Further Contributions to the Flora of Madagascar.—Second and Final Part. By J. G. BAKER, F.R.S.

#### [Read 15th January, 1885.]

In the present paper are described the remainder of the novelties sent home by Mr. Baron up to the end of 1883. A report on the earlier half of the same set is printed in Journ. Linn. Soc. anteà, pp. 317-353. Type specimens of all of them will be found in the Kew Herbarium, and a large number of them also at the British Museum. Fine and extensive collections have lately been sent to Europe from the north-west of the island by M. Humblot; and distribution has been made of the large gatherings made in the central provinces by the late lamented Dr. Hildebrandt; so that our knowledge of Madagascar botany at the present time is advancing rapidly. As Dr. Hildebrandt and Mr. Baron have worked over the same ground, the plants they have obtained are very often identical; but Humblot's are mostly different.

#### MONOPETALÆ.

SCHISMATOCLADA CONCINNA, n. sp.

Arborea, glabra, stipulis deltoideis, foliis breviter petiolatis obovatocuneatis cuspidatis subcoriaceis, floribus in paniculas terminales pedunculatas ramulis corymbosis dispositis, pedicellis brevissimis, calycis tubo campanulato dentibus deltoideis, corollæ tubo cylindrico segmentis oblongis tubo triplo brevioribus, staminibus segmentis æquilongis, fructu oblongo ad basin bifido valvis rigidulis.

A much-branched shrub, glabrous in all its parts, with slender terete branchlets. Leaves  $1\frac{1}{2}$ -2 in. long, narrowed from the middle to the base, moderately firm in texture, green and glabrous on both surfaces, with fine ascending main veins. Flowers copious, arranged in terminal panicles, with flat-topped branches. Calyx  $\frac{1}{24}$  in long; teeth deltoid, as long as the tube. Corollatube  $\frac{1}{4}$  in long. Anthers linear, inserted at the throat of the corollatube; filaments filiform, equalling the anthers. Capsule  $\frac{1}{3}$  in long, splitting down to the base into two valves.—Baron (without number).

Schismatoclada viburnoides, n. sp.

Glabra, stipulis deltoideis, foliis confertis subsessilibus obovato-oblongis obtusis subcoriaceis, floribus in corymbos densos terminales pedunculatos

LINN. JOURN .- BOTANY, VOL. XXI.

dispositis, pedicellis brevissimis, bracteis lanceolatis, calycis tubo campanulato dentibus parvis ciliatis deltoideis, corollæ tubo elongato cylindrico, segmentis ovato-oblongis tubo 5-6plo brevioribus, staminibus segmentis æquilongis.

An erect shrub, with straight branchlets, glabrous in all its parts; internodes very short; stipules deltoid. Leaves ascending, subsessile, firm in texture, 3-4 in. long,  $1\frac{1}{4}-1\frac{1}{2}$  in. broad at the middle, narrowed from the middle to the base, green on both surfaces, with fine indistinct main veins. Flowers numerous, arranged in dense terminal corymbose cymes; pedicels very short; bracts small, lanceolate, persistent, ciliated. Calyx  $\frac{1}{16}$  in. long; teeth deltoid, ciliated. Corolla-tube  $\frac{3}{4}$  in. long, hairy all down inside; segments  $\frac{1}{3}$  in. Anthers  $\frac{1}{3}$  in. long, versatile. Style reaching to the top of the corolla-tube, shortly bifid. Fruit not seen.—Baron 3220!

#### Danais vestita, n. sp.

Fruticosa, ramulis rectis dense fusco-pilosis, foliis petiolatis oblongis acutis subcoriaceis facie scabris dorso pubescentibus, floribus in cymas corymbosas axillares dispositis, pedicellis productis, bracteis minutis lanceolatis, calycis villosi segmentis lanceolatis tubo campanulato longioribus, corollæ tubo cylindrico apice infundibulari, segmentis lanceolatis tubo quadruplo brevioribus, staminibus exsertis.

A shrub, with straight terete branchlets densely clothed with spreading brown bairs. Stipules deeply lacerated, with ciliated lanceolate segments; petiole very short, densely pilose; blade 3-4 in. long,  $1\frac{1}{2}$ -2 in. broad, acute, rounded at the base, rough with short bristly hairs above, softly brown-pubescent beneath, with 8-10 pairs of raised arcuate-ascending main veins. Flowers in copious cymes in the axils of the leaves; pedicels  $\frac{1}{4}$ - $\frac{1}{3}$  in long, densely villose, as are the bracts and calyx. Calyx with a globose tube and 5 lanceolate segments  $\frac{1}{6}$  in. long. Corollatube glabrous,  $\frac{5}{8}$ - $\frac{3}{4}$  in. long, funnel-shaped at the apex; segments lanceolate,  $\frac{1}{6}$  in. long. Stamens twice as long as the corolla-segments. Fruit not seen.—Baron 2329!

#### PENTAS MICRANTHA, n. sp.

Herbacea, caulibus gracilibus glabris, stipulis parvis deltoideis, foliis brevissime petiolatis oblongis acutis membranaceis, floribus in cymas capitatas terminales pedunculatas dispositis, pedicellis nullis vel brevissimis, calycis dentibus lanceolatis foliaceis inæqualibus tubo campanulato æquilongis, corollæ tubo deorsum cylindrico sursum infundibulari, segmentis parvis patulis ovato-lanceolatis, fructu globoso, seminibus in loculo pluribus minutis.

Herbaceous, probably annual, with slender elongated glabrous stems. Leaves in distant pairs, shortly petioled, membranous, 2-3 in long, narrowed from the middle to both ends, slightly pubescent. Flowers a dozen or more together in congested peduncled terminal cymes. Calyx finally  $\frac{1}{6}$  in long, with 5 anequal lanceolate foliaceous teeth and a campanulate tube. Corolla with a tube  $\frac{1}{4}$  in long, and an expanded limb not more than  $\frac{1}{6}$  in in diam. Capsule globose, projecting at the apex from the calyx, splitting into two valves at the top, with very numerous minute seeds in each of the two cells.—Forests of Tanala province, Baron 310! also 3292!

#### OLDENLANDIA LATIFOLIA, n. sp.

Herbacea, annua, caulibus diffusis e basi copiose ramosis gracilibus obscure pilosis, foliis sessilibus oblongis parvis membranaceis obtusis vel subacutis, floribus axillaribus solitariis sessilibus, calycis dentibus lanceolatis tubo campanulato æquilongis, corollæ albæ segmentis oblongis tubo cylindrico æquilongis, capsulis oblongis, seminibus in loculo paucis oblongis nigris.

An annual, with weak slender stems, diffusely branched from the crown of the root. Leaves oblong, membranous, sessile or nearly so,  $\frac{1}{2} \sim_4^3$  in. long, slightly pilose; stipules entire, deltoid. Flowers solitary in the axils of the leaves all down the stem. Calyx hispid, finally  $\frac{1}{6}$  in. long, with 4 foliaceous lanceolate persistent teeth as long as the campanulate tube. Corolla white,  $\frac{1}{4}$  in. long. Capsule broad oblong, splitting down from the apex to the base into two valves. Seeds few in each cell, minute, oblong, with a black testa.—Baron 307! Also South Betsileo, in the wood of Ankafina, Hildebrandt 3941! Allied to the Cape O. rupicola, Sonder.

# HEDYOTIS TRICHOGLOSSA, n. sp.

Fruticosa, glabra, ramulis gracillimis, stipulis parvis deltoideis, foliis petiolatis oblongis acutis membranaceis, floribus in cymas laxas terminales pedunculatas dispositis, pedicellis brevissimis, calycis dentibus 4 deltoideis tubo campanulato æquilongis, corollæ albæ tubo cylindrico, segmentis lingulatis pilosis tubo vix brevioribus, antheris lineari-oblongis filamentis brevissimis, stylo flori æquilongo.

A shrub, glabrous in all its parts, with very slender straight terete branchlets. Leaves shortly petioled, oblong, acute, deltoid at the base, about 2 in. long by under an inch broad, bright green, glabrous on both surfaces, distinctly pinninerved. Flowers in

lax terminal peduncled corymbose cymes; pedicels very short. Calyx  $\frac{1}{16}$  in. long, glabrous; tube semiglobose. Corolla white, under  $\frac{1}{4}$  in. long, with 4 lingulate ascending segments nearly as long as the tube, and densely pilose inside. Style slender, forked, overtopping the anthers. Fruit not seen.—Baron 2782!

#### Mussænda fuscopilosa, n. sp.

Fruticosa, ramulis lignosis dense fusco-pilosis, stipulis lanceolatis, foliis petiolatis oblongis subobtusis facie parce dorso magis fusco-pilosis, floribus paucis terminalibus subsessilibus umbellatis, bracteis lanceolatis, calycis magni segmentis lanceolatis tubo hirsutissimo longioribus, corollæ tubo cylindrico dense piloso 3-4-pollicari, segmentis oblongo-lanceolatis tubo quadruplo brevioribus, genitalibus in tubo inclusis.

A shrub or tree, with terete woody branches, clothed with spreading bright-brown hairs. Leaves 4–5 in. long, moderately firm in texture, deltoid at the base, green and slightly hairy above, more hairy beneath, with 12–14 pairs of arcuate-ascending veins. Flowers 3–4 together in terminal nearly sessile umbels. Flower-calyx  $\frac{3}{4} - \frac{7}{8}$  in. long, the lanceolate teeth exceeding the densely pubescent oblong tube. Corolla-tube densely pubescent,  $3-3\frac{1}{2}$  in. long; segments patent,  $\frac{3}{4}-1$  in. long. Stamens and style included in the corolla-tube. Fruit not seen.—Baron 2467! 2470!

# Mussænda macropoda, n. sp.

Erecta, fruticosa, ramulis apice pilosis, foliis longe petiolatis oblongis obtusis vel subacutis facie glabrescentibus dorso tenuiter pilosis, floribus copiose corymboso-paniculatis, pedicellis brevibus, calycis sericei dentibus lanceolatis tubo turbinato æquilongis, corollæ tubo dense sericeo sesquipollicari, segmentis oblongis cuspidatis tubo 3-4plo brevioribus.

An erect shrub or tree, with woody branchlets, thinly pubescent towards the tips. Leaves oblong, moderately firm in texture, 3-4 in. long, green and finally glabrous above, deltoid at the base, obscurely pubescent beneath, with 8-9-jugate distinctly raised arcuate-ascending veins. Flowers in copious terminal shortly-peduncled corymbose panicles; bracts rigid, lanceolate, persistent; pedicels often  $\frac{1}{8}$ — $\frac{1}{6}$  in. long. Flower-calyx  $\frac{1}{2}$ — $\frac{5}{8}$  in. long, the lanceolate-acuminate teeth equalling the densely grey-silky ovary. Corolla with a densely silky tube  $1\frac{1}{2}$ – $1\frac{3}{4}$  in. long; segments oblong-cuspidate,  $\frac{1}{2}$  in. long. Stamens and style not exserted from the corolla-tubes.—Baron 3088! Allied to M-trichophlebia, Baker in Journ. Linn. Soc. xx. p. 166, and the Mauritian M. Landia, Lam.

#### TARENNA (§ WEBERA) MACROCHLAMYS, n. sp.

Arborea, ramulis crassis apice ferrugineo-pubescentibus, stipulis magnis rigidis caducis, foliis petiolatis obovatis emarginatis coriaceis magnis facie glabrescentibus dorso venulosis ferrugineo-pubescentibus, floribus copiosis in paniculas terminales ramis cymosis primum bracteis magnis ovatis coriaceis cinctas dispositis, pedicellis sæpissime productis brevibus, calycis tubo globoso, limbo brevi truncato, corollæ tubo brevi cylindrico, segmentis oblongis tubo æquilongis, fructu globoso lævi magnitudine pisi.

An erect tree, 30-40 feet high, with stout terete branchlets, clothed upwards, as are the branches of the panicle and underside of the leaves, with short ferruginous pubescence. Stipules large, rigid, orbicular, spathulate. Leaves thick and rigid in texture, 4-6 in. long and nearly as broad, prominently emarginate at the apex, all the veins and veinlets conspicuously raised beneath. Pauicle ample, terminal, with very numerous divaricated dichotomously cymose branchlets. Calyx-tube coriaceous, semiglobose,  $\frac{1}{12}$  in. in diam.; limb short, collar-like, truncate. Corolla  $\frac{1}{6}$  in. long. Fruit indehiscent, coriaceous, black, smooth,  $\frac{1}{6}$  in. in diam., with several tightly-packed seeds in each cell.—Baron 423!1241!1956! Forest of Andrangaloaka, Dr. G. W. Parker!

# PLECTRONIA (§ CANTHIUM) BUXIFOLIA, n. sp.

Fruticosa, glabra, stipulis parvis deltoideis, foliis breviter petiolatis parvis oblongis lucidis subcoriaceis, floribus in umbellas multas axillares paucifloras dispositis, pedicellis calyce 3-4plo longioribus, calycis tubo campanulato dentibus minutis deltoideis, corollæ tubo infundibulari segmentis ovatis, fructu duro compresso didymo conspicue emarginato.

An erect shrub, glabrous in all its parts, with slender straight branchlets. Leaves firm in texture, bright green,  $1-1\frac{1}{2}$  in. long, deltoid at the base, shining on both surfaces, the veining fine and indistinct. Flowers 4-6 together in umbels in the axils of the leaves all down the branchlets; pedicels  $\frac{1}{6}-\frac{1}{4}$  in. long. Calyxtube globose, green,  $\frac{1}{24}$  in. in diam. Corolla  $\frac{1}{6}$  in. long. Fruit hard, didymous, compressed,  $\frac{1}{3}$  in. in diam., with a deep groove between the two oblong carpels.—Baron 274! 965! 1019! 2177! 2213! 3137!

# PLECTRONIA (§ CANTHIUM) BOIVINIANA, n. sp.

Arborea, glabra, stipulis parvis deltoideis, foliis breviter petiolatis oblongis acutis subcoriaceis, floribus in umbellas multas axillares paucifloras dispositis, pedicellis calycem floriferum 2-3plo superantibus, calycis tubo

campanulato dentibus minutis deltoideis, corollæ tubo infundibulari segmentis brevibus, fructu duro compresso didymo conspicue emarginato.

A tree, glabrous in all its parts, with slender straight terete branchlets. Leaves moderately firm in texture, 2-3 in. long, deltoid at the base, with distant fine ascending main veins. Flowers 2-4 together from the axils of the leaves all down the branchlets; pedicels finally  $\frac{1}{4}$  in. long. Flower-calyx campanulate,  $\frac{1}{12}$  in. in diam. Fruit hardy, didymous, compressed, conspicuously emarginate,  $\frac{1}{3}$  in. in diam, sometimes one of the carpels aborted.—Baron 2942! 3071! Also gathered by Boivin. Allied to the Seychelles P. acuminata, Baker.

#### IXORA EMIRNENSIS, n. sp.

Fruticosa, glabra, stipulis parvis deltoideis, foliis petiolatis oblongis acutis subcoriaceis, floribus in paniculas terminales pedunculatas ramulis corymbosis dispositis, bracteis minutis deltoideis, pedicellis brevissimis, calycis tubo campanulato dentibus deltoideis, corollæ segmentis ovatolanecolatis parvis tubo cylindrico 4–5plo brevioribus, filamentis brevissimis, fructu globoso magnitudine pisi.

An erect shrub, 10-15 feet high, glabrous in all its parts; with slender terete branchlets. Leaves shortly petioled, 3-4 in. long, 1-1½ in. broad, deltoid at the base, green and glabrous on both sides, with copious fine venation. Panicles terminal, distinctly peduncled, both end and side branches level-topped. Flower-calyx with a campanulate tube  $\frac{1}{2}$ 4 in. in diam. and 4 small deltoid teeth. Corolla with a slender cylindrical tube  $\frac{1}{2}$  in. long and an expanded limb  $\frac{1}{4}$  in. in diam. Stamens shorter than the segments; anthers linear, versatile,  $\frac{1}{12}$  in. long; filaments very short. Fruit brown, globose, coriaceous,  $\frac{1}{4}$  in. in diam., crowned by the persistent calyx, with one hemispherical seed filling each of the two cells.—Baron 1247! 2228! Forest of Andrangaloaka, Dr. G. W. Parker! Allied to the Scychelles I. pudica, and much inferior in floral effect to I. odorata, Hook., which Mr. Baron has twice collected (188! 1444!).

# PSYCHOTRIA (§ GRUMILEA) MESENTERICARPA, n. sp.

Glabra vel subglabra, ramulis subcompressis, stipulis deltoideis cuspidatis coriaceis caducis, foliis breviter petiolatis obovatis cuspidatis subcoriaceis, floribus in paniculam terminalem ramulis corymbosis dispositis, pedicellis brevibus, calycis tubo campanulato limbo brevissimo obscure dentato, corollæ tubo infundibulari segmentis ovatis, fructu globoso nigro magnitudine pisi parvi, seminibus sulcatis albumine ruminato.

