

Western



Australia.

162

Descriptions of Fifty New Species
and Six Varieties
of
Western and Northern
Australian
Acacias

and

Notes on Four Other Species,

by the

Late J. H. MAIDEN, I.S.O., F.R.S., F.L.S., and
W. F. BLAKELY, Assistant Botanist, Botanic
Gardens, Sydney. (With 22 Plates.)

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1.—DESCRIPTIONS OF
FIFTY NEW SPECIES AND SIX VARIETIES OF WESTERN AND
NORTHERN AUSTRALIAN ACACIAS, AND NOTES ON FOUR
OTHER SPECIES.

By the late J. H. MAIDEN, I.S.O., F.R.S., F.L.S., and W. F. BLAKELY,
Assistant Botanist, Botanic Gardens, Sydney. (With 22 Plates.)

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PUNGENTES (PLURINERVES).

1. *Acacia pulviniformis*, n. sp.

Plate i.

Frutex humilis pulviniformis, ramis diffusis vel prostratis ex nodis radices agentibus; ramulis brevibus, spinescentibus; phyllodiis filiformibus, paulo scabris, pilosis, semi-teretibus, curvatis vel flexuosis 1-2 nervis, 8-10 mm. longis, $\frac{1}{2}$ mm. latis; stipulis scariosis acumenato-lanceolatis, 2.5 mm. longis capitulis solitariis 4-floris, in pedunculis filiformibus, glabris; calyce cupulari, margine sinuato, fimbriato; petalis 5, liberis, glabris, latis, uninnerviis; ovario glabro; legumine non viso.

A dwarf, cushion-like shrub, stems diffuse, or rooting at intervals, the short branchlets spinescent. Phyllodia filiform, almost terete, slightly scabrous, pilose, curved or flexuose, 1-2 nerved, 8-10 mm. long, about 1 mm. broad. Stipules deciduous, scarious, lanceolate, acuminate, $2\frac{1}{2}$ mm. long. Peduncles filiform, glabrous, usually solitary, bearing globular heads of 4-8 glabrous flowers, supported by broadish navicular bracts with minutely fringed margins. Calyx pyriform, with a sinuate fringed border. Petals 5, free, glabrous, broad lanceolate, with a faint central nerve, more than twice the length of the rather large calyx. Ovary glabrous. Pod not seen.

Wagin and Broome Hill, on the Swamp Yate flats, or the low-lying situations of the Wandoo forest. A cushion-like plant occurring with such species of similar habit as *Lesehenaultia formosa*, *Dodonaea humifusa* and *Acacia congesta*, Broome Hill, flowering in September, 1923 (C. A. Gardner, No. 2009). The type.

Near *A. acuarina*, from which it is distinguished by the minutely tomentose, hispid branches and phyllodia, more frail and less rigid phyllodia, smaller flower heads, different shaped calyx, and it appears also to differ in habit.

2. *A. calcarata*, n. sp.

Plate ii.

Frutex divaricatus spinescens 2-3 feet altus; phyllodiis quadrangularibus rigide pungentibus, prominente 4-nerviis, 2-3 cm. longis, 1.5 mm. diametro; stipulis linearibus, spinescens, patentibus; pedunculis glabris, filiformibus, 7 mm. longis; capitulis parvis globosis 15-20 floris; calyce profunde lobato; petalis laevibus, liberis, calyce duplo longioribus; ovario glabro; legumine non viso.

A divaricate, spinescens, glabrous shrub over 2 feet high with more or less slightly striate, angular branches. Stipules linear, spinescens, spur-like, spreading almost at right angles to the base of the phyllodia. Phyllodia quadrangular, rigidly pungent, strongly 4-nerved, 2-3 cm. long, 1½ mm. broad, articulate on a thickish base; gland small, linear, almost basal. Peduncles glabrous, filiform, 7 mm. long, bearing small globular heads of 15-20, 5-merous flowers. Bracts linear, spatulate, ciliate. Calyx glabrous, deeply lobed, the lobes abruptly acute, slightly thickened towards the top. Petals smooth, at first partly united at the base, but eventually separating, broad-lanceolate, twice the length of the calyx. Ovary glabrous. Pod not seen.

Coolgardie district (Leonard C. Webster, 1902, received per British Museum). The type.

Near *A. quadrisulcata* F. v. M., in the shape of the phyllodes, but differing widely in the stipules and flowers. *A. Carneii* Maiden also has similar phyllodes, but is distinct in other characters. It has the spreading spur-like stipules of *A. Xerophila*, but not the broad phyllode of that species.

3. *A. acellerata*, n. sp.

Plate iii.

Frutex rigidus plures pedes altus; ramis plus minus striatis, angulatis minute furfuroso-tomentosis; phyllodiis rigidis, teretibus, subulatis, striatis, pungentibus, 2.5-4.5 cm. longis, 1 mm. diametro, pedunculis glabris, filiformibus, 5-7 mm. longis; capitulis parvis globosis 20-floris; floribus 5-meris; sepalis linearibus, ciliatis, petalorum latorum lævium liberorum minus dimidio æquilongis; ovario tomentoso; legumine non viso.

A rigid shrub, probably tall, with somewhat striate, angular branches, which are more or less invested with a minute, scurfy tomentum, especially when young; stipules obliterated. Phyllodia rigid, terete, subulate, finely striate, ending in a long, sharp point, usually curved or somewhat flexuose, 2.5-4.5 cm. long, about 1 mm. in diameter; gland small, like a minute puncture near the base of the phyllodia. Peduncles filiform, glabrous, 5-7 mm. long, bearing small globular heads of about 20 5-merous flowers. Bracts spatulate to spoon-shaped, ciliate. Sepals free, linear, spatulate, ciliate, thickened upwards, not half the length of the long, broad, free petals. Ovary tomentose. Pod not seen.

East from Solomon's Well, Stirling Range (Dr. A. Morrison, 28th September, 1902). The type.

Near *A. colletioides*, A. Cunn. It has the finely striate, rigid phyllodia of *A. colletioides*, but the striæ are different and the phyllodia are more flexuose, while the attachment is also different; the flowers in both species are also dissimilar. The phyllodes also resemble to some extent those of *A. subflexuosa*, but those of *A. acellerata* differ in venation; the flowers are also different.

4. *A. sulcata* R. Br., var. *hirsuta*, n. var.

Plate i.

Ramis virgatis, teretibus paulo hirsutis; sureulis iunioribus valde hirsutis; phyllodiis teretibus, striatis, arcuatis, mucronatis, 10-15 mm. longis, 1 mm. latis pedunculis filiformibus, hirsutis, pilis tenuibus canis vestitis. Capitulis parvis, globosis, 6-8 floris.

A small shrub, with slightly hirsute, terete, virgate branches; young shoots hirsute. Stipules very small, scarious, ciliate, soon deciduous. Phyllodia terete, channelled, or with 6-8 prominent nerves, usually arcuate, mucronate, 10-15 mm. long, about 1 mm. in diameter; gland microscopic, basal. Peduncles solitary, or in pairs, filiform, ciliate with long, white hairs, bearing small globular heads of 6-8 5-merous flowers. Sepals linear, spatulate, ciliate. Petals free, smooth, twice the length of the sepals. Bracts capitate, ciliate. Ovary hirsute. Pod not seen.

Israelite Bay (J.P. Brookes, September, 1915). Differing from the typical form in the small phyllodes, long peduncles and in the vestiture.

5. *A. sulcata* R. Br., var. *platyphylla*, n. var.

Phyllodiis brevibus latisque, complanatis vel semi-teretibus clavatis vel paulo arcuatis, nervis prominentibus; pedunculis geminis, paulo hirsutis, pilis canis, minutis vestitis.

Phyllodia short and broad, from complanate to semi-terete, clavate, to somewhat arcuate, with prominent nerves. Peduncles in pairs, slightly hirsute with microscopic white hairs.

Israelite Bay (Miss Brookes, 1893).

Differing from the typical form in the short, broad phyllodia.

 PUNGENTES (UNINERVES).
6. *A. sedifolia*, n. sp.

Plate i.

Frutex dense ramosus compactus resinosis 1-2 feet altus; ramis teretibus; phyllodiis perviridibus, teretibus, crassis, ca. longitudinis dimidium canaliculatis, in mucrone parvo, obliquo, pungente terminantibus, 2 mm. x 1 mm.; floribus sulphureis, glabris; capitulis fere sessilibus, globosis, 12-20 floris; calyce fere ad basin in sepala 5 angusto-dentate uninervia partito; petalis liberis, angusto-lanceolatis, uninerviis, sepalorum longiusculorum longitudinem plus duplo excedentibus; ovario glabro; legumine non viso.

A small, densely branched, glabrous, resinous shrub, 1-2 feet high, branchlets terete. Phyllodia bright green, terete, thick, curved, channelled for about half its length, terminating in a small oblique, pungent point, with a rudimentary gland or hollow at the base of the mucro on the upper surface, and sometimes with another small gland at the base, 2 mm. long, 1 mm. in diameter. Flower bright yellow, in almost sessile globular heads of 12-20 5-merous glabrous flowers. Sepals adnate at the base, narrow-lanceolate, dentate, uninerved. Petals at first partly united below the middle, eventually free, narrow-lanceolate, very acute, keeled, twice the length of the rather long sepals. Bracts glabrous, somewhat clavate. Ovary glabrous. Pod not seen.

Bendering, 120 miles east of Perth. On gravelly hills among low shrubs, notably *Lasiopetalum molle*, on the fringe of Salmon Gum forest (C. A. Gardner, No. 2006, August, 1923). The type.

Near *A. Mackeyana*, from which it differs in the smaller, non-striate phyllodia, almost sessile flower heads, and different shaped flowers.

7. *A. excentrica*, n. sp.

Plate ii.

Frutex humilis densus 6-18" altus; ramis angulatis, plus minus tomentosus; phyllodiis uninerviis, crassis, oblongo-lanceolatis, pungentibus, 10-17 mm. longis; 3 mm. latis, confertis in ramis brevibus, robustis; stipulis persistentibus, semi-spinescentibus, pilosis; pedunculis axillaribus, plerumque phyllodiis longioribus, capitulis globosis 20-30 floris; floribus 5-meris; sepalis lineari-spathulatis, petala crassiuscula libera acuta ca. dimidio aequantibus; ovario glabro; legumine non viso.

A low, dense shrub, 6 to over 18 inches high, with angular, more or less tomentose branches. Stipules persistent, pilose, almost spinescent, 2 mm. long. Phyllodia crowding the short, robust branches, uninerved, rather dry and thick, oblong-lanceolate, terminating in a short pungent point, and abruptly tapering at the base into a minute petiole, 10-17 mm. long, 3 mm. broad, the mid-rib conspicuous on both sides, excentric, and always closer to the lower margin; gland small, on the upper margin about 2 mm. from the base. Peduncles axillary, usually exceeding the phyllodia, glabrous, compressed, with a broad navicular, scarious, ciliate bract at the base. Flowers in globular heads of about 30 5-merous glabrous flowers. Sepals linear-spathulate, about half the length of the rather thick, free, acute petals. Bracts spathulate, slightly ciliate. Ovary glabrous. Pod not seen.

Israelite Bay (J. P. Brookes, September, 1915). The type.

Near *A. Xerophila* W. V. Fitz., from which it is mainly distinguished by its tomentose branches, shorter and less pungent phyllodia, smaller and weaker stipules, longer peduncles, and more numerous flowers in the head.

8. *A. inops*, n. sp.

Plate iii.

Frutex debilis diffusus in modum vitis; ramis fere teretibus, paulo striatis 12-24" longis; phyllodiis sessilibus, plerumque deflexis, lineari-subulatis, pungentibus basi paulo hastatis, uninerviis, 8-12 mm. longis, 1-1.5 mm. latis; stipulis erectis subulatis ciliatis deciduis; pedunculis glabris filiformibus 10-25 mm. longis, capitulis globosis 5-8 floris; floribus 4-meris; alabastris acutis; calyce minimo profunde lobato; petalis, liberis, laevibus, concavis, calyce triplo longioribus; ovario glabro; legumine non viso.

A very weak, scrambling, vine-like shrub with slightly striate, terete, almost glabrous branches, 12-24 inches long. Phyllodia not numerous, sessile, rather distant and usually deflexed, linear-subulate, terminating in a long, pungent point, the base more or less hastate, with a prominent gland on the upper basal lobe, and a somewhat obscure central nerve, 8-12 mm. long, 1-1.5 mm. broad at the base. Stipules erect, subulate, ciliate, deciduous, 1-1.5 mm. long. Peduncles glabrous, filiform, usually solitary, 10-25 mm. long, bearing small globular heads of 5-8 4-merous flowers; buds very acute. Calyx very small, deeply lobed and with a prominent fimbriate border.

Petals free, smooth, concave, with a faint central nerve, fully three times longer than the calyx. Bracts broad, densely fringed. Ovary glabrous. Pod not seen.

Vasse-Karridale (A. Lea, October, 1898). The type.

Near *A. ingrata*, from which it differs in habit, in the filiform, flexuose branches, smaller phyllodia, longer peduncles, in the 4-merous flowers, and in the free petals.

CALAMIFORMES (PLURINERVES).

9. *A. fragilis*, n. sp.

A. triptycha var. *tenuis* Maiden, *Journ. Roy. Soc., N.S.W.*,
LIII, 178, (1919).

Plate iv.

Frutex erectus leviter virgatus, 2-8' altus; ramulis fere teretibus, glabris; surculis junioribus aurea-pubescentibus; stipulis scariosis, deciduis; phyllodiis filiformibus teretibus, fragilissimis, leviter sulcatis, apice uncinato, plumoso, 3-7 cm. longis circ. 1 mm. diametro; pedunculis filiformibus, glabris; capitulis globosis 25-30 filoris; floribus 5-meris, turbinatis; sepalis linearibus, spatulatis, liberis, pilosis; petalis liberis, apicibus obscuris, crassis, sepalis duplo longioribus; ovario hirsuto; legumine lineari, undulato; seminibus longitudinalibus; funiculo primum filiformi, deinde in arillum clavatum lateralem incrassatum.

An erect, somewhat virgate, shrub, 2-8 feet high, with almost terete, glabrous branches. Young tips golden-pubescent, or silky-hairy. Stipules scarious, deciduous. Phyllodia filiform or nearly so, terete, very brittle when dry, somewhat deeply channelled or longitudinally wrinkled so as to appear many-nerved, terminating in a conspicuous, uncinata, plumose point, 3-7 cm. long, about 1 mm. in diameter. Gland very small, often obscure. Peduncles filiform, glabrous, usually in pairs, supporting medium-sized globular heads of 25-30, 5-merous, turbinata flowers. Sepals linear, spatulate, hairy with dark, thickened tips. Petals free, glabrous, the tips dark-coloured and somewhat inflated, acute, twice the length of the sepals. Ovary hirsute. Pod linear, undulate, stipitate, constricted between the seeds, 6-7 cm. long, 2 mm. broad. Seeds longitudinal, oblong-ovate. Funicle filiform for about a quarter of its length, then abruptly thickened into an oblique, lateral, clavate arillus.

Kellerberrin. A spreading shrub 2-4 feet high (W. V. Fitzgerald, November, 1907); Wongan Hills (Dr. A. Morrison, October, 1903); Merredin shrub 4-8 feet high (Max Koch, Nos. 2742, 2863); Cunderdin (W. V. Fitzgerald). Small shrub, Tammin (J. H. Maiden, November, 1909). The type. Coolgardie (L. C. Webster, 1900); shrub of 3 feet, on sandhills, Camp 56, 59, 61, Victoria Desert, Elder Exploring Expedition, 1891 (R. Helms); Camp 56, 19th September, is Lat. 29° 54' 35"; Camp 59, 22nd September, specimen No. 9; Camp 61, 25th September (Queen Victoria Spring) is Lat. 30° 25' 38".

Differing from *A. triptycha* in the more slender, usually shorter and brittle phyllodes, thicker pods, and in the free petals. The phyllodes of *A. triptycha* are sometimes twice as long as the phyllodes of *A. fragilis*, and they are also more fibrous, and more strongly nerved, and will not snap readily like those of *A. fragilis*.

10. *A. eremophila* W. V. Fitz., var. *variabilis*, n. var.

Plate iv.

Frutex gracilis virgatus, ramulis leviter angulatis et pruinosis; phyllodiis rigidis teretibus, rectis, tenuiter striatis, 4-9 cm. longis, 1 mm. diametro; pedunculis pruinosis, brevissimis; capitulis globosis circiter 15-floris; floribus 5-meris; calyce late turbinato, alte partito in sepala 5 obtusa, fimbriata; petalis glabris, crassis, carinatis calyce duplo longioribus; ovario pruinoso, legumine lineari, flexuoso leviter tomentoso, 4-5 cm. longo, 1½ mm. lato; funiculo brevi in arillum pileiformem super seminis basin incrassatum; seminibus ovatus, 3 mm. x 2 mm.

A small, slender, virgate shrub, with slightly angular, more or less hoary branchlets. Phyllodia terete, filiform, rigid, straight, finely striate, and somewhat hispid, terminating in a short, dark mucro, or the young phyllodia plumose at the tips, 4-9 cm. long, about 1 mm. in diameter; gland like a small resinous puncture on the lower half of the phyllodia. Peduncles very short, hoary, supporting globular heads of about 15 5-merous flowers. Calyx broadly turbinate, deeply divided into five, obtuse, slightly thickened, fimbriate sepals. Petals glabrous, thick keeled, incurved, twice the length of the calyx. Bracts spoon-shaped, ciliate. Ovary hoary. Pods linear, flexuose, slightly tomentose, much constricted between the seeds, 4-5 cm. long, 1½ mm. broad; seeds oblong-ovate, 3 mm. long, 2 mm. broad. Funicle short, expanded into a small, white, cap-shaped aril over the end of the seed.

Comet Vale (J. T. Jutson, Nos. 84, 91, 203, 208, 208a, November and December, 1916).

Differing from the typical *A. eremophila* in the longer and more spreading phyllodia, longer pedicels, and in the slightly tomentose pods.

11. *A. abrupta*, n. sp.

Plate v.

Frutex glaber resinosis, 5' altus; ramis rubidis, flexuosis; phyllodiis teretibus vel subquadrangularibus, incurvatis, 4-nerviis, 4-7 cm. longis, 1 mm. diametro, pedunculis solitariis, filiformibus, glabris; capitulis globosis, 30-33 floris; floribus 5-meris; sepalis partim coniunctis paulo trigono-spathulatis vel apice gibbosis; petalis liberis, glabris, marginibus paulo revolutis, sepalis duplo longioribus; ovario minute scabro, legumine non viso.

A glabrous, resinous shrub about five feet high; branches reddish, flexuose. Phyllodia terete to sub-quadrangular, usually incurved, abruptly terminating in a short mucro, with a small rudimentary gland or scar at its base, faintly 4-nerved, 4-7 cm. long, about 1 mm. in diameter; gland oblong, fairly large, depressed, usually 7-10 mm. from the slightly contracted base. Peduncles solitary, filiform, glabrous, resinous like the rest of the plant, bearing moderately large globular heads of 30-33 5-merous flowers. Sepals partly united at the base, but separating when touched, somewhat triangular-spathulate, or gibbose at the top, thick. Petals free, glabrous, the edges slightly rolled back, broadly lanceolate, with a faint central nerve, fully twice the length of the sepals. Bracts spathulate glandular, scabrous. Ovary minutely scabrous. Pod not seen. The species is so named from the abrupt termination of the phyllode.

Victoria Desert, Camp 36, Elder Expedition, on sand plain, R. Helms, No. 11, August, 1891.

A very interesting species with flexuose resinous phyllodes terminating in a suppressed gland, and abruptly and obliquely mucronate. Its position seems to be near *A. rigens* and *A. viscifolia*. From the former it differs in the more flexuose branches, very faintly nerved phyllodia, larger flower-heads, longer peduncles and resinous exudation. From the latter in the longer and thicker phyllodes, venation, different shaped gland, larger flower-heads, different shaped calyx, and scabrous ovary.

12. *A. viscifolia*, n. sp.

Plate vi.

Frutex pumilus valde resinosis ramulis angulatis; phyllodiis filiformibus, teretibus, tenuissime striatis, plerumque incurvatis, in mucronem minutum obliquum angustatis, 3-4 cm. longis, minus $\frac{1}{2}$ mm. diametro; glandula parva resinosa; pedunculis brevibus, solitariis racemos breves formantibus, minute aurea-hirsutis, capitulis globosis ca. 20-25 floris; petalis laevibus vix duplo calyce longioribus; ovario glabro. Legumine non viso.

A dwarf, very resinous shrub with slightly angular branchlets, branches terete. Phyllodia filiform, terete, finely striate, usually incurved, terminating in a minute oblique mucro, 3-4 cm. long, less than $\frac{1}{2}$ mm. in diameter. Gland small, like a drop of resin, close to the base. Peduncles short, solitary, or forming short racemes of 3-4 heads, more or less minutely golden-hirsute towards the top, bearing small globular heads of 20-25 flowers. Sepals partly united into a broad, obconical calyx, densely ciliate at the top. Petals smooth, white, papery, scarcely twice the length of the calyx. Bracts capitate, densely golden-hirsute. Ovary glabrous. Pod not seen.

Bruce Rock (Dr. F. Stoward, No. 170, August, 1917). The type.

It is allied to *A. Bynoeana* in the slender, resinous, curved phyllodes, but quite distinct from it in the shape of the gland, and in floral characters, as well as in habit. It is distinguished from *A. abrupta* in the more filiform phyllodes and smaller flowers.

CALAMIFORMES (UNINERVES).

13. *A. Maxwelli*, n. sp.

Plate vi.

Frutex parvus, ramis junioribus paulo hirsutis; phyllodiis glabris, teretibus vel paulo clavatis, rugosis, fragilissimis, uninerviis, 10-18 mm. longis, 1 mm. diametro; pedunculis gracilibus phyllodiis aequilongis, capitula globosa 12 florum magnorum glabrorum gerentibus; calyce lato-turbinato, sinuato; petalis 5, liberis, laevibus, crassis, concavis, calyce plus duplo longioribus; ovaria glabro; legumine non viso.

A small shrub with shortly hirsute angular branches. Stipules scarious, deciduous, or only present on the very young branchlets. Phyllodia glabrous, or the very young ones slightly hirsute with short, white hairs, cylindrical-clavate or nearly so, rugose, uninerved, the nerve channelled or depressed on both sides, very brittle, terminating in a short, smooth mucro, 10-18 mm. long, 1 mm. in diameter. Gland small, on the lower half. Peduncles slender, glabrous, solitary, as long as the phyllodes, bearing rather large globular heads of about 12 large, glabrous flowers. Calyx broadly turbinate, sinuated, minutely fringed, the lobes gibbose. Petals 5, free, thick, concave, lanceolate, more than twice the length of the calyx. Ovary glabrous. Pod not seen.

Named in honour of G. Maxwell, a collector of botanical and entomological specimens in Western Australia in the early sixties.

Fitzgerald Range (Maxwell, per Herb. Hort. Bot. Kew. Stamped Herbarium Hookerianum, 1867). The type.

Its position is near *A. uncinella* Benth., from which it can be distinguished by its shorter, thicker, channelled or uninerved phyllodia, shorter petiole, hirsute vestiture, larger flower heads, and different shaped calyx, also in the smooth ovary.

14. *A. enervia*, n. sp.

Plate viii.

