

(6–7 mm. × 5 mm.). In *D. Scortechinii* the fruits are more or less turbinate though their scales appear to be broader than the vertical measurement. *D. imbellis* is described with fruits somewhat similar, but the leaflets and general shape of the fruit scales appear to be different. In the type specimen of *K. Kiahii* both male and female spadices are found mixed together in the same collection. Only the female specimen with the fruit is the holotype, the other (male) specimen being the paratype.

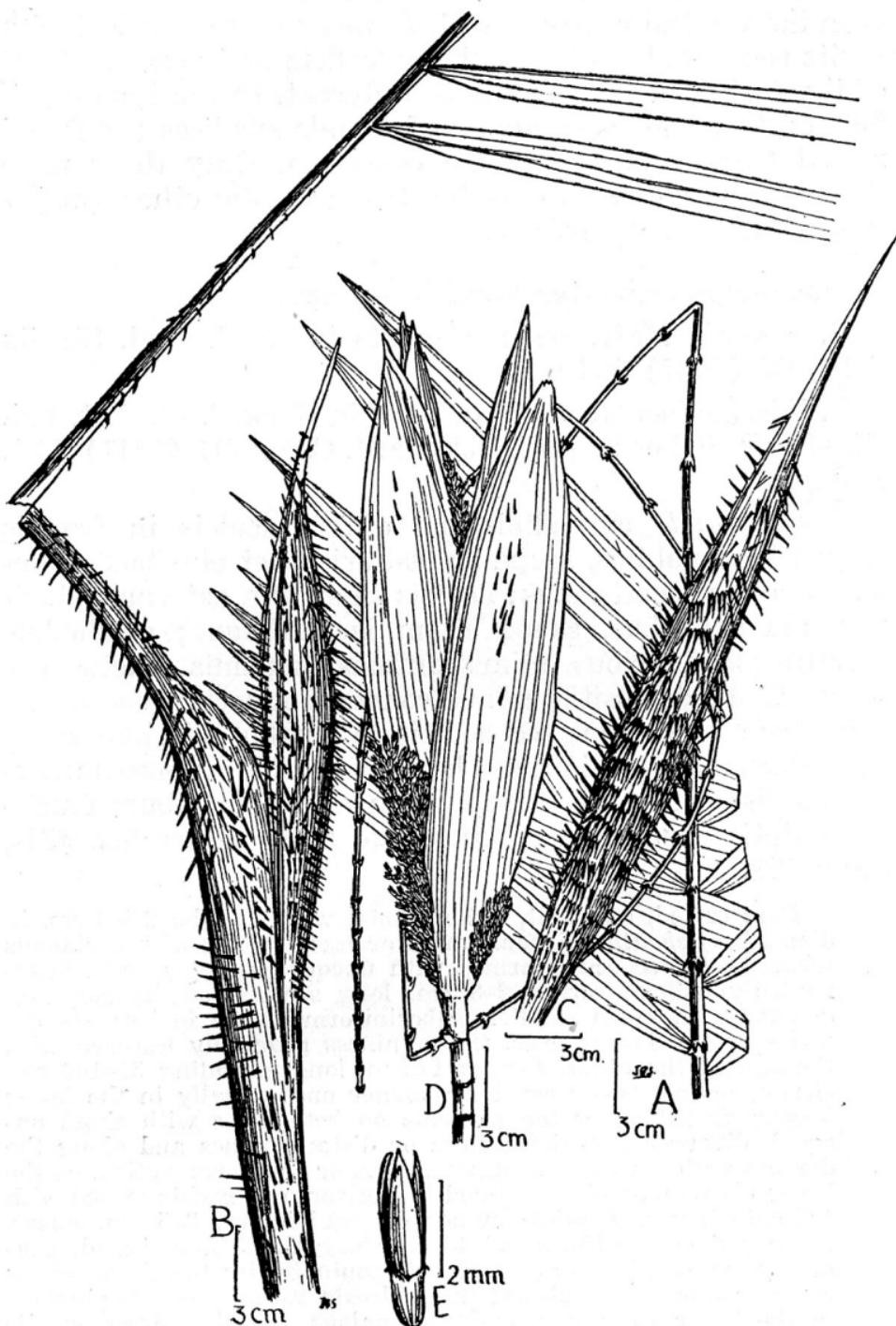
**Daemonorops laciniatus Furtado sp. nov.**

*D. grandis* Mart. *sensu* Furtado in Gard. Bull. Straits Settl. IX (1937) 164 p.p.

*D. intermedius* Mart. *sensu* Becc. in Hook. f. Fl. Brit. Ind. VI (1893) 464 et in Ann. Bot. Gard. Calc. XII (1911) 73 t. 20 p.p.

