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C. 14

ICONES PLANTARUM;

OR

FIGURES,

WITH

BRIEF DESCRIPTIVE CHARACTERS AND REMARKS,

OF

NEW OR RARE PLANTS,

SELECTED FROM THE AUTHOR'S HERBARIUM.

BY SIR WILLIAM JACKSON HOOKER, K.JI.

LL.D., F.R.A. AND L.S.

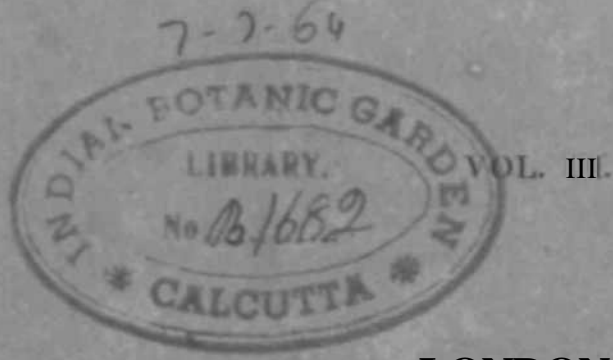
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LONDON :

LONGMAN, ORME, BROWN, GREEN, AND LONGMANS.

MDCCLX

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TAB. CCI.

ANDRJGA SUBULATA. *Harv. mst.*

Caule subramoso, foliis basi vaginantibus attenuato-subulatis falcato-secundis enerviis, perichætialibus convolutis late ellipticis apiculatis. *Harv.*

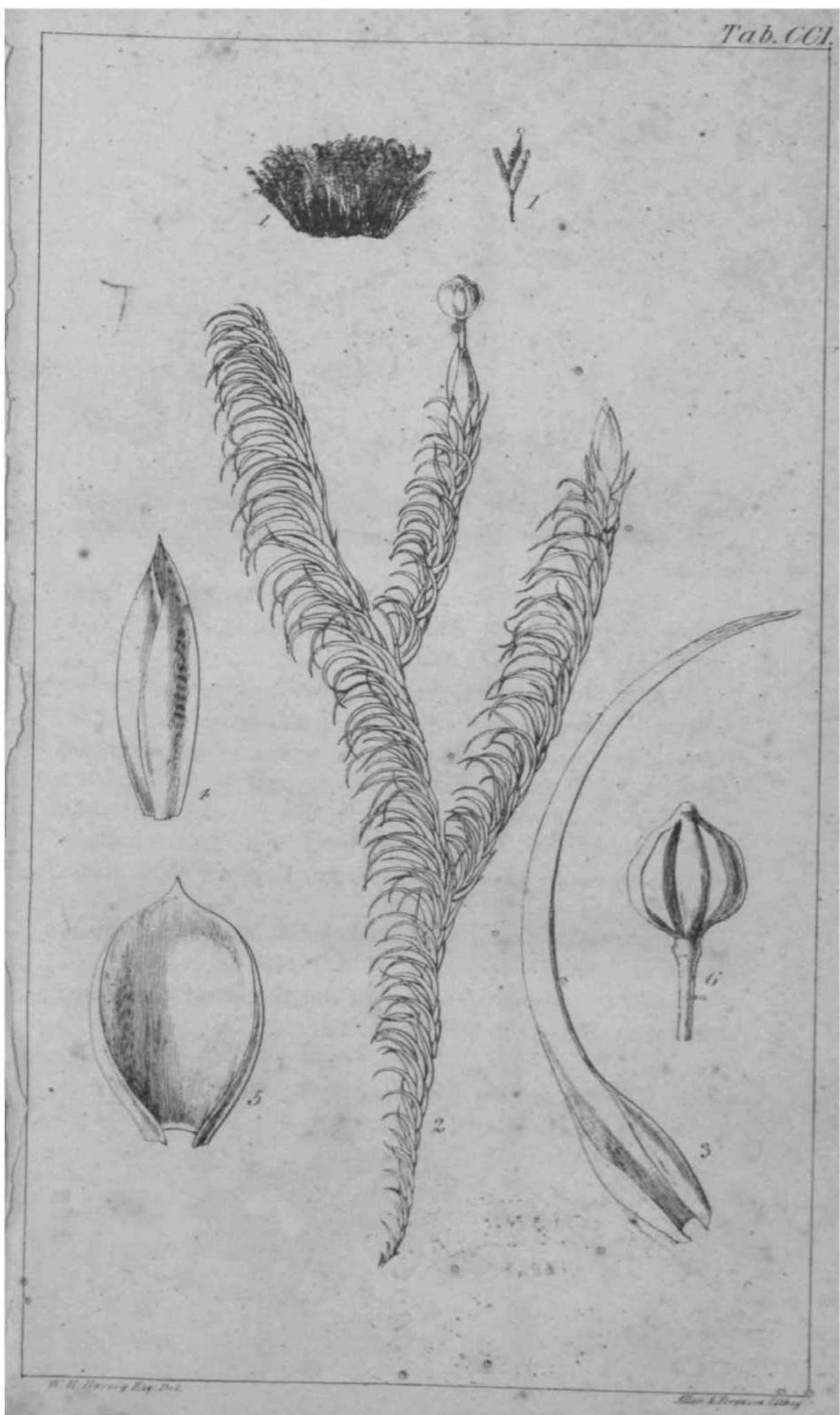
HAB. Rocks near the summit of the gorge leading to Table Mountain, called "the Port;" Cape of Good Hope, March 21, 1837. flw. *W. H. Harvey.*

Till lately the curious Genus of *Andresa* was supposed to be exclusively European, and four species only have been known to botanists. Now, thanks to the exertions of our scientific travellers, a fifth species has been discovered in the southern hemisphere, the one here represented; and a sixth exists in our Herbarium, from the Quitinian Andes of South America, where it was lately found by our valued friend, Professor Wm. Jameson.

The present species, in general habit, resembles *Andresa nivalis*) or luxuriant specimens of *A. Rothii*, but it is well distinguished by the nerveless leaves, and the broad convoluted one of the perichaetium being apiculated.

Fig. 1. 1. Specimens; *not. size.* f. 2. Single plant. / 3. Leaf. / 4. 5. Perichæctial leaves. / 6. Capsule :—*magnified.*





TAB. CCII.

SCHIZYMENIUM BRYOIDES. *H(irtv. IHSt.*

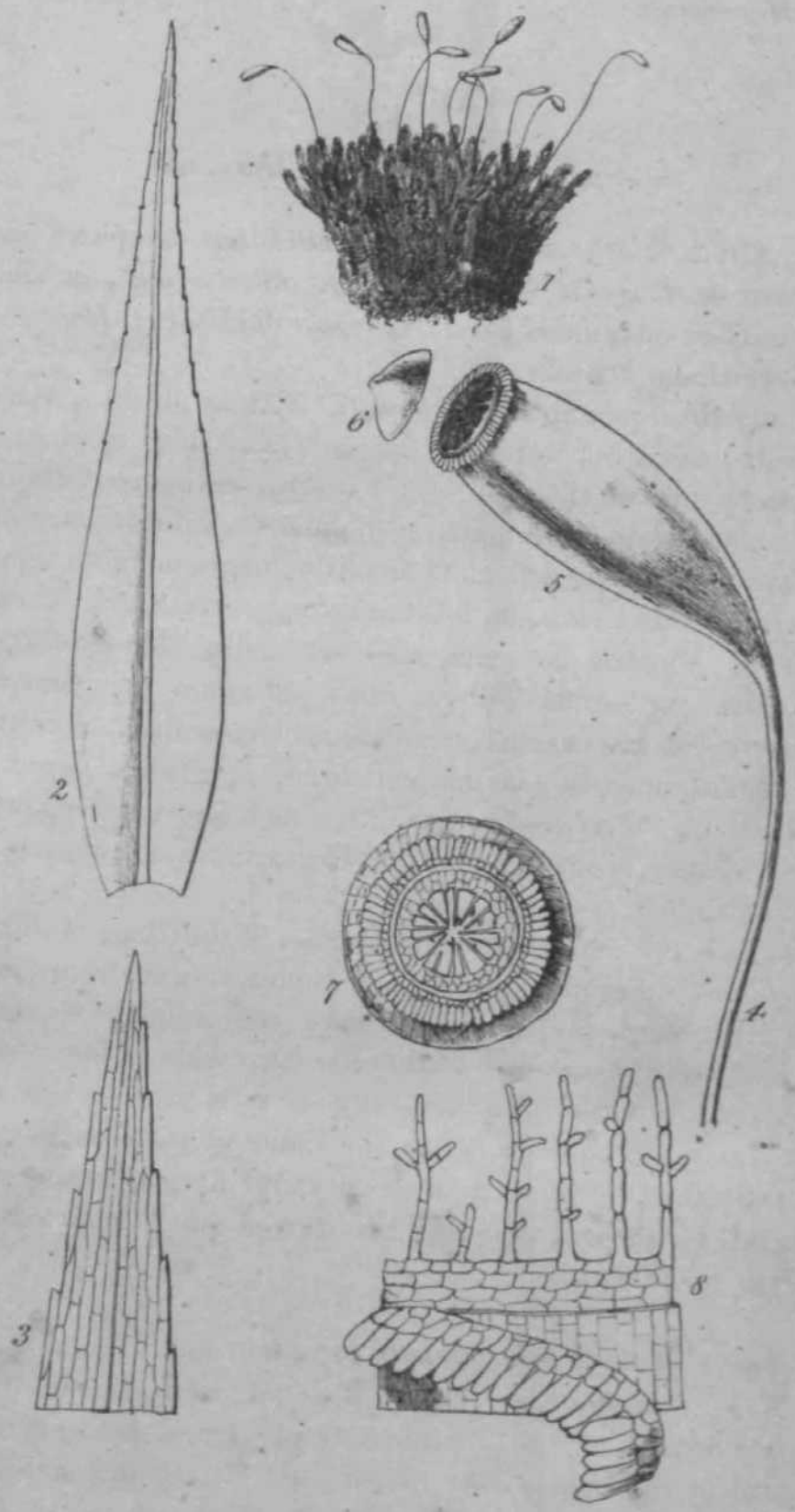
GEN. CHAR. *Seta* terminalis. *Peristomium* simplex; *membrana horizontalis* ex integumento interno orta, in ciliolis subtilibus subramosis fissa. *Calyptra* dimidiata? *Harv.*

Schizymenium bryoides.

Habitus *Bryi*, praecipue *B. elongati*. *Caules* unciales, ramosi, dense caespitosi, inferne copiose radiculosi; *rami* erecti, foliosi, superne dilatati. *Folia* erecta; laxiuscule imbricata, lato-lanceolata, acuminata, membranacea, subscariosa, nitida, flavo-viridia, laxe reticulata areolis oblongis, margine superne serrata. *Seta* terminalis, 5-6-lineas longa, erecta, apice curvata, laevis. *Capsula* inclinata, subhorizontalis, oblongo-subpyriformis, pallide flavo-fusca, laevis, ad oram non contracta. *Operculum* fere exacte conicum seu conico-convexum, acutum. *Annulus* magnus maxime cellulosus, operculo delapso cito deciduus. *Peristomium* simplex, e membrana interna ortum, horizon tale, reticulata, in ciliolis 16 gracilibus articulatis parum ramosis fissa.

Whether the structure and direction of the fringe of this new Moss, are sufficient to constitute a Genus, distinct from some of the other single-peristomed *Bryoides*, may admit of a question. Indeed, notwithstanding all that has been done of late years in the beautiful Order of *Musci*, only serves to show us how much yet remains to be done before the limits of the Genera can be so defined as to afford a satisfactory and natural arrangement. To this Genus may doubtless be referred our *Weissia campylocarpa*, Ic. Pl. t. 13G.

Fig. 1. Tuft of *Schizymenium bryoides*; *nat. size.* *f. 2.* Leaf. *f. 3.* Portion of a leaf. *f. 4.* 5. Capsule and portion of the seta. *f. 6.* Operculum. *f. 7.* Front view of a ripe capsule on the removal of the operculum; showing the divergent annulus and horizontal peristome. *f. 8.* Portion of the peristome of the annulus:—more or less magnified.



TAB. CCIII.

NIPHOBOLUS PENANGIANUS.

Fronde late ensiformi-lanceolata submembranacea breviter acuminata margine sinuata integerrima, venis internis inconspicuis, supra glabra subtus fusco-stellato-tomentosa, soris prominentibus copiosis discum versus apicem frondis occupantibus.

HAB. Pulo Penang. *Lady Dalhousie*.

This extremely fine species of *Niphobolus* will rank near to *N. albicans* of Blume (*FL Jav. Fil. t. 25*); but that has a much narrower, much more acuminated and coriaceous frond, with the margins revolute, a more compact tomentum, with nerves conspicuously prominent; whence Dr Wallich had called that plant by the much more appropriate name of *N. costatus*.

What may be the nature of the venation of many of the *Niphoboli* of Presl, we are ignorant, since, as that author justly observes, "venae venulaeque in plurimis speciebus invisibiles." The present species, however, when held up between the eye and the light, exhibits a nervation very different from that figured by Presl of *Niphobolus costatus*, Wall.; and indeed very similar to that of his Genus *Campyloneurum*. To us the Genus *Niphobolus* has always appeared an artificial one, depending on the presence of the copious stellated down, clothing the underside of the fronds, and in which the sori are more or less immersed. Our figure, let it be observed, represents the primary and secondary veins much stronger than they are in nature, except when seen against the light. The sori are very much crowded towards the apex of the frond, but not approaching the margin: between the primary nerves they are beautifully arranged in dense transverse lines, of 3 or 4 sori each. These are abundantly mixed with stellated hairs.



Wallichiana

N. O. Filices.

TAB. CCIV.

SELUGUEA WALLICHIANA.

Fronde ensiformi acuminata integerrima inferne longe in petiolum perbreve attenuata, soris linearibus elongatis obliquis, costa prominente.

Grammitis macrophylla. *Wall. Cat. n. 10 (non Blume)*.

HAB. Pulo Penang. *Dr Wallich. Lady Dalhousie*.

Cavdex — ? *Frondes* pedales v. sesqui-pedales, ensiformes, breviter acuminates, inferne sensim in petiolum perbreve attenuatae, ubique integerrimae, submembranaceae, supra medium 2-fere tres lineas latae, grosse reticulatae, venis obliquis subparallelis, venulis anastomosantibus maculis seu areolis irregularibus formantibus. *Sori* cum venis alternantes, lineares flexuosi integri (non interrupti), sesquiunciam longi.



TABS. CCV. CCVI.

LANGSDORFFIA INDICA.

GEN. CHAR. *Receptacula* soli tar ia, stipites simplices terminamia, unisexualia. FLORES MASCULI inter paleas clavatas basi complanata in favi modum nexas sessiles. *Perigooium* infundibuliforme, limbo 3-5-fido, laciniis aestivatione induplicato-valvatis. *Stamina* 3-5, monadelphica, perigonii laciniis opposita, columna solida tubo perigonii adnata, parte libera antheris brevioie. *Antherce* connate, extrorsae, biloculares; loculi sequales, juxta totam longitudinem dehiscentes; ovarii rudimentum nullum. FLORES FOEMINEI (imperfecti?) confertissimi, pedicellati. *Stylus* filiformis, simplex. *Ovarium* stipitatum in stylum gracilem attenuatum.—Herbae *carnosce stipites e rhizomate hypogceo crassiusculo assurgentes* % *simplices, squamis obsessi, monocephalij capjtula unisexualia, alia ex eodem rhizomate mascula, alia fceminea.* Arnott.

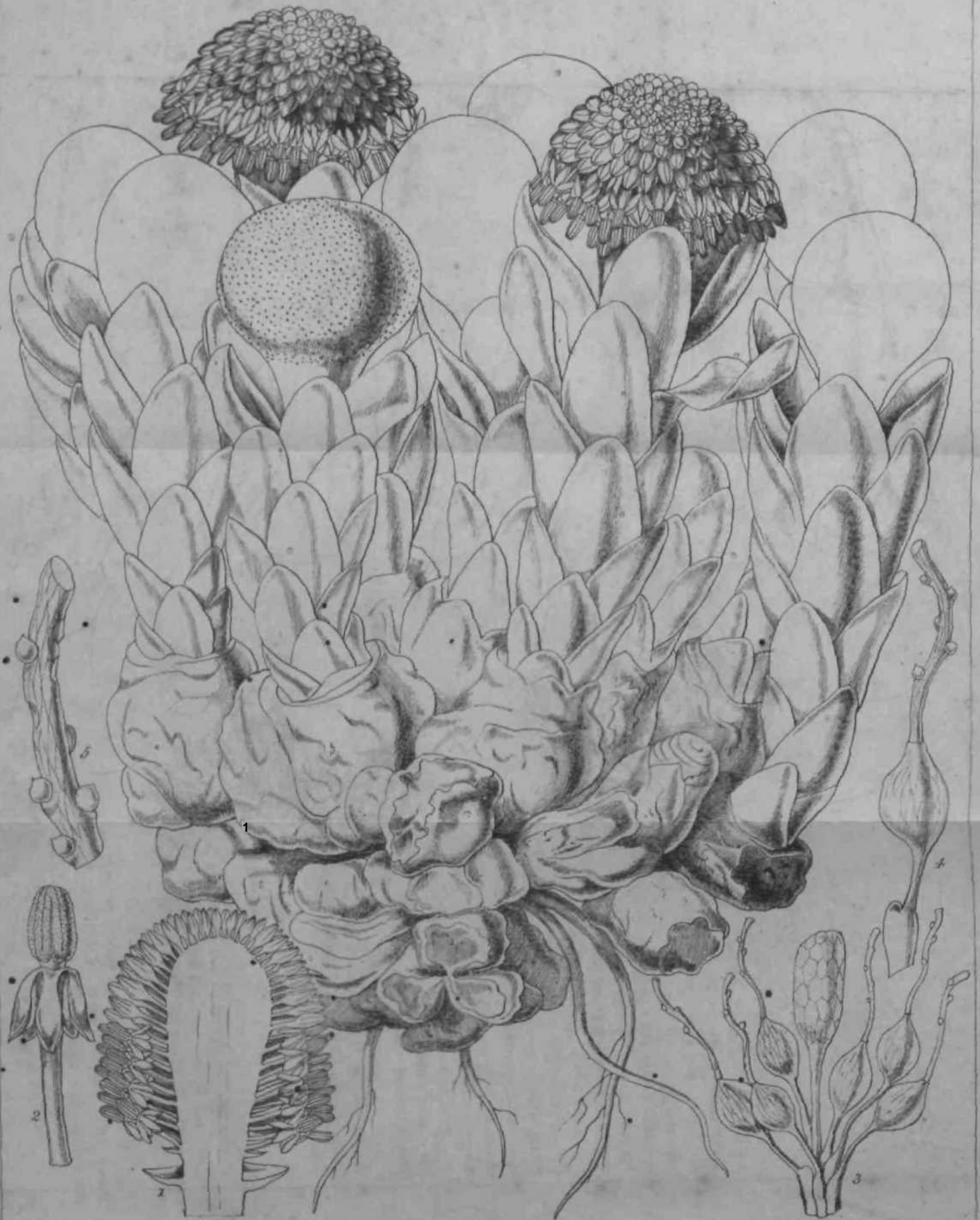
Langsdorffia Indica; rhizomate caespitoso ramoso, stipitis squamis patulis ellipticis margine glabris, perigonio masc. 4-5-fido laciniis demum reflexis, floribus foem. circa glandulam pyriformem stipitatum insertis Isevibus. *Am.*

L. Indica. *Wight, et Arn. ined.*—*Am. in Ann. Nat. Hist. ined.* fialanophora Indies. *Wall. Cat. n. 7247.*—B. elongata. *Blume Enum. Pl. Jav. 1. p. 87 ?*

HAB. In Peninsula India? Orientalis prope Courtallam et Cunnawady, atque in monte Newere-Ellia in Insula Ceylano ; *Wight.*

A more full description of this plant than is necessary to accompany the figure, together with a history of the Genus, will very shortly be given in *Taylor's Annals of Nat. History*, to which we refer our readers.

Fig. 1. Receptacle of male flowers:—*nat. size. f. 2.* Single male flower. / *3.* Female flo-vers. / *4.* Single do. / *5.* Portion oi the style:—*magnified.*



TAB. CCVn.

PTERIS SETICAULIS.

Fronde stipitata lanceolata pinnata, pinnis oblongo-lanceolatis . subfalcatis coriaceo-membranaceis integerrimis sessilibus aculis basi truncatis subcordatis, stipite rachique setoso-paleaceis.

HAB. Pulo Penang. *Lady Dalhousie.*

Caudex —? *Stipes* digitalis et ultra, teres, fusco-purpureus, crassitie *pennce corvina*, paleis setiformibus horizontaliter patentibus obsitus. *Frons* pedalis et ultra, circumscriptione lanceolata, prope medium 3-4 uncias lata, pinnata; pinnis subremotis, horizon talibus, alternis vel oppositis, coriaceo-membranaceis, oblongo-lanceolatis, acutis, omnino integerrimis, obscure costatis, paululum falcatis, basi truncatis subcordatis, angulis acutis, superiori vix auriculato, supra saturate viridibus, subtus pallidioribus, omnino glaberrimis. Sorf marginales, continui. *Indusium* angustum, membranaceum. *Capsules* rufofuscae. *liachis* fusca per totam suam longitudinem setoso-paleacea, paleis patentibus.

The quite entire pinnae of this plant, the dark-coloured terete stipes and rachis, clothed with copious bristle-like paleae, will readily distinguish this species of *Pteris* from all the species with which I am acquainted. The nerves are altogether internal, and only seen if the specimen be held up between the eye and the light, when they are observed to branch off from the costa in an oblique direction, and to be 2 or 3 times forked.

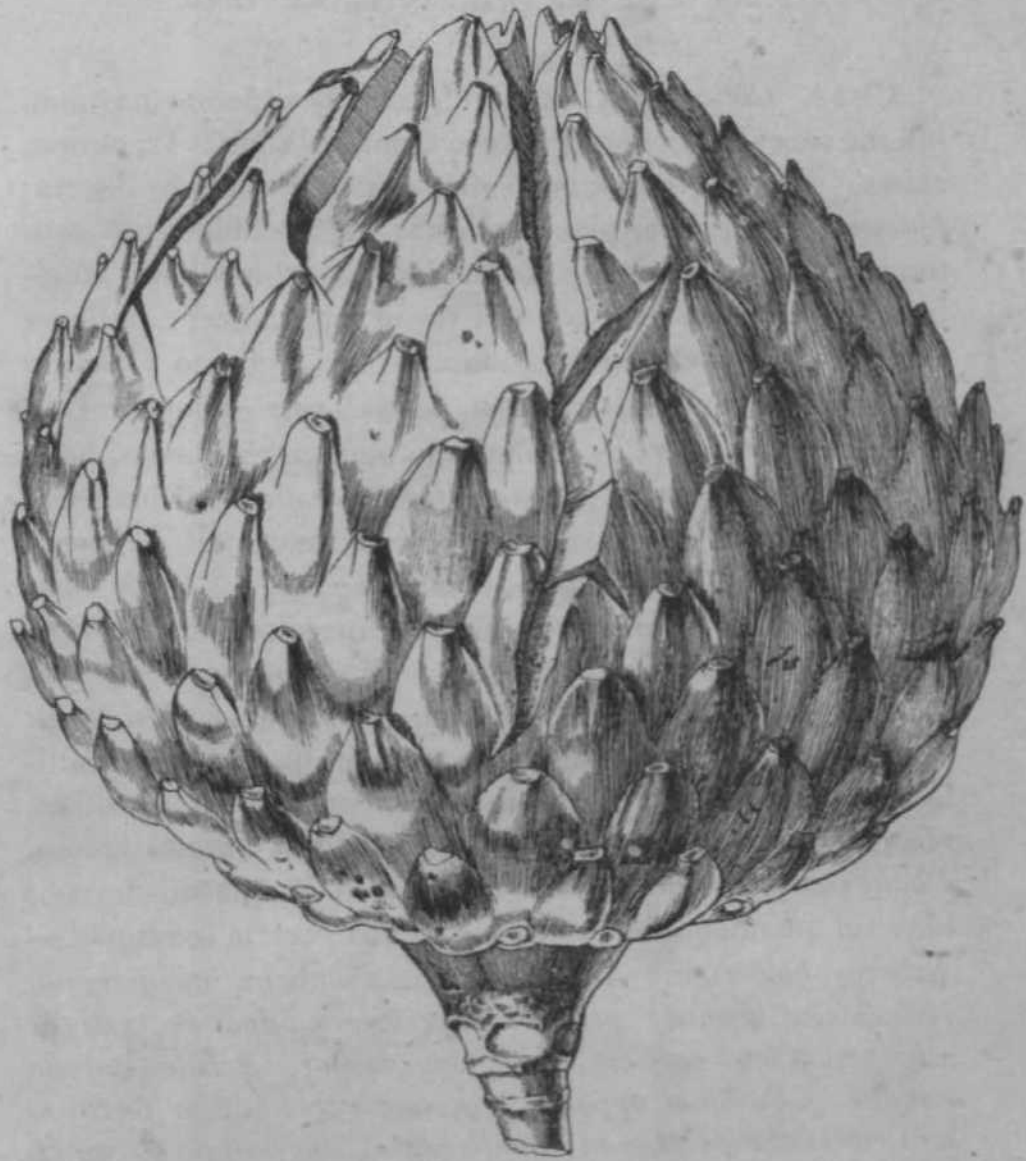


TAB. CCVIII

Fruit of TALAI/MA FRAGRANTISSIMA. *Hook.*

GEN. CHAR. *Calyx* 3-phyllus, deciduus. *Gynophorum* magnum, inferne subcylindricum sepius clavatum. *Petala* 6-12, obtusa, crassa. *Stamina* numerosa, supra petala gynophoro inserta; *Jilamenta* brevissima, vix manifesta: *antherce* filamento continue, icnmobiles, lineares, longae, introrsae, 2-loculares, longitrorsum dehiscentes; connectivo in appendicem anthers continuam ligulaeformem obtusam apice producto. *Ovaria* indefinita, 1-locularia, 2-sperma, parti clavatae gyriophori insidentia, in massam valde compactam omnino coadunata, haud distinguenda nee nullo modo absque laceratione disjungenda ovariumque unicum mentientia crassissimum, ex stylis adpressis squamoso-strobiliformem, multilocularem. *Ovala* loculamentorum superiorum ascendentia, intermediorum peritropia, inferiorumsuspensa! S[^]/iindefiniti,complanati. *Stiginata* totidem ex rima terminal! ad faciem stylosum. *Fructus* ex coadunatione unicus, magnus, strobiliformis, lignosus, multilocularis,irregulariter dehiscens; fragmentis valde inaequalibus, receptaculo centrali dehiscencia libero, magno, clavato, lignoso, *Phalli esculenti* more favoso. *Semina* in receptaculis faveolis bina vel quamloque solitaria, dehiscencia peracta seminuda.—
Arbores glaberimæ Folia alterna, simplicia, integerrima, reticulatim venosa; petiolus superiore pagina ex vestigiis stipularum basi callcsus. Stipulae gemince, laterales, petiolo adnatct (folio haud opposite) gemmam terminalem Jbventes, mox caduccBj superstite in ramulis earumdem vestigio circulari. Flores magni, terminates, solitarii; pedunculus crassus, ramulo continuus, cinctus circulari vestigio bracteae stipularis deciduce. Mart.

The present figure shows the entire fruit of our *Talauma fragrantissima* : nat. size.



GardneriancF.

N. O. Magnoliaceoe.

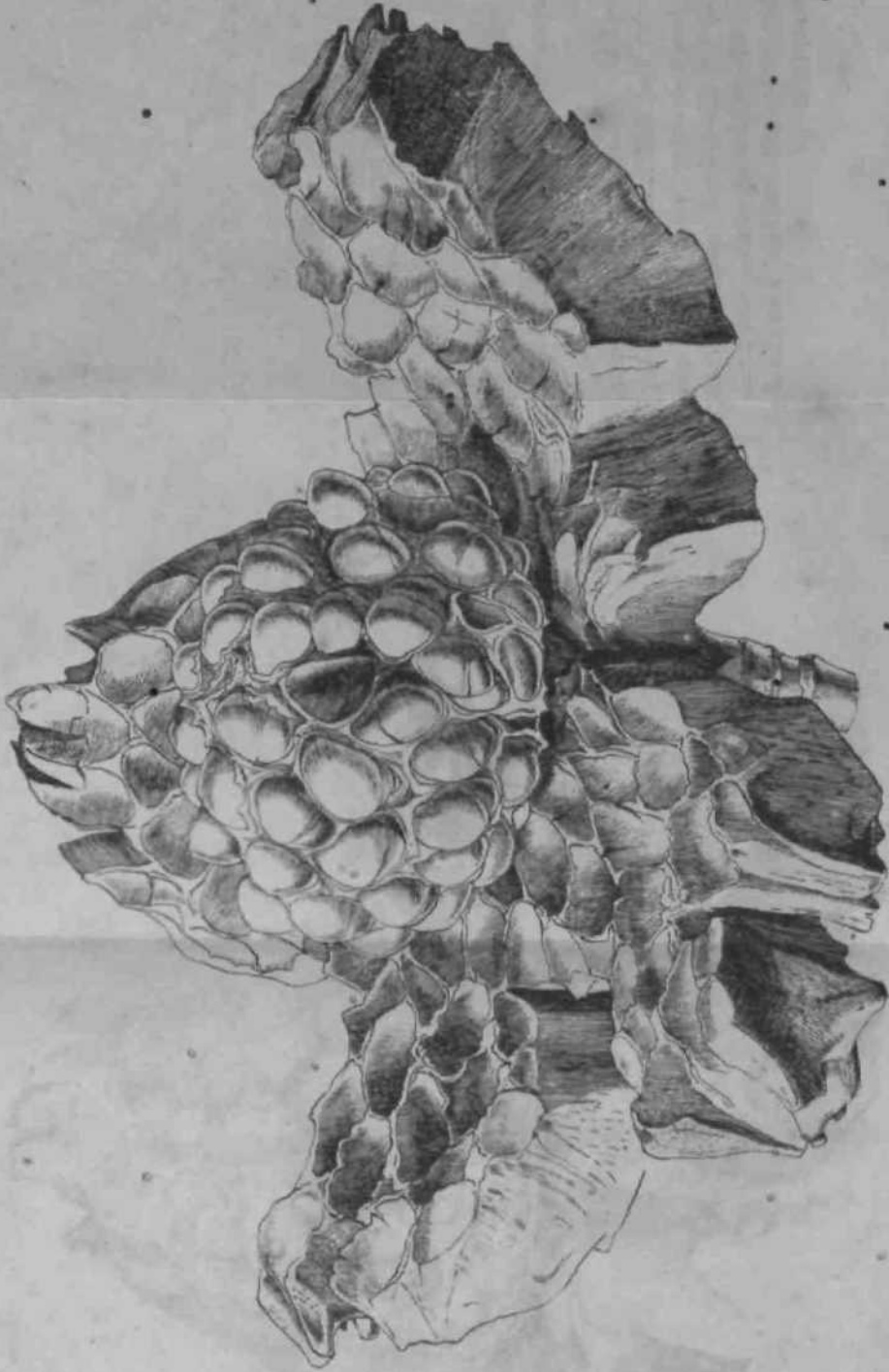
TABS. CCIX. CCX.

Fruit of the

TALAUMA FRAGRANTISSIMA,

burst open and exhibiting the seeds; *nat. size.*

This figure exhibits the fruit as it bursts naturally and irregularly: the outer and indurated and thickened coats of the united carpels thus, as it were, forming the pericarp, the interior being filled with cells, and these containing each one or two seeds. The pericarp, on thus separating, carries away the upper half of the cells; while the lower half, with the seeds, form the surface of the receptacle.



TAB. CCXI. CCXII.

TALAUMA FRAGRANTISSIMA.

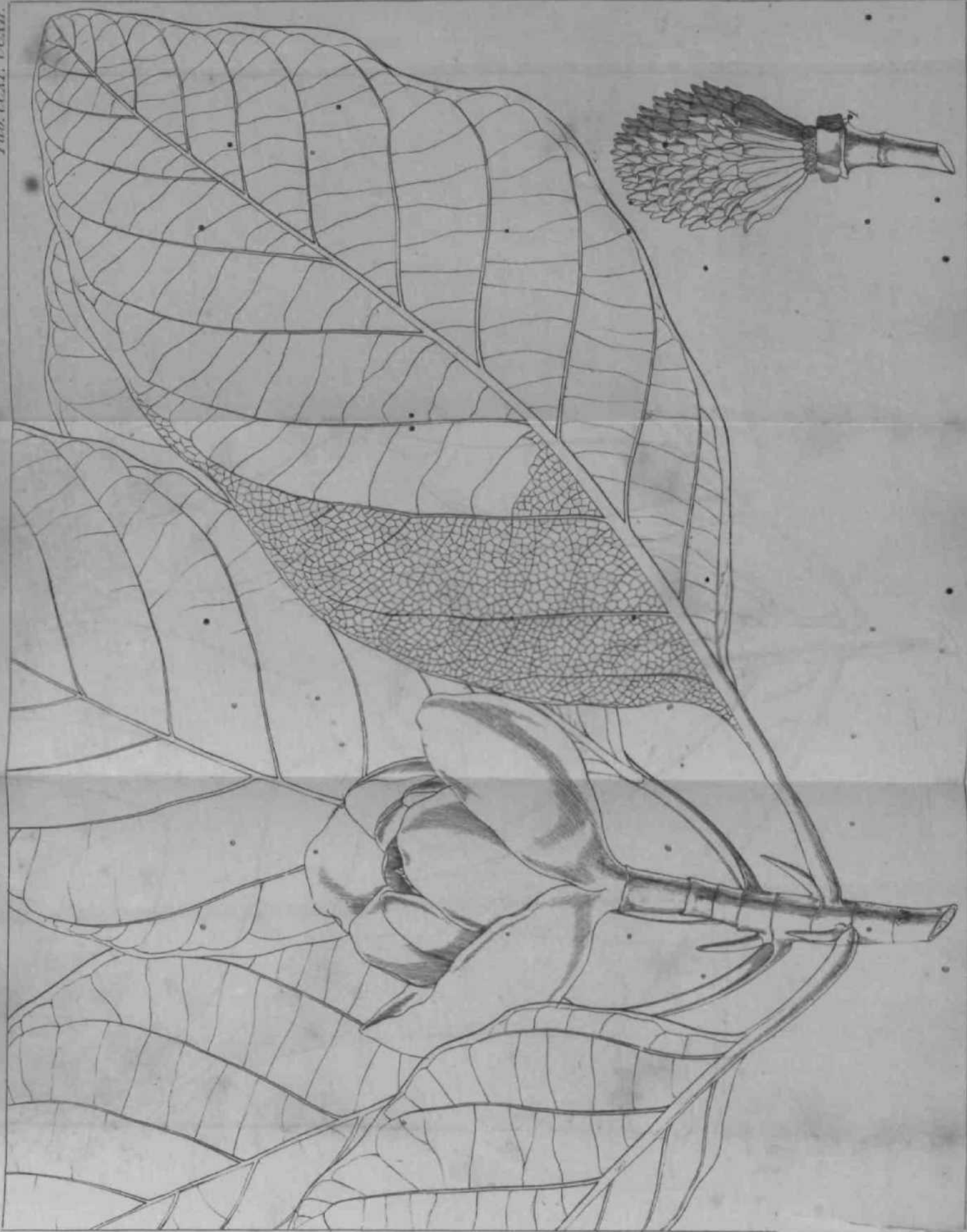
Foliis lato-ellipticis obtusis, petiolis elongatis marginibus laevibus
facie superiori minute tuberculatis, petalis 9 (— 10?)