A tree, with slightly compressed woody glabrous or obscurely pubescent branchlets. Leaves shortly petioled, obovate, deltoid at the base, rounded to a cusp at the apex, 3-4 in. long, firm in texture, green and glabrous on both surfaces, with 8-10 pairs of distinct arcuate-ascending main veins. Flowers in short-peduncled deltoid terminal panicles. Calyx obconic,  $\frac{1}{12}$  in. in diam., with a short collar-like limb. Corolla  $\frac{1}{6}$  in. long, with 5 small ovate segments. Stamens and style just exserted from the throat of the corolla-tube. Fruit black, globose,  $\frac{1}{6}$  in. in diam., crowned by the persistent calyx-limb. Seeds one filling each cell.—Baron 851! 1240! 2969! 2995! 3015!

#### PSYCHOTRIA LUCIDULA, n. sp.

Arborea, glabra, stipulis deltoideis, foliis magnis petiolatis obovatooblongis cuspidatis subcoriaceis, floribus parvis copiosis in paniculam terminalem ramulis corymbosis dispositis, pedicellis brevibus, bracteis minutis deltoideis persistentibus, calycis tubo campanulato dentibus 5 minutis deltoideis, corollæ tubo infundibulari segmentis ovato-lanceolatis tubo duplo brevioribus, fructu ovoideo glabro brunneo ruguloso, seminibus profunde sulcatis.

A tree, glabrous in all its parts, with slender straight rather compressed branchlets. Leaves opposite, distinctly petioled, 4-6 in. long,  $2-2\frac{1}{2}$  in. broad, deltoid at the base, acute or obtuse, with a cusp at the apex, pale green and quite glabrous on both surfaces, rather glossy beneath, with 9-10 pairs of distinct arcuate-ascending main veins. Flowers in a peduncled broad short end-panicle. Calyx campanulate,  $\frac{1}{24}$  in. in diam; teeth minute. Corolla  $\frac{1}{8}$  in. long; expanded limb  $\frac{1}{8}$  in. in diam, with the stamens just exserted from the throat of the tube. Fruit ovoid, brown,  $\frac{1}{6}$  in. long, rather compressed, glabrous, rough, with a distinct groove between the two carpels. Seeds solitary, erect, with the epicarp projecting into five longitudinal furrows down their face.—Baron 1285! 2699!

# GEOPHILA GERRARDI, n. sp.

G. caulibus filiformibus late reptantibus pubescentibus, foliis longe petiolatis reniformibus facie viridibus glabris dorso glaucescentibus venis pubescentibus, floribus paucis in capitulum terminalem pedunculatum bracteis foliaceis oblongis aggregatis, calycis tubo obconico dentibus minutis deltoideis, corollæ segmentis ovato-lanceolatis tubo infundibulari duplo brevioribus, staminibus segmentis brevioribus.

A herbaceous perennial, with slender wide-trailing pubescent

stems. Petiole  $1-2\frac{1}{2}$  in. long; stipules simple, deltoid; blade  $1-1\frac{1}{4}$  in. long, moderately firm in texture, nearly as broad as long, furnished with two semicircular basal auricles, bright green and glabrous on the upper surface, whitish beneath, with brown slightly pubescent veins. Flowers several together, sessile in a peduncled terminal head, surrounded by an involucre of distinct imbricated pilose oblong foliaceous bracts  $\frac{1}{6}$  in. long. Calyx shorter than the bracts, pubescent. Corolla under  $\frac{1}{4}$  in. long, pubescent. Stamens shorter than the corolla-segments; anthers linear-oblong; filaments very short. Fruit not seen.—Gathered long ago by Gerrard (102!), and now refound by Baron 2444! and Humblot 133!

# Holocarpa, genus novum ordinis Rubiacearum tribus Anthospermearum.

Flores hermaphroditi. Calycis tubus parvus, campanulatus; segmenta 5, raro 6, magna lanceolata foliacea inæqualia. Corolla hypocraterimorpha, tubo cylindrico fauce villosa, segmentis oblongis patulis. Ovarium 3–5-loculare, ovulis in loculo solitariis erectis; stylus elongatus filiformis apice bifidus. Stamina sæpissime 5, infra faucem corollæ tubi inserta, filamentis leviter applanatis, antheris oblongis. Fructus indehiscens, seminibus in loculo solitariis.—Herba perennis Madagascariensis, foliis oppositis subsessilibus obovato-oblongis, stipulis foliaceis, floribus in cymas densas terminales breviter pedunculatas dispositis.

# Holocarpa veronicoides, Baker.

A perennial herb, with the habit of a Hedyotis or of Veronica officinalis, with short, trailing or spreading, slightly pubescent, slender terete stems. Leaves in opposite pairs, sessile, oblong or oblanceolate-oblong,  $\frac{1}{2}$ - $\frac{3}{4}$  in. long, obtuse, deltoid at the base, green and glabrous on both surfaces, moderately firm in texture. No veins except the midrib obvious; stipules large, foliaceous, persistent, linear or lanceolate, simple or compound, ciliated. Flowers few together, in congested corvmbose peduncled terminal cymes; pedicels none or very short. Corolla in long, with a globose tube; segments lanceolate, foliaceous, unequal. Corolla lilac; tube \(\frac{1}{4}\) in. long, cylindrical downwards, funnel-shaped at the top; segments oblong cuspidate,  $\frac{1}{8}$  in. long. about as long as the segments; anthers linear-oblong; filaments a little flattened, longer than the anthers. Style filiform, about as long as the corolla-tube, bifid at the apex. Fruit globose, indehiscent,  $\frac{1}{8}$  in. in diam., crowded by the large leafy calyx-segments; cells 3-5, with a single seed in each.—Allied to Otiophora, from which it differs by its hermaphrodite, usually pentamerous flowers, corolla-tube villose at the throat, and indehiscent 3-5-celled fruit. It was collected long ago in flower by Dr. Lyall, and has now been refound by Mr. Baron 736! and Dr. Hildebrandt, no. 3848!

#### VERNONIA POLYTRICHOLEPIS, n. sp.

Fruticosa, ramulis rectis dense pubescentibus, foliis subsessilibus parvis oblongis integris rigide coriaceis facie viridibus obscure pubescentibus dorso persistenter albo-incanis, capitulis parvis 6-8-floris in paniculam ramulis glomerato-corymbosis dispositis, involucro brevi campanulato imbricato bracteis obtusis densissime villosis, achenio piloso, pappo albido setis firmulis persistentibus.

A much-branched shrub, with terete slender branchlets, densely clothed with short whitish pubescence. Leaves about an inch long, nearly sessile, subacute, rounded at the base, green and finally nearly glabrous above, matted beneath with brownish-white persistent tomentum. Paniele terminal, 2-3 in. long and broad, the very numerous sessile heads crowded in clusters at the top of the branches. Involucre campanulate,  $\frac{1}{8}$  in. long; bracts obtuse, densely clothed with short whitish woolly pubescence, the outer very small. Corolla  $\frac{1}{8}$  in. long; segments very short. Pappus as long as the corolla-tube; bristles firm, persistent, distinctly ciliated.—Baron 2337! 2530! Allied to V. Lyallii, Baker, in Journ. Linn. Soc. xx. p. 174.

# VERNONIA VOLUTA, n. sp.

Fruticosa, volubilis, ramulis gracilibus pubescentibus cito calvatis, foliis petiolatis oblongis acutis integris subcoriaceis facie glabratis dorso brunneo-pubescentibus, capitulis parvis multifloris in paniculas laterales rhachi valde flexuoso ramulis corymbosis dispositis, involucro campanulato piloso bracteis paucis lanceolatis acutis subæquilongis, pappo albo firmulo.

A climber, with slender terete woody stems, clothed at first with short brown pubescence. Leaves 2-3 in. long, acute, rounded at the base, subcoriaceous, green and glabrescent above, coated beneath with persistent brown tomentum. Heads arranged in copious axillary panicles, longer than the leaves, with a very zigzag rhachis, clothed with short tomentum, as are the corymbose spreading or reflexed branches. Involucre campanulate,  $\frac{1}{6}$  in. long, pilose, the lanceolate acute brown bracts scarcely more than uniserial. Flowers about 20 in a head. Pappus of white

moderately firm bristles.—Baron 2375! Allied to V. apocynifolia, Baker in Journ. Linn. Soc. xx. p. 175.

#### VERNONIA STREPTOCLADA, n. sp.

Fruticosa, volubilis, ramulis gracilibus pubescentibus cito calvatis, foliis parvis petiolatis ovatis sæpissime acutis utrinque molliter brunneo-pubescentibus, capitulis parvis multifloris in paniculas laterales vel terminales rhachi brunneo-velutino insigniter flexuoso ramulis corymboso-glomeratis dispositis, involuero brevi campanulato piloso bracteis pauciseriatis rigidis obtusis, achenio glabro, pappo albido ex involuero exserto.

A climber, with terete woody stems, clothed at first with short brown pubescence. Leaves  $1-1\frac{1}{2}$  in. long, nearly as broad as long, rounded at the base, rarely obtuse, not at all rigid in texture, coated on both sides with soft brown pubescence. Heads arranged in panicles, with a very zigzag pubescent rhachis, the lower branches reflexed. Involucre  $\frac{1}{8}$  in. long; bracts all rigid and obtuse. Flowers 20 or more in a head. Achene glabrous; pappus of moderately firm persistent whitish bristles,  $\frac{1}{8}$  in. long.—Baron 3041! 3076! Dr. Parker! Allied to V. voluta and V. apocynifolia.

# VERNONIA (§ DISTEPHANUS) TRICHANTHA, n. sp.

Fruticosa, ramulis rectis dense incanis sursum villosis, foliis parvis subsessilibus oblongis integris coriaceis trinervatis utrinque albido-incanis, capitulis paucis multifloris corymbosis glomeratis, involucro magno campanulato bracteis pauciseriatis adpressis lanceolatis dense albido-incanis, floribus extus apice villosis, achenio piloso, pappo rigidulo pulchre rubello.

A shrub, with slender straight woody branchlets, clothed with thin persistent whitish tomentum, or towards the top with thicker, looser pubescence. Leaves thick and rigid in texture, not crowded,  $1-1\frac{1}{2}$  in. long, three-nerved nearly from the base to the tip, matted on both sides with whitish tomentum. Heads few, crowded in dense terminal corymbs. Involucre campanulate, nearly  $\frac{1}{2}$  in. in diam.; bracts lanceolate, acute, adpressed, densely clothed with white arachnoid pubescence. Corolla  $\frac{1}{6}$  in. long, densely villose outside towards the tip; segments oblong-lanceolate,  $\frac{1}{4}$  as long as the tube. Pappus pale scarlet, rigid, as long as the corolla-tube.—Baron 607! Allied to V. ochroleuca and V. inulafolia, Baker in Journ. Linn. Soc. xx. pp. 179, 180.

# APODOCEPHALA, genus novum Compositarum tribus Eupatoriacearum.

Capitula homogama 3-4-flora, floribus omnibus tubulosis hermaphroditis. Involucrum oblongum, bracteis 10-12 rigidis adpressis, exterioribus sensim brevioribus, extimis ovatis, intimis oblongis. Receptaculum nudum. Corollæ æquales, regulares, tubo cylindrico glanduloso, segmentis oblongo-lanceolatis tubo æquilongis. Antheræ apice connectivo dilatato deltoideo appendiculatæ, basi auriculis acutis præditæ. Stylus profunde bifidus, ramis falcatis linearibus obtusis ad basin stigmatosis. Achenia linearia, angulata, glabra, apice cupulo obscuro solum coronata; pappus nullus.—Frutex Madagascariensis, ramulis robustis lignosis, foliis alternis petiolatis oblongis subcoriaceis dorso pubescentibus, capitulis permultis parvis glomeratis in paniculam amplam latam dispositis.

#### APODOCEPHALA PAUCIFLORA, Baker.

A large shrub, with the habit of a Vernonia or Eupatorium, with stout terete woody branchlets. Leaves oblong acute, rounded at the base, 4-5 in. long, subcoriaceous in texture, green, glabrous and rather lucent above, clothed with persistent short brown pubescence beneath, with 10-12 distinct often forking pairs of rather ascending main veins; petiole above an inch long. Panicle terminal, 6-8 in. long and broad, the woody branches clothed with short brown pubescence. Capitula glomerate in dense congested corvmbs at the end of the branchlets, sessile. Involucre ½ in. long; bracts drab-brown, rigid, the outer growing gradually smaller. Achene glabrous, \(\frac{1}{8}\) in. long, strongly angled, dilated into an obscure cup without any bristles or paleæ at the apex. Corolla 1 in. long, with a cylindrical glandular tube and 5 oblong-lanceolate segments as long as the tube. Stamens and style much shorter than the corolla-segments.-Baron 3251! Allied to Ageratum and Carelia.

# HELICHRYSUM LEUCOSPHÆRUM, n. sp.

Herbaceum, perenne, ramulis foliisque persistenter albo-incanis, foliis sessilibus lanceolatis integris erectis uninerviis, capitulis parvis sessilibus paucifloris in glomerulum globosum terminalem aggregatis, involucro infundibulari bracteis pauciseriatis lanceolatis erectis adpressis acutis, pappo albido.

A perennial herb, with slender erect stems coated with persistent white tomentum. Leaves sessile, erect, crowded, lanceolate,  $1-1\frac{1}{2}$  in. long, tapering to a point, coated on both sides with persistent tomentum like that of the stem. Heads very numerous,

small, sessile, aggregated in globose terminal clusters  $\frac{1}{2}$ - $\frac{3}{4}$  in. in diam. Involucre  $\frac{1}{6}$  in. long, villose at the base, composed of a few rows of pure white rigid erect bracts of moderately firm texture. Pappus of white bristles.—Baron 2611!

HELICHRYSUM XYLOCLADUM, n. sp.

Fruticosum, ramulis lignosis albido-tomentosis, foliis parvis oblongis obtusis coriaccis integris sessilibus facie tenuiter dorso dense albido-tomentosis, capitulis 6-7-floris in paniculam amplam latam ramulis divaricatis dispositis, involucro magno obconico multiseriali albido-tomentoso, bracteis apice scarioso patulo orbiculari præditis, pappo albido.

A shrub, with straight woody branchlets clothed with persistent whitish tomentum. Leaves under an inch long, obtuse, cuncate at the base, very thick and rigid in texture, clothed thinly above and more densely beneath with whitish persistent tomentum like that of the stem. Capitula very numerous, arranged in a panicle 6-8 in long and broad, with divaricated corymbose branches. Involucre  $\frac{1}{4} - \frac{1}{3}$  in long, tomentose in the lower part; all the bracts rigid downwards, furnished with a spreading chartaceous white orbicular tip, the outer ones gradually shorter. Receptacle flat, very small. Pappus of white ciliated bristles.—Baron 3268! 3324!

#### MELANTHERA MADAGASCARIENSIS, n. sp.

Herbacca, sarmentosa, ramulis gracilibus hispidis, foliis petiolatis lanceolatis membranaceis utrinque hispidulis, capitulis radiatis laxe corymbosis, pedunculis pedicellisque crectis elongatis, involucro brevi campanulato bracteis subæquilongis lanceolatis, ligulis fœmineis, achænio obconico angulato apice truncato setis pluribus fragilibus coronato.

A sarmentose perennial herb, with slender angled slightly hispid stems. Leaves opposite, 3-4 in. long, obscurely dentate, cordate or truncate at the base, green and scabrous above, pale green and more hispid beneath; petiole  $\frac{1}{4} - \frac{1}{2}$  in. long. Heads arranged in a very lax corymb on long slender erect peduncles and pedicels. Unexpanded heads globose,  $\frac{1}{3}$  in. in diam., with the rigid ovate-lanceolate paleæ of the receptacle exceeding the young corollas. Involucre broadly campanulate,  $\frac{1}{3}$  in. in diam.,  $\frac{1}{3}$  in. long; bracts lanceolate, subequal, almost foliaceous, very hispid. Ligules 15-20, bright yellow,  $\frac{1}{3}$  in. long, with a perfect style but no stamens. Achene angled, truncate at the apex,  $\frac{1}{16}$  in. long; bristles 6-10, fragile, caducous, as long as the achene.—Baron 2344! 2534! Humblot 410! A new genus for the island. Three species are known in Tropical Africa.

SENECIO PURPUREO-VIRIDIS, n. sp.

Fruticosus, ramulis gracilibus pubescentibus, foliis multis sessilibus amplexicaulibus lyrato-panduræformibus profunde inciso-crenatis medio cito angustatis basi auriculatis facie viridibus glabratis dorso purpureis pubescentibus, cápitulis paucis magnis corymbosis ligulatis, involucro campanulato bracteis lanceolatis, ligulis luteis, achenio glabro, pappo firmulo albo.

