

the type of the latter. The specimen from Peninsular Siam has a somewhat pedicelliform base to the calyx, but transitions from this to the typical form are also found.

**6. *Licuala glabra* Griff. var *selangorensis* Becc. in *Webbia* V (1921) 35 et 48; Ridl., *Flora* V (1925) 26; Becc. in *Calc. Annals* XIII (1933) 194 t. 14—I.**

MALAY PENINSULA: *Trengganu*, Gunong Padang alt. circ. 2,500 ft. (Moysey & Kiah, 33399). *Pahang*, Fraser Hill, alt. 4,000–4,300 ft. (Burkill & Holtum, 8426). *Selangor*, Semangkok Pass, up to alt. circ. 3,000 ft. (Ridley in Aug. 1904; 15881, et 12117: Haptoholotype); Sempang (Ridley in April 1911). *Johore*, Kluang (Holtum, 10601).

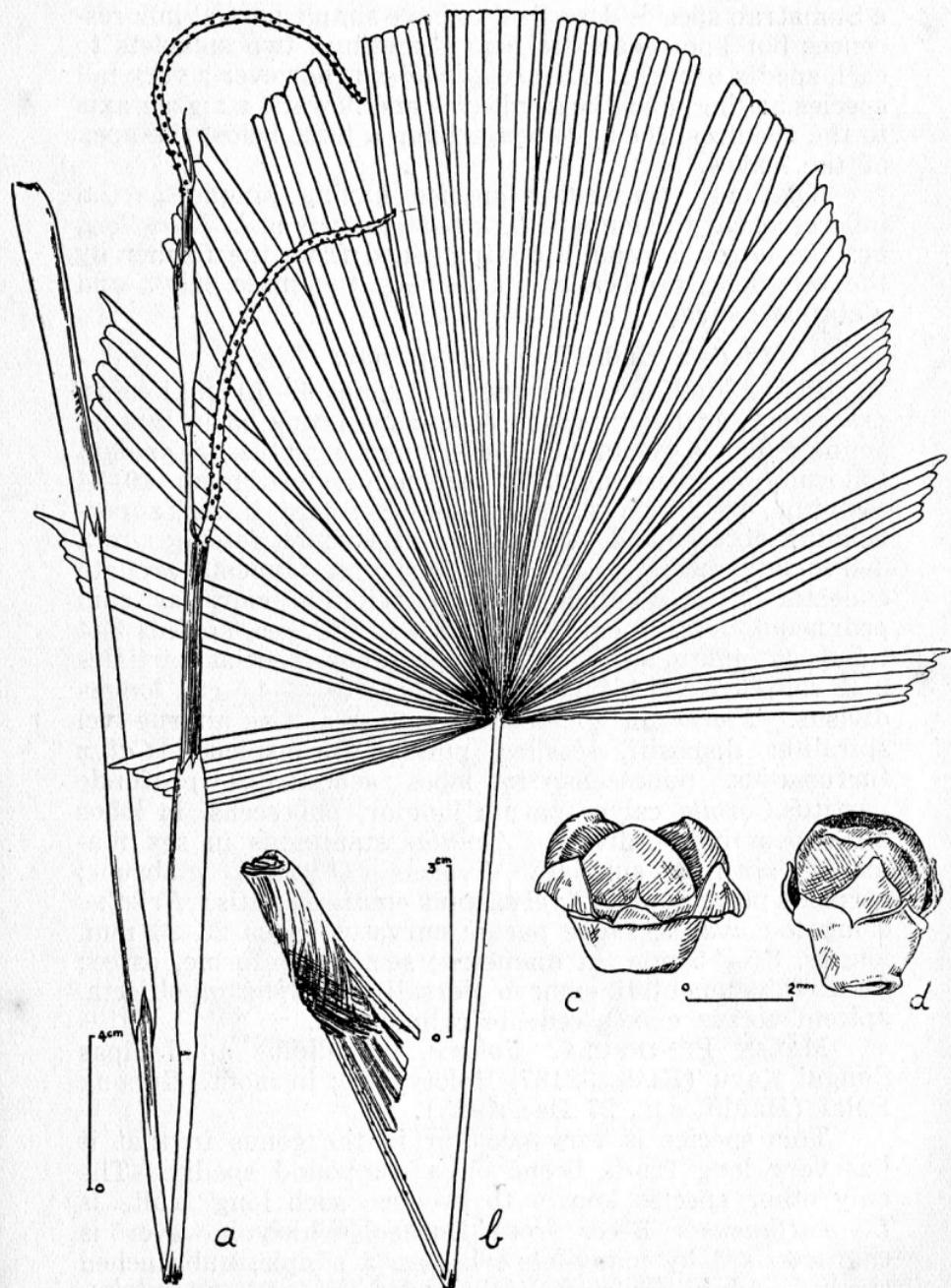
The Trengganu specimen cited above is a more robust form than the others.