HAB. Swampy grounds in the Organ Mountains, Brazil.
Mr Gardner. (2d Coll. n. 305.)

Having received the fruit of this plant before the flowering specimens arrived, and indeed without being aware that any were to be expected, the two preceding plates were lithographed and printed, when the Herbarium arrived from Brazil, containing the splendid specimen with leaves and blossoms here represented (one of two which were alone gathered in that state), which I am thus tempted to figure also. I was at first disposed to refer this plant to the *Talauma ovata*, St Hil. Fl. Brazil. Merid.; but besides that the latter is an inhabitant of the western part of the province of Minas Geraes, it differs botanically from the present one in its smaller size, fewer petals, and shorter petiole wrinkled at the margins. It agrees better with the original *T. Plumieri* of the West Indies; but without further means than I possess of determining whether it be that or not, I think it safer to consider it distinct. The differences of the three species hitherto described are by no means very important, and it is possible they may all be mere varieties of *T. Plumieri*. I regret that the roughness of the whole upper and plane side of the petiole is omitted in the accompanying plate, and the error was not discovered till it was too late to be corrected.

Like the *Magnolias* (from which the Genus scarcely differs but in the union of the carpels into a many-celled dehiscent capsule) all the species are probably fragrant; but the present one has so powerful an odour, that it can be perceived at a distance of more than half a mile. This tree attains a height of 40 feet, and the flowers are greenish-yellow.

Fig. 1. represents the united ovaries of *T. Sellowiana* (from Martius) the better to illustrate the character of the Genus.



TAB. CCXIII.

SCOLOPENDRIUM SAGITTATUM.

Humile, frondibus oblongis basi dilatatis hastato-bilobis lobis angulatis, soris per totara longitudinem frondis oblongis obliquis.

S. sagittatum. *De Cand. Fl. Fr. v. 5. p. 238. Bot. Gall. v. 1. p. 540.*

S. Hemionitis. *De Cand. Ic. v. 2. p. 552 (non Asplenium Hemionitis, L. fide De Cand.).*

HAB. About Marseilles, and near Bonifacio in Sicily. *Requien (in Herb, rwstr.).*

The above are the stations given by M. De Candolle for his *S. sagittatum*) a plant which some botanists have united with *S. vulgare*, and others again with *S. Hemionitis*, Willd. (*Asplenium*, L.). The specimens here figured are from Bonifacio, kindly given to me by M. Requien: and it is certainly a very distinct species from our common *Harts Tongue*, not only in the size and shape of the fronds, but in the form and direction of the sori. I am not, however, so well satisfied respecting its differences from *S. Hemionitis* of Cavanilles, a native of Spain, Portugal, and Italy, of which I possess no authentic specimen, not have I the opportunity of referring to the original figure in the *Annales des Sciences Nat.* But if the representation in Schkuhr's *Filices* (t. 84), which is always quoted for the true plant, be correct, I should say that the present differs from it only in the lesser development of the lobes at the base of the frond.



TAB. CCXIV.

LIISA FERRUGINEA.

Bulbo solitario indiviso, foliis radicalibus lineari-lanceolatis striatis basi attenuatis, scapo vaginato plurifloro, galea acuta basi in calcar ovario longius producta, petalis ext. ovato-lanceolatis carinatis, carina infra apicem in aristam desinente, labelio lineari-lanceolato longitudine petalorum exteriorum.

D. ferruginea? *Thumb. Fl. Cap. ed. 2. p. 11.*

HAB. Summit of Table Mountain, Cape of Good Hope. *Hon. W. H. Harvey.*

Bulb oblong, undivided. *Leaves* radical, linear-lanceolate, attenuated at the base. *Scape* slender, cylindrical, smooth, about a foot high, sheathed, the sheath close-pressed, short, acute. *Spike* dense, ovate, many-flowered. *Flowers*, including bractee and ovaria, of a bright orange colour. *Bractee* shorter than the ovarium, lanceolate, acute, erect. *Galea* with a long subulate spur, longer than the ovarium, tapering—its mouth very narrow, compressed at each side with deep depressions, the lips reflexed—apex acute. *Outer petals* spreading, narrow, ovate, acute, furrowed in front, keeled at back, the keel ending in a spur: *inner* small, connivent, obtus* or slightly angular in front, behind produced into a cuspidate point, yellow. *Labellum* linear-lanceolate, as long as the outer petals, acute. *Ovarium* slightly twisted, triquetrous, the posterior angle much more prominent and distinct. *Stigma* obtuse, tubercular. *Pollen-masses* short, didymous. *Harvy.*

I am indebted to Mr Harvey for the drawing here represented.

a. Front view of a flower, b. Two outer and two inner sepals and lip. c. Side view of a flower, d. Portion of the germ and anther-case, c Pollen-mass:—*magnified.*



TAB. CCXV.

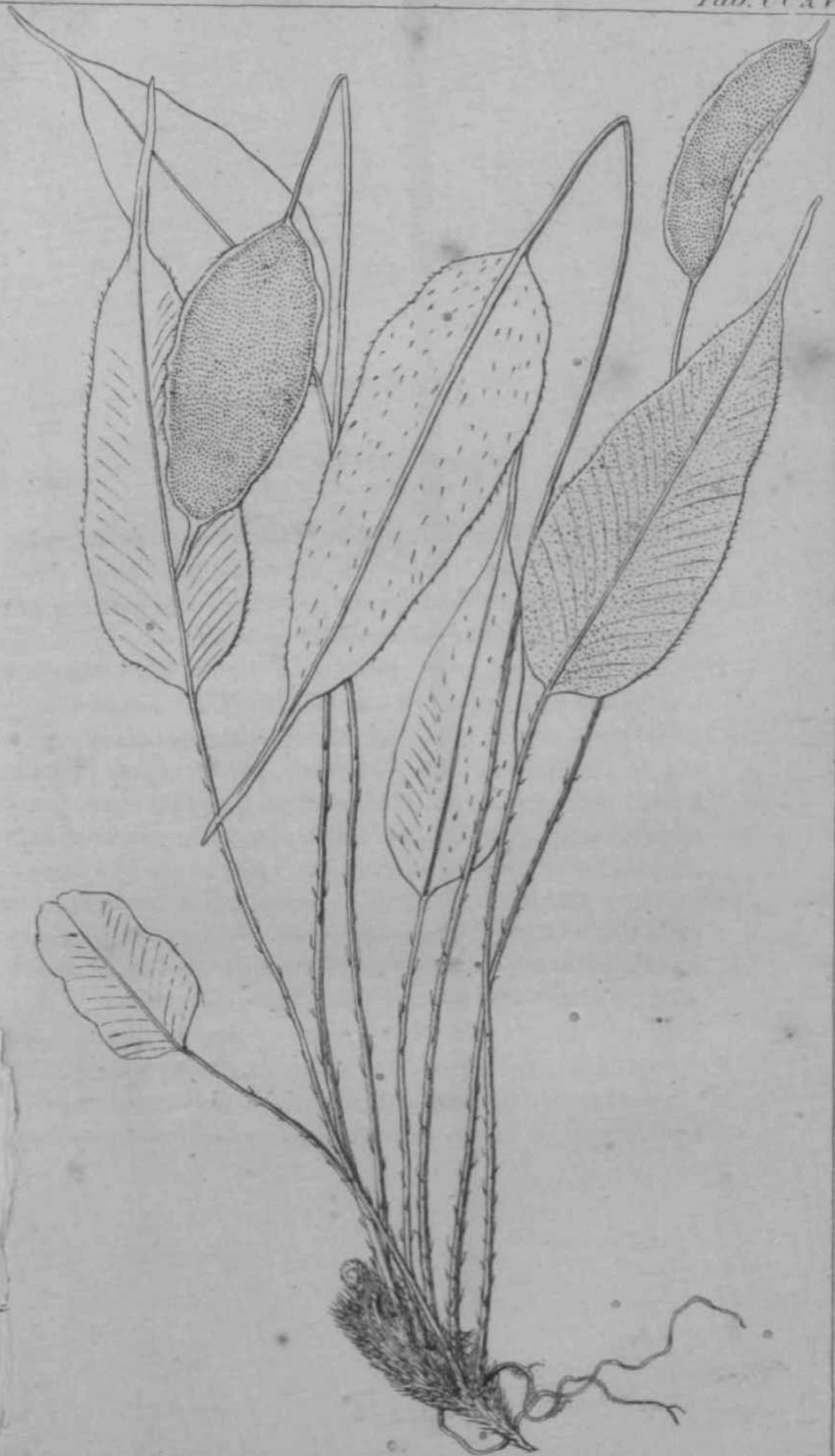
ACROSTICHUM CAUDATUM.

Fronde xonge stipitata oblongo-ovata subcoriacea margine squamulosa apice longe angusteque attenuata caudiformi, sterili supra nudiuscula subtus resinoso-punctata, fertili minore supra stipiteque squamulosa subtus dense capsulifera.

HAB. On Pillzhum, at an elevation of 12-,000 feet above the level of the sea, Andes of Columbia. *Prof. W. Jameson.*

Caudex brevis, crassus, radicans, ramosus, paleis subulatis intense atro-fuscis nitidis imbricatis obsitus. *Stipites* erecti, digitales fere ad palmarem, graciles, hinc sulcatae, pallide fuscae, parce squamulosae. *Frondes* 2-3 uncias longae, oblongo-ovate, subcoriaceae, nitidiuscula?, integerrimae, apice in caudam longam gracilem desinentes, costatae, venosae, venis horizontalibus parallelis, margine squamuloso:—*Sterilis* supra nudiuscula, subtus *resinoso-punctata*—*fertilis* sterili subduplo minor* supra subdense squamosa, subtus ubique capsulifera.

This very distinct *Acrostichum* came in the last parcel I had the pleasure to receive from my invaluable correspondent, Pro^r W. Jameson, now resident at Pillzhum, in Columbia, where he still prosecutes his botanical researches, and with increased success.



TAB. CCXVI.

ERYNGIUM HUMILE ; *var. caulescens.*

Caule simplici vel ramoso, foliis radicalibus ellipticis serrato-spinosis in petiolum angustatis, capitulis subglobosis solitariis, involucri foliolis circiter 10 oblongo-lanceolatis rigidis inciso-spinosis capitulo sublongioribus, ovariis tuberculatis.

E. humile. Cav. *Ic. v. 6. p. 37. t. 556. l. 1. Delaroclie Eryng. p. 55. Hurnb. et Kunth, Nov. Gen. v. 5. p. 33. De Cand. Prodr. v. 4. p. 93.*

Var. 1. snbacaule; foliis longe petiolatis. Cav. *Ic. I. c.*

Var. 2. latipes ; subacaule, foliis subsessilibus.

Var. 3. caulescens; caule elongato ramoso, foliis radicalibus longe petiolatis. *Ic. NOSTR. CCXVI.*

HAB. On the Quitinian Andes; as upon Chimborazo, San Antonio, Antisana, Surrucucho, Pillzhum, &c, at an elevation of from 11,000 to 14,000 feet above the level of the sea. *Née. Humboldt. Prof. IV. Jameson.*

The present species seems to be liable to considerable variation. The usual state of the plant, as found in several localities by Professor Jameson, is to be stemless; the scape bearing a single head of flowers. That here represented differs from Cavanilles' figure in its evident stem; a variety which was first noticed by Humboldt, and was found by him fcn Antisana. In all the varieties, the entire plant is harsh and rigid. The leaves are marked with oblong oblique reticulations. The head of flowers is of a dark, almost black colour, when dry; probal 'y blue when recent; while the involucre is very pale and gloss ', forming a beautiful ray around the little mass of flowers.



Gardneriana.

N. O. Violariese.

TAB. CCXVII

VIOLA BALSAMINOIDES. *Gardn. mst.*

(§. LEPTIDIUM.)

Caule erecto angulato basi stolonifero, foliis ovatis acutis obtuse serratis glabris basi in petiolum sensim attenuatis, stipulis lanceolatis longe ciliatis, laciniis calycinis lineari-subulatis basi productis, petalis imberbibus, calcare brevissimo obtuso.

HAB. In a shady virgin forest, on the banks of a small river called the " Imbahy," Organ Mountains, Brazil/ *Mr Gardner* (2d Coll. n. 311).

Species valde distincta. *Caulis* erectus, spithamseus et ultra, simplex, vel nunc ramosus, angulatus, glaber, inferne nudus (aphyllus), basi stoloniferus, superne foliosus. *Folia* 1-2 inferiora parva, subrotunda; *reliqua* fere exacte ovata, acuta, membranacea, glabra, obtuse serrata, basi sensim in petiolum longiusculum attenuata. *Stipules* majusculae foliaceo-membranaceae, e lata basi lanceolatse, fimbriato-ciliatae. *Pedunculi* solitarii, ex axillis superioribus, graciles, uniflori, folio breviores, medium venus bibracteati, bracteis anguste subulatis, alternis. *Fbres* (albi ?) cernui. *Calyx* profunde 5-partitus, laciniis lanceolato-seu lineari-subulatis corolla brevioribus, basi productis obtusis. *Petala* imberbia subaequalia; inferiore longiore brevissime calcarato. *Germen* ovatum. *Stylus* staminibus longior. *Stigma* obtusum. *Fructus* eiWpticus, calyce persistente brevior.

a. Flower. 6. Stamens and Pistil, c. Pistil.—*magnified.*



Gilliesiana.

N. O. Irideae.

TAB. CCXVIII

SISYRINCHIUM SULCATUM. *GUI. itlSt.*

Caule repetitum dichotomo gracili ancipiti (sub lente) sulcato flexuoso glaberrimo, foliis parvis subulatis, pedunculo terminali solitario curvato, capsula globosa.

S. sulcatum. Gillies in Herb, nostr.

HAB. Maldonado, in South Brazil. *Dr Gillies.*

A very curious and distinct species, which I can hardly doubt belongs to the Genus *Sisyrrinchium*, although the only specimen I possess is destitute of flowers. The stem is scarcely a span high, slender, much branched in a dichotomous manner, ancipitate, from the stem being furnished with a narrow wing on each side, deeply striated or almost furrowed (as well as the leaves), whence Dr Gillies' specific name. At every angle or geniculation is a small broadly or ensiformi-subulate leaf, with a sheathing base. Peduncle scarcely an inch long, terminated by a globose capsule.



Gardnerianace.

N. O. Irideae.

TAB. CCXIX.

SISYRINCHIUM ALATUM.

Caule erecto simplici vel parce ramoso subflexuoso latissime ancipiti-alato folioso, foliis ensiformibus falcatis alisque tenuistriatis, spatha diphylla terminal*!, pedunculis 2-4 aggregatis, perianthio glabro purpureo-lineato, capsulis ellipticis.

HAB. Demerara. *Dr Hancock.* Organ Mountains, Brazil.

Mr Gardner (2d Coll. n. 683). Marshes of La Plata. *Tweedie.*

Caulis erectus, pedalis et ultra, subflexuosus, simplex vel raro divisus, utrinque lato-alatus, foliosus. *Folia* biuncialia, ensiformia, basi equitantia, subfalcata, acuta, striata. *Spatha* diphylla, bracteis foliiformibus. *Pedunculi* 2-4 ex eadem spatha, spatham excedentes. *Germen* inferum, ovale. *Perianthii lacinae* 6, cbovatse, glabrae, flavae, purpureo-lineatae. *Capsula* elliptica, erecta.

This species of *Sisyrinchium* has, it would appear, an extensive range; from Demerara, where it was first found by Dr Hancock, to the marshes of the Plate River; yet I do not find that it has been described by any author.



TAB. CCXX.

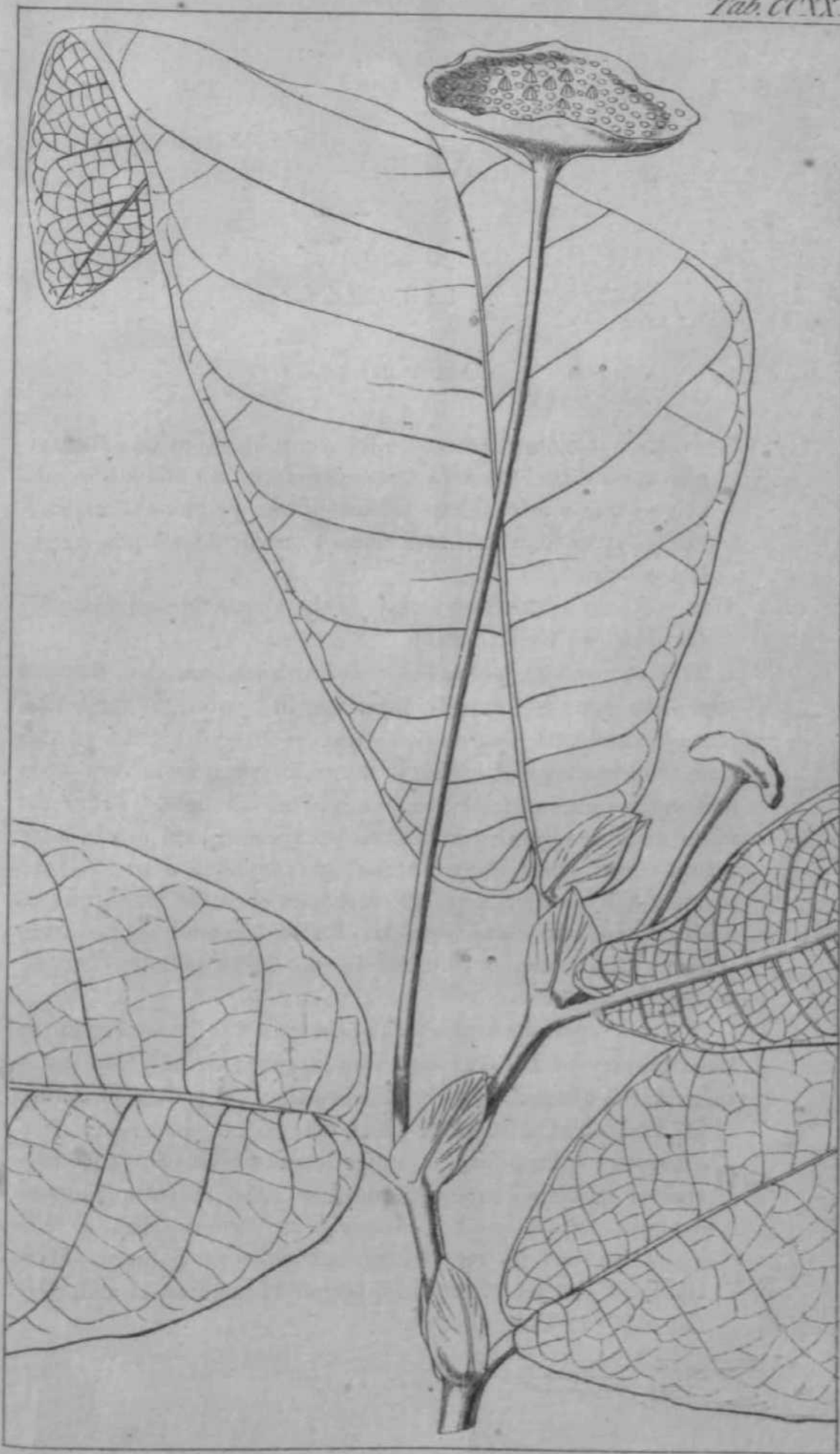
DORSTENIA ELATA.

Glabra, caule elongato flexuoso folioso, foliis ellipticis subcoriaceis obtusis basi cordatis brevi-petiolatis, stipulis 2 oppositis magnis late ovatis obtusis persistentibus, pedunculis axillaribus solitariis folio subbrevioribus, receptaculo subquadrangulari peltato.

HAB. Rocks in the deep forests of the Organ Mountains. *Mr Gardner* (2d Coll. n. 621).

This remarkable plant has a suffruticose, rounded, flexuose stem, like that of a Pepper, three feet in height. A large leaf, more than a span long, arises from each geniculation of this stem, and is elliptical in form, obtuse, between membranaceous and coriaceous, quite entire, cordate at the base. From the costa diverge several parallel, rather distant, and nearly horizontal nerves, which are connected by reticulated veins. Petioles scarcely half an inch long, much shorter than the two opposite, ovate, obtuse appressed stipules. Peduncule axillary, nearly as long as the leaves, terminated by the large peltate, obtusely 4-angled receptacle.

A second species of caulescent *Dorstenia* was discovered in the same country by Mr Gardner, (but so rare that only two specimens were gathered,) nearly allied to the East Indian *D. Irulica* of Dr Wallich's Cat. n. 4639; which may be thus characterized:—*D. hispida*; piloso-hispida suffruticosa caulescens, foliis brevissime petiolatis oblongo-cuneatis subacuminatis sinuato-dentatis, stipulis — ?, pedunculis axillaribus solitariis folio multo brevioribus, receptaculo suborbiculari peltato.—HMB. Banks of the Rio Camprido, Organ Mountains, Brazil. 7 fr *Gardner* (2d Coll. n. 118).



TAB. CCXXI.

POLYPODIUM PILIPES.

Fronde profunde pectinato-bipinnatifida, glabra, laciniis linearibus elongatis sinuato-dentatis, stipitibus pilis horizontalibus feridgineis dense obsitis, soris solitariis subellipticis.

HAB. Chacapoyas; Andes of Peru, on the eastern declivity.

Mathews (last collection, 1838, without No.).

Frondes spithameae, circumscriptione variabiles, nunc lanceolate?, nunc latissime ovatae, caespitosae, stipulates, profunde pectinato-pinnatifidae; laciniis elongatis linearibus, simplicibus, sinuato-dentatis, vel saepe iterum pectinato-pinnatifidis, glabris, subcoriaceis, costatis, sub lente squamuloso-punctatis, subtus ubique, usque fere ad stipitem, soriferis. *Stipites* 2-4 pollicares, graciles, densissime hirsuti, pilis longis rufis horizontalibus. *Sori* subelliptici, elevati, nervos simplices obliquos terminantes.

The only specimens I have seen of this handsome *Polypodium* are gathered by Mr Mathews on the eastern side of the Peruvian Andes, towards the head waters of the Amazon River. It is remarkable for its deeply and doubly pectinated fronds, every segment of which is, on the underside, studded with sori, and for having the stipites clothed with long, copious, ferruginous, spreading hairs.

Fig. 1. Portion of the underside of a segment, with sori:—*magnified.*



Tweedianm.

N. O. Filices.

TAB. CCXXII.

AsPLENIUM PARVULUM.

Humile, frondibus laxe caespitosis simplicibus stipitatis ovato-rhombeis sublobatis crenatis glabris, soris oblongis obliquis, stipite glabro ad basin solummodo paleaceo-squamoso.

HAB. South Brazil. *Tweedie*.

This is one of the smallest of the Genus with which I am acquainted, the whole plant scarcely exceeding two inches in height. Of this the stipes occupies about one half; it is slender, pale brown. Several stipites arise from one point, (so as to be loosely c&spitose,) perhaps from a small caudex which bears pale brown scales, and from beneath sends out fibrous roots. **The frond is between ovate and rhomboidal, obtuse, the margin irregularly lobed and crenated.** From an obscure central nerve or costa diverge several lateral ones, on which the oblong fructifications are situated on each side, but near the centre.

The lower figure represents the underside of a frond, **magnified to** about twice its natural size.



TAB. CCXXIII.

SCHOUWIA ARABICA.

GEN. CHAR. *Cal.* erectus, sepalis 2 oppositis paululum productis. *Petala* unguiculata, limbo obovato. *Filamenta* edentula. *Aniherce* lineares, acute. *Ovarium* sessile, ellipticum, alato-marginatum. *Stylus* subulatus, ovarii longitudine. *Stigma* sagitiiforme, tenui-pubescens. *Silicula* (fere unciam longa), elliptica, insigniter lateraliter compressa, planiuscula, ala lata cincta, bivalvis, stylo elongato persistente terminata. *Septum* angustissimum. *Valves* membranaceae, reticulatim nervosae. *Setnina* in quoque loculo plurima, subrotunda, compressa, horizontalia. *Podospermum* tenue, elongatum. *Cotyledones* conduplicatae.—Herba annua glabra ramosa. Habitus fere foliorum Brassicae.

S. Arabica. *De Cand. Regn. Feget. v, 2. p. 644. Prodr. r. 1. p. 224.*

Subularia purpurea. *Försk. FL JEgypt Arab. p. 111.*

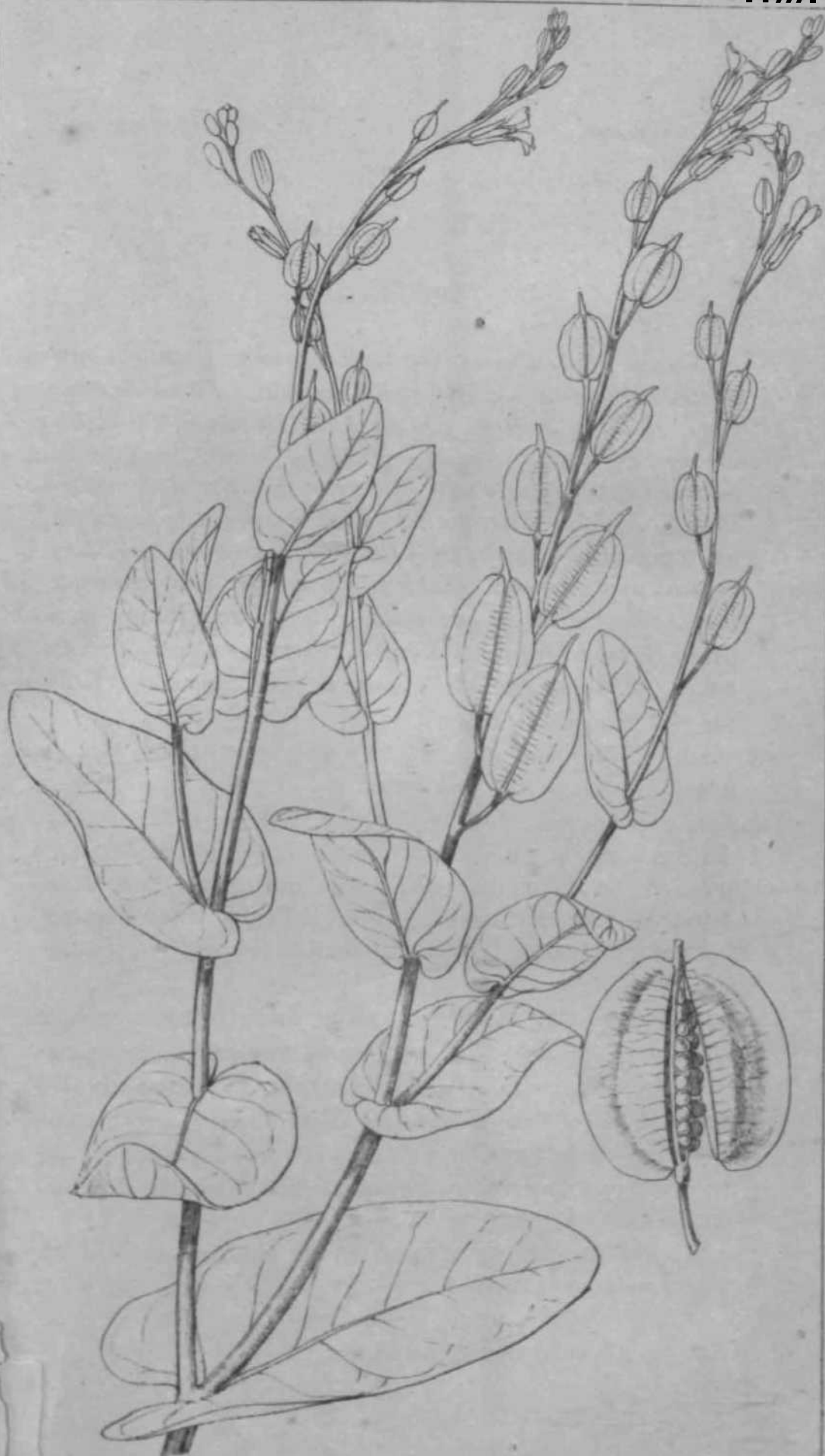
Thlaspi Arabicum. *Vahl, Symb. 2. p. 76 (excl. syn. Linn.).*

HAB. Arabia Felix, in moist sandy mountains, near Môr. *Förskahl.* At Hermonthis. *Sieber.* Uncultivated fields in the valley of Fature, flowering the end of February. *S. Fischer (n. 108).*

Radix mihi ignota. *Caulis* pedalis et ultra[^] ramosus, ubique glaber. *Folia* alterna, oblongo-ovata basi profunde cordata, amplexicaulia, penninervia, integerrima vel rarius obscure denticulata. *Flores* in racemos demuin (fructiferos) valde elongatos ebracteatos terminates et laterales disposid. *Pedicelli* breves calyce 3-plo breviores. *Petala* pallide lilacinr unguibus flavis.

The specimen here represented is from the collection of M S. Fischer, above quoted.

Fig. I. Silicula, slightly magnified.



Mackiance.

N. O. Amentacee.

TAB. CCXXIV.

QUERCUS MACKIANA.

Foliis perennantibus (?) brevissime petiolatis oblongoovatis subcoriaceis integerrimis basi acutis apice brevi-acuminatis nervis utrinque petiolis ramisque novellis pubescentibus, glandibus spicatis conico-ovatis apiculatis pube tenui obductis, cupua brevissima planiuscula e squamis brevibus subulatis pubescentibus.

HAB, Assam. *Mrs Mack.*

I am indebted to the lady of the Rev. Mr Mack of Serampore for a most interesting collection of plants from Assam, during a visit made to that country on account of her health. Amongst other undescribed species is the present strikingly handsome Oak, well marked by its foliage and acorns. The latter, even in the fully ripe state, are clothed with a very fine down. The cups, too, are singularly shallow, and the scales are subulate and downy.



TABS. CCXXV. CCXXVI.

PREPUSA CONNATA. *Gardner mst.*

Herbacea, foliis caulinis connatis, calyce latissime campanulato maxime inflato exalato.

HAB. Growing gregariously on the nearly bare face of a dry rock in the Organ Mountains, Brazil, at an elevation of about 5000 feet above the level of the sea. *Mr Gardner* (2d Coll. n. 541).

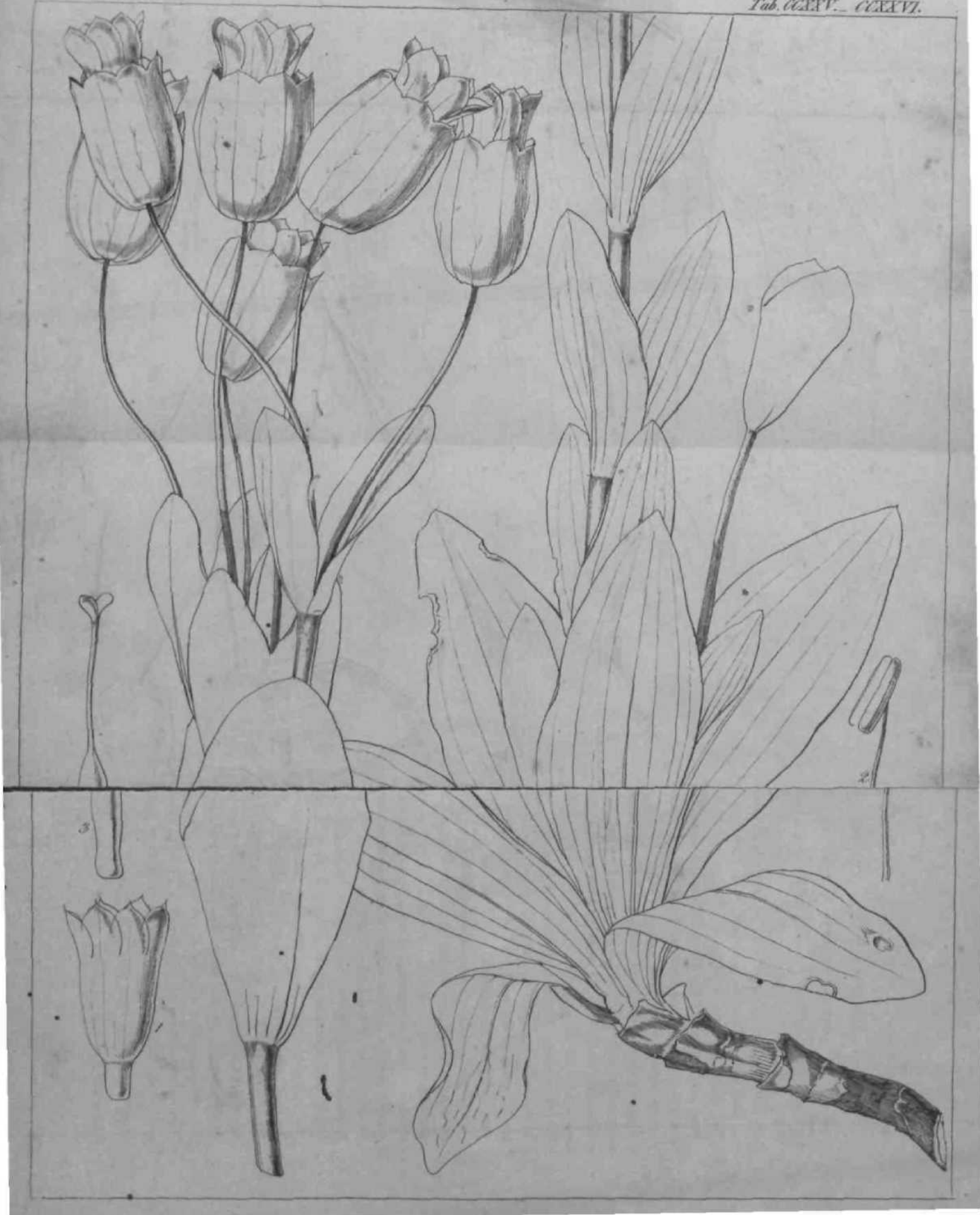
Few plants among Mr Gardner's many Brazilian discoveries have given me more pleasure than this, a second species of *Martius** fine Gentianeous Genus *Prepusa*.* for such it most unquestionably is, differing from the generic character only in the wingless calyx, which, in this case, I consider of value only as a specific distinction. I shall give Mr Gardner's own description, drawn up on the spot.

Root perennial. Stem herbaceous, a foot or a foot and a half high. Leaves oblong, obtuse, about 5-nerved, somewhat fleshy, those of the root 4-5 inches long and spreading, of the stem much smaller, opposite, and connate; those at the forkings of the branches united almost for their whole length, and forming a large two-lipped sheath. Flowers large. Calyx particularly large, inflated, imbricated, reddish-purple, 6-toothed; teeth apiculate. Corolla yellowish, with a few faint purple streaks, a little longer than the calyx; tubular below, ventricose in the middle; limb erecto-patent, 6-lobed, lobes broadly ovate, slightly crenulate, apiculate. Stamens 6, rising from the bottom of the ventricose portion of the corolla, and included. Filaments filiform. Anthers versatile, purple, 2-celled. Pollen brown. Ovary cylindrical, 1-celled, 2-valved, many-seeded. Seeds attached to 4 parietal placentae, which are obviously formed by the indexed margins of the valves. Style subulate, of the same length as the filaments. Stigma bilamellate, green. *Gardn. in litt.*

The other species of the genus is *P. moqtana*, a shrub 8-10 feet high, inhabiting the interior mountains of Bahia.