A shrub, with long slender straight copiously leafy pubescent branchlets. Leaves moderately firm in texture,  $1\frac{1}{2}-2$  in. long, the oblong obtuse deeply-toothed upper half  $\frac{1}{2}$  in. broad, narrowed suddenly halfway down into a repand wing to the midrib, which is dilated at the base into 2 round amplexicaul auricles. Heads few, arranged in a terminal corymb; peduncles ascending, pubescent, their upper leaves reduced to minute entire lanceolate bracts. Involucre campanulate,  $\frac{1}{3}$  in. in diam.; bracts about 12, pubescent on the back. Ligules  $\frac{1}{3}$  in. long. Disk-flowers very numerous. Achene glabrous,  $\frac{1}{16}$  in. long. Pappus  $\frac{1}{4}$  in. long; bristles pure white, ciliated, firm in texture for the genus.—

Baron 3264! Nearest S. adenodontus, of the species described in the 'Prodromus.'

#### ARDISIA MYRIANTHA, n. sp.

Arborea, foliis breviter petiolatis oblanceolato-oblongis obtusis glabris rigide coriaceis venulis subtilibus, floribus in paniculas axillares breviter pedunculatas ramulis racemosis divaricatis dispositis, pedicellis brevibus pubescentibus, bracteis minutis deltoideis, calycis tubo brevissimo segmentis orbicularibus imbricatis, corollæ tubo brevissimo segmentis orbicularibus, antheris parvis subsessilibus.

An erect shrub or small tree. Leaves 4–5 in. long,  $1-1\frac{1}{2}$  in. broad, narrowed gradually from the middle to the base, thick and rigid in texture, the veins fine and indistinct. Panicles shorter than the leaves; branches few and spreading; rhachises finely pubescent; pedicels at most as long as the flowers; bracts minute, persistent. Expanded calyx  $\frac{1}{16}$  in. in diam.; segments 5, orbicular, much imbricated. Corolla  $\frac{1}{12}$  in. long. Anthers not more than half as long as the corolla-segments. Ovary orbicular; style very short. Fruit not seen.—Baron 2312! Nearly allied to A. bipinnata, Baker, in Journ. Linn. Soc. xx. p. 201.

# Ardisia oligantha, n. sp.

Fruticosa, glabra, ramulis gracilibus, foliis parvis oblongis subobtusis breviter petiolatis subcoriaceis, floribus in corymbos axillares pedunculatos paucifloros dispositis, pedicellis elongatis, bracteis minutis, calycis tubo

brevissimo segmentis ovatis, corollæ tubo brevissimo segmentis orbicularibus, antheris ad faucem tubi sessilibus.

A shrub, glabrous in all its parts, with very slender branchlets. Leaves  $\frac{3}{4}-1\frac{1}{4}$  in. loug, deltoid at the base, moderately firm in texture, green and glabrous on both surfaces, the veins fine and immersed; petiole  $\frac{1}{12}$   $\frac{1}{8}$  in. long. Corymbs 2-3-flowered, about as long as the leaves; pedicels very slender,  $\frac{1}{4}-\frac{1}{3}$  in. long. Expanded calyx  $\frac{1}{12}$  in. in diam.; spreading segments twice as long as the tube. Corolla  $\frac{1}{12}$  in. long. Anthers deltoid, half as long as the corolla-segment. Ovary globose; style short. Fruit not seen.—Baron 2918!

#### Ardisia? Macroscypha, n. sp.

Fruticosa, glabra, ramulis gracilibus teretibus, foliis subsessilibus oblongis obtusis subcoriaceis, floribus axillaribus solitariis, pedicellis elongatis, calycis tubo campanulato segmentis ovatis, corollæ tubo oblongo segmentis semiorbicularibus tubo brevioribus, antheris magnis acutis prope basin corollæ tubi insertis.

An erect shrub, glabrous in all its parts, with slender subterete branchlets. Leaves obscurely petioled,  $1\frac{1}{2}$ -2 in. long, firm in texture, green and glabrous on both surfaces, with fine indistinct veining. Flowers in the only specimen seen solitary from the axils of the upper leaves on slender ascending pedicels above an inch long, articulated above the middle. Calyx  $\frac{1}{12}$  in. in diam.; segments broad ovate, obtuse, ciliated, twice as long as the tube. Corolla  $\frac{1}{6}$  in. long, with 5 semiorbicular segments, not more than half as long as the tube. Anthers  $\frac{1}{8}$  in. long, inserted low down in the corolla-tube. Ovary globose; style cylindrical,  $\frac{1}{16}$  in. long.—Baron 2278! Differs from Ardisia by its short corolla-lobes and stamens inserted low down in the corolla-tube, and may perhaps claim to be considered a new genus.

# Ardisia umbeltata, n. sp.

Fruticosa, glabra, foliis oblongis acutis breviter petiolatis subcoriaceis, floribus in cymas axillares paucifloras pedunculatas dispositis, pedicellis elongatis, calycis segmentis ovatis tubo campanulato æquilongis, corollæ tubo brevissimo segmentis orbicularibus cuspidatis, antheris parvis ovatis ad faucem tubi pæne sessilibus.

An erect much-branched shrub, glabrous in all its parts, with slender subterete branchlets. Leaves 2-3 in. long, deltoid at the base, moderately firm in texture, green and glabrous on both surfaces, the veins fine and indistinct. Flowers 2-6 in copious

axillary umbels; pedicels  $\frac{1}{4}$  in. long; peduncles very slender, shorter than the leaves. Calyx  $\frac{1}{12}$  in. in diam.; segments 5, obtuse. Corolla  $\frac{1}{8}$  in. long; segments much imbricated in bud, copiously black-dotted. Stamens less than half as long as the corollasegments. Ovary globose; style cylindrical, as long as the ovary. Fruit not seen.—Baron 2938!

ARDISIA LONGIPES, n. sp.

Fruticosa, glabra, foliis petiolatis obovato-oblongis obtusis subcoriaceis, floribus in racemos laxos pedunculatos dispositis, pedicellis elongatis, calycis tubo brevi segmentis ovatis obtusis, corollæ tubo brevissimo segmentis orbicularibus cuspidatis, antheris ad faucem corollæ tubi subsessilibus.

An erect much-branched shrub, glabrous in all its parts, with slender subterete branchlets. Leaves 2-3 in. long,  $1-1\frac{1}{2}$  in. broad, narrowed gradually from the middle to a deltoid base, moderately firm in texture, green and glabrous on both surfaces, the veins fine and immersed. Flowers in copious racemes, sometimes congested into corymbs, from the axils of the leaves, on slender peduncles  $1-1\frac{1}{2}$  in. long; pedicels ascending,  $\frac{1}{3}-\frac{1}{2}$  in. long; bracts 0, or very minute. Expanded calyx rotate,  $\frac{1}{8}$  in. in diam. Corolla  $\frac{1}{8}$  in. long; segments much imbricated. Stamens half as long as the corolla-segments. Style cylindrical, as long as the globose ovary. Fruit not seen.—Baron 2224!

ONCOSTEMUM PLATYCLADUM, n. sp.

Fruticosum, glabrum, ramulis compressis acute ancipitibus, foliis brevissime petiolatis oblongis acutis subcoriaceis utrinque viridibus, floribus in corymbos paucifloros breviter pedunculatos dispositis, pedicellis elongatis, calycis et corollæ tubo brevissimo segmentis orbicularibus, filamentis in urceolum parvum ampullæforme ore angusto coalitis.

An erect shrub, glabrous in all its parts, with remarkably flattened acutely-angled branchlets. Leaves 3-4 in. long, narrowed gradually from the middle to both ends, moderately firm in texture, bright green on both surfaces, with fine immersed veins. Flowers about three to a corymb; peduncle short, ancipitous; bracts none; pedicels very slender,  $\frac{1}{4} - \frac{1}{3}$  in. long. Expanded calyx  $\frac{1}{8}$  in. in diam. Expanded corolla  $\frac{1}{6}$  in. in diam. Staminal urceolus not more than half as long as the corolla; the anthers, ovary, and style included inside it. Fruit not seen.—

Baron 2882!

Oncostemum neriifolium, n. sp.

Eruticosum, glabrum, ramulis teretibus, foliis petiolatis oblanceolato-

oblongis obtusis rigide coriaceis, floribus in corymbos axillares pedunculatos dispositis, pedicellis elongatis, calycis tubo brevi segmentis orbicularibus, corollæ tubo brevissimo segmentis orbicularibus, filamentis in urceolum fauce breviter lobata connatis.

An erect shrub or small tree, glabrous in all its parts. Branchlets terete, straight, not very slender. Leaves 3-4 in. long,  $\frac{3}{4}$ - $1\frac{1}{4}$  in. broad above the middle, narrowed gradually from the middle to the base, very thick and rigid in texture, green and glabrous on both surfaces, the veins fine, crowded, slightly raised. Corymbs usually shorter than the leaves, 4-8-flowered; pedicels  $\frac{1}{4}$ - $\frac{1}{2}$  in. long; bracts 0. Expanded calyx  $\frac{1}{12}$  in. in diam. Corolla  $\frac{1}{12}$  in. long. Filaments united in a globose urceolus half as long as the corolla-segments, inside which the stamens, ovary, and style are included. Fruit not seen.—Baron 3036!

#### ONCOSTEMUM VENULOSUM, n. sp.

Arbusculum, glabrum, ramulis gracilibus teretibus, foliis breviter petiolatis oblanceolato-oblongis acutis subcoriaceis utrinque viridibus venulis exsculptis, floribus in corymbos paucifloros pedunculatos axillares dispositis, pedicellis elongatis, calycis tubo brevissimo segmentis orbicularibus imbricatis, corollæ tubo brevissimo segmentis ovatis, filamentis in tubo brevi lato segmentis rotundatis coalitis.

An erect shrub, glabrous in all parts, with slender branches not at all flattened. Leaves 2-3 in. long,  $\frac{3}{4}-1$  in. broad, narrowed from the middle to base, firm in texture, bright green on both surfaces, all the veius and veinlets distinctly raised; petiole  $\frac{1}{8}-\frac{1}{4}$  in. long. Flowers 2-4 in a corymb; peduncle about an inch long; pedicels  $\frac{1}{2}-\frac{3}{4}$  in.; bracts absent. Calyx  $\frac{1}{3}$  in. in diam., very much dotted with black; segments orbicular, broader than long. Corolla  $\frac{1}{8}$  in. long, very much dotted with black. Staminal urceolus less than half as long as the corolla-segments, with rounded lobes, the acute tips of the anthers protruding from its open throat. Ovary globose; style short, cylindrical; stigma capitate. Fruit not seen.—Baron 2986! 2997! Andrangaloaka, Hildebrandt 4083!

# Diospyros fusco-velutina, n. sp.

Arborea, ramulis virgatis glabris, foliis brevissime petiolatis oblongis magnis rigide coriaceis lucidis, pedicellis brevissimis lateralibus solitariis, calyce fructifero segmentis 5 ovatis crassis rigide coriaceis utrinque fuscovelutinis, fructu globoso cuspidato dense persistenter fusco-velutino calyci æquilongo.

A tree, with wand-like glabrous dark rather shining chestnut-

brown branchlets. Leaves 6-8 in. long, about 3 in. broad, acute, rounded at the base, very thick and rigid in texture, glossy above, with 10-12 pairs of distinct erecto-patent raised main veins, uniting in arches before they reach the margin. Pedicels stout, solitary, densely pilose,  $\frac{1}{4}-\frac{1}{2}$  in. long. Fruit-calyx campanulate,  $1-1\frac{1}{4}$  in in diam., thick and rigid in texture, densely brown-velvety both inside and out; spreading tube  $\frac{1}{2}$  in. long; segments ovate, acute,  $\frac{3}{4}$  in. long and broad. Fruit woody in texture,  $\frac{3}{4}$  in. in diam., densely brown-velvety, like the calyx.—Baron 2361!

DIOSPYROS MEGASEPALA, n. sp.

Arborea, glabra, foliis petiolatis magnis oblongis acutis rigide coriaceis, pedicellis lateralibus longissimis fastigiatis gracilibus interdum furcatis, calyce fructifero segmentis 4 late ovatis acutis magnis rigide coriaceis, fructu glabro ovoideo cuspidato magnitudine nucis juglandis.

An erect tree, glabrous in all its parts, with terete branchlets  $\frac{1}{4} - \frac{1}{3}$  in. in diam. Leaves nearly a foot long, 3-4 in. broad, rounded at the base, rigid in texture, dark drab on both sides in the dried state, with distant arcuate-ascending main veins, connected by fine raised cross veinlets. Flowers in a cluster from the side of thick branchlets; pedicels 5-6 in. long, slender, thickened upwards, in one instance forked. Fruit-calyx  $2\frac{1}{2}$  in. in diam., rigidly coriaceous in texture, drab, marked with copious raised anastomosing veins; united portion an inch long; segments 4, about 2 in. long and broad, covered with white meal inside. Fruit woody in texture, mealy, above an inch long, quite hidden by the large calyx.—Baron 2365!

DIOSPYROS SPHÆROSEPALA, n. sp.

Fruticosa, glabra, ramulis ultimis ancipitibus, foliis sessilibus oblongis rigide coriaceis, floribus fœmineis solitariis lateralibus brevissime pedunculatis, calycis tubo brevissimo segmentis 4 orbicularibus obtusis glabris coriaceis, corollæ tubo campanulato segmentis 4 ovatis, ovario glabro.

A much-branched erect shrub or small tree, glabrous in all its parts, with acutely-angled branchlets. Leaves 2-3 in. long, deltoid at the base, rigid in texture, green and glabrous on both surfaces, the main veins fine and erecto-patent. Female flowers solitary, lateral; pedicels very short, with 2-3 minute ovate obtuse bracts. Flower-calyx  $\frac{1}{2}$  in. in diam., with a short spreading tube and 4 glabrous coriaceous brown veinless suborbicular obtuse segments. Corolla shorter than the calyx; segments 4, ovate, twice as long as the tube. Fruit not seen.—Baron 2308!

DIOSPYROS GONOCLADA, n. sp.

Fruticosa, glabra, ramulis ancipitibus, foliis sessilibus oblongis obtusis rigide coriaceis, floribus fœmineis in cymas axillares 3-4-floras dispositis, pedicellis brevibus pilosis, calycis parvi segmentis 4 ovatis acutis, corollæ tubo brevi segmentis ovatis.

An erect shrub, with slender glabrous branchlets, acutely angled towards the tip. Leaves alternate, rigid in texture, 2–3 in. long, deltoid at the base, green on both surfaces, with distant fine arcuate-ascending anastomosing main veins. Flowers 3–4 in lateral cymes, with very short peduncles and pedicels; bracts minute, lanceolate. Flower-calyx campanulate, glabrous,  $\frac{1}{6}$  in. long, with 4 ovate acute segments 2–3 times as long as the tube. Corolla  $\frac{1}{3}$  in. long, glabrous; segments 4, ovate, twice as long as the tube. Fruit not seen.—Baron 2313!

Of all these four new Ebonies we have only the pistillate plants, two of them in the flowering and two in the fruiting stage, so that much further material is wanted for a thorough knowledge of their characters.

HOLARBHENA? MADAGASCABIENSIS, n. sp.

Volubilis, fruticosa, glabra, foliis subsessilibus obovato-oblongis subcoriaceis cuspidatis, floribus in cymas umbellatas paucifloras axillares dispositis, pedicellis cernuis, calycis tubo campanulato segmentis ovatis, corollæ tubo cylindrico segmentis oblongis tubo duplo brevioribus, staminibus supra medium tubi insertis, folliculis cylindricis rigidis patulis.

A woody climber, glabrous in all its parts. Leaves opposite, almost sessile, 2–3 in. long, about an inch broad, rounded at the apex to a large cusp, narrowed gradually from the middle to the base, moderately firm in texture, green and glabrous on both surfaces, with 5–6 pairs of erecto-patent main veins. Flowers 3–6 in umbellate cymes in the axils of the upper leaves; pedicels  $\frac{1}{4}$ – $\frac{1}{3}$  in. long. Calyx  $\frac{1}{6}$  in. long, the ovate segments twice as long as the tube. Corolla with a cylindrical tube  $\frac{1}{3}$  in. long and 5 oblong segments half as long as the tube. Anthers lanceolate-deltoid, inserted above the middle of the corolla-tube, on short broad filaments. Follicles woody in texture, 5 in. long, spreading at a right angle from the top of the peduncles. Seeds with a coma of soft hairs nearly an inch long.—Baron 3242! Differs from Holarrhena in the insertion of the stamens.

Adenoplusia axillaris, Radlkofer, in Bremen Abhand. viii. 461, founded on Hildebrandt 3671 = Buddleia axillaris, Willd.; Baker in Journ. Linn. Soc. xx. p. 206; Baron 1481 and 1980.

BUDDLEIA SPHÆROCEPHALA, n. sp.

Fruticosa, ramulis albido-tomentosis, foliis verticillatis breviter petiolatis oblanceolato-oblongis dentatis subcoriaceis dorso tenuiter tomentosis, floribus in capitulos globosos racemosos aggregatis, calycis segmentis brevissimis, corollæ tubo infundibulari segmentis parvis deltoideis, bracteis rigidis obtusis, fructu oblongo-clavato apice piloso.