Frutex gracilis, virgatus, 5-8' altus; surculis iunioribus pruinosis vel aureo-pubescentibus; ramulis angulatis; phyllodiis lineari-subulatis, teretibus vel compressis, sine nervis, fragilissimis, plerumque in mucronem incurvatum angustatis, 3.5-9 cm. longis, circiter 1½ mm. latis; glandula basin extremam versus minima, leviter erecta; pedunculis axillaribus, solitariis vel geminis, filiformibus, leviter pilosis, 4-9 mm. longis; capitulis globosis circiter 25-30 floris; floribus 5-meris; sepalis liberis lineari-spathulatis; petalis liberis, glabris leviter carinatis; bracteis spathulatis, dense ciliatis; ovario glabro vel leviter pruinoso; legumine lineari, 6 cm. longo, 2 mm. lato; seminibus longitudinalibus; funiculo filiformi arillum parvum pileiformem super basin seminis formante.

A slender shrub, 6-8 feet high, glabrous except the young tips, which are more or less hoary or golden-pubescent; branchlets compressed or slightly angular. Phyllodia linear-subulate, compressed or terete, nerveless and very brittle, terminating in a straight or curved point, and usually with a small raised gland near the top of the short petiole, 3-9 cm. long, a little more than 1 mm. broad. Peduncles filiform, usually solitary, up to 9 mm. long, sprinkled with very short appressed hairs, bearing globular heads of 25-30 5-merous flowers. Sepals free, linear-spathulate, ciliate at the tips. Petals free, glabrous, slightly keeled, scarcely twice the length of the sepals. Bracts shorter than the flowers, spathulate, densely ciliate. Ovary glabrous or slightly hoary. Pods linear, stipitate, undulate, up to 6 cm. long, about 2 mm. broad, the margins nerve-like. Seeds black, ovate, longitudinal. Funicle filiform for about half its length, then thickened into a small cup-shaped aril over the end of the seed.

Hines Hill (Max Koch, No. 2806, September, 1923). The type. Kun-nunoppin, Avon district (F. E. Victor, 8th February, 1911); same locality (Dr. F. Stoward, Nos. 65a, 65b, January, 1917).

Near *A. uncinella*, from which it differs in the nerveless phyllodes, different shaped bracts, and to some extent in the flowers. It appears to possess the floral characters of *A. assimilis*, but is distinct from that species in the nerveless and brittle phyllodia. It is distinguished from *A. Inceae* by the same characters as the preceding, and also in the position of the very small gland.

15. *A. Inceae*, n. sp.

Plate v.

Glabra vel fere glabra; ramulis leviter angulatis; phyllodiis teretibus, subulatis, rigidis, laevibus, obscure nerviis, sine nervis, breviter petiolatis, 3.5-5 cm. longis, 1 mm. diametro; pedunculis filiformibus, solitariis vel geminis; capitulis globosis 10-15 floris; floribus 5-meris; sepalis spathulatis ciliatis; petalis angustis leviter carinatis, sepalis circiter duplo longioribus; ovario laevi; legumine incognito.

Branches virgate, glabrous or nearly so. Phyllodia terete, subulate, somewhat rigid, slightly pungent-pointed, nerveless or the nerves obscure, not brittle, very shortly petiolate, 3.5-5 cm. long, about 1 mm. in diameter; gland small, usually about 2 cm. from the base. Peduncles filiform, solitary or in pairs, bearing small globular heads of 10-15, 5-merous flowers. Sepals free, linear-spathulate, ciliate at the apex. Petals free, narrow, slightly keeled, or with a faint central nerve, acute, about half the length of the sepals. Bracts capitate, ciliate. Ovary smooth. Pod not seen.

The precise locality is unknown. The specimen is one of many received from the Royal Botanic Gardens, Kew, England, and labelled "Acacia n. sp. aff. *leptoneura*, W. Australia, Coll. Dr. W. H. Ince, Comm. Miss M. B. Ince," and dated at Kew, 23rd June, 1909.

Very close to, and could easily be mistaken for *A. enervia*, but the phyllodes are hard and tough, not brittle like those of *A. enervia*, while the gland is slightly different in shape and a considerable distance from the base of the phyllodia.

UNINERVES (TRIANGULARES).

16. *A. orbifolia*, n. sp.

Plate vii.

Frutex parvus compactus; ramis teretibus, glaucis; ramulis minute furfuroso-tomentosis; phyllodiis petiolatis, crassiusculis, oblique orbicularibus vel orbiculari-cuneatis; 3-4 nerviis, marginibus sinuato-dentatis, apiculatis, 5-12 x 5-12 mm.; stipulis subulatis, membranaceis, deciduis; pedunculis plerumque solitariis, phyllodiis multo longioribus; capitulis globosis, glabris, 10-12 floris; calyce cupulari, sinuato-lobato petalorum 5 glabrorum partim coniunctorum trientem aequilongis; ovario glabro; legumine circinato, modo statu valde immaturo viso.

A small, compact shrub, with terete, glaucous branches; branchlets minutely scurfy-tomentose. Stiples subulate, membranous, fugacious, about 2 mm. long. Phyllodia petiolate, rather thick, obliquely orbicular to orbicular cuneate, with 3-4 very fine, spreading nerves, entire or sinuate-dentate, mucronate, the margins minutely ciliate, with a short, hoary tomentum, 5-12 mm. long and about as broad; gland small, marginal, a short distance from the base. Peduncles usually solitary, almost glabrous, exceeding the phyllodia 1.5-2.5 cm. long, bearing globular heads of 10-12 rather large, glabrous flowers. Calyx cupular, sinuate, smooth, about one-third the length of the 5-merous, glabrous corolla. Petals partly united, acute, slightly keeled, about three times longer than the calyx. Ovary glabrous. Pod subspiral, but only seen in a very young state.

Wongan Hills, 132 miles N.E. of Perth (Dr. A. Morrison, 3rd October, 1903). The type.

Near *A. bidentata* Benth., and the characters which separate it from that species are its broader and different shaped phyllodia, longer peduncles, much larger flowers, and different shaped calyx. *A. bidentata* appears also to be a more rigid and more persistently tomentose shrub than *A. orbifolia*.

UNINERVES (BREVIFOLIAE).

17. *A. chrysopoda*, n. sp.

Plate vi.

Frutex parvus, dense lanate-tomentosus, surculis inioribus ramulisque dense aureo-pubescentibus; stipulis minutis, deciduis; phyllodiis linearibus, crassis, cultriformibus, pilosis vel fere glabris, uninerviis in mucronem parvum obliquum angustatis, 10-13 mm. longis, 1.5 mm. latis; pedunculis solitariis, brevibus aureo-pubescentibus; capitulis magnis, globosis, 20-30 floris; floribus 5-meris, hirsutis; sepalis lineari-spathulatis, carinatis; petalis liberis, obtusis, carinatis, dense pilosis; ovaria pruinosa. legumine non viso.

A small, densely woolly-tomentose shrub, the young tips and branchlets matted in loose, golden woolly hairs; stipules minute, deciduous. Phyllodia linear-lanceolate to cultriform, pilose, or the very old ones nearly glabrous, thick, uninerved, with obscure lateral veins, and a small oblique mucro, abruptly tapering into the base from the vicinity of the small, marginal gland, 10-13 mm. long, 1.5 mm. broad. Peduncles solitary, short and thick, sometimes exceeding the upper phyllodes, matted in golden woolly hairs, bearing large globular heads of 20-30, 5-merous hirsute flowers. Sepals linear-spathulate, keeled, about half the length of the broad, obtuse, hirsute, keeled petals. Bracts broadly spathulate, hirsute and somewhat similar to the petals. Ovary hoary; pod not seen.

Near Cape Arid (G. Maxwell, 1875). The type.

Near *A. lachnophylla*, but the phyllodes are considerably broader and the heads are much larger, and there is also a difference in floral characters.

181 *A. oblonga*, n. sp.

Plate vii.

Frutex parvis glaber; ramulis compresso-angulatis; phyllodiis erectis, crassis, rigidis, plerumque oblongis, obtusis, obscure 3-nerviis, 1.5-2.5 cm. longis, 5-7 mm. latis; pedunculis axillaribus, solitariis vel geminis, 1.5-2 cm. longis, capitulis globosis, 17-20 floris, floribus glabris, 5-meris; sepalis liberis, angustissimis, obscure uninerviis; ovario glabro, legumine non viso.

A dwarf, glabrous or somewhat glaucous, erect shrub, with terete branches; branchlets compressed-angular, but soon becoming terete. Phyllodia erect, thick and rigid, usually oblong, obtuse or minutely mucronulate, imperfectly and faintly trinerved, or only the midvein more or less distinct, 1.5-2.5 cm. long, 5-7 mm. broad; gland very small, basal. Peduncles axillary solitary or in pairs, glabrous, 1.5-2 cm. long, bearing rather large globular heads of 17-20, 5-merous glabrous flowers. Sepals very narrow, spathulate, ciliate, a little less than half the length of the petals. Petals free, broad lanceolate, very acute, faintly nerved. Bracts spathulate, ciliate, very thin and frail. Ovary glabrous, oblique. Pod not seen.

West from Wongan Hills (Dr. A. Morrison, 2nd October, 1903).

The position of this species appears to be next to *A. sericocarpa* and *A. Merrillii*. The phyllodes also slightly resemble those of *A. Graffiana* and *A. subcoerulea*, but the solitary peduncular flower-heads removes it from the latter species. It is easily distinguished from the first by its glabrous, oblong phyllodes and glabrous branches, and from the second in the shape of the phyllode and in floral characters.

19. *A. subretusa*, n. sp.

Plate viii.

Frutex glaber; ramulis acute angulatis, rubidis; phyllodiis leviter lineari-obovatis ad spathulatis, tenuibus, oblique retusis, uninerviis, 2-3 cm. longis, 3-4 mm. latis; pedunculis axillaribus, brevissimis; capitulis parvis, globosis, 7-10 floris; floribus 5-meris; sepalis linear-spathulatis, ciliatis; petalis liberis apice leviter hispidis, uninerviis, sepalis plus duplo longioribus; ovario glabro; legumine non viso.

A glabrous shrub with acutely angular, reddish, branchlets. Stipules very small, or obscure. Phyllodia somewhat linear-obovate to spathulate, thin, obliquely obtuse, and usually retuse, faintly penninerved, and with a more or less prominent, scarcely central, nerve, 2-3 cm. long, 3-4 mm. broad in the widest part. Gland marginal, small, depressed, lunate, on the lower half of the phyllode. Peduncles very short, bearing small globular heads of 7-10 5-merous flowers. Sepals linear, spathulate, pilose. Petals free, firm, slightly hispid on the tips, and with a faint central nerve, more than twice the length of the sepals. Ovary glabrous; pod not seen.

The precise locality unknown. It was collected on the Victorian Expedition, June, 1861. It is probably a Northern Territory species.

Its position is near *A. ligustrina*, from which it differs in the thin, obliquely retuse phyllodes and glabrous branches. From *A. triquetra* it is readily distinguished by the non-glaucous branchlets and different-shaped, obtuse phyllodes.

20. *A. semicircularis*, n. sp.

Plate viii.

Frutex paulo rigidus, ramis divaricatis, leniter spinescentibus, glabris; phyllodiis, uninerviis, ellipticis vel oblique ellipticis, sessilibus, 10-15 mm. longis, 5-10 mm. latis; stipulis subulatis, hyalinis, deciduis, 2-3 mm. longis, pedunculis axillaribus, solitariis; capitulis globosis, 30-floris; floribus 5-meris; sepalis lineari-spathulatis; petalis liberis minute fimbriatis angustolanceolatis; ovario glabro; legumine circinato crassiusculo, carnosio.

A somewhat rigid shrub with divaricate, slightly spinescent glabrous branches; branchlets terete, striate. Phyllodia uninerved, elliptical, or obliquely elliptical, sessile, with a small, oblique, acute point; margins nerve-like, and more or less undulate; gland small, on the lower half of the upper margin, 10-15 mm. long, 5-10 mm. broad. Stipules deciduous, subulate and somewhat chaffy, 2-3 mm. long. Peduncles axillary, solitary, rather stout, glabrous, up to 12 mm. long, bearing globular heads of about 30 5-merous flowers. Sepals linear-spathulate, more than half the length of the corolla. Petals free, fringed with a white, ragged margin. Bracts spathulate to lanceolate, ciliate. Ovary glabrous. Pod circinate, glabrous, rather thick and fleshy, but not seen in a fully developed state.

Wongan Hills, 132 miles N.E. of Perth, (Dr. A. Morrison, 3rd and 7th October, 1903). The type.

It has similar phyllodes to *A. Shuttleworthi*, but is quite different in the flowers. In general appearance it resembles *A. undulifolia*, and to some extent in the phyllodes also, but the subspinescent branches readily distinguish it from the latter species.

21. *A. pallidiramosa*, n. sp.

Plate viii.

Frutex glaber, ramulis leviter angulatis, pallidis; phyllodiis oblongo-lanceolatis vel paene, crassis, uninerviis, venis secundariis obscuris in petiolum angustatis, in mucronem brevem obliquum terminantibus, 4-4.5 cm. longis, 0.5-1 cm. latis, glandula parva, marginali; floribus leguminibusque non visis; seminibus ovatis, nitentibus, pallidis ad atro-brunneis, 5-6 mm. longis, 2-3 mm. latis; funiculo breviter semel vel bis plicato, in arillum pileiformem super seminis basin sensim incrassato, areola distincta, ovato-oblonga.

A glabrous shrub, with slightly angular, pale-coloured branchlets. Phyllodia pale, oblong-lanceolate or nearly so, rather thick, uninerved, the secondary veins obscure, slightly narrowed into the short, thick petiole, and terminating in a small, oblique mucro, 4-4.5 cm. long, 0.5-1 cm. broad, gland small, marginal, inserted on the lower half of the phyllodia. Flowers and pods not seen. Seeds ovate, glossy, pale to dark brown, 5-6 mm. long, 2-3 mm. broad. Funicle with one or two short folds, finally thickened into a cap-shaped basal aril over the end of the seed. Areola distinct, ovate-oblong.

Western Australia, without definite locality or collector. It was received from Kew and labelled "*Acacia* cf. *Meissneri*, 'Mohrunga,' 'Cannsigon,' vide 15 bottle." The authorities at Kew may be able to trace the collector and locality. We are of the opinion that it is a Western Australian species, and its true position cannot be ascertained until the phyllodes and seeds are matched with flowers. The phyllodes resemble those of *A. Tysoni*, but both species differ in vestiture.

22. *A. glabriflora*, n. sp.

Plate viii.

Frutex glaber glaucus, ramis teretibus, patentibus; phyllodiis glaucis, tenuibus, lanceolatis vel ellipticis, uninerviis, 1.5-2.5 cm. longis, 5-10 mm. latis; pedunculis solitariis, axillaribus vel racemos vix confertos in axillis superioribus formantibus; capitulis globosis, 30-35 floris; floribus glabris, 5-meris; calyce libero, glabro, lineari-spathulato; bracteis spathulatis glabris; ovario glabro; legumine non viso.

A medium sized glabrous but glaucous shrub, with terete, spreading branches. Phyllodia glaucous, thin, lanceolate to elliptical, uninerved, and more or less penninerved, very shortly petiolate, usually terminating in a very small, oblique point, 1.5-2.5 cm. long, 5-10 mm. broad; gland very small, attached at the extreme base. Peduncles solitary, axillary, or forming loose, abbreviated racemes in the upper axils; flower heads globose, 30-35 in the head. Flowers 5-merous, quite glabrous. Calyx linear-spathulate. Petals narrow lanceolate, acute, incurved, nearly twice the length of the sepals. Bracts spoon-shaped, smooth. Ovary glabrous. Pod not seen.

Between the Ashburton and De Grey Rivers (Dr. E. Clement, per Herb. Hort. Bot. Kew). The type. Turtle Island (Captain Wickham, Coll. Bynoe and Stokes, Voyage of H.M.S. "Beagle," 1839-40).

Its affinity seems to be with *A. Meissneri*. There is a strong resemblance in the general aspect of both species, both are glaucous shrubs, and the inflorescence may be either in single heads or in small racemes in both. But *A. Meissneri* has coarser and more angular branches, narrower and different-shaped phyllodes, and dissimilar flowers and bracts. It is also somewhat like the non-spinescent forms of *A. Victoriae* Benth. (*A. sentis* F. v. M.).

23. *A. Merriekae*, n. sp.

Plate vii.

Frutex humilis glaucus, ramis valde scabris, angulatis; phyllodiis glaucis, ovatis vel oblique ellipticis, breviter petiolatis, oblique mucronatis, uninerviis, pedunculis plerumque solitariis, axillaribus, sed racemos breves, 1-2" longos aliquando formantibus; capitulis globosis 40-50 floris; floribus glabris, 5-meris; sepalis liberis spathulatis, petalis liberis linearibus fere equilongis; ovario pruinoso legumine glauco breviter stipitato lineari-oblongo, 5-6 cm. longo, 4 mm. lato.

A dwarf glaucous shrub; branches very rough with the enlarged, persistent bases of the shortly decurrent, common petioles. Phyllodia glaucous, ovate to obliquely elliptical, uninerved, shortly petiolate, obliquely mucronate; lateral veins prominent, spreading; gland small, marginal, usually inserted on the lower half, 1-2 cm. long, 5-10 mm. broad. Peduncles usually solitary, axillary, exceeding the phyllodia, but sometimes forming short racemes owing to the suppression of the upper phyllodes, bearing rather large, globular heads of 40-50 rich yellow, 5-merous glabrous flowers. Sepals linear, spathulate, nearly as long as the very narrow, lanceolate, free petals. Bracts peltate to capitate, slightly ciliate. Ovary hoary. Pods glaucous, shortly stipitate, linear-oblong, compressed, more or less contracted between the seeds, 5-6 cm. long, but not seen in a fully mature state. Seeds black, ovate; funicle very long, compressed, except near the point of attachment, forming a double flexuose fold some distance away from the base of the seed.

Named in honour of Miss Mary Merriek, Stenographer and Librarian, Botanic Gardens, Sydney, who has rendered us valuable assistance in the preparation of this and other *Acacia* papers.

Nalyering Well, North Kellerberrin (C. A. Gardner, No. 1688, 24th May, 1922). The type.

Affinity with *A. Meissneri* Lehm., but differing in the rough branches, shorter and more elliptical phyllodia, larger flower heads, more numerous and different shaped flowers, and in the narrow pods.

UNINERVES (ANGUSTIFOLIAE).

24. *A. glutinosissima*, n. sp.

Plate x.

Frutex gracilis, glutinosus, 6-12' altus; ramis fere erectis, teretibus; stipulis lineari-foliaceis, deciduis, phyllodiis erectis, glutinosissimis, lineari-spathulatis, mucronatis, rectis vel incurvatis, uninerviis, 5-9 cm. longis, ad 3 mm. latis; pedunculis solitariis, filiformibus, glabris; capitulis magnis, sulphureis, 30-floris; calyce turbinato in sepala 5 linearia-spathulata, patentia partito; petalis 5 liberis calyce plus dimidio longioribus; ovario glutinoso; legumine non viso.

A slender, very glutinous shrub of 6-12 feet, with erect, almost flexuose, terete branches. Bark a deep purple-brown. Stipules linear, more or less foliaceous, deciduous. Phyllodia erect, yellowish-green and very glutinous, linear-spathulate, abruptly mucronate, straight, or more often curved, gradually tapering into the short petiole, with one more or less central depressed nerve, 5-9 cm. long, 3 mm. broad at the top. Gland small, close to the petiole. Peduncles solitary, filiform, glabrous, 2-2.5 cm. long, bearing large globular, deep yellow heads of 30 5-merous flowers. Calyx turbinate, divided to a

little below the middle into 5 linear-spathulate, slightly hispid, spreading lobes. Petals 5, free, nearly twice the length of the calyx, thick, concave, acute and more or less keeled. Ovary glutinous. Pod not seen in a fully developed state, linear, subterete, and slightly channelled on both sides.

Fifteen miles N.E. of Westonia, in yellow, sandy, arid soil in thickets of *Melaleuca* and *Casuarina horrida*, with *Eucalyptus Oldfieldi* (C. A. Gardner, No. 1851, September, 1922). The type.

Its position seems to be near *A. dodonaefolia* and *A. gnidium*, both of which are glutinous shrubs with narrow phyllodes, but those of *A. glutinissima* are different in shape and venation. The flowers and pods are also dissimilar.

25. *A. acutifolia*, n. sp.

Plate xi.

Frutex glaber, ramis acute angulatis. phyllodiis angusto-lanceolatis vel falcato-lanceolatis in mucrone tenuissimo terminantibus, 5-10 cm. longis, 5-10 mm. latis, uninerviis, nervoso-marginatis; pedunculis axillaribus solitariis; capitulis globosis 6-8 floris; floribus maiuseculis glabris; calyce crasso, brevissimo, sepalis coniunctis; petalis 4-meris liberis uninerviis calyce triplo longioribus; ovario hirsuto; legumine non viso.

A small glabrous shrub with acutely angular or narrowly winged branchlets, young tips tinged a rich purple-brown. Phyllodia narrow-lanceolate or falcate-lanceolate, terminating in a very fine, slightly pubescent point, punctulate, uninerved, with nerve-like margins, and a prominent gland on the lower half; lateral veins somewhat obscure, spreading at almost right angles to the midrib, 5-10 cm. long, 5-10 mm. broad. Peduncles axillary, solitary, bearing globular heads of 6-8 rather large glabrous flowers. Calyx thick, very short, quadrangular, gamosepalous. Petals 4, merous, free, lanceolate, with a faint central nerve, three times longer than the calyx. Ovary hirsute. Pod not seen.

Bruce Rock (Dr. F. Stoward, No. 14, December, 1916). The type.

Near *A. dodonaefolia*, from which it is readily separated by the very acute, thin, non-resinous phyllodia, and in the 4-merous flowers.

UNINERVES (RACEMOSÆ).

26. *A. subglauca*, n. sp.

Plate xiii.

Frutex glaber, gracilis, 4-10' altus; ramulis acute angulatis vel fere compressis; phyllodiis lineari-lanceolatis, sub-glaucis, uncinatis, uninerviis, 2-4.5 cm. longis, 5-10 mm. latis, venis lateralibus prominentibus; racemis axillaribus, glabris; capitulis 3-8, globosis, 20-30 floris; floribus 5-meris; sepalis liberis, lineari-spathulatis, ciliatis, petalorum laevium carinatorum longitudinem dimidio aequantibus. ovario glabro vel paulo hirsuto; legumine lineari, inter semino incincto, 5-10 cm. longo, 4-5 mm. lato; seminibus longitudinalibus; faniculo filiformi semel plicato, plica gradatim in arillum lateralem clavatum super seminis apice incrassata.

A slender, glabrous, sub-glaucous shrub 4-10 feet high, with spreading branches. Bark rough and fibrous at the base; branchlets acutely angular, sub-glaucous. Phyllodia linear to narrow lanceolate, uncinata, uninerved,

with prominent nerve-like margins and more or less strongly penninerved, 2-4.5 cm. long, 5-10 mm. broad; gland small, depressed, causing a slight break in the margin a little below the centre. Racemes axillary, glabrous, shorter than the phyllodia, bearing 3-8 globular heads of 20-30 5-merous flowers. Sepals free, linear-spathulate, ciliate, about half the length of the smooth, keeled petals. Bracts pilose, capitate. Ovary glabrous or slightly hairy. Pod linear, undulate, much constricted between the seeds; valves coriaceous, 5-10 cm. long, 5 mm. broad; seeds black, ovate, longitudinal. Funicle filiform, forming a double fold partly over the seed, and terminating in a lateral, clavate arillus.