Fig. 1. Corolla:—not. size. f. 2. Stamen. / 3. Pistil:—// ujn.

⁴ So named from *Taraxacum*, on account of the conspicuous character of its plant



TAB. CCXXVII.

GUATTERIA MAYPURENSIS.

Foliis oblongis acuminatis in petiolum brevem decurrentibus subcoriaceis glabris nitidis costa subtus pedunculis ramisque novellis fulvo-hirsutis, pedunculis axillaribus solitariis unifloris, petalis oblongo-lanceolatis exterioribus paullo minoribus omnibus utrinque calyceque extus pubescenti-pilosis.

G. Maypurensis. *Humb. et Kunth, Gen. Am. v. 5. p. 42. De Cand. Prodr. v. 1. p. 94.*

HAB. Banks of the river Paquequer, in the Organ Mountains. *Mr Gardner (2d Coll. n. 306).*

Every one who has at all had occasion to study the *Anonacete* in a dried state, will comprehend the difficulty of determining specimens, often very incomplete, by the aid of books alone, where they are in general but meagrely described. Such is the case with the present species, of the Genus of which I cannot feel certain in the absence of fruit. Unwilling to multiply species unnecessarily, I refer it to the *Guatteria Maypurensis* of Humboldt, with the character of which it sufficiently corresponds. Mr Gardner notices it as a much branched shrub, from 10-12 feet high. Its branches are slender and glabrous, except at the extremities, where the young shoots, as well as peduncles, and the middle of the leaves beneath, are clothed with ferruginous patent hairs. The flowers are an inch or an inch and a half in diameter, spreading; the calyx small, externally hirsute. Petals all over downy, hairy at the lower part of the outer ones beneath.



Gardneriaceae.

N. O. Lycopodiaceae.

TAB. CCXXVIII.

LYCOPODIUM BIFORME.

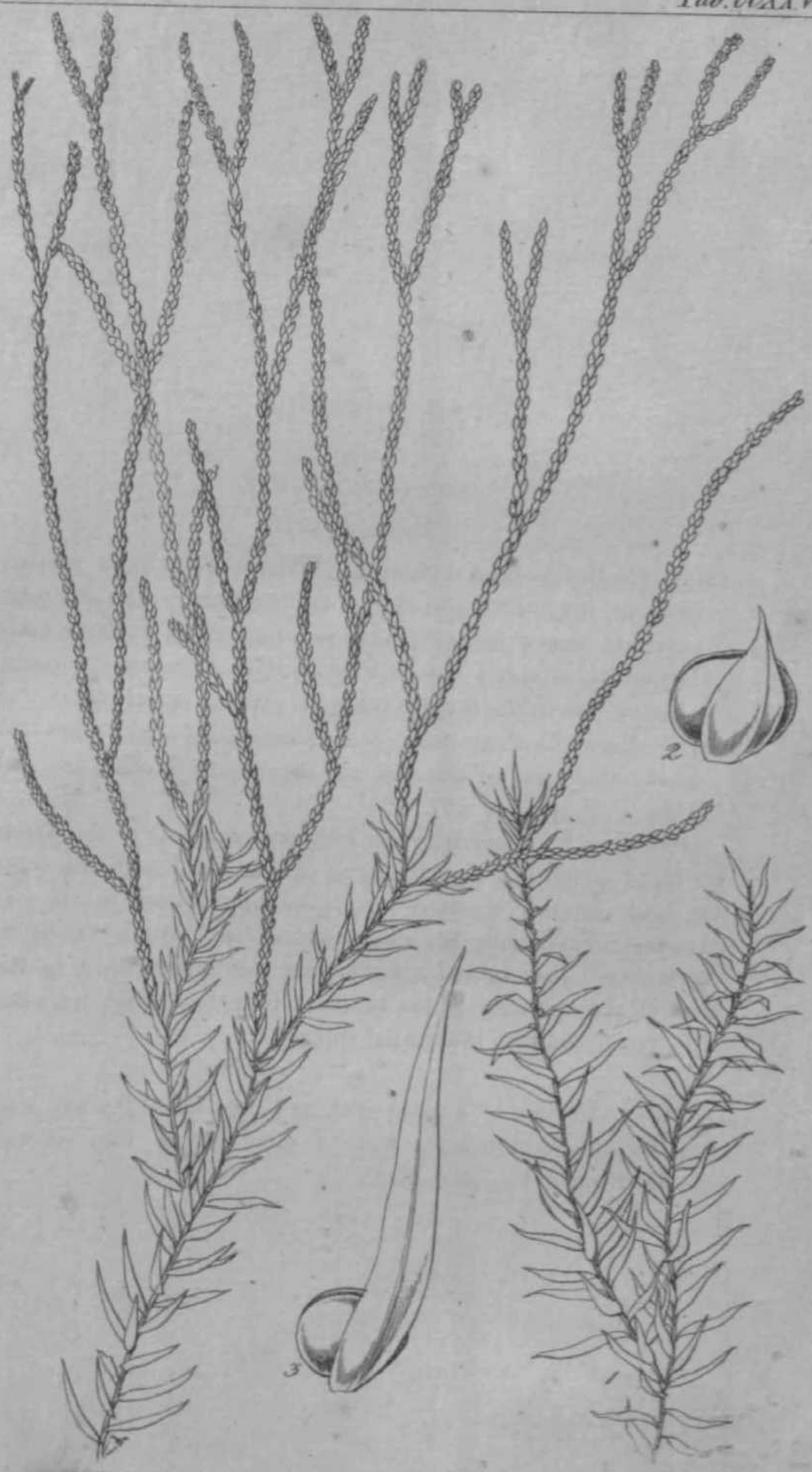
(J PHLEGMARIA.)

Caule gracili repetitum dichotomo pendente, foliis laxis remotis undique insertis subdisticho-patentibus lineari-subulatis integerrimis, nervis subtus paullo prominentibus, capsulis axillaribus et in spicis elongatis gracilibus dichotome ramosis, bracteis late ovatis brevi-acuminatis capsula minoribus.

HAB. Face of a shady rock, at an elevation of about 5000 feet above the level of the sea, on the Organ Mountains. (2d Fern Collection, n. 80).

This must be referred to the *Phlegmaria*-group of the *Lycopodia*, of which it is the slenderest species, and with the most lax and distantly inserted foliage, of any known to me. It possesses occasionally the characters of the group "*Capsulis axillaribus*" that is, the capsules are not unfrequently in the axils of the common leaves of those branches which have not been converted into bracteated spikes.

Fig. 1. Portion of a plant with axillary capsules:—*not. size.*
/. 2. Capsule and bractea from a spike. /. 3. Capsule and bractea from /. 1'.—*magnified.*



Wightiana.

N. O. Loranthæa?.

TABS. CCXXIX. CCXXX.

LORANTHUS LAGENIFLORUS.

Corolla longe tubulosa aequaliter 5-fida, antheris erectis, involucro campanulato magno colorato circa flores paucos subcapitato. *Arn.*

Loranthus lageniflorus. *Wight, Cat n. 2437.*—*Arn. New or rare Indian PL in Ann. of Nat Hist ined.*

HAB. Malabar. *Dr Wight*

Lignosus, glaber, parasiticus. *Folia* opposite, petiolata, petiolo 2-4 lineas longo, ovato-lanceolata, seu elliptico-oblonga, obtusa, basi rotundata, penninervia, crassa, coriacea. *Pedunculi* fasciculati ad ramos annotinos orti, brevissimi, apice involucrum sanguineum gamophyllum campanulatum magnum 4-5-lobum ferentes. *Flares* 4-5 in fundo involucri sessiles. *Calycis limbus* cupularis membranaceus, repando-5-dentatus. *Corolla* puberula, tubulosa, involucrum duplo superans, apice supra medium quinquefida, versus laciniarum basin per seestivationem inflatim annulata, laciniis linearibus demum reflexis. *Antherce* erecte. *Arn.*

This is perhaps the most beautiful of the Genus. Its blood-red involucres are about an inch long, and four to six lines across. *Arn.*



TAB. CCXXXI.

BRUCHIA BREVI^{ES}.

*Laix*e caespitosa minuta acaulis, foliis ovatis valde concavis acuminatis nervo valido longissime exciirrente, seta foliis duplo brevior erecta, capsula obovata cum opcrulo coadunato acuminata, calyptra magnn mitriformi-campanulata longe apiculata margine in lobulis plurimis subaequaiibus brevibus fissa.

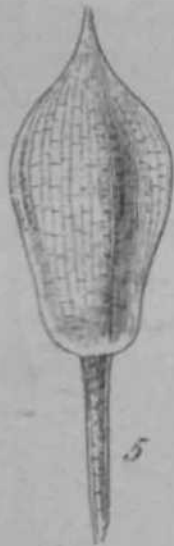
HAB. Road-side, near "Newlands," Cape of Good Hope.
Hon. IV. H. Harvey.

Our valued friend, Mr Harvey, has been already eminently successful in his Muscological researches in Southern Africa, even in the immediate vicinity of Cape Town, and the present is a new species of a little known Genus, intermediate between *SplacAnum* and *Foitia*^ of which only one species has yet been characterized, namely, *B. Vogesica*, of the Vogesian Alps; though the authors of the beautiful *Bryobia Europaa*, Messrs Bruch and Schimper, are of opinion ihat the *Phascum Jiexuosum* of Schwaegrichen also belongs to the same Genus.

This very humble species forms scattered tufts on the ground, only recognisable as a plant by an eye accustomed to investigate the minuter beauties of the vegetable creation. Root small, fibrous. Stem almost none. Leaves longer **than** ilit: whole fructification, ovate, very concave, tapering upwards and uniting with the strong excurrent nerve to form a long, stout, rigitl> hair-like point. Seta scarcely longer **than** the capsule, which latter is obovate, tapering into a moderately long beak,—the operculum being continuous with the capsule, as in *Phascutn*. Calyptra large, covering the capsule almost entirely, cam pan u-late, cut at the margin into a number of obtuse, pretty equal lobes, and tapering upwards suddenly into a long mucro.

Fig. 1. Small tuft :—nat. size. f. 2. Single plant, / 3. Outer, and /. 4, inner leaf. f. 5. Capsule and seta. /. 6. Calyptra, f. 7. **Sporalet**:—magnified.

^●●●mm



TABS. CCXXXH. CCXXXIII.

TOBREYA TAXIFOLIA.

GEN. CHAR. TORREYA. *Am.* (*non Spreng.*) Dioica.—**MASC.**
Amentum primo subglobosuiu, demum elongatum. **Rackis**
 mi da, demum elongata, basi squamis siccis **qaadrifariatn** im-
 bricatis bracteata, multiflora. *Squama* staminiferae pedicel-
 latne, subpeltatee, dimidiatae, hinc anlhernm 4-Iocularem **pen-**
 dulam gerentes.—FffiM. *Amentum* ovatum, basi, ut **in** mare,
 bracteatum, unifiorum. *Discus* carnosus hypogynus nullus.
Ovidum erectum. *Semen* ovatum, basi **squamis** siccis hand
 grandefactis bracteatum, caeteruin midurn; *testa* crassa extus
 carnosu-coriacea, intus fibrosa: *teymen* crustaceum, durum.
Albumen ruminatum. **Emtmfb** subcylindricus, brevis; *eotyle-*
dcnesconnatue.—Arbores. *Kami patentes*; *ranuili ilistiche fur-*
i-ati. *Folia disticha, linearia, rigida, mucronato-pmgattx*^a. *Arn.*

T. taxifolia. Am. in Tayl. Ann. of Nat. Hist. t\ I. p. 130.

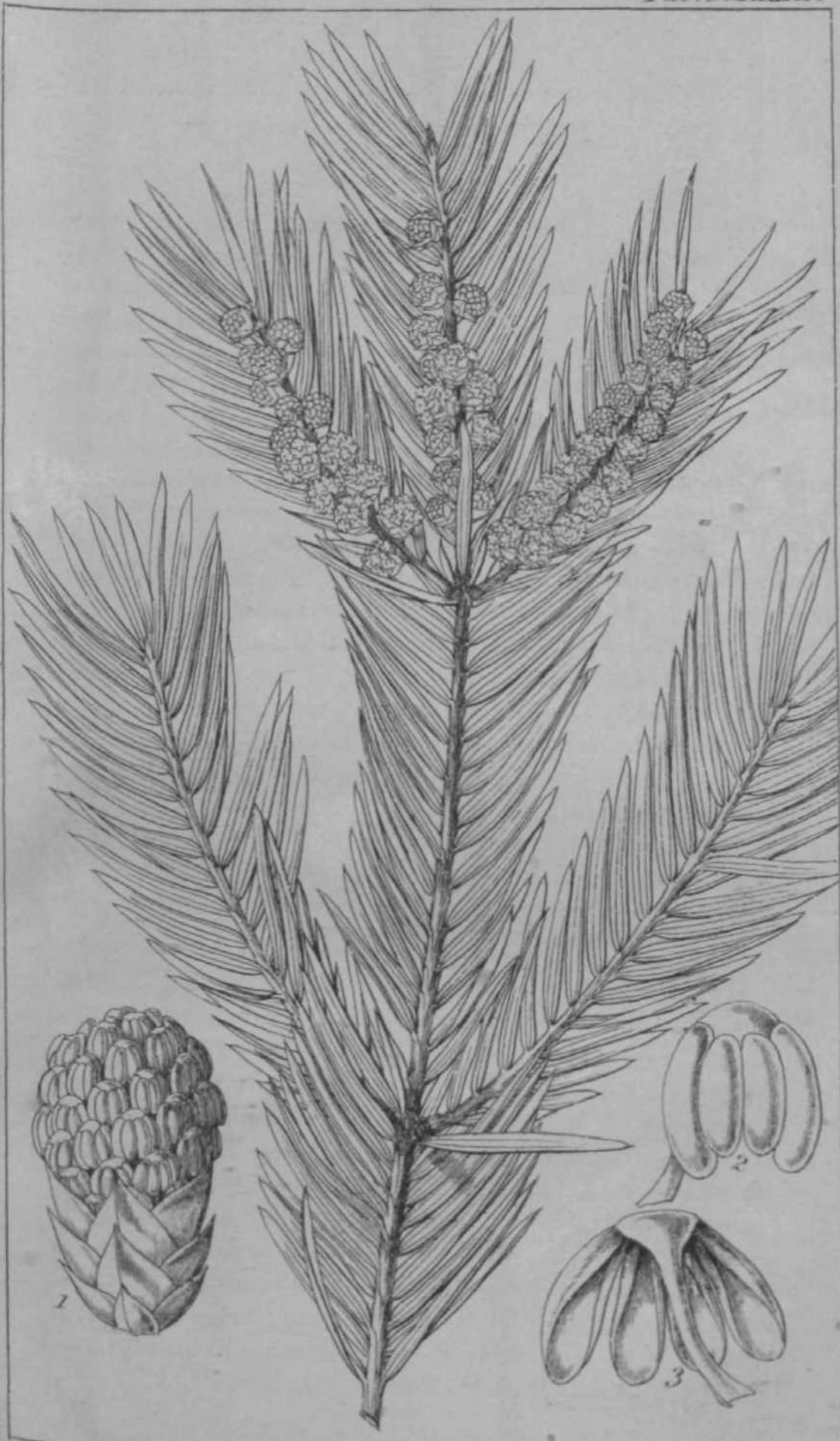
Taxus montana. Sittt.inJourn.Ac.Sc.PhiLv. VII. {non H'illd.)

HAB. Middle **Florida**; **as** upon calcareous hills on the eastern
 bank of the Appalach River, near the confluences of the **Flini**
 and Chaltahoocliie; and at Flat Creek of the Appalach, ami
 at Aspalaga, plentiful. {*Or Torrey.*}

For a more full account of this **fine** taxoid plant, which
 for pas a in idd I ing-si zed tree, and is named in compliment to a
 distinguished naturalist, and one of the most estimable of men,
 I refer to Dr Arnott's *Memoir* above quoted.

TAB, CCXXXII. Branch from a male tree. *Fig. 1.* Male
 amentum. *f. 2.* Front; and *f. 3.* back view of an antheriferous
 scale:—*magnified.*

TAB. CCXXXIII. **Branch from** a female tree. *Fig. 1.* Female
 amentum, with the fecundated ovule'.—*magnified, f. 2.* Ovule
 cut through vertically, showing the *testa* {or outer coat) with
 the fibrous bodies imbedded in the substance; next to it the
teamen, including the nucleus:—*magnified. f. 5.* Mature seed:
not. size. f. 6. The same, with the *testa* removed, which, at
f. 7. is cut through vertically to show the ruminated albumei.
f. 8. The **embryo**, *f. 3.* Germinating seed, the cotyledons pro-
 truded, *f. 4.* The s **drivelled** albumen removed from *f. 3.*—
 The dissections are from 1Dr *Torrey's* drawings.





TAB. CCXXXIV.

MICROSPERMA LOBATA.

GEN. CHAR. *Calycis tubus* obovatus, ovario adhaerens, limbi laciniis 5 lanceolatis patentibus. *Petala* 5 patentia, ovalia. *Stamina* numerosa, calyci inserta: *Filamenta* libera, brevia, aequalia: *Antherae* rotundatae, compressae, ad margines longitudinaliter dehiscentes. *Ovarium* apice solummodo liberum, in stylum filiformem et attenuatum, demum deciduum. *Stigma* obtusum. *Capsula* calycis limbo coronata, ad apicem, intra calycem, dentibus 5 dehiscens. *Receptacula* 5, filiformia, parietalia, longitudinalia. *Setina* minutissima, numerosa, ovali-oblonga, subpellucida, angulata.—Herba aspera, Mexicana, subsueculenta. Caulis flexuosus, subvolubilis? Folia alternata cordato-ovata, sublonge petiolata, penninervia, lobata, serrata. Flores majusculi, racemosi, secundi, bracteati, terminales. Corolla flava.

Microsperma lobata.

HAB. Santa Catarina, near Monterrey, Nouv. Leon, Mexico.
Berlandier.

The specimens I possess of this plant are not so perfect as I could wish, yet I think the figures made from them are quite correct; and from these it will be seen that it belongs to the *Loasea*, but to an undescribed Genus, most allied to *Mentzelia*; differing in habit, in the inflorescence, in the more abundant stamens, and especially in the 5 valves of the capsule, and the exceedingly numerous minute seeds.

Fig. 1. Flower. / 2. Anther. / 3. Calyx and nearly mature capsule. / 4. Uipe capsule, laid open. / 5. Seeds:—magnified.



Douglasiarue.

N. O. Polemoniaceae.

TAB. CCXXXV.

GILIA CONGESTA.

(§ EUGILTA.)

Lanatasubsimplex, foliis bipinnatifidis carnosis laciniis linearibus obtusis, floribus (albis) densissime capitatis capitulis racemosis, calycibus 5-dentatis bracteisque dense lanatis.

***Gilia congesta.* Hook. Fl. Bor. Am. v. 2. p. 75.**

***Phacelia furcata.* Douglas, mst.**

HAB. Sandy plains of the Columbia. Douglas.

Root somewhat fusiform, annual? Stems 3 or 4 from the top of the root, scarcely a span high, simple, rather copiously leafy and very woolly. Leaves woolly, an inch or more long, fleshy, pinnatifid and bipinnatifid; the segments linear, obtuse. Flowers in dense, exceedingly woolly clusters or heads, so woolly as almost to conceal the flowers. Heads racemose. Pedicels of the flowers scarcely any; bractees about as long as the calyx, linear. Calyx bell-shaped, 5-fid. Corolla with the tube as long as the calyx: the limb of 5 oval spreading segments, white, with a yellow eye. Stamens exserted. Anthers oval-oblong. Germen oval or obovate, triquetrous. Style shorter than the stamens, filiform. Stigma trifid.

Fig. 1. 2. Flowers. / 3/ Pistil:— magnified.



Drègeana.

N. O. Filices.

TAB. CCXXXVI.

ANEMIA DRÈGEANA. *Kze.*

Fronde sterili lineari-oblonga pinnata, pinnis subsessilibus, oblique ovatis obtusis subauriculatis basi sursum truncatis deorsum cuneatis, margine crenulato, subtus ad venas strigosis, supra glabris nitidulis, fertili apice tripartite, partitionibus duabus fertilibus tripinnatis, tertia sterili pinnata, stipite rachibusque utriusque frondis villosopaleaceis. *Kunze.*

Anemia Drègeana. *Kunze, Acotyl. Afr. Austr. JRecens. p. 13.*

HAB. Shady clefts of rocks in woody places at Omsamwubo, and at the great cataract between Omsamwubo and Omsamcaba, Southern Africa. *Drège.*

Hitherto the Genus *Anemia* had been considered exclusively an inhabitant of the New World: but the present is one of the many important discoveries made by the German botanist Drège, in Southern Africa. Kunze, in the little work above quoted, has made 2 vars., but upon very slight grounds;—*a.* pinnis sterilibus ovato-oblongis obtusiusculis;—*3.* pinnis sterilibus breviter ovatis obtusissimis.—Our specimens of *a* exhibit both these kinds of pinnae.



TAB. CCXXXVII.

KRIGIA NERVOSA.

Foliis radicalibus ovatis lyrato-pinnatifidis caulinis subintegris, involucri foliolis ovatis 1-2-nerviis paleis patentibus brevioribus, nervis validis prominentibus, scapis hispidis.

HAB. San Felipe de Austin, Texas. *Drummond* (Coll. III. n. 164).

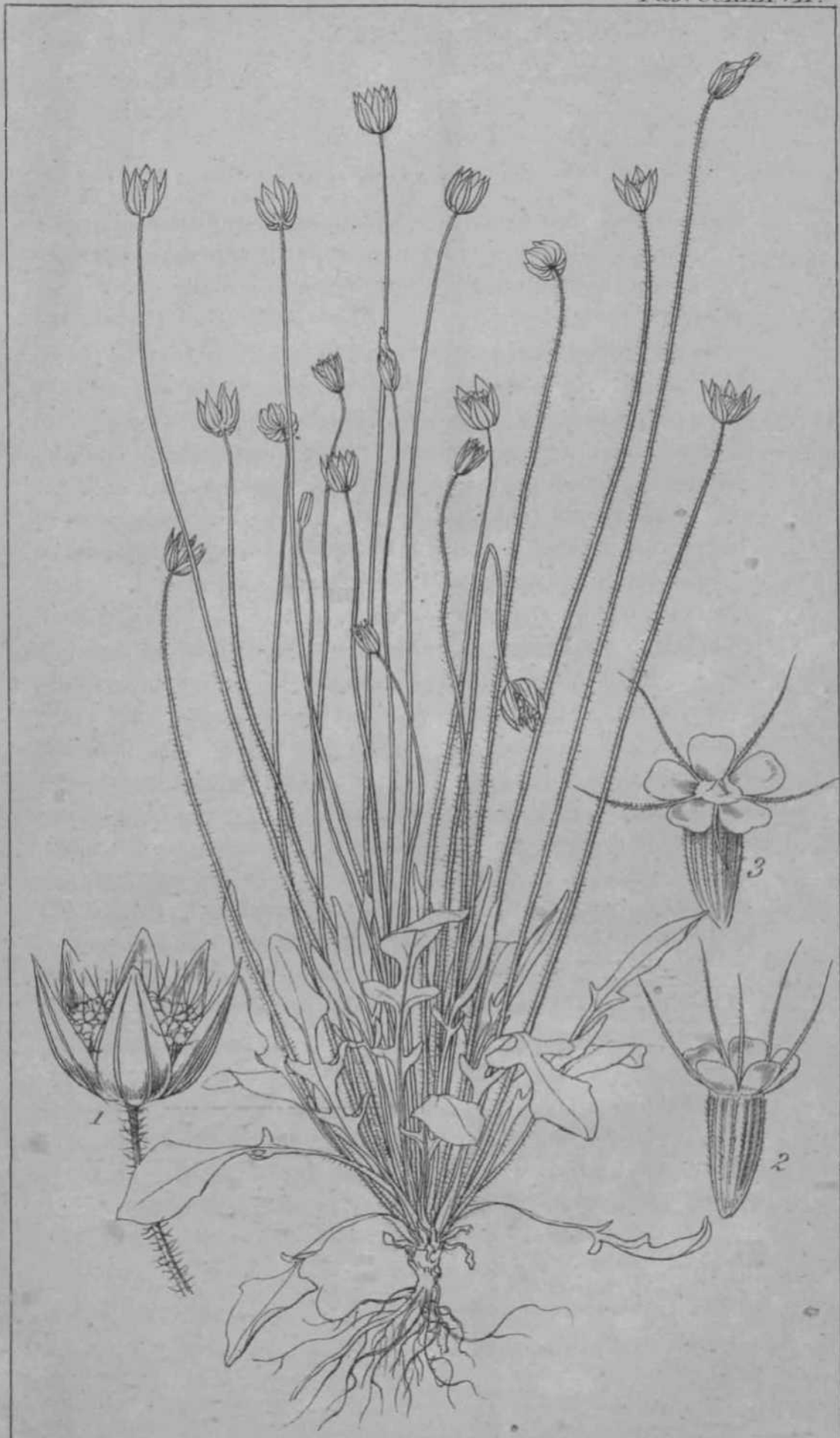
In the United States are three genera of *Compositae-Cichoraceae*, (DC.), which have a striking general similarity the one with the other:—I allude, 1st, to *Krigia*, Schreb., which has a pappus of 5 broad paleae, and an inner one of 5 alternate setae : 2. *Cynthia*, Don, which has a pappus of several broad paleae, and an inner one of many setae: and, 3. *Apogon*, Nutt., which is destitute of pappus, or, when present, it is minute and simply composed of 5 short and broad paleae.—The learned De Candolle has given their characters very correctly, but has erred by following Nuttall in referring to the Genus *Krigia*, *K. Caroliniana*, which certainly belongs to *Cynthia*. The *K. leptophylla*, I have reason to think, is only a var. of the original *K. Virginica*. *K. dichotoma* is now acknowledged by Nuttall himself to be nothing more than the autumnal state of the species last mentioned; and *K. montana* is, to say the least of it, a very dubious plant, from the high mountains of Carolina, and apparently only known to Michaux. Thus it would seem we had only one certain species described, till Mr Drummond detected the present (as well as *K. Virginica**) in Texas. The character of *K. Virginica* may stand thus—

K. Virginica; foliis radicalibus oblongis lyrato-pinnatifidis caulinis plerumque integris linearibus, involucri foliolis nerviis laevissimis lanceolatis pappo erecto brevioribus, scapo glabro.

In *K. Virginica* the involucre becomes reflexed after the fruit has fallen, the fruit is larger than in *K. Texana*, the pappus longer and whiter, twice as long as the nearly black fruit: (in *K. Texana*, of the same length as the brown fruit). In both, the fruit is deeply striated, and longitudinally impresso-punctate and rough, and the number of paleae and setae constantly 5, although Nuttall says that they vary from 5 to 8.

Fig. 1. Involucre with ripe fruit. / . 2. 3. Achenia:—magnified.

* This is in Mr Drummond's 3d Texas Coll. n. 163, also from San Felipe de Austin.



TAB. CCXXXVIII.

ADENOSTEMMA BRASILIANUM.

Caule erecto scabriusculo, foliis petiolatis triangularibus secus petiolum subcuneatis obtuse inaequaliter dentatis scabriusculis, panicute ramis puberulis, capitulis subcorymbosis, involucri squamis glabriusculis ovali-oblongis obtusis, corollas tubo pubescenti, styli ramis longissimis, acheniis muricatis.

Adenostemma Brasilianum. *Cass. Diet. cFHist. Nat.—De Cand_m Prodr. 5. p. 112.*

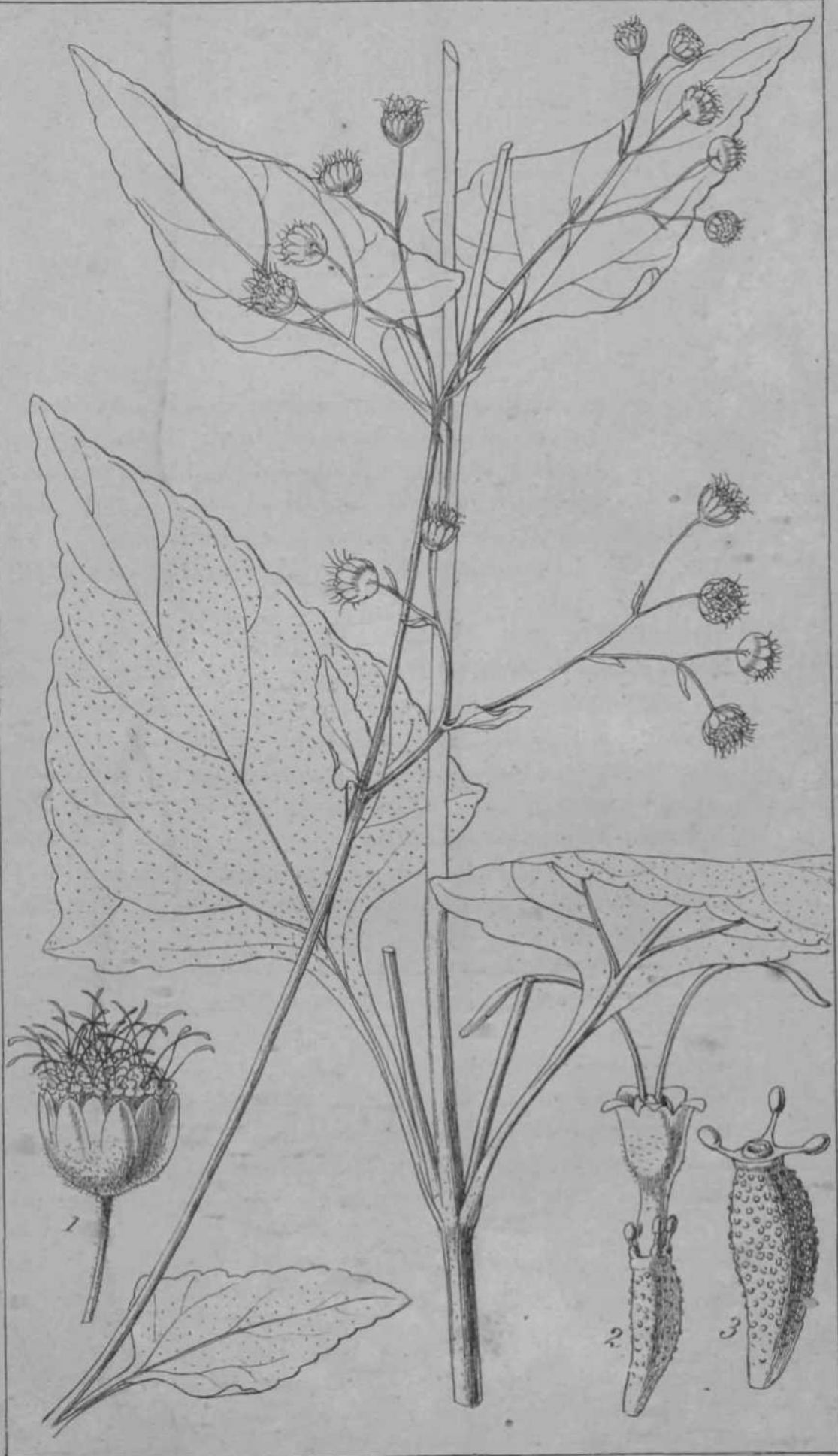
Verbesina Brasiliana. *Pers. Syn. PL v.2.p. 472.*

HAB. Brazil. *Vandelli.* St Catherine. *Bade.* Organ Mountains. *Gardner* (2d Coll. n. 502).

"*Involucrum* polyphyllum, multiflorum. *Receptaeulum* subcon-
cavum, nudum, scrobiculatum. *Flosculi* omnes hermaphroditic
Corolla alba, tubulosa, 5-dentata, extus tomentosa glutinosa.
Stamina inclusa. *Styli* rami corolla duplo longiores. *Achenium*
obovatum, triangulare, paululum curvatum. *Pappus* aristis 3
patentibus apice glandulosis, glutinosis, inferiore breviorē."
Gardner[^] *mst.*

Of this Genus, so remarkable in the nature of its pappus, there are species in South America and the West Indies, in South Africa, the East Indies, and in the Friendly Islands; and many of them, even from widely different localities, very much resemble each other. The present, though departing in some trifling particulars from the description of De Candolle, is, nevertheless, I feel satisfied, the *A. Brasilianum*, as I equally am that the following is the *A. triangulare* of that distinguished author.

Fig. 1. Involucre with flowers. / *2.* Single floret. / *3.* Achenium.—*magnified.*



TAB. CCXXXIX.

ADENOSTEMMA TRIANGULARE.

Caule erecto pubescenti-hirto, foliis petiolatis trilobo-triangularibus grosse inaequaliter acutissime serratis laevibus, petiolo superne alato, paniculae ramis elongatis glabriusculis, involucre hemisphaerico truncato obtuse dentato, squamis fere ad apicem concretis, corollas dentibus valde hirsutis, styli ramis brevibus, acheniis grosse muricato-tuberculatis.

HAB. Brazil. About Rio Janeiro. *Lund.* On a moist bank in the Organ Mountains, at an elevation of about 3800 feet above the level of the sea. *Mr Gardner* (2d Coll. n. 503).

Although, at first sight, this very much resembles the *A. Brasilianum*, it is truly and abundantly distinct. The leaves are larger, smoother, with a tendency to be 3-lobed; the styles are short; the tips of the corolla very hairy, and the achenia more coarsely muricated or tuberculated \$ but what distinguishes it best, is the circumstance of the scales of the involucre being united into one piece, an hemispherical cup, truncated, or at most only shortly and bluntly toothed, at the margin. In these two species, and probably in all, the corollas adhere together by their viscid surface, so as to fall off in a mass from the achenia.

Fig. 1. Involucre and flowers. / 2. Single floret. / 3. Achenium:—*magnified.*



TAB. CCXL.

KEERLIA SKIRRHOBASIS.

