to 50 feet high and 1½ to 3 inches in diameter. Reported to have a wide range in Africa. This species has a very different appearance from the remainder of the genus, but the structure of the spiculae in all the species is very similar. For technical description see Colonel Munro's Monograph of the Bambusaceae, in the Transactions of the Linnean Society, London, Vol. 26, p. 127, 1870.

Paulownia duclouxii Dode. (Scrophulariaceae.) 42693. Plants from Paris, France. Purchased from Messrs. Vilmorin-Andrieux & Company. A recently introduced tree from Yunnan, China, differing from the common Paulownia in its white flowers, slightly rosy, and without spots. Flowers at the end of winter before the leaves appear.

Pavetta zimmermanniana Valet. (Rubiaceae.) 42767. Seeds from Buitenzorg, Java. Presented by Dr. J. C. Koningsberger, Director Botanic Gardens. A small rubiaceous tree or shrub, with opposite, nearly elliptic leaves and clusters of small, slender-tubed white flowers. "The remarkable researches of Zimmerman and Faber detailed in the Jahrbücher für wissenschaftliche Botanik, vol. 51, p. 285, 1912, and vol. 54, p. 243, 1914, make this species of unusual interest. Faber has proven that the leaves of this species of Pavetta and of several others of this genus as well as of the genus Psychotria and possibly other genera of the Rubiaceae contain colonies of a nitrogen-fixing bacteria which he names *Myco-bacterium rubiacearum*. The bacteria of this species inhabit almost invariably the micropyle of the young seed and when it germinates, although not a motile form, grow through certain stomata of the very young leaves and into the intracellular spaces formed by the leaf tissues around these stomata. Reacting one on the other, there are formed through the growth of the epidermis cells cavities which later close entirely and make bacterial knots which are deeply imbedded in the leaf tissues. A single leaf may have several dozen of these symbiotic bacterial knots. Faber was able by treating the seeds with hot water and sublimate solution to kill the inhabiting myco-bacteria and later infect part of the seedlings grown from their seeds with pure cultures of the bacterium. The artifically infected seedlings grown in soil free from combined nitrogen grew well and remained healthy for four months whereas those