Near Bending, on Sandalwood Reserve in thickets of *Melaleuca laxiflora* and *Acacia acuminata*; flowers December and January (C. A. Gardner, No. 1870, 4th December, 1922). The type. Kellerberrin (W. V. Fitzgerald); Bruce Rock (Dr. F. Stoward, No. 32); Cunderdin (W. P. Furlong, October, 1901).

Near *A. microbotrya*, from which it may be separated by the much smaller phyllodes, smaller and somewhat glaucous racemes, and relatively smaller and narrower pods.

27. *A. subglauca*, var. *angustiuscula*, n. var.

Plate xiii.

A somewhat slightly glaucous shrub, 3-5 feet high, with smooth angular branchlets. Phyllodia glabrous, linear-lanceolate, tapering into a short, transversely wrinkled petiole, and terminating in a very fine curved, pliable, more or less hooked point, uninerved, the curve central or nearly so, and somewhat conspicuously penninerved, 2.5 cm. long, 3-4 mm. broad; gland marginal, somewhat depressed, usually about the centre. Racemes axillary, glabrous, shorter than the phyllodia, bearing 5-7 small globular heads of 25-35 5-merous flowers. Sepals free, linear-spathulate, ciliate. Petals glabrous, free, thick, somewhat prominently keeled, fully twice the length of the sepals. Bracts capitate, slightly ciliate at the top only, about the length of the sepals. Ovary densely hairy. Pod not seen.

Cunderdin (W. V. Fitzgerald, November, 1903; a shrubby form); Dwellingup (Dr. F. Stoward, No. 22); Doodlakine (W. V. Fitzgerald, November, 1903); Shrub 5 feet high on sand plain near Merredin (Max Koch, No. 3007, January, 1924). The type.

Perhaps a distinct species, but the point cannot be decided in the absence of the pods. It differs from the typical form in the linear, acuminate phyllodes, slightly larger flowers, longer, and usually keeled, petals, and in the almost glabrous bracts. It bears a striking resemblance to *A. triquetra* in the phyllodes, but is readily separated from that species by the small racemose inflorescence.

28. *A. validinervia*, n. sp.

Plate xi.

Frutex robustus plus minus glaucus; phyllodiis angusto-obovatis vel lanceolato-spathulatis, obtusis vel cum mucrone parvo obliquo, coriaceis, venis prominentibus, reticulatis, 8-10 cm. longis, 1.5-2 cm. latis; racemis glabris, simplicibus, robustis, aliquando phyllodia excedentibus; capitulis 5-20, mausculis, fere sessilibus, globosis, 50-73 floris; calyce paulo cylindraceo, 5-costato, lobis brevibus, crassis, dense ciliatis; petalis liberis, glabris, angusto-lanceolatis, calyce duplo longioribus; ovario stipitato, glabro; legumine non viso.

Branches angular but soon becoming terete. Phyllodia obovate to lanceolate, spathulate, obtuse or with a small oblique point, much contracted into the elongated petiole, coriaceous, uninerved, with strong reticulate lateral veins, and prominent marginal nerves, the lower one confluent with the petiole for some distance, 8-10 cm. long, 1.5-2 cm. broad. Gland small, petiolar or nearly so. Racemes glabrous, simple, robust, sometimes exceeding the phyllodia, with 5-20 rather large, almost sessile, globular heads of 50-73 flowers. Peduncles very short and thick. Calyx cylindrical, five-ribbed, the short, thick lobes densely ciliate, at first united, but readily separating into narrow, somewhat spathulate sepals. Petals free, glabrous, narrow-lanceolate, uninerved, incurved, scarcely twice the length of the long calyx. Bracts capitate, ciliate at the top, the stipes angular and more or less crenulate. Ovary smooth, stipitate. Pod not seen. This species is remarkable for the number of flowers in the head; three heads averaged 73 flowers per head.

Cavanagh Range (Elder Exploring Expedition, R. Helms, 27th July, 1891), labelled by Mueller and Tate *A. notabilis*, to which it is closely allied in the inflorescence, but the phyllodes are shorter, broader, and more reticulate, while the peduncles are quite glabrous, and there is a slight difference in the flowers.

29. *A. Steedmani*, n. sp.

Plate xii.

Frutex medioeriter altus semiglaucus, ramulis angulatis; ramis teretibus pruinosis; phyllodiis variis, angustis, oblongis vel oblongo-lanceolatis ad lato-obovatis, obtusis, vel obliquo-mucronatis, oblique uninerviis, marginibus nervis similibus, 5-9 cm. longis, 1-2.5 cm. latis; racemis glaucis, phyllodiis brevioribus; floribus 30-35 in capitulo; calyce lato-turbinato, hispido; petalis 5 liberis, glabris, calycis longitudinem duplo superantibus; legumine lineari, glauco, inter semino incineto, 4-5 cm. longo, 5 mm. lato; funiculo in medio semine dilatante, duplo plicato; arillo clavato seminis apice.

A medium-sized, semi-glaucous shrub, with angular, glabrous branchlets. Phyllodia narrow-oblong, lanceolate to broadly obovate, usually obtuse or obliquely mucronate, uninerved, with nerve-like margins, and distinct lateral veins, 5-9 cm. long, 1-2.5 cm. broad, bearing 3-4 somewhat conspicuous dark glossy marginal glands. Racemes glaucous, rather stout, usually shorter than the phyllodia, bearing 5-9 large, globular heads of 30-50 bright yellow flowers. Calyx broadly turbinate, the lobes thick, hispid, separating at touch. Petals 5, free, glabrous, acute, twice the length of the calyx. Bracts broad, capitate, ciliate. Ovary glabrous. Pod glaucous, linear, constricted between the seeds, 4-5 cm. long, 5 mm. broad. Seeds longitudinal, black, glossy ovate, 4 mm. long, 3 mm. broad. Funicle partly embracing the seed in a double fold, and thickened into a basal clavate arilis over the end of the seed.

Near Southern Cross (H. Steedman, August, 1922). The type.

Near *A. validinervia*, from which it differs in the smaller, less coriaceous, triglandular phyllodes, smaller racemes, and smaller flowers.

30. *A. chrysellia*, n. sp.

Plate xii.

Frutex erectus, 6-8' altus, ramulis angulatis, glabris; phyllodiis linearibus, 1-nerviis plerumque flexis vel curvatis, 4-7 cm. long, 3mm. latis; racemis gracilibus, axillaribus, paulo aureo-pubescentibus; sepalis oblongo-spathu-

latis, 1-nerviis concavis; petalis 5-meris, liberis, sepalis semel et dimidio longioribus; ovario glabro; legumine angusto, curvato, undulato, 8-11 cm. longo, 5-7 mm. lato.

A glabrous shrub 6 or more feet high; branchlets angular. Phyllodia linear, uninerved, excentric and close to the upper margin, flat, usually curved, tapering into a long curved point, and more or less bent in the vicinity of the small marginal glands, 4-7 cm. long, up to 3 mm. broad. Glands depressed when solitary, usually close to the centre of the phyllode, when more than one, situated on the upper and lower half. Racemes slender, hoary to golden pubescent, shorter than the phyllodia, consisting of 6-10 shortly pedunculate heads of about 20 5-merous, minutely golden-pubescent flowers. Sepals oblong-spathulate, concave, thick, keeled. Petals free, concave, $1\frac{1}{2}$ times longer than the sepals. Braets triangular-clavate, ciliate, golden-pubescent. Ovary glabrous. Pods stipitate, narrow, usually curved, undulate between the longitudinally placed seeds, 8-11 cm. long, 5-7 mm. broad. Seeds black, ovate, with a small depressed ovate-oblong areola, 4-5 mm. long, 3 mm. broad. Funicle almost encircling the seed in a double fold, and terminating in a thick, galeate aril over the end of the seed.

Grows on Salmon and Gimlet land (*Eucalyptus salmonophloia* and *E. salubris*) one mile from Merredin State Farm (Dr. F. Stoward, No. 83, March, 1917). The type.

Near *A. aestivatis* Pritzel, from which it differs in the smaller racemes, narrower phyllodes and narrower pod.

31. *A. hakeoides*, A. Cunn.

Israelite Bay, in flower only (J. P. Brookes, September, 1915). New for Western Australia. Common in New South Wales, Victoria and South Australia; rare in Queensland.

32. *A. semiaurea*, n. sp.

Plate vi.

Frutex medioeriter altus, surculis junioribus minute pruinosis vel aureo-pubescentibus; ramulis angulatis, paulo pruinosis; phyllodiis lanceolatis ad spathulatis uninerviis, 3-5 cm. longis, 1-1.5 cm. latis; racemis paucos flores gerentibus; floribus 20-30 in capitulo; sepalis primum coniunctis mox in segmenta 5-6 crassa linearia seiungentibus; petalis 5-6, liberis, angustis, lanceolatis, apice breviter pilosis; ovario glabro; legumine non viso.

A medium-sized shrub?; young shoots minutely hoary or golden pubescent. Branchlets angular, minutely hoary. Phyllodia lanceolate to spathulate, mostly acute, gradually tapering into the petiole, thinly coriaceous, with nerve-like margins, uninerved, and more or less penninerved, 3.5 cm. long, 1-1.5 cm. broad; gland marginal, on the lower half, or about 1 cm. from the base. Flower heads moderately large, either single, or in slightly hoary racemes shorter than the phyllodia. Flowers 20-30 in the head. Calyx at first somewhat turbinate, but readily separating to the base into 5-6 linear, oblong-spathulate, ciliate, thick sepals. Petals 5-6, free, linear-lanceolate, tipped with a few short hairs, and with a faint central nerve, a little more than twice the length of the elongated sepals. Braets stipitate, deltoid, ciliate. Ovary smooth. Pod not seen.

This species was raised from seed in the Temperate House, Botanic Gardens, Kew, England, and flowering specimens were gathered on 28th May, 1879, but we have no record of its State of origin. It, however, appears to be a Western Australian species, with a somewhat close affinity to *A. Clunies-Rossiae*, an eastern species.

The inflorescence of *A. semiaurea* is usually disposed in single heads, especially on the upper portion of the branchlets. That of *A. Clunies-Rossiae* is always distinctly racemose, and the phyllodes of the latter are usually narrower, less rigid and not so constricted at the base, like those of *A. semiaurea*. The phyllodia are also somewhat like some forms of *A. brachybotrya*, but differ in other characters.

33. *A. bracteata*, n. sp.

Plate x.

Frutex glaber; ramulis acute angularibus; stipulis minutis; phyllodiis planis, angusto-spathulatis ad angusto-lanceolatis, obtusis, uninerviis, 7-12 cm. longis, 1 cm. latis; racemis basi bracteatis, plerumque, 3-floris. pedunculis angulatis; capitulis magnis, globosis 30-35 floris; floribus 5-meris; alabastris oblongo-ovatis ad sub-cylindraceutis; sepalis linearibus, spathulatis, petalis glabris uninerviis plus dimidio longioribus; ovario glabro; legumine non viso.

A glabrous shrub with acutely angular branchlets; stipules very small, semicarnose. Phyllodia linear-spathulate, sometimes very obtuse, tapering into a very long petiole, with a prominent central nerve, and more or less conspicuously penninerved on both sides, 7-12 cm. long, up to 1 cm. broad in the middle; gland at extreme base, rather large, ovate, glossy. Racemes usually 3-branched, but sometimes the heads in the upper axils solitary, on long glabrous peduncles. Bracts at the base of the peduncles conspicuous, imbricate, striate. Heads globular, of 30-35 rather large, 5-merous flowers; buds oblong-ovate to subcylindrical. Sepals linear-spathulate, thickened at the top, at first slightly united at the base, eventually free, more than half the length of the glabrous, uninerved petals. Bracts linear, compressed, triangular at the apex. Ovary glabrous, shortly stipitate. Pod not seen.

Range unknown; probably a Western Australian species. It was cultivated at the Temperate House, Botanic Gardens, Kew, England, and flowered in June, 1879.

Its position appears to be next to *A. suaveolena* and *A. subcoerulea*, from which it differs in the more spathulate phyllodia, larger and different shaped flowers, and in the ramification of the inflorescence.

PLURINERVES (OLIGONEURAE).

34. *A. deflexa*, n. sp.

Plate ix.

Frutex humilis diffusus 6-12" altus, ramis teretibus, dense villosis vel fere glabris; phyllodiis lanato-pubescentibus, ellipticis, concavis, mucronatis, prominente 3-nerviis, 10-15 mm. x 4-5 mm.; pedunculis dense pilosis, solitariis vel geminis phyllodiis plerumque longioribus; capitulis globosis, 10-12 floris; floribus 5-meris, pilosis; sepalis basi breviter coniunctis, angusto-spathulatis; petalis crassis, concavis, lato-lanceolatis, uninerviis; ovario pruinoso; legumine non viso.

A low, divaricate shrub, 6-12 inches high, spreading to a much greater diameter, and sometimes diffuse. Branches terete, densely villose to almost glabrous when old. Phyllodia deflexed, loosely cottony pubescent, thick, elliptical, concave, mucronulate, prominently trinerved, 10-15 mm. long, 4-5 mm. broad, the short lateral veins prominent beneath; gland marginal, very small, close to the base. Peduncles solitary or in pairs, densely hairy, usually exceeding the phyllodia, bearing globular heads of 10-12 5-merous, hairy flowers. Sepals shortly united at the base, thick, linear spatulate or somewhat clavate. Petals thick, broad lanceolate, concave, with a faint central nerve, more than twice the length of the sepals. Bracts lanceolate-acuminate, densely hairy, Ovary hoary. Pod not seen.

Bendering, 120 miles east of Perth, in arid sandy soil on open plains among other low shrubs, notably *Chamelaucium megalopetalum* and *Acacia tamminensis* (C. A. Gardner, No. 2007, August, 1923). The type.

Affinities: With *A. trineura* F.v.M. It has the trinerved phyllodia of this species, but it is much smaller. Other characters such as vestiture, floral structure and habit help to distinguish it from *A. trineura*.

With *A. nitidula* Benth. This appears to be its closest affinity, from which it may be distinguished by its tomentose, trinerved phyllodia, and different shaped flowers.

With *A. sclerophylla* Lindl. It has the short resinous phyllodes of the above species, but they differ somewhat in shape and in the venation; the flowers are also different.

35. *A. Kingiana*, n. sp.

Plate ix.

Frutex erectus tomentosus 6-8' altus, ramis teretibus, glandulosus, viscidus; phyllodiis atro-viridibus, paulo lanatis, cuneato-spathulatis, 2-3 nerviis, 10-15 mm. longis, 3-4 latis; pedunculis solitariis, articulatis in pedunculo communi, pruinosis, resinosis; capitulis globosis 15-20 floris; calyce hirsuto profunde 5-lobato; petalis 5 laevibus coniunctis calyce semel et dimidio longioribus; ovario hirsuto; legumine non viso.

An erect, bushy, tomentose, viscid shrub, 6-8 feet high, with dense, erect, virgate, leafy branches. Phyllodia dark green, loosely woolly-tomentose, cuneate-spathulate to cultriform, straight or curved, terminating in a small oblique, or recurved mucro 2-3 nerved, with strong nerve-like margins, 10-15 mm. long, 3-4 mm. broad; gland very small, basal. Peduncles hoary, usually solitary, articulate on elongated common peduncles, and at their junction subtended by a small, glabrous, semifoliaceous, obtuse, yellowish bract, and on the opposite side by a resinous gland. Flower heads globose of 15-20 flowers. Calyx turbinate, hirsute, with short, broad lobes. Petals 5, smooth, thick, concave, uninerved, united for about half their length, $1\frac{1}{2}$ times longer than the calyx. Bracts capitate, ciliate. Ovary hirsute. Pod not seen.

Named in honour of Miss Ethel King, Artist, who for some years was attached to the National Herbarium staff.

Ten miles north-east of Wagin, in gravelly soil, in Wandoo forest (C. A. Gardner, No. 2004, September, 1923). The type.

Very close to *A. deflexa* in general appearance, but differing widely in floral characters.

36. *A. Benthamii*, Meissn.

Bentham in B. Fl. II., 324, sinks this species under *A. cochlearis*, with the following comment:—"A. Benthamii, Meissn, in Pl. Preiss. I. 11, II., 202, is a slight variety, quite glabrous, with narrow phyllodia; *A. heteroclita*

Meissn., is nearly allied, but has much less pungent phyllodia, with the points usually recurved, and 2 or 3 prominent nerves, and is therefore placed amongst *Plurinerves Oligoneurae*."

There is a specimen in the National Herbarium, Sydney, which was received from the British Museum, labelled *A. cochlearis* Wendl., W. Australia, Drummond, No. 139, 2nd Collection, 1844. We are of opinion that it is referable to *A. Benthamii* Meissn., and is quite distinct from *A. cochlearis*, and also from *A. heteroclita*, to which it is closely allied, and from which it differs in the glabrous, linear phyllodia, different venation, and in the shape and position of the gland.

37. *A. obtecta*, n. sp.

Plate v.

Frutex glaber, 6-8' altus, ramulis leviter angulatis, cinereis; phyllodiis linearibus vel angusto-lanceolatis, rectis vel apice incurvatis, leviter rigidis, obscure 3-4 nerviis, 5-10 cm. longis, 4-5 mm. latis; pedunculis brevibus, fere glabris; capitulis globosis circiter 20-floris; floribus 5-meris; sepalis liberis, lineari-spathulatis, ciliatis; petalis liberis, latis, laevibus leviter obtusis, sepalis fere duplo longioribus; ovario glabro; legumine glabro, stipitato, lineari, undulato, 6-9 cm. longo, 5-8 mm. lato, seminibus ovatis, longitudinalibus; funiculo filiformi, seminis circiter, dimidium aequante.

A glabrous shrub, up to 8 feet high, with spreading branches; branchlets slightly angular, covered with a smooth, greyish-white substance. Phyllodia narrow-lanceolate; straight or recurved towards the top, thin, somewhat rigid, rather brittle, 3-4 nerved, narrowed in to the short, transversely rugose petiole, 5-10 cm. long, 4-5 mm. broad, with 1-3 small marginal glands, the lower one usually present and much larger than the others. Peduncles short, almost glabrous, bearing globular heads of about 20 5-merous flowers. Sepals free, linear-spathulate, thickened and ciliate at the apex. Petals free, broad, glabrous, somewhat obtuse, nearly twice the length of the sepals. Bracts capitate, ciliate. Ovary glabrous. Pod glabrous, stipitate, narrow oblong, undulate, with thin, nerve-like margins, 6-9 cm. long, 5-8 mm. broad. Seeds longitudinal, ovate; funicle filiform, slightly longer than half the length of the seed.

Between Kununoppin and Mount Marshall, and also near Lake Giles (Fitzgerald Fraser, per W. C. Grasby, winter and spring, 1919). The type.

Near *A. Benthamii*, from which it is mainly distinguished in the cinerous branches, much broader and more attenuated, unequally nerved phyllodia with different shaped glands and different texture; the peduncles are also shorter than those of *A. Benthamii*, and the petals are much broader.

From *A. heteroclita* it differs in the broader phyllodia and broader pods.

PLURINERVES (MICRONEURA).

38. *A. Loderi*, Maiden.

Journ. Roy. Soc., N.S.W., LIII., 209 (1919); *Forest Flora N.S.W.*, Part XXX., Plate 114, figs. B, C, D, E, under the name of *A. rigens* A. Cunn.

Now recorded for the first time for Western Australia, from the following localities—Goongarrie (J. H. Maiden, November, 1909); Comet Vale (J. T. Jutson, No. 201), both in flower only. It is a species of low rainfall regions, and hitherto known only from New South Wales and South Australia.

39. *A. pachyacra*, n. sp.

Plate xiv.

Frutex altus glaber; ramulis fere teretibus, rubidis; phyllodiis longis, angustis, 4-nerviis, fere teretibus vel paulo quadrangularibus, apice in mucronem obtusum abrupte curvatis, 9-13 cm. longis, 1 mm. diametro; racemis glabris, phyllodiis brevioribus; pedunculis capita parva globosa ca 20 florigerentibus; floribus 5-meris; sepalis linearibus, spathulatis, ciliatis, petala linearia acuta glabra incurvata plus dimidio aequantibus; ovario glabro; legumine non viso.

A slender, glabrous shrub, with almost terete, reddish branchlets. Phyllodia linear, almost terete, or obtusely quadrangular, 4-nerved, brittle, acute, or abruptly recurved at the apex into a thickened callosity which appears to be a suppressed gland or mucro, 9-13 cm. long, 1 mm. in diameter; gland at extreme base, rather large, with a deep, elongated orifice. Racemes glabrous, shorter than the phyllodia, consisting of 5-10 rather small pedunculate heads of about 20 5-merous flowers. Sepals linear-spathulate, ciliate, more than half the length of the narrow-incurved, acute, glabrous petals. Bracts rather long, capitate, to somewhat peltate, ciliate. Ovary glabrous. Pod not seen.

Near Barrow Range, Victoria Desert, Camp 40, Elder Exploring Expedition (R. Helms, No. 10, 3rd September, 1891). The type.

The somewhat quadrangular phyllodia brings it near *A. longispinea* in the Calamiformes, but the inflorescence is racemose and therefore its position seems to be near *A. prelongata* in Series Plurinerves (Microneura). It is somewhat similar to *A. tenuior* in the shape of the phyllodia, but differs in vestiture, and in the inflorescence. It has the reddish stems of *A. Murrayana*, but is unlike it in botanical characters.

40. *A. subangularis*, n. sp.

Plate xiv.

Frutex gracilis, virgaus, leviter resinosis; ramulis angulatis, striatis, leviter pruinoso-tomentosis; stipulis minutis, resinosis; phyllodiis minute pruinosis, duris, rigidis, lineari-subulatis, forma leviter trigona propter nervum medianum, validum; glandula parva basi; filis sessilibus; calyce cupulari, sinuolato, dense piloso; petalis 5, liberis, coriaceis, valde carinatis, calucis longitudinem plus duplo aequantibus; ovario hirsuto; legumine non viso.

A slender, virgate, slightly resinous shrub; branchlets angular, striate, and more or less hoary-tomentose. Stipules minute, resinous. Phyllodia linear-subulate, hard and rigid, minutely hoary, straight or curved, with a rather prominent central nerve which gives it a bevelled appearance, and with three or four very fine longitudinal lines on each side, and thick, nerve-like margins, usually terminating in a short, slightly pungent point; gland small, almost at the extreme base, often concealed by the short, close tomentum which is more persistent on the base of the phyllode than elsewhere; 4-6 cm. long, about 2 mm. broad. Heads solitary, or in pairs, sessile or nearly so, with about 20 flowers in the head. Flowers moderately large. Calyx cupular sinuolate, minutely hairy. Petals 5, free, smooth, keeled, somewhat coriaceous, more than twice the length of the calyx. Bracts broadly spathulate, densely hairy at the top. Ovary hirsute. Pod not seen.

North-west Plantagenet, in sand (E. Pritzel, No. 689, September, 1901, labelled by Pritzel *A. lineolata* Benth.). The type. Pritzel in *Bot. Jahrb.*, XXXV., 304 (1905) under *A. lineolata* Benth., quotes Stirling district, near Cranbrook, for D. 4416 and 689. We have not seen D. 4416, and therefore we cannot say whether it is the same as No. 689.