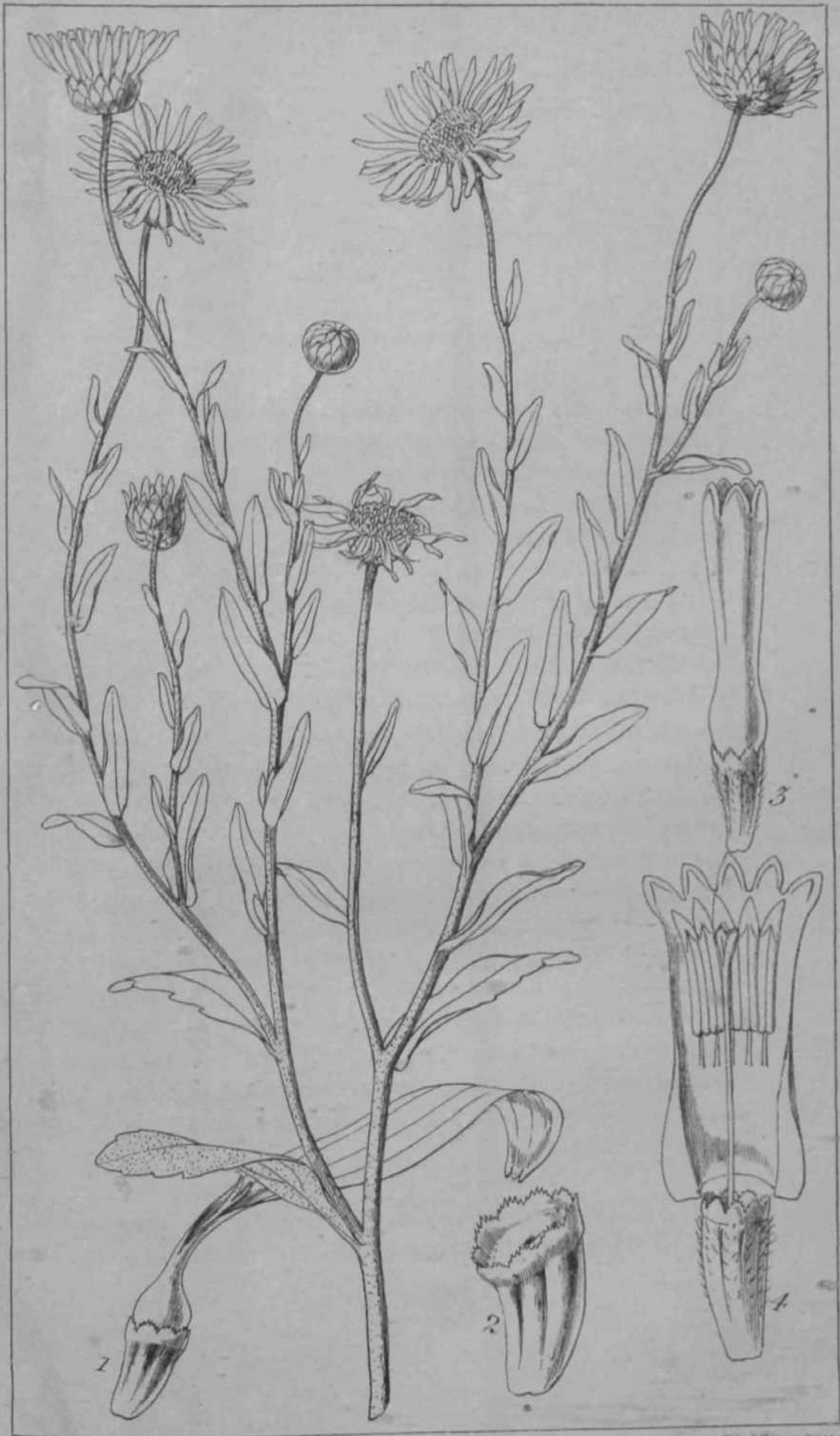
Annua ramosa canescenti-velutina, foliis sessilibus oblongis obtusis basi attenuatis integerrimis aut serratis, involucri squamis margine submembranaceis, ligulis 20-25 linearibus, corollarum omnium tubo basi demum incrassato et indurato.

Keerlia skirrhobasis. *De Cand. Prodr.* v. 5. p. 310.

HAB. Mexico, between Bejar and Rio Trinidado. *Berlandier*. Rio Brazos of Texas, and at San Felipe de Austin. *Drummond* (III. Coll. n. 186).

I had marked this as a distinct Genus among Mr Drummond's plants, when the fifth volume of *De Cnndoile's Prodr.* reached me, where that admirable botanist has given it under his Genus *Keerlia* (so named after a Mexican traveller, *F. W. Keerl*). Three species are there brought under it: and under one (*AT. linearifolia*) is doubtfully introduced (and not only ther[^]but also **under** *Aphanostephus ramosissimus*) *Brachycome xanthocomoides*, Less., a plant which may probably be safely referred to the *Bellis integrifolia* of Michaux. With the second species of *Keerlia* (*K. ramosa*) I am unacquainted. The third is our present plant, remarkable for the base of the tube of the corollas (both the tubular and ligulate ones) becoming singularly thick, indurated, and corky. The pappus is a cup-shaped border to the achenium, thin and somewhat membranaceous at the margin, thick and corky at the base, as is also the achenium itself, especially the radial one.

Fig. 1. Radial floret. /. 2. Achenium of the same. /. 3. Central floret. /. 4. The same, with the corolla laid open.



TABS. CCXLI. CCXLII.

BACCHABIS PLATYPODA.

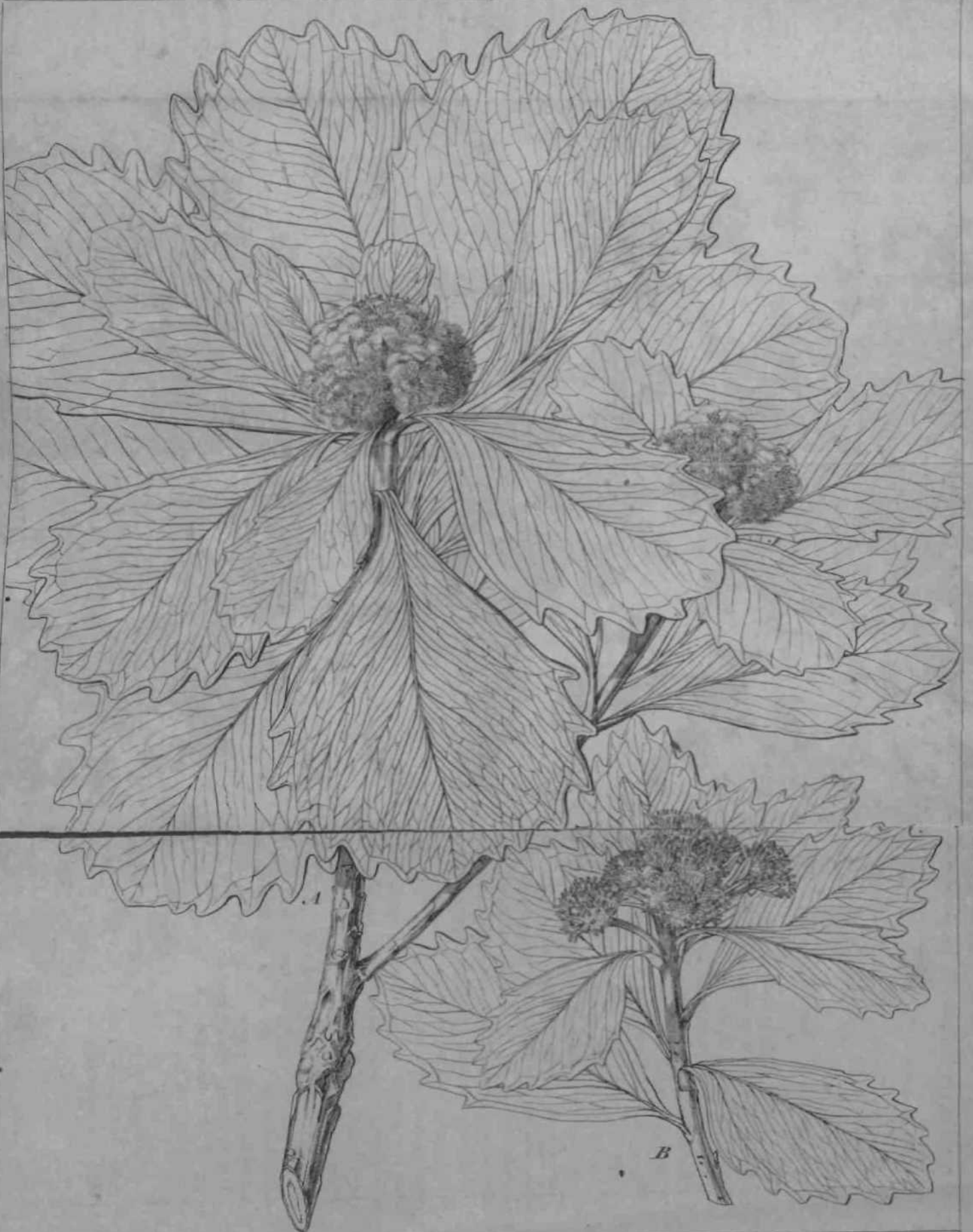
Fruticosa glabra resinoso-viscosa (?), ramis striato-angulatis, floridis ancipiti-compressis, foliis petiolatis obovato-cuneatis obtusis grosse dentatis coriaceis uninerviis venis hinc inde innumeris pennatis subreticulatis, capitulis ad apices ramorum florid, dense aggregato-corymbosis, involucri squamis ovato-oblongis obtusis. *DC.*

HAB. Brazil. Marianna, in Minas Geraes. *Vauthier.* Sphagnum-bog on the Organ Mountains, about 5500 feet above the level of the sea. *Mr Gardner* (2d Coll. n. 515).

A glabrous, dioecious shrub, from 4-6 feet high: the stem clothed with pale brown bark: the branches acutely angular, those bearing the flowers compressed and almost ancipitate. Leaves confined to the ends of the branches, from 2-4 inches long, shortly petioled, obovato-cuneate, coriaceous, very coarsely and obtusely serrated, mostly in the upper half, with very copious oblique reticulated nerves; there is also a distinct nerve running round the leaf, just within the margin. The leaves of the male plant are smaller and less obovate (more ovate). Heads of flowers collected into dense corymbs; more compound, and with longer branches in the male plant. Involucre ovate; its scales closely imbricated, oval-oblong, very obtuse, resinous. Male plant: florets with a very distinct corolla, protruded stamens, and a short, wavy, pale red-brown pappus.—Female: florets with a narrow, indistinct corolla, a protruded style, a striated fruit, and a spreading red-brown pappus.

This is perhaps one of the most distinct and well-marked species of this extensive Genus. The leaves of the female plant are often four inches long.

Fig. 1. Flower. / *2.* Stamens. / *3.* Single stamen separated from the rest. / *4.* Pistil. / *5.* Transverse section of the young fruit;—*magnified.*



TAB. CCXLIII.

AISTHOPTERUS RACEMOSUS.

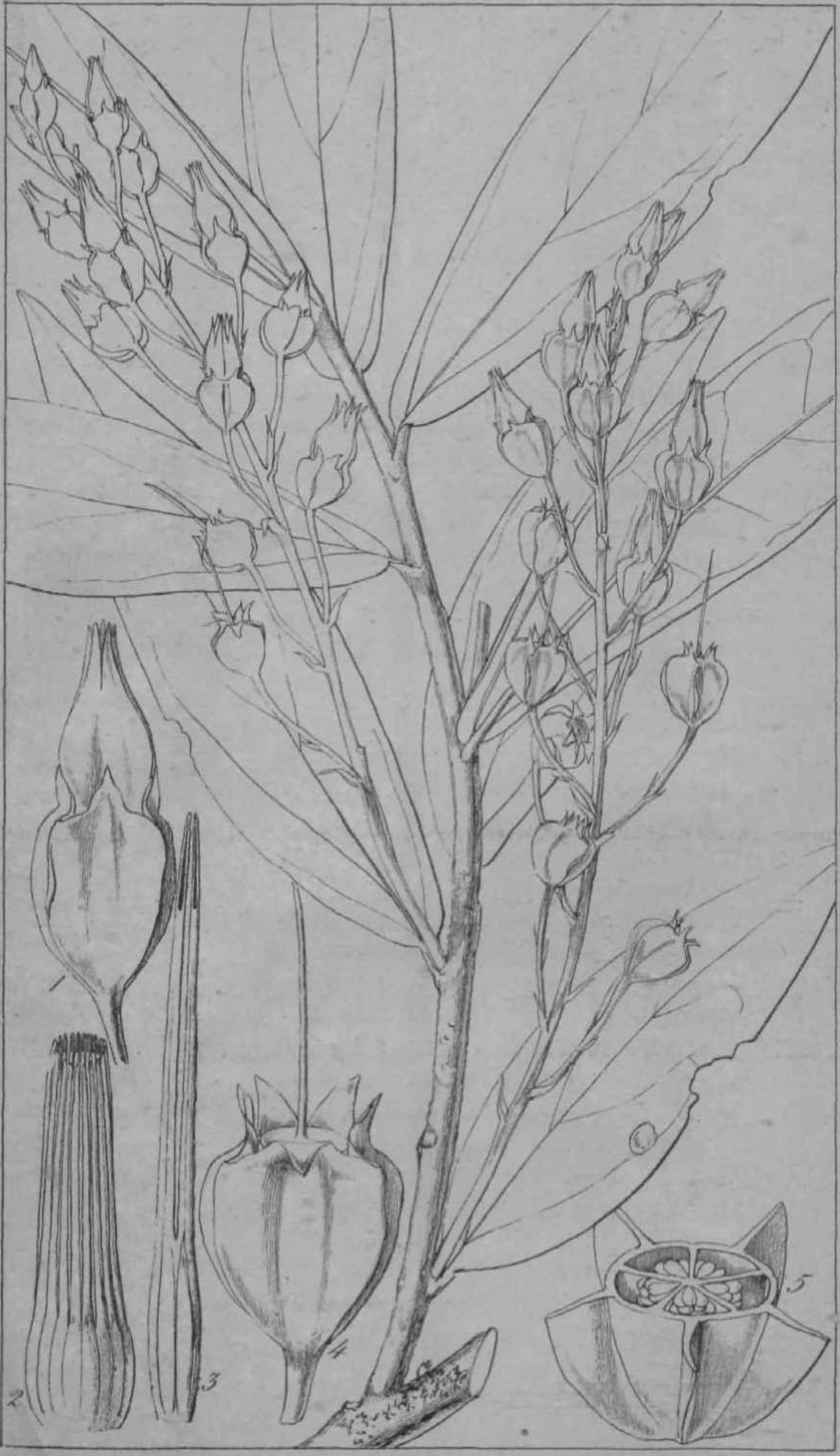
GEN. CHAR. *Calyx* ovario adhaerens, turbinatus, alto-5-alatus, 5-dentatis, dentibus ovatis erectis. *Corolla* monopetala, conico-urceolata, 5-alata, 5-dentata, dentibus acuminatis erectis v. erecto-patentibus. *Stam.* 10. *Filamenta* brevia in membranam connata, calyce ad basin corollae inserta. *Antherce* biloculares, loculis longissime repositis, rima elongata ad apicem introrsum dehiscentibus. *Ovarium* 5-loculare, pluriovulatum. *Fructus* subbaccatus, 5-alatus, indehiscens, 5-locularis, dentibus calycinis coronatus.—Frutex parasiticus, glaber, habitu Thibaudiae et Macleaniae. Rami stricti. Folia lanceolata, coriacea, trinervia. Flores majusculi, racemosi. Pedicelli oblongati, basi unibracteati, medium versus bibracteati.

Anthopterus racemosus.

HAB. Province of Moyobamba, Peru; parasitic on trees. Mathews; received in 1838.

In *Macleania*, figured at 1.109, vol. II., of this work, we have an instance of a plant of the *Vaccinieae* which has a 5-winged calyx: here we have the still more remarkable circumstance of the corolla also having 5 broad wings, corresponding with the 5 teeth of the corolla; in which respect, as well as in the different shape of the corolla, of the calyx, and in the different structure of the stamens, and in the long racemes of flowers, it differs from *Macleania*, and, as far as I know, from all of the natural order. The leaves are from 4-5 or almost 6 inches long, sessile, and the racemes equal to them in length. The fruit, in our specimens, is not quite ripe, and can scarcely be called a berry; but the pericarp is thick and coriaceous, and apparently indehiscent.

Fig. 1. Flower. / 2. Stamens. / 3. Single stamen. / 4. Calyx and pistil. / 5. Section of a scarcely mature germen:—magnified.



Jamesoniance.

N. O. Lycopodiacee.

TAB. CCXLIV.

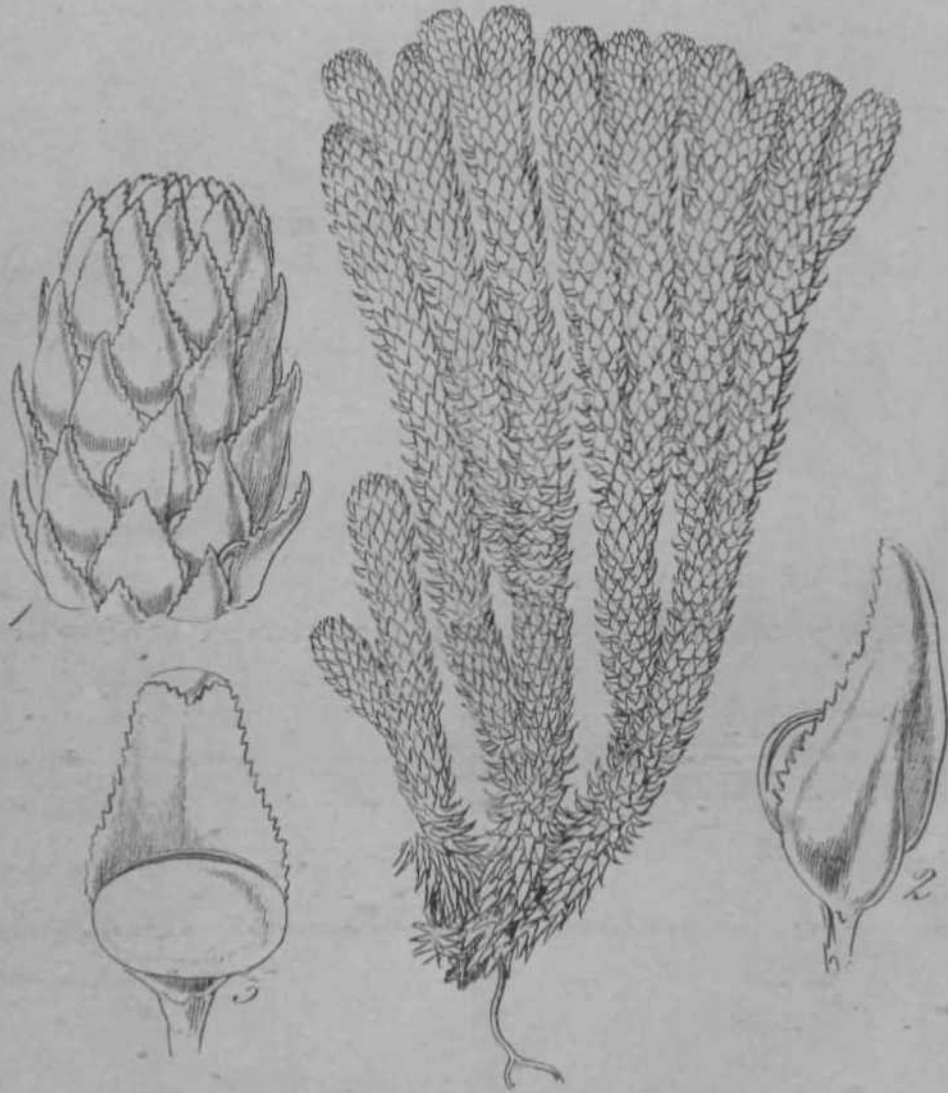
LYCOFODIUM COMPACTUM.

Caule erecto dichotome ramoso, ramis crassis obtusis, foliis plurifariam imbricatis arctissimis ovatis obtuse subacuminatis patenti-incurvis glanduloso-serratis basi obtuse carinatis intus concavis infimis sublinearibus, capsulis axillaribus.

HAB. Pillzhum, one of the Quitinian Andes. Prof. W. Jameson.

In size, in the ramification, and in the shape and outline of the branches, this species so much resembles our *L* rufescens* (Tab. XXXVI. of the present work), that at first sight the two might be mistaken for the same species; but on the slightest inspection of the leaves they will be found to be abundantly different. The colour, too, of the present one is greener, though considerably tinged with red. The lowermost leaves are almost linear and reflexed; but they soon become broader and moderately patent, and always more or less incurved towards their apex.

Fig. 1.1.* Apex of a branch, with capsules. *f. 2.* Back view of a leaf, with its capsule. *f. 3.* Front view of do.:—*magnified.



TAB. CCXLV. A.

ENTOSTHODON OBTUSIFOLIUS. *J. Hook.*

Dense cespitosus, foliis elliptico-lanceolatis obtusis inlegerrimis, capsula (cum apophysi) anguste pyriformi.

HAB. Moist places, Lomas of Amancaes, near Lima, Peru. *Mathews (n. 958).*

Fig. 1. Single plant, *f.2.2.2.* Leaves. *f.3.* Portion of do. / 4. Peristome. / 5. Operculum. / 6. Calyptra. / 7. Teeth of the peristome:—all more or less *magnified.*

TAB. CCXLV. B.

ENTOSTHODON MATHEWSII. *J. Hook.*

Laxe caespitosus, foliis late oblongo-lanceolatis acuminatis serratis, capsula (cum apophysi) anguste pyriformi.

HAB. Near Lima, Peru. *Mathews.*

Fig. 1. Single plant. / 2. 2. Leaves. / 4. Portion of the capsule and peristome. / 5. Teeth of the peristome:—all more or less *magnified.*

TAB. CCXLV. C.

ENTOSTHODON ^TIFOLIUS. *J. Hook.*

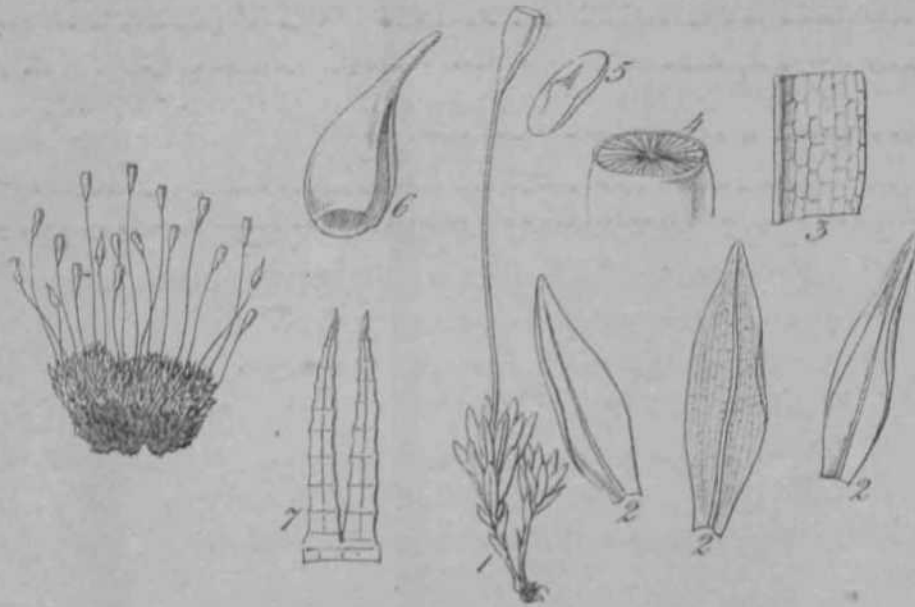
Laxe caespitosus, foliis obovatis acuminatis serratis, capsula (cum apophysi) lato-pyriformi.

HAB. Near Lima, Peru. *Mathews.*

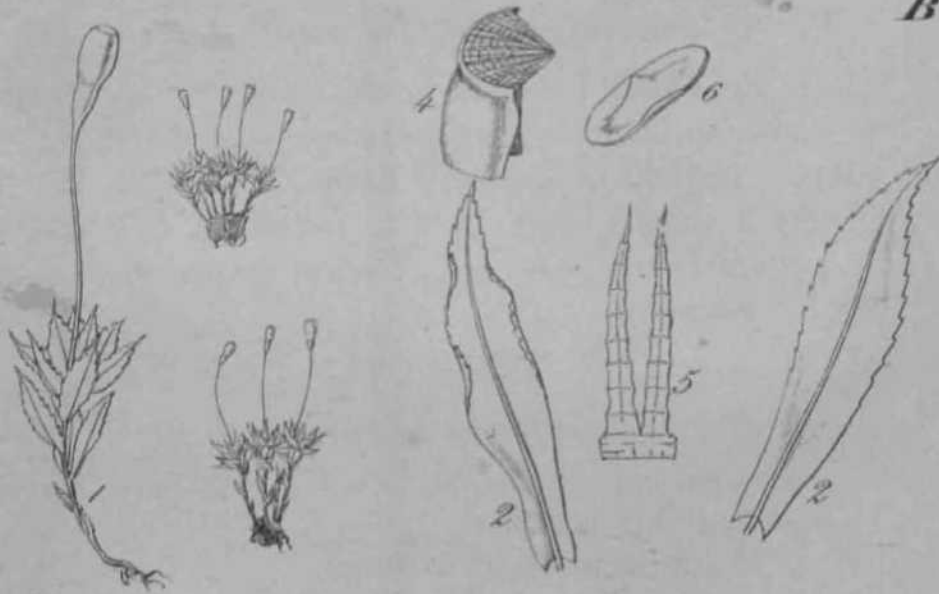
Fig. 1. Single plant. / 2. 2. Leaves. / 8. Peristome. / 4. Operculum. / 5. Teeth from the peristome:—all more or less *magnified.*

That portion of Mr Mathews' collection of plants which was gathered in the neighbourhood of Lima, has afforded 3 species of Moss, having all the characters and habit of Schwaegrichen's Genus *Entosthodon*: and all different from the European *E. Templetoni*; although one, our *E. obtusifolius*, comes so very near to it, that were it not for the constantly very blunt apex of the leaf, and the rather narrower form, I should have been disposed to consider it the same. In all there is the same thin, but lax, cellular structure in the foliage, the same general form of the capsule (pyriform), and the same flattened operculum, with a minute, but more or less distinct umbo. (*J* Hooker.*)

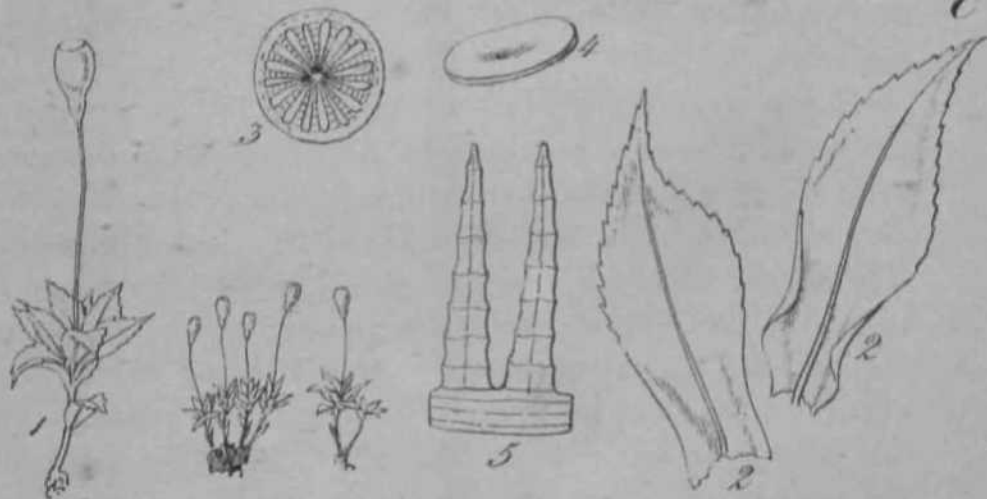
A



B



C



TAB. CCXLVI.

ANDROMEDA KATAGHERENSIS.

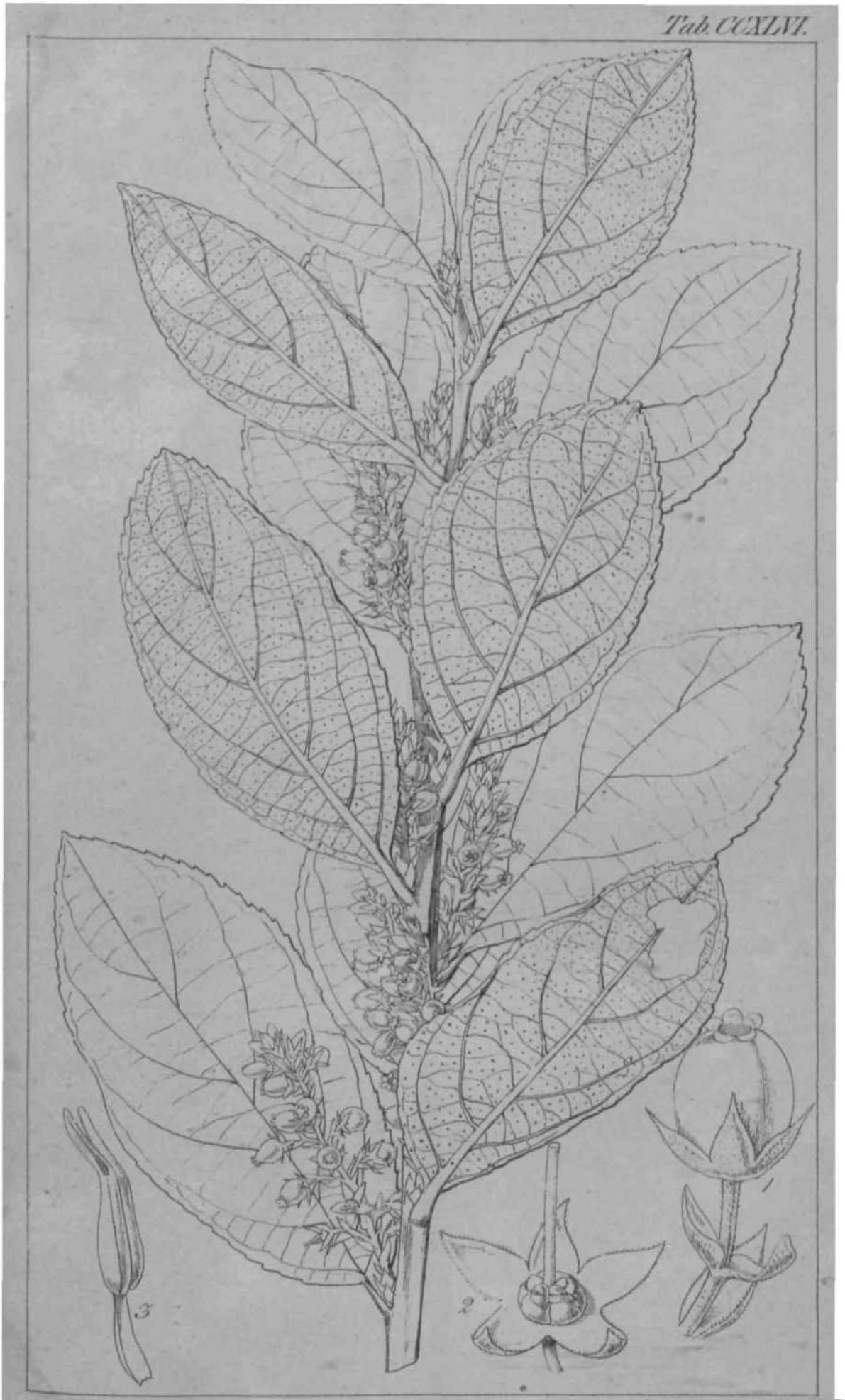
Fruticosa glaber, ramis subtriquetris striatis, foliis brevi-petiolalis coriaceis ovalibus serratis acutis obtuse mucronatis reticulatis subtus ad venas fusco-glanduloso-punctatis, racemis axillariibus solitariis simplicibus, pedicellis tribracteatis, corolla ovali calycem partentem duplo excedente, ore parvo, antherac loculis sublonge acuminatis, stigmatе truncate

HAD. Kataghery, in the Nylgherry hills, East Indies. *Dr Schmid.* (*Sir F. Adam, Bart.*)

I am indebted for this fine new Indian *Andromeda* to the kindness of Sir Fred. Adam, Bart., late Governor of Bombay, who obligingly presented me with a collection of plants from the Nylgherry hills, made there by a German botanist, Dr Schmid.

The species seems to form a rather tall glabrous shrub, with large leaves, 3 inches and more long, evergreen, coriaceous, oval, on short petioles, acute at both extremities, serrated at the margin, tipped with a blunt mucro, somewhat glossy above, reticulated on both sides, but more especially beneath, where the colour is paler, and where the veinlets are spotted with brown, in consequence of numerous glands, which appear to be resinous, but are scarcely at all prominent. Racemes much shorter than the leaves, axillary, solitary, bearing flowers to the very base. Each pedicel has a bractea more than half its length at its base, and two others near the middle. Calyx large in proportion to the size of the flower, of 5 ovato-acuminate spreading segments, more than half the length of the oval corolla, which latter has a very contracted mouth, and a limb of 5 small rounded, reflexed lobes. Stamens 10, inserted on the receptacle, much shorter than the corolla. Filament short, curved. Anthers oblong-ovate, each cell with a long acumen bent back, in which is the elongated opening, or pore. Germen globose, 5-lobed, wrinkled. Style shorter than the corolla, longer than the stamens. Stigma obtuse, truncated.

Fig. 1. Flower. / *2.* Calyx and pistil. / *3.* Stamen .—*magnified.*



TAB. CCXLVII.

SABICEA CANA.

Foliis elliptico-ovatis integerrimis petiolatis basi apiceque acutis supra laxe arachnoideo-lanatis, subtus ramis stipulisque lato-cordatis densissime canescenti-tomentosis albis, calyce tubuloso 5-dentato; corollas laciniis ovatis acutis, stigmate 4-partito.

HAD. Province of Moyobamba, Peru. *Mathews* (last coll. 1838). *Caulis* fruticosus. *Rami* teretes, dense albo-tomentosi. *Folia* opposita, petiolata, elliptico-ovata, omnino integerrima, subcoriacea, basi apiceque acuta, parallelo-nervosa, subtus reticulata, nervis copiosis oblique cuneatis, supra laxe arachnoideolanata, subtus petiolisque dense compacte canescenti-tomentosa, alba. *Petioles* subunguiculares. *Stipulæ* magnæ, cordatæ, subtus albo-lanatæ. *Mores* in axillis et intra stipulas glomerati, sessiles, bracteati; *bracteæ* ovate, concavæ, extus (floresque) lanatæ. *Calyx* tubulosus, superne liber, obtuse 5-dentatus. *Corolla* infundibuliformis, fauce dense lanata; limbo 5-fido, laciniis ovatis, acutis, patienti-recurvis. *Stamina* 5, inclusa, prope medium tubi inserta. *Ovarium* 4-loculare. *Semina* numerosa, compressa, obscure reticulata. *Stylus* corolla brevior, disco rotundato carnosissimo insertus; *stigma* 4-partitum. *Fructus* vix, ut videtur, baccatus.

This, I believe, is a true species of *Sabicea*; though the fruit can scarcely be considered a berry, but rather an almost dry and coriaceous indehiscent capsule, densely woolly. The stamens are much disposed to become united and monstrous.

Fig. 1. Flower. / *2.* Bracteas and calyx; the latter in part laid open. / *3.* Corolla laid open. / *4.* Section of a young fruit:—*magnified.*



TAB. CCXLVIII.