An erect shrub, 6 or 7 feet high, with the branchlets coated with whitish tomentum towards the tips. Leaves crowded, ascending, mostly three in a whorl, 3-4 in. long,  $1-1\frac{1}{2}$  in. broad above the middle, obtuse or subacute, narrowed gradually from the middle to the base, rigid in texture, glabrescent above, thinly coated with whitish tomentum beneath; veins 5-6-jugate, raised, arcuate-ascending. Heads globose,  $\frac{1}{2}-\frac{3}{4}$  in. in diam., few or many in a short terminal raceme. Bracts oblanceolate, oblong, obtuse, rigidly coriaceous, navicular, pilose inside and out. Capsule clavate,  $\frac{1}{12}-\frac{1}{8}$  in. long, splitting into two emarginate rigid valves. —Baron 2239! 3111! Also on clay soil, at Maromanga, at 4000 ft., between Tamatave and Antananarivo, Dr. Meller! Allied to the well-known B. globosa, Lam.

#### GAERTNERA PHANEROPHLEBIA, n. sp.

Fruticosa, ramulis fusco-pilosis, stipulis membranaceis vaginantibus, foliis breviter petiolatis oblongis acutis ciliatis venis erecto-patentibus pilosis, floribus in cymas congestas terminales dispositis, calycis segmentis magnis lanceolatis, corollæ tubo subcylindrico piloso, segmentis brevibus oblongis, fructu parvo globoso glabro.

An erect shrub, with slender branchlets, densely clothed upwards with soft brown spreading hairs. Stipules  $\frac{1}{2}$  in. long. Leaves 3-4 in. long, about an inch broad, rounded at the base, moderately firm in texture, with 8-12 pairs of raised parallel erecto-patent veins, clothed with adpressed brown hairs. Flowers in small globose sessile terminal heads. Calyx finally  $\frac{1}{4}-\frac{1}{3}$  in. long, with a small campanulate tube and 5 large pilose lanceolate segments. Corolla  $\frac{1}{2}$  in. long, the oblong spreading segments not more than  $\frac{1}{3}-\frac{1}{4}$  as long as the subcylindrical pilose tube. Fruit small, globose, glabrous.—Baron 2372! 2982!

# GAERTNERA PHYLLOSTACHYA, n. sp.

Fruticosa, glabra, stipulis magnis vaginantibus, foliis breviter petiolatis oblanceolato-oblongis acutis subcoriaceis glabris, floribus in paniculam amplam ramulis corymbosis dispositis, bracteis multis magnis foliaceis persistentibus, calyce subtruncato, corollæ tubo subcylindrico, segmentis oblongis tubo brevioribus, fructu parvo globoso glabro.

A shrub or small tree, glabrous in all its parts. Stipules membranous,  $\frac{1}{2}$ -1 in. long. Leaves 4-5 in. long,  $1\frac{1}{4}$ - $1\frac{1}{2}$  in. broad, deltoid at the base, moderately firm in texture, green and glabrous on both surfaces, with distant fine arcuate-ascending main veins. Flowers in a lax deltoid terminal panicle 3-4 in. long and broad, with corymbose branches, mixed with copious oblong or lanceolate acute persistent foliaceous bracts  $\frac{1}{2}$ -1 in. long. Calyx campanulate,  $\frac{1}{12}$  in. long, with an obscurely ciliated subentire collar-like limb. Corolla above  $\frac{1}{2}$  in. long. Fruit globose, glabrous,  $\frac{1}{4}$  in. in diam.—Baron 2327! 2683! Also Humblot 510!

#### IPOMÆA (§ ANISEIA) PHYLLONEURA, Baker.

Herbacea, volubilis, ramulis pilosis, foliis petiolatis ovato-hastatis membranaceis glabris, floribus axillaribus sæpe solitariis, bracteis foliaceis persistentibus, calycis segmentis magnis inæqualibus cordato-ovatis cuspidatis acute carinatis basi dentatis, corollæ tubo calyci æquilongo limbo late infundibulari tubo æquilongo, fructu globoso calyce breviori.—Aniseia hastata, Meisn., in Mart. Fl. Bras. vii. 319.

Baron 2516! 2605! 2671! This is a Brazilian species, and Mr. Baron's specimens quite agree with those gathered in Brazil by Burchell. I have changed the specific name because Aniseia is merged in Ipomæa by Bentham and Hooker, and there is already an Ipomæa hastata of Linnæus, which = Quamoclit saqittæfolia of Choisy.

#### Solanum myoxotrichum, n. sp.

Fruticosum, ramulis aculeatis densissime ferrugineo-hispidis, foliis petiolatis ovatis acutis utrinque molliter pubescentibus costa aculeata, cymis sessilibus 2-3-floris, pedicellis elongatis hispidis aculeatis, calycis segmentis ovatis acuminatis, corollæ segmentis deltoideis tubo longioribus, antheris magnis.

A much-branched erect shrub, with stems armed with copious small brown prickles and very dense spreading bright brown bristly hairs. Leaves shortly petioled, about 2 in long, acuminate, subentire, broadly rounded at the base, dull green above, whitish beneath, softly pubescent on both surfaces, the midrib armed with several large pungent brown prickles. Pedicels  $1-1\frac{1}{4}$  in long, armed with copious bristles and aciculi. Calyx  $\frac{1}{2}$  in long, prickly and very pubescent. Expanded corolla 1 in in diam. Anthers  $\frac{1}{6}$  in long. Style protruded beyond the anthers. Berry not seen.—Baron 1005! 2805! Allied to S. indicum, Linn.

SOPUBIA STRICTA, n. sp.

Herbacea, pubescens, caule stricto inferne simplici superne ramosissimo ramulis ascendentibus virgatis, foliis oppositis sessilibus linearibus uninerviis, floribus oppositis laxissime racemosis, pedicellis fructui æquilongis, calycis tubo campanulato segmentis deltoideis, corollæ tubo infundibulari segmentis latis, fructu globoso magnitudine pisi.

A perennial herb, with a stiffly erect pubescent stem about 2 ft. long, much branched in the upper half, the branchlets long, simple, ascending. Leaves in opposite pairs, invariably simple,  $\frac{1}{2}$ -1 in. long, ascending, one-nerved, with revolute margins. Racemes sometimes half a foot long, the flowers in pairs on short ascending pedicels, bracteated at the base by reduced leaves. Calyx  $\frac{1}{6}$  in. long and broad; teeth rather shorter than the tube. Corolla not well-seen. Fruit black, glabrous,  $\frac{1}{6}$  in. in diam., splitting down nearly to the base into two valves.—*Baron* 2709!

#### UTRICULARIA IBARENSIS, n. sp.

Limosa, parva, aphylla, caule gracili brevi, racemis laxe 2-3-floris, floribus purpurascentibus, pedicellis brevibus, bracteis 2-3nis acutis, calycis labiis oblongis, corollæ labio postico parvo erecto, antico magno latissimo cuneato, calcare deltoideo.

Stem leafless, very slender, straight, erect, 2-3 in. long. Flowers 2-3, arranged in a lax terminal raceme; pedicels erectopatent,  $\frac{1}{12} - \frac{1}{8}$  in. long; bracts minute, lanceolate, persistent. Calyx  $\frac{1}{8}$  in. long, slit down nearly to the base into two oblong lips. Upper lip of the corolla deltoid-cuneate,  $\frac{1}{8} - \frac{1}{6}$  in. long and broad; lower lip considerably broader than long ( $\frac{6}{8} - \frac{3}{4}$  in. broad), rounded at the apex, cuneate at the base; spur half as long as the lower lip.—Thara country, L. Kitching! Allied to U. spartea, Baker, in Journ. Linn. Soc. xx. 216.

#### DIDYMOCARPUS VESTITA, n. sp.

Annua, pilosa, foliis ovatis petiolatis membranaceis serratis, pedunculis axillaribus 2-3-floris, pedicellis elongatis, calycis tubo brevissimo segmentis lanceolatis, corollæ tubo late infundibulari segmentis brevibus semiorbicularibus, genitalibus inclusis, fructu cylindrico piloso.

An erect annual, with densely pubescent flexuose stems 3-4 in. long. Leaves opposite, 1-2 in. long, obtuse, membranous, densely hairy on both surfaces, inciso-crenate. Flowers in cymes from the axils of the upper leaves; peduncle about an inch long; pedicel finally  $\frac{1}{4}$ - $\frac{1}{3}$  in., erecto-patent. Calyx campanulate, pilose,  $\frac{1}{12}$  in. long, cut down nearly to the base into 5 lanceolate segments. Corolla  $\frac{1}{3}$  in. long; segments not more than  $\frac{1}{4}$  as

long as the tube. Capsule 1 in. long, pilose, narrowed gradually into a curved style  $\frac{1}{8}$  in. long; stigma capitate.—Baron 2655!

COLEA PARVIFLORA, n. sp.

Fruticosa, erecta, glabra, foliis longe petiolatis foliolis 1-5 oblongis coriaceis pinninerviis, floribus in cymas axillares paucifloras dispositis, pedicellis brevibus, calycis tubo obconico segmentis brevissimis, corollæ pilosæ tubo infundibulari segmentis brevibus oblongis, genitalibus inclusis, fructu oblongo acuto.

An erect much-branched shrub, with glabrous terete branchlets. Petiole sometimes an inch long. Leaves rarely simple, usually compound, with 3-5 oblong obtuse coriaceous leaflets  $1-1\frac{1}{2}$  inlong, green and glabrous on both surfaces, rather glossy above, with 5-6 pairs of distinct parallel arcuate ascending main veins. Flowers few together in shortly-peduncled axillary cymes from the leafy branchlets. Calyx  $\frac{1}{8}-\frac{1}{6}$  in in diam., glabrous, with small deltoid segments. Corolla  $\frac{5}{8}$  in long, pilose, with a funnel-shaped tube and small obtuse segments. Stamens not reaching the tip of the perianth-segments. Capsule glabrous, smooth,  $1\frac{1}{2}$  in long, narrowed to the point—Baron 3099!

#### THUNBERGIA CONVOLVULIFOLIA, n. sp.

Volubilis, glabra, foliis breviter petiolatis cordato-ovatis acutis, floribus axillaribus solitariis, pedicellis elongatis, bracteis oblongis foliaceis persistentibus, calycis dentibus lanceolatis, corollæ tubo deorsum cylindrico sursum oblongo ventricoso, segmentis parvis orbicularibus, genitalibus in tubum inclusis, fructu globoso longe cuspidato.

A climber, with slender shrubby angled stems. Leaves  $1-1\frac{1}{2}$  in. long, moderately firm in texture, turning blackish when dried, with an open basal sinus and rounded auricles; petiole  $\frac{1}{6}-\frac{1}{3}$  in. long. Flowers solitary from the axils of the leaves on ascending peduncles about an inch long. Bracts  $\frac{1}{2}$  in. long, similar to the leaves in colour and texture. Calyx with a very short patellæform tube and 10 rigid erect teeth  $\frac{1}{12}$  in. long. Corolla  $\frac{3}{4}$  in. long, the ventricose upper part of the tube  $\frac{1}{3}$  in. in diam.; segments purplish black,  $\frac{1}{8}-\frac{1}{6}$  in. long and broad. Capsule globose,  $\frac{1}{3}$  in. in diam., with a beak nearly  $\frac{1}{2}$  in. long.—Baron 2923! Nearly allied to T. angulata, Hils. and Bojer, of which there is a figure in Hooker's 'Exotic Flora,' tab. 166.

# RUELLIA BREVICAULIS, n. sp.

Herbacea, perennis, pilosa, caulibus brevibus, foliis parvis sessilibus oblanceolato-oblongis obtusis vel subacutis, floribus solitariis axillaribus,

pedicellis brevibus, bracteolis oblongo-lanceolatis persistentibus, calycis tubo infundibulari segmentis lanceolato-deltoideis, corollæ tubo cylindrico pollicari, segmentis orbicularibus patulis, genitalibus in corollæ tubo inclusis.

A herbaceous perennial, copiously branched at the crown of the root, with slender ascending pubescent stems 2–3 in. long. Leaves opposite, sessile,  $\frac{1}{2}$  in. long, narrowed from the middle to the base, moderately firm in texture, dark green and hispid on both surfaces. Flowers solitary in the axils of the leaves all down the stem on short ascending pedicels. Calyx  $\frac{1}{3}$  in. long, green, pilose; segments  $\frac{1}{4}$  the length of the tube. Corolla with a slender cylindrical tube an inch long, only dilated very slightly at the top; segments 5, orbicular-cuneate, subequal,  $\frac{1}{2}$  in. long and broad. Stamens 4, inserted near the top of the corolla-tube; filaments short. Capsule not seen.—Baron 1896!

#### Justicia (§ Anisostachya) trichophylla, n. sp.

Fruticosa, ramulis dense pilosis, foliis longe petiolatis oblongis acutis membranaceis utrinque pilosis, floribus in spicas paniculatas terminales dispositis, bracteis magnis membranaceis obovato-cuneatis persistentibus, calycis tubo brevissimo segmentis oblanceolatis acutis, capsulæ valvis bracteæ æquilongis.

A shrub, with slender branchlets, densely pubescent towards the tip. Leaves 3-4 in. long, membranous, dark green, acuminate, rounded at the base, pubescent on both surfaces; petiole  $\frac{3}{4}$ -1 in. long, densely pubescent. Spikes  $1-1\frac{1}{2}$  in. long, many to a panicle, the lower branches of which spring from the axils of large leaves. Bracts obovate-cuñeate,  $\frac{1}{4}$  in. long, persistent, green at the base and drab at the top in the dried specimens. Calyx  $\frac{1}{8}$  in. long, infundibuliform, cut down nearly to the base into oblanceolate acute segments. Capsule  $\frac{1}{4}$  in. long, split down nearly to the base into two rigid diverging valves, with a couple of seeds at the middle of each.—Baron 2442! Allied to J. haplostachya and J. Commersoni.

# JUSTICIA (§ ANISOSTACHYA) TRITICEA, n. sp.

Fruticosa, glabra, ramulis gracillimis, foliis breviter petiolatis oblongis acutis, floribus in spicas densas pedunculatas paniculatas dispositis, bracteis rigidis oblongo-lanceolatis ciliatis dense imbricatis, calyce profunde bilabiato, corollæ tubo cylindrico, limbo brevi bilabiato, genitalibus ex tubo protrusis.

An erect shrub, with slender glabrous branchlets. Leaves 2-

3 in. long, narrowed from the middle to the base, moderately firm in texture, green and glabrous on both surfaces. Spikes very dense, secund,  $1-1\frac{1}{2}$  in. long, produced from the axils of the upper leaves on peduncles of about the same length. Bracts oblong-lanceolate,  $\frac{1}{6}$  in. long, with 5–7 prominent ribs on the back, the margin densely ciliated. Calyx about as long as the bract, glabrous; segments oblong-lanceolate. Corolla whitish, with a cylindrical tube as long as the calyx;  $\lim_{t \to \infty} \frac{1}{12}$  in. long; upper lip obovate; lower deflexed, deeply 3-lobed. Capsule not seen.— Baron 2545! Allied to J. Bajeri, Nees.

#### ISOGLOSSA GRACILLIMA, n. sp.

Herbacea, glabra, ramulis gracillimis, foliis oblongis acutis membranaceis glabris, floribus in paniculas laxissimas terminales dispositis, pedicellis elongatis, calycis segmentis lanceolatis longe acuminatis, corollæ tubo infundibulari limbo brevi, antherarum loculis disjunctis, superiori interdum basi calcarato.

An erect perennial herb, glabrous in all its parts, with very slender branchlets. Leaves distant, opposite, shortly petioled, dark green,  $1\frac{1}{2}-2$  in. long. Flowers arranged in a very lax panicle, with very slender ascending few-flowered racemose branchlets; pedicels erecto-patent,  $\frac{1}{2}-\frac{3}{4}$  in. long. Calyx  $\frac{1}{6}$  in. long, slit down nearly to the base into 5 lanceolate acuminate segments. Corolla yellow,  $\frac{1}{3}$  in. long; tube infundibuliform; limb bilabiate, half as long as the tube. Stamens 4, included in the corolla-tube, with long filaments and superposed small oblong anthers, the upper cell sometimes but not invariably spurred at the base.— $Baron\ 2325$ !

#### ISOGLOSSA ANGUSTA, Baker.

Herbacea, ramulis gracillimis apice pubescentibus, floribus breviter petiolatis lanceolatis glabris, floribus in paniculas laxissimas terminales ramulis corymbosis dispositis, calycis segmentis lanceolatis, corollæ tubo infundibulari limbo brevi, antherarum loculis disjunctis oblongis.—Clinacanthus angustus, Nees in DC. Prod. xi. 511.

An erect perennial herb, with very slender branchlets, shortly pubescent towards the top. Leaves shortly petioled,  $1\frac{1}{2}-2$  in. long,  $\frac{1}{4}$  in. broad. Panicle erect, very long and lax; pedicels  $\frac{1}{4}-\frac{1}{2}$  in. long. Calyx  $\frac{1}{6}$  in. long, cut down nearly to the base into 5 lanceolate acute segments. Corolla yellow,  $\frac{1}{3}$  in. long; upper lip orbicular, shorter than the lower. Stamens included in the corollatube; cells of the anther much separated. Capsule with 2 diverging clavate valves  $\frac{1}{2}$  in. long, with 2 seeds at the middle of

each.—Baron 2198! We have long had two sheets at Kew from the herbarium of Justice Blackburn.