It is very close to *A. lineolata*, and differs from it in the narrower, sub-angular phyllodia, which have only one basal gland, whereas the phyllodia of *A. lineolata* are flat and usually bi-glandular, one gland is not far from the base and the other is a little below the apex; the phyllodia of the latter are also more compressed and uniformly finely nerved; the calyx of *A. lineolata* is also longer, with long, obtuse lobes, and is more than half the length of the somewhat gibbose petals.

PLURINERVES (NERVOSAE).

41. *A. sclerophylla* Lindl. var. *teretiusecula*, n. var.

A small, semiviscid shrub, with slightly angular, more or less scurfy-hispid branchlets; branches terete, reddish. Stipules minute, dark brown or black. Phyllodia farinose-resinous, thick, semiterete, straight or curved, slightly canaliculate, or with three faintly depressed longitudinal nerves, ending in a short point, 2-3 cm. long, 1.5 mm. broad; gland small, close to the very short, wrinkled petiole. Peduncles usually in pairs, glabrous, shorter than the heads, bearing globular heads of 7-10 5-merous, free flowers. Sepals linear-oblong, glabrous. Petals smooth, rather broad, more than twice the length of the sepals. Ovary slightly hispid with very short hairs. Pod not seen.

Bruce Rock, Merredin district (Dr. F. Stoward, No. 171, August, 1917).

Perhaps a distinct species, but, in the absence of pods, its true position cannot be defined. Differing from *A. sclerophylla* in the almost terete, trinerved phyllodia, slightly larger heads, somewhat different sepals, and in the hispid ovary. The phyllodes appear to be more hispid, longer, narrower and more terete than those of var. *lissophylla*, J. M. Black. They are more terete than in var. *longifolia* Benth. *A. sclerophylla* Lindl. is recorded in error for Western Australia by Mueller and Tate in *Trans. Roy. Soc., S.A.*, XVI., 352 (1892). The plant referred to is another species, with affinity to *A. sclerophylla* and *A. Oswaldii*.

PLURINERVES (DIMIDIATAE).

42. *A. platycarpa* F. Muell.

Journ. Linn. Soc. III, 145, which Bentham combined with *A. sericata* A. Cunn., and which Turrill in *Kew Bull.*, p. 289, 1922, raises to specific rank, and distinguishes it from *A. sericata* by its glabrous leaves and winged pods is represented in the National Herbarium, Sydney, from the following localities:—

Northern Territory: Near Bauhinia Downs Station (G. F. Hill, No. 806, March, 1912); Port Darwin (N. Holtze); Pine and Horseshoe Creeks (E. J. Dunn, August, 1913). The latter seems to be an intermediate form between *A. platycarpa* and *A. Dunnii* Turrill.

Western Australia: An erect slender shrub of 8 feet, or a small tree of 15-20 feet, with a smooth, powdery bark on the younger portions, that of the trunk being almost rough. Phyllodia glaucous, broadly falcate, obtuse 3-5 nerved, thick, 6-9 inches long on the adult trees, or, on the young plants sometimes exceeding 20 inches in length. Flowers light yellow, in large globular heads. Kimberley district, near the source of the Calder River, Edkins Range, Mount Agnes and eastward to the Drysdale River, in open forests of *Eucalyptus miniata* and *E. tetradonta*, in sandy soil, sometimes forming open thickets. No pods seen. (C. A. Gardner, June, 1921.) Fitzroy River, Calvert Expedition, 1896-7, with very narrow phyllodia, Goody Goody and Derby (W. V. Fitzgerald).

Queensland: Cape York (E. Daemel); 10-15 feet high, Gilbert River, Georgetown to Croydon (R. H. Cambage, No. 3913, 23rd August, 1913); Jericho (J. L. Boorman, 1913).

JULIFLORAE (TETRAMERAE).

43. *A. malloclada*, n. sp.

Plate xv.

Frutex gracilis; ramulis angulatis villosis; stipulis parvis, scariosis; phyllodiis leviter pruinosis, linearibus, lanceolatis, tenuiter 7-10 nerviis, 3-5 cm. longis, 2-4 mm. latis; spicis gracilibus, ovoideis, pedunculatis; pedunculo pruinoso; calyce cupulari, sinuato, ciliato, petalis 4, liberis, crassis, incurvatis, calyce circiter duplo longioribus; ovario hirsuto; legumine non viso.

A slender shrub, with angular, densely villose branches. Stipules small, scarious. Phyllodia linear, lanceolate, tapering into the short, thick petiole, and usually ending in a small, smooth, oblique mucro, slightly hoary throughout, with 7-10 very fine nerves, 3-5 cm. long, 2-4 mm. broad; gland at the extreme base, very small, with an oblong or oval orifice. Spikes pedunculate, slender, cylindrical, the elongated peduncle and rachis hoary. Flowers 4-merous, slightly hoary. Calyx cupular, sinuate, ciliate, with a border of soft, white hairs. Petals free, broad, concave, nearly glabrous, about twice the length of the calyx. Bracts short, concave, hoary. Ovary hirsute. Pod not seen.

North Australia (F. Mueller, No. 28, per Herb. Hort. Bot. Reg. Kew), the precise locality unknown.

Allied to *A. cochliocarpa* and *A. neurophylla* in the venation of the narrow, rigid phyllodes, but totally different in vestiture and in the flowers.

JULIFLORAE (STENOPHYLLAE).

44. *A. sessilispica*, n. sp.

Plate xvi.

Frutex gracilis, glaber; ramulis angulatis, cinereo-furfurosis; phyllodiis tereti-subulatis, rigidis, 6-13 cm. longis, 1 mm. diametro, venis tenuibus. spicis geminis, sessilibus, 2-2.5 cm. longis; floribus parvis, globosis, 5-meris in spicis dense confertis; sepalis liberis, linearibus, spathulatis, hirsutis; petalis glabris lato-lanceolatis, incurvatis, sepalis circiter duplo longioribus; ovario hirsuto; legumine lineari, incurvato inter semina incincto, 6-7 cm. longis, 2 mm. latis; seminibus ovatis, longitudinalibus; funiculo inerassato apicem versus bis vel ter plicato

A slender, glabrous shrub, with slightly angular branchlets, which are covered with a grey, scaly substance. Phyllodia terete, subulate, rigid, usually curved, with numerous very fine, parallel nerves and a small, slightly raised gland a short distance from the base, 6-13 cm. long, 1 mm. in diameter. Spikes sessile, usually in pairs, 2-2½ cm. long, closely packed with small, globular, 5-merous, free flowers. Sepals linear, spatulate, hairy. Petals glabrous, broadly lanceolate, incurved, about twice the length of the sepals. Ovary slightly hirsute. Pod linear, glabrous, curved, constricted between the seeds, 6-7 cm. long, 2 mm. broad. Seeds ovate, longitudinal; valves thin, coriaceous. Funicle white, gradually thickened upwards into two small folds, forming a cap-shaped aril over the end of the seed.

Bruce Rock (Dr. F. Stoward, No. 163 (flowers), August, 1917); Kununoppin, same collector, No. 69 (pods), January, 1917.

Closely allied to *A. multispicata*, but sharply separated from it in the long, terete, 6-8 nerved phyllodia, in the more glabrous young shoots, rachis and flowers, and in the pod.

45. *A. desertorum*, n. sp.

Plate xvii.

Frutex gracilis, resinosis; ramulis paulo angulatis, striatis, phyllodiis rigidis subulatis crasse striatis vel longitudinaliter sulcatis, 10-15 cm. longis circiter 1 mm. diametro; spicis ovoideis vel fere globosis, pedunculatis; floribus magnis, glabris; calyce hirsuto, minimo, cupulari, sinuolato; petalis 5, fere dimidio longitudinalis connatis, laevibus, calyce ca. quadruplo longioribus; ovario paulo pruinoso; legumine non viso.

A slender, resinous, otherwise glabrous, shrub, with slightly angular, somewhat striate, reddish branchlets, the young tips hoary-tomentose. Phyllodia rigid, subulate, terete, pungent-pointed, resinous, coarsely striate or somewhat longitudinally furrowed, 10-15 cm. long, about 1 mm. in diameter, gland basal, usually on one of the broad nerves, very small and slightly protruding. Spikes ovoid to almost spherical, pedunculate, the peduncle slightly hoary, and somewhat quadrangular. Buds cylindrical. Flowers large, glabrous. Calyx hirsute, very small, cupular, with very short lobes. Petals 5, connate to about the middle, thick, smooth, about four times longer than the calyx. Ovary slightly hoary. Pod not seen.

Victoria Desert, in sand, Camp. 54, Elder Exploring Expedition (R. Helms, No. 14, 17th September, 1891). The type. Coolgardie (L. C. Webster, 1898).

It has the irregular ovoid spikes and large cylindrical buds of *A. Jutsoni*, but the phyllodes are perfectly terete and coarsely striate, and not quadrangular as in that species. It resembles *A. longiphyllodinea* in the phyllodes, but they are thinner and shorter, with a different venation; the branches are also non-glaucous. Its nearest affinity seems to be *A. Coolgardiensis*, from which it differs in the longer and thicker phyllodes, in the pedunculate spikes and different shaped flowers.

46. *A. Jutsoni* Maiden.

Plate xxi.

The pods of this species were not previously described. They are linear, compressed-terete, straight or curved, slightly undulate, hoary and more or less rugose, 7-9 cm. long, 3 mm. broad. Seeds longitudinal, oblong, glossy

black, 3 mm. long. Funicle for more than half its length usually folded into one or two short folds near the suture, finally forming a conspicuous, white basal aril over the end of the seed.

Southern Cross (H. Steedman, June, 1922); also in flower at the same time, and some of the spikes are reduced to globular heads.

47. *A. inophloia*, n. sp.

Plate xvi.

Frutex erectus leviter resinosis virgato-ramosis, 6-10' altus; cortice fibroso; surculis junioribus aureo-pubescentibus; phylloidiis filiformibus, teretibus, subulatis, resinosis, mollibus, flexibus, 6-11 cm. longis, 1 mm. diametro, pilis brevibus, sericeis vestitis; specieis sessilibus, densis, ovoideis, ad cylindraceis; floribus 5-meris, hirsutis; calyce alte lobato, petalorum firmiterum, carinatorum, hirsutorum longitudinis dimidio aequante; ovario hirsuto; legumine non viso.

"Fibre-barked Wattle." An erect, virgately branched shrub of 6-10 feet, with a dense fibrous loosely-stringy bark enveloping the trunk; branchlets resinous, angular; young tips golden-pubescent, branches terete, somewhat hoary. Phyllodia filiform, terete, resinous, infested with short, silky hairs, soft, and more or less pliable, finely striate, terminating in a very fine, slightly hooked point, 6-11 cm. long, about 1 mm. in diameter; gland like a minute resinous speck, a short distance from the base. Spikes sessile, ovoid to cylindrical, 1 cm. long, dense, light-yellow, closely packed with numerous hirsute, 5-merous flowers. Bracts deltoid, stipitate, golden-pubescent. Calyx deeply 5-lobed, about half the length of the firm, keeled, hirsute petals. Ovary hirsute. Pod not seen, but, according to collector, they are pubescent.

Bending, in arid, gravelly soil (C. A. Gardner, No. 2010, 26th August, 1923). The type.

A. inophloia has the cortical characters of *A. Fauntleroyi* and *A. oncinophylla*, but differs from both in the terete phyllode, and in the sessile spikes, very different calyx and different pod and funicle.

48. *A. Websteri*, n. sp.

Plate xv.

Frutex mediocris, leviter resinosis; ramulis angulatis, hirsutis; phylloidiis linearibus, subulatis, resinosis, minute sericeo-pilosis; prominenter trinerviis, 5-9 cm. longis, 3 mm. latis; specieis pedunculatis ovoideis; floribus 5-meris; sepalis linearibus, spathulatis, ciliatis; petalis liberis, latiusculis, leviter carinatis, sepalis plus duplo longioribus; ovarii parte superiore hirsuta; legumine lineari, coriaceo, tenuiter penninervio, 6 cm. longo, 3 mm. lato; seminibus longitudinalibus; funiculo basi filiformi, deinde in arillum incrassatum pileiformen super semen dilatato.

A slightly resinous shrub; branchlets angular, hirsute. Phyllodia resinous, silky-hairy, linear, subulate, flat, with a curved, plumose point, 5-9 cm. long, 3 mm. broad, prominently trinerved, with nerve-like margins; gland at the extreme base, somewhat obscure. Spikes pedunculate, ovoid, about 6 mm. long. Flowers 5-merous. Sepals free, linear, spathulate, ciliate at the tips. Petals free, broad, smooth, slightly keeled, the tips deflexed, twice the length of the sepals. Bracts capitate, ciliate. Ovary hirsute on

the upper half. Pod linear, glabrous, coriaceous, penninerved, 6.5 cm. long, 3 mm. broad, slightly constricted between the seeds. Seeds oblong, pale brown, longitudinal. Funicle filiform for about half its length, then abruptly thickened into a cap-shaped aril over the end of the seed.

Coolgardie (L. C. Webster). The type.

Very close to *A. oncinophylla*, but differing in the phyllodia, position, and shape of the gland, different shaped flowers, smaller spikes, and in the narrow, glabrous pods.

49. *A. Fauntleroyi*, n. sp.

(*A. oncinophylla* Lindl., var. *Fauntleroyi*; Maiden, *Journ. Roy. Soc., N.S.W.*, LIII., 214, 1920.)

Plate xviii.

Frutex altus Fibre-bark Wattle vocatus, caule tenui; cortice fibroso, ramulis angulatis, viscidis, dense pubescentibus; phyllodiis aromaticis, pilis brevibus canis tectis, linearibus, rectis vel leviter curvatis, 10-20 cm. longis, 3-4 mm. latis, crassis, rigidis, 7 vel pluribus nerviis; spicis plerumque geminis, pedunculatis, brevibus 1.5 cm. x 1 cm; floribus 5-meris; calyce cylindroideo, irregulariter lobato, pilis longis tectis; petalis hirsutis dimidio longitudinis iunctis; ovario tomentoso; legumine lineari, stipitato, 1 cm. x 5 mm.; lato, dense villosa; seminibus longitudinalibus; funiculo semel plicato in arillum carinosum inerassatum.

It is fully described in the above Journal, and on p. 216 l.c. it is compared with *A. oncinophylla*. We now agree that it is specifically distinct from the latter species, and do not hesitate to raise it to specific rank.

JULIFLORAE (FALCATAE).

50. *A. Clementi*, n. sp.

Plate xix.

Frutex robustiusculus; ramulis angulatis, aureo-pubescentibus; phyllodiis villosis angusto-lanceolatis, crassis, rigidis, fere pungentibus, obscure trinerviis, 5-8 cm. longis, .5-1.5 cm. latis, spicis cylindraceis, crassiusculis, breviter pedunculatis, aureo-pubescentibus; floribus grandiusculis, calyce cupulare, dense tomentoso, sinuolato; petals 5, liberis, glabris, lineari-lanceolatis, leviter carinatis, calyce plus duplo longioribus; ovario oblongo-ovato, stipitato, pruinoso; legumine non viso.

A stout shrub, with hoary young branchlets, and more or less golden-pubescent. Phyllodia narrow-lanceolate to falcate-lanceolate, thick, rigid, almost pungent, minutely velvety-pubescent when young, almost glabrous when old, obscurely trinerved, or the midrib alone discernible, 5-8 cm. long, .5-1.5 cm. broad, gland very small, usually on the lower half of the phyllode. Spikes pedunculate, cylindrical, rather thick, golden-pubescent when young, the thick peduncle hoary. Flowers moderately large. Calyx cupular, densely tomentose, sinuolate. Petals 5, free, glabrous, linear-lanceolate, 1-nerved more than twice the length of the calyx. Bracts capitate, golden-pubescent. Ovary densely tomentose, on a short, thick stipes. Pod not seen.

Between the Ashburton and Yule Rivers (Dr. E. Clement, No. 225, per Herb. Hort. Bot. Reg. Kew). The type.

Near *A. Cuthbertsoni*, but differing in the less finely striated phyllodia, longer spikes, and in the structure of the flowers.

51. *A. eriopoda*, n. sp.

Plate xix.

Frutex gracilis; ramulis angulatis; phyllodiis tenuibus, lineari-lanceolatis, leviter resinosis, obscure tri-nerviis, tenuiter striatis, 8-12 cm. longis, 3-5 mm. latis; spicis cylindraceis, 3-4 simul, pedunculatis, 2-3 cm. longis; pedunculis gracilibus, brevibus, lanoso-tomentosis; calyce cupulare, truncato vel fere truncato, dense tomentoso; petalis 4 vel 5 dimidio longitudinis inunctis, glabris, carinatis, calyce duplo longioribus; ovario hirsuto; legumine non viso.

A slender, leafy shrub; branchlets angular. Phyllodia thin, linear-lanceolate, with a dark, slightly resinous, curved point, very faintly trinerved, or only the midrib more or less conspicuous, finely striate, 8-12 cm. long, 3-5 mm. broad, gland small, basal. Spikes numerous, cylindrical, usually in clusters of 3 or 4, 2-3 cm. long, pedunculate, the peduncles slender, rather short, woolly-tomentose; rachis glabrous; young spike hoary. Calyx cupular, covered in white woolly hairs. Petals 4 or 5, minutely hoary, united about half way up, with a faint central nerve, about twice the length of the calyx. Ovary hoary. Pod not seen.

Meda (Dr. H. Basedow, No. 7, April, 1916). The type.

Very closely allied to *A. doratoxylon* in the phyllodes and in the flowers but the spikes are simple and numerous, not racemose. It also resembles *A. proxima* in the phyllodes and inflorescence, but differs in the arrangement of the spikes, woolly peduncles and different shaped flowers.

52. *A. numerosa*, n. sp.

Plate xix.

Frutex glaber; ramulis angulatis, surculis iunioribus resinosis; phyllodiis angusto-lanceolatis ad falcato-lanceolatis, tri-nerviis, 10-15 cm. longis, 5-7 mm. latis; spicis breviter pedunculatis, gracilibus, cylindraceis in racemis 3 vel 5, 3-4 cm. longis; floribus 5-meris; sepalis lineari-oblongis, obtusis, pilosis; petalis 5, pilosis dimidio longitudinis partitis tenuibus, chartaceis, sepalis plus duplo longioribus; ovario pruinoso; legumine lineari, semi-tereti, 5-6 cm. x 4 mm.

A glabrous shrub; branchlets angular; young tips resinous. Phyllodia narrow-lanceolate, or falcate-lanceolate, usually with a distinct incurved point, thin, trinerved, the mid-rib conspicuous on both sides, and with very fine longitudinal lines between the main nerves, 10-15 cm. long, 5-7 mm. broad, gland basal, usually raised above the margin and with a distinct round orifice. Spikes on slender, glabrous peduncles, cylindrical, often in clusters of 3 or 5, 3-4 cm. long. Flowers 5-merous. Sepals linear-oblong, obtuse, hairy, free or very shortly united at the base. Petals hairy, minutely ciliate, divided to about the middle, thin, with a faint central nerve, more than twice the length of the sepals. Ovary hoary. Pod linear, almost terete, slightly thickened upwards, and more or less constricted between the seeds; valves thin, coriaceous.

Napier Broome Bay (G. F. Hill, for A. J. Campbell, (1910).

Very close to *A. eriopoda* in the phyllodia and in the arrangement of the spikes. The former character, however, is more falcate, and the latter are furnished with glabrous peduncles. The structure of the flowers and bracts is also different in both species.

53. *A. cognata*, n. sp.

Plate xx.

Frutex altus, ramulis acute angulatis; surculis junioribus resinosis; phyllodiis angusto-lanceolatis ad falcato-lanceolatis, tenuibus, coriaceis, uninnerviis, lineis numerosis tenuibus, parallelis; 7-10 cm. longis, 5-8 mm. latis; spicis pedunculatis, cylindraceutis, glabris, 2-3 cm. longis; calyce cupulare 5-costato, sinuolato, leviter piloso; petalis 5, liberis, glabris, lineari-lanceolatis, acutis, calyce plus duplo longioribus; ovario semi-hirsuto; legumine non viso.

A tall shrub; branchlets acutely angular; young tips very resinous. Phyllodia narrow-lanceolate, or falcate-lanceolate, usually much incurved at the top, thin, coriaceous, contracted at the base into a very short, wrinkled petiole, with one prominent nerve and striate with numerous, fine, longitudinal veins, 7-10 cm. long, 5-8 mm. broad; gland basal, microscopic. Spikes pedunculate, cylindrical, 2-3 cm. long. Calyx somewhat quinquangular or costate, sinuolate, densely hairy on the ribs. Petals 5, free, glabrous, linear-lanceolate, acute, more than twice the length of the calyx. Bracts capitate, ciliate. Ovary with a few short, white hairs on the top, contracted at the base into a short, thick stipes. Pod not seen.

Israelite Bay (J. P. Brookes, September, 1915). The type.

Near *A. doratoxylon* in the shape of the phyllodia, but differing in texture and venation, and also in the flowers and long bracts.

54. *A. adsurgens*, n. sp.

Plate xx.

Frutex gracilis, glaber; ramulis compresso-angulatis, farnoso-resinosis; phyllodiis linearibus, rigidis, obscure 1-nerviis, venis tenuibus longitudinalibus utroque latere, 10-13 cm. longis, 3 mm. latis; spicis ovoideis ad breviter cylindraceutis, 10-12 mm. longis, pedunculatis; calyce cupulare, truncato, costis 5 pilosis; petalis 4-5, glabris, circiter tertio longitudinis inunctis; carinatis, calyce circiter duplo longioribus. ovario glabro, resinoso.

A slender, glabrous shrub, except for a mealy-resinous substance investing the young, compressed-angular branchlets; young tips slightly resinous. Phyllodia linear, rigid, vertical, yellowish-green when dry, 10-13 cm. long, 3 mm. broad, with one slightly raised central nerve, and 3-4 almost invisible, fine longitudinal lines on each side, gland basal, rather large, ovate with a slight depression in the middle. Spikes pedunculate, ovoid to shortly cylindrical, 10-12 mm. long, the peduncles robust, more or less resinous; rachis resinous, minutely tomentose. Calyx rather large, cupular, truncate or nearly so, with faint, shortly hairy ribs, and a somewhat fringed border. Petals 4 or 5, glabrous, united about one-third up, keeled, scarcely twice the length of the calyx. Ovary glabrous; young pods very resinous, but not seen in a fully developed state.

Thirty-five miles north-east of Camp 2, G. F. Hill, No. 261, 7th June, 1911, in late flower; 40 miles west of Camp 4, Lander Creek, same collector, No. 360, 21st June, 1911, in late flower and very early fruit.

These are the specimens referred to under *A. doratoxylon* A. Cunn. aff., in the "Flora of the Northern Territory," page 343. The position of this species seems to be next to *A. resinomarginea*. The phyllodes of *A. resinomarginea* are usually trigonous, but occasionally some are flat and broad, and not unlike those of *A. adsurgens*. The spike, and also the calyx, appears to be almost the same in both species. Some of the very narrow forms of *A. doratoxylon* var. *angustifolia* are remarkably like *A. adsurgens* in general appearance, and also some specimens of *A. granitica*.

55. *A. Jibberdingensis*, n. sp.

Plate xvii.

Frutex altus, glaber; ramulis angulatis; phyllodiis compressis vel leviter triangulis, tenuibus rectis vel flexuosis, 3-4 nerviis, marginibus prominentibus nervis similibus, 11-17 cm. longis, 2mm. latis, glandulis 3 vel 5; spicis pedunculatis, cylindraceutis, plerumque geminis, 2-3 cm. longis; floribus 4-meris; calyce brevissimo, lobis brevibus, crassis, hispidis; petalis latis, carinatis calyce plus triplo longioribus; ovario hirsuto; legumine lineari, inter semino incincto, 6-7 cm. longo, 5-6 mm. lato.

