



BOTANIST'S CORNER

by Larry Mellichamp

Botanical History of CP III: *Nepenthes*

Nepenthes! What extraordinary plants. How the first naturalist to see them must have marveled at their beauty and been intrigued by their unique pitchers. The fact that many of them grow in the un-accessible remoteness of Borneo — where stories of cannibals and fear of the unknown threatened every 19th century expedition to procure them — just made them appear that much more exotic and mysterious when brought back to civilization for the first time at Kew Gardens in London.

The year was 1789 when *N. phyllamphora* (now known as *N. mirabilis*), the most widely distributed species (and therefore perhaps the most tolerable of a range of culture conditions) was first cultivated at Kew. Prior to this time attempts at cultivation were generally unsuccessful, due probably to a lack of knowledge of the natural growing conditions and the primitive state of the art of greenhouse construction and management. After 1830, however, the level of technology became such that there was literally a boom in *Nepenthes* culture. Many new species were introduced and successfully grown, seeds could be germinated; and hybridization began which was to continue at an unprecedented rate for the next 100 years producing some of our most magnificent and easily-grown specimens.

Let us go back for a moment and consider the origin of the generic name "Nepenthes." (The first *Nepenthes* was actually discovered on Madagascar in 1658 and named *Amramitico*, a name which did not stick.) The name "Nepenthes"

comes from the Greek and means literally "without care." Linnaeus named the genus officially in 1753 in allusion to the story in Homer's *Odyssey* where Helen mixed the wine with the drug *Nepenthe* so that by drinking it, man would be freed from care and grief. Linnaeus expressed the feeling that some travelers have experienced since when he wrote:

"If this is not Helen's *Nepenthes*, it certainly will be for all botanists. What botanist would not be filled with admiration, if after a long journey he should find this wonderful plant? In his astonishment past ills would be forgotten when beholding this admirable work of the Creator."

In addition, I found the following poem in an 1849 issue of the *Gardener's Chronicle*, a very famous British weekly horticultural newspaper:

"Botanists call these plants *Nepenthes*

Not that *Nepenthe* rare

When as Don Homer sings high pleasures grew,

And sweet oblivion of all earthly care,
Fair gladsome waking thoughts,

And joyous dreams more fare."

I think we would have to agree that the sight of these marvelous plants would cause us mild shock and awe; and there is certainly the possibility that we might be lightly drugged if we indeed drank of the liquid in the pitchers. (See article by Paul Zahl, *National Geographic*, 1964, pp 680-701).

While the 300 year history of *Nepenthes* is quite varied and involves many personalities, when considering the 19th

century "Golden Age" of *Nepenthes* in England, three famous personalities stand out and seem to appear constantly in the literature. These are Sir Joseph Dalton Hooker of Kew Gardens, Harry James Veitch of Veitch & Sons nursery, and Maxwell Tylden Masters, botanist.

Sir Joseph Hooker, and his father, Sir William Jackson Hooker, were intricately linked with the establishment and early success of London's famous Kew Gardens (officially called the Royal Botanic Gardens at Kew). Kew Gardens began in the early 1700's as a small royal estate belonging to British nobility. In 1759 nine acres were set aside as a botanic garden. In 1772, King George III (of Revolutionary War fame) inherited the estate and in subsequent years this private garden built up a rich array of new and exotic plants sent by collectors from all over the world. After 1820, however, the garden fell into disuse, its purpose was ill defined, and the government was concerned as to what to do about it. Then in 1841 Sir William Hooker, who had spent 20 years developing the Royal Botanic Garden at Glasgow, was appointed director. It was his idea to build Kew into *the* national center for botanical and horticultural research and make it the finest institution of its kind in the world — which he did. He added hundreds of acres to the property, built new greenhouses, and hired capable gardeners.

Thus the setting for the large palm house (200 feet long and 40 ft. high) and numerous other display greenhouses amidst the richly landscaped terrain which we see today was begun in the mid-1800's.