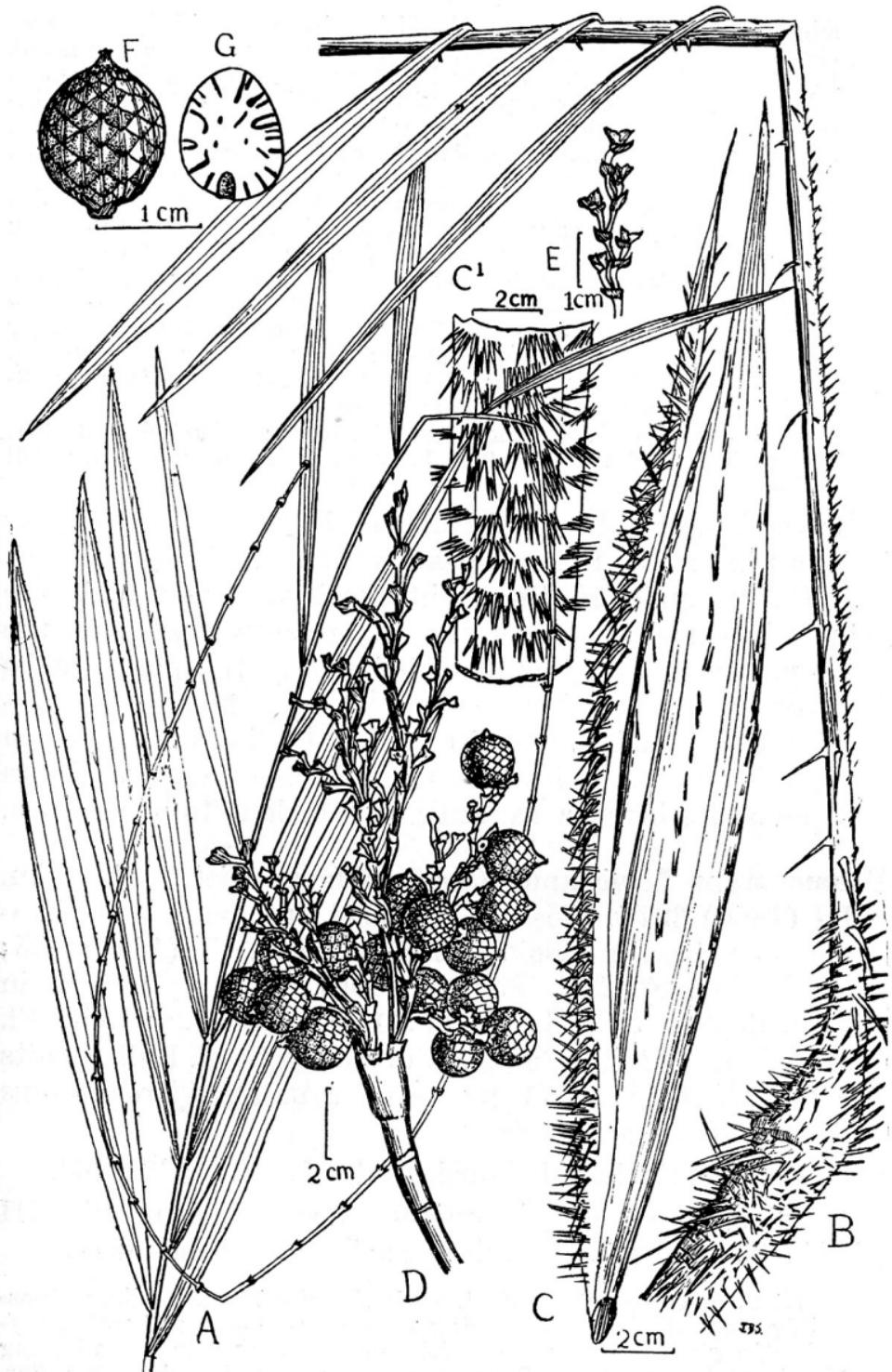
A *D. grande* cui affinissima differt aculeis in frondis vagina inaequalibus, saepe angustioribus et pluribus; foliis frondis angustioribus; aculeis in spatha externali pluribus, angustioribus, saepe etiam laciniatisque; spadicibus fructiferis minoribus, minus diffusis; squamis fructus per series 17–18 dispositis, minus convexis aspectu generali *D. intermedio* simillima; sed aculeis in spatha externali saepe lationibus, magis rigidis, sed haud per series regulares interruptas dispositis; involucrophoris pedicelliformibus; fructibus ellipticis; squamis fructus haud in 15 series dispositis, dissimillima.

