

Bamboos.

A VIEW of the entrance of the Botanic Garden at Peradenia, in the Island of Ceylon, appeared in one of the early numbers of the first volume of GARDEN AND FOREST. Among the most striking features of this garden are the clumps of giant Grasses which serve to illustrate the present issue. The one in which the base only of the stems appear is the great Bamboo of Penang (*Dendrocalamus giganteus*), of which the shoots, eight or nine inches through at the base, attain a height of a hundred feet. The second illustration represents a clump of the Java *Gigantochloa atter*, a plant hardly less stately than the last. Ernst Hackel, in his "Visit to Ceylon," thus describes the striking appearance of these plants: "If on entering the garden we turn to the left towards the river (the Mahavili) and follow its beautiful banks, we see from afar enormous green thickets of Bamboo, more than a hundred feet high, and as many wide, bending their mighty crowns like huge waving plumes of some giant's helmet over the river and the path, bestowing shade and coolness on both. As we go nearer we see that each of these bushes consists of several—often sixty to eighty—tall, cylindrical stems, each from one to two feet thick. They grow closely crowded together, like the creeping stems of a Rush." The rapidity of the growth of the stems is astonishing. They appear during the rainy season—that is, during the months of June and July—and are said to grow sometimes at the rate of a foot in every twenty-four hours.

The Bamboos, of which some 180 species, divided among eighteen genera, are now known, are widely and generally distributed through the tropics of both hemispheres. A single species (*Bambusa vulgaris*) is cosmopolitan, being found in both the old and new worlds, although General Munro, the author of the classical monograph of these plants, was uncertain if it was known anywhere in a truly wild state. Some genera are strictly American and others are found in the East only. *Arundinaria*, which furnishes the only Bamboo which grows spontaneously within the limits of the United States, is represented in both hemispheres, reaching to great elevations in the Himalayas, while a representative of an allied genus, *Chusquea*, first makes its appearance at an elevation of 13,000 feet in the Andes, and 2,000 feet higher

completely covers the surface with thickets impenetrable to man or beast.

The berry-bearing Bamboos, of which there are eight genera, are all found in the East; three of the species are found in Madagascar, one (*Schizostachyum parvifolium*) is described by Ellis in his account of that island, as "an elegant, slender creeper, with a stem scarcely as thick as a quill, growing nine to ten feet long, and hanging in most elegant festoons from tree to tree alongside of the roads."

No native Bamboo occurs in Europe, while from the whole of the vast continent of Africa only one native species is known. Bamboos are found widely distributed through southern China, in Japan, the Philippine and Fiji Islands, and one species occurs in the Sandwich Island group. The largest of the whole tribe, *Bambusa Brandisi*, a native of the hill districts of India, attains a height of 120 feet, with stems nine inches in diameter.

No group of plants, not even the Palms, is more useful to man than the Bamboos. They supply food and raiment and shelter to millions of people. The young shoots and the seeds furnish food to man, and the leaves fodder for domestic animals. The stems are used for building purposes and the leaves for mats and cordage; paper is made from the leaves, and furniture and almost everything else, where wood can be used, from the stems. The whole industrial fabric of the East is dependent upon these great Grasses, and it is impossible to think of a Chinaman or a Malay, without associating with him, in some form or another, the Bamboo.

The arborescent species have long been familiar ornaments in all tropical gardens; and, as our illustrations show, no plants of the north possess their stately grace and beauty. A good deal of attention has been paid in late years to the cultivation of some of the smaller species, of which several have proved hardy in the more temperate parts of Europe. Some of these are highly valued as ornamental plants, and their general introduction and cultivation in the gardens of southern Europe is one of the interesting events of modern horticultural progress. These dwarf Bamboos are not yet very well known in this country, although the climate of the Southern States is admirably suited to them, and there are several species which can be grown in California, with the aid of irrigation. There is at least one species, although unfortunately of dwarf and not very attractive habit, which is hardy in New England, *Arundinaria Japonica* (the *Bambusa Metake* of most gardens), and there are probably six or eight more, natives of Japan, China and the Himalayas, which can be grown in the more temperate parts of this country. None of them have stems which exceed, under the most favorable conditions, a height of twenty feet, so that while they may serve to add grace and charm to any garden, and to recall the vegetation of the tropics, they can give but a very faint idea of the veritable giants of the race, which can be seen in all the splendor of their beauty in the tropics themselves only.