TRIDONTIUM TASMANNICUM. *J. Hook.*

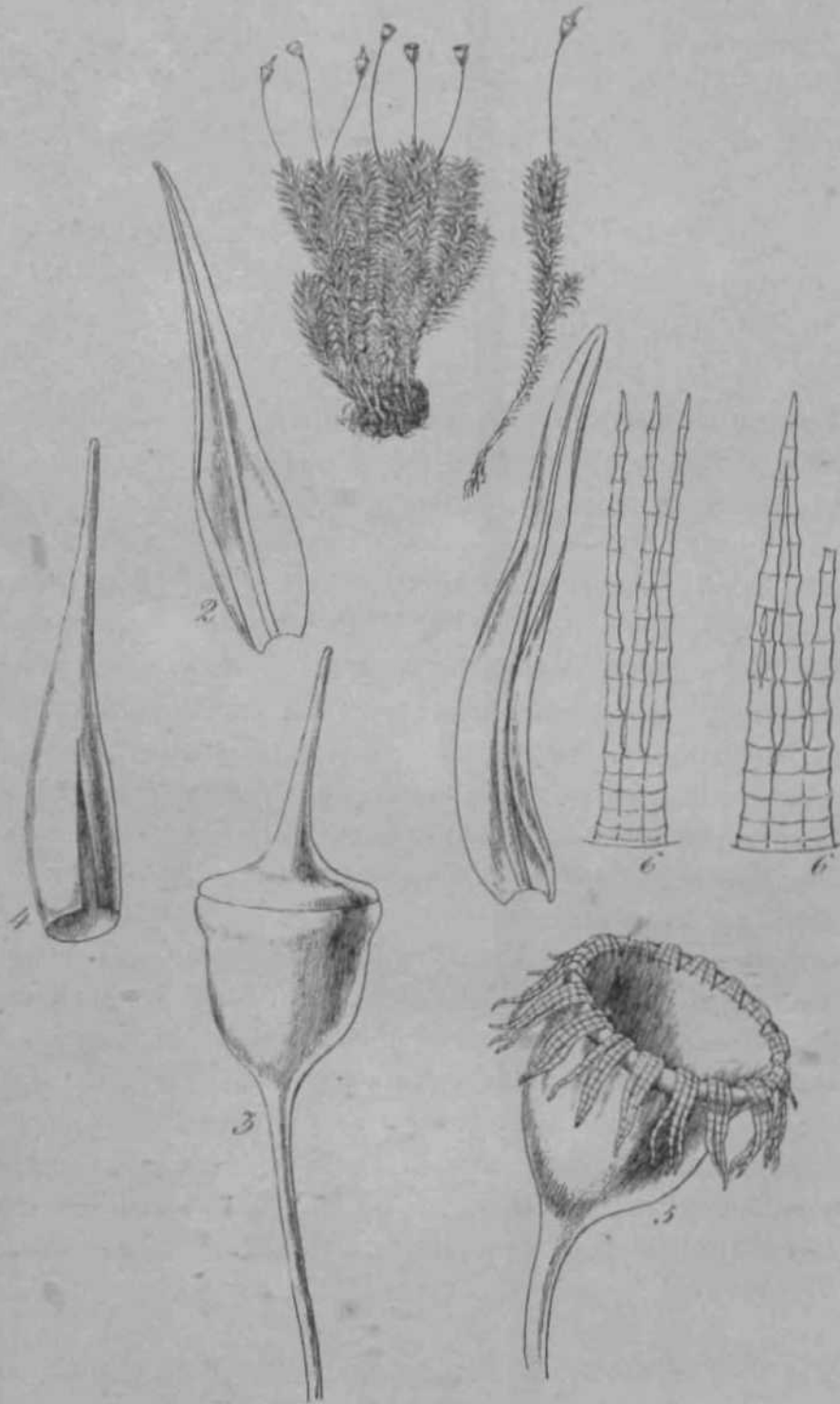
Seta terminalis, exserta. Capsula turbinata. Peristomium simplex; dentibus 16 clongatis, siccitate reflexis; singula e ciliis tribus articulatis magis minusve connexis formata. Calyptra mitriformis, hinc fissa.—Muscus aquaticus. Caules elongatè parce (nunc innovationibus) ramosi, rigidi, flexuosi, laxe cespitosi. Folia laxè undique disposita, patentia, lineari-lanceolata, opaca, obtusa, nervo valido fusco fere ad apicem attingentè, supra canaliculate margine omnino integerrima: perichætalia angustiora, subacuminata.—textura compacta, cellulis minutissimis. Seta capsulaque intense fusca rigida. Operculum conico-longe rostratum. Calyptra fusca, rigida, oblongo-acuminata, hinc basi usque ad medium fissa.

Tridontium Tasmannicum.

HAB. Ben Nevis, Van Diemen's Land. *Ronald Gunn, Esq.*

This remarkable Moss has been sent to me, by Mr Gunn, with many others, from Van Diemen's Land. It was growing in a creek at a considerable elevation on Ben Nevis, the water trickling over it; in such a locality that it must have been submerged for nine months in the year. Its habit in this respect approximates it to *Scouleria* and *Wardia*, with which it further agrees in the dark-brown colour and rigid texture of the capsule. *J. Hooker.*

Fig. 1, Leaves. / 2. Perichaetial leaf. / 3. Capsule and operculum. / 4. Calyptra. / 5. Capsule and peristome. / 6. Teeth of the peristome:—magnified.



Drummondiana.

N. O. Hepaticae.

TAB. CCXLIX.

RICCIA VELUTINA.

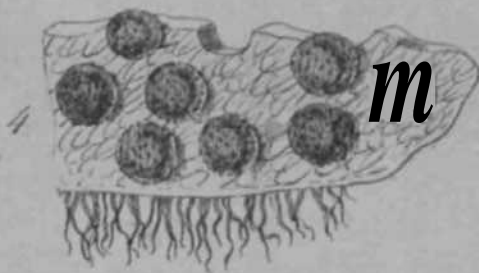
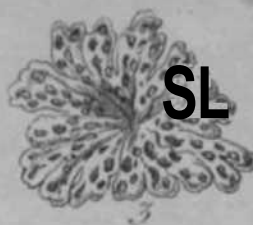
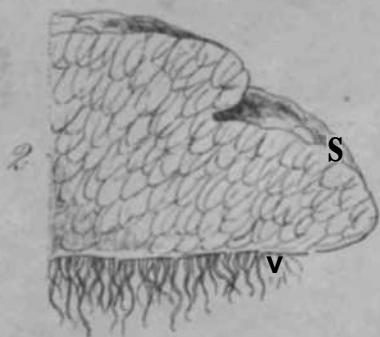
Terrestis subtus copiose radiculosa velutina, fronde orbiculari crassa celluloso-succulenta convexa lobata, lobis imbricatis cuneatis subifidis, laciniis incrassatis obtusis, capsulis copiosis immersis demum superficialibus, sporulis aterrimis.

Riccia velutina. W. Wilson, *mst.*

HAB. On the ground, Texas. *Drummond.*

The appearance of the well-dried specimens of this plant, when the surface is not broken up by the fructifications, is exactly that of a piece of bright yellow-green velvet, occasioned by the numerous raised points of the cellules catching and reflecting the light. Fructified specimens have a very different appearance. In a young state, the capsules, exactly globose, and formed of a thin membrane, filled with dark-coloured sporules, seem to occupy all parts of the internal cellular mass; in age becoming superficial, and then, the sporules escaping, the upper surface exhibits a number of little pits or hollows, and the beautiful velvety hue of the more perfect specimens has entirely vanished. I see no appearance of an apiculus or style, as it has been called, to the capsules; but much allowance must be made for our being able to examine only the dried state of the plant.

Fig. 1. Single barren plant:—*nat. size.* / *2.* Section of a portion of the same. / *3.* Fructifying plant. / *4.* Section of a portion:—*magnified.*



TAB. CCL.

ERIOGONUM MULTIFLORUM.

Monoicum v. polygamum? caule erecto elato ramoso, foliis oblongo-lanceolatis undulatis dentatis supra arachnoideo-subtus albo-lanatis, pedunculo elongato apice 2-3-chotome ramosissimo corymboso, involucris turbinatis5-dentatis demum nudiusculis plurifloris, perianthii laciniis ext. basi biauriculatis, int. minutis.

Eriogonum multiflorum. Benth. in Linn. Trans, v. 17. p. 413.

HAB. Texas. Between Brazosia and San Felipe de Austin, Texas. Drummond (2d Coll. n. 235. 3d Coll. n. 351).

This is perhaps the tallest species of a Genus which has been lately admirably illustrated by Mr Bentham, and to which Messrs Douglas and Drummond have added so many new ones by their researches in the western parts of N. America. I believe they are exclusively confined to that country, no species having been found to the east of the Mississippi River.

Of the present, the foliage is large and crowded in the lower part of the plant, gradually smaller and more distant upwards. The long peduncle is quite naked. The leaves are cobwebby above, but this woolly substance is more dense from certain points, so that at a little distance they look as if spotted with white. Flowers very numerous. Involucre with about 6-9 flowers, woolly within. The outer segments of the perianth are remarkable for their base being extended into two auricles: the inner ones are very small, linear. The inside of each flower is also woolly. Stamens 9: anthers red. Pistil of the male flower abortive: of the female (which has abortive filaments), ovato-acuminate, acutely triquetrous, with three long styles.

Fig. 1. Involucre with flowers. / 2. Female flower. / 3. Male flower. / 4. Young fruit:—*magnified.*



TAB. CCLI.

GOSSYPIANTHUS RIGIDIFLORUS.

GEN. CHAR. *Perianthium* profunde 5-partitum densissime lanuginosum; laciniis lanceolato-acuminatis. *Stamina* 5. *Filamenta* dilatata, omnino libera. *Anthera* terminalis, oblonga, unilocularis. *Germen* ovatum, 1-ovulatum. *Stylus* brevis. *Stigma* bifidum. *Utriculus* stylo stigmate coronatus, monospermus, pependens, ex apice funiculo filiformi.—*Radix* perennis. *Caules herbaei, procumbentes, flexuosi, lanati, precipue apicem versus.* *Folia radicalia, elongata, spathulata; caulina multo minora, subsessilia, opposita, ovata, omnia integerrima, magis minusve sericeo-janata.* *Flores in axillis filiorum caulinarum dense aggregati sessiles, lana copiosissima tecti, basi tribracteati; bracteis late ovatis membranaceis scariosis glaberrimis.*

Gossypianthus rigidiflorus; perianthii laciniis profunde striatis rigidis.

HAB. Texas. *Drummond* (Coll. II. n. 262).

I have in vain endeavoured to refer this plant, and a nearly allied species from the same country, to any of the genera of *Amaranthaceae* which have been established or confirmed by Martius. Its nearest affinity is with *Iresine* and *Rosea*, but there are differences in the flowers, and still more in the habit, which would make me very unwilling to unite them. As in *Oplomechta* of Nuttall, the flowers are most curiously enveloped in, and concealed by, a dense mass of fine wavy silky cotton; afterwards it becomes more lax, but always completely hiding the dense axillary clusters of flowers. The lower leaves, too, are remarkable for being much larger and longer than those of the stem. The same characters now mentioned are equally apparent in the other species to which I have alluded, and which may be thus defined:—

Gossypianthus tenuiflorus; perianthii laciniis tenui-membranaceis striatis.

HAB. Texas. *Drummond* (2d Collection; and 3d Coll. where it has been mixed with n. 262, *G. rigidiflorus*).

In this species the habit is exactly that of *G. rigidiflorus*, nor can I point out any other character, save that of the difference in the perianth.



TAB. CCLII.

CEVALLIA SINUATA. Lay.

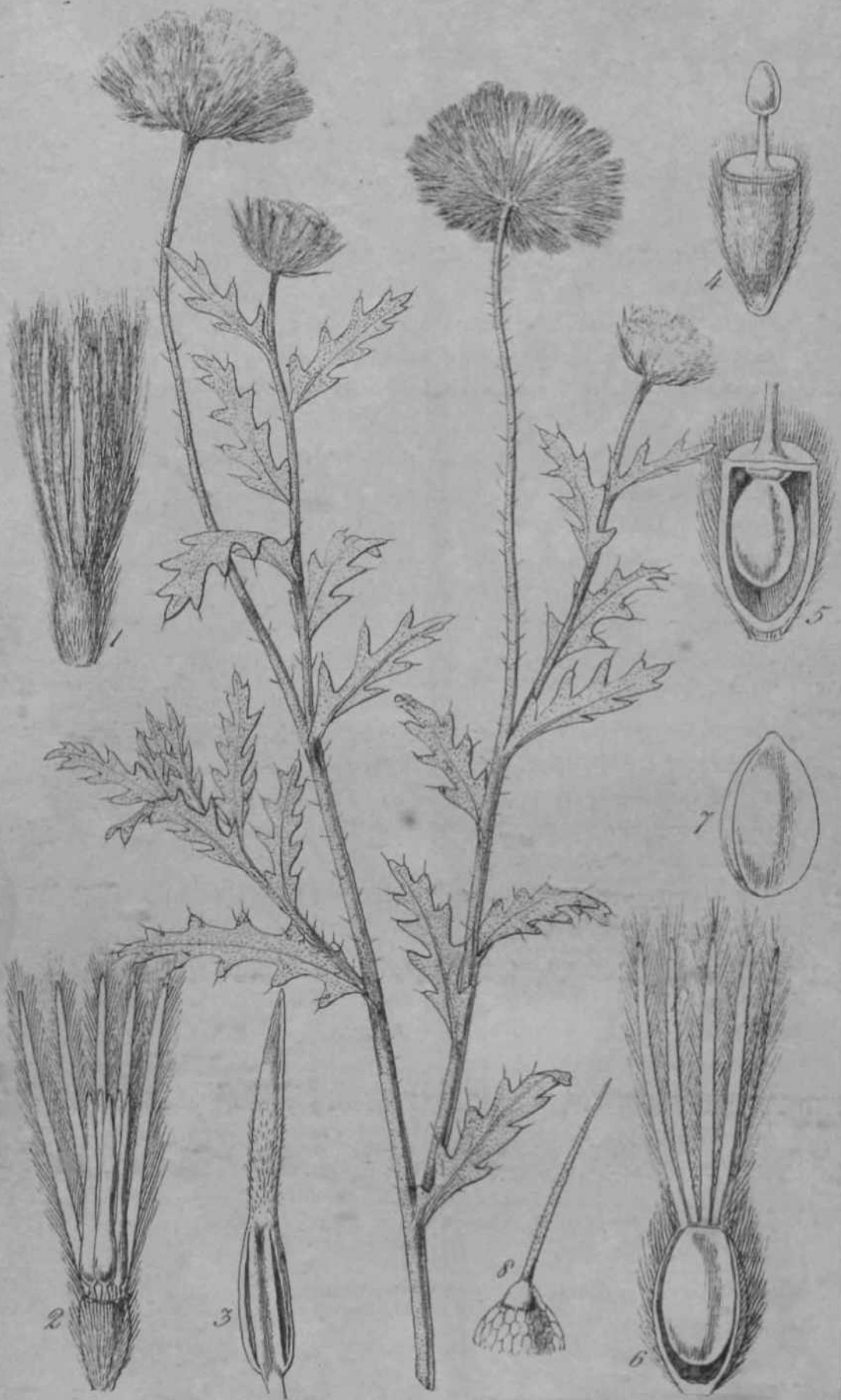
GEN. CHAR. *Calyx* & no adhaerens, tubo obovato, limbo subdecempartito, laciniis elongato-linearibus persistentibus erectis. *Cor*, 0. *Stamina* 5, erecta, ad basin laciniarum inserta: *Filamenta* brevissima, libera. *Antherce* basi affixae, oblongae, biloculares, an tice longitudinal iterdehiscentes, apice in appendicem subulato-lanceolatam, pubescentem, antherasubduplo longiorem, productae. *Ovarium* calyci arete adhaerens, 1-ovulatum, oviilo ex apice loculi pendente: *Stylus* brevis: *Stigma* capitatum. *Jchenium calycishciniis* villosissimis plumosiscoronatum, monospermum. *Semen* pendulum, exalbuminosum. *Embryo* dicotyledoneus¹: *Cotyledones* ovatae, subhemisphaericae. *Radicula* brevis, ad hilum seminis versa.—Herba ramosa, pubescens simulque setosa, setis rigidis glandula impositis (urentibusf). *Caulis* ramique cortice albo tenui membranaceo nitido tecti. *Folia* alterna, exstipulata, sessilia, oblonga, sinuato-pinnatifida, costata. *Flores* dense capitati, sericeo-hirsuti. *Capitula* hemisphaerica, demum fructifera subglobosa, pedunculaia. *Pedunculi* terminates vel laterales, ebracteati.

Cevallia sinuata. Lagasca *Gen. et Sp. PL Nov. p. 11. cum Ic.*

HAB. New Spain. Née (Lagasca). "Bejar a Austin," Texas. *Berlandier, in Herb. Nostr.*

Of this rare and remarkable plant, it may be said that the stems and foliage resemble those of some *Loasa* or *Bartonia* > the inflorescence that of an *Echinops*, while the fructification, as far as I know, is quite peculiar. Lagasca, the only author I believe who has, hitherto, had the opportunity of examining the plant, refers it doubtfully to *Boraginea*, Lindley to *Santalacea* with equal uncertainty, while our friend Dr Arnott considers it rather a *Thymeleous* plant, or "probably *sui Ordinis*," in which he is very likely correct.

Fig. 1. Flower. / 2. The same, with a portion of the calyx removed. / 3. Stamen. / 4. Pistil. / 5. Ovule. / 6. Fruit laid open. / 7. Embryo. / 8. Seta or sting from the leaf :—*magnifui*



TAB. CCLIII.

VISNIA MocANERA. L.

Mocanera Canariensis. *Juss. JJicf. Sc. Nat. v. 31. p. 505.*

HAB. Canary islands; whence *Dr Kirkman Finlay* brought the specimen here figured. It inhabits the Laurel region, according to *Mr Webb*, who notices it among those plants of the Canaries "qui sont des monotypes des genres qui n'ont pas encore des analogues."

Frutex glaberrimus. *Rami* juniores, angulati, fusci. *Folia* alterna, perennantia, subcoriacea, brevi-petiolata, elliptico-lanceolata, obtusa, obsolete serrata, nervosa, nervis indistinctis. *Pedunculi* axillares, bini, breves, recurvati, uniflori. *Calyx* profunde 5-partitus, basi bibracteatus, segmentis ovalibus, obtusis, subscabris. *Petala* 5, obovata, obtusa, patentia, basi coalita, staminifera. *Stam.* 20, petalis breviora. *Filamenta* nuda, libera; *Antherae* basi affixae, ovatae, longe acuminatae, ad margines longitudinaliter dehiscentes. *Ovarium* ovatum, basi constrictum, obscure 10-angulatum, pilosum, 3-loculare; loculis biovulatis, ovulis pendentibus. *Styli* 3, filiformes, suberecti. *Stigmata* obtusa.

The fruit I have not seen. It has been by some writers supposed to be the **Mocan** of the Guanches, or ancient inhabitants of the Canaries, who made a kind of syrup of it, which was much used with their daily food and in medicine: hence the specific name applied to it by Linnaeus. But Bory de St Vincent seems to think that the fruit of the Carob-tree, or of the *Myrica Faya*, was the famous *Mocan*. We doubt not but that Mr P. B. Webb will discuss the subject with his usual ability, in a forthcoming number of his valuable work on the Canary Isles. The place of the Genus in the natural arrangement has been much questioned; indeed the plant is known, we apprehend, to very few Botanists: but it seems rightly referred to *Ternstroemiaceae*.

.*.

Fig. .1. Flower, *f.* 2. Corolla, *f.* 3. The same laid open. *f.* 4. Stamen. / 5. Pistil, *f.* 6. The ovary cut through vertically. \ 7. The same cut through transversely, *f.* 8. Ovules:—*magnified.*



TAB. CCLIV.

APTEEIA OttOBANCHOIDES,

Aphylla, squamis ovatis hyalinis longissime ciliatis, floribus racemosis nutantibus urceolatis.

Dictyostegm orobanchoides. *Miera 7nst.*—*Gardner, Herb. BJ'az.* n. 842.

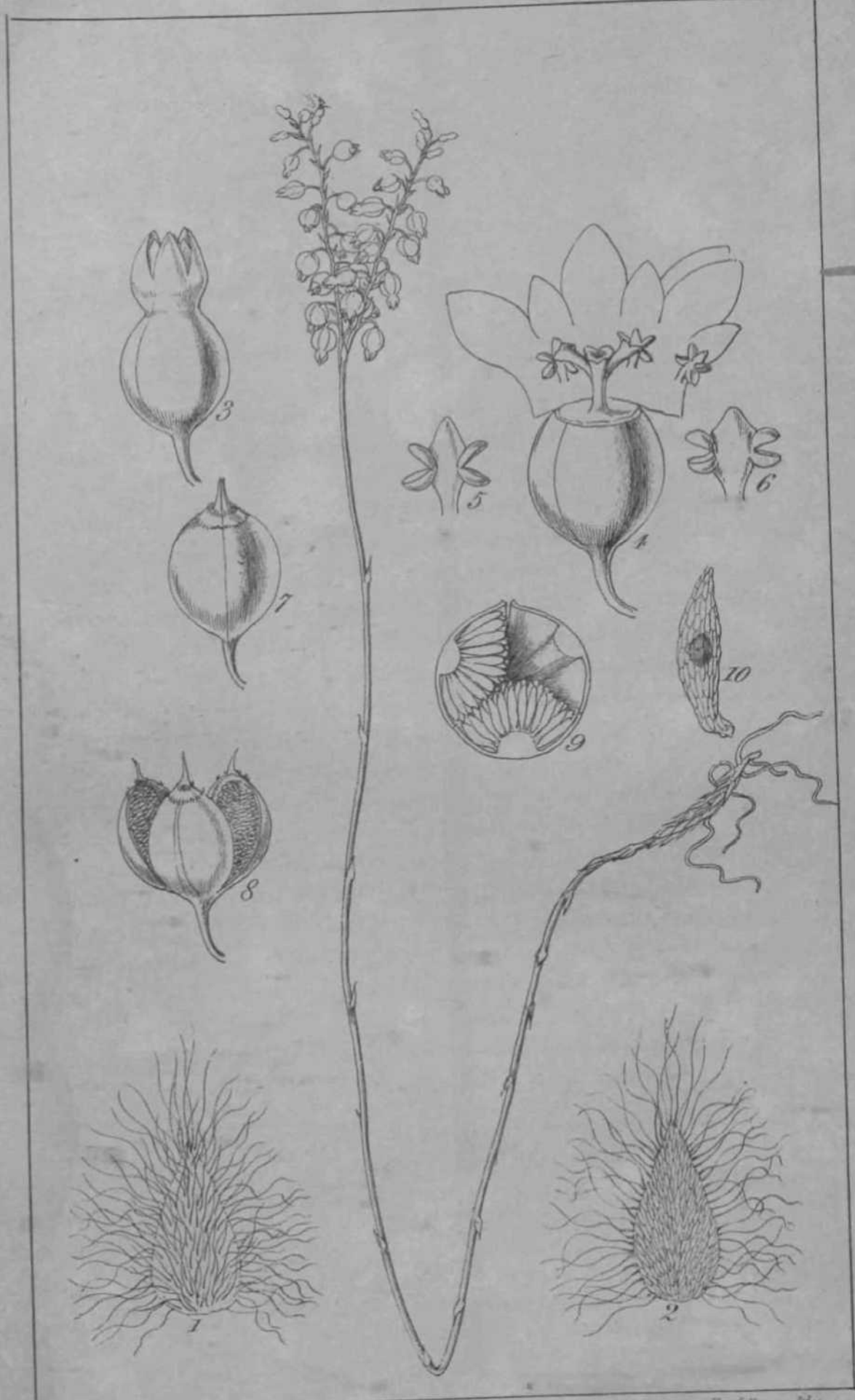
HAB. Shady **woody** ranges of the Corcovado mountains in the vicinity of Hio de Janeiro, on decaying timber, at an elevation of 2000 Ik-t. *Mr Mien.*

*Hadt*x subfusifovrnis, fibrosa. *Caulis* erectus subsimplex, spkha-inceus fere **ad pddalem, tefes**, squamosus, albus j squamis ovatis appressis, membranaceis, **reticulatis**, longissime ciliatis. *Racenuis* terminalis, simplex vel furcatus, pluriflorus, floribus urceolatis, nu tan lib us, bracteatis. *Perianlhium* superum, «-fidum, segmentis ovatis, erectis, **interioribna** (seu petalis) minoribus. *Stamina: Filamenta* brevissima, **crassa**, tubo **inserts** petalisque opposita: *Anther*<£ loculi taterales, bivalves, transversiin dehts-centes. *Ovarium* subglobosum: *Stylus h re vis* : *Stigmata* 3, paten tia, a pice dilatata. *Capsula* **subglobosa**, unilocularis, ^-valvis, stylo mucronata: valvis medio placentiferis, pol} spermis. *Semina* minutissima, arillo fusiformi reticulata obtecta.

I am indebted to John **Miers**, Elsq. for the accompanying 6gure and many accurate details respecting this curious plant, which that gentleman had no **means of knowing to** be identical (as it proves to be) with the Genus *Apteria** of Nuttall in *Journ. Acad. Philad.* ». 7. p. G4. t 9>f. 1. Besides its leafless **habit**, it differs in ilie wingless flowers from *Bumiannia*: but in other respects tbe structure is very similar to that Genus.

Fig. 1, 2. **Scales** of the stem. / S. Flower. ' / 4. The same with the perianth laid open. / 5, 6. Stamens. / 7. Capsule. / 8. The same burst open. /; 9. The same cut tit rough **transversely**. / 10. **Seed**:—*vtaynify*d.

* This, t he *Apteria stlacea* of Mr NuUaU, a uaiive of Florida, may be **Ihus** characterized :—**A**ljbylla, **squatnit** omia imdis, caule simptici **MI runoso**, raini* unifloris, florib if trrectis infthdHmlfciiiiJbus. II.



ryheriaie.

N. O. Scrophulariue.

TAB. CCLV.

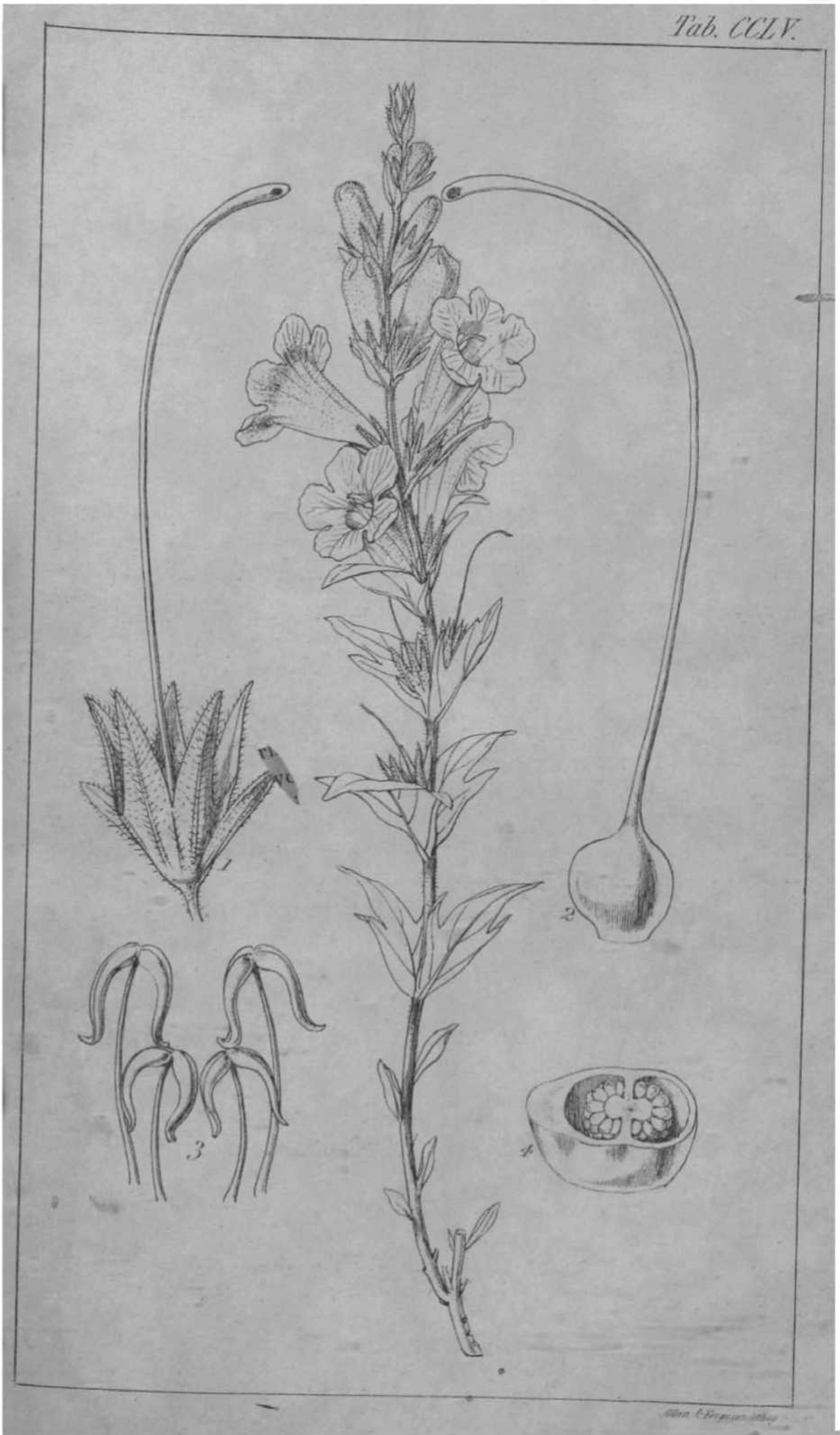
MELASMA ? ZKYLEI.

GEN. CHAR. MELASMA. *Benth.*—*Cat.* laxus, foliaceus, dein inflatus, apice 5-fidus. *Cor.* infundibuliformi-campanulata, limbi lobis brevibus latis. *Stam.* subdidynama, corolla breviora. *Anthercc* oranes fertiles, loculis basi apiculatis.—Herbs *Americana v. Capenses; folds scepius oppositis ; pedunculis axillaribus unifloris bracteatis subracemosis. Benth.*

M? *Zeyheri*; foliis ovatis subtrifido-laciniatis scab, 's, floribus in axillis supremis foliorum bibracteatis, laciniis calv unis lanceolatis, antherae loculis longissimis recurvis, ovario h, nc gibboso. HAB. Uitenhage. S. Africa. *Zeyher.* (*Zeyher, Herb. Uitenh. n. 375.*)

I refer this temporarily to *Melasma* till I can have Mr Bentham's further opinion upon it. From a casual glance that distinguished Botanist considered it to be not a true *Melasma*, and indeed the structure of the anthers and the long narrow augments of the calyx would confirm this opinion :—though in other characters and in general habit it accords sufficiently with *MtJasma scabrum*, Berg, et Benth. (*Gerardia Nigrina* and *Nigrina viscosa*, L.), the only South African species yet known to us.

Fig. 1. Calyx with its bractees, including the pistil. / 2.. Pistil, *f. 3.* Stamens. / 4. Section of the ovary :—*magnified.*



TAB. CC1-VIII.

CARDAMINE INTERMEDIA.

Annua, glabra, caule erecto flexuoso, foliis (praecipue radicalibus) longe petiolatis pinnatis, pinnis 5-7 petiolulatis ovato-cordatis obtusis integerrimis, caulinis superioribus angustioribus, sepalis parvis, petalis late obovatis unguiculatis (albis), pedicellis fructiferis patentibus, siliquis erectis linearibus brevivostratis, seminibus punctatis.

HAB. Western mountains of Van Dieman's Land. *R. Gunn, Esq. (n. 446 ?)*.

A solitary specimen alone of this exists in our collection from Mr Gunn, but that is not referrible to any described species. It is allied on the one hand to our *C. lilacina* (*Hook, in Comp. to Hot. Mag. i\ I. p. 72* in note); and 'on the other to our *C. heterophylla* (*Ir. Plant, r. 1. t. 58.*) but is abundantly distinct from both.

Fig. 1. Flower, *f. 2.* Calyx, stamens, and pistil. / *3.* Pistil.
/ *4.* Siliqua. / *5.* Seed -.—*magnified.*



(innniam/i.

N. O. Crucifenc.

TAB. CCLIX.

ARABIS GIGANTEA.

(ilabra elata ramosissima, foliis lanceolatis acutis serrato-dentatis basi attenuates, petalis obovatis unguiculatis (albis) sepala acuta vix duplo superante, pedicellis fructiferis siliquisque linearibus rostratis patentibus, valvis (sub lente) reticulatis, seminibus punctatis.

HAB. On the Bluff of Circular Head, Van Dieman's Land. *Jt. Gunn, Esq.*

A species possessing little beauty indeed, but remarkable for its large size. "I found it," Mr Gunn observes, "very abundantly in one small spot of rich soil near the sea on the Bluff of Circular Head. It grows there among Ferns, Nettles, the *Sambucus Gaudichaudiana* &c, to the height of 3 feet."

Fig. 1. Flower. / 2. Sepal. / 3. Petal. / 4. Stamens and pistil. / 5. Stamen. / 6, 7. Siliquae. / 8. Seed:—magnified.



Gunniana.

N. O. Ranunculaceae.

TAB. CCLX.

RANUNCULUS PIMPINELLIFOLIUS. *Br.*

Patenti-hirsutus, foliis radicalibus longe petiolatis pinnatis foliolis 5 ovatis cordatisque brevi-petiolulatis incisissimis terminali trifido v. tripartito, caulinis tripartitis v. integris, caule seu scapo pauci folio unifloro floribus inter minores, petalis 5 flavis, calyce membranaceo setoso-piloso, carpellis ovato-rotundatis compressis laevibus glabris stylo uncinato breviusculo terminali.

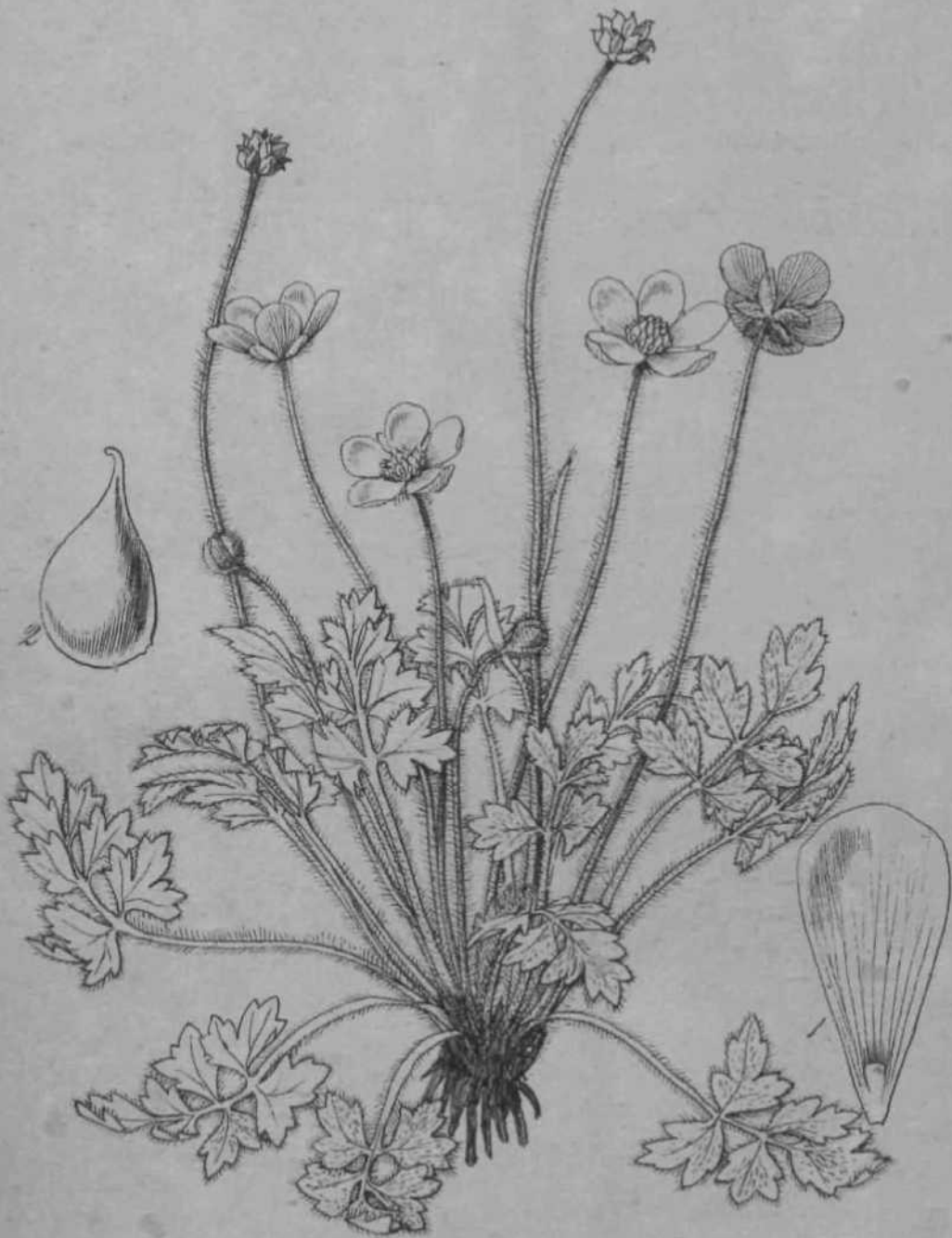
a. laxe pilosus, scapis petiolisque elongatis gracilibus. *R. pimpinellifolius.* *Hook, in Bot. Journ. v. 1. p. 243.*

(3. vestitus; dense pilosus, scapis petiolisque brevioribus. (TAB. 1 NOSTR. CCLX.)