A tall, glabrous shrub with spreading, angular branchlets. Phyllodia linear, compressed to somewhat obscurely triangular, thin, straight or curved, ending in a short, curved plumose point, 3-4 nerved, with nerve-like margins, and 3 or 5 distant marginal glands, 11-17 cm. long, 2 mm. broad. Spikes pedunculate, slender, cylindrical, 2-3 cm. long, usually in pairs. Flowers 4-merous; calyx very shallow, with short, thick, slightly hispid lobes. Petals broad, keeled, glabrous, the tips reflexed, more than three times the length of the calyx. Ovary hirsute. Pod linear, compressed, much constricted between the seeds, 6-7 cm. long, 5-6 mm. broad. Seeds not seen.

Jibberding, east of the 120-mile peg, north of Cunderdin, on the East Goldfield Railway (Max Koch, No. 1339, September, 1906). The type.

Near *A. oncinophylla*, from which it differs in the narrow, somewhat angular phyllodes, more numerous glands, slender, glabrous spikes, 4-merous flowers, and different shaped pods.

56. *A. glabripes*, n. sp.

Plate xviii.

Frutex gracilis, glaber; ramulis leviter angulatis, resinosis; phyllodiis angusto-lanceolatis, leviter resinosis, crassis, obscure trinerviis, 3-4 cm. longis 4-7 mm. latis; spicis ovoideis, in pedunculis longis, gracilibus, glabris; floribus glabris, magnis; calyce cupulari, sinuolato, leviter ciliato; petalis 5, lineari-lanceolatis, crassis, carinatis calyce plus duplo longioribus; ovario glabro; legumine non viso. (Inter flumina Ashburton et Jule, W.A., Dr. E. Clement.)

A slender, glabrous shrub, with slightly angular, resinous branchlets. Phyllodia narrow-lanceolate, with a straight or hooked point, slightly resinous, somewhat thick, obscurely trinerved, 3-4 cm. long, 4-7 mm. broad, gland at the extreme base, very small. Spikes ovoid to cylindrical, on very long, smooth peduncles. Flowers glabrous, rather large. Calyx broadly cupular sinuolate. Petals narrow-lanceolate, thick, prominently keeled, concave, and faintly trinerved towards the top, more than twice the length of the calyx. Bracts concave, lanceolate, slightly tomentose. Ovary glabrous. Pod not seen.

Between the Ashburton and Yule Rivers (Dr. E. Clement, per Herb. Hort. Bot. Reg., Kew). The type.

Near *A. Hammondi* on the one hand and *A. leptophleba* on the other. It has also the same shaped phyllodes of *A. curvicarpa*, but they are considerably smaller. In the elongated, pedunculate spikes it resembles *A. curvinervia*, but is distinct in floral characters.

57. *A. sphaerogemma*, n. sp.

Plate xv.

Frutex gracilis, leviter glutinosus et pruinosis; ramulis angulatis; stipulis parvis, scariosis, semi-persistentibus; phyllodiis angusto-lanceolatis basi leviter villosis binerviis, lineis numerosis tenuibus parallelis inter nervos, 4-7 cm. longis, 5-8 mm. latis; spicis simplicibus vel geminis, cylindraceis, pedunculatis; calyce eupulare, sinuolato, ciliato; petalis 5, liberis glabris, crassis, calyce plus duplo longioribus; ovario glabro praeter fimbriam pilorum canorum utroque latere; legumine non viso.

A slender, slightly glutinous, and scantily hoary shrub; branchlets angular; stipules small, scariosus, semi-persistent. Phyllodia narrow-lanceolate, tapering into a very small, villose petiole, and usually ending in a minute, oblique point, more or less prominently binerved, with numerous very fine parallel veins between them, 4-7 cm. long, 5-8 mm. broad; gland basal, linear, like a narrow slit. Spikes pedunculate, single or in pairs cylindrical; peduncles hairy. Buds globular; flowers small, pale yellow. Calyx cupular, sinuolate, ciliate. Petals 5, free, papery, with a faint central nerve, more than twice the length of the calyx. Bracts small, capitate, ciliate. Ovary with two rows of very fine white hairs, otherwise glabrous. Pod not seen.

Walmudja, Roper River, Northern Territory (N. B. Tindale, No. 24, May, 1921). The type.

Very closely allied to *A. Hammondi*, from which it may be distinguished in the tomentum, different shaped calyx, and in the totally different gland.

58. *A. lentiginea*, n. sp.

Plate xxi.

Frutex patens 4-10 altus, ramulis erectis, angulatis; phyllodiis angusto-lanceolatis vel falcato-lanceolatis, leviter resinosis, 3-4 nerviis, 5-10 cm. longis, $\frac{1}{2}$ -1 cm. latis; spicis pedunculatis, gracilibus, cylindraceis; floribus parvis, 4-5 meris, sepalis lineari-spathulatis, glabris; petalis 4-5, liberis, lineari-lanceolatis, leviter carinatis, calyce duplo longioribus; ovario laevi; legumine non viso.

A spreading shub, 4-10 feet high, with numerous erect, wiry, somewhat angular, punctate branchlets, and a rough fibrous-flaky bark. Phyllodia punctate with minute white dots, narrow-lanceolate to falcate-lanceolate, green and glutinous, with 3-4 prominent nerves, and several very fine longitudinal lines between them, 5-10 cm. long, $\frac{1}{2}$ -1 cm. broad; gland fairly prominent, a short distance from the base and swollen on both sides of the marginal nerve. Spikes shortly pedunculate, slender, cylindrical, bearing very pale-yellow, papery, 4-5 merous flowers. Sepals linear, free, spatulate, glabrous. Petals smooth, free, rather broad, with a faint central nerve, scarcely twice the length of the sepals. Bracts obliquely capitate. Ovary glabrous. Pod not seen. They are narrow-linear, according to Gardner. There is portion of a loose pod attached to the sheet of No. 296, but it is difficult to say whether it is properly matched with the specimen. It is narrow and somewhat woody, and more or less quadrangular with the seeds obliquely arranged. The phyllodes of No. 296 seem to match the phyllodes of No. 1369; both specimens are minutely punctate with microscopic white dots, hence the specific name.

Hills near the Prince Regent River, in scanty sandy soil in crevices of sandstone rocks (C. A. Gardner, No. 1369). The type. Third Voyage of the "Mermaid" A. Cunningham, No. 296, 1820.

Near *A. plectocarpa*, but the phyllodes are somewhat different, and the flowers are quite glabrous. It resembles *A. Hemsleyi* somewhat in the phyllodes, but is distinct in the buds, glabrous flowers, and different shaped bracts. It has almost the same shaped phyllode as *A. loxocarpa* and *A. drepanocarpa*, but the pods are quite different.

59. *A. ancistrocarpa*, n. sp.

Plate xxi.

Frutex gracilis, glaber, 6-15' altus; ramis leviter angulatis, surculis iunioribus glutinosus; phyllodiis lineari-lanceolatis, pallido-viridibus, nitenibus, obscure trinerviis, 7-12 cm. longis, 5-8 mm. latis, biglandularibus; spicis glabris, cylindraceis; calyce patellaformi, leviter tomentoso; petalis laevibus circiter dimidio longitudinis iunctis, calyce triplo longioribus; ovario tomentoso, legumine coriaceo, angusto-oblongo, undulato, uncinato, 4-5 cm. longo, 7mm. lato; seminibus ovatis, oblique dispositis; funiculo brevi, crasso.

A slender, glabrous shrub up to 15 feet high, with slightly angular, pale-coloured branchlets; young shoots resinous. Phyllodia linear-lanceolate, pale green, somewhat shining, faintly trinerved, or the central nerve alone conspicuous, with numerous very fine, longitudinal lines between them, 7-12 cm. long, 5-8 mm. broad; glands two, one close to the base, the other about 3cm. from the base. Spikes pedunculate, glabrous, cylindrical. Calyx very shallow, almost saucer-shaped, slightly tomentose sinuate. Petals smooth, united for more than half their length, fully three times longer than the calyx. Ovary slightly tomentose. Pods stipitate, oblong-lanceolate, coriaceous, undulate, the apex usually uncinato, 4-5 cm. long, 7 mm. broad. Seeds ovate, obliquely arranged, with pithy partitions between the seeds. Funicle short, thickened into a cap-shaped aril over the end of the seed.

Northern Territory. Barrow Creek, in flower, and with narrow phyllodia (Captain S. A. White, No. 81; Darwin to Pine Creek, tree 15 feet high (Dr. H. I. Jensen, per C. E. F. Allen, No. 209).

Western Australia. Between Minderoc and Globe Hill, Ashburton River, in pod (Dr. A. Morrison, 29th September, 1905).

Affinities. With *A. pachycarpa* and *A. plectocarpa*, but differing from both in the phyllodia and in the pod.

60. *A. Cunninghamii* Hook., var. *tropica*, n. var.

Plate xxii.

Frutex glaber; ramulis acute angularibus, surculis iunioribus plus minus resinosis; phyllodiis angustis ad lato-lanceolatis, basi obliquis, obtusis vel apice crassiusculis, trinerviis, lineis numerosis, longitudinalibus tenuibus inter nervos, 7-12 cm. longis, 1.5-3 cm. latis; spicis pedunculatis, cylindraceis 3 vel 4 simul; calyce cupulare, brevissimo, sinuolato, ciliato; petalis 5 basin versus iunctis, crassis, carinatis, calyce plus triplo longioribus; ovario hirsuto, late ovoid; legumine non viso.

A glabrous shrub, with somewhat acutely angular branchlets, and more or less glutinous young tips. Phyllodia narrow to broad-lanceolate, gradually tapering obliquely into a long petiole, obtuse, or the apex more or less thickened, trinerved, the two lowest nerves usually confluent for about 15 mm. from the base, and with numerous fine, parallel veins between them above their junction, also with a few irregular anastomosing veins, 7-12 cm. long, 1.5-3 cm. broad, gland small; inserted at the base of the lamina. Spikes

pedunculate, in pairs or sometimes 3 or 4 together, cylindrical, 3.5 to 6.5 cm. long. Flowers moderately large; buds globular. Calyx very short, cupular, sinuolate, ciliate. Petals 5, divided to a little below the middle, thick, keeled, more than three times longer than the calyx. Ovary ovate, hirsute. Young pods linear, usually flexuose, not seen fully ripe.

Hell Gate, Roper River, Northern Territory (Prof. W. Baldwin Spencer, 2nd August, 1911).

Differing from the typical *A. Cunninghamii* in the uniformly trinerved phyllodia, much longer petiole, smaller gland, denser spikes, more slender and longer peduncles, smaller calyx, and more coriaceous keeled petals. The calyx and corolla are markedly persistent after the stamens have fallen, see fig. 3, Plate 22.

61. *A. Gardneri*, n. sp.

Plate xxii.

Frutex gracilis, glaber, 6-15' altus; ramulis patentibus, leviter compresso-teretibus, glaucis; phyllodiis leviter glaucis, late et oblique lanceolato-falcatis, in basis angustatis, 4-nerviis, 8-12 cm. longis, 2-3 cm. latis; spicis gracilibus, cylindraceis flores parvos, glabros, sulphureos gerentibus; calyce cupulari, sinuolato; petalis liberis, angusto-lanceolatis, acutis, calyce triplo longioribus; ovario glabro; legumine lineari, stipitato, flexuoso inter semina incincto, 5-8 cm. long, 3-4 mm. lato; seminibus longitudinalibus; funiculo basi in arillum clavatum incrassato.

A slender, glabrous, erect shrub, 6-15 feet high, with a smooth brown bark covered in the upper portion with a white powder. Branchlets spreading, slightly compressed-terete, and more or less glaucous. Phyllodia slightly glaucous, broadly and obliquely falcate-lanceolate, narrowed into the base, 4-nerved, with fine anastomosing veins between them, the two lower nerves uniting a short distance from the base, 8-12 cm. long, 2-3 cm. broad, gland small, at the extreme base of the lamina. Spikes pedicellate, very slender, cylindrical, 4-5 cm. long, bearing small light-yellow, glabrous flowers. Calyx cupular, sinuolate. Petals 5, free, linear-lanceolate, concave, slightly keeled, nearly three times longer than the calyx. Ovary glabrous. Pod linear, stipitate, flexuose, 5-8 cm. long, 3-4 mm. broad, slightly constricted between the seeds; valves thinly coriaceous. Seeds longitudinally arranged, dark brown, oblong. Funicle filiform for more than half its length, with one short central fold, then gradually thickened into a long club-shaped aril.

Near Prince Regent River, on the banks of streams in sandy soil, among quartzite rocks (C. A. Gardner, No. 1368, 12th June, 1921), also seen on the Moran and King Edward Rivers; Paekhorse Range (W. V. Fitzgerald, No. 1253, July, 1905); Charnley River (W. V. Fitzgerald, August, 1905).

Near *A. cincinata* in the shape of the phyllodes, but quite different in the pod. It resembles *A. tumida* in general appearance, but the venation of the phyllodia is different, and so are the pods. The phyllodes are the same shape as those of *A. leptocarpa*, but the venation is different. The pods also resemble those of the latter species.

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Explanation of Plates.

(All enlarged except where otherwise stated.)

PLATE I.

A. pulviniformis, n. sp.

1, flowering twig, nat. size ; 2, phyllodes and deciduous stipules ; 3, showing the attachment of the phyllodes ; 4, a cluster of bracts at the base of the peduncle ; 5, head of flowers ; 6, flower ; 7, ovary.

A. sulcata var. *hirsuta*, n. var.

8, flowering twig, nat. size ; 9, portion of branch, base of phyllodes, and stipules greatly enlarged ; 10, head of flowers ; 11, flower ; 11a, bract ; 12, ovary.

A. sedifolia, n. sp.

13, flowering twig, nat. size ; 14, phyllode ; 15, head of flowers ; 16, bract ; 17, flower ; 18, ovary.

PLATE II.

A. eccentrica, n. sp.

1, flowering twig, nat. size ; 2, phyllode showing the excentric nerve ; 3, showing the attachment of the phyllode, and the persistent, pilose stipules ; 4, bract ; 5, flower ; 6, ovary.

A. calcarata, n. sp.

7, flowering twig, nat. size ; 8, showing the attachment of the phyllode and the spur-like stipules ; 8a, portion of phyllode showing the prominent nerves and gland ; 9, tip of phyllode ; 10, bract ; 11, flower ; 12, ovary.

PLATE III.

A. acellerata, n. sp.

1, flowering twig, nat. size ; 2, showing attachment of the phyllode and small gland (a) ; 3, bract ; 4, flower ; 5, ovary.

A. inops, n. sp.

6, flowering twig, nat. size ; 7, showing sessile phyllode, basal gland, and the stipules ; 8, elliptical bud ; 9, bract ; 10, flower ; 11, ovary.

A. glabriflora, n. sp.

12, flowering twig, nat. size ; 13, an elliptical phyllode, nat. size ; 14, showing attachment of phyllode and the small gland at the extreme base ; 15, head of flowers ; 16, bract ; 17, flower ; 18, ovary.

PLATE IV.

A. fragilis, n. sp.

1, flowering twig, nat. size ; 2, a long phyllode ; 3, showing the base of the phyllode and attachment ; 4, portion of the phyllode showing the channels, which is rather diagrammatic ; 5, showing the semiplumose tip of phyllode ; 6, head of flowers ; 7, bract ; 8, flower ; 9, ovary ; 10, pod, nat. size ; 11, seed and funicle.

A. eremophila, W. V. Fitz., var. *variabilis*, n. var.

12, flowering twig, nat. size ; 13, long phyllode ; 14, showing attachment of phyllode ; 15, bract ; 16, flower ; 17, ovary ; 18, pod, nat. size ; 19, portion of pod showing the tomentum ; 20, seed and funicle.

PLATE V.

A. obtecta, n. sp.

1, flowering twig, nat. size ; 2, flower ; 3, bract ; 4, ovary ; 5, pod ; 6, seed and funicle in situ.

A. Inceae, n. sp.

7, flowering twig, nat. size ; 8, flower ; 9, bract ; 10, ovary.

A. abrupta, n. sp.

11, flowering twig, nat. size ; 12, base of phyllode showing attachment and the linear gland on the nerve ; 13, apex of phyllode ; 14, head of flowers ; 15, flower ; 16, bract ; 17, ovary.

PLATE VI.

A. viscifolia, n. sp.

1, flowering twig, nat. size ; 2, branchlet and base of phyllode showing the small circular gland ; 3, tip of phyllode ; 4, head of flower ; 5, flower ; 6, bract ; 7, ovary.

A. Maxwelli, n. sp.

8, flowering twig, nat. size ; 9, portion of branchlet showing the stipules ; 10, showing the attachment of the phyllode ; 11, phyllode greatly enlarged ; 12, flower ; 13, ovary.

A. semiaurea, n. sp.

14, flowering twig, nat. size ; 15, a broad phyllode showing the position of the gland ; 16, base of phyllode ; 17, bract ; 18, flower ; 19, ovary.

A. chrysopoda, n. sp.

20, portion of flowering twig ; 21, phyllode, greatly enlarged ; 22, head of flowers ; 23, flower ; 24, bract ; 25, ovary.

PLATE VII.

A. Merrickae, n. sp.

1, flowering twig, nat. size ; 2, tip of phyllode showing mucro ; 3, head of flowers ; 4, types of floral bracts ; 5, flower ; 6, ovary ; 7, twig bearing young pods, nat. size ; 8, showing the longitudinal position of the seed and the remarkably long funicle.

A. orbifolia, n. sp.

9, flowering twig, nat. size ; 10, phyllode, enlarged, showing the fimbriate border ; 11, flower ; 12, ovary ; 13, very young pod.

A. oblonga, n. sp.

14, flowering twig, nat. size ; 15, phyllode showing the obscure venation and the small gland at the extreme base ; 16, bract ; 17, flower ; 18, ovary.

PLATE VIII.

A. semicircularis, n. sp.

1, flowering twig, nat. size ; 2, phyllode ; 3, bracts ; 4, flower ; 5, ovary ; 6, immature pod.

A. subretusa, n. sp.

7, flowering twig, nat. size ; 8, showing attachment of phyllode ; 9, bract ; 10, flower ; 11, ovary.

A. enervia, n. sp.

12, flowering twig, nat. size ; 13, a much larger phyllode than 12 ; 14, base of phyllode showing the position of the gland ; 15, flower ; 16, bract ; 17, ovary ; 18, pod, nat. size ; 19, section of pod showing position of the seed and funicle.

A. pallidiramosa, n. sp.

20, twig, nat. size ; 21, showing the attachment of the phyllodia and the small marginal gland ; 22, seed and funicle.

PLATE IX.

A. deflexa, n. sp.

1, flowering twig, nat. size ; 2, showing the attachment of the phyllode, venation, and vestiture ; 3, head of flowers, with floral bracts ; 4, bract ; 5, flower ; 6, ovary.

A. Kingiana, n. sp.

7, flowering twig, nat. size ; 8, head of buds showing the peduncle, bracteoles attachment of phyllode, gland and vestiture ; 9, bract ; 10, flower ; 11, ovary.

PLATE X.

A. glutinosissima, n. sp.

1, flowering twig, nat. size; 2, showing the attachment and base of phyllode; 3, tip of phyllode; 4, bract; 5, flower; 6, a very young pod.

A. bracteata, n. sp.

7, flowering twig, nat. size; 8, a bud; 9, bract; 10, flower; 11, ovary.

PLATE XI.

A. acutifolia, n. sp.

1, flowering branch, nat. size; 2, portion of branchlet and base of phyllode; 3, ovary; 4, flower.

A. validinervia, n. sp.

5, flowering twig, nat. size; 6, flower; 7, bract; 8, ovary.

PLATE XII.

A. chrysellia, n. sp.

1, flowering twig, nat. size; 2, attachment of phyllode; 3, flower; 4, bract; 5, ovary; 6, pod, nat. size; 7, seed and funicle.

A. Steedmani, n. sp.

8, flowering twig, nat. size; 9, phyllode, showing the three marginal glands; 10, flower; 11, bracts; 12, ovary; 13, pod, nat. size; 14, seed and funicle.

PLATE XIII.

A. subglaucula, n. sp. var. *angustiuscula*, n. var.

1, attachment of phyllode; 2, flowering twig, nat. size; 3, head of flowers; 4, flower; 4a, ovary; 5, bract.

A. subglaucula, n. sp.

6, flowering twig, nat. size; 7, portion of phyllode showing position of gland; 8, tip of phyllode; 9, flower; 10, types of bracts; 11, ovary; 12, pod, nat. size; 13, section of pod showing the seed and funicle in situ.

PLATE XIV.

A. pachyacra, n. sp.

1, flowering twig, nat. size; 2, base of phyllode showing the large gland; 3, tip of phyllode showing the thick apex; 4, head of flowers; 5, flower; 6, bract; 7, ovary.

A. subangularis, n. sp.

8, flowering twig, nat. size; 9, attachment of phyllode showing the strong central nerve, also cross section; 10, flower; 11, bract; 12, ovary.

PLATE XV.

A. malloclada, n. sp.

1, flowering twig, nat. size; 2, phyllode showing vestiture, venation, apex and basal gland; 3, flower; 4, bracts; 5, ovary.

A. Websteri, n. sp.

6, flowering twig, nat. size; 7, base of phyllode showing attachment; 8, flower; 9, bract; 10, ovary; 11, pod, nat. size; 12, seed and funicle.

A. sphaerogemma, n. sp.

13, flowering twig, nat. size; 14, base of phyllode showing vestiture and venation; 15, front edge of phyllode to show the long basal gland; 16, spherical bud; 17, flower; 18, ovary.

PLATE XVI.

A. inophloia, n. sp.

1, flowering twig, nat. size; 2, base of phyllode showing vestiture and attachment; 3, flower; 4, ovary.

A. sessilispica, n. sp.

5, flowering twig, nat. size; 6, base of phyllode showing attachment and venation; 7, flower; 8, ovary; 9, pod, nat. size; 10, portion of pod to show the seed and funicle.

PLATE XVII.

A. desertorum, n. sp.

1, flowering twig, nat. size ; 2, base of phyllode showing gland ; 3, portion of phyllode to show venation ; 4, flower spike, nat. size ; 5, flower ; 6, bract ; 7, ovary

A. Jibberdingensis, n. sp.

8, flowering twig, nat. size ; 9, base of phyllode showing attachment and venation ; 10, portion of phyllode to show the venation, vestiture, and one of the five glands ; 11, flower ; 12, ovary ; 13, portion of pod, nat. size.

PLATE XVIII.

A. Fauntleroyi, n. sp.

1, flowering twig, nat. size ; 2, a long phyllode, nat. size ; 2a, portion of phyllode to show the venation ; 3, flower ; 4, bract ; 5, ovary ; 6, pod, nat. size ; 7, seed and funicle.

A. glabripes, n. sp.

8, flowering twig, nat. size ; 9, phyllode and spike, nat. size ; 10, base of phyllode ; 11, flower ; 12, ovary ; 13, bract.

PLATE XIX.

A. Clementi, n. sp.

1, flowering twig, nat. size ; 2, flower ; 3, bract ; 4, ovary.

A. numerosa, n. sp.

5, flowering twig, nat. size ; 6, flower ; 7, bract ; 8, ovary ; 9, pod.

A. eriopoda, n. sp.

10, phyllode showing attachment, nat. size ; 11, base of phyllode ; 12, portion of flowering twig ; 13, flower ; 14, linear bract ; 15, ovary.

