sita circa 6 aurantiis rachillis 6-12 cm. longis in rachide tantum 4-5 cm. longa: fructus globularis, olivicolor, 7-8 mm. diam., rugosus cum siccus;

cupula parva, profunde lobata, 4-5 mm. diam.

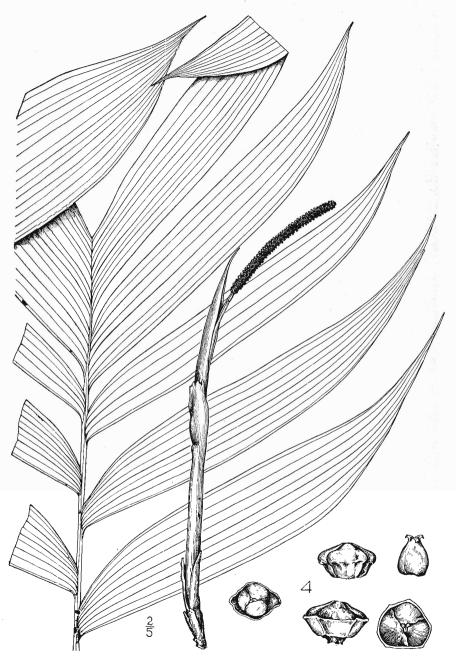
Very slender, canes 1-2 cm. thick, ringed at intervals of 2-8 cm., plant 2 m. tall: leaf-blade 50-90 cm. long, bearing 16-24 alternate or subopposite pairs of very narrow glabrous many-nerved straight pinnæ; petiole slender, angled, 12-14 cm. long above the tight closed finely striate sheath which is 18-20 cm. long; pinnæ light green, thin, 20-25 cm. long and 1-2 cm. broad, tapering regularly to a long slender point which is often broken away, somewhat narrowed to base, standing 2-3 cm. apart on the very slender flattened rachis, with straight prominent midrib and several side nerves close together: pistillate spadix composed of about 6 orange-colored branches or rachillæ 6-12 cm. long issuing from a rachis only 4 or 5 cm. long, the slender reddish-orange peduncle 14-15 cm. long that bears 3 or 4 sheaths that soon become shreddy and fall at fruiting time and leave the ringed scars of their attachment: fruit globular, 7-9 mm. thick when dry and deeply wrinkled from the shrinking of the thin flesh, green or olivegreen when fresh; cupule small, 4-5 mm. in expansion, deeply lobed.

Chiriqui, Panama: valley of the upper Rio Chiriqui Viejo, vicinity of Monte Lirio, 1,300–1,900 m.,  $R.\ J.\ Seibert\ 218$  (type, Mo. Bot. Gard.); vicinity of Callejón Seco, Volcán de Chiriqui, altitude 1,700 m.,  $Woodson\ \&\ Schery\ 502$ , and by others. This is one of the plants mistaken for  $C.\ costaricana$ , Oersted.

## † Chamædorea Allenii, spec. nov. Fig. 126.

Erecta, ad 2 m. alta: folia regulariter pinnata, glabra, costata, aliquid nitida; lamina 60–70 cm. longa; petiolus 30–35 cm. longus super vaginam, carinatus et striatus, 5–7 mm. latus; pinnæ circa 9 jugæ, alternæ vel suboppositæ et non plus quam 3 vel 4 cm. inter se distantes, 25–30 cm. longæ, 3–6 cm. latæ, angusto-lanceolatæ, non sigmoideæ, acute acuminatæ vel caudatæ, prominenter circa 9-costatæ, pinnæ terminales confluentes: spadix solitaria simplex densa spica circa 8 cm. longa; pedunculus circa 24 cm. longus, omnino inclusus 4 vel 5 laxis vaginis; flores pistillati lutei, octomeri, valde compacti, plus vel minus immersi; calyx non profunda integra cupula; petala 3, stricte includentia ovarium; styli 3, magni, exserti, reflexi, sessiles.