HAB. a. Moist places, with *R. lappaceus*, and *3.* abundant on the edge of a stream called Blackman's river, near Hobart Town, Van Dieman's Land. *Ronald Gunn, Esq.*

I was at first disposed to consider this as distinct from *R. pimpinellifolius*. It is, however, probably the more perfect form of that species; that which I first described, rather appearing as if it had grown crowded and drawn up among other plants.

Fig. 1. Petal. *1.* *2.* Carpel:—*magnified.*



TAB. CCLXI. CCLXII.

LAWRENCIA* SPICATA, Hook.

GEN. CHAR. LAWRENCIA. Hook.—*Calyx* raonopbyllus, .subinila-
tu3, 5-fidus, bractea trifids stipatus. *Petala* 5, lanceolata, basi
coalita. *Stamina* 15-20, filamentis in tul^urn longum coadu-
natis, basi cum petalts iinitis : *Antherm* 1-loculares. *Ovaria* 5,
lato-ovata, acuta, in orbem circa styli basin congesta hrvtcr
coalita, 1-ovulata. *Stylus*], brevis: *Stigmata* 5, filiforinia,
exserta. *Carpetta* nnilocularia, indehiscentia, monosperma.
Semen rentfbrme, suspensum. *Embryo* cur vat us- *Radimla*
cylindracea, ad hilum seminis versa. *Cotyledones* eras see
inieqaalesj duplicatse.—Herba *Au&traliasica glahra*. *Radix*
crassa, annual pli>:icep. *Caul* is *credits, simplex, crassus,*
herbaceus, mcdulfoms, \-ped. ad 3-pc l. et ultra. *Folia* *stiptt-*
late!, *subcarnosa, ovalispathnlata subtrinervia obscure serrated*
T&dica}m longe petiolata ; statmis sesfilibus midtoties w>noribus,
arctissime im;>ricatis nmnerosissimis, Jforferis. *Flores* *pcrrei,*
sexjiies, bradeatL faiiis floriferis tcti, in spicam hngam densam
arclifivime coagesti.

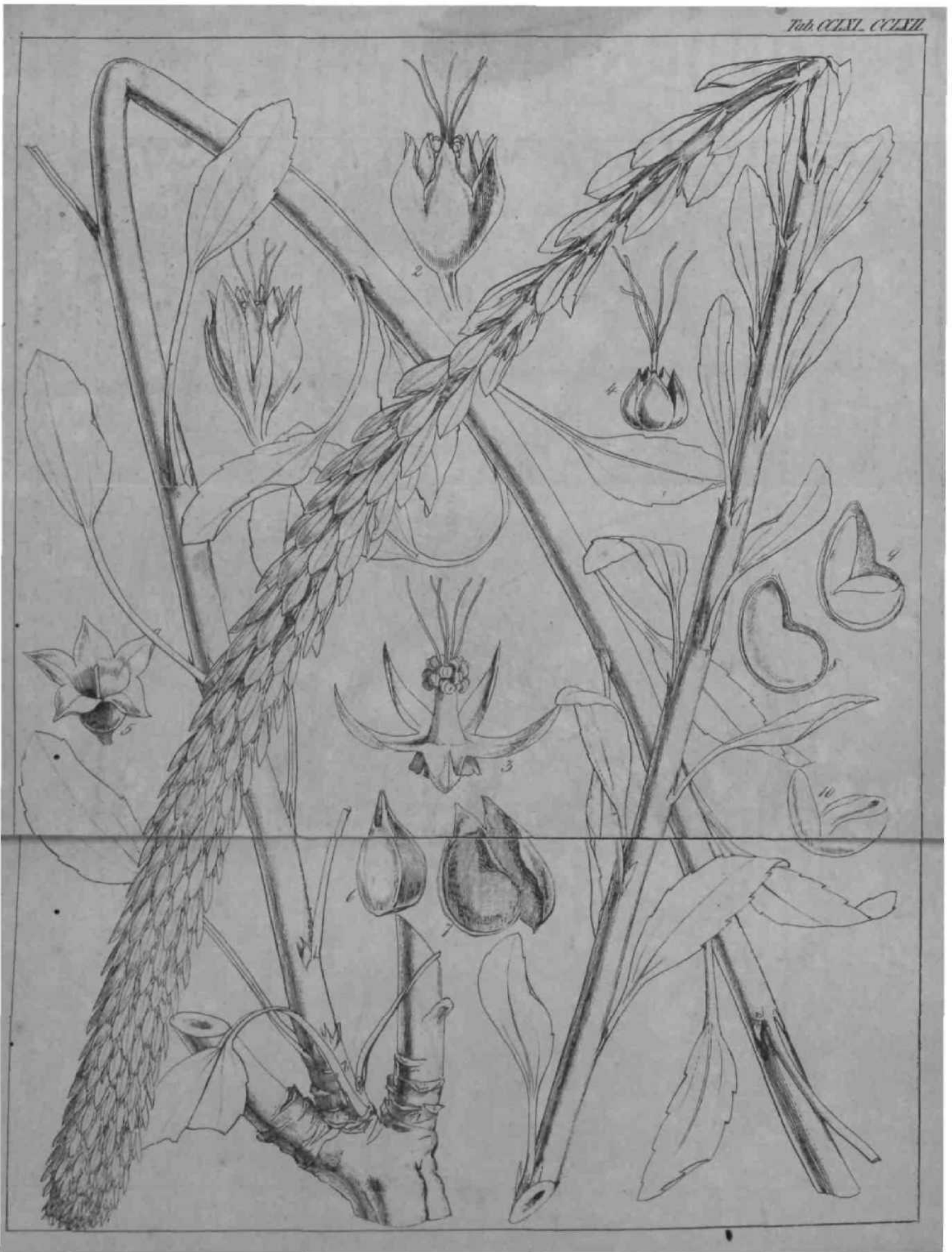
L. *spicata*.

IIAB. Port Arthur, Van Dieman's Land ; and at Port l'airy,
South Australi:t, growing on lite side of a salt-water inlet,
where the ground was marshy. *Ranald Gunn, Esq.*

This is another of the many new and undescribed plants which
I have received from my valued friend and correspondent, Mr
Gunn. I am quite unable to point out any Genus of the Order,
to which it is here referred, with which in habit it has any close
iiffinily. The whole plant is singularly thick and fleshy, shrink-
ing a good deal in drying; and when dried, both the leaves and
flowers become so much distorted that it is difficult to represent
the structure of the latter with entire accuracy. I think, how-
evef, the analysis here given may be depended upon.

Fig. 1. Flower and bftctea. *f. 2.* Flower, *f. 3.* Corolla, with he staminal
co-hiinn and stigwits. *f. 4.* Pistil, in a nearly ripe state. <. *5.* *Calyx*, from
which the five capsules nave fallen away, leaving the persistent basts oi the
style to which they were attached. *f. 6.* IJipe carpel. /. *7.* The same laid open,
to show the seed- /. *8.* Peed laid open, showing the embryo surrounded by
an i:mercoat. *f. 9.* The. «ed laid open, showing the embrjo itself. *J. 10.*
Embryo :—magnified.

* So named after the late T. W. Lawrence. *Esq.*, of Van Dtemau's Laud, a
most enthusiastic Botanist, to whom I am indented for ray 6wt Van Dieman's
Land collections, and from whom Mr Ronald Gunn imbibct! hit ardent thirst
for science.—*Lawrencia* of Lameur. is *Chondria*.



Herveyance.

N. O. ©phioglossese.

TAB. CCLXIII.

OPHIOGLOSSUM BERGIANUM.

Pusillum, scapis nudis (!), frondibus radicalibus linearibus angustissimis subcarnosis, radice fasciculata.

O. Bergianum. *Schlecht. Adumbr. PL p. 10. Kunze, Acot. Afr. Austr. p. 7.*

HAD. At the base of the Lion's Mountain, Cape of Good Hope. *Bergius. Near the same locality. Hon. W, H. Harvey.*

This pretty and very distinct species of *Ophioglossum* was detected by Bergius at the Cape, and described by Schlechtendal: and though not seen (as it appears) by the indefatigable collectors, Drege, and Ecklon^ and Zeyher, it was nevertheless discovered by my lynx-eyed friend, Mr Harvey. Indeed, he suspects it not to be of rare occurrence, though being very small and growing in a scattered manner it is easily overlooked. " Its whole appearance," Mr Harvey observes, " led me, when first I espied it, to fancy I had found a very simplified Aroideous plant."

Fig. 1. Spike of capsules .^—magnified.



TAB. CCLXIV.

TETRACAUP-ffiA TASMANNICA.

GEN. CHAR. *Cal.* 4-sepalus, paryus, persistens. *Petala* 4, subrotunda, unguiculata. *Stam.* 8, hypogyna, 4 pistillis opposita; 4 iis alternatia. *Filamenta* filiformia, eequalia, persistentia; *Antherce* ovales, ad margines longitudinaliter dehiscentes. *Connectivum* conspicuum. *Pistilla* 4. *Ovarium* oblongum, in stipitem brevem attenuatum, apice in stylo crassiusculo brevi acuminatum. *Stigmata* obtusa. *Fructus: Folliculi* 4, subfusiformes. *Semina* numerosa* parva, ad suturas sita.—Frutex *Tasmannicus*, *humilis*, *glaberrimus*; *ramis subangulato-alatis*. *Folia* *alterna*, *exstipulata*, *simplicia*, *sempervirentia*, *obovato-lanceolata*, *nitida*, *coriacea*, *inciso-serrata*, *subtus pattidiora*, *costata*, *oblique nervosa*, *basi in petiolum breviusculum latum attenuata*. *Flores racemosi*, *albi*: *racemi capsuliferi anni prceteriti persistentes*. *Pedicelli bracteati*.

Tetracarpaea Ta&mannica.

HAB. First detected in 1833, near the source of the Meander (or Western) River, Van Dieman's Land. (ft. 293) *Ronald Gunn, Esq.*: afterwards gathered on the Hampshire Hills by *Dr Milligan*, from whose specimens the accompanying figures were made.

This beautiful little shrub is altogether new to me : but much as it differs in certain characters, both of the foliage and fructification, from the Order *Cunoniaeae*, I think it may safely be referred to it. The 4 carpels, which have Suggested the Generic name, are perfectly free even in the earliest state of the ovary. The seeds are numerous and very small: but I regret'that my specimens do not afford any in a fit state for examination.

Fig. 1. Flower, *f.* 2. Stamens and pistils. */.* 3. Anthers. *f.* 4. Carpels with the persistent calyx and filaments, *f.* 5, 6. Separate carpels or follicles. *f_m* 7. A carpel cut transversely :—*magnified*.



Bac MfMtfffM.

N. O. Frankeniaceæ.

TAB. CCLXV.

FRANKENIA CYMBIFOLIA.

Ramosissima, procumbens, foliis distichis cymbiformibus calycibusque sericeis, floribus terminalibus, petalorum laminis oblongis concavis unguibus in tubum longum connatis, antheris exsertis, stigmate bifido.

HAB. Communicated by *Mr Ronald Gunn*; but gathered by *Mr James Backhouse* at Great Swan Port, east coast of Van Dieman's Land. (n. 661.)

The beautifully silky distichous and boat-shaped leaves of this plant will at once distinguish it from every hitherto described species of the Genus. In the pistil the style is distinctly jointed upon the 2-ovuled ovary. The stigmas are capitate.

Fig. 1. Apex of a flowering branch. *f. 2.* Leaf. *f. 3.* Calyx laid open. *f. 4.* The united petals. *f. 5.* Pistil. *f. 6.* Ovary laid open :—*magnified.*



Gunniance.

N. O. Caryophyllea?.

TAB. CCLXVI.

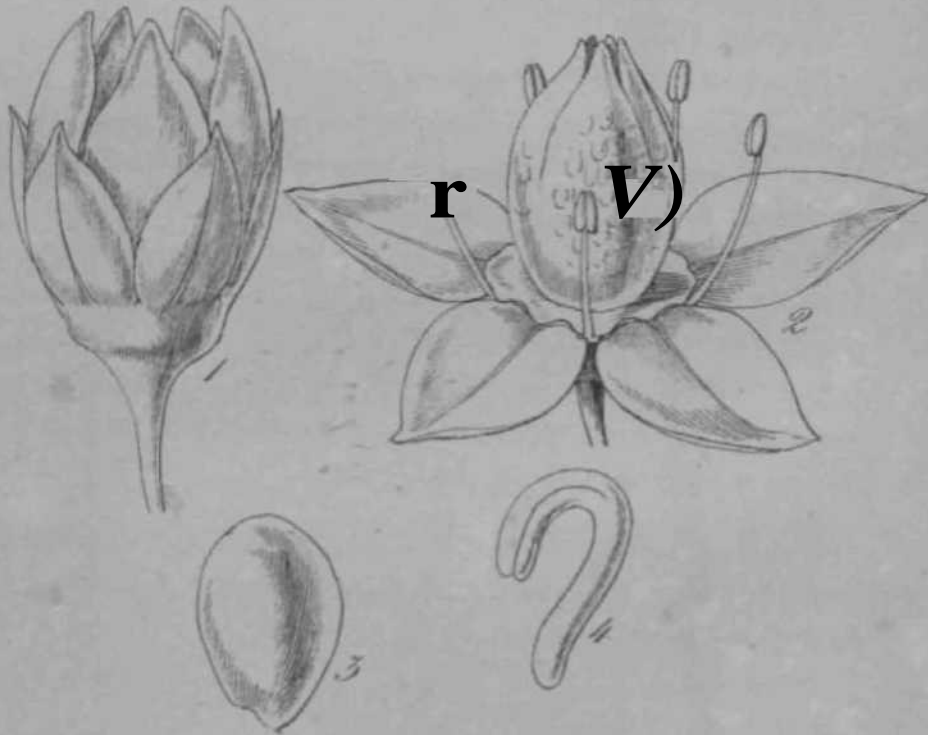
SPERGULA AFFINIS.

Caespitosa, subacaulis, foliis oppositis lineari-elongatis attenuatis costatis flexuosis, pedunculis folio longioribus, floribus apetalis petandris, sepalis ovatis acutis capsulum duplo brevioribus.

HAB. Hampshire Hills, Van Dieman's Land. *Ronald Gunn, Esq. (n. 967.)*

Nearly allied to *S. apetala*, *Labill Nov. Holl v. 1. p. 112. t. 142*; having the same densely-tufted mode of growth, the same elongated somewhat grass-like and closely placed leaves, and apetalous flowers. Here, however, the foliage is more flaccid, with an evident mid-rib, the calyx-leaves are broader, less tapering to a point, and in every instance much shorter than the capsule; which latter is shorter than the calyx in & *apetala*. The hypogynous disk is, in this species, very conspicuous, saucer-shaped, with 10 obtuse lobes, at every alternate one of which a stamen is inserted. Capsule 5-valved.

., *Fig. 1.* Capsule, showing its length relatively with the sepals.
/. 2. Flower, with the sepals spread open. /. 3. Seed. /. 4. Embryo:—*magnified.*



Gunniance.

N. O. Dilleniaceae.

TAB. CCLXVII.

HIBBERTIA VIRGATA.

Glabra v. villosa, ramis elongatis virgatis, foliis lineari-setaceis dense fasciculatis, floribus solitariis sessilibus in apice ramorum perbrevium, sepalis ovatis acutis basi 4-bracteatis, petalis obcordatis, staminibus sub-12, carpellis 3.

a. ramis foliisque glabris. (TAB. NOSTR. CCLXVII.)

β. ramis foliisque patentim pilosis.

HAB. Circular Head, Van Dieman's Land. *Ronald Gunn, Esq.* (n. 465.) *Fl.* Oct. and Nov.

A small, apparently procumbent shrub, allied to *H. prostrata*, Hook, chiefly differing in its elongated stems, which are about a foot long, but with the branches attenuated and virgate, densely clothed with fascicles of leaves, not inaptly resembling those of the larch. Flowers large and handsome, yellow, nestled, as it were, among the leaves.

Fig. 1. Calyx and bracteas. / 2. Flower. / 3. The same fully expanded. / 4. Flower with the petals removed. / 5. Stamen. / 5. Single carpel:—*magnified.*



TAB. CCLXVIII

TETRATHECA CILIATA.

Ramis elongatis subhirtis, foliis alternis oppositis ternisve rhombo-ovatis subciliatis subtus pallidioribus, racemis terminalibus foliosis, pedicel 1 is nutantibus calycibus ovariisque glanduloso-setosis, petalis obovatis basi attenuatis, antheris fusiformibus.

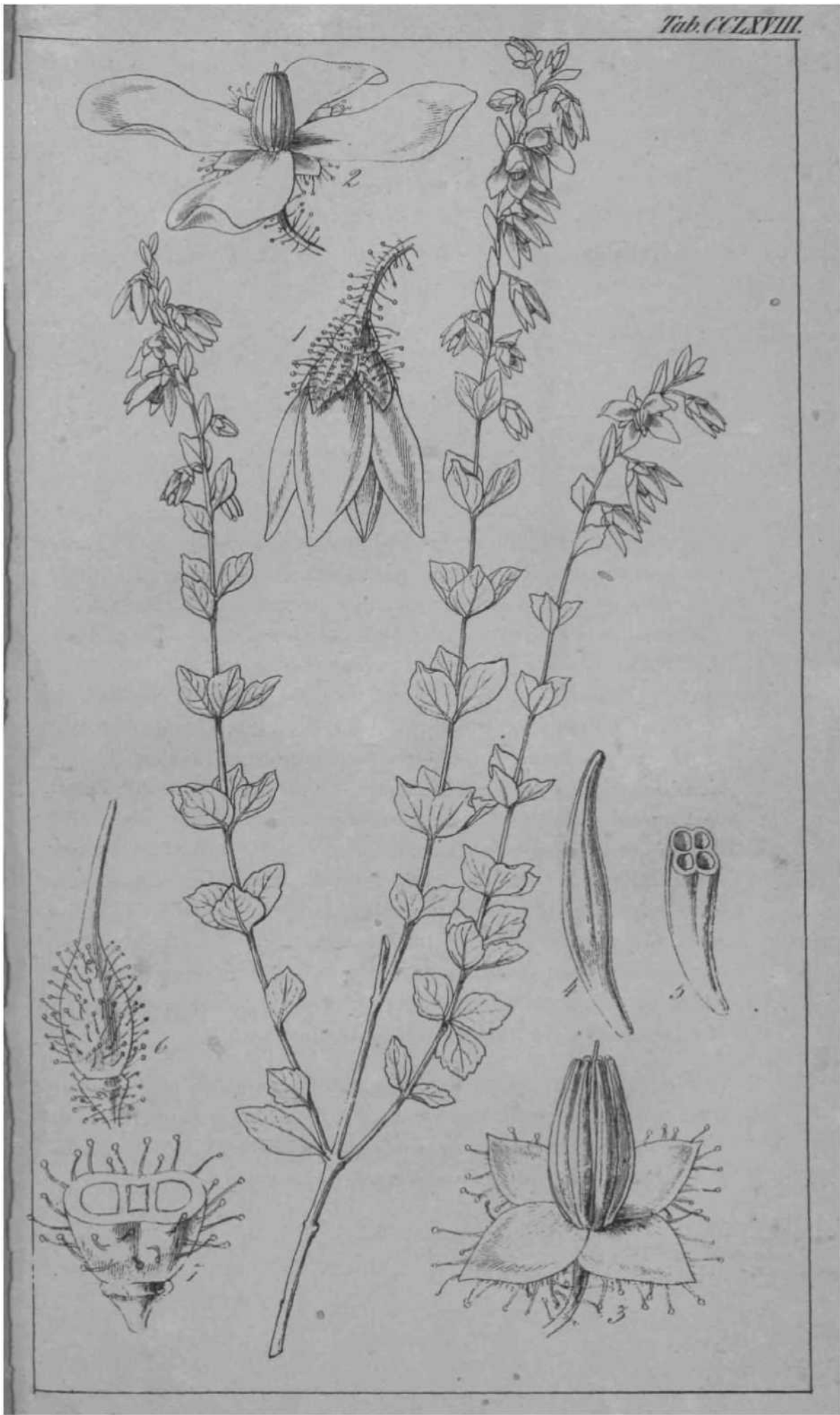
T. ciliata. Lindley in *Mitchell's Austral*, v. 2. p. 206.

HAB. Abundant at West Head, near the mouth of the Tamar.

Ronald Gunn, Esq. (n. 648.)—Australia Felix. Major Mitchell:

Amongst a very considerable collection of species of this beautiful Genus in my herbarium, I find none that will at all correspond with this. There is, however, in Major Mitchell's Travels in S. Australia a species briefly characterized by Professor Lindley; "*T. ciliata*, caulibus erectis tomentosis filiformibus foliis oppositis verticillatisque obovatis ovatisque ciliatis subtus glabris, pedicellis setosis concavis acutis, petalis obovatis;"—but which in many points sufficiently accords with our plant: and which proves, upon an examination of an original specimen, in Mr Bentham's Herbarium, to be identical with it.

Fig. 1. Flower, *f. 2.* The same more expanded. *f. 3.* Flower from which the petals are removed *f. 4.* Single stamen, *f. 5.* The same cut transversely through the anther. *f. 6.* Pistil. *f. 7.* Ovary cut through transversely:—*magnified.*



Gunnianre.

N. O. Stackhousiew.

TAB. CCLXIX.

STACKHOUSIA FLAVA.

Foliis linearibus, racemis spicatis oblongis obtusis, floribus subglomeratis (parvis flavis) deflexis, bracteis brevissimis plurimis pedicellos sequantibus, lobis calycinis obtusis.

HAB. Woolnorth, and on the Harens river near Woolnorth, in a poor sandy soil. Nov. 1836. *Ronald Gunn, Esq.* (w. 793.)

A very distinct species, as justly remarked by Mr Gunn. The flowers are considerably the smallest of the species, clustered upon the *raceme* (rather than a spike), drooping, of a yellow colour, (not white as in the other species), with a cluster of very minute bracteas at the base, scarcely so long as the pedicels. The fruit I have not seen. The stamens are 3 long and 2 short. Style single. Stigmas 2 or 3. (J. H.)

Fig. I. Flowers. /• 2. Flower, with the corolla removed.
/. 3, 4. Pistils:—*magnified.*



TAB. CCLXX.

BORONIA NANA.

Radice fusiformi **multiciple**, caulibus numerosis brevibus gracilibus simplicibus, foliis breviter petiolatis 3-foliolatis, foliis lanceolatis acuminatis punctatis, pedunculis axillaribus longitudine foliorum, floribus octandris, filamentis ciliatis stylo hirsute, corollis 2.

HAB. On the top of Rocky Cape, Van Dieraan's Land. *Ronald Gunn, Esq.* (». 894.)

Radix ligno-*, fusiformis, tortuosa, parce fibrosa, superne multicaps. *Caules* plurimi, simplices, breves, foliosi. *Folia* opposita, breviter petiolata, trifoliolata: ^j/»o&crassiuscula, quasi carnosula, lanocolata, acuminata. *P<duics* solitarii, axillares, unihorizontales, angulati, rubri, foliorum longitudine. *Sepala* 4, persistentia, ovata, acuta, rubicunda. *Petala* 4, persistentia, ovata, obtusa, calycem diiplosuperantia. *Stam.* 8. *Fifamtnfa* erecta, paululum incurvata; *altcmis* brevioribus, omnibus ciliatis persistentibus: *AnthercE* cordatae. *Ovarium* profunde 4-lobum, disco hypogyno parvo insertum. *Stiff us* brevis, **pilosus**. *Carpeila* J, mujuscula, patentia, oblonga, subrecurva, compressa, supra longitudinaliter dehiscentia.

I quite agree **with** the discoverer of this, *Mr Gunn*, in considering it an entirely new species. **The** tallest of the numerous stems never exceed those now figured, and all the specimens possess the characters here given. It is among the smallest, if not the very smallest of its kind. (*J. H.*)

Fig. 1. Portion of the stem with leaves. / 2. Flower. / 3. Stamens and pistil: (the ciliated margin of the stamens, represented in the original drawing, is here by an oversight omitted.) f. *. Pistil, / o. Fruit, surrounded by the persistent floral coverings. f. o. Carpels, separated from the floral coverings:—*magnified.*



TAB. CCLXXI.

GRAYIA POLYOALOIDBS.

GEN.CHAR.—GRAYIA. *HooLetArn* ___ *Fbres dioici*, subracemosi.
 —MASC. *Perianthittm* 5-partitum, laciniis aequalibus inappen-
diculatis. *Stamina* 5, receptaculi inserta, periamhii laciniis
 opposita; *squamttke-hypogymc* nullae.—FEM. *Perianthiufii* mo-
 nophyllum, marginato-alatum, compressissimuni, apice emar-
ginatoni) muticum, intus supra medium utriculatura. *Ovarium*
 in fundo utriculi sessile, anguste oblongum, apice attenuaturn,
 nniloculare, uniovulatura. *Stylus* subulatus, basi articulatus;
Sligmata d uo» fil i form i a, exserta, h i rsu ta. *Fruclus* com pre us,
 orbiculatus, periauthio aucto membranaceo venoso jersistente
 inclusus, styli basi apicutatus. *Semen* verticale, compressum,
 orbiculatum, peri car pio tenui arete adhaerens; *tzsta* mem-
 branacea. *Embryo* hippocrepiformis, periphericus, albumen
 farnaceum cingens. *Radicula* infera.—Fruticulus *erecttts*,
ramosus. *Rami sttbspinescentes, colice albido ticti, jtariores*
puhescetes. *Folia solitaria* r. *JitscicutatOy ohiongO'lanceokUa*,
bisi connata, juniora puberula et carnositta > integerrima. *Hook*
et Am.

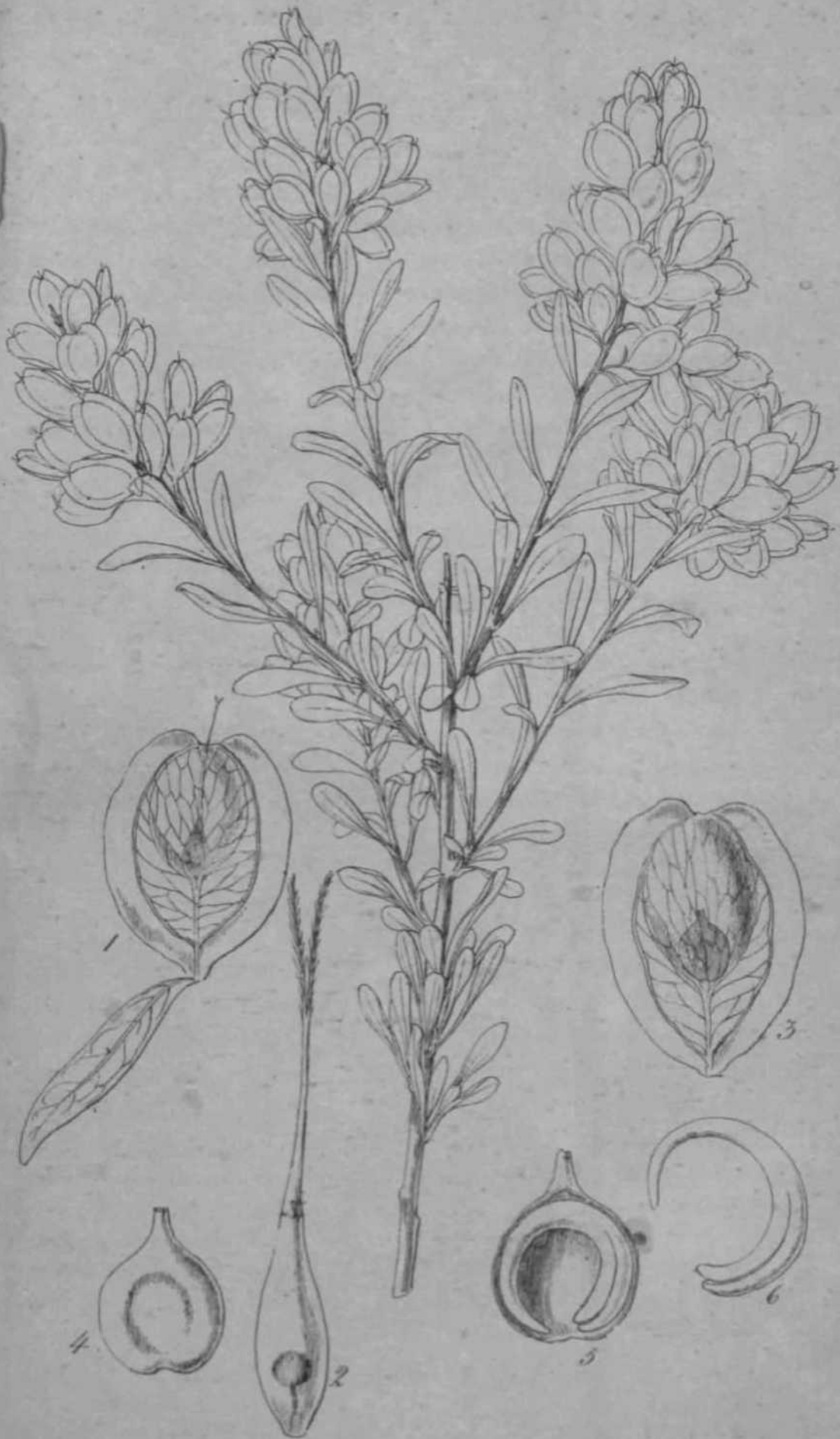
G. **polygaloide***. *Hook, et Am, Bot. of Beech. Voy. 1. p. 338.*

Chenopodium? *spinosum*. *Hook. 77. Bar. Avu 2. p. 127.*

HAB. Interior of California. *Douglas*. Snake Country, near the
 sources of the Rio Colorado, which falls into the Gulf of Cali-
 fornia. *Tohtie*.

We had great pleasure in naming this new and very curious
 Genus, in the Botany of Beechey's Voyage above quoted, in com-
 pliment to a very distinguished American Bot;nist, and our very
 excellent friend, Dr A-a Gray. We regret that the male flowers
 were unknown to us at the time our figure was executed, or I they
 would have been added to the plate. They resemble the mule
 flowers of the *Atripiex*, while the female blossoms exhibit a totally
different appearance.

Fig. 1. Flower an:1 bracten. f. 2. Pistil. / 3. Fructiferous
perlanili. / 4. Fruit. / 5. Tlie same laid open. / 6. Em-
ln;:o :—magnified.



*Douglasianc*B.

N. 0. liliamneae.

TAB. CCLXXII

CEANOTHUS PAFILLOSUS. *T. et'Gr.*

Ramis teretibus hirtis-tomentosis hic illic resinoso-verrucosis, foliis alternis densis oblongis coriaceis penninerviis junioribus stipulatis supra margineque glanduloso-papillosis pubescentibus subtus tomentosis, pedunculis subaggregatis ad apices ramulorum, floribus (caeruleis) capitatis deciduo-bracteatis, ovario lobulis tribus elongatis erectis.

C. papillosus. Ton. et. Gr. FL N. Am. v. 1. p. 268. Hook, et Am. Bot. of Beech. Voy. 1. p. 328.

HAB. Near Monterrey, California. *Douglas.*

A very distinct and well-marked species, abounding in resinous exudations which emit a fragrant smell.

Fig. 1. Flower. / 2. Ovary, with its 3 erect lobes or appendages, and surrounded by its hypogynous disk. / 3. Leaf:—magnified.



TAB. CCLXXIII. CCLXXIV.

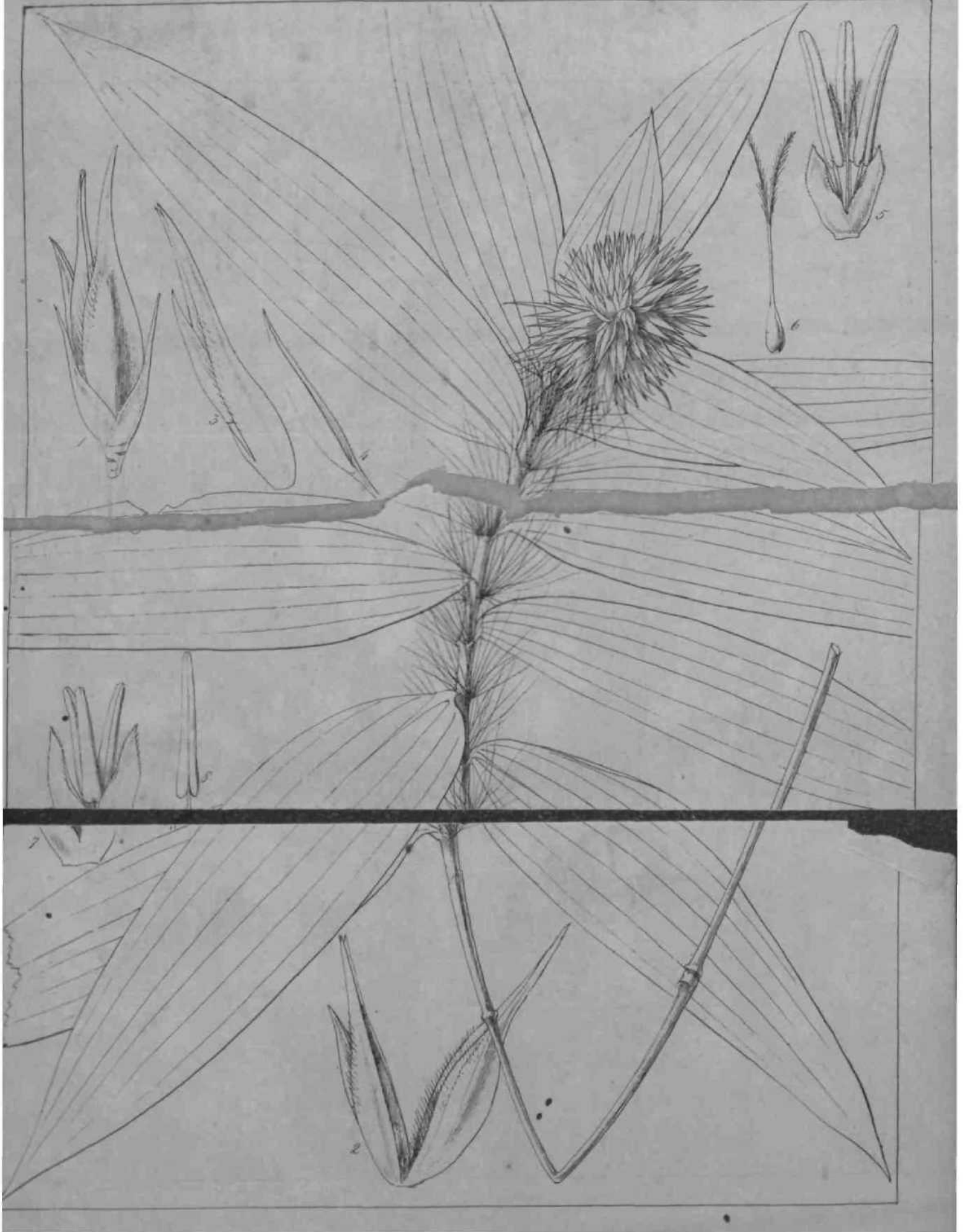
MEIIOSTACHYS ? CAPITATA.

