of a similar plant was made the paper on which the MSS. found in Herculaneum and Pompeii were written. The bamboo is here, also, in its natural form, and not as we are accustomed to see it; the mango, with its rich fruit depending from the end of its stalk; the bread-fruit of the Pacific Islands; the chocolate-tree, putting forth its flowers from its trunk; the coffee-shrub, the nutmeg-tree, the pepper-plant, with a hundred others, all are to be seen in their native guise, ere the hand of man has prepared their fruits or seeds to satisfy his necessity or his luxury.

Young plants of the banyan-tree of India, with a vast variety of the fig species, are not the least interesting. The sycamore of Scripture of the latter tribe, whose wood formed the mummy-cases of the Egyptians, and was once believed to be indestructible, is worthy of notice. The poison-tree of Madagascar, and the upas-tree of Java, of evil repute, grow *vis-à-vis* with the Patchouli, of fashionable notoriety. But we have not space even to name a title of the vegetable wonders which the Palm-house contains. We cannot, however, conclude this brief notice without mentioning the gum-dragon-tree, of which tradition relates that this individual specimen was venerated by the Guanches (the aborigines of Tenerife). It is supposed that, in 1400, it was large and hollow, as it is now. Its age is said to be incalculable. This species of tree, with the boadab, is supposed to be the oldest inhabitants of our planet; and, as such, is, perhaps, the most wonderful, though by no means the most attractive of its race, to be seen within the precincts of the Palm-house at Kew.