J. D. Hooker took over as director in 1865, continuing his father's excellence in making Kew a luxurious garden whose vast collections of living plants, both under glass and in the open, were made available for public display and horticultural research. In addition to being deep-

ly involved with Kew — he actually designed garden layouts and led tours around the grounds — he became famous as a botanist and world traveler. He wrote many books and papers concerning the plants encountered on his travels.

Charles Darwin, a lifelong friend of Hooker, recognized him as a great influence on the development of his ideas on nature and evolution.

Nepenthes were one of Hooker's favorite groups of plants, he being the first botanist to describe in detail the unusual nature of the development of the pitcher-leaf. Hooker also wrote the first comprehensive monograph on the genus in 1873 in which he recognized some 33 distinct species. Sir Joseph is commemorated by the species name *Nepenthes hookeriana* and the hybrid *N. X hookerae* (*N. rafflesiana* X *N. mirabilis*). In 1896 a new *Nepenthes* house was built at Kew and at that time contained the following species and hybrids (list as appeared in Kew Bulletin, 1897, page 405):

SPECIES

- Nepenthes* albomarginata (Singapore)
 ampullaria (Malaya)
 bicalcarata (Borneo)
 burkei (Borneo)
 — var. excellens
 cincta (Borneo)
 curtisii (Borneo)
 — var. supurba
 distillatoria (Ceylon)
 gracilis (Borneo)
 hirsuta (Borneo)
 kennedyana (Australia)
 laevis (Malaya)
 northiana (Borneo)
 obrieniana (Borneo)
 pervillei (Seychelles)
 phyllamphora (Cochin China)
 rafflesiana (India)
 — var. elongata
 — var. hookeriana
 sanguinea (Malaya)
 stenophylla (Borneo)
 veitchii (Borneo)

HYBRIDS

- Nepenthes* X amesiana
 atrosanguinea

chelsoni
 coccinea
 cylindrica
 dicksoniana
 dominii
 edinensis
 formosa
 henryana
 hookerae
 intermedia
 mastersiana
 — var. *purpurea*
 mixta
 morganae
 ratcliffiana
 rufescens
 stewartii
 sedeni
 — var. *rubra*

Harry James Veitch was born in 1840 at Exeter, England and died in 1924. In 1858 he joined his father, James Veitch, in conducting a nursery business at Chelsea which was probably the most famous in the world until it came to an end with J. H. Veitch's (his nephew) retirement in 1914. No one in English horticulture has ever equalled the career of Sir Harry Veitch in combined length, activity, and importance. (The closest in America today would probably be someone like David Burpee, of Burpee Seed Co.) From the beginning a very close relationship existed between the Hookers of Kew and the establishment of the "Messrs. Veitch", as the family nursery (J. H. Veitch & Sons) was frequently referred to in literature of the day. The Messrs. Veitch were directly associated with much of the exploration and importation of new and rare plants during the mid- to late 1800's. Sir Harry himself often made the collecting trips; on other occasions the nursery sent its own chosen collectors. They were also well-known for their ability to cultivate the many wondrous plants brought back from the tropics in their heated greenhouses, or "stoves" as they were called. Much trading was done between the Veitch nursery and Kew Gardens, and it would be safe to say that the Messrs. Veitch were responsible for

the outstanding *Nepenthes* collection at Kew. They were the most prominent firm involved in early growing and hybridizing of *Nepenthes*, Orchids, Amaryllis, Rhododendrons, and Begonias. The first *Nepenthes* hybrids were produced at the Veitch nursery about 1860 by Dominy.

Two literary works were published while Sir Harry was head of the firm: "The Manual of Coniferae" (1881) and "The Manual of Orchidaceous Plants" (1887-94) — a classic in its field. The fact that Sir Harry and his associates personally visited the habitats and studied the plants made it possible for them to grow them so well and to write so authoritatively on their subjects. The pages of the *Gardener's Chronicle* during the latter half of the 19th century were never without some reference to the Messrs. Veitch, and almost every issue depicted some new and interesting *Nepenthes* species or hybrid which they were making available to gardens and individual growers (wealthy ones, of course).