Ramis* verticillatis inferne aphyllis, foliis distichis lato-lanceolatis nervosis, vaginis superne utrinque setis longissimis fasciculatis barbatis, spiculis in capitulum globosum sessile terminate congestis.

HAB. Common in low woods about Rio. *Mr Gardner*, (n. 136.) South Brazil. *Tweedie*. (n. 1324.)

That so large and so remarkable a grass as the present should be found common in low woods about Rio, and also in South Brazil (thus indicating a very extensive range), and not have found a place in any botanical work, especially in the volume of Martius' Brazilian Grasses by Nees von Esenbech, seems scarcely credible. Yet after a considerable search, I am obliged to come to this conclusion, and to describe it as a new species. Even with the regard to the Genus I am doubtful, and have only placed it provisionally in *Merostachys*, which ought to **have** a second spike for its inflorescence. Mr Gardner in his notes says, " This grass attains to a considerable height, climbing among, and supporting itself on, the branches of the shrubs among which it grows. The stem is a slender cane, from the nodi of which whorls of small branches (such as the specimen here figured exhibits) arise." Each spikelet of the capitulum is about 1/4ths of an inch long, rigid. The calycine glumes are 2, ovato-subulate, nearly equal. Valves of the corolla 2, unequal, exterior ovato-lanceolate, acuminate, very concave, hispid at the margin: inner lanceolate, acuminate, obtuse, and bidentate at the point, the back with a deep furrow forming 2 keels which are hispid, and between which lies an abortive pedicellated floret. Of the perfect floret the hypogynous scale is large, bipartite, ciliate. Stamens 3. Pistil (sometimes wanting) small. Style filiform. Stigmas 2, plumose.

Fig. 1. Spikelet. /. 2. Flower expanded. /. 3. Outer corolline valve. /. 4. Abortive floret from the same. /. 5. Scale and stamens and pistil from a perfect floret. / 6. Pistil. / 7. Scale and stamens from a baren floret. *f.* 8. Stamen :—*magnified*.



Drummondiancr.

N. O. Caryophylleac.

TAB. CCLXXV.

LOEFLINGIA TEXANA.

Pentandra, stylis 3, coadunatis monogyna ratnulis subsecundis, foliis subulatis connatis basin versus bisetosis, sepalis supra medium bisetosis, ovario trigono.

HAB. Interior of Texas. *Drummond* (3d Coll. n. 464.)

Neither the description of authors nor the figures of Cavanilles of the two European *Loeflingice* agree correctly with the present," and yet the differences are so slight by which all the three are characterized that it may be doubtful how far they are specifically distinct, and whether the present may not have been introduced by the Spanish settlers from the old World. I have referred the Genus to *Caryophyllecs*^ rather than to *Paronychiecs*, in consequence of the absence of stipules, the only really distinguishing character.

Fig. 1. Portion of the stems with leaves. / . 2. Flower. / . 3. The same laid open. / . 4. Sepal, *f.* 5. Pistil, *f.* 6. Capsule burst open. / . 7. Seeds :—*magnified.*

TAB. CCLXXVI.

STENOPETALUM INCISIFOLIUM. *J. Hook.*

GEN. CHAR.—Sizfttaellipsoidea, valvulis concavo-planis, loculis polyspermis. *Stylus* 0. *Semina* in quoque loculo biserialia minima subovata. *Cotyledones* incumbentes. *DC.*

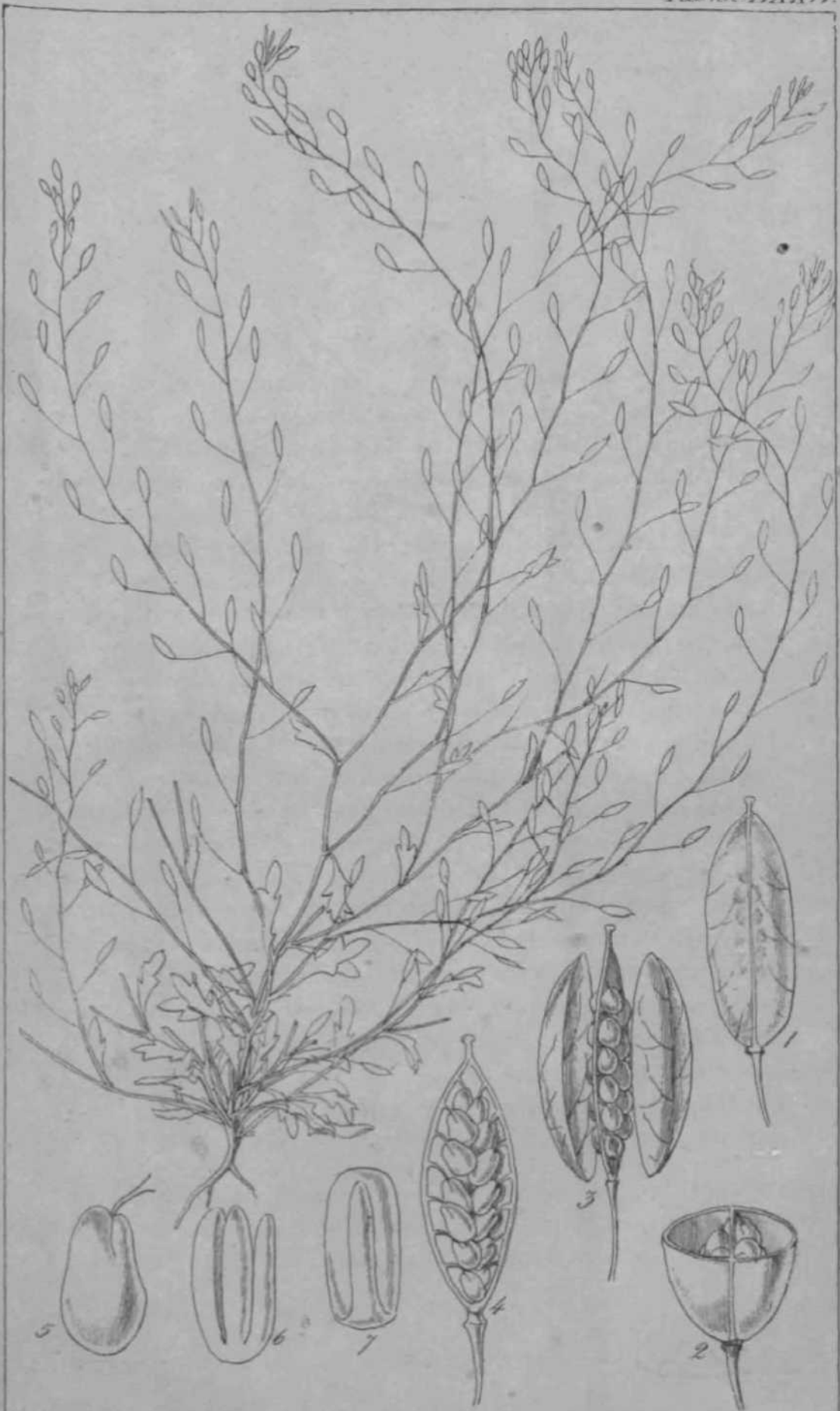
Stenopetalum incisifolium; foliis inciso-pinnatifidis, siliquoe valvis concavis, loculis 12-14 spermis.

HAB. Blackiran's River, on the road to Hobart Town, Van Dieman's Land. *Ronald Gunn, Esq. (n. 644.) Fl. Nov.*

Radix annua, parva ramosa; *Caules* plurimi ex eadem radice, suberecti, valde ramosi, graciles, fructiferi spithamei et ultra. *Folia* oblonga, inciso-pinnatifida, basi attenuata, laciniis 3-5. *Flares* ignoti. *Racemi* fructiferi elongati, digitales et ultra, gracillimi, flexuosi. *Pedice* Uierecto-patentes, semiunciam longi. *Siliqua* (fere silicula), duas lineas longi, vix lineam lata, stylo perbrevis terminata, ellipsoidea, glabra: *Valvulce* concavs, venosa?. *Loculi* polyspermi: *Semina* sub-13 in quoque loculo, biserialia, obovata. *Radicula* dorso incumbens.

The present plant is probably not generically distinct from *Stenopetalum*, though the valves of the siliqua are more concave than is consistent with De Candolle's character, and the seeds in each cell are more numerous, and the stigma is not sessile. These circumstances, however, together with the deeply cut leaves will keep it specifically distinct from *S. lineare* (Br. in De Candolle). I have to regret that Mr Gunn did not find any flowering specimens. *J. Hooker.*

Fig. 1. Siliqua. / *2.* Transverse section of do. / *8.* Siliqua with the valves separating. / *4.* Siliqua with the valves removed. / *5.* Seed. / *6, 7.* Embryo:—*magnified.*



TAB. CCLXXVII.

HYMENOLOBUS DIVARICATUS.

GEN. CHAR.—HYMENOLOBUS. *Nutt.*—*Silicula* ovata seu elliptic;], valvis subtumidis paululutn carinatis apteris, loculis polyspermis. *Stigma* sessile.—Herbae annua, parvce, graciles, glabra; caidibus divaricatis; foliis pinnatifidis v. laciniatis. *Nutt. in Torr. et Gr. Fl. N. Am. v. 1. p. 117.*

H. divaricatus; procumbens ramosus, foliis brevibus pinnatifidis, lobis plurimis oblongis, supremis linearibus saepe integerrimis, silicula elliptico-oblonga obtusa. *Nutt. in Torr. et Gr. I. c.*

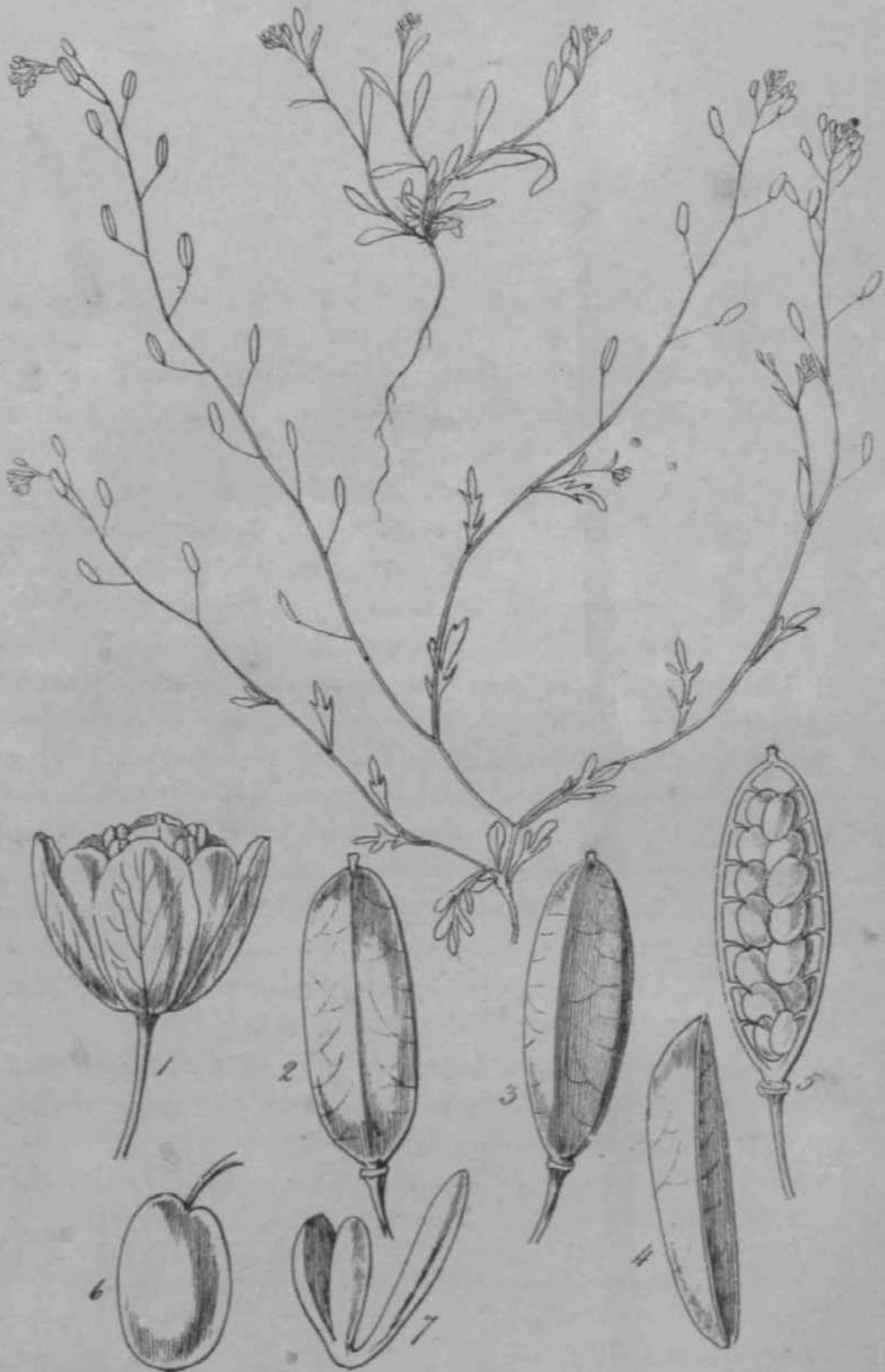
HAB. Shady grassy plains of the Oregon, (Columbia) N. W. America, near the junction of the Wahlamet, *Nuttall*

The specimens here figured are those communicated to me by the kindness of Mr Nuttall. It will be at once seen how very closely this Genus is allied to that of our preceding figure (*Stenopetalum incisifolium*) from Australia. Here the valves of the silicula are keeled, and thence there is an approach to the winged keel of *Capsella*, which has led Messrs Torrey and Gray to make the remark that it is "scarcely different from *Capsella*; with which it is apparently connected through *C. elliptica*, C. A. Meyer, (PI. Caucas. p. 194.) *Hutchinsia procumbens*[^] Desv. *Hymenolobus procumbent*, Nutt. mst."

Mr Nuttall describes a second species from the Oregon which I have not seen, but which, he says, grows with the preceding, and very nearly allied to it. It is

"*H. erectus*; caule erecto ramoso, foliis oblongis subpinnatifidis v. integris, silicula lineari-oblonga.*"

Fig. 1. Flower. / *2, 3.* Silicula. / *4.* Valve of do. / *5.* Dissepiment and seeds. / *6.* Seed. / *7.* Scarcely mature embryo:—*magnified.*



TAB. gCLXXVIII.

MERIMEA (AN BERGIA?) TEXANA.

Prostrata, foliis obovato-spathulatis serratis basi utrinque stipulatis, floribus brevissime pedunculatis solitariis pentandris, seminibus punctato-lineatis.

HAB. Texas. 2d coll. (n. 462.) *Drummond.*

Caules procumbentes, spithamaei fere ad pedalem, ramosissimi, purpureo-fusci, pubescenti-scabri, plerumque oppositi. *Folia* opposita, unciam fere longa, patentia, obovato-spathulata, in petiolum breviter attenuata, serrata, supra glabra, subtus glabriuscula. *Stipules* parvae, ovatae ad basin petioli. *Flores* axillares, brevissime pedunculati; *Sepala* 5, ovata, acuminata, dorso hirsuto-scabra. *Petala* 5, obovata, calyce brevioribus. *Stamina* 5, longitudine ovarii. *Antherae* cordatae. *Ovarium* subglobosum. *Styli* 5, breves, distincti. *Stigmata* capitata. *Capsula* globosa. *Semina* oblongo-reniformia, punctis elevatis lineata.

I have referred this plant to *Merimea* rather than to *Bergia* because it is a plant of the New World, (as is *Merimea*,) although the seeds are marked with dotted lines, which is the character of *Bergia* and not of *Merimea*. The exact dehiscence of the capsule I have not been able to detect: for in that particular and the coating of the seeds lie the only distinctions (according to Cambessedes) between the two genera in question.

Fig. 1. Flower, *f. 2.* Nearly mature ovary
f. 3. Seeds:—*magnified.*



Lippoldiance.

N. O. Saxifrages.

TAB. CCLXXIX.

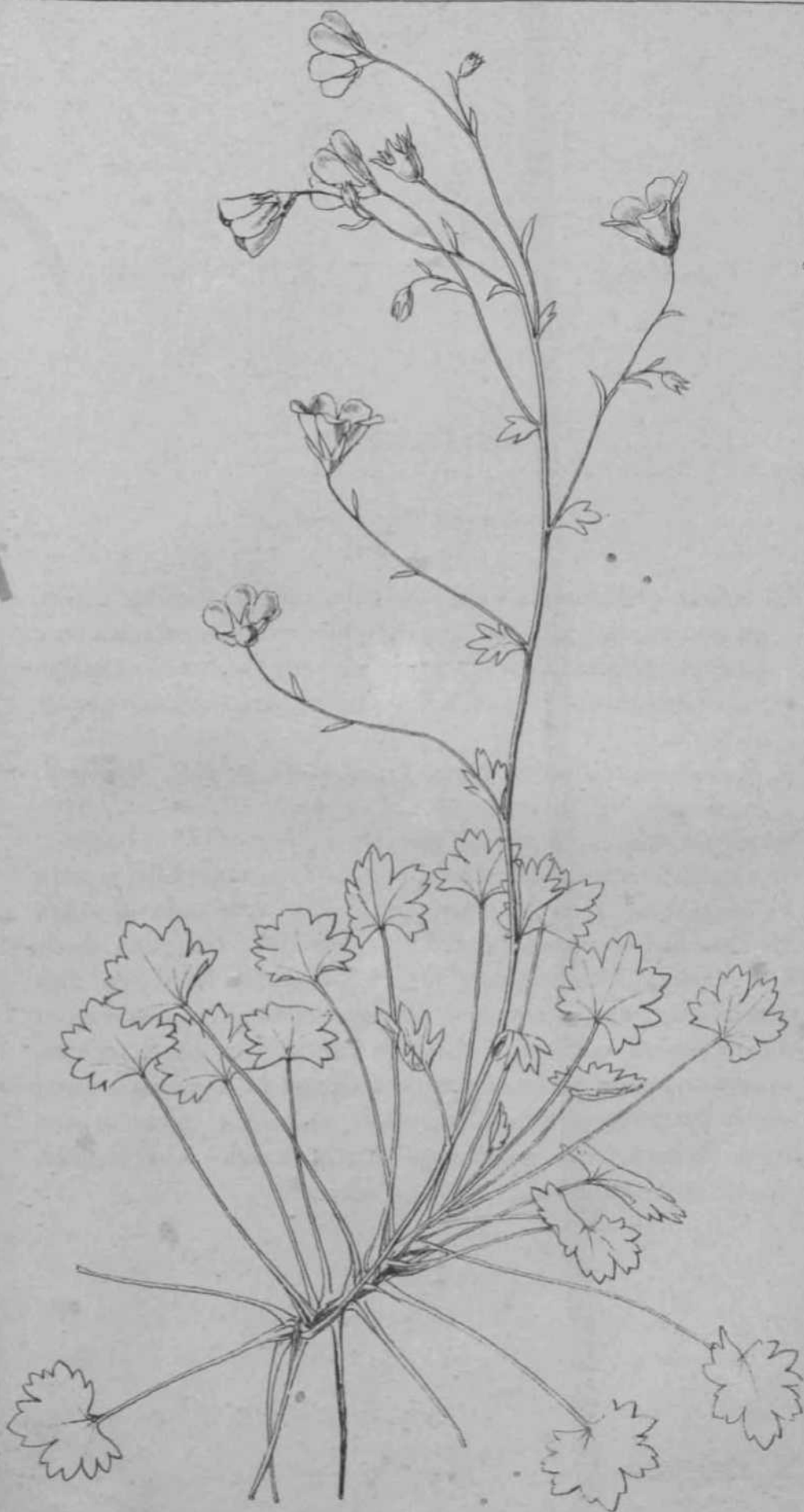
SAXIFRAGA MADERENSIS.

Surculosa glabriuscula, foliis cordatis subquinelobis incisis inferioribus longe petiolatis, supremis cuneatis subsessilibus, paniculis terminalibus bracteatis, pedicellis seu ramis elongatis, ovario infero, calycis laciniis lanceolato-subulatis, petalis obovatis.

S. Maderensis. *Don, in Linn. Trans, v. 15. p. 414. De Cand. Prodr. v. 4, p. 30.*

HAB. Madeira. *Masson. Rev. R. T. Lowe. Dr Lippold.*

A very distinct species of Saxifrage, and known in a living state we apprehend to very few botanists. The specimens to which Mr Don had access were probably in very poor condition, destitute of petals, affording very imperfect materials for the description of calyx and ovary, and the leaves do not seem to accord with those of our plant: for they are said to be cuneiform, whereas ours are constantly cordate, except the uppermost ones, which gradually pass into bracteas. The whole plant is of a rigid character: the petioles peculiarly straight, firm, slender, dilated only at the base. Petals large, white.



TAB. CCLXXX.

CASPOUBEA ELLIPTICA. Poir.

Foliis ellipticis utrinque acutis acuminatisve breve petiolatis
integerrimis, foliis **ictistiacte** pedicellatis petalis subpalmato-
 fimbriatis.

Cassipourea elliptica. Poir. Suppl. 2. p. 131.

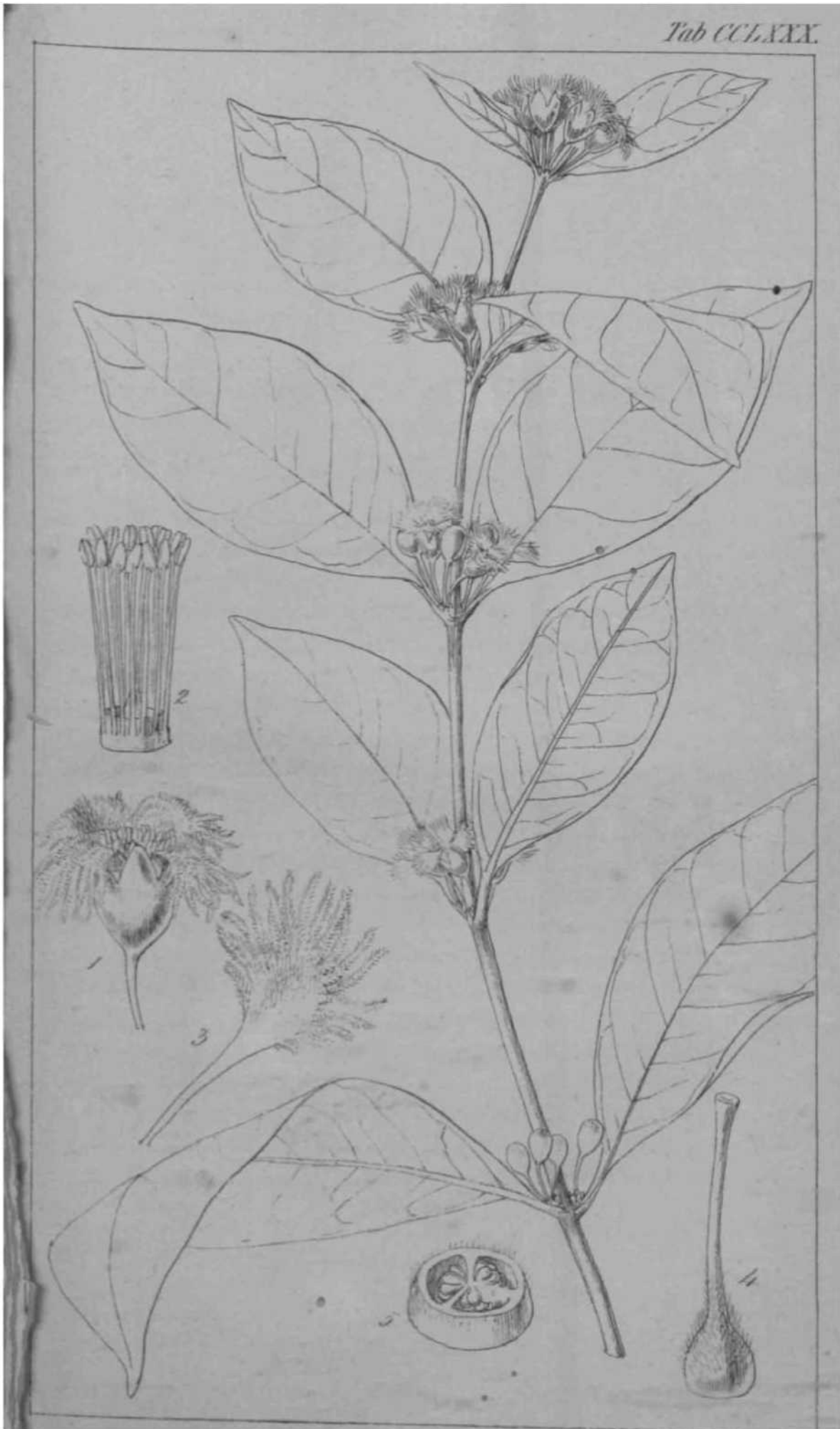
Legnotis elliptica. Swartz, FL Ind. Occ. p. 966. f. 17 [fios,].

HAB. Elevated mountains of Jamaica. Swartz. Interior of
 Dominica. Dr Imray.

Arbor excelsa, 20-30-pedalis, ramis cortice fusco rimoso tectis.
Folia opposita, ex^{tipu}ata, brevi-petiolata, 3-4 uncios longa,
 subcoriacea, glabra, elliptica, basi apiceque acuta v. subacu-
 minata, integerrima, costata, **neivosa**. **Pedunculi** axillares,
 aggregati, petiolo paululum longiores, uniflori, basi minute
 bracteati. **Calyx** brevi-tubulosus, latus, 4-lobus, lobis **obtusis**,
Petalis 4; **obovato-sagittatis**, unguiculata; lamina longe
 fimbriata, laciniis pubescentibus. **Stamina** 15 dorso annuli
 membranacei (imo calycis inserti) obfixa, erecta, libera.
Anthere subrotunda?, biloculares. **Ovarium** subrotundum
 pubescenti-hirsutum, 3-loculare, loculis pluriovulatis. **Stylus**
 elongatus; **Stigma** dilatatum. **Fructus** non vidi.

I am indebted to my intelligent and valuable correspondent,
 Dr Imray, of **Dominica**, for specimens of this rare plant. A
 second species of this genus is in Dr Schomburgk's **Guiana Her-
 barium** (n. 527) which has the leaves twice as large, and in pro-
 portion, longer, decidedly serrated, and the flowers larger and
 sessile. It is perhaps the *C. macrophylla*, De Cand., who de-
 scribed it from Martins' collection, as an inhabitant of Para.

Fig. 1. Flower. 2. Stamens, with the annular membrane
 from which they rise. 3. Petal. 4. Pistil. 5. Section
 of ovary:—magnified.



Douglasiana.

N. O. Leguminosre.

TAB. CCLXXXI.

TRIFOLIUM (INVOLUCRARIA) OBTUSIFLORUM.

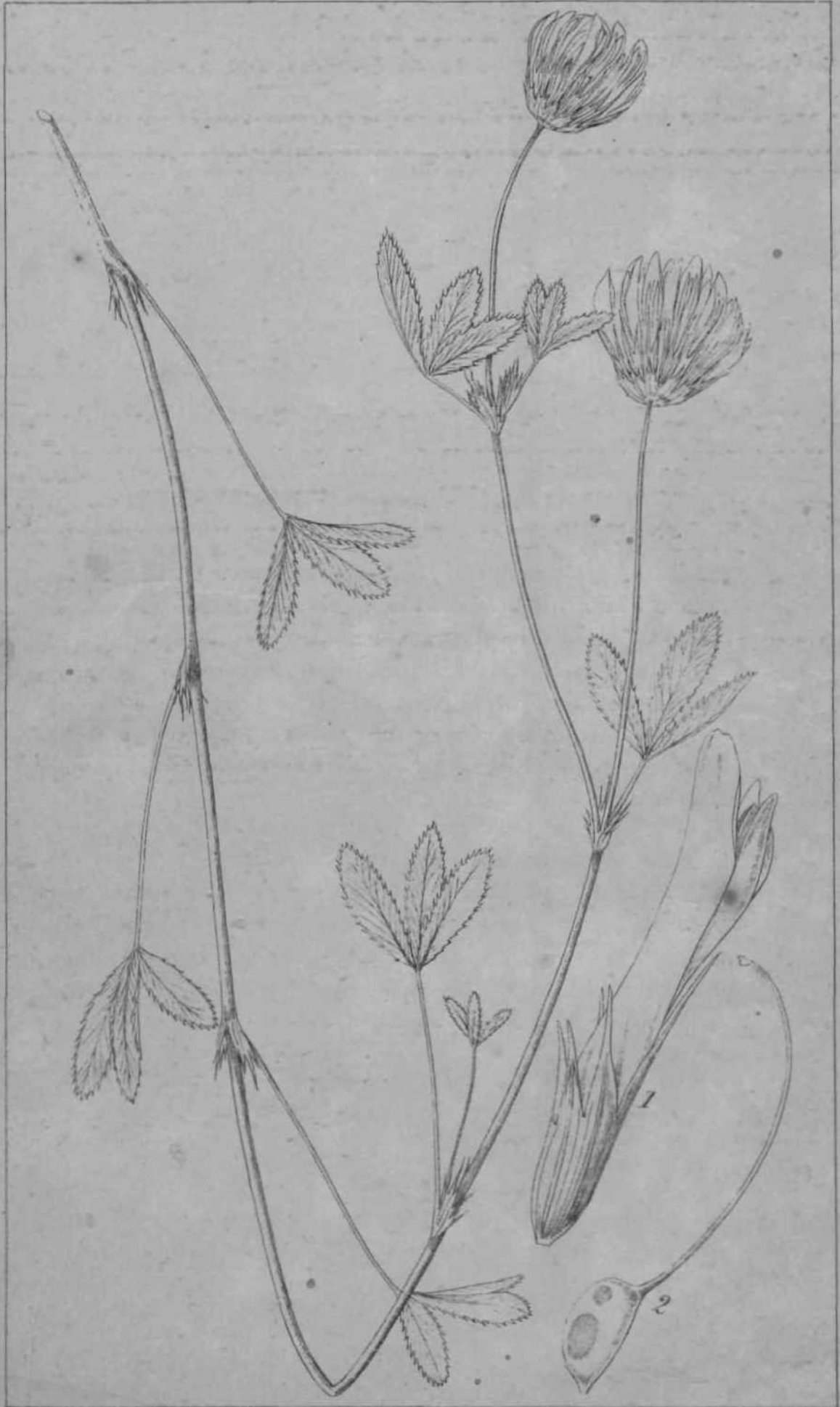
Pubescens, caule elongato, foliolis obovato-lanceolatis, ~~spinuloso-~~
denticulatis, stipulis lanceolatis profunde inciso-spinosis, pe-
dunculis axillaribus folio multo longioribus, involucris plani-
usculis parvis reticulatis inciso-spinosis capitulo laxiusculo
majusculo triplo brevioribus, calycis dentibus subulato-spino-
sis integerrimis longitudine tubi carina obtusa apice subden-
tata multo brevioribus, ovario oblique obovato subdispermo,
stylo longissimò.

T. obtusiflorum. *Hook, et Arn. Bot. of Beech. Voy. v. 1. p. 331.*

HAB. Near Monterrey, California. *Douglas.*

§. This plant is about a foot high, downy. The flowers large
in proportion to the size of the involucre. Corollas long, pale-
coloured, with a dark spot on the keel, the vexillum very blunt,
and at the apex slightly toothed or jagged. Alae Very narrow,
almost as long as the vexillum.

Fig. 1. Flower. / 2. Pistil'.—magnified.



Menziesiance.

N. O. Leguminosae.

TAB. CCLXXXII

PHACA DENSIFOLIA.

Decumbens subincano-pubescens, caule striato, foliolis 16-18-jugis densis obovato-cuneatis retusis, stipulis connatis ovatis acuminatis membranaceis, pedunculis folio longioribus, racemis ovatis demum reflexis densifloris, bracteis parvis subulatis pedicellos aequantibus, calycis tubo brevi dentibus lato-subulatis brevibus rectis subaequalibus, legumine maximo subbiunciali elliptico acuto inflato

P. densifolia. *Sm. in Rees, Cycl.—De Cand. Prodr. 2. p. 274. Hook, et Am. BoL of Beech. Voy. 1. p. 138 and 334. Torr. et Gr. Fl. of N. Am. 1. p. 344.*

P. canescens. *Nutt. in Torr. et Gr. Lc.*

HAB. California. *Menzies. Beechey. Douglas. Nuttall.*

A species remarkable for its numerous leaves and crowded leaflets, and for the large size of the inflated pods.

Fig. 1. Flower. / 2. Pistil:—magnified.



TAB. CCLXXXIII.

MNIARUM FASCICULATUM. *Br.*

Caule multiplice procumbente ramoso, ramis tenuissime pubescentibus, foliis per totam longitudinem denticulatis. *Br.*

Mniarum fasciculatum. *Br. in De Cand. Prodr. 3. p. 378.*

HAB. Van Dieman's Land. *Brown.* Gathered near Ross and at Circular Head in that country by *Ronald Gunn, Esq.* (*n, 97.*) It forms dense patches on the ground, stones, &c.

A genus very closely allied to *Scleranthus*, and scarcely differing but in the 4 (not 5) divisions of the calyx and 1 stan*en (not 5 or 2 stamens). Of this plant there are two varieties in the collection; that here figured with crowded flowers, and a smaller state with the flowers more scattered. Neither agrees with the original *M. biflorum* of Forst., which however only seems to differ from *M. fasciculatum* in the minute (for it is very minute) denticulation being confined to the base of the foliage. The Order *Scleranthete* is separated by Linck from *Paronyckiece*, in consequence of the absence of petals and stipules. Professor Lindley considers them more nearly related to *Chenopodea*, "from which they chiefly differ in the indurated tube of the calyx, from the orifice of which the stamens proceed, and in the number of the latter often (not in *Mniarum*) exceeding that of the divisions of the calyx."

Fig. 1. Flower. / *2.* The same laid open. / *3.* Pistil:—*magnified.*



TAB. CCLXXXIV.

(A.)

BIECKIA THYMIFOLIA. J. Hook.

Hamis prostratis, foliis remotiusculis ellipticis obtusissimis superne lineatis, floribus ex axillis foliorum superiorum, pedunculis folia subaequantibus, infra medium bibracteatis.

HAB. Van Dieman's Land, abundant among the stones on the banks of the south Esk, where it makes a very lively appearance. *Mr Lawrence. Ronald Gunn, Esq., (n. 86.)* Port Arthur. *Mr Backhouse.*

A.—B. thymifolia. *Fig. 1.* Flower and peduncle. / 2. Flower, the petals being removed. / 3, 4. Stamens. / 5, 6. Leaves:—*magnified.*

(B.)

