

45554 to 45557—Continued.

bacterial nodule-bearing leaves occur in many parts of the Tropics and that in India, at least, the value of their leaves for manure has long been recognized, and considering the value of nitrogen-fixing legumes as fertilizers, the suggestion of Faber that we may have in these tropical trees and shrubs plants of positive agricultural value for the tropical planter is well worthy of consideration. The value of the mulch formed by the leaves of leguminous and other plants is keenly appreciated by the best cultivators, and it may be possible to find suitable small shrubs of Pavetta or other rubiaceous plants which will be worth while growing for their nitrogen-fixing leaf bacteria in the orchards of our semi-tropics or wherever else the climate will permit of their cultivation." (*Fairchild.*)

45555. MACROZANONIA MACROCARPA (Blume) Cogn. Cucurbitaceæ.
(*Zanonia macrocarpa* Blume.)

"This is one of the most remarkable climbing vines or lianas of Java; remarkable because of the size of the fruits, which are as large as medium-sized pumpkins and are borne high in the tops of the forest trees. As the fruits ripen they open at the bottom, and through the triangular opening the great winged seeds fall out and, like flocks of aeroplanes, sail away in a most spectacular manner. No seed that I know of illustrates more perfectly the principles of the aeroplane than the seeds of this plant; and if for no other purpose than that of instructing the youth in our schools with regard to the principles of seed dissemination, this interesting plant is worthy of cultivation in our own tropical regions. It should be experimented with in Porto Rico and Hawaii; and it might succeed in the hammocks of Florida." (*Fairchild.*)

45556. MANGIFERA ODORATA Griffith. Anacardiaceæ.

"A large tree from Malacca, Java, and probably other islands in that region, where it is known as *kuwini*. The leaves are about the size of those of the common mango; like the latter, the flower possesses but one or, at most, two fertile stamens. The fruit is described by Griffith as oblong, yellow-green with yellow spots, ill-smelling, and filled with sticky gum; flesh yellow, fibrous, sweet, not turpentine; stone compressed, fibrous. This species of *Mangifera* is little known in horticulture and seems nowhere to be held in great esteem as a fruit. It is of interest in connection with studies of the cultivated mangos." (*Wilson Popenoe.*)

45557. CEIBA PENTANDRA (L.) Gaertn. Bombacaceæ. **Kapok.**
(*Eriodendron anfractuosum* DC.)

A moderate-sized, quick-growing, upright thornless tree, indigenous to tropical Asia and Africa. A striking peculiarity is the manner in which the branches stretch out horizontally in whorls at right angles to the stem. Around the base of the tree are produced thin buttresses or flanges which sometimes extend for 30 feet or more from the base. The tree is deciduous in the dry season, January to April, the greenish white flowers being produced in clusters shortly after the leaves have dropped; the fruit pods which follow are ripe about three months later. The latter contain a quantity of silky cotton (kapok), and when ripe burst open and disperse their contents. The pods should therefore be collected before they are quite dry and then dried in the sun. Kapok