21. (11) C. leptospadix, (n. sp.) spinis petioli (pinniferi) solitariis uncinatis?, pinnis approximatis æquidistantibus linearibus (long. 10 uncialibus lat. 4-5 linealibus,) supra carinis tribus setigeris subtus setulosis secus venam mediam, spadicis attenuati aculeati ramis filiformibus, spathis primariis aculeatis secondariis lamina conspicua lanceolata, spicis simplicibus abbreviatis scorpioideis, bracteis apice pennicillatis, floribus oblongis, calyce corolla duplo breviore, fructibus globoso-turbinatis (albis.)

cane. Its growth is exceeding slow, for in ten years it had acquired a stem of only five feet in length, and the leaves from ten to twelve more."

C. polygamus. Roxb. Fl. Ind. 3. p. 780. Mart. Palm. p. 210.

It appears to differ from C. monoicus in the lower pinnæ being fasciculate, and in the flowers being male and hermaphrodite, not male and female.

"C. mitidus: caudice; frondibus ecirrosis glabris nitidis, pinnis approximatis aequidistantibus lineari-lanceolatis marginatis, acuteis rhacheos recursis sparsis et confluentibus; spadicibus foemineis compositis; julis horsum vorsum flexis, baccis (ovato-globosis,) squamis fuscis.

Pinnae spithamam longae, unguem latae, firmulae, venis statu sicco vix conspicuis, setulis non solum in margine latiusculo sed etiam in nervis utriusque faciei. Calamo tenui Roxb. multis modis affinis, sed diversus videtur praesertim sexus distributione.

Crescit in Tenasserim, prope Tavoy, W. Gomez." Martius. Palm. p. 211.

C. concinus:—frondium rhachi ferrugineo-tomentosa, subtus aculeis rectis reversis, pinnis sub-aequidistantibus concinus lineari-tonceolatis; spadicis (monoici?) compositi spathis aculeis rectiusculis reversis; baccis magnitudine. Pisi minoris, squamis flavidis margine inferiore latius fuscidulo.

Pinnae, quas vidi, fere sesquipedales, ultra pollicem latae. Juli fructiferi bipollicares, non nihil recurvi. In calycum fructiferorum uno eodemque per cujusvis seriei flores latere conspicitur spathella valde contracta, cujus basis cicatricula parva notatur, quam ob causam conjicio, hue flores masculos aut eorum rudimenta in florente spadice excidisse."

HAB .- Tavoy. Wallich. Martius. Palm. p. 208.

"C. melanacanthos: caudice scandente; frondibus ecirrosis, pinnis aequidistantibus concinnis lineari-lanceolatis acuminatis, margine nervisque tribus primariis setis longiusculis nigricantibus; aculeis antice nigris, vaginarum subverticillatis rectis, rhachium spadicum compositorum lororumque recurvis; baccis oblongis octolinearibus, squamis pultide fuscis spadiceo-marginatis.

Crescit in insula Pinang et in ora Tenasserim prope Chappedong: Wallich." Martius, Palm. p. 211. t. 116. f. 13. HAB.—Khasiya Hills, between Nunklow and Naogong, in flower and fruit, November 1835. Herb. Assam Deputation. In the same locality Areca gracilis, Wallichia caryotoides, and Caryota urens were observed.

Descr.\*—Petiole (in the pinniferous portion) triangular, under surface rather convex, with scars of solitary spines or prickles, the two side faces somewhat channelled, and presenting especially towards the insertion of the leaves dark filamentous tomentum. Pinna many, crowded, regularly alternating, linear, very narrow, ten inches long, four four-and-half lines wide, subulato-acuminate, or even perhaps cirrhoso-acuminate, upper face with three bristle-bearing carinæ, a few smaller ones on the midvein underneath: margins rough with very frequent ascending bristles.

Male Spadix apparently nodding, long, slender, distantly branched, (in the parts not covered by the very long, narrow, tubular spathes with largish lanceolar nearly unarmed limbs) frequently armed with short acute stout thorns, solitary, or in twos or threes. Branches filiform, a foot long, apparently secund, with frequent alternate, simple, bifarious, short, scorpioid recurved simple spikes, each of which is suffulted by a spathe with a rather larger, lanceolate, acute, erect limb. The lowest branch in the specimens is inserted about an inch above the mouth of its spathe. Spikes about an inch long, nearly twice the length of the limbs of the spathes.

Flowers distichous, oblong, with an amplectent bracte with a sub-lanceolate rather long limb, pennicillate at the apex. Inside this bracte is a short cup emarginate behind. Calyx oblong, divided nearly to the middle in three half-ovate segments. Corolla twice the length of the calyx, divided nearly to the base into three oblong-lanceolate rather obtuse segments. Stamina united to corolla to base of its segments; filaments (free) long, subulate, about \(\frac{1}{3}\) shorter than the corolla. Anthers attached above the middle, linear sagittate, slightly mucronate, versatile. Pollen yellow, with one longitudinal furrow.

<sup>\*</sup> Specim: Portions of a leaf, of male spadix in flower, and female spadix in fruit.

The fruit spadix ends in a long flagellus armed as usual, the spikes appressed to the filiform branches. Fruit globoso-turbinate, apex cuspidate, looking rather downwards, scales rather lax, whitish, with conspicuous brown margins and points. Its base is surrounded by the flattened perianth, (the calyx with three oblong segments, the corolla with three segments a little longer and narrower,) and by two bracteolæ, of which the inner bears a disc on one side, and forms a cup; they do not appear to be pennicillate. Seed one, roundish, with a foveola on one side. Albumen solid with a pitted areolar surface, and a cavity corresponding to the foveola filled with the tegument, which is blackish-brown. Embryo basilar.

The male spadix of this resembles in some respect that of C. palustris.

In the leaves it approaches C. tenuis, Roxburgh: it is distinguished from all the others by the long filliform distant branches of the spadix, the lanceolate rather large limbs of the primary, and especially of the secondary spathes, and the pennicillate bracteæ, the cellular hairs or processes forming the tufts of which are not altogether unlike the bodies forming the tufts at the ends of the leaves in certain mosses.

Plukenet's figure of Phænicoscorpiurus, etc. resembles this in many respects.\* Hamilton† quotes the same figure for his C. Heliotropium, to which I should have referred this, had the relative lengths of the calyx and corolla agreed with Martius's character of that species.‡

<sup>\*</sup> Phytogr. t. 106. fig. 2.

<sup>†</sup> Cat. Dried Plants, p. 90 .- No. 877.

<sup>2.</sup> C. Heliotropium Hamilton: caudice scandente; frondium ecirrosarum pinnis aquidistantibus concinnis lineari-lanceolatis acuminatis, acuteis rhachium spatharumque recurvis; spadicibus masculis decompositis, calycibus urceolatis breviler dentatis, petala subaquantibus; loris ?—; baccis.——.

Frondium forma et verosimiliter caudice affinis est C. Rotang, sed differt spadicum masculorum julis laxioribus, spathellularum apparatuminore, calycibus multo longioribus, ore contracto breviter tridentatis.

In Goyalpara, Indiæ Orientalis, Augusto, 1808, legit Hamilton." Martius. Palm, p. 211.