

*Spadix* in the exposed parts plano-convex, with strong short hooked thorns on the convex face. *Spathes* tubular lowest compressed, two-edged, with short teeth along the edges, upper ones not compressed, almost unarmed. *Branches* altogether exserted, being attached considerably above the mouths of the spathes, five inches long. *Spikes* simple, stout, 2-3 inches in length, arising from a knob just above the points of narrow spathes, which cover the internodes of the branches, and which have small acuminate limbs. *Fruit* sessile, globose, as usual tribracteolate, surrounded at the base by the flattened *calyx* with oblong-ovate segments, and the *corolla* with ovate-lanceolate segments and 6 sterile *stamens*; scales large white, with a brown margin and point. *Seed* one, dry, deeply pitted, with a deep umbilicus on one side.

This species in the spadix is allied to *C. tenuis*, Roxburgh, but the flowers seem to be dioicous, judging from the remains, neither have the females the same form. The spikes also are rigid, very spreading, without any tendency to be recurved or deflexed. The leaves are widely different, in situation resembling those of *C. fasciculatus* and *gracilis*, to which last it appears to be allied.

(25.) 15. *C. floribundus*,\* (n. sp.) spinis petioli (pinniferi) aculeatis solitariis longis uncinato-deflexis, pinnis fasciculatis lineari-lanceolatis (long. subpedalibus, lat. 11-12 linealibus)

\* *C. pennicillatus*, pinnis æquidistantibus lanceolatis 7-9 veniis margine integris (esetosis) apice setoso-pennicillatis.

*C. pennicillatus*. *Roxb. Fl. Ind.* 3. p. 781. *Mart. Palm.* p. 210.

Hab.—Forests, Pinang. Mr. Wm. Roxburgh.

I subjoin Roxburgh's notice of this plant, which in the shape, venation and tufted points of the pinnæ, and especially their entire smooth margins, appears to present sufficient peculiarities to enable it to be identified.

"Scandent. *Leaflets* thirty-four pair, regularly alternate except the terminal two, which are united, lanceolate, seven to nine-nerved; margins entire and smooth, a pencil of bristles from the apex of each. *Sheaths* flagelliferous.

It is more slender than the common ratan, and less so than *C. gracilis*."

supra carinis 3-5 setigeris, subtus setis paucis secus venam mediam, apice sæpius obtusis vel bifidis, spadice aculeato supra-decomposito, spathis primariis 1-carinatis secus carinam spinis rectis longiusculis armatis cæterum crebre aculeatis secundariis floccoso-ciliatis, corolla calycem duplo excedente, styli ramis lanceolatis.

HAB.—Upper Assam, at the mouth of the Nao-Dihing River, and towards Jorhauth. Both Major Jenkins and Mr. Masters have also sent it to me, so that it appears to be common.

DESCR.\*—Sheaths armed with brown deflexed long plano-subulate spines, solitary or in short series, otherwise thickly covered with solitary or seriate brown bristles. The base of the petiole appears similarly armed, the spines being perhaps confined to the edges; it is in the pinniferous part convex-trigonal, the under face armed with unequal curved deflexed very strong spines (the longest an inch in length or more) also with short scattered prickles. *Pinnæ* fasciculate, with or without solitary ones interspersed, linear-lanceolate, 13-14 inches long, 11-12 lines broad, upper face with three or even five carinæ all bearing bristles, under face with a few bristles on the midvein towards the apex; margins with ascending stout bristles; apex obtuse, hispid, often bifid.

*Spadix* rather long, probably nutant, where exposed plano-convex, armed on convex face with hooked prickles. *Spathes* generally very long, with short limbs, irregularly armed with slender straight spines, and with many aculei. The lowest of the spathes sometimes a foot long, bicarinate, one carina running up the centre of the limb; those next to it similarly 1-carinate; carina in the uppermost obsolete. The longer spines are confined to the carinæ. *Branches* distant, supra-decompound, lowermost deflexed, upper ascending, internodes concealed by spathes with truncate margins more or less ci-

\* A specimen of the upper part of an axis, with the lower part of the base of the petioles, many specimens of portions of leaves, and male and female inflorescences, the latter before the expansion of the flowers.

liate, and, in the young state especially, grey from whitish filamentous hairs. *Branchlets* which bear the spikes recurved or spreading, with short, acute, often mucronate spathes. *Spikes* attached midway between these, short, scarcely more than half inch long, sub-scorpoid.

