

obtusely sagittate, about as long as the filament. A small 3-lobed rudiment of a *pistillum*.

This remarkable species, for which I am indebted to Major Jenkins, appears to be an intermediate form between the true *Cymbospathæ* and *Platyspathæ*; the majority of the characters being those of the former section.

It is closely allied to the succeeding, from which it is to be distinguished by the unarmed peduncle of the spadix, the unarmed spathes (the second one at least presents no spines,) the comparatively large limbs of the secondary spathes, and the nodding very scurfy branches. I take it to be one of the forms exhibiting a representation of *Gramineæ*, to some *Andropogoneous* forms of which it is at first sight not altogether unlike.

** *Acanthospathæ*; *spathis externis aculeis armatis*.

* *Scandentes*. *Petioli flagelliferi*.

38. (28) *C. Jenkinsianus*, (n. sp.) *vaginarum spinis longis planis deflexis setis multis interspersis, petioli partis nudæ dorsalibus et marginalibus crebris mediocribus, partis pinniferæ inferioris marginalibus ventralibusque cum aculeis dorsalibus uncinatis, aculeis partis superioris ventralibus solitariis et dorsalibus palmatis, pinnis equidistantibus linearibus (long. bipedalibus lat. 6-7 linealibus) supra carina centrali et venis lateralibus 2 setigeris, vena media subtus parce setulosa, spadicis elongati decompositi pedunculo crebre armato, spathis sub-apertis extima subplana bicarinata dorso spinas graciles deflexas interdum fere setiformes gerente, rostro sub-triplo brevior.*

HAB.—Assam. Major Jenkins.

DESCR.*—*Stem* with the sheaths one inch and three quarters in diameter. *Sheaths* highly armed with long seriate flat brown

* Specimens; an entire upper part of a male plant in flower, and two or three female spadices in flower, (after fecundation.)

spines, broader, but less hard than usual, deflexed, except those of the margins which are ascending; rather long thorny bristles occur mixed with these or in distinct series. The edges of the larger spines irregular from adhering brownish tissue. *Petiole* transversely puckered at the base: naked part 5-6 inches long, armed on the back with stout deflexed brownish spines, solitary, or, as in the lowest, in short series; numerous shorter and rather stronger ascending ones along the margins, solitary or a few together.

These are continued into the pinniferous part, which is angular above, convex below, while the back of the same is armed with short strong conical claw-shaped prickles, which upwards appear reduced into a central series. *Flagellus* long, armed with the usual claw-shaped aculei. *Pinnae* alternate, linear, the largest in the specimens nearly two feet long, 8-9 lines broad,* cirrhoso-acuminate, above with a central carina bearing bristles, and with a lateral one on either side with very long and often stout bristles; under surface with a bristle here and there on the midvein; margins rough with numerous appressed bristles. Young petiole covered with a brownish tomentum.

Male spadix 2-feet long, adnate to the contiguous sheath. *Peduncle* between the lowest spathe and the axilla about 2 inches long, very much armed with black spines; above the lowest spathe quite unarmed. *Spathes* open, level-topped? not over-lapping, probably spreading, except perhaps the lowest, which is attached about 2 inches below the lowest branch. It is two feet long, linear-lanceolate, acuminate into a long beak, concave, scarcely boat-shaped, bicarinate on the back and armed with deflexed irregular rather slender blackish spines. The other spathes (one to each branch of the spadix) gradually diminish in size upwards, they are leathery or chartaceous, chesnut brown inside, glaucescent outside, unarmed except the second, which presents a few weak thorns along two obscure carinae. Flower-bearing *branches* several, ascending, longer than the internodes, decomposed, much shorter than their spathes, except perhaps the uppermost. *Spikes* flexuose, more or less covered with rust coloured scurf; the lowest of each branch 3-4 flowered, the upper about 2-flowered.

* The average size 14-16 inches long, 6-7 lines broad.