#### ISOGLOSSA MELLERI, n. sp.

Herbacea, ramulis gracillimis apice pilosis, foliis breviter petiolatis ovatis acutis subglabris membranaceis, fioribus in paniculas laxissimas terminales ramulis paucifloris corymbosis dispositis, pedicellis elongatis, calycis segmentis lanceolatis, corollæ tubo infundibulari limbo tubo æquilongo, antherarum loculis disjunctis oblongis.

An erect fragile perennial herb 2-3 feet high, with slender fragile branchlets pilose towards the tip. Leaves distant, opposite, turning black when dried, thin in texture, rounded at the base, the lower  $1\frac{1}{2}$ -2 in. long. Flowers arranged in a very lax erect panicle, the lower branches of which spring from the axil of well-developed leaves; pedicels slender, erect, pilose, sometimes  $\frac{1}{2}$ - $\frac{3}{4}$  in. long. Calyx  $\frac{1}{6}$  in. long, pubescent at the base; tube very short. Corolla yellow,  $\frac{1}{2}$  in. long; lips very unequal, the lower with 3 large oblong divisions. Stamens included in the corolla-tube; anthercells not spurred at the base. Capsule not seen.—Between Tamatave and Antananarivo, Dr. Meller! Three sheets in the Kew herbarium, the specimens gathered in 1862. Native name Ravisara.

# HYPOESTES STACHYOIDES, n. sp.

Herbacea, perennis, glabra, foliis parvis breviter petiolatis remotis ovatis obtusis, floribus in spicas laxas paucifloras axillares et terminales dispositis, involucro unifloro bracteis 4 rigidulis oblongis acutis, calyce involucro paulo breviori, corollæ albæ tubo infundibulari, limbo tubo breviori, genitalibus ex tubo protrusis.

A herbaceous perennial, glabrous in all its parts, with slender ascending stems under a foot long. Leaves  $\frac{1}{2}-\frac{3}{4}$  in. long, moderately firm in texture, green and glabrous on both surfaces. Spikes laxly few-flowered, erect, terminal, produced from the end of the stems and axils of the upper leaves. Involucre glabrous,  $\frac{1}{6}$  in long; bracts much imbricated. Calyx but little shorter than the involucre. Corolla-tube  $\frac{1}{2}$  in. long; upper lip oblanceolate-oblong, entire,  $\frac{1}{4}$  in. long; lower nearly as long, 3-lobed. Stamens reaching out of the tube halfway up the limb. Capsule not seen.—
Baron, 2626! Allied to H. maculosa, Nees.

# HYPOESTES UNILATERALIS, n. sp.

Herbacea, perennis, glabra, foliis petiolatis lanceolatis, floribus in paniculam terminalem ramulis brevibus secundis spicatis dispositis, involucro unifloro piloso bracteis 4 rigidulis oblongis, calyce involucro duplo breviori, corollæ albæ pilosæ tubo subcylindrico, labiis tubo duplo brevioribus, staminibus ex tubo breviter protrusis.

A herbaceous perennial, with short slender erect glabrous stems. Leaves  $1-1\frac{1}{2}$  in. long,  $\frac{1}{4}-\frac{1}{3}$  in. broad, pinninerved, tapering gradually to the base, moderately firm in texture, green and glabrous on both surfaces; petiole  $\frac{1}{4}-\frac{1}{3}$  in. long. Panicle with the lower branches produced from the axils of well-developed leaves. Involucre infundibuliform,  $\frac{1}{6}$  in. long; bracts dull green, densely pilose, much imbricated. Calyx  $\frac{1}{12}$  in. long; segments oblong-lanceolate. Corolla-tube  $\frac{1}{4}$  in. long; limb half as long as the tube; upper lip oblong; lower deflexed, with 3 oblong lobes. Anthers just protruded from the corolla-tube. Capsule not seen.—Baron 2665! Allied to H. secundiflora, Baker.

#### Hypoestes jasminoides, n. sp.

Fruticosa, glabra, foliis brevissime petiolatis oblongis acutis pinninerviis, floribus in spicas laxas paucifloras paniculatas dispositis, involucro unifloro glabro bracteis 4 rigidulis acutis, calyce involucro paulo breviori, corollæ albæ tubo elongato subcylindrico labiis brevibus latis, genitalibus in tubo inclusis.

A much-branched shrub, with slender terete branchlets. Leaves 2-3 in. long, deltoid at the base, moderately firm in texture, green and glabrous on both surfaces; petiole not more than  $\frac{1}{8}-\frac{1}{6}$  in. long. Spikes  $1-1\frac{1}{2}$  in. long, produced only in the axils of the upper leaves, erect, shortly peduncled. Involucre glabrous, infundibuliform,  $\frac{1}{6}$  in. long; segments green, rigid, much imbricated. Corolla white, pubescent; tube  $\frac{1}{2}$  in. long, almost cylindrical; limb  $\frac{1}{4}$  in. long; upper lip oblong, obtuse, entire; lower with 3 small obtuse lobes. Capsule not seen.—Baron 1224, 2533! Allied to H, comorensis, Baker in Journ. Linn. Soc. xx. p. 223.

# HYPOESTES TRICHOCHLAMYS, n. sp.

Fruticosa, ramulis pubescentibus, foliis petiolatis oblongis acutis obscure pilosis, floribus in spicas secundas subdensas paniculatas terminales dispositis, involucro unifloro piloso segmentis 4 oblanceolatis obtusis, calyce quam involucrum paulo breviori, corollæ pilosæ albæ tubo quam involucrum sesquilongiori, limbo parvo segmentis oblongis.

A shrub, with slender pubescent tetragonous branchlets. Leaves distinctly petioled, moderately firm in texture, 2-3 in. long, cuneate at the base, dark green and thinly pilose on both surfaces. Spikes 1-2 in. long, ascending, arranged in small ter-

minal panicles. Involucre narrowly infun dibuliform,  $\frac{1}{4} - \frac{1}{3}$  in. long; bracts firm in texture, densely pubescent, green towards the tip, drab towards the base. Calyx pale, more than half as long as the involucre; segments very acute. Corolla white,  $\frac{1}{2}$  in. long, with a long tube and a short bilabiate limb with oblong segments. Stamens and stigma exserted from the corolla-tube.—Baron 2928! Allied to H. saxicola, Nees.

ORTHOSIPHON SECUNDIFLORUS, n. sp.

Fruticosus, ramulis pubescentibus, foliis oblongis acutis petiolatis pubescentibus serratis, floribus 2-3nis in racemos laxos secundos dispositis, pedicellis calyci fructifero æquilongis, calycis labio supremo brevi lato, labio inferiori dentibus lanceolato-deltoideis, corollæ tubo elongato cylindrico, limbo tubo duplo breviori, genitalibus in tubo inclusis.

Stems erect, shrubby, much branched, pubescent. Leaves 2-3 in long, moderately firm in texture, distinctly serrated, green and pubescent on both sides. Racemes  $1\frac{1}{2}-2$  in long; pedicels finally  $\frac{1}{6}$  in long; bracts minute, foliaceous, ovate. Calyx finally  $\frac{1}{6}$  in long; upper lip concave, scariose, strongly veined, not more than half as long as the campanulate tube; lower lip rather longer than the upper, the two lowest teeth the longest. Corolla-tube nearly  $\frac{1}{4}$  in long; lips half as long as the tube.—Baron 1226!

ORTHOSIPHON EMIRNENSIS, n. sp.

Herbaceus, ramulis pilosis, foliis petiolatis oblongis obtusis crenatis membranaceis, floribus laxe racemosis verticillatis, pedicellis calyci fructifero æquilongis, calycis labio supremo orbiculari concavo tubo æquilongo, labio inferiori dentibus lanceolatis, corollæ tubo cylindrico, limbo parvo, genitalibus in tubo inclusis.

A perennial herb, with finely pilose erect slender stems under a foot long. Leaves 1-2 in. long, membranous, deltoid at the base, green and glabrous on both surfaces; petiole  $\frac{1}{4}-\frac{1}{2}$  in. long. Racemes peduncled, terminal, at most an inch long; flowers 3-6 in a whorl; pedicels finally  $\frac{1}{6}$  in. long; bracts small, foliaceous, oblong-lanceolate. Calyx very accrescent, at first not more than  $\frac{1}{2}$  in., finally  $\frac{1}{4}$  in. long; upper lip suborbicular, as long as the campanulate tube, concave and conspicuously veined; lower lip with 3 rigid lanceolate teeth. Corolla with a cylindrical tube  $\frac{1}{6}$  in. long; lobes of the limb minute, orbicular.—Baron 1056! 2190! 3259!

ORTHOSIPHON BREVICAULIS, n. sp.

Herbaceus, perennis, caule subnullo vel brevissimo, foliis magnis oblanceolato-oblongis obtusis serratis glabris, floribus verticillatis in racemum laxum terminalem longe pedunculatum dispositis, pedicellis pubescentibus calyci fructifero æquilongis, calycis labio supremo concavo tubo æquilongo, labio inferiori dentibus parvis acutis, corollæ tubo elongato cylindrico labiis parvis, genitalibus ex tubo protrusis.

A perennial herb, with either all the leaves in a rosette from the crown of the root or one pair at the top of a short internode. Leaves 3-4 in. long,  $1-1\frac{1}{2}$  in. broad, firm in texture, green and nearly glabrous on both surfaces, narrowed gradually from the middle to the base, serrated in the upper half, entire in the lower. Raceme 1-2 in. long, shorter than its pubescent erect peduncle. Pedicels finally  $\frac{1}{4}$  in. long. Calyx very accrescent, finally  $\frac{1}{4}$  in. long; upper lip concave, quite as long as the tube; lower lip with 4 rigid deltoid or lanceolate-deltoid teeth. Corolla  $\frac{1}{3}$  in. long; lips not more than  $\frac{1}{4}$  as long as the tube.—Baron 2656!

PLECTRANTHUS CYMOSUS, n. sp.

Perennis, pubescens, foliis longe petiolatis ovatis subacutis conspicue crenatis membranaceis, floribus in cymas verticillatas in paniculam elongatam terminalem cylindricam aggregatas dispositis, bracteis nullis, pedicellis ascendentibus pubescentibus, calyce parvo profunde bilabiato, corollæ tubo infundibulari prope basin curvato, fauce lata, labio postico parvo antico magno oblongo, staminibus ultra labium exsertis.

An erect perennial herb, 2-3 feet high, with a tetragonous stem, leafy up to the base of the inflorescence. Leaves opposite,  $1\frac{1}{2}$ -2 in. long, nearly as broad, subacute, deeply crenate, dull green, thin in texture, slightly pubescent; petiole 1 in. long. Flowers in small cymes arranged in verticils of about four, forming a leafless cylindrical panicle nearly a foot long; pedicels short, ascending. Calyx campanulate,  $\frac{1}{3}$  in. long. Corolla lilac, pubescent, with a broadly funnel-shaped tube  $\frac{1}{4}$  in. long, a small orbicular upper lip and an oblong acute concave lower lip as long as the tube. Stamens declinate, the two longer exserted beyond the lower lip of the corolla; anthers minute, orbicular.—Baron 2250!

Lippia oligophylla, Baker in Journ. Linn. Soc. xx. p. 225, proves to be identical with Acrocephalus villosus, Benth.

VITEX (§ CHRYSOMALLUM) TRICHANTHA, n. sp.

Erecta, fruticosa, ramulis apice pilosis, foliis simplicibus petiolatis oblongis acutis subcoriaceis facie glabris dorso pilosis, cymis axillaribus 1-2-floris, bracteolis lanceolatis pilosis, calycis tubo campanulato villoso dentibus lanceolatis tubo æquilongis, corollæ tubo piloso curvato infundibulari elongato, segmentis parvis, genitalibus breviter exsertis.

A much-branched erect shrub, with branchlets densely villose towards the tip. Leaves opposite, distinctly petioled, firm in texture, 2-3 in. long, rounded at the base, glabrous when mature above, pubescent mainly on the midrib beneath. Peduncles about  $\frac{1}{2}$  in. long. Calyx  $\frac{1}{3}$  in. long, very shaggy, with a pair of persistent bracteoles at the base. Corolla-tube curved, villose, above an inch long,  $\frac{1}{4}$  in. in diam. at the throat; lobes of the limb very small, orbicular. Stamens and bifid style exserted beyond the tip of the corolla-segments; anthers minute, globose. Fruit not seen.—Baron 2316! Allied to V. Bojeri, Schauer,=Baron 2972!

CLERODENDRON? BRUNSVIGIOIDES, n. sp.

Fruticosa, erecta, glabra, foliis breviter petiolatis oblongis acutis, floribus axillaribus pedunculatis solitariis, calycis tubo infundibulari segmentis ovatis acutis tubo brevioribus, corollæ tubo infundibulari calyce duplo longiori, limbi segmentis orbicularibus, genitalibus in tubo inclusis.

An erect shrub, with slender branchlets, obscurely pilose towards the tip. Leaves 3-4 in. long, much narrowed to the base, simple, entire, moderately firm in texture, green and glabrous on both surfaces. Flowers solutary from the axils of the leaves on ascending peduncles 1-3 in. long. Calyx  $\frac{1}{2} - \frac{5}{8}$  in. long, clothed with adpressed hairs; teeth half as long as the tube. Corolla-tube above an inch long, dilated in the upper half; expanded limb an inch in diameter; orbicular subequal segments imbricated, about  $\frac{1}{2}$  in. long and broad. Stamens and style not protruded from the throat of the corolla-tube. Fruit not seen. —Baron 2716! Near C.? petunioides, Baker in Journ. Linn. Soc. xx. p. 230.

#### INCOMPLETÆ.

Polygonium Brachypodum, Baker in Journ. Linn. Soc. xx. p. 239—of which Mr. Baron now sends better specimens as No. 2208—proves identical with P. Meissnerianum, Cham. et Schlecht., which in America extends from Louisiana and Texas to South Brazil.

HYDROSTACHYS STOLONIFERA, n. sp.

H. caulibus longe reptantibus, foliis pedunculisque ad nodos exspitosis, foliis longe petiolatis deltoideis decompositis segmentis ultimis minutis lanceolatis, floribus in spicas densas cylindricas pedunculatas dispositis, bracteis ovatis.

Stems wide-trailing on the surface of the ground, rooting at the nodes, where they bear tufts of leaves and spikes. Petiole 1-2 in. long, rough with spreading papillæ; lamina reaching a length of 5-6 in.; pinnæ and pinnules deltoid; ultimate segments lanceolate, not more than  $\frac{1}{16}$   $\frac{-1}{24}$  in. long. Spikes several to a node, simple, peduncled, cylindrical, seen only in a young state. —Baron 2628! Allied to H. multifida, A. Juss.; Deless. Icones, vol. iii. t. 93.

# PIPER (§ CUBEBA) PACHYPHYLLUM, n. sp.

Dioicum, fruticosum, glabrum, ramulis articulatis, foliis coriaceis oblongis acutis basi paulo inæqualibus late rotundatis vel subæqualibus, spicis fœmineis densifloris cylindricis oppositifoliis breviter pedunculatis, bracteis orbicularibus peltatis, fructibus ellipsoideis glabris distincte stipitatis, stigmatibus 3 sessilibus patentibus.

Stems shrubby, terete, articulated at the nodes. Leaves 4–5 in. long,  $2-2\frac{1}{2}$  in. broad, firm and thick in texture, green and glabrous on both surfaces, the secondary veins distant and very ascending, connected at the apex by intramarginal arches; petiole under  $\frac{1}{2}$  in. long. Female spikes only seen, finally  $2\frac{1}{2}-3$  in. long; peduncle  $\frac{1}{2}-\frac{3}{4}$  in. long. Ovary with a pedicel as long as itself, black, glabrous; stigmas 3, sessile.—Baron 2415! Very near P. borbonense, C. DC., which Mr. Baron has gathered several times in Central Madagascar (1280! 1539! 2207! 2335!), and which Dr. Parker has sent under the native name Ferifery. Mr. Baron has also found P. capense, Linn. fil. (2518!), which extends to the Cape, the Zambesi country, Fernando Po, and the Cameroon Mountains.

# PEPEROMIA TRICHOPHYLLA, n. sp.

P. caule simplici semipedali flexuoso piloso, foliis alternis obovato-cuneatis obtusis petiolatis membranaceis utrinque pilosis venis lateralibus paucis valde ascendentibus, spicis elongatis gracillimis laxifloris ascendentibus pedunculatis, bracteis orbicularibus peltatis, ovario ovoideo sessili, stigmate sessili terminali.