Stem tufted, scandent, 4–7 m. long, with sheaths 2.5–3 cm. in diam. Leaf-sheaths gibbous, more or less covered with deciduous tobacco-coloured scurf, armed with unequal, solitary or in interruptedly oblique series, 2–3 cm. long schistaceous spines, frequently with much smaller, subcriniform spines in between the series of the larger ones, the spininess gradually lessened with the age of the plant. Leaves 1–2 m. long excluding 50–100 cm. cirrus; petiole 30–60 cm. long, longer ones usually in the lower leaves, armed along the margins on both sides with short unequal, divergent, straight, close or distant spines and along the dorsum with a row of solitary spines, or the lower petiole of the lower leaves irregularly armed in the dorsum; rachis armed with 1–5-nate claws. Leaflets numerous, equidistant, 3–5 cm. apart, broadly linear-ensiform, 25–40 cm. long 20–25 mm. broad, gradually narrowed into an acute or acuminate tip; the three nerves more or less bristly above; the midcosta rather closely spinulous in the lower surface, margins spinulous. Spadices erect, sessile or obscurely stalked, 25–50 cm. long, beaked, fusiform, male and female similar; the outer spathe bicarinate, cymbiform, covered with tobacco-coloured, deciduous scurf, armed externally with numerous, narrowly laminar, or broad and laciniate, solitary or confluent and shortly seriate, 2–4 cm. long spines; second spathe



*Daemonorops laciniatus* (Furtado 33,045).

A, Frondis fragmentum. B, Petiolus cum vagina et spadice. C, Spadix ante anthesin. D, Spadix post anthesin sine spatha exterale. E, Flos masculus.



*Daemonorops laciniatus* (Furtado 33,016).

A, Frondis fragmentum. B, Petiolus cum parte vaginali. C, Spadix ante anthesin. C<sup>1</sup>, Spathis fragmentum externalis ut aculei laciniati vel seriati apparent. D, Spadix fructiferus. E, Spicula. F, Fructus. G, Semen verticaliter discissum.

slightly armed with narrow, blackish spines; the third and sometimes the fourth sparingly armed; spadix without spathes about 10–20 cm. long, 4–6 branched. *Female spadix*: spikelets 3–5 flowered. *Involucrophore* pedicelliform, obliquely subcupular; involucre deeply cupular, truncate; areola distinctly tumescent. *Fruiting perianth* almost explanate, or subpedicelliform at base. *Fruit* about 20 mm. long, 16 mm. in diam., oblong, acute umbonate at apex; scales in 17–18 longitudinal series, straw-coloured whitish in margins, slightly dark-yellowish in the apex and along the fine or obscure intramarginal line. *Seed* ovoid flattened on the side, ventricose on the other, 13–15 mm. long, 12–14 mm. wide, 10 mm. thick; albumen minute with non-ruminate, white core; embryo basal. *Male spadix*: axis of the spikelets strongly zig-zag sinuous, scabrid, deciduously rusty. *Male flowers* oblong, obtuse, about 7 mm. long, 2.5 mm. broad; calyx tubular, 3-toothed; corolla twice as long as the calyx.

MALAYA: Kedah, Baling near Reservoir (Furtado 33,045). Perak, Kroh (Furtado 33,016, holotypus). Penang, Penang Hill (Ridley 11,461).

Beccari's description and plates of *D. intermedius* appear to be a mixture of that species and of *D. laciniatus* and *D. grandis*. In plate 20 the right hand specimen with the detached spathe appears to be *D. laciniatus*, whereas the other specimen and that depicted in pl. 21 appear to be *D. grandis*. *D. laciniatus* resembles very much *D. intermedius*, but the latter is distinguished by its finer spines on the spathes, shorter involucrophores, more globose fruits and the scales being arranged in 15–17 longitudinal series.

**Daemonorops Lewisianus** (Griff.) Mart., Hist. Nat. Palm. III (1850) 327 t. 175–IV f. 1–7 excl. specimen Gaudichaudianum; Becc. in Hook. f., Fl. Brit. Ind. VI (1893) 465; Ridl., Mat. Fl. Mal. Pen. II (1907) 176 p.p.; Becc. in Ann. Roy. Bot. Gard. XII (1911) 87 t. 30 p.p.; Ridl., Fl. Mal. Pen. V (1925) 38 p.p.; Furtado in Gard. Bull. Straits Settl. IX (1937) 171 p.p. excl. syn. *D. microthamnus* Becc., and *D. petiolaris*.

*D. Curtisi* Furtado in Gard. Bull. cit. IX (1937) 164.

*D. monticolus* var. *pinangianus* Becc. in Ann. cit. XII (1911) 85 t. 20 p.p. (ex altera parte = *D. tabacinus*).

Stem erect to subscandent, with sheaths 2 cm. in diam. (possibly much thicker in the living state cf. Griffith's picture). Leaf-sheaths gibbous below the petiole, provided with an ocrea having horizontally truncate wings at its apex, armed with a few, flat, laminar, elastic 2–4 cm. long, solitary or almost obliquely confluent at bases, spines, usually unarmed at the mouth and on the geniculum. Leaves variable with age; the radical leaves 2–3 m. long, almost as the stem, ecirrate at apex, long petioled having regularly set leaflets in the rachis; other leaves shortly cирrate 25–75 cm. long without the cirrus; petiole 6–25 cm. long terete,