PLATE XX.

A. cognata n. sp.

1, flowering twig, nat. size ; 2, base of phyllode to show attachment and the very small gland ; 3, flower ; 4, bract ; 5, ovary.

A. adsurgens, n. sp.

6, flowering twig, nat. size ; 7, base of phyllode to show attachment and large gland ; 8, flower with six petals ; 9, flower with five short broad petals ; 10, ovary.

PLATE XXI.

A. ancistrocarpa, n. sp.

1, flowering and fruiting twig, nat. size ; 2, base of phyllode to show attachment, venation and gland ; 3, flower ; 4, bract ; 5, ovary ; 6, portion of pod showing position of seed and funicle.

A. lentiginea, n. sp.

7, flowering twig, nat. size ; 8, flower ; 9, bract ; 10, ovary.

A. Jutsoni Maiden.

11, pods, nat. size ; 12, portion of pod to show the seed and funicle.

PLATE XXII.

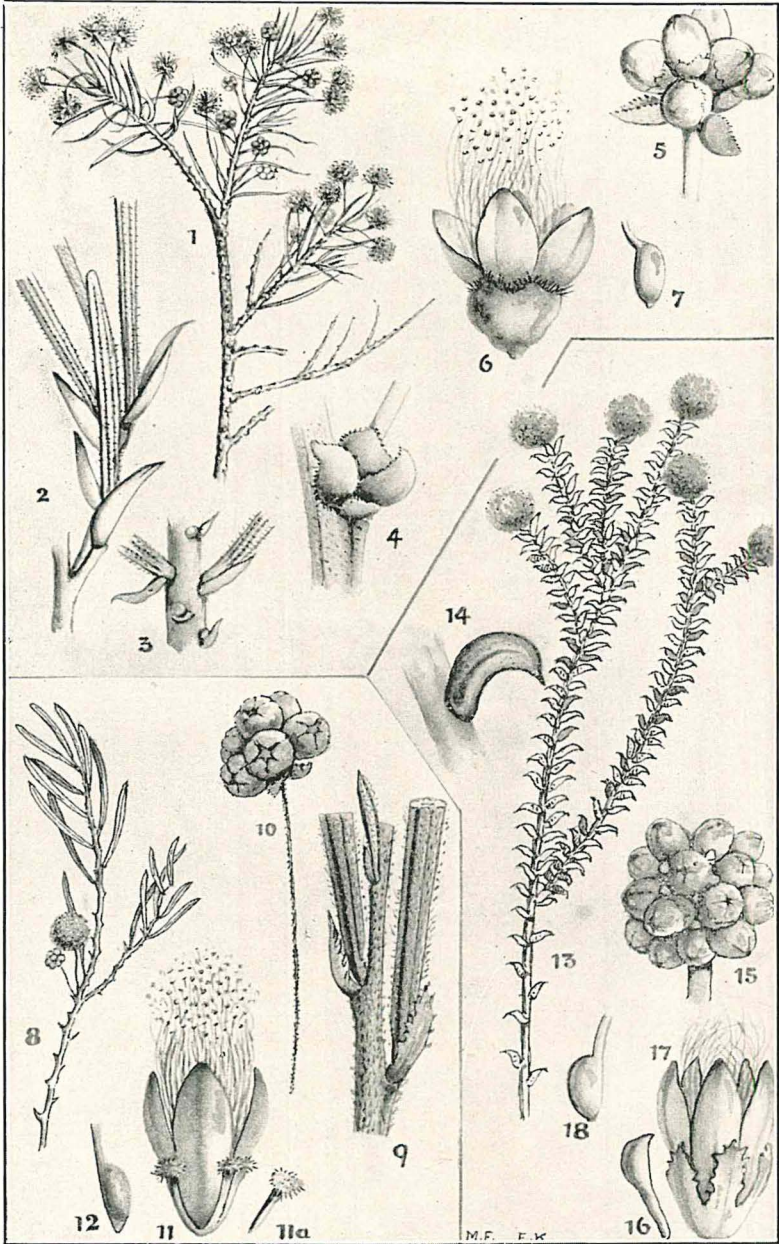
A. Cunninghamii, Hook. var. *tropica*, n. var.

1, flowering twig, nat. size ; 2, phyllode, nat. size ; 3, slender rachis, nat. size, to show the persistent flowers after the stamens have fallen, also two immature pods ; 4, flower ; 5, ovary.

A. Gardneri, n. sp.

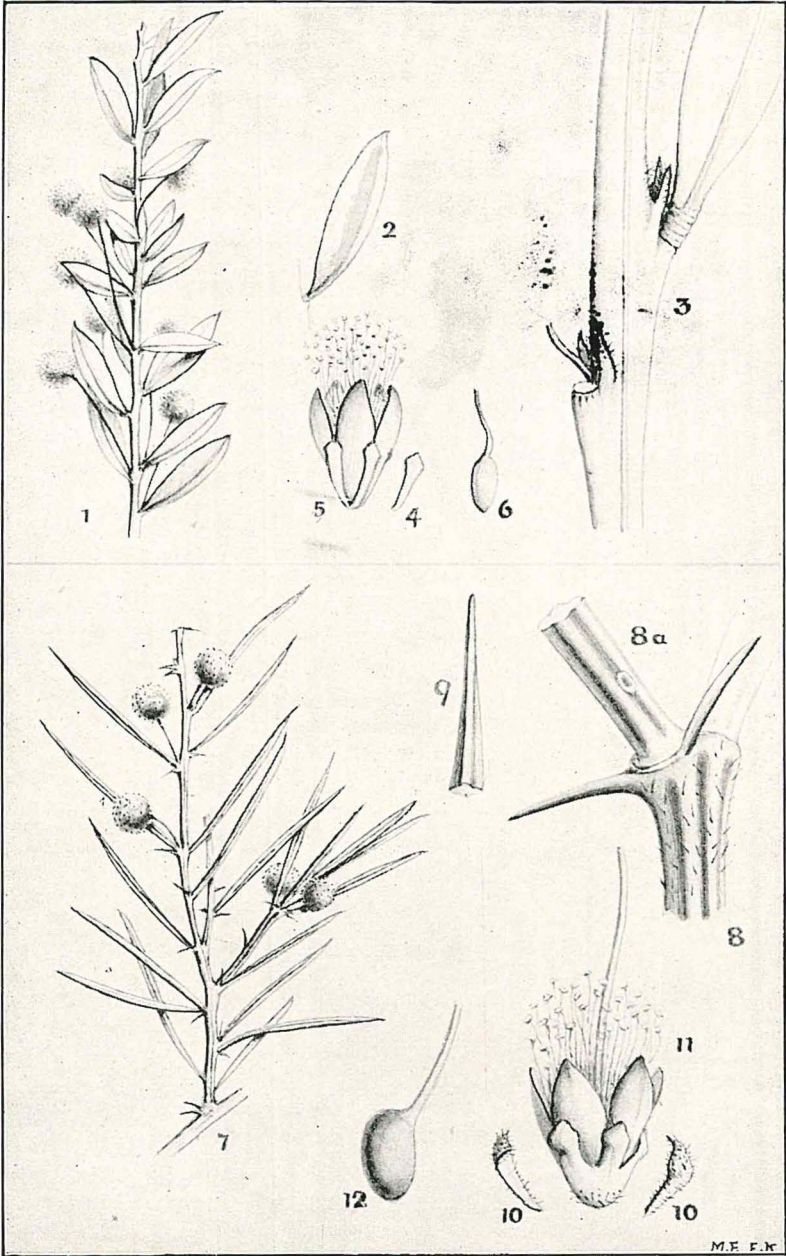
6, portion of flowering twig, nat. size ; 7, twig showing buds ; 8, flower ; 9, ovary ; 10, pod, nat. size ; 11, portion of pod to show the long funicle and seed.

PLATE I.



A. pulviniformis n. sp. (1-7). *A. sulcata* R.Br. var. *hirsuta* n. var. (8-12).
A. sedifolia n. sp. (13-18).

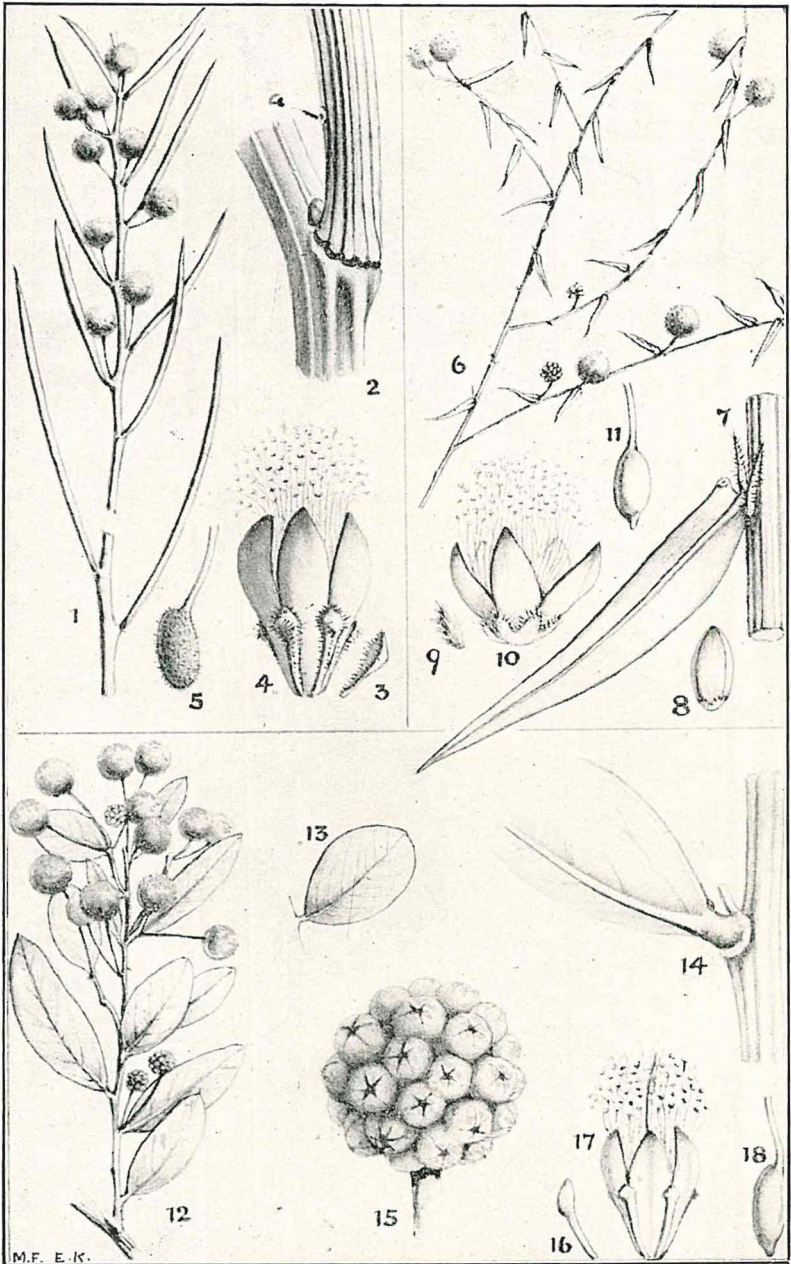
PLATE II.



A. excentrica n. sp. (1-6). *A. calcarata* n. sp. (7-12).

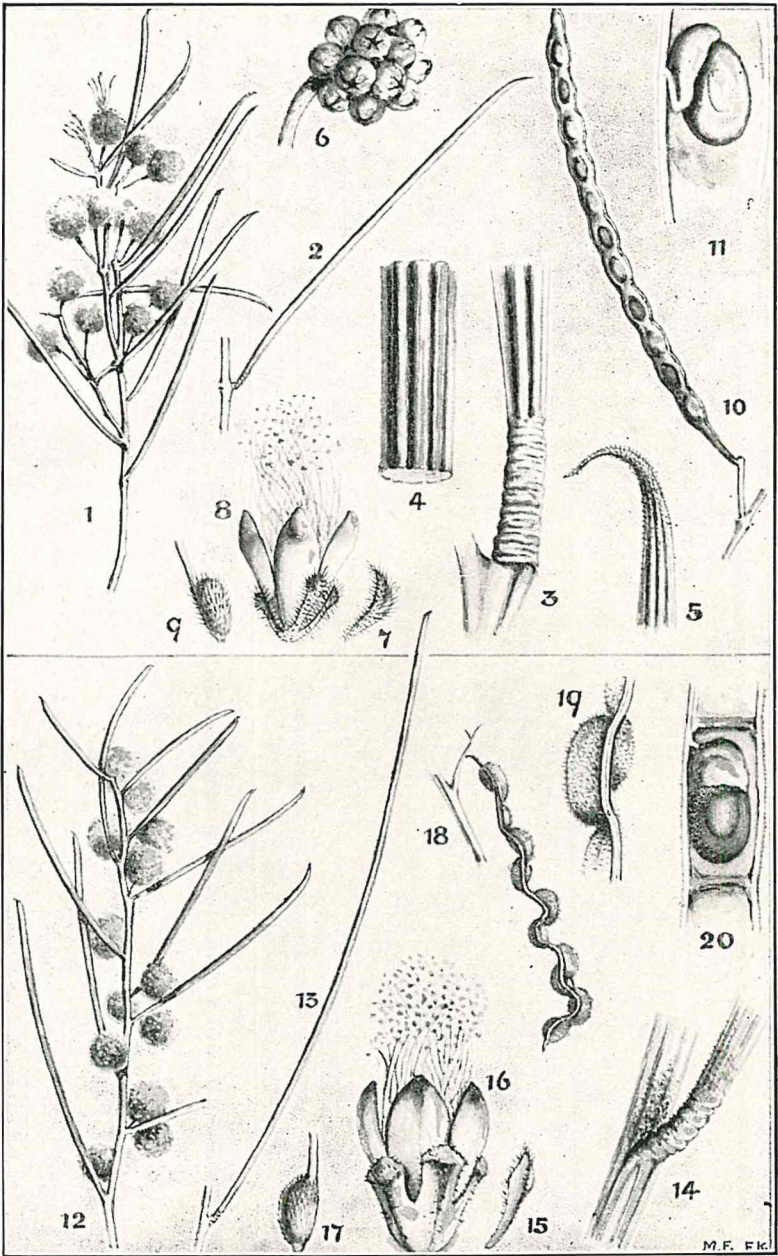
M. E. F. K.

PLATE III.



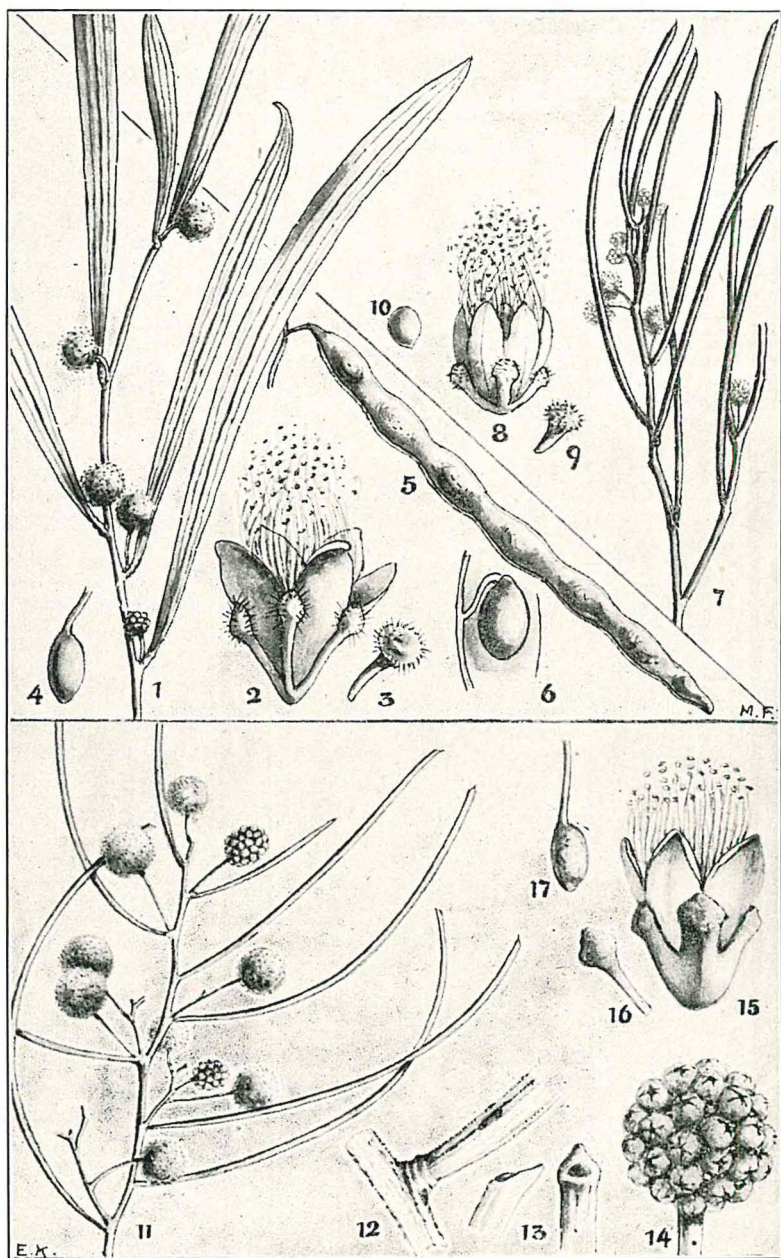
A. acellerata n. sp. (1-5). *A. inops* n. sp. (6-11). *A. glabriflora* n. sp. (12-18).

PLATE IV.



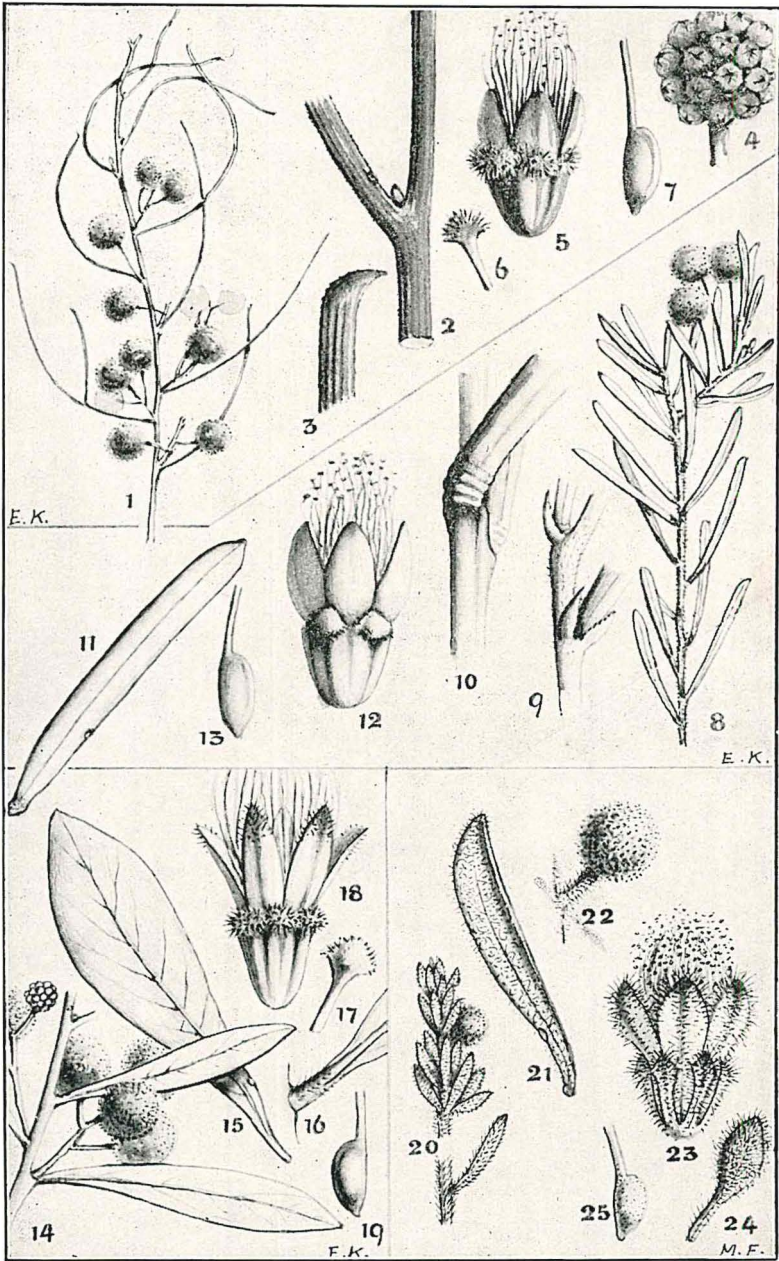
A. fragilis n. sp. (1-11). *A. eremophila* W. V. Fitz., var. *variabilis* n. var. (12-19).

PLATE V.



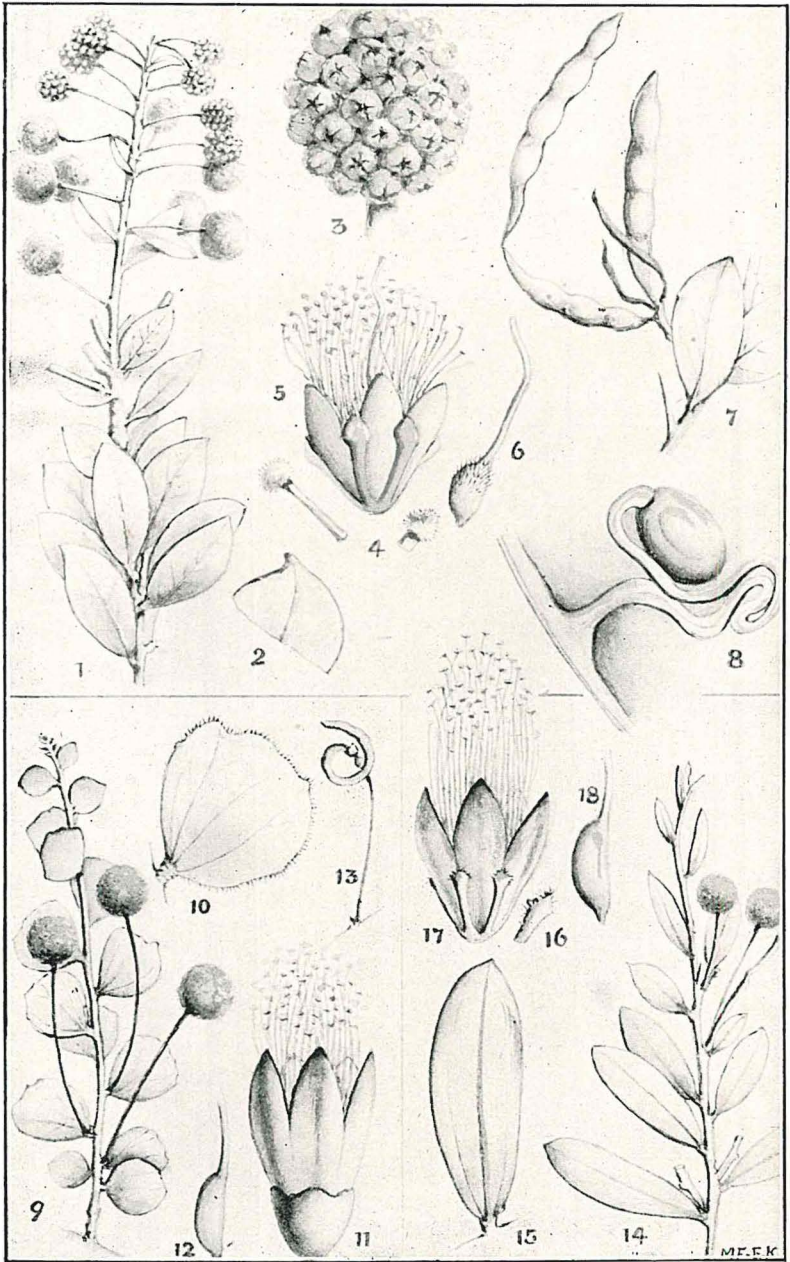
A. obtecta n. sp. (1-6). *A. Inceae* n. sp. (7-10). *A. abrupta* n. sp. (11-17).

