

cultivated ground. It is pronounced hardy in England by Mitford, and a valuable acquisition. In habit it is caespitose, and its clumps are tall and closely set with the culms. Its broad leaves give it a very decorative appearance, individual leaves being as much as 11 inches long by 1 $\frac{3}{4}$  inches broad. It is sometimes used as a hedge plant in Japan, and its wood finds uses in the manufacture of tea sieves, baskets, etc. In general appearance it is quite unlike the ordinary bamboos, most of the leaves being borne only on the upper portion of the culms." (*Fairchild.*)

**9045. PHYLLOSTACHYS MITIS.**

**Bamboo.**

From Yokohama, Japan. Received through Messrs. Lathrop and Fairchild (No. 987, July 29, 1902), November, 1902.

*Moso-chiku* or *Mouso-chiku*. "Plants of the edible bamboo of Japan. This variety, which Japanese historians say was introduced into Japan from China a century and a half ago, is not the species best suited for timber purposes, although the largest in size of any of the hardy sorts in Japan. Its culms are sold, it is true, and used in the manufacture of dippers, pots, vases, water troughs, etc., but the wood is softer and more brittle than that of the *Mudake*, No. 9046. As a vegetable it is cultivated in small forests near the principal cities, and is given great care. Its young, tender shoots, like giant asparagus shoots, form one of the favorite spring vegetables of all classes in Japan. European and American residents in Japan are, many of them, fond of this vegetable, some even being passionately so. Its cultivation for the purpose of shoot production, therefore, is alone worthy the consideration of truck growers in the extreme South. A market can probably be created for the shoots as soon as a large enough supply can be insured to make the effort worth while. On the other hand, the value of the culms for use in fence making, basket making, and the production of a host of farm and garden conveniences, makes it worth a place in the back yard of every farmer in those regions suited to its growth. It is one of the hardy sorts, and so far as beauty is concerned it is, according to Mitford, 'the noblest of all the bamboos generally cultivated in England.' The severe winter of 1895 in England cut the culms down to the ground, but during that season the thermometer dropped below zero Fahrenheit. Even after this severe freeze the roots remained alive. It is not to be expected that this form will attain so large dimensions in the colder, drier climate of America, but the size of the culms of bamboos depends so much upon the richness of the soil and the methods of culture that, with proper nourishment, there is no reason why large-sized culms, over 2 inches in diameter, should not be produced in America. I have measured a shoot in Japan which was 1 foot 7 $\frac{3}{4}$  inches in circumference, and there are records of culms nearly 3 feet in circumference. These large culms were over 40 feet in height. A forest of these large bamboos forms one of the most beautiful sights in the world. In planting for its edible shoots about 120 plants are set out to the acre, but if for forest purposes at least 200 plants should be used. The balls of earth and roots should be more carefully set than those of deciduous trees, as the rhizomes, if injured, stop growing, and the spreading of the plant is checked. The fibrous roots are very brittle after planting and a heavy mulch of straw and loose earth should be kept on the field, so that the surface soil will not dry out. A sheltered situation is essential to the growth of this species, and rich, alluvial soil is what it likes best. Standing water beneath the soil kills it, and much gravel prevents its rapidly spreading. A sufficient number should be planted in a clump to enable the young plants, after a few years, to effectually shade the ground, otherwise, no tall, straight culms will be produced. Judicious thinning out of the small shoots, while still young, tends to make the plant produce larger culms." (*Fairchild.*)

**9046. PHYLLOSTACHYS QUILLOI.**

**Bamboo.**

From Yokohama, Japan. Received through Messrs. Lathrop and Fairchild (No. 988, July 29, 1902), November, 1902.

*Mudake*. "This is the great timber-producing bamboo of Japan. It is grown in large plantations or forests near the large cities of Japan, and its culture is said to be among the most profitable of any plant culture in the country. There are extensive wild forests south of Kobe, but the finest culms come from the cultivated forests; these culms are more regular in size and of better shape. The wood of this species is said to be superior in elasticity and durability to either that of the *Moso*, No. 9045, or *Hachiku*, No. 9047. Its extensive uses are too numerous to mention, for they would form a list as long as that of an enumeration of the uses of the white pine in America. The cultivation of this bamboo is not a difficult one, and forests of it should be started in all regions having a suitable climate. The species is one of the