Flowers oblong, oblique, situated at the flexures, each suffulted by an amplexent ovate-acute generally ciliate bracte, and a cup with two pennicillate teeth next the axis. *Calyx* oblong, very striate, shortly 3-toothed; teeth with short tufts of ferruginous hairs. *Corolla* rather more than twice the length of the calyx, divided nearly to the base; segments oblong, concave. *Stamina* 6; *filaments* subulate, fleshy, red, united by their bases to each other and to the petals. *Anthers* not seen, nor the rudiment of the *Pistillum*.

Female spadix about the same length: the lower part of the peduncle, however, is longer, and the armature as well as that of the outer spathe more slender, bristly and white; the beak is also similarly armed. Flower-bearing *branches* flattened, so that the spikes are nearly bifarious. *Spikes* or more properly speaking racemes, 2-3 inches long, flexuose, also scurfy.

Flowers solitary at the flexures, the lowest on short stout stalks, the upper ones sessile. An amplexent acuminate blackish *bracte* (at the base of the stalk,) and two *bracteoles* to each flower: between the upper and larger, sometimes cup-shaped bracteole and that next it a gibbosity as though there should be another flower. Apex of the upper bracteole pennicillate. *Calyx* barrel-shaped with three obsolete teeth. *Corolla* rather more than twice as long, divided nearly to the base into three linear-lanceolate erect segments. *Stamina* 6; *filaments* united to the base of the corolla and each other into a cup, (free) short, very broad, without anthers. *Ovarium* roundish-oblong, covered with scales, 3-celled. *Ovules* solitary. *Style* stout, with three rather long stout sub-recurved branches, lamellar, and papillose inside.

The young fruit bearing spadix unaltered; *fruits* (very immature) roundish, about the size of a large pea, surrounded at the base by the persistent perianth, beaked by the base of the style; scales numerous, fuscous with pale irregular edges. *Seed* one.

This species is closely allied to the preceding, and to *C. ramosissimus*; it is also one of the forms shewing *Dæmonorops* not to be generically distinct from *Calamus*. Indeed this and the preceding species weaken greatly the distinctions between the two last sections, herein proposed, particularly

if, as I suspect, the spathes of this species are spreading. The upper part of the spadix might almost be mistaken for the same part of *C. ramosissimus*, and only differs from the same part of the section *Platyspathæ* in the greater degree of contraction.

39. (29) *C. grandis*, (n. sp.) aculeis petiolorum dorsalibus uncinatis cum marginalibus (infra pinnas) inæqualibus interdum spiniformibus, pinnis glaucescentibus lineari-lanceolatis (long. 18-20 uncialibus lat. $1\frac{1}{4}$ uncialibus) supra 1-carinatis, vena media utrinque et margine cum vel absque setis, spathæ extimæ spinis planis latis deflexis, rostro æquante, calyce subintegro margine ciliato, fructibus globosis.

HAB.—Malacca. Sent by E. Fernandez under the names *Rotang Sumambo*, and *Rotang Chry*?

DESCR.*—A stout Palm, diameter of the stem (including the sheaths) about two inches. *Sheaths* armed with broad, flat, generally very obliquely seriate, dark brown or black, spreading, unequal spines. *Leaves* 15-16 feet in length. *Petiole* swollen at its insertion, stout; in the lower two feet without pinnae, plano-convex, armed along the centre of the convex face towards the base with a good many scattered rather deflexed small prickles; these upwards become hooked; along the margins they present a few broad flat short thorns pointing downwards, and within the margins a number of still shorter, generally solitary, ascending thorns; the pinniferous part, which is 6-9 feet long, armed below with strong hooked prickles generally in threes, these are continued into the *flagellus*. *Pinnae* alternate, equidistant, of a whitish glaucous aspect, linear-lanceolate, 18-20 inches in length, one inch and a quarter in breadth, acuminate at the apex into a long awl-shaped point, 1-carinate above, without setæ on either face or along the margins, or with the midvein setigerous on both sides, as well as the margins.

* Specimen: an entire upper part of a male and female plant in flower, and several spadices in fruit.