Stems weak, flexuose, densely pilose. Leaf with a blade  $1\frac{1}{2}-2$  in. long, orbicular at the apex, cuneate in the lower half, membranous in texture, dark green and pubescent on both surfaces, the midrib and lateral veins distinctly visible when the leaf is held up to the light, as are the anastomosing connecting veinlets; petiole  $\frac{1}{2}-\frac{3}{4}$  in. long. Spikes produced from the axils of the leaves on short slender peduncles, finally 3-4 in. long. Ovary ascend-

ing, glabrous, inserted in the grooves of the sulcate rhachis; stigma globose, sessile.—Baron 500! 3190! Allied to P. Lyallii, C. DC.

DILOBEIA THOUARSII, Roem. & Sch.

Of this very curious endemic Proteaceous tree Mr. Baron has now (No. 3253) procured complete specimens, from which the following notes are taken. Dr. Baillon has recently described it fully in the Bulletin of the Linnean Society of Paris, p. 394, from specimens gathered in the north-west of the island by M. Humblot.

A large tree with thick terete branchlets, coated with brown tomentum. Leaves alternate, rigidly coriaceous, glabrous; blade cuneate, deeply bifid, ½ ft. long and broad, the apical lobes semiorbicular and simple in the mature leaf, prolonged and again forked in the young leaves; petiole 3-4 in. long, flattened and winged towards the top. Flowers diœcious, arranged in copious ascending axillary panicles about as long as the petiole, with a tomentose axis and branchlets; branchlets laxly spicate, each flower subtended by a minute ovate bract. Male perianth clavate, 1 in. long, slit down to the base into four lanceolate valvate segments, glabrous inside. Stamens a little shorter than the perianth-segments; anther  $\frac{1}{8}$  in. long, tipped with the protruded connective, much longer than the fleshy cylindrical filament. Female panicle shorter and less compound than the male. Ovary globose, densely ferruginous, with a short thick style and 2-lobed stigma. Fruit hard, thick, 1-seeded, indehiscent, oblong, 1½ in. long. Native name Vivaona. The plant gathered by Dr. Parker, mentioned in Journ. Bot. 1882, p. 244, is a form of the same species.

# Viscum (§ Ploionuxia) lophiocladum, n. sp.

Foliosum, glabrum, ramulis articulatis acute ancipitibus, foliis subsessilibus ovatis subobtusis rigide coriaceis venis occultis, floribus ad nodos sessilibus glomeratis bracteis in cupulam connatis, ovario globoso haud papilloso.

A shrub, with compressed woody branchlets with two raised angles, falling in pieces readily at the nodes, with internodes  $\frac{3}{4}-1$  in. long. Leaves very thick and rigid in texture, 2-3 in. long, opaque, brown and quite glabrous on both surfaces when dried, rounded to a cuneate base. Flowers few in a cluster, quite sessile

in the axil of the leaves, seen only in an early stage. Sepals deltoid.—Baron 2751!

# VISCUM (§ PLOIONUXIA) RHYTIDOCARPUM, n. sp.

Foliosum, glabrum, ramulis teretibus granulosis, foliis subsessilibus oblongis obtusis crassis rigide coriaceis venis occultis immersis, floribus in umbellas subsessiles axillares 2-3-floras dispositis, bracteis in cupulam connatis, ovario globoso haud papilloso.

A much-branched shrub, with terete very granular branchlets, the internodes ½-1 in. long. Leaves very thick and rigid in texture,  $\frac{3}{4}$ -1 in. long, obtuse, narrowed at the base to an indistinct petiole, opaque and brown with a much-wrinkled epidermis on both surfaces when dried. Flowers 2-3 together in the axils of the leaves in a small oblong coriaceous cupule. Ovary not seen fully mature, but not at all papillose in an early stage.—

Baron 3110! Near V. triflorum, DC.

# VISCUM (§ PLOIONUXIA) GRANULOSUM, n. sp.

Foliosum, glabrum, ramulis teretibus granulosis, foliis oblongis subobtusis brevissime petiolatis basi attenuatis rigide coriaceis venis occultis, floribus 2-4nis in umbellas axillares brevissime pedunculatas dispositis, bracteis in cupulam connatis, ovario ovoideo granuloso, stylo brevissimo cylindrico, stigmate capitato.

A much-branched shrub, with slender terete very granular branchlets, breaking up easily at the nodes. Leaves  $1\frac{1}{2}-2$  in. long, obscurely petioled, very thick and rigid in texture, brown, rugose and opaque on both surfaces when dried. Umbels sometimes 3-4 to a node. Bracts ovate, spreading, coriaceous, slightly connate at the base. Mature ovary  $\frac{1}{6}$  in. in diam., shortly pedicellate, black, minutely papillose, tipped with a short cylindrical style, with a capitate stigma. Sepals 4, minute, oblong-lanceolate. —Baron 3115!

# VISCUM (§ PLOIONUXIA) CUNEIFOLIUM, n. sp.

Foliosum, ramulis granulosis, foliis oppositis subsessilibus orbicularibus vel obovatis basi cuneatis crassis rigide coriaceis venis occultis, floribus 2-3nis in umbellas axillares brevissime pedunculatas dispositis, bracteis in cupulam connatis, ovario globoso lævi, stylo brevissimo cylindrico, stigmate capitato.

A much-branched shrub, with nearly terete slender scabrous branchlets, the upper internodes not more than  $\frac{1}{2}$  in. long.

Leaves opposite, very obtuse and very thick and rigid in texture, opaque, brown when dried,  $1-1\frac{1}{2}$  in. long,  $\frac{3}{4}-1$  in. broad, narrowed very gradually at the base. Flowers in axillary umbels on very short peduncles; bracts coriaceous, connate into a small oblong cupule with a minutely ciliated margin. Sepals 4, minute, oblong, connivent. Mature ovary black,  $\frac{1}{6}$  in. in diam., crowned with a very short style and capitate stigma.—Baron 2807!

# VISCUM (§PLOIONUXIA) RADULA, n. sp.

Foliosum, glabrum, ramulis apice acute tetragonis, foliis subsessilibus oblongis parvis obtusis vel subacutis rigide coriaceis rugosis venis immersis occultis, floribus 1-3nis in umbellas axillares brevissime pedunculatas dispositis, bracteis in cupulam connatis ovario globoso scabro haud papilloso, stylo brevissimo cylindrico, stigmate capitato.

A much-branched shrub, glabrous in all its parts, with very slender terete acutely-angled branchlets, with internodes  $\frac{1}{2} - \frac{3}{4}$  in. long. Leaves  $\frac{1}{2} - \frac{3}{4}$  in. long,  $\frac{1}{4} - \frac{1}{3}$  in. broad, thick and coriaceous in texture, acute or subobtuse, much narrowed at the base, opaque and nearly black when dried, very rough on both surfaces. Flowers 1-3 on a very short peduncle; bracts spreading, ovate, obtuse, minutely ciliated. Mature ovary black,  $\frac{1}{12}$  in. in diam.; sepals lanceolate, very minute; style very short; stigma capitate. —Baron 3072! Allied to V. trifforum, DC.

# VISCUM (§PLOIONUXIA) APODUM, n. sp.

Foliosum, glabrum, ramulis teretibus, foliis oblongis acutis subsessilibus basi attenuatis rigide coriaceis obscure trinervatis, floribus axillaribus solitariis bracteis minutis ovatis, ovario globoso densissime papilloso-muricato, stylo conico brevissimo, stigmate capitato.

A much-branched shrub, glabrous in all its parts, with slender subterete branchlets, with internodes  $\frac{3}{4}-1\frac{1}{2}$  in. long. Leaves opposite, thick and rigid in texture, brownish and scabrous on both surfaces when dried, 2-3 in. long,  $\frac{3}{4}-1$  in. broad at the middle, acuminate at both ends, the veins very obscure. Female flowers solitary and sessile in the axils of the leaves all down the branches; bracts minute, ovate, ciliated. Mature ovary globose,  $\frac{1}{6}$  in. in diam., brown, densely coated with hard prominent papillæ; style very short.—Baron 3012! Allied to V. tuberculatum, A. Rich., and V. multicostatum, Baker.

# VISCUM (§ASPIDUXIA) TRACHYCARPUM, n. sp.

Aphyllum, ramulis teretibus glabris ad nodos articulatis, floribus 1-3nis LINN. JOURN.—BOTANY, VOL. XXI. 2 K

ad nodos sessilibus, ovario globoso nigro dense papilloso-muricato, stylo brevissimo, stigmate capitato.

A much-branched shrub, with terete many-ribbed divaricating branchlets, breaking up readily at the nodes, with internodes  $1-1\frac{1}{2}$  in. long. Flowers 2-6 in sessile verticels at the nodes. Mature ovary black, globose,  $\frac{1}{12}$  in. in diam., covered all over with prominent hard black papillæ; style very short, cylindrical; stigma capitate. Male flowers and sepals not seen.—Baron 2408!

#### EUPHORBIA TETRAPTERA, n. sp.

Arborea, glabra, foliis alternis petiolatis oblongis integris acuminatis subcoriaceis, capitulis in paniculam decompositam terminalem ramis dichotomiter cymosis dispositis, bracteis parvis lanceolatis persistentibus, involucro campanulato appendicibus 5 orbicularibus integris carnosis, dentibus minutis quadratis emarginatis, ovario biloculari, styli ramis brevibus apice emarginatis, carpellis fructiferis globosis dorso bialatis.

A much-branched erect tree, with woody terete not at all fleshy branchlets. Leaves 2-3 in. long, acuminate, entire, deltoid at the base, moderately firm in texture, mostly alternate but the upper opposite, green and glabrous on both surfaces, with fine distinct main veins anastomosing in intramarginal arches. Panicles 2-3 in. in diam., at the end of the branchlets, overtopped by the upper whorled leaves. Involucre with a campanulate tube  $\frac{1}{16}$  in. in diam. and 5 orbicular entire spreading segments, with a minute square erect tooth between each. Fruit  $\frac{1}{2}$  in. in diam., conically narrowed at the base into an erect gynophore  $\frac{1}{8}$  in. long; carpels never more than two, globose, coriaceous, with two deltoid wings from the upper part; styles unusually short and notched at the apex only.—Baron 2775! 3037! A very curious and distinct species.

# UAPACA MYRICÆFOLIA, n. sp.

Arborea, glabra, foliis parvis brevissime petiolatis oblanceolato-oblongis obtusis rigide coriaceis, floribus masculis in capitulos globosos bracteis 4 coriaceis glabris persistentibus reflexis cinctos dispositis, fructu globoso glabro 4-loculari.

A much-branched erect tree, glabrous in all its parts. Leaves ascending,  $1\frac{1}{2}-2$  in. long,  $\frac{1}{2}-\frac{3}{4}$  in. broad above the middle, very obtuse, narrowed gradually from the middle to the base, firm and rigid in texture, green and glabrous on both surfaces, with fine indistinct erecto-patent main veins. Male heads globose,  $\frac{1}{4}$  in. in

diam., girt with 4 persistent cuneate reflexing coriaceous glabrous bracts; peduncle about an inch long. Fruit hard, glabrous, globose,  $\frac{1}{3}$  in in diam., with a thin coriaceous epicarp and 4 pyrenes. —Baron 2209! 2864! 2961!

UAPACA CLUSIOIDES, n. sp.

Glabra, ramulis percrassis, foliis magnis obovato-cuneatis petiolatis rigide coriaceis obtusis, floribus fœmineis ignotis, floribus masculis in capitulos globosos axillares pedunculatos dispositis, bracteis reflexis coriaceis, perianthio obconico coriaceo ore piloso, staminibus 5 exsertis.

A tree, glabrous in all its parts except the perianth, with the leaves and male heads produced from terete woody branches half an inch in diameter. Leaves 6-8 in. long, 4-5 in. broad above the middle, very thick and rigid in texture, green and glabrous on both surfaces, with 6-8 pairs of parallel arcuate-ascending main veins distinct from the midrib to the margin; petiole  $1-1\frac{1}{2}$  in. long. Male heads globose,  $\frac{1}{2}$  in. in diam., enclosed in a whorl of very much imbricating persistent reflexing orbicular-cuneate bracts; peduncle rugose, erecto-patent,  $1-1\frac{1}{4}$  in. long. Male perianth  $\frac{1}{12}$  in. long, formed of 5 coriaceous segments. Stamens 5, much longer than the perianth; anthers oblong. Fruit unknown.—Baron 2546!

BRIDELIA COCCOLOBÆFOLIA, n. sp.

Arborea, glabra, foliis petiolatis ovatis vel oblongis cordatis subcoriaceis lucidis, floribus fœmineis in paniculam terminalem ramulis spicatis dispositis glomeratis, perianthii segmentis ovatis, disco cupulari, fructu ellipsoideo coriaceo venoso apiculato, semine solitario.

A tree, glabrous in all its parts, with terete woody branchlets. Leaves alternate, 3-4 in. long,  $1\frac{1}{2}-2$  in. broad, obtuse or subobtuse, shortly cordate at the base, firm in texture, green and rather glossy above, opaque beneath, with 10-12 pairs of very distinct arcuate-ascending veinlets. Female flowers arranged in several dense spikes 2-3 in. long, which form a terminal panicle, sessile and clustering on the branchlets. Fruit 6 in. in diam., dark brown, coriaceous in texture, with a distinctly veined epicarp, girt at the base by the persistent campanulate perianth, with its ovate segments, and inserted on a much-raised disk. Male flowers not seen.—Baron 2330! 2450! Allied to B. angolensis, Müll. Arg.

ACALYPHA HOLOGYNA, n. sp.

Fruticosa, monoica, ramulis junioribus obscure pilosis, foliis oblongis

acutis membranaceis serratis subglabris petiolatis, floribus masculis in spicas graciles cylindricas dispositis glomeratis bracteis ovatis scariosis persistentibus, floribus fœmineis 1–2ms ad foliorum superiorum axillas pedunculatis, bracteis unifloris orbicularibus hispidis serratis, stigmatibus capillaceo-multifidis.

A shrub with slender woody glabrous old branchlets, those of the year zigzag and obscurely pubescent. Leaves alternate, 3-4 in. long, about an inch broad, acute, distinctly serrated, thin in texture, green on both surfaces and very nearly glabrous; petiole about  $\frac{1}{2}$  in. long. Male flowers in copious cylindrical spikes 2-3 in. long from the older leafless branchlets; flowers several in a cluster; bud green, globose, glabrous,  $\frac{1}{24}$  in. in diam.; segments ovate; bracts brown, scariose, persistent,  $\frac{1}{12}$  in. long. Female flowers one to a cluster, enclosed in a foliaceous toothed bract which is orbicular when folded up and  $\frac{1}{8}$  in. in diam., the clusters usually solitary, rarely geminate, on a short peduncle from the axil of a leaf on the young branchlets. Stigmas  $\frac{1}{8}$ — $\frac{1}{6}$  in. long, cut into very numerous capillary segments.—Baron 2889!

#### MACARANGA MYRIOLEPIDA, n. sp.

Arborea, ramulis gracilibus apice lepidotis obscure pilosis, foliis parvis confertis brevissime petiolatis obovatis obtusis subcoriaceis facie viridibus glabris dorso densissime albido-lepidotis, floribus masculis ignotis, floribus fœmineis in spicas axillares breviter pedunculatas dispositis, perianthii segmentis parvis oblongis, fructu globoso magnitudine pisi parvi lepidoto uniloculari, stylo brevissimo.

A much-branched erect shrub or tree, with terete branchlets glabrous except at the very tip. Leaves about an inch long, very obtuse, rounded at the base, moderately firm in texture, green and glabrous above, covered beneath with minute greenish-white lepidote scales, the 5-6-jugate arcuate-ascending main veins distinct from midrib to margin. Female spikes of 4-8 crowded flowers on short peduncles from the leaf-bearing branchlets. Perianth-segments minute, persistent. Fruit  $\frac{1}{6}$  in. in diam., densely lepidote, finally splitting open to the base, filled up with the single brown seed.—Baron 3133!

# MACARANGA RIBESIOIDES, n. sp.

Arborea, glabra, ramulis validis, foliis longe petiolatis obovatis cuspidatis rigide coriaceis utrinque viridibus, floribus masculis ignotis, floribus fœmineis in racemos copiosos axillares pedunculatos dispositis, perianthii segmentis parvis ovatis, fructu globoso magnitudine pisi parvi uniloculari, stigmate elongato.

A much-branched tree, glabrous in all its parts. Leaves 2-3 in long,  $\frac{3}{4}$ - $1\frac{1}{4}$  in broad above the middle, more or less cuspidate, narrowed below the middle to a rather rounded base, moderately firm in texture, green and glabrous on both surfaces, with 6-8 pairs of arcuate-ascending main veins distinct from midrib to margin. Female flowers in racemes of 6-8 on short peduncles from the flowering branchlets; bracts minute, deltoid; pedicels finally  $\frac{1}{22}$  in long. Fruit globose,  $\frac{1}{6}$  in in diam., lepidote, girt at the base by the persistent perianth; style  $\frac{1}{12}$  in long, subulate.

— Baron 2898!

CHÆTACME MADAGASCARIENSIS, n. sp.