The careers of James H. Veitch and Sons is recorded in a handsome book, *Hortus Veitchii* (literally "plants cultivated by Veitch") published in 1906. It related the history of their travels, collections, and successes in cultivating rare plants. The name Veitch is commemorated in *Nepenthes veitchii*.

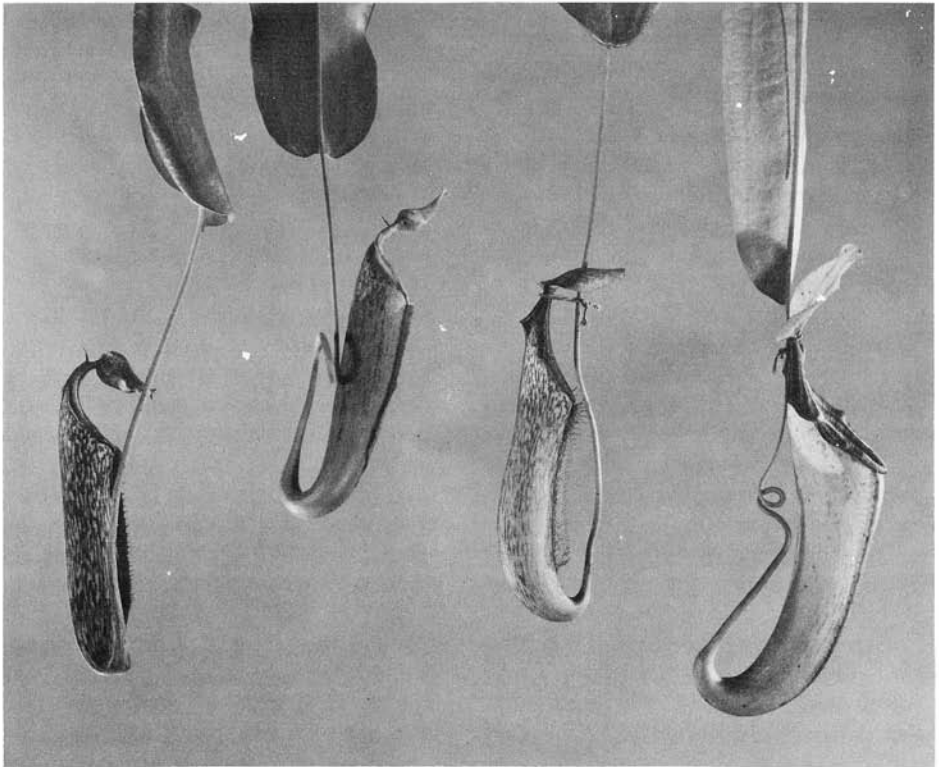
Dr. M. T. Masters (1833-1907) was a botanist of some importance in the late 1800's. He was educated first as a medical doctor, as was not uncommon for early botanists, but is best known for his numerous botanical and horticultural writings during his years at Kew Gardens. He became editor of the prominent *Gardener's Chronicle* in 1865 and his name appears often in it for contributed articles. His favorite groups of plants included *Nepenthes* and *Sarracenia*. While not prominent as an explorer or cultivator of

pitcher plants, he was most active during the time when interest in these plants was at its peak and much hybridizing was being done in both *Nepenthes* and *Sarracenia*. He certainly aided in describing, recording, and publicizing much of the important information about these plants. He is commemorated by the hybrid *N. x mastersiana* (*N. sanguinea* X *N. khasiana*).

Another very important personality associated closely with the pitcher-leaved carnivorous plants around the turn of the century was John M. Macfarlane. He has certainly not been forgotten; indeed, his life and achievements warrant a separate article at a later date.

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Nepenthes maxima: Basal (left), Climbing (right)

Nepenthes superba: Basal (left), Climbing (right)

Longwood Gardens Photograph.