PLATE VI.



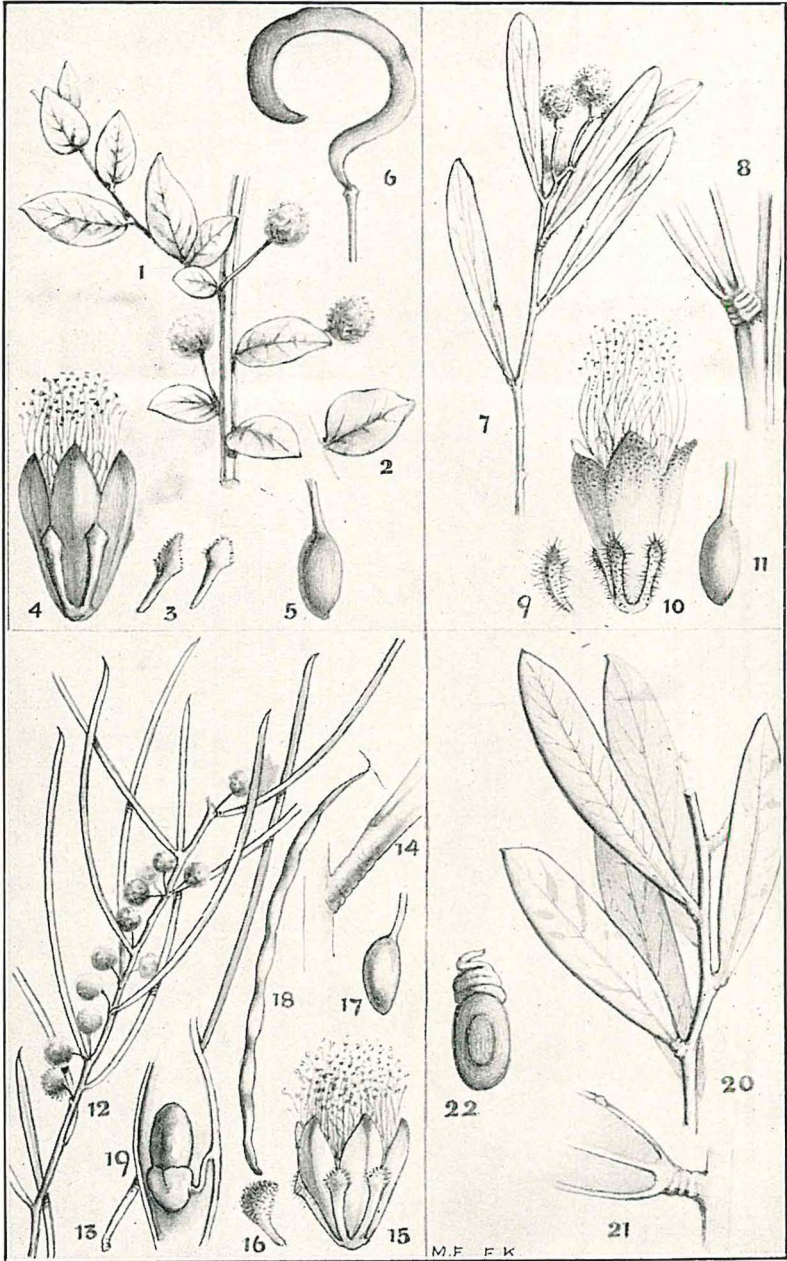
A. viscifolia n. sp. (1-7). *A. Maxwelli* n. sp. (8-13). *A. semiaurea* n. sp. (14-19). *A. chrysopoda* n. sp. (20-25).

PLATE VII



A. Merrickae n. sp. (1-8). *A. orbifolia* n. sp. (9-13). *A. oblonga* n. sp. (14-18).

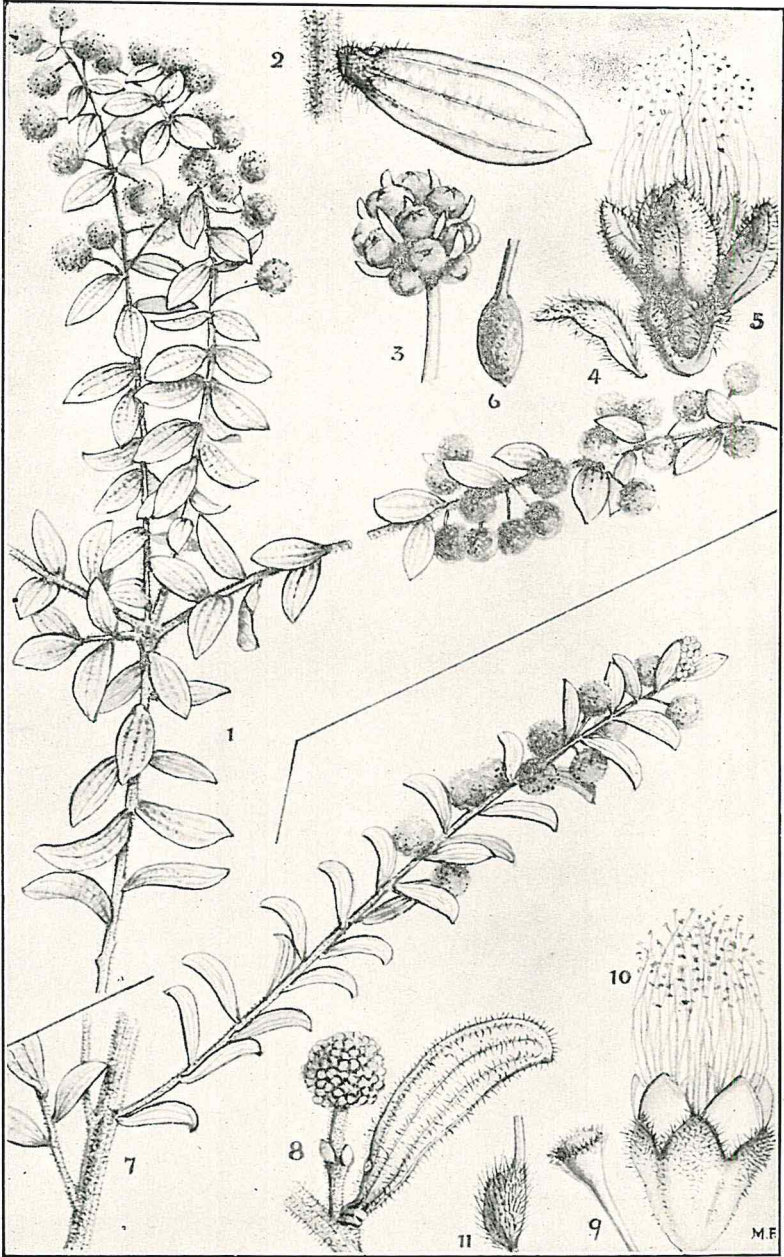
PLATE VIII



A. semicircularis n. sp. (1-6). *A. subretusa* n. sp. (7-11). *A. enervia* n. sp. (12-19). *A. pallidiramosa* n. sp. (20-22).

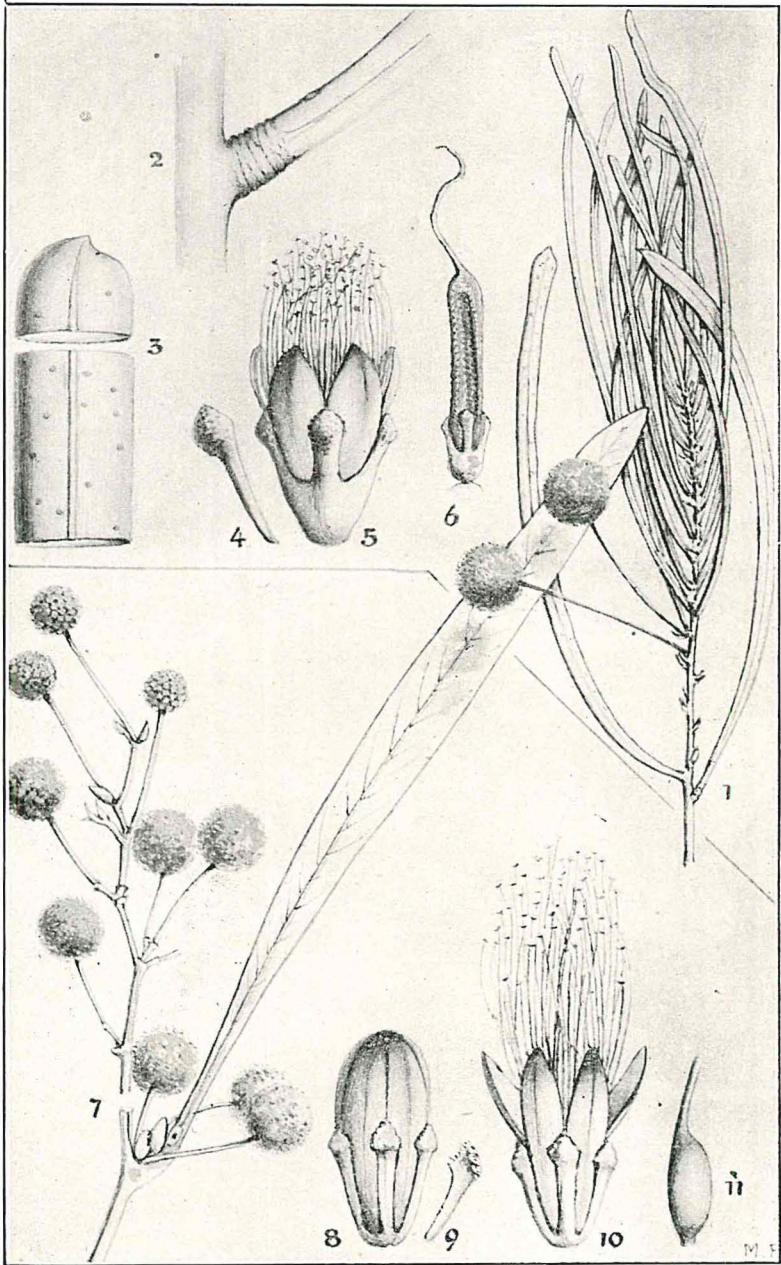
M.F. EK

PLATE IX.



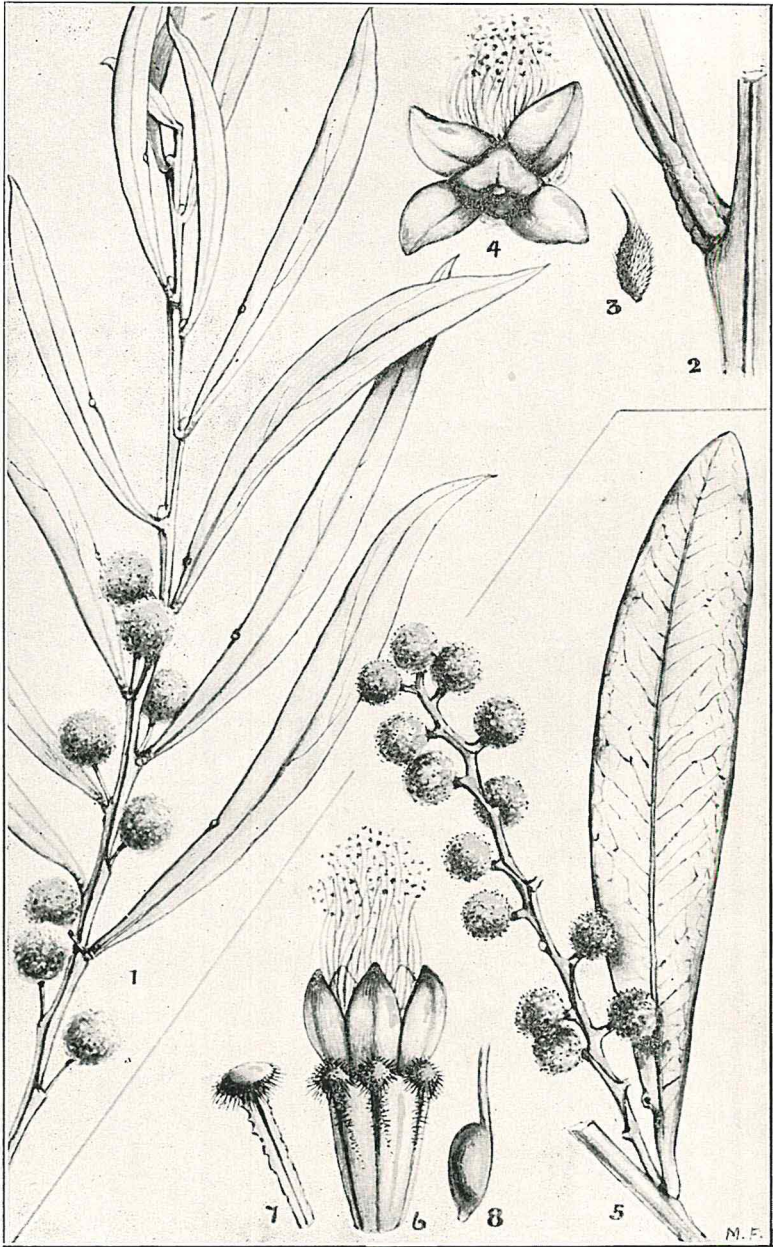
A. deflexa n. sp. (1-6). *A. Kingiana* n. sp. (7-11).

PLATE X.



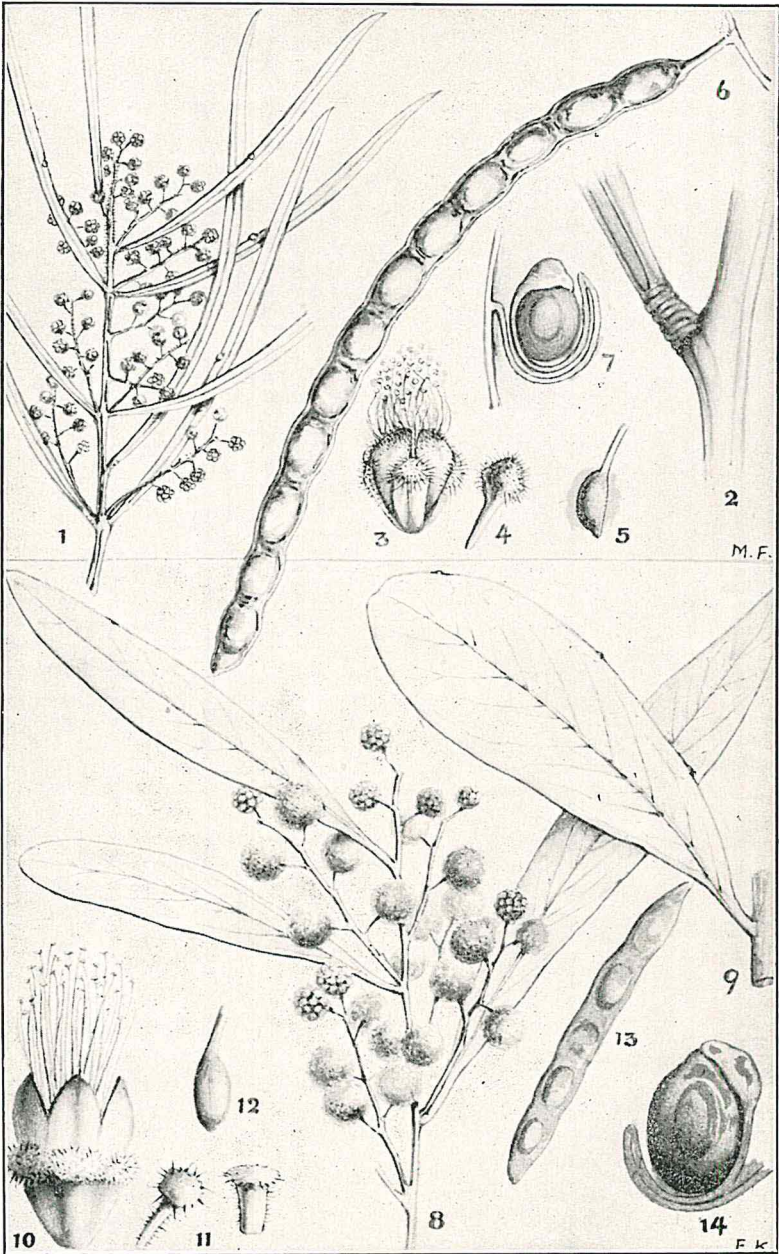
A. glutinosissima n. sp. (1-6). *A. bracteata* n. sp. (7-11).

PLATE XI.



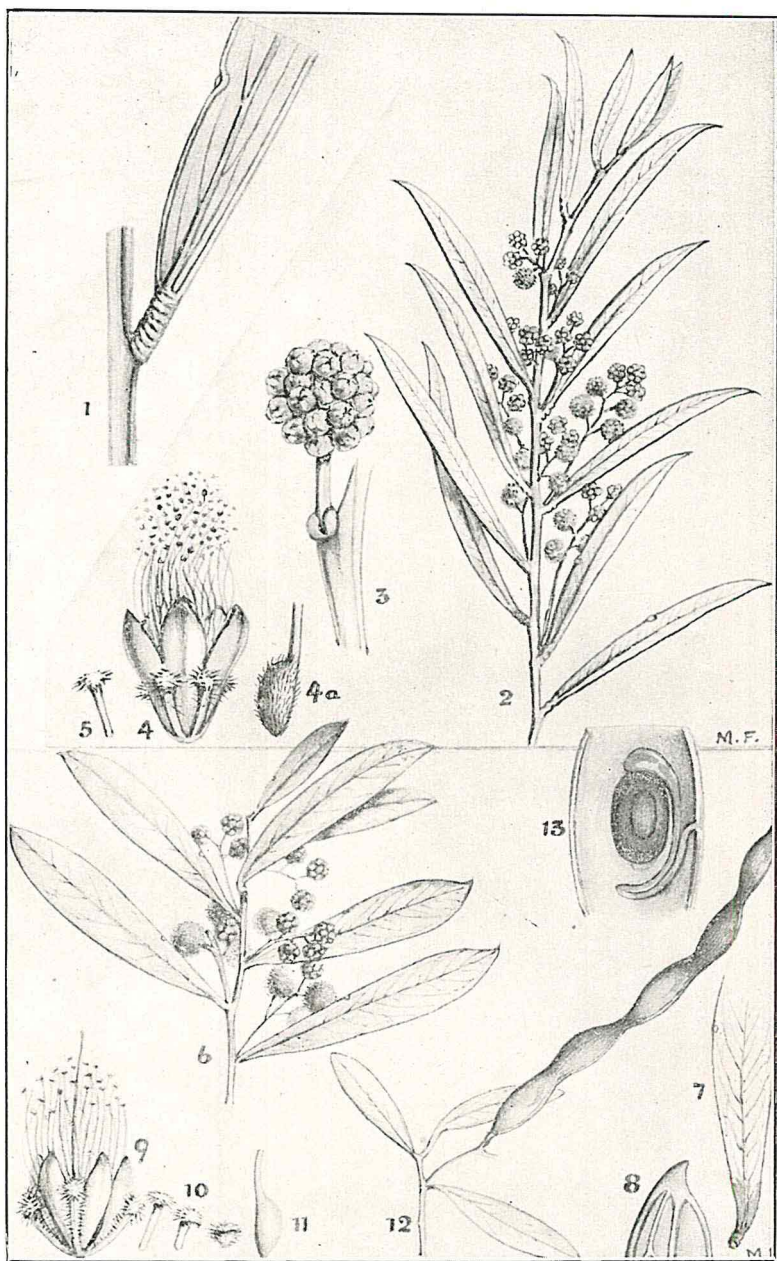
A. acutifolia n. sp. (1-4). *A. validinervia* n. sp. (5-8).

PLATE XII.



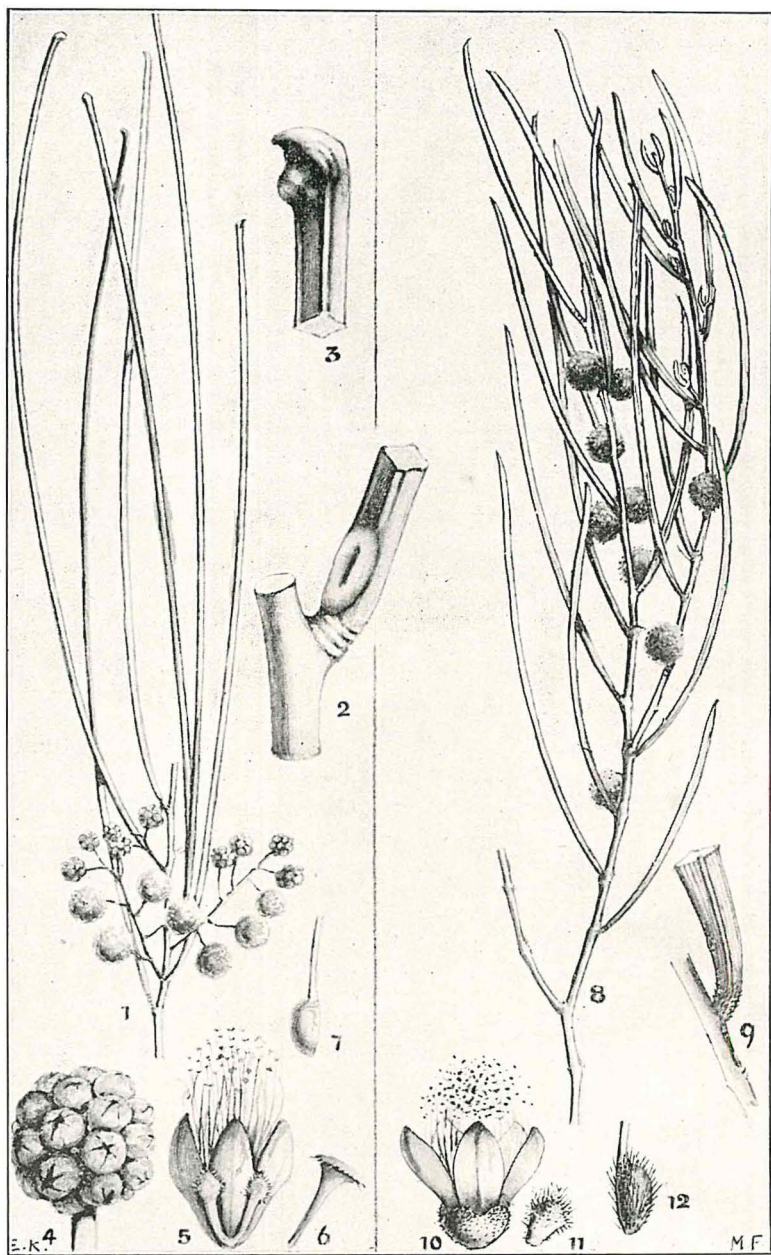
A. chrysella n. sp. (1-7). *A. Steedmani* n. sp. (8-14).

