



M.S. del. J.N. Fitch lith.

Vincent Brooks Day & Son Imp.

BEGONIA UMBRACULIFERA.

Native of Brazil.

Nat. Ord. BEGONIACEÆ.

Genus BEGONIA, Linn.; (*Benth. & Hook. f. Gen. Plant. vol. i. p. 841.*)

BEGONIA umbraculifera; caulibus elatis robustis indivis, foliis apicem versus caulis alternis distichis longe petiolatis reniformibus v. orbicularibus et peltatis denticulatis, stipulis magnis ovatis caducis, cymis supra-alaribus dichotomo-multifidis, pedunculis valde elongatis basi internodio confluentibus, floribus polygamo-monoicis; *fl. masc.* sepalis 2 orbicularibus, andræcio compresso, antheris filamentis liberis longioribus; *fl. fem.* sepalis 5 ovatis 2 extimis majoribus, ovario 3-loculari, placentis integris, stylis 3 brevibus liberis, stigmatibus reniformi-2-lobis undique papillois, capsula æqualiter 3-alata; *fl. hermaph.* perianthio stylis stigmatibusque *fl. fem.*, similibus staminibus basi v. superficie ovarii 2-5-locularis sine ordine insertis.

A very remarkable plant in habit, and the second only (in so far as is known to me) of the vast genus to which it belongs, in which hermaphrodite flowers have been observed. The other is *B. frigida*, A.DC.* (Tab. 5760), also a native of Brazil, in which the ovary of the fem. fl. is inferior, and 3-4 quetrous, but that of the hermaphrodite fl. consists of 3-4 free superior carpels, surrounded by a few hypogynous stamens.

I have sought in vain amongst the sections of the genus established by A. De Candolle in the Prodrômus, for one under which this singular plant should be placed; and I have compared it, also in vain, with all the drawings and descriptions to which I have access, in search of any species of similar habit, namely, as having a perfectly simple, stout, erect stem, with few distant distichous reniform orbicular peltate fleshy leaves, and very long-peduncled supra-axillary cymes, the peduncle of which is confluent at the base with the internode above it. Referring to the key to De Candolle's sections of the genus which I have given in "The Genera Plantarum," it falls into the last group of American ones, those with entire placentas and style-arms papillose all over, and amongst

* For observations on *B. frigida* see *Gard. Chron.* 1860, pp. 146 and 171; 1861, p. 1092, and Masters, *Vegetable Teratology*, pp. 199, 303.

these *Wageneria* is that into which may for the present be placed, though differing from that section in habit and foliage, and in having four male perianth-segments. In habit it approaches nearest to *B. dichotoma*, Jacq. Ic. t. 619.

Mr. Watson informs me that *B. umbraculifera* was imported amongst some Orchids from Brazil by Messrs. F. Sander & Co., from whom a plant was obtained in 1893, and that by far the greater majority of the flowers throughout the plant are male. It flowered in the "Begonia House" of the Royal Gardens in March, 1895.

Descr.—*Stems* six from the root, four feet high, quite simple, erect, half an inch in diameter, terete, smooth, pale brown, leafing towards the tip only, marked with narrow annular scars of fallen stipules. *Leaves* alternate, fleshy, four to six inches in diameter, lower reniform, upper peltate, obliquely orbicular, retuse, one side more or less produced into a broad, low auricle, bright pale green and glossy above, pale beneath, with eight to ten radiating nerves; margins obscurely denticulate. *Stipules* an inch long, green, caducous. *Cymes* large, supra axillary, dichotomously branched; peduncle many times longer than the petiole, confluent at the base with the internode above it, rose-colrd.; branches and short slender pedicels rose-red. *Flowers* crowded in small corymbs, chiefly male, with a few female and bisexual flowers. *Male fl.* one inch diam., ebracteate; sepals 2, orbicular, white; stamens about twenty, in a compressed bundle; anthers oblong, obtuse, longer than the quite free filaments; (very rarely an imperfect subglobose 2-celled inferior ovary is formed in the male fl.) *Fem. fl.* half an inch in diameter, bracteate; bracts subulate; sepals 5, ovate, two outer rather the largest; styles three, very short, stigmas hippocrepiform; ovary orbicular in outline, broadly equally 3-winged, wings rounded, 3-celled; placentas undivided. *Hermaph. fl.* sepals and stamens of the male, the latter surrounding and attached to the sides of a free two- to five-lobed ovary, with as many short, stout styles, and 2-3-lobed stigmas.—*J. D. H.*

Fig. A, Cyme of male flowers; B, of female and hermaphrodite flowers, both of the *nat. size*.—Fig. 1, Stamens of male fl.; 2, fem. fl.; 3, section of ovary of the same; 4, hermaphrod. fl. with sepals removed; 5, ovary from do.; 6, section of its ovary; *all enlarged*.—7, *reduced view of whole plant.*