Arborea, glabra, aculeata, foliis breviter petiolatis late oblongis rigide coriaceis lucidis, floribus fœmineis solitariis axillaribus brevissime pedicellatis, fructu globoso stigmatibus 2 subulatis coronato.

A tree, glabrous in all its parts, with the slender terete branches armed with an erecto-patent pungent spine  $\frac{1}{3}-\frac{1}{2}$  in. long from the axil of each leaf. Leaves alternate, very thick and rigid in texture,  $2-2\frac{1}{2}$  in. long,  $1-1\frac{1}{2}$  in. broad at the middle, glossy on both surfaces, subobtuse, unequal at the base, with a strong midrib and fine side-veins; petiole  $\frac{1}{4}$  in. long. Male flowers not seen. Drupes globose,  $\frac{1}{3}$  in. in diam., solitary on short pedicels in the axils of the leaves, with a large endocarp. Stigmas subulate, persistent,  $\frac{1}{4}$  in. long.—Baron 2397! This is a genus allied to Celtis, of which only a single species is already known, which extends from the Cape to Angola and Niam-Niam Land.

Ficus (§Urostigma) tillæfolia, n. sp.

Glabra, stipulis parvis coriaceis, foliis alternis petiolatis cordato-orbicularibus subcoriaceis scabris, receptaculis magnis solitariis sessilibus globosis.

A shrub, with sulcate moderately stout brown glabrous branchlets. Leaves 4–5 in. long and broad, deltoid at the apex, entire, decidedly cordate at the base, green and glabrous on both surfaces, scabrous above, with 5–6 pairs of erecto-patent main veins reaching the margin; petiole  $1-1\frac{1}{2}$  in. long; bracts small, rigid in texture. Receptacles 1 in. in diam., very coriaceous, glabrous, sessile from the side of small leafy branchlets.—Baron 3285!

FIGUS (§UROSTIGMA) SPHÆROPHYLLA, n. sp.

F. ramulis glabris, stipulis membranaceis acuminatis, foliis alternis petiolatis magnis cordato-orbicularibus integris cuspidatis tenuibus glabris, receptaculis globosis glabris magnitudine mediocribus axillaribus breviter pedunculatis, bracteis 3 patulis deltoideis.

A shrub, glabrous in all its parts, with moderately stout terete branchlets. Leaves 6–8 in. long and broad, deeply cordate, acutely cuspidate at the apex, thin in texture, green and glabrous on both surfaces, with about 5 pairs of parallel erecto-patent main veins; petiole about 1 in. long; stipules acuminate, brown, scariose, about the same length. Receptacles  $\frac{1}{2}$  in. in diam., on peduncles of about the same length, from the leaf-bearing branchlets; bracts 3, small, spreading. Perianth-segments lanceolate. Style cylindrical.—Baron 2381!

## FICUS (§UROSTIGMA) PODOPHYLLA, n. sp.

Glabra, stipulis parvis, foliis alternis longe petiolatis cordato-ovatis integris acutis subcoriaceis, receptaculis globosis glabris magnitudine mediocribus longe pedicellatis ad ramos haud foliatos productis, bracteis 3 deltoideis suffultis.

A shrub, glabrous in all its parts, with slender terete woody branchlets. Leaves like those of the balsam-poplar in shape and size, 3-4 in. long, very acute, quite entire, slightly cordate at the base, moderately firm in texture, green and glabrous on both surfaces, with distant erecto-patent main veins; petiole slender, 2-3 in. long. Receptacles globose,  $\frac{1}{2}$  in. in diam., geminate on pedicels about an inch long from thickened leafless branchlets; bracts 3, deltoid, persistent, squarrose. Style twice as long as the young ovary. Perianth-segments lanceolate, as long as the ovary and style.—Baron 3323!

# FICUS (§UROSTIGMA) MEGAPODA, n. sp.

Glabra, stipulis magnis coriaceis acuminatis, foliis alternis longissime petiolatis cordato-ovatis acutis integris subcoriaceis, receptaculis axillaribus solitariis pedunculatis globosis glabris magnitudine mediocribus, bracteis parvis deltoideis.

A shrub, glabrous in all its parts, with moderately stout woody branchlets. Leaves like those of the balsam-poplar, 3-4 in long, cuspidate at the apex, quite entire, broadly rounded or cordate at the base, moderately firm in texture, green and glabrous on both surfaces, with distant erecto-patent main veins; petiole  $2-3\frac{1}{2}$  in long; stipules  $1\frac{1}{2}$  in long, glabrous, acuminate. Receptacles  $\frac{3}{4}$  in in diam., glabrous, with a thick very coriaceous skin, on a peduncle of about the same length from the axil of a leaf; bracts 3, small, persistent. Perianth-segments lanceolate,

twice as long the chestnut-brown fruit, which is tipped with a cylindrical style.—Baron 2536! 3305!

FICUS (§UROSTIGMA?) TRICHOPHLEBIA, n. sp.

F. ramulis glabris, stipulis parvis pilosis coriaceis, foliis alternis longe petiolatis cordato-orbicularibus cuspidatis integris subcoriaceis facie scabris dorso pubescentibus, receptaculis globosis pilosis parvis ad ramos efoliatos paniculatis, bracteis minutis deltoideis.

A shrub, with moderately stout sulcate woody glabrous branchlets. Leaves 5–7 in. long and broad, deeply cordate at the base, deltoid with a small cusp at the apex, green on both sides, very scabrous above, clothed all over with short fine brown pubescence beneath, with about 5 pairs of strong erecto-patent main veins; petiole  $2\frac{1}{2}$ –3 in. long; bracts under an inch long. Receptacles globose, pilose,  $\frac{1}{2}$  in. in diam., mammillate at the apex, arranged in a copious terminal panicle on leafless branchlets; bracts 3, minute, deltoid; pedicels  $\frac{1}{4}$ – $\frac{1}{3}$  in. long. Ovary with a long unilateral style. Perianth-segments lanceolate, as long as the ovary and style. Fruit subglobose, dark brown.—Baron 2417!

FICUS (§UROSTIGMA) APODOCEPHALA, n. sp.

F. ramulis validis glabris, stipulis magnis lanceolatis membranaceis, foliis alternis petiolatis oblongis pedalibus rigide coriaceis utrinque glabris, venis primariis 8-10-jugis ascendentibus intra marginem anastomosantibus, receptaculis sessilibus axillaribus parvis globosis pilosis, bracteis 3 magnis deltoideis coriaceis suffultis.

A shrub, with strongly-angled glabrous branchlets  $\frac{1}{2}$  in. in diam. Stipules brown,—membranous,  $1\frac{1}{2}$  in. long. Petiole varying in length from 1 to 3 inches; blade nearly a foot long,  $4-4\frac{1}{2}$  in. broad, obtuse, rounded at the base, rigid in texture, green and glabrous on both surfaces, with 8–10 pairs of strong ascending main veins anastomosing in arches within the margin. Receptacles globose, sessile, geminate in the axils of the leaves,  $\frac{1}{2}$  in. in diam., subtended at the base by three large coriaceous persistent deltoid bracts. Perianth-segments lanceolate. Ovary with a long style.—Baron 2521!

URERA SPHÆROPHYLLA, n. sp.

Sarmentosa, ramulis gracilibus glabris apice parce setosis, foliis petiolatis orbicularibus cuspidatis modice firmis glabris ad costam faciei inferioris parce hispidis, floribus fœmineis in paniculas axillares ramulis divaricatis spicatis dispositis, ovario glabro ovoideo obliquo, stigmate magno capitato. A subscandent shrub, with slender terete woody glabrous branchlets, bristly only at the young tips. Leaves moderately firm in texture,  $1\frac{1}{2}-2$  in. long and broad, bluntly cuspidate, entire, broadly rounded at the base, glabrous except a few minute bristles on the midrib beneath. Male flowers not seen. Female flowers in sessile axillary deltoid panicles about an inch long, with a few spreading slender slightly bristly spicate branches. Fruit glabrous, oblique ovoid,  $\frac{1}{12}$  in. long, crowned with a large orbicular sessile stigma.—Baron 3179! Nearly allied to the Mauritian U. acuminata, Gaudich.

## PILEA CAPITATA, n. sp.

Herbacea, perennis, inermis, dioica, foliis oppositis breviter petiolatis valde inæqualibus oblongis acutis serratis, floribus in capitulos axillares longe pedunculatos dispositis, perianthio masculo tubo campanulato segmentis 4 parvis deltoideis, perianthii fœminei segmentis valde inæqualibus, fructu ovoideo compresso acute marginato.

An erect herbaceous perennial, with simple glabrous unarmed stems under a foot long. Leaves in opposite pairs, shortly petioled, very unequal in size, moderately firm in texture, distinctly serrated, triplinerved from base to apex, green and slightly hispid on both surfaces, the larger ones  $1\frac{1}{2}-2$  in., the smaller  $\frac{1}{3}-\frac{1}{2}$  in. long. Flowers of both sexes in dense capitate cymes on long axillary ascending peduncles. Male perianth  $\frac{1}{16}$  in. long, gamophyllous, with 4 small deltoid segments. Fruit  $\frac{1}{12}$  in. long, brown, flat, glabrous, not at all oblique, tipped with a minute capitate stigma.—Baron 2528! 2621! Belongs to the small section Heterophyllæ, of which only two Old-World species are already known.

## PILEA LONGIPES, n. sp.

Herbacea, perennis, inermis, dioica, foliis longe petiolatis ovatis æqualibus serratis triplinerviis, floribus in paniculos cymosos longe pedunculatos axillares dispositis, perianthio masculo tubo gamophyllo campanulato, segmentis 4 parvis deltoideis.

An erect unarmed herbaceous perennial with much-branched stems under a foot long. Leaves moderately firm in texture,  $1-1\frac{1}{2}$  in. long, triplinerved from base to apex, subobtuse, distinctly serrated, rounded at the base, obscurely hispid on both sides; petiole  $\frac{1}{2}-\frac{3}{4}$  in. long. Male cymes corymbose at the tip of a long peduncle ascending from the axils of the upper leaves. Male perianth  $\frac{1}{16}$  in. long, with a campanulate tube and 4 small

segments; pedicel about as long as the perianth, articulated at the tip. Female flowers and fruit not seen.—Baron 3261! Allied to P. umbellata, Weddell, of Bourbon.

Podocarpus (§Eupodocarpus) madagascariensis, n. sp.

Arborea, glaberrima, ramulis apice tetragonis, foliis sessilibus lanceolatis rigide coriaceis uninerviis, floribus fœmineis solitariis axillaribus sessilibus, receptaculi bracteis oblongis, fructu globoso magnitudine pisi.

A much-branched tree, with verticillate final branchlets. Leaves alternate, very rigid in texture, reaching a length of 5-6 in. and a breadth of  $\frac{1}{2}$  in., acuminate, narrowed to the base, drab and rather glossy on both surfaces, flat, furnished with a distinct midrib, all the other veins hidden, the margin very narrowly recurved. Male flowers not seen. Female flowers solitary in the axils of the leaves. Receptacle  $\frac{1}{12}$  in long, the oblong bracts free at the obtuse tip. Fruit hard, globose, brownish-black, smooth, glaucous,  $\frac{1}{3}$  in. in diam.—Baron 2794! 3129! Parker! "Wild and abundant in the forests of the interior. Wood extensively used in house-building, for flooring &c. Native name 'Hetatra.'" Nearry allied to the Cape P. Thunbergii, Hook., in London Journ. Bot. i. 657, t. 221.

### MONOCOTYLEDONS.

PANDANUS (§SUSSEA) MICROCEPHALUS, n. sp.

P. foliis ensiformibus sesquipedalibus rigidulis aculeis crebris ascendentibus marginatis, capitulis fructiferis subsessilibus solitariis parvis globosis, drupis 50-60 oblanceolato-hexagonis 1- raro 2-locellatis dimidio superiori liberis, apice libero oblongo-hexagono, stigmate magno reniformi adpresso.

Leaves densely crowded at the summit of the peduncle,  $1\frac{1}{2}$  ft. long, an inch broad at the base, tapering to the point, not very rigid in texture, margined with close minute erecto-patent prickles. Fruit-head globose, solitary, nearly sessile,  $\frac{3}{4}$ -1 in. in diam. Drupes 50-60, usually 1-celled, free in the upper half,  $\frac{1}{4}$  in. long,  $\frac{1}{8}$  in. in diam.; free apex oblong, angled; solitary stigma horny, reniform, flat,  $\frac{1}{12}$  in. in diam., occupying the whole tip.—Baron 2321! Native name, "Isirihoalavo." Allied to Sussea conoidea, Gaudich., Atlas Bonite, tab. 24; but that species has an oblong head 4-5 in. long and only the upper third or quarter of the drupes free.

PANDANUS (§SUSSEA) OLIGOCEPHALUS, n. sp.

P. foliis ensiformibus sesquipedalibus aculeis crebris minutis erectopatentibus marginatis, capitulis 2-3 parvis globosis, drupis 20-30 1-locellatis ohlongo-hexagonis dimidio superiori liberis, apice libero conico, stigmate sessili parvo reniformi.

Leaves crowded at the top of the peduncle, ensiform, not very rigid in texture,  $1\frac{1}{2}$  ft. long, an inch broad at the base, margined by minute close erecto-patent prickles. Fruit-heads 2-3 on a short peduncle,  $1-1\frac{1}{2}$  in. in diam. Drupes 20-30 to a head, all 1-celled, oblong-hexagonal,  $\frac{1}{2}$  in. long,  $\frac{1}{4}-\frac{1}{3}$  in. in diam., free in the upper half; free apex conic, angled; stigma flat, sessile, reniform,  $\frac{1}{16}$  in. in diam., occupying the whole of the tip.—Forest 40 miles from the coast, *Baron* 1666!

PANDANUS (§VINSONIA) CONCRETUS, n. sp.

P. foliis 5-6-pedalibus ensiformibus rigide coriaceis, capitulis fructiferis solitariis magnis oblongis, drupis 40-50 hexagono-cuneatis apice rotundato solum liberis, stigmatibus 6-12 parvis planis reniformibus in areolam paulo elevatam circulariter dispositis segregatis.

Fully-developed leaf 5 or 6 ft. long, very rigid in texture, 5 in. broad at the base, tapering gradually to the apex; prickles lanceolate-deltoid, erecto-patent, sometimes  $\frac{1}{2}$  in. apart. Fruit-heads solitary, oblong, 3-4 in. in diam. Drupes  $\frac{3}{4}$ -1 in. broad each way at the top,  $\frac{1}{2}$  in. in diam. at the base, connate except the top  $\frac{1}{4}$ - $\frac{1}{3}$  inch; apex rounded, with a rather polished brown smooth epicarp, in the centre of which the 6-12 small flat reniform stigmas are disposed in an irregular circle on a slightly raised areole occupying the central half of the free apex; epicarp of the concrete portion splitting up into copious fine fibres; endocarp thick and woody. Peduncle 1 in. in diam. just beneath the head.—Baron 2778! Differs from P. utilis (Gaudich., Atl. Bonite, tab. 17. figs. 1-5) by the drupes being free at the very top only, and the stigmas not crowded but forming an irregular ring  $\frac{1}{4}$ - $\frac{1}{3}$  in. broad.

Pandanus (§Vinsonia) ceratophorus, n. sp.

P. foliis ensiformibus rigide coriaceis 3-4-pedalibus aculeis marginalibus parvis crebris ascendentibus, capitulis fructiferis solitariis oblongis, drupis 50-60 hexagono-cuneatis 5-6-locellatis quarto superiore liberis, apice libero conico, stigmatibus confertis stylo producto uncinato deciduo.

Fully-developed leaves ensiform, rigidly coriaceous, 3-4 ft. long, 3 in. broad at the base, tapering gradually from base to apex,

margined with close small ascending prickles. Peduncle  $\frac{1}{2}$  ft. long, its leaves at the top linear, not more than a foot long and  $\frac{1}{2}$  in. broad. Fruit-heads solitary, oblong, erect, 3 in. long, 2 in. in diam. Drupes 50–60 to a head, hexagonal,  $\frac{1}{2}$  in. in diam. at the top,  $\frac{1}{4}$  in. at the base, scarcely compressed laterally; free apex conical, the 5–6 stigmas crowded in a small flattened space in its centre; epicarp breaking up into fine parallel fibres; endocarp brown and horny. Styles columnar,  $\frac{1}{6}$  in. long, horny, tapering to the apex, deciduous.—Baron 2320! Heads like those of Vinsonia humilis and Pervilleana, as figured by Gaudichaud, Atl. Bonite, t. 17 and 31. Styles like those of P. sechellarum, Balf. fil.

## DRACENA XIPHOPHYLLA, n. sp.

Arborca, foliis sessilibus ensiformibus subcoriaceis viridibus 3-4-pedalibus costa obscura, floribus in panieulam amplam deltoideam dispositis, ramis patulis dense racemosis bracteis primariis magnis lanceolatis, pedicellis dense glomeratis apice articulatis bracteis propriis minutis deltoideis, perianthii segmentis tubo cylindrico subæquilongis, staminibus segmentis æquilongis.