PLATE XIII.



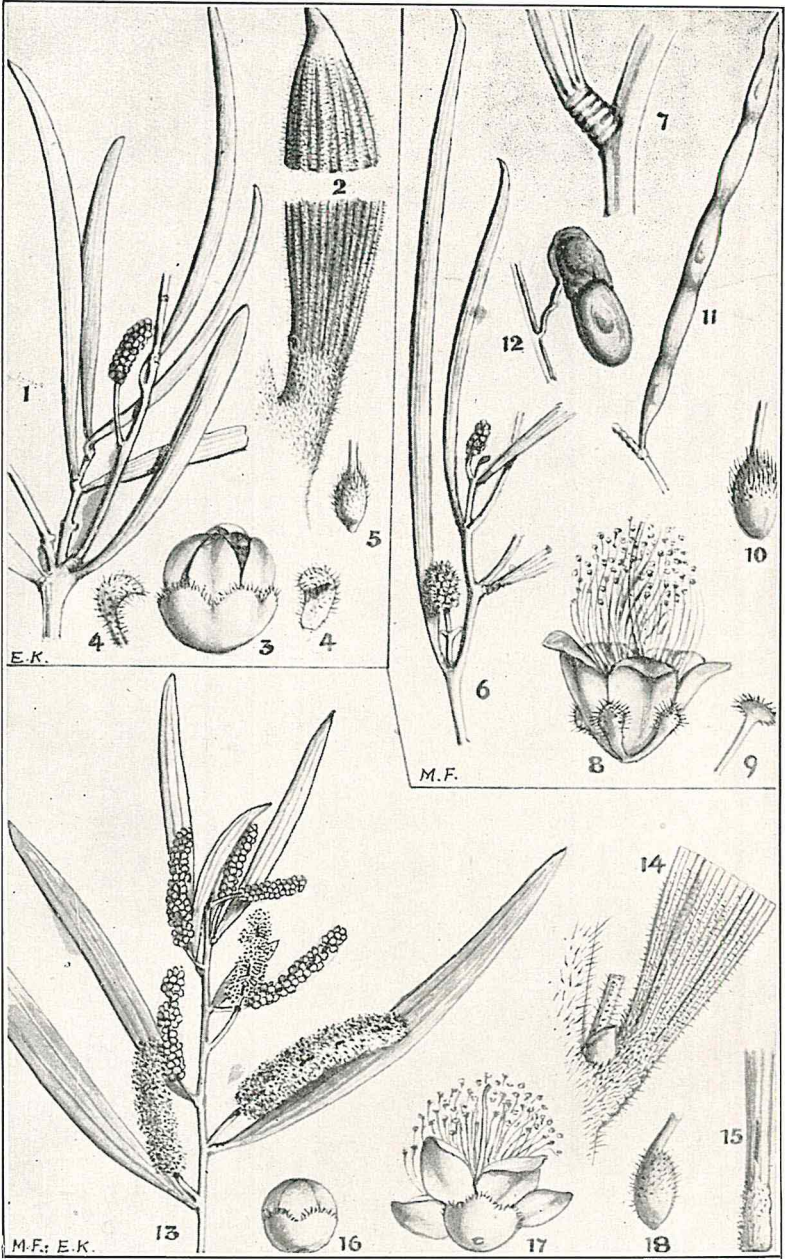
A. subglauca n. sp. var. *angustiuscula* n. var. (1-5). *A. subglauca* n. sp. (6-13).

PLATE XIV.



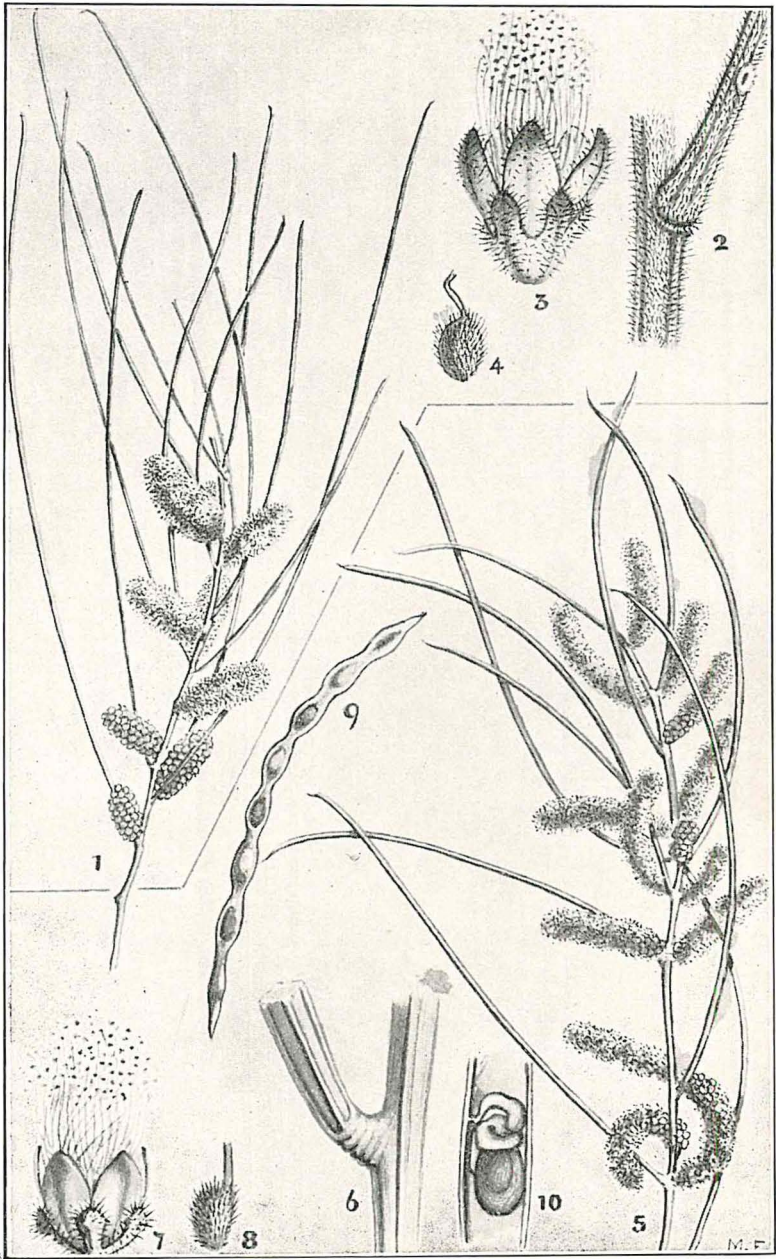
A. pachyera n. sp. (1-7). *A. subangularis* n. sp. (8-12).

PLATE XV.



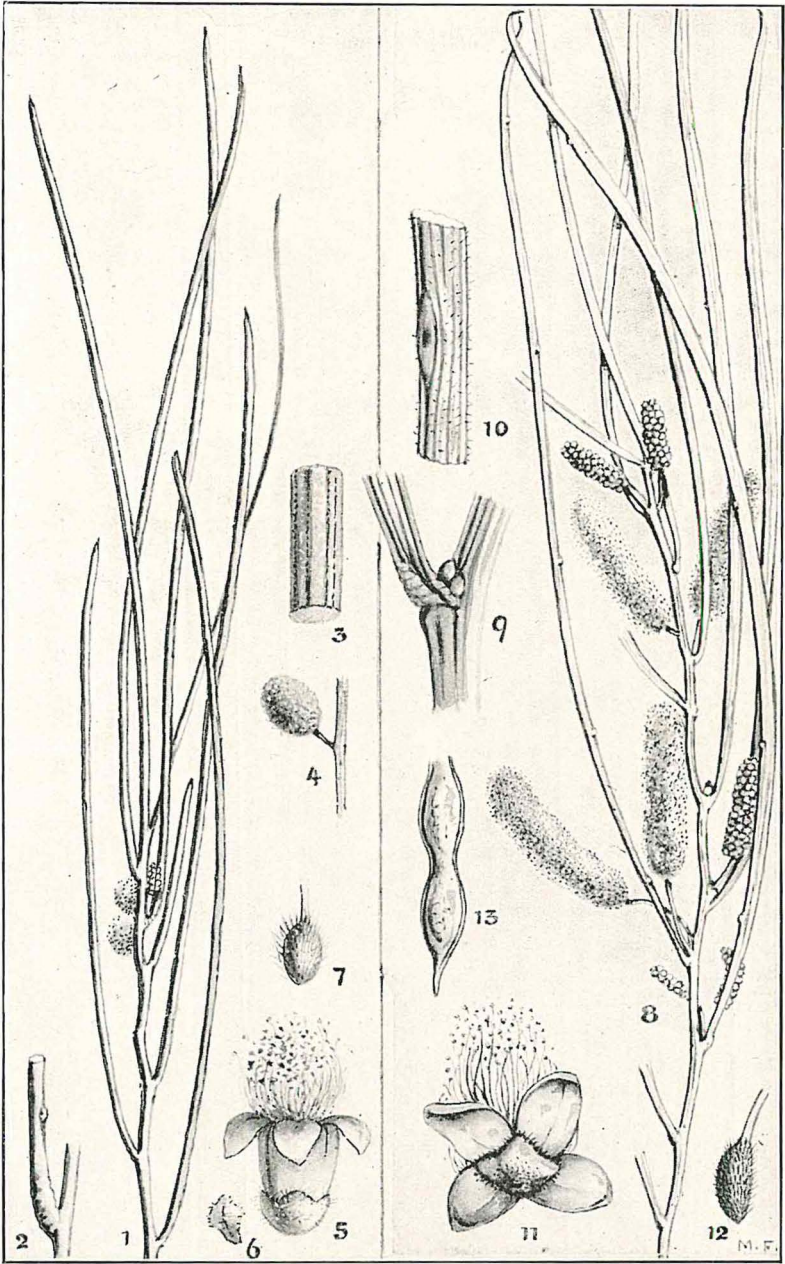
A. malloclada n. sp. (1-5). *A. Websteri* n. sp. (6-12). *A. sphaerogemma* n. sp. (13-18).

PLATE XVI



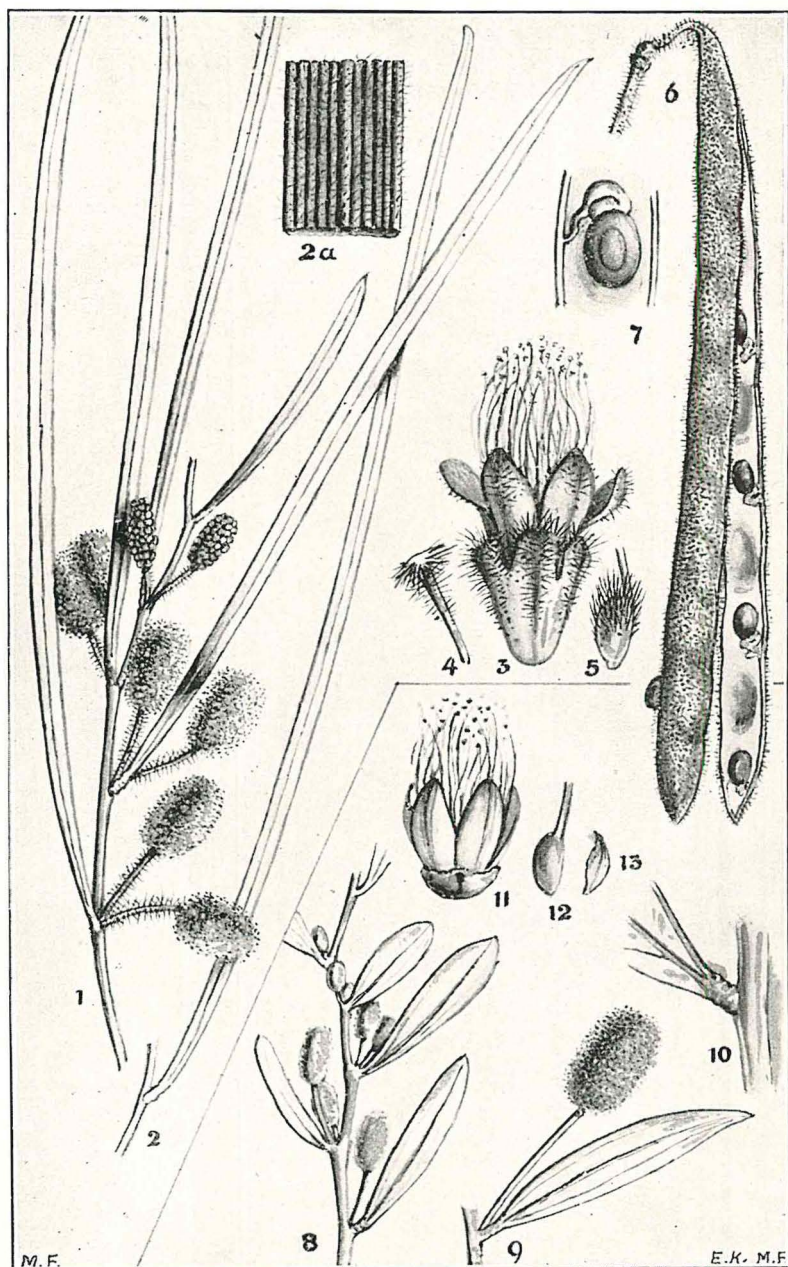
A. inophloia n. sp. (1-4). *A. sessilispica* n. sp. (5-10).

PLATE XVII.



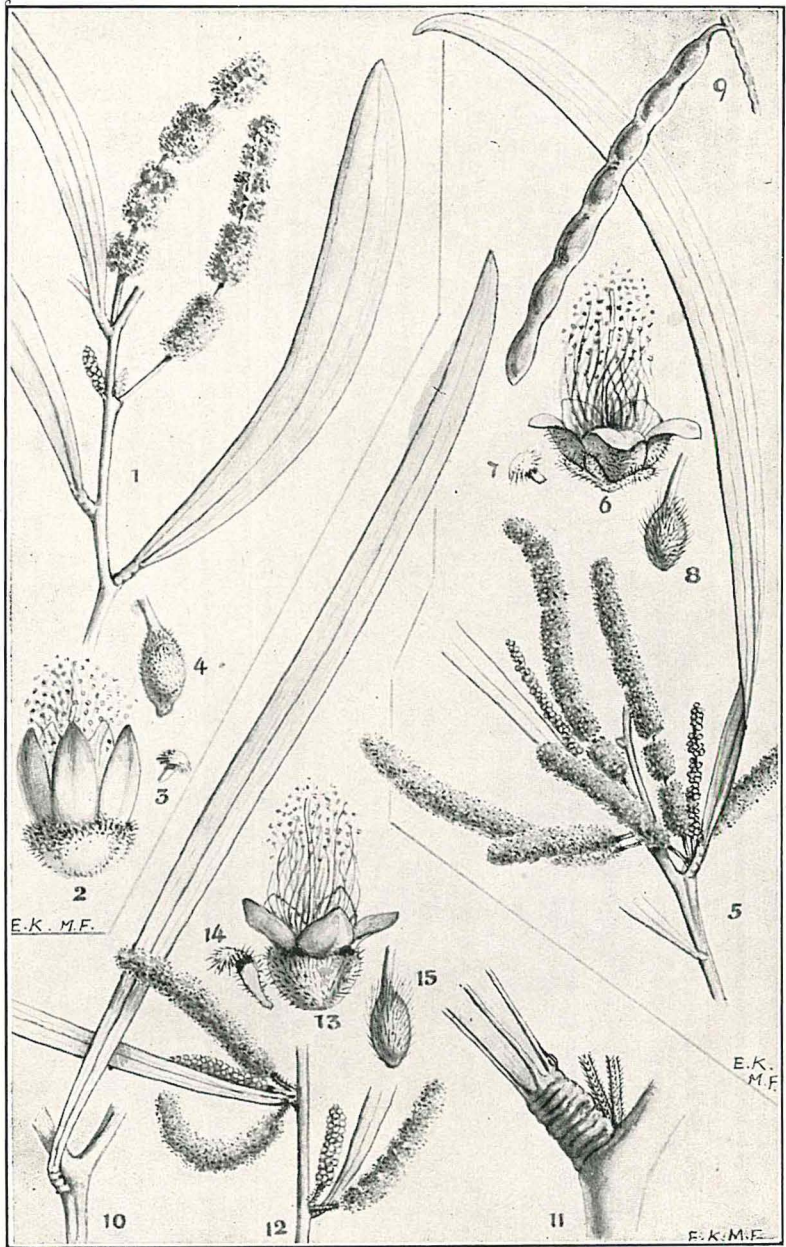
A. desertorum n. sp. (1-7). *A. Jibberdingensis* n. sp. (8-13).

PLATE XVIII.



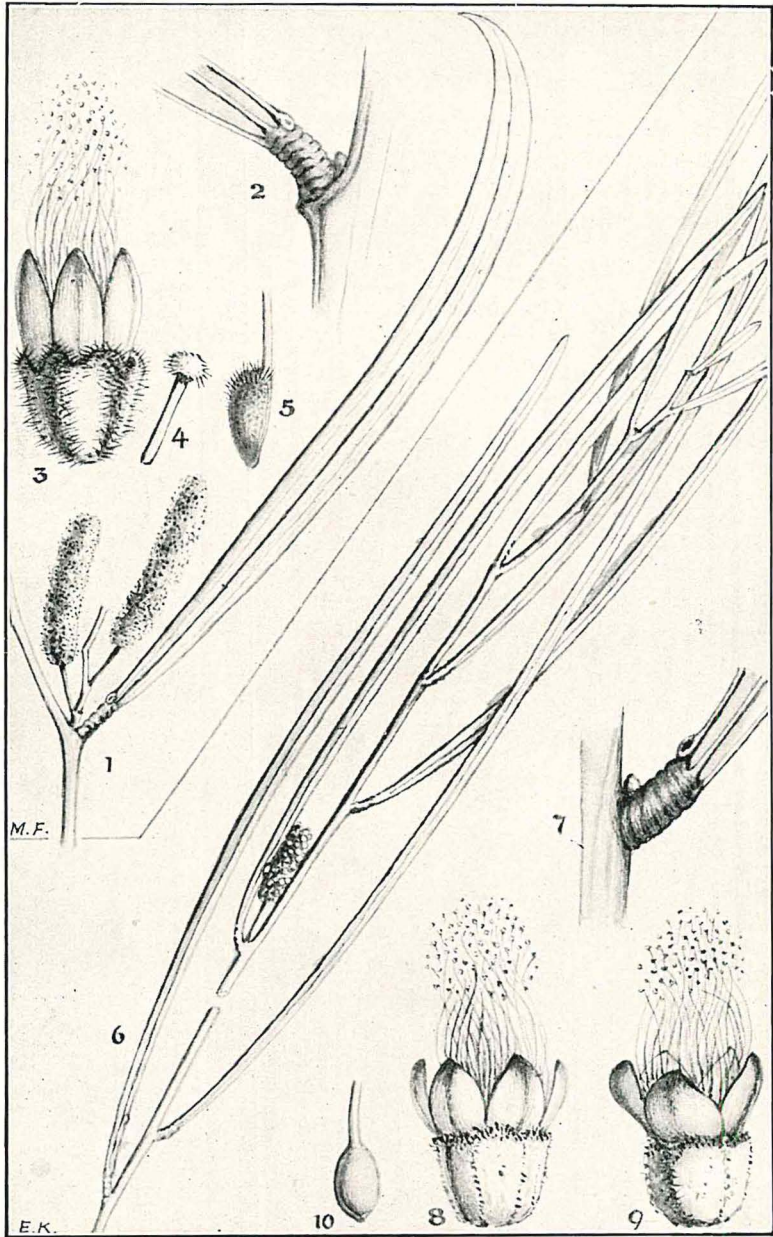
A. Fauntleroyi n. sp. (1-7). *A. glabripes* n. sp. (8-13).

PLATE XIX.



A. Clementi n. sp. (1-4). *A. numerosa* n. sp. (5-9). *A. criopoda* n. sp. (10-15).

PLATE XX.



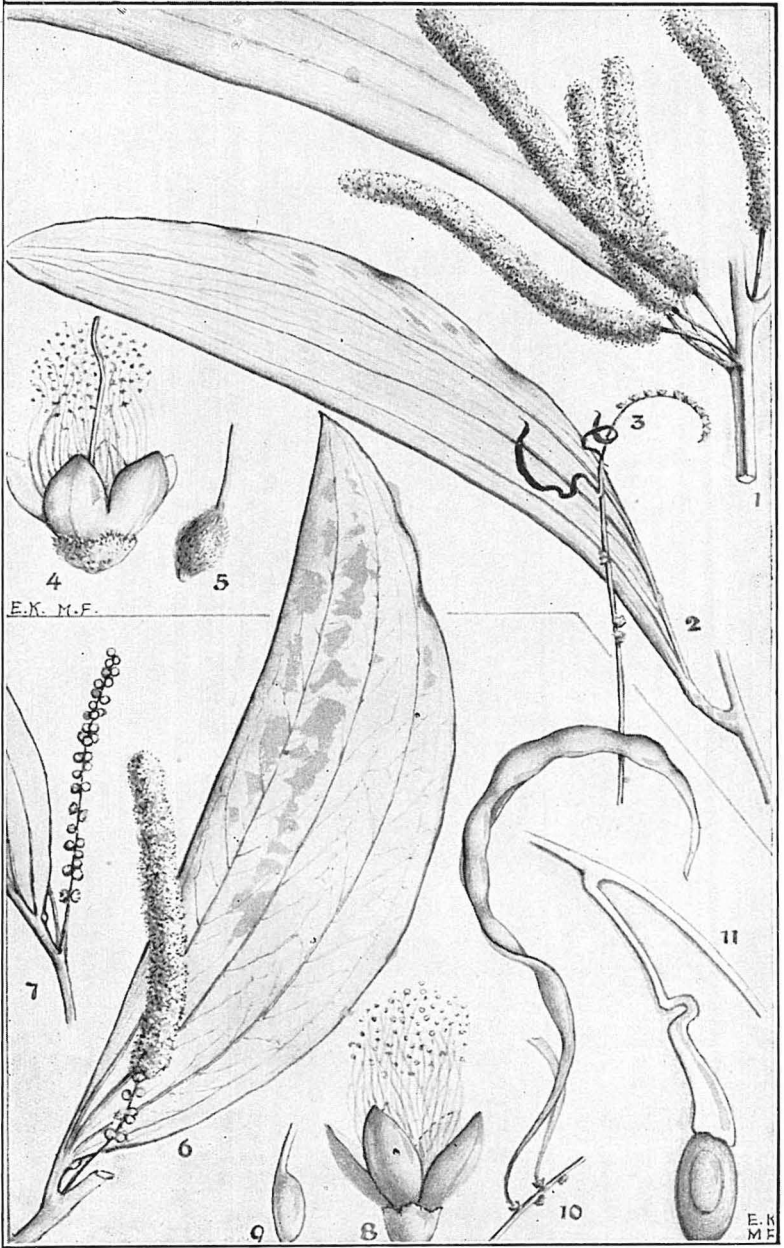
A. cognata n. sp. (1-5). *A. adsurgens* n. sp. (6-10).

PLATE XXI.



A. ancistrocarpa n. sp. (1-6). *A. lentiginea* n. sp. (7-10).
A. Jutsoni Maiden (11-12).

PLATE XXII.



A. Cunninghamii Hook, var. *tropica* n. var. (1-5). *A. Gardneri* n. sp. (6-11).