**7. *Licuala kemamanensis* Furtado sp. nov. Fig. 3.**

*A L. ferruginoidea, cui peraffinis, palma acaulescente, frondibus minoribus, spadicibus haud flexuosis, ramis supra spathae apicem remote orientibus, floribus minoribus, bracteolis inconspicuis recedit. Facie L. Kunstleri similis, sed floribus haud conspicue pedicellati, calyce basin versus haud valde angustato, ovariis pilosis, foliis minoribus dissimilis.*

*Palma humilis, acaulescens. Petiolus circa 30–65 cm. longus in specimina visa, tertia parte basali aculeis remotis brevibus, 1–2·5 mm. longis armatus. Segmenta foliorum circa 14, cuneatissima, 2–6 costata, subaequalia; medianum circa 27 cm. longum, 4 cm. latum, 3–6 costatum, apice obsolete dentatum costis approximatis; intermedia mediano aequilata vel fere, paulo breviora, oblique erosio-dentata, costis 3–4 nonnihil remotis; basilaria minima, 2–3 costata, 12–14 cm. longa, 2·5–3 cm. lata, apice intermediis conformia. Spadix unicus tantum visus, haud flexuosus, 60 cm. longus, in inflorescentias partiales duas simplices, 5–8 cm. longas, ferrugineo tomentosas, supra spathae apicem remoto orientes divisus, basi cum spathis 3 involutus. Spathae fugaceo fusco-furfuraceae, tubulosae, infima bicarinata. Flores pluseriatim dispositi, solitarii, in alabastro globoso-ovati, circa 4 mm. longi; super pulvinum prominentem basi bracteolatum siti. Calyx lato campanulatus, ferrugineo-pilosus, haud striatus, ad medium in lobos 3 rotundatos divisus, basi truncatus. Corolla calyce duplo longior, striata, apice acuta, puberula. Annulus staminalis in filamenta 6 aequalia abrupte subulata divisus. Ovarium loculis saepe 3 fertilibus praeditum, minute pubescens.*

MALAY PENINSULA: *Kemaman*, Sungai Nipa (Corner, 30520).



**Fig. 3.** *Licuala kemamanensis* (Holotypus: CORNER 30520).

a. Spadix. b. Frons. c. Flos tres carpella fertilia et unum filamentum staminale exhibens. d. Flos cum uno carpello fertile.

This species appears to be very near to *L. ferruginooides*, a Sumatran species described to have simple partial inflorescences but known also to bear sometimes two spikelets to each spadix branch. *L. ferruginooides* is however a very tall species having much larger leaves and flowers, a zigzag axis to the spadices, the spikelets arising a little below the apex of the leaves.

The only peninsular species having simple partial inflorescences to simulate *L. kemamanensis* is *L. Kunstleri*, but the latter is readily distinguished from the former by the very long pedicels of its flowers, turbinate calyx, and glabrous ovary.

### 8. *Licuala Kiahii* Furtado sp. nov. Fig. 4.

*Palma humilis acaulescens*. *Petiolus* 60–70 cm. longus, praesertim ad basin versus rubescens, prope basin tantum spinis reduncis, remotis, 1–2 mm. longis armatus. *Segmenta foliorum* 5, rarissime 6–7, inaequalia; medianum 10–14 costatum, 20–25 cm. longum, apice 8–10 cm. latum, superficialiter obtuseque dentatum, cuneatissimum, sessile; altera 3–5 costata, mediano minora, oblique erosso-truncata, arcuato cuneata. *Spadix* petiolo duplo vel triplo brevior, basi cum pedunculo circa 20 cm. longo fusco-furfuraceo, spathis 3–4 tubulosis induto, suffultus, apice in inflorescentias partiales 2–3, simplices vel bifurcatas, furfuraceas, 3–4.5 cm. longas divisus. *Flores* in glomerulis 1–3, remotis, alterne vel spiraliter dispositi, sessiles, pulvino inconspicuo. *Calyx* furfuraceus, pubescens, in lobos acuminatos profunde partitus. *Corolla* calyce parum longior, pubescens, in lobos altos, acuminatos divisa. *Annulus* staminalis in sex filaments abrupte subulata divisus. *Ovarium* glabrum; carpellis plerumque 1–2 vel saepius omnia evolutis. *Fructus* elongato-clavatus, saepe parum curvatus, circa 22–23 mm. longus, 3.5–4.5 mm. in diametro; semine conforme, osseo; fossa integumentali embryo dorsali supra basin objecta, apicem versus mox ascende cylindracea.

MALAY PENINSULA: Johore, in collibus apud ripas Sungai Kayu (Kiah, 32137, Holotypus); in monte Gunong Pulai (Haniff, s.n., 27 Dec. 1925).

This species is very peculiar in the genus in that it has very long fruits borne on a compound spadix. The only other species known to produce such long fruits is *L. mattanensis* Becc. from Borneo, which however is characterised by many-lobed leaves, a simple, unbranched spadix having almost pedicellate flowers, and the integumental process in the seed situated on the same side as the embryo (not opposite the embryo as is the case with *L.*