Leaves 3-4 ft.long,  $1\frac{1}{4}$  in. broad at the middle, tapering gradually to an acute point, narrowed to  $\frac{3}{8}$ - $\frac{3}{4}$  in. above the dilated clasping base, firm in texture, closely veined, the midrib visible only when looked at from beneath and lost some distance from the apex. Branches of the panicle shortly peduncled, the lower a foot long; lower bracts 3-4 in. long; rhachis stout and deeply grooved; pedicels usually 6-8 in a cluster,  $\frac{1}{6}$  in. long, articulated at the apex. Perianth  $\frac{5}{8}$ - $\frac{3}{4}$  in. long.; segments ligulate, equalling the cylindrical tube. Anthers small, oblong, placed opposite the tip of the perianth-segments. Berry usually with one seed, the size of a pea.—Baron 2455! 2729! 2804! A fine plant, midway between D. fragrans and D. floribunda.

## DIOSCOREA ACUMINATA, n. sp.

Volubilis, glabra, caulibus gracillimis bulbilliferis, foliis petiolatis cordato-ovatis integris acuminatis viridibus, floribus fœmineis solitariis in spicas laxas axillares dispositis, bracteis minutis deltoideis, pedicellis floriæquilongis, ovario obconico, perianthii segmentis viridibus orbicularibus, perianthio masculo fructuque ignotis.

A herbaceous climber, glabrous in all its parts, with very slender stems, bearing globose bulbillæ the size of a pea in the axils of some of the leaves. Leaves 2-3 in. long, moderately firm in texture, green on both surfaces, deeply cordate, with 7

main ribs radiating from the apex of the petiole. Female racemes solitary in the axils of the leaves, few-flowered, simple,  $1-1\frac{1}{2}$  in. long, shortly peduncled; pedicels solitary,  $\frac{1}{12}$  in. long; bracts minute, deltoid. Expanded perianth greenish,  $\frac{1}{8}$  in. in diam.; segments orbicular, equalling the obconic ovary.—Baron 2654!

ERIOGAULON FLUITANS, Baker in Journ. Linn. Soc. xx. p. 277 (Baron 926), proves conspecific with E. melanocephalum, Kunth (E. aquaticum, Sagot.), of Guiana and North Brazil. (Sagot 1330! Burchell 4208!)

CYPERUS ALTERNIFOLIUS, Linn. Of this, which is common in gardens, Mr. Baron has now sent wild specimens (2707!), the first we have received.

CYPERUS (§PAPYRUS) IMERINENSIS, Boeckl. in Engler Jahrb. 1884, p. 500. Founded on Hildebrandt's 3798. Very nearly allied to the Egyptian Papyrus.—Baron 3274!

CYPERUS DIVULSUS, Ridley in Journ. Bot. 1884, p. 15. Hildebrandt's collecting number should be 4020, not 4080 as printed. Dr. Boeckler has described the same plant under the name of C. paucispiculatus, in Engler's Jahrbuch for 1884, p. 497.

DICHBONEMA CANDIDA, Baker.—Psilocarya candida, Nees in Mart. Fl. Bras. ii. p. 117.—Rhynchospora candida, Boeckl. in Linnæa, xxxvii. p. 605.—Cyperus leucostachys, Bojer MSS.—Baron 2340! Bombatoka, Bojer! Known elsewhere in West Tropical Africa and Guiana.

HELEOCHARIS (§HELEOGENES) CÆSPITOSISSIMA, n. sp.

Densissime cæspitosa, stolonifera, foliis propriis nullis, caulibus gracillimis  $1\frac{1}{2}$ –2 pollicaribus, floribus 5–6 in spicam oblongam terminalem dispositis, glumis ovato-lanceolatis castaneis obtusis valde imbricatis margine pallidis dorso viridi carinatis, nuce oblonga, stylo trifido, setis hypogynis 6 nuci æquilongis.

Stems forming very dense masses and sending out a few rooting stolons, very slender, tetragonous, greenish,  $1\frac{1}{2}$ —2 in. long. Spike oblong, terminal,  $\frac{1}{12}$ — $\frac{1}{8}$  in. long. Glumes about 6 to a spike, erecto-patent, much imbricated, obtuse, navicular, bright chestnut-brown, with a distinct pale keel, and becoming gradually whitish towards the edge. Nut oblong, greenish, half as long as the glume, enclosed in the whorl of pale ciliated hypogynous bristles, which are united into a distinct whitish cup at

the base.—Baron 2242! Nearly allied to H. chætaria, Rem. and Sch., and H. minuta, Boeckl. in Engler's Jahrb. 1884, p. 503.

CLADIUM (§MACHÆBINA) PANTOPODUM, n. sp.

Perenne, 2-3-pedale, foliis distichis linearibus rigide coriaceis, spiculis clavatis omnibus pedicellatis in paniculam angustam elongatam dispositis, glumis 6-7 castaneis inferioribus parvis ovatis, superioribus oblongis, floribus 1-2, staminibus 3 linearibus, stylo profunde trifido, setis hypogynis 6 subulatis ciliatis.

Tufts densely exspitose. Basal leaves rigid in texture,  $1-1\frac{1}{2}$  ft. long,  $\frac{1}{6}$  in. broad, tapering to a point, nearly flat on the face, rather convex on the back, with a suddenly dilated oblong brown base with a crisped edge. Stems  $1\frac{1}{2}-2$  feet below the inflorescence, with a few reduced leaves. Panicle a foot long, with distinct ascending corymbose branches. Spikelets  $\frac{1}{6}$  in. long, with 3-4 small ovate empty glumes at the base and 3 longer oblong ones. Styles  $\frac{1}{6}$  in. long, protruded from the apex of the spikelet. Hypogynous bristles very slender, about as long as the flowering games.—Baron 2072! 3316! Allied to the West-Indian Macharina restioides, Vahl, and M. filifolia, Griseb., and perhaps also to C. xipholepis of the Seychelles, which is known only in an immature condition.

CLADIUM (§MACHÆRINA) MELLERI, n. sp.

Perenne, orgyale, foliis distichis linearibus rigide coriaceis, spiculis cylindricis omnibus pedicellatis in paniculam angustam elongatam dispositis, glumis circiter 15 castaneis inferioribus multis parvis ovatis, superioribus paucis magnis oblongo-lanceolatis, floribus 1–2, staminibus 3 linearibus, stylo profunde trifido, setis hypogynis 6 subulatis ciliatis.

A near ally of the last, of which it may be possibly only a variety. It quite agrees with it in the structure of the flowers, but differs by its much more robust habit and taller growth, and much more numerous spikelets sheathed by 10-12 small closely imbricated barren glumes at the base instead of only 3 or 4 and more acute produced inner glumes. The whole plant reaches the height of a man, the panicle and leaves being each about 3 feet in length, the latter ½ in. broad at the top of the large dilated base and tapering gradually to an acuminate apex.—

Baron 1026! 2846! Between Tamatave and Antananarivo, Dr. Meller!

CAREX BARONI, n. sp.

Dense cæspitosa, foliis linearibus elongatis, caule gracili acute triquetro,

spicis fœmineis 5-6 cylindricis pedunculatis cernuis superne densis inferne laxis, glumis oblongis brunneis dorso nervis 3 viridibus percursis, perigynio ellipsoideo lenticulari viridi obscure rostrato faciebus multinervatis, stylo bifido, spica mascula unica terminali.

A densely cæspitose swamp species. Leaves linear, 2-3 ft. long,  $\frac{1}{4}$  in. broad at the base, erect, firm in texture, closely ribbed, glabrous, tapering to the point, prominently costate. Stem  $1\frac{1}{2}$ -2 ft. long below the inflorescence, slender, sharply 3-angled. Female spikes 5-6, cylindrical, cernuous, 4-5 in. long,  $\frac{1}{8}$ - $\frac{1}{6}$  in. in diam., the lower distinctly peduncled and subtended by long leaves, the upper with a few male flowers at the top. Glumes obtuse,  $\frac{1}{8}$  in. long, brown and membranous towards the edge, firm in texture in the centre, with 3 strong ribs. Perigyne as long as the glume, greenish, distinctly margined, narrowed into a short entire beak, each face with several distinct vertical ribs. Male spike erect, terminal, 4-5 in. long, its glumes like those of the female.—Baron 2795! Nearest C. stricta of our British species, and a near ally of C. madagascariensis, Boeckl. in Engler's Jahrb. 1884, p. 517, founded on Hildebrandt's 3753.

## OPLISMENUS BROMOIDES, n. sp.

Perennis, vaginis dense pilosis, foliis linearibus, spiculis subcylindricis solitariis vel geminis sessilibus vel pedicellatis in paniculam elongatam ramis paucis simplicibus ascendentibus dispositis, gluma sterili exteriori in aristam longissimam scabram producta, reliquis oblongo - lanceolatis acutis.

A perennial, with slender cylindrical stems  $1-1\frac{1}{2}$  ft. long, ascending from a decumbent base. Leaves 3-4 in. long,  $\frac{1}{6}-\frac{1}{4}$  in. broad, glabrous except towards the base; sheaths about an inch long, densely pilose both upon the surface and margin. Panicle 6-8 in. long, with a few very ascending long slender simple secund branches. Spikelets laxly disposed, usually solitary and sessile,  $\frac{1}{6}$  in. long. Outer sterile glume oblong-lanceolate, 5-nerved, nearly as long as the spikelet, produced into a long awn; inner sterile glume just like the outer in shape and texture, but not awned. Flowering-glume oblong-lanceolate, acute, glabrous, just like the sterile glumes in texture, distinctly 5-nerved on the back.—Baron 3213! Nearly allied to O. setarius, Ræm. & Sch. (O. acuminatus, Nees).

ECHINOLÆNA MADAGASCARIENSIS, n. sp.

E. foliis magnis lanceolatis, vaginis margine ciliatis, spiculis dense spicatis,

rhachi applanata, glumis 4 oblongo-lanceolatis, exteriori pilis patulis basi hulbosis dense vestito, flosculo inferiori abortivo neutro.

Stems a foot or more long, slender, ascending, glabrous, terete, branched from the base. Sheaths of the numerous leaves about an inch long, densely ciliated all down the edge; blade thin, acuminate, glabrous, oblique at the base, 3-5 in. long,  $\frac{1}{3}$  in. Spikes terminal or axillary, peduncled,  $1-1\frac{1}{2}$  in. long, simple or compound at the base; rhachis flattened, produced into a long point at the top beyond the spikelets. Spikelets dense, unilateral, erecto-patent,  $\frac{1}{4}$  in, long. Outer sterile glume oblong-lanceolate, acuminate, as long as the spikelet, densely clothed with firm spreading hairs with a bulbous base. Lower flower small, very imperfect. Upper flower with an oblonglanceolate 5-nerved pilose flowering-glume  $\frac{1}{4}$  in. long, and a pale of about the same length.—Diego Suarez, Bernier! (Herb Gay). It is fully described and figured by Gay in manuscript, but not named. The only other species of this curious genus is a plant of Guidha and Brazil.

PENNISETUM (§GYMNOTHRIX) TRITICOIDES, n. sp.

Perenne, dense cæspitosum, foliis lineari-setaceis erectis glabris elongatis vaginis apice ciliatis, spiculis solitariis erectis in spicam cylindricam dispositis, setis pluribus rigidis scabris valde inæqualibus unica reliquis longiori, glumis 2 exterioribus parvis ovatis, 3 oblongo-lanceolatis paleææquilongis.

A densely-tufted perennial, with stems 1–2 ft. long. Leaves ½—1 ft. long, linear, ½ in. broad at the clasping base, tapering gradually upwards into a setaceous point. Spike simple, erect, cylindrical, 4–5 in. long, ½ in. in diam. Spikelets solitary, erect, cylindrical, ¼ in. long, tapering to the point. Bristles a dozen or more, slender, rigid, distinctly ciliated, one much longer than the rest and about twice the length of the spikelet. Outer sterile glume very small, ovate; the other larger, about half as long as the spikelet. Outer flowering-glume oblong-lanceolate, acute, but not awned, firm in texture, pale green, glabrous, 5-nerved. Stigmas protruding from the tip of the closed spikelet. —Baron 683! 3239! 3294! Parker! Nearly allied to the Abyssinian P. riparium, Hochst.! Resembles in habit our European Triticum caninum.

PŒCILOSTACHYS GEMINATUM, *Hackel.*—In Sitz. Vien. Akad. Wissen. 1884, p. 131, Hackel has described a new endemic genus of

Madagascar grasses under the name of *Pacilostachys*, one species of which is the plant I described in Journ. Linn. Soc. xx. p. 300 (Baron 1061, 3226) under the name of *Lophatherum geminatum*, and a second (*P. Hildebrandtii*, Hackel), founded on Hildebrandt's No. 3759.

Eragrostis (§Pteroessa) maxima, *Baker.* — Megastachya maxima, *Bojer MSS*.

Erecta, robusta, foliis lanceolatis basi cordatis, spiculis 6-12-floris oblongis complanatis in paniculam amplam laxissimam rhomboideam dispositis omnibus pedicellatis, rhachilla continua, glumis sterilibus oblongis floriferis minoribus, glumis floriferis oblongis distichis lateralibus complicatis, paleis hyalinis ciliatis.

Stems erect, 2-3 ft. long. Leaves lanceolate, acuminate, thin in texture, 4-6 in. long,  $\frac{1}{2}$ - $\frac{3}{4}$  in. broad, cordate at the base; sheaths of the stem-leaves 2-3 in. long. Panicle erect, rhomboid, very lax, 6-9 in. long and broad; main branches erecto-patent; pedicels capillary, erect,  $\frac{1}{4}$ - $\frac{3}{4}$  in. long. Spikelets oblong, flattened,  $\frac{1}{3}$ - $\frac{1}{2}$  in. long; rhachis not articulated. Outer sterile glume not more than half as long as the flowering-glume. Flowering-glume oblong,  $\frac{1}{3}$  in. long, glossy, drab, firm in texture, with flattened sides and a scabrous keel. Pale oblong, hyaline, about half as long as the flowering-glume, with a strongly ciliated margin. Caryopsis ovoid, brown, glossy.—Baron 2551! Gathered also long ago by Bojer. One of the most robust and ornamental species of the genus.

NASTUS CAPITATUS, Kunth.—Baron 2591!

CEPHALOSTACHYUM CHAPELLIERI, Munro.—Forest of Andrangaloaka, Dr. Parker! Baron 2564! Mr. Baron's specimens have heads composed entirely of the barren spikelets, and show well the reduced bract-like leaves, hairy inside, which conceal the heads in an early stage, and also the curious deciduous deeply fimbriated lanceolate ligules. The three Bamboos which Mr. Baron and Dr. Parker have collected all prove identical with species known previously.

#### FILICES.

LYCOPODIUM MEGASTACHYUM, n. sp.

Dendricolum, caule erecto subpedali dichotomiter furcato, foliis densis reflexis lanceolatis rigide coriaceis, costa ad faciem inferiorem perspicua,

spicis 3-4nis magnis cylindricis pendulis simplicibus vel furcatis, bracteis ovatis ascendentibus coriaceis fructu longioribus.

A robust epiphytic species, with erect forked stems about a foot long. Leaves crowded, reflexed, rigid in texture, bright green,  $\frac{1}{2}$  in. long, with the midrib not visible on the upper surface, but distinct beneath. Spikes 3-4 to a branch, pendulous,  $\frac{1}{6}$  in. diam., sometimes 5-6 in. long. Bracts quite different from the leaves in shape and direction, uniform, ovate, multifarious,  $\frac{1}{8} - \frac{1}{6}$  in. long, yellowish green, coriaceous. Capsule orbicular,  $\frac{1}{16}$  in. diam.—Baron 2840! Belongs to the group of L. Phlegmaria. I do not think that L. pachyphyllum, Kuhn, founded on Hildebrandt's 4141 will prove to be distinct specifically from L. obtusifolium, Sw. It was also collected many years ago by Mr. W. Pool.

Alsophila Baroni, n. sp.

Arborea, frondibus deltoideis tripinnatis utrinque viridibus præter costas pinnularum glabris, pinnis petiolatis oblongo-lanceolatis, pinnulis sessilibus lanceolatis, segmentis tertiariis lanceolatis integris, venis 8-10-jugis, inferioribus compositis, soris parvis globosis costularibus.

A tree-fern, with the habit of A. australis and A. excelsa. Rhachis of the pinnæ pale brown, unarmed, glabrous on the underside, clothed on the upper surface with minute red-brown crisped hair-like paleæ. Fronds moderately firm in texture, green above, pale green beneath. Pinnæ about a foot long. Pinnules crowded,  $\frac{5}{8} - \frac{3}{4}$  in. broad, cut down to the paleaceous rhachis into distinct adnate arcuate-ascending tertiary segments  $\frac{1}{2}$  in. broad, with reflexed edges; veins fine and indistinct, the lower with 3-4 branches, the central ones erecto-patent, deeply forked. Sori minute, globose, superficial.—Baron 3143!