Erect, 2 m. tall: leaves uniformly pinnate, blade 60–70 cm. long, glabrous, firm in texture, more or less glossy; petiole about 30–35 cm. long above narrow sheath, ridged and striate, 5–7 mm. broad; pinnæ alternate or subopposite, about 9 pairs, equally spaced and not more than 3 or 4 cm. apart, terminal pair confluent, 25–30 cm. long, 3–6 cm. broad, narrow-lanceolate and not sigmoid, somewhat narrowed to base, acutely acuminate to caudate, prominently about 9-ribbed, main ribs 4–7 mm. apart, light colored and pronounced on under surface, nearly confluent at base: spadix a single simple very dense spike about 8 cm. long at anthesis, on a peduncle 24 cm. long and which is completely contained in about 4 loose sheaths of which the uppermost is projected 3–4 cm. with an acuminate herbaceous end; pistillate flowers in 8 rows, bright yellow, so closely placed as to appear to be immersed in the rachis; calyx a shallow more or less undulate but not



126. LEAF, SIMPLE SPADIX, PISTILLATE FLOWERS of *Chamædorea Allenii*. Details show the 3-lobed ovary in the corolla-cup.

lobed cup in which loosely sits the 3 introrse petals inclosing the conic more or less 3-lobed ovary on which the 3 spreading or reflexed prominent stigmas are sessile; staminate spadix and fruit not seen.

North rim of El Valle de Anton, Province Coclé, Allen 1909.

† Chamædorea lucidifrons, spec. nov. Fig. 127.

Gracilis, 2.5 m. alta: lamina 40–50 cm. et plus longa, lucida et glabra' rachis convexa in latere dorsali, carinata in latere superiore; pinnæ 30–35 cm. longæ, 6–9 cm. latæ, lanceo-oblongæ et prominenter sigmoideæ, angustatæ ad longum acumen vel caudam, 7–15 conspicuis costis 4–10 mm. inter se distantibus in medio et curvatis ad angustam basim: pistillata spadix simplicibus ramis, rachis brevis, circa 22 cm. longæ et pæne 22 cm. lata; rachillæ 10–20 cm. longæ, glabræ, divaricatæ vel arcuato-ascendentes: fruetus brevi-oblongus, obtusus, 5–6 mm. longus, 4–5 mm. crassus, non

profundis rugis cum siccus; cupula brevis, lobi patuli.

Slender, 2.5 m. tall: leaf-blade 40-50 cm. and more long, glossy and glabrous, with several very broad strongly ribbed alternate pinnæ; rachis convex on the back, lightly ridged on upper face; pinnæ 30-35 cm. long, 6-9 cm. broad, lance-oblong and strongly sigmoid, tapering to narrow point or to a cauda, with 7-15 conspicuous costa standing 4-10 mm. apart at the middle and prominently curved to the narrowed base, lucid particularly on the lower face: pistillate spadix once-branched from a short rachis, about 22 cm. long and nearly as broad, the glabrous rachillæ 10-20 cm. long and divaricate or upwardly curved: fruit small, short-oblong, obtuse, 5-6 mm. long, 4-5 mm. thick, irregularly and shallowly wrinkled in drying; cupule small, the lobes spreading.

Vicinity of El Valle de Anton, Province Coclé, altitude about 600 m., Allen 1814.

## † Chamædorea latipinna, spec. nov. Fig. 128.

Tenuis, I m. alta, folia glabra et lucida: lamina 30–50 cm. longa, pinnata, 2 lobi apicales latissimi et confluentes, aliæ pinnæ paucæ et alternæ; rachis gracillima, complanata, 2–3 mm. lata, carinata supra; pinnæ 25–30 cm. longæ, 10–13 latæ, persigmoideæ, abrupte contractæ ad breve acumen, basis latissima, multis validis curvisque costis I cm. vel plus inter se distantes, venæ intermediæ minus distinctæ, omnes basi pinnæ curvæ: spadix staminata simplicibus ramis a plus vel minus continuente rachide, 25–30 cm. longa et lata, rachillæ 18–25 cm. longæ et laxe floriferæ; flores staminati lato profunde lobato calyce; pistillata spadix aliquid minor quam staminata, circa 20 cm. longa et lata: fructus immaturus oblongus, contractus basi, obtusus, 10–12 mm. longus.

Slender, 1 m. tall, with smooth glossy foliage: leaf-blades 30-50 cm. long, pinnate, apical part with 2 very broad confluent lobes, other pinnæ alternate, few in number; rachis very thin and flattened, 2-3 mm. broad, ridged on top; pinnæ thin, 25-30 cm. long, 10-13 cm. broad, strongly sigmoid, rather abruptly contracted to a short point, base very wide, conspicuous because of several or many curved strong ribs 1 cm. or more apart and less distinct ones between: spadices once-branched from a more