

SECT. III.—(Platyspathæ.) *Scandentes. Petioli flagelliferi (an semper?). Spadices diffusi. Spathæ omnes per anthesin persistentes, planæ, vaginis parvis vel obsoletis.*
Species 27-30.

SECT. IV.—(Cymbospathæ.) *Scandentes vel erectæ. Petioli sæpius flagelliferi. Spadices contracti. Spathæ cymbiformes, rostratæ, diu persistentes, duæ externæ alias involventes, vaginis obsoletis.*

Species 31-38.

Dæmonorops. *Blume, Martius.*

SEC. V.?—*Ceratolobus Blume.*

Genus intricatum, imperfecte cognitum, characteribus auctorum plerumque inextricabilibus, forma partium fructificationis, Cymbospathis forsan exceptis, potius quam vegetationis meo sensu dividendum.

Limites ambigui: Sago appropinquat tribus viis per Calamosagum, Raphiam, et Zalaccam; Plectocomiæ per Cymbospathas?

Calamus secundiflorus, Pal. Beauv. Fl. d'Owar. Benin.* habitu, foliis Desmonci, floribus hermaphroditis, et statione geographica differt.

SEC. I.—(COLEOSPATHÆ).

* *Erectæ. Flagelli O.*

11. (1.) *C. castaneus*, (n. sp.) humilis, spinis petiolorum plurimis valde inæqualibus parum seriatis, pinnis æquidistantibus (plurimis) linearibus (long. bipedalibus lat. uncialibus) vena centrali superne dentato-setigera centrali et lateralibus utrinque inferne setigeris, spadicibus sæpius inermibus, mas-

* 1. p. 15. t. 9. 10.

cûlo supra-decomposito elongato apice pendulo-nutante fructûs quasi ambitu flabelliformi, calyce bracteam triplo-superante corollam subæquante, staminibus distinctis, floribus fæmineis conico-oblongis, fructibus rotundis vel oblongis (castaneo-rubris,) cuspidatis.

HAB.—In thick jungles about Malacca, as at Pringitt, Ayer Punnus (Rhim.) Sent by Emanuel Fernandez with the name Rotang Chochoor.

DESCR.*—A Palm with a short erect or decumbent stem, forming thick tufts. Diameter of stem with sheaths three inches. *Sheaths* rather short, highly armed with spines, disposed in very long lines, the longest spines nearly two inches in length. *Petioles* channelled rather high up, three to five feet long before they bear pinnæ, angular rounded, armed, especially on upper side, with stout, very unequal spines. Margins of channelled part densely armed with bristles, disposed in short oblique lines. Pinniferous part nine-ten feet long, convex, trigonal, the convex side armed with stout solitary distant spines pointing downwards, the upper angular part smooth, or armed about the middle with short teeth. *Pinnæ* very numerous, alternate, generally approximate, often nearly opposite, linear, two feet long, nine-ten lines broad, subulate-acuminate, above carinate by the prominent mid-vein, which bears bristles towards the point, below the bristles are confined to the central and a lateral vein on each side, in some the bristles are very long; margins cutting from appressed bristle-teeth; the apex which is strong, and very acuminate, hispid with bristles.

Spadices axillary, peduncle in one specimen armed, as are likewise some of the spathes slightly, but generally unarmed, concealed by spathes, much branched, the male decomposed. Spathes scarious, not much split, generally quite smooth; limbs erect.

* Specimens: entire of male plants, several portions of male and female spadices, and an entire ditto. in fruit.

Male spadix two-three feet long, branched, branches variously nutant or pendulous, slender. Flower bearing branches compound, spikes bifarious, lateral ones one inch long, terminal two-three inches, often scorpioid. Uppermost branches simple, or nearly so.

Male spikes much flattened, quite distichous, bracteæ highly imbricated, roundish-cordate, amplexent. Concealed inside is a cup with two evident teeth posticously, where it is also bicarinate from pressure. *Calyx* long, sub-cylindrical, angular slightly (from pressure), with three, rather short, half-ovate, acute teeth. *Corolla* a little longer than the calyx, divided below the middle into three linear-lanceolate, somewhat spreading segments. *Filaments* united to each other and to the corolla up to the base of its segments: free, as long as or longer than the petals, points introflexed in bud. *Anthers* linear, exerted. Rudiment of the pistillum large, oblong, of three abortive carpels.

Female spadix rather broader than long, (especially in fruit,) in length about one foot, in breadth one and a half foot. Flower bearing branches simple, about six inches long, rather stout. Spathes less imbricating, because more distant than in the male, larger and more leathery. *Flowers* solitary, each with two unequal amplexent bracteoles, the outer of which, from not being appressed to the inner, leaves on one side a small niche.

Calyx as in the male, but more cylindrical. *Corolla* scarcely longer than the calyx, of the same shape, divided below the middle into three linear-lanceolate, acute, erect segments. *Stamina* much developed, but included, and with effete anthers.

Ovary attenuate at base, where it is smooth, at the apex attenuated into a stout, cylindrical, rather long style, divided nearly to middle into three, spreading or recurved branches, very pappillose inside, scales small with irregular margins. *Ovula* lodged in the smooth base.

Fruit (immature) chocolate coloured, round or oblong, (seven lines long by five and half broad,) with a stout cuspis, the upper half of which is grey, one-celled. Scales small with pale edges, central furrows of scales much pronounced, and appearing to form as many continuous longitudinal furrows. Seed (very immature) plano-convex with a depression on the flat face; tegument black, fleshy.

Var. *A.*—Upper angle of the petiole armed with short thorns, fruit oblong.

B.—Upper angle of the petiole unarmed, fruit roundish.

This species appears to vary a good deal, both as regards the arming of the petiole, the male spadix, which is not always decomposed, and the fruit.

It may be at once known by the strong, very unequal, solitary spines of the petiole; the long linear pinnæ, which have a tendency to become red in drying; by the short, much compressed, scorpioid, red-brown male spikes, the flowers of which are very close together, and by the expanded flabelliform shape of the fruit-bearing spadix.

Fig. 2, t. 58 of Rumph.* gives a fair idea of its fruit, as does that of the end of the female spadix, fig. 1, t. 55, of the same part of the male spadix.

It possibly may be *C. ruber*, Reinw. Martius Palmæ. 209.

12. (2) *C. collinus* (n. sp.) pinnis (apicis) lineari-lanceolatis (long. 15-uncialibus, lat. 1½-uncialibus) supra tricarinatis carinis setigeris subtus lævibus et glabris, pedunculo spadicis decompositi spatha que infima armato, calyce bracteam longe superante corollam subæquante, fructibus oblongis apice mammillatis.

HAB.—Khasya hills, near Mahadeb, alt. 18-2000 feet, and Upper Assam.

DESCR.†—*Petiole* roundish, unarmed. *Pinnæ* alternate or nearly opposite, largest fourteen-fifteen inches long, nearly one and a half inch broad, linear-lanceolate, with a tendency to be spatulate, upper surface distinctly tricarinate, carinæ setigerous, lower surface smooth; margins bristly ciliate, especially towards apex, which appears to be obtuse.

* Hb. Amb. 5.

† Specimens: portion of the end of a leaf, an entire spadix in fruit, and a portion of another.