*Male flowers* distichous, ovate: suffulted by a small bracte likewise ciliate and generally pennicillate at the apex, and by two *bracteoles* less combined than usual, indeed sometimes nearly distinct. *Calyx* divided to the middle, segments half-ovate. *Corolla* about twice the length of the calyx, divided almost nearly to the base, segments ovate-lanceolate, spreading. *Stamina* as usual united to base of corolla; *filaments* (free) long, subulate, flexuose in bud; *anthers* obtusely sagittate, attached above the middle, versatile. Rudiment of a *pistillum* of three rather small distinct bodies.

*Female flowers* on simply spiked more elongated branches. *Spikes* 2-3-inches long, alternate, generally recurved, flexuose, pale ferruginous-tomentose. *Flowers* rather distant, suffulted by an amplectent bracte with a short acuminate limb, and by two *bracteoles*, of which the inner bears an incomplete disc on one side, and between this and the outer bracteole is a space as though there should be an additional flower. *Calyx* (in bud) ovate-conical, a good deal longer than that of the male flower, divided to the middle. *Corolla* (in bud,) length of the calyx, otherwise as in the male, but the segments have thin margins. *Stamina* 6, monadelphous; *filaments* (free) short, flat; *anthers* effete. *Ovarium* cylindrical, 3-celled, shorter than the branches of the *style*, which are lanceolate and papillose. *Ovules* 3.

This species seems to vary a good deal; among the specimens from the Nao Dihing, is a portion of a leaf, in which the spines are short, solitary, and the pinnæ two feet or more in length by thirteen lines broad, with only one keel on the upper face, and this is the only part besides the margins that bears bristles; the apex also is often subulate-acuminate.

There were also specimens found among the dried plants of these Gardens, without name, but which are said to have

been prepared from plants growing a long time ago in the Gardens ; these, had the petioles been flagelliferous, I should have referred to *C. latifolius*.

The inflorescence varies a good deal as to smoothness ; in some of the more advanced specimens, the margins of the bractes even are nearly smooth.

It approaches especially by its inflorescence to *C. latifolius*, but that plant has flagelliferous petioles.

26. (16) *C. insignis*, (n. sp.) aculeis vaginarum sparsis conico-subulatis, petiolorum infra pinnas dorsalibus uncinatis intra pinnas supra medium marginalibus superadditis, pinnis distanter et irregulariter alternis (senis cum terminali æquilaterali profunde biloba) cuneato-lanceolatis vel obovatis subtus concavis glaucis apice obtusiusculo tantum setigeris.

HAB.—Malacca, E. Fernandez. Malayan name, *Rotang Bhattoo*.

DESCR.\*—*Stem* slender, not thicker than a common quill, or including the sheaths about four lines in diameter. *Sheaths* about a span long, with a few scattered conical subulate prickles. *Leaves* 19-20 inches long ; *petiole* below the pinnæ about 5 inches long, roundish, above triangular, armed throughout along the centre of under surface with small hooked prickles, and above the middle of the pinniferous part with similar ones along the margins ; *pinnæ* irregularly and distantly alternate, five in number, exclusive of the terminal equilateral deeply bilobed one, cuneato-lanceolate, sessile, distinctly concave underneath with inflexed margins, glaucous-carinate above, with many parallel veins and transverse venules, and a short obtuse point, which is the only part bearing bristles. *Flagellus* united to the sheaths high up, very slender (the longest about a foot long) armed with the ordinary prickles.

\* Specimens : an entire upper part of a stem, not in flower.