B. *prostrata*; ramis prostratis, foliis remotiusculis linearibus laevibus, floribus axillaribus versus apicem ramorum, pedunculo foliis brevioribus apice bibracteato.

HAB. Circular Head, plentiful there in a sandy tract of land, extending some miles inland from the Peninsula. *Ronald Gunn, Esq. (n. 816.)*

B.—*Fig. 1.* Flower and peduncle. / 2. Leaf.

(C. D.)

B. *affinis*; ramis prostratis, foliis remotiusculis linearibus linearilanceolatisve acutiusculis, floribus ex axillis foliorum superiorum, pedunculis longitudine foliorum medio vel paullo infra medium bibracteatis.

a. foliis linearibus punctatis.

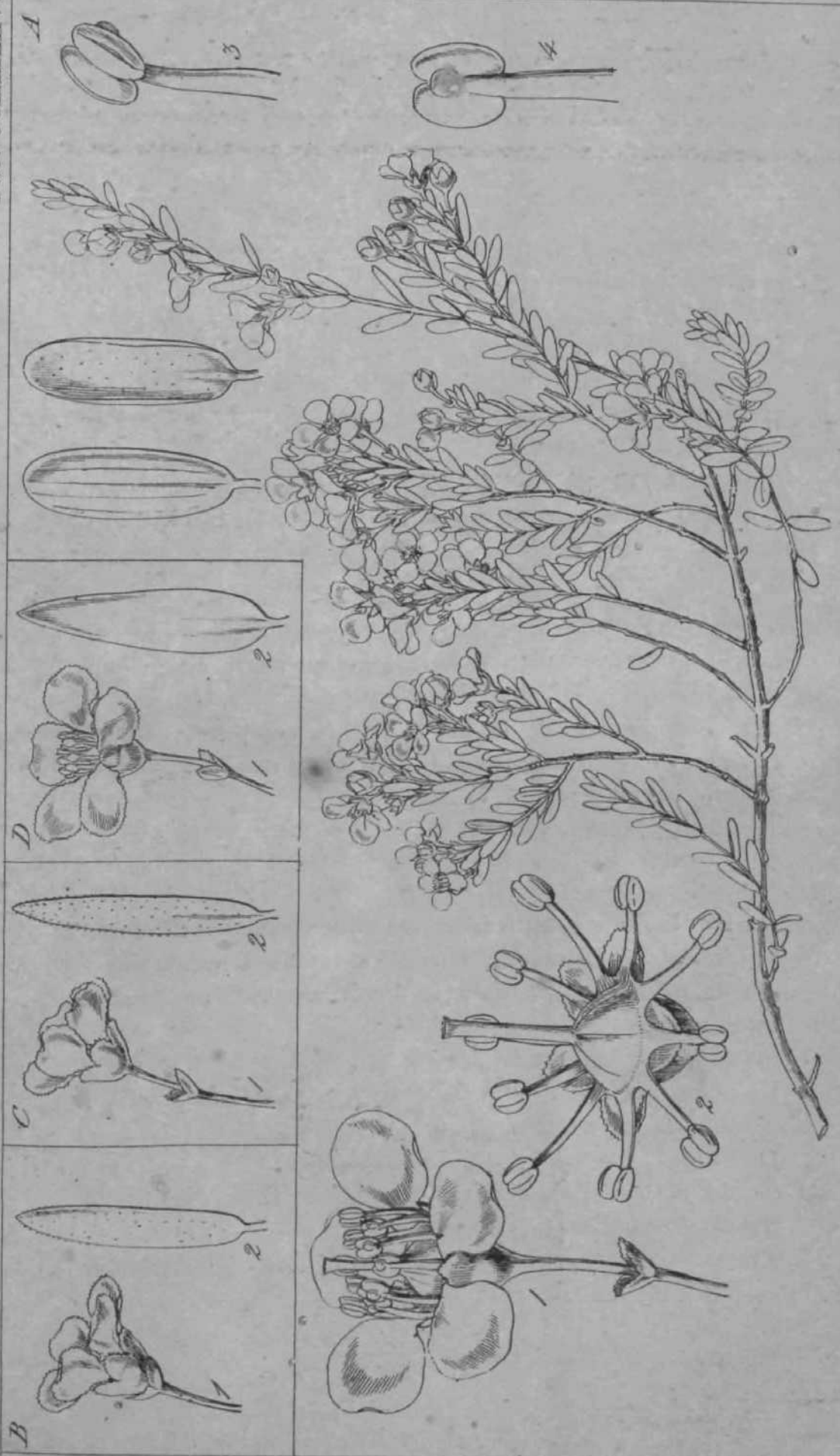
C.—*Fig. 1.* Flower and peduncle. / 2. Leaf:—*magnified.*

(3. foliis lanceolatis acutis vix punctatis.

D.—*Fig. 1.* Flower. / 2. Leaf:—*magnified.*

HAB. Bed of the Elizabeth River at Campbell Town, Nov. 1835. *Ronald Gunn, Esq. (n. 683.)*

The above three species are undoubtedly nearly allied to each other, yet I think distinct. *J. Hooker.*



TAB. CCLXXXV.

TRIFOLIUM MACROCALYX.

Erecta glabra, foliolis obcordatis serratis, stipulis lanceolatis, capitulis subglobosis, calyce amplo ad basin bilabiato reticulato, labio inferiore minimo lineari-subulato, superiore profunde 4-fido subdentato, vexillo vix calycem superante ovato-rotundato sessili apice denticulate, alis bifidis grosse serratis, carina minima inclusa, leguminibus oblongis 7-9-spermis.

HAB. Texas: San Felipe. *Drummond.* Bejar and the Rio Trinidad. *Berlandier.*

One of the most distinctly marked species of this very extensive genus. I am unacquainted with any that at all approaches it in the structure of its flower. The calyx is peculiarly large, deeply and very unequally 2-lipped: the lower lip minute entire, the upper 4-fid, the superior segments shorter and broader, the whole distinctly reticulated, and more or less hairy, as are the pedicels. The petals are as singular in structure as the calyx. The vexillum is sessile, scariose, brown when dry, scarcely longer than the calyx, broadly ovate, the sides deflexed so as to include, almost entirely, the alae, as they do completely the small carina. Alae with the lamina bifid, the lobes acute and serrated. Legume oblong, ciliated above, including several seeds.

Fig. 1. Flower. /. 2. Front view of the calyx. /. 3. Corolla. f. 4. Vexillum. /. 5. Alae. /. 6. Carina. /. 7. Stamens. /. 8. Pistil. /. 9. Legumen :—*magnified.*



TAB. CCLXXXVI.

STILOPUS VERNUS.

Stylopus vernus. Rafinesque.

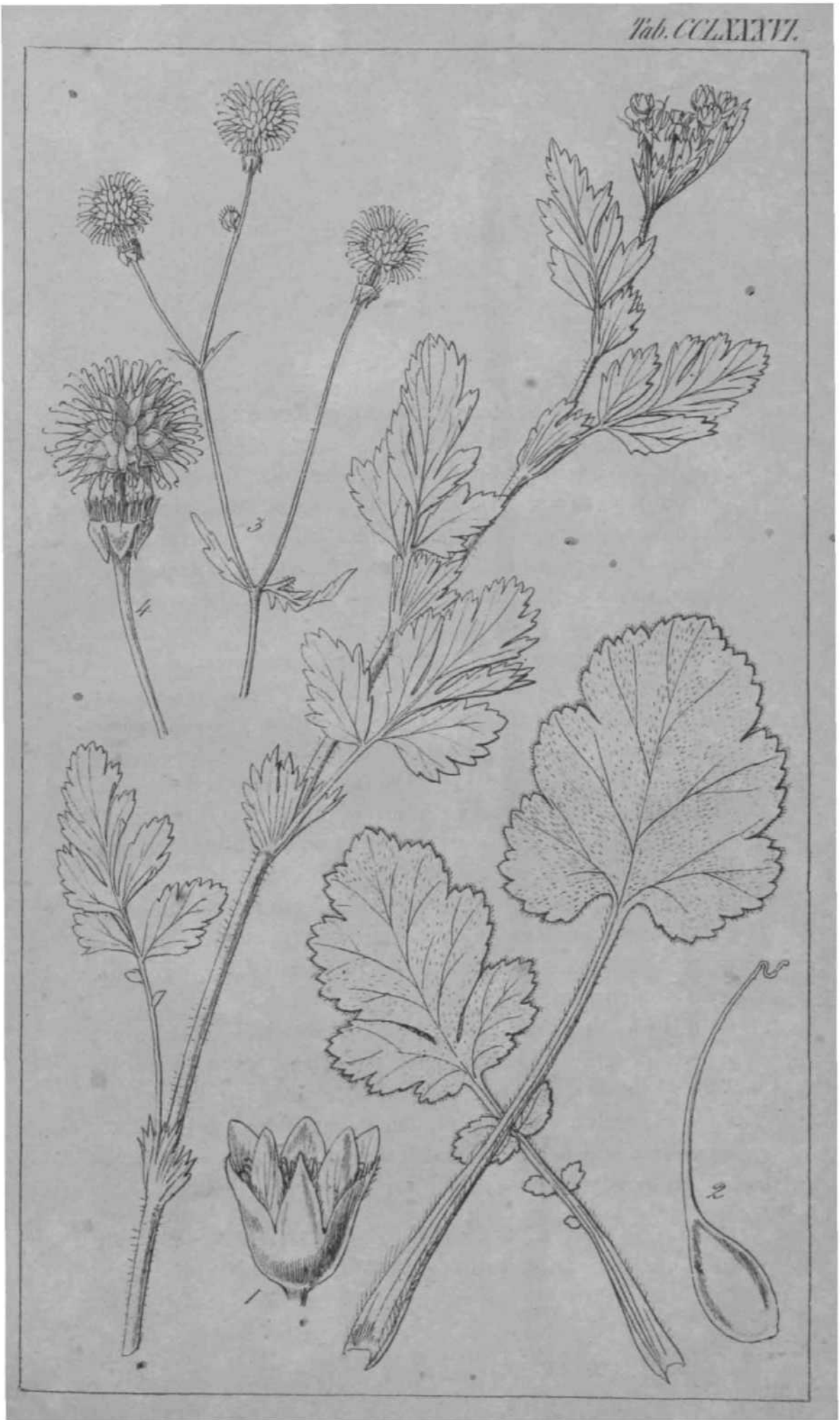
Stylopus vernus. Short. Suppl. Cat PL of Kentucky, p. 599.

HAB. Kentucky. *Dr Short.*

Radix ut videtur perennis, fibris crasiusculis, fuscis. *Caules* plurimi ex eadem radice, erecti, vel adscendentes, pedales ad bipedalem, simplices, superne floribus paniculati, striati, hinc pilosi. *Folia* pilosiuscula, omnia (supremis seu bracteis exceptis) sublonge petiolata: *radicalia* cordata, lobata, obtusa, crenata; *caulina* pinnatisecta, pinnis ovato-cuneatis, incis, inferioribus saepe nanis. *Stipules* magnae, semiovatae profunde inciso-serratae. *Mores* in ramis brevibus terminalibus, demum (post anthesin) paniculam amplam formantes, erecti, parvi. *Calyx* obconicus basi obtusus, ultra medium 5-fidus, laciniis ovatis, demum arete reflexis. *Petala* oblonga, flava ? vix calycem superantia. *Stamina* plurima, ad oram calycis tubi inserta, persistentia. *Pistilla* numerosa, in capitulum globosum brevi-stipitatum intra calycem congesta, glabra. *Ovarium* ovatum, compressum; *Stylus* filiformis demum elongatus, persistens, apice uncinato-geniculatus. *Fructus* maturi *capitulum* longe stipitatum, stipite e calyce longe exserto. *Carpella* ovata, stylo elongato apice geniculato longe aristata.

Of this rare and little known plant, I have had the pleasure to receive beautiful specimens from my valued friend Dr Short; and it will be seen by the figures and accompanying description, how very closely it is allied to the genus *Geum*: perhaps not generically distinct. I am unable to find that it has yet been described by any author.

Fig. 1. Flower. / 2. Carpel. /. 3. Portion of a fruiting panicle, nat. size. / 4. Fruit:—All but /. 3. magnified.



Drummondiancc.

N. 0. Rhamnese.

TAB. CCLXXXVII.

CONDALJA OBOVATA.

Spinosa, foliis alternis obovato-spathulatis integerrimis, floribus axillaribus aggregatis.

HAB. Texas. Cd Coll. (n. 459.) *Drummond*.

Frutex glaber, ramis flexuosis, saepe spinosis, cortice cinereo tectis. *Folia* alterna, vix unciam longa, obovato-spathulata, in petiolum brevem attenuata, integerrima, tenui-marginata, mucronata, sub lente reticulata. *Flores* parvi, virides, axillares, subaggregati, brevissime pedicellati. *Calycis* *tubus* perbrevis, intus disco carnosus annulatus, limbo profunde 4-fido, laciniis ovatis, acutis, patentibus. *Corolla* 0. *Stamina* laciniis calycinis alterna, erecta, ad marginem exteriorem disci inserta. *Filamenta* brevia, erecta. *Antherae* subrotundae, biloculares. *Ovarium* fere orbiculatum, ovatum, glabrum, in stylo brevi attenuatum; *Stigma* parvum, trilobum. *Fruetus* drupaceus, magnitudine *Pisi minoris*, globosus, apiculatus, basi calyce persistente cinctus, monospermus. *Albumen* carnosum. *Embryonis* radícula infera. *Cotyledones* convexae, carnosae.

I am at a loss whether to refer this Texian plant to *Rhamnus* or *Condalia*. It seems to agree best with the latter, yet the segments of the calyx are not deciduous, but persistent, remaining when the fruit is ripe.

Fig. 1, 2. Flowers. / 3. Drupa. / 4. The same cut through transversely. / 5. The embryo —magnified.



TAB. CCLXXXVIII.

AMYGDALUS GLANDULOSA.

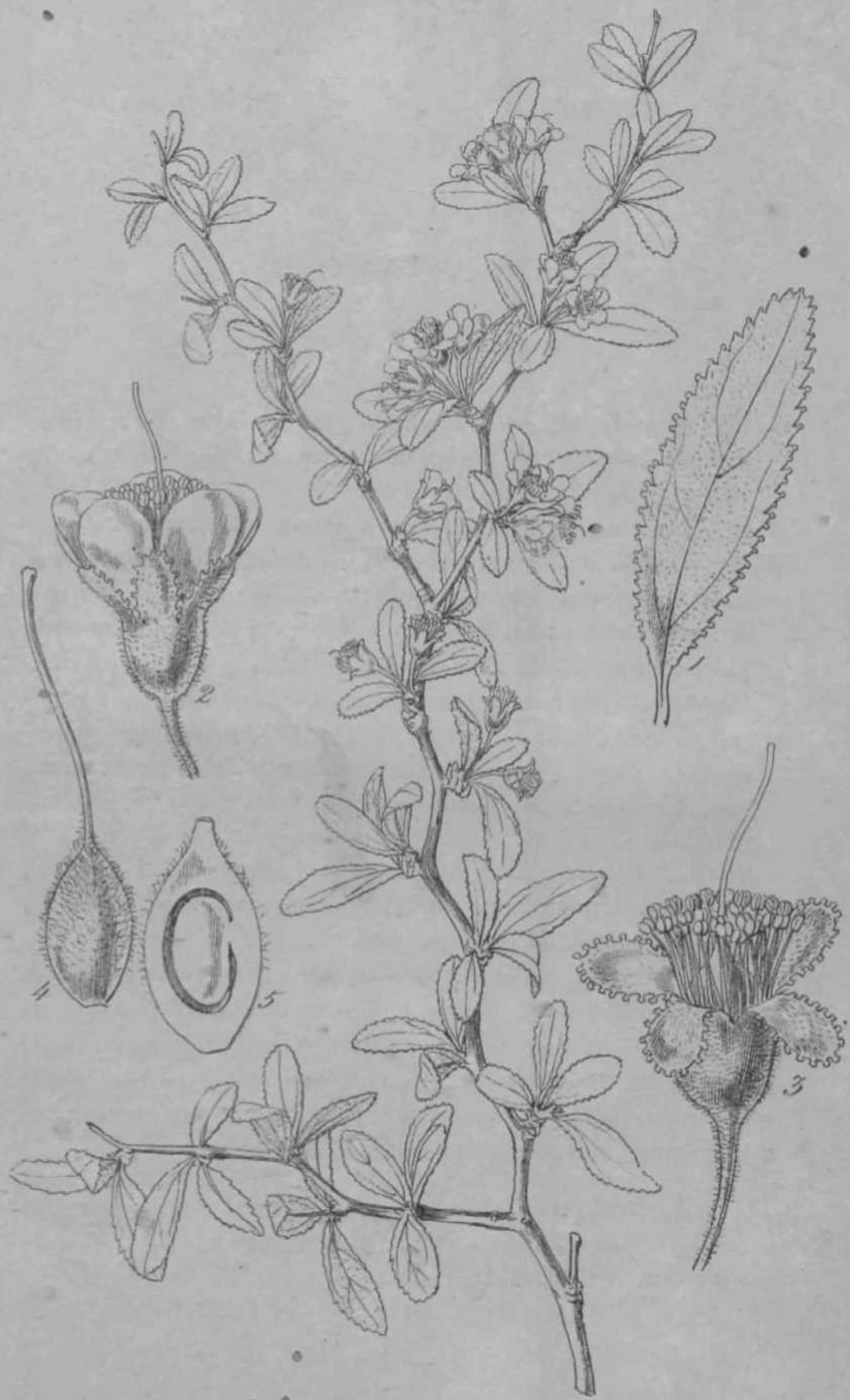
Foliis (parvis) elliptico-lanceolatis calycibusque pubescenti-tomentosis marginibus glanduloso-dentatis, floribus solitariis vel aggregatis brevi-pedunculatis.

HAB. Betweer. Laredo and Bejar, Texas. *Berlandier.*

Rami flexuosi, cortice cinereo obtecti. *Folia* pollicaria, alterna, solitaria vel fasciculata, stipulis brevissimis stipata, oblongo-seu elliptico-lanceolata, obtusa, vix petiolata, supra dense pubescentia, subtus subpannosa, pallidiora, marginibus dentato-serratis, serraturis glandula majuscula terminatis. *Pedunculi* axillares, solitarii vel fasciculati, 1-2-lineas longi, pubescentes. *Calyx* dense pubescens: *tubus* globoso-hemisphaericus; *limbus* 5-fidus; laciniis ovalibus, patentibus, marginibus glanduloso-dentatis. *Petala* 5, obvato-subrotunda. *Stamina* 20*25. *Ovarium* liberum, ovatum, pubescens, 1-loculare, 1-ovulatum, ovulo appenso. *Stylus* longe exsertus, filiformis, flexuosus. *Stigma* parvum, capitatum.

This interesting little *Amygdalus*, will undoubtedly rank next to the *A. microphylla*, Humb. and Kunth, *Gen. et Sp. v. 6. p. 191. t. 564*:—though it differs from it in many particulars: especially in the very downy foliage and calyx, in the glands which terminate every one of the serratures, in the obtuse apex to the leaves, and in the more numerous stamens.

Fig. 1. Leaf. / *2.* Flower. / *3.* Flower from which the petals are removed. / *4.* Pistil. / *5.* Ovary cut open to show the position of the ovule:—*magnified.*



TAB. CCLXXXIX.

MYRIOPHYLLUM VARI^FOLIUM. *J*. Hook.*

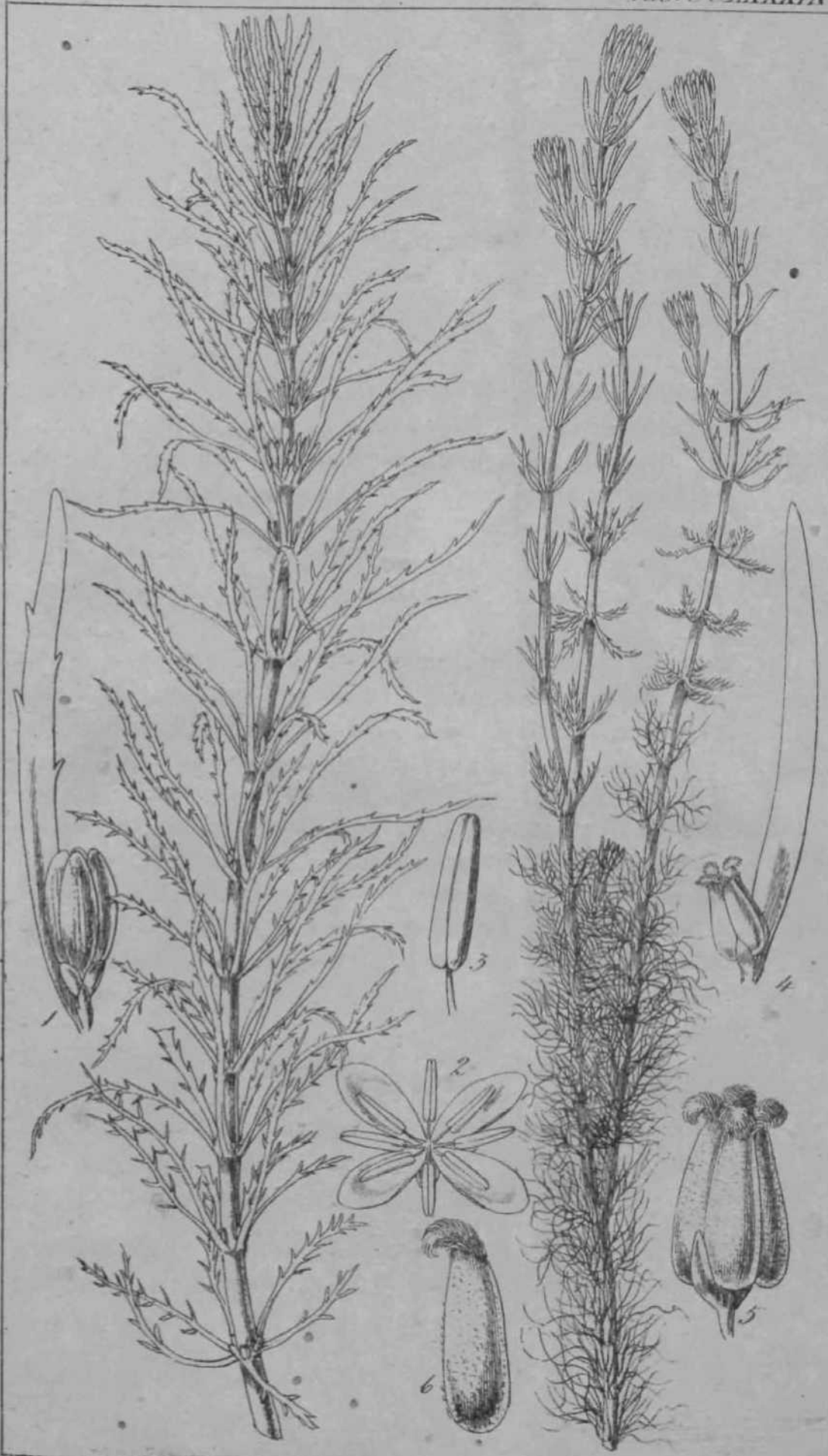
Simplex v. ramosum, foliis verticillatis nunc omnibus lineari-
bus simplicibus dentatopectinatis nunc superioribus lineari-
bus integerrimis intermediis pectinato-inferioribus (submersis)
capillaceo-pinnatifidis, floribus axillaribus, fructibus pubes-
centibus. *J. Hook.*

HAB. Stagnant waters; Lachlan River, N. Holland. *Allan
Cunningham, Esq.* Van Dieman's Land. *Ronald Gunn,
Esq.* (n. 75.)

Caulis erectus, subpedalis, simplex vel dichotome divisus, teres,
ad apicem foliosus. *Folia* verticillata, quaterna vel sena,
nunc omnino linearia denticulata v. etiam pectinato-dentata,
nunc *superiora* linearia, integerrima: *inferiora* pectinata,
infimis (submersis) capillaceo-pinnatifidis, segmentis tenuissi-
mis. *Flares* axillares, solitarii v. subaggregati, brevissime
pedunculati. MASC. superiores. *Cal.* 4-lobus. *Petala* 4,
demum patentia. *Stamina* 8. *Filamenta* brevía. *Antherce*
lineari-oblongae. FCEM. *Pistilla* 4, in unum coalita, calyci
arete adhaerentia, oblonga, basi unibracteata. *Stigmata* crassa,
tomentoso-plumosa. *Carpella* 4, subconcreta, pubescentia,
stigmatibus coronata.

We have long possessed what we consider the same species
as that of Van Dieman's Land from the Lachlan River, gathered
by Mr Allan Cunningham. His specimen is however larger,
and the leaves are all more or less dentated. But it is well
known how variable is the foliage of many aquatic plants.

Fig. 1. Male flower in the axil of a leaf. / 2. Male flower,
fully expanded. / 3. Stamen. / 4. Female flower in the
axil of a leaf. / 5. Fruit. / 6. Single carpel;—*magnified.*



TAB. CCXC.

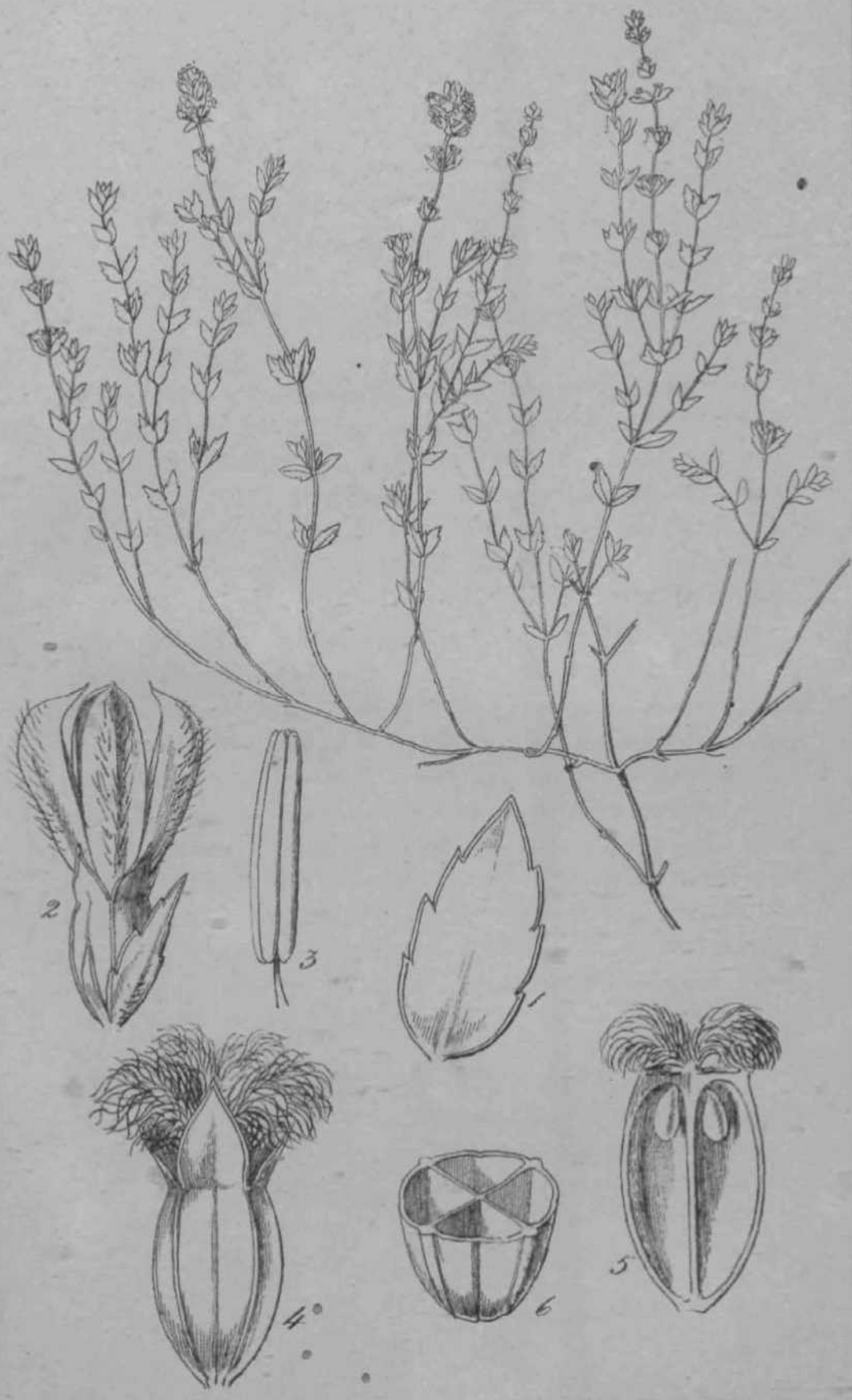
GONIOCARPUS SEKPYLLIFOLIUS. *J. Hook.*

Diffusus minute pubescenti-scaber, foliis oppositis ovatis acutis marginatis integerrimis vel grosse subinciso-serratis, floribus solitariis sessilib'is in axillis foliorum supremorum subspicatis, petalis cymbiformibus acutis extus hirsutis.

HAB. Common on open plains of the western parts of Van Dieman's Land, and on the Hampshire Hills. *Ronald Gmn, Esq. (n. 257.)*

Caules ramosi, diffiisi, graciles, scabriusculi. *Folia* opposita, parva, vix 2 lineas longa, rigida, minute pubescenti-scabra, ovata, sessilia, marginata, enervia, supra convexiuscula, subtus paululum convexa, margine subcartilagineo-pallida, integerrima vel grosse et remote serrata. *Flores* sessiles, solitarii, in axillis foliorum minorum superiorum, et quasi spicati. *Calycis* *lobus* obovatus, tetragonus, 8-striatus, ovario 4-loculari arete adhaerens: *limbus* 4-partitus, laciniis cordatis acutis marginatis. *Petala* 4, ovario longiora, cymbiformia, acutissima, dorso carinato hirsuto. *Stamina* 8. *Filamenta* brevissima. *Antherae* lineari-oblongae, 4-loculares. *Stigmata* 4, sessilia, magna, dense plumosa.

Fig. 1. Leaf. / 2. Flower and floral leaf. *f.* 3. Stamen. / 4. Flower, with the petals and stamens removed. / 5. Ovary laid open vertically, showing two of the cells and the pendent ovules. *f.* 6. Transverse section of the ovary:—*magnified.*



Tafe. CCXCI.

RUBUS GUNNIANUS.

Repens inermis subherbaceus, ramis brevissimis apice foliosis, foliis ternatis (rarius integris simplicibus) foliolis inciso-serratis glabris terminali triplo major?, petiolis dilatatis, flore terminali solitario, pedunculo pubescente foliis brevior, calyce glabro, ovariis subquinque.

HAB. On the Surrey Hills, Van Dieman's Land, abundantly in fruit in February. It also grows as low down as the Hampshire Hills, but the fruit does not there come to perfection. *Ronald Gunn, Esq. (n. 271.) Dr Milligan.*

" This forms large patches in exposed situations, covering spaces 2 feet or more in diameter, generally growing on decayed wood, frequent on the rotten end of a tree, of which the other end is still sound. In general, if there be no traces of wood remaining, yet, on examination, I have generally found the soil consisted principally of decayed wood or bark, mixed with other vegetable matter. The fruit, which is large, and nearly of the size of *Rubus saxatilis*, as figured in the *Flora Londinensis*, (to which indeed it bears a great resemblance,) grows beneath the foliage, usually hidden from the light, and partly, sometimes wholly, buried in the light soil in which it grows. The flavour is excellent, being very similar to that of the *Cranberry*. From its growing where snow covers the ground a considerable part of the winter, and where the climate is at all seasons very cold, I think it would succeed well in your country, and be an agreeable addition to your list of esculent fruits.⁹—*Mr Gunn in Letter.*

So interesting a plant, found in a country which is proverbial for being destitute of esculent fruits, richly deserves the name of its inestimable discoverer, who has so successfully exerted himself in making known the vegetable productions of Van Dieman's Land. The species belongs to the same group with *Rubus arcticus**, *saxatilis*, *Chamaecrista*, &c

?: Calyx laid open:—*magnified.*



TAB. CCXCII.

VACCINUM IMRAYI.

Fruticosum glaberrimum, foliis brevi-petiolatis ovatis utrinque acutis coriaceis subtus reticulatis, corymbis pedunculatis axillaribus terminalibusque, corollis quinquefidis crassissimis, antheris muticis.

IIAB. Mountains of Dominica. *Dr Imray.* (n. 147.)

Frutex elatus, ramis lignosis, junioribus rufescentibus. *Folia* bi-triuncialia et ultra (in unico exemplari 5-uncialia) coriacea, dura, ovata, integerrima, acuta, basi in petiolum brevem attenuata, supra laevia, obscure et oblique penninervia, subtus venis prominentibus reticulata. *Peduncti* folio breviores, axillares vel terminales, apice corymbosi. *Pedicelli* superne dilatati, sub calycem articulati. *Flares* majusculi. *Calycis tubus* subglobosus, limbo brevi, 5-lobo, lobis latis brevi-subapiculatis. *Corolla* longitudine ovarii, subcampanulata, crassissima, limbo 5-lobo, lobis ovatis acutiusculis erectis marginibus involutis. *Stamina* 10, ad basin corollas inserta. *Filamenta* brevia, dilatata. *Anthera* ovata, apice attenuata, mutica?, poris 2 obliquis dehiscentes.

This is one of the most remarkable species of the genus with which I am acquainted, and one of many fine and beautifully preserved plants of Dominica, for the possession of which, I am indebted to my valued correspondent Dr Imray. Of the present plant the firm coriaceous leaves are, in one specimen in my possession, 5 inches long. The pedicels are, each of them, dilated immediately, beneath the ovary or calyx, and there jointed; but the most remarkable feature in the plant is its extremely thick corollas, so thick and so firm, that they are difficult to dissect, even with a very sharp knife.

Fig. 1. Flower. / *2.* Calyx and pistil. / *3.* Portion of the corolla and two of the stamens :—*magnified.*



Gunniana.

N. O. Portulaceae.

TAB. CCXCIII.

CLAYTONIA AUSTRALASICA. *J. Hook.*

Caespitosa, foliis elongato-linearibus subspathulatis, pedunculis 1-bifloris, petalis obovatis calycem quadruplo superantibus.

HAB. Sidmouth and Emu Plains, on the road to Bathurst, New Holland (an aquatic). *Allan Cunningham, Esq., in Herb, nostr.* Wet places, Circular Head, and Hampshire hills, Van Dieman's Land. *Ronald Gunn, Esq. (n. 160.)*

This plant is somewhat succulent and so delicate, that it is difficult to distinguish the exact structure of the flowers and the fruit. There can, I think, be no doubt of its being a true *Claytonia*, very different from any hitherto described, and, as far as I can distinguish, the first species that has been detected in Australia, or even in the southern hemisphere. The plant varies much in size, from 1 to 6 or 8 inches in height, generally growing in rather dense tufts, sometimes more straggling, and then the stems are creeping. Leaves from 2 to 4 or 5 inches long, generally alternate. Flowers large (for the genus), pure white. Capsule globose, mucronate, included in the persistent 2-leaved calyx. Capsule 3-valved. Seeds large, about 3.

Fig. 1. Flower, f. 2. Petal and stamen. / 3. Pistil. / 4. Fruit. / 5 Capsule, burst open. / 6. Seed ---magnified.



Macfadyenace.

N. O. Ilicineae.

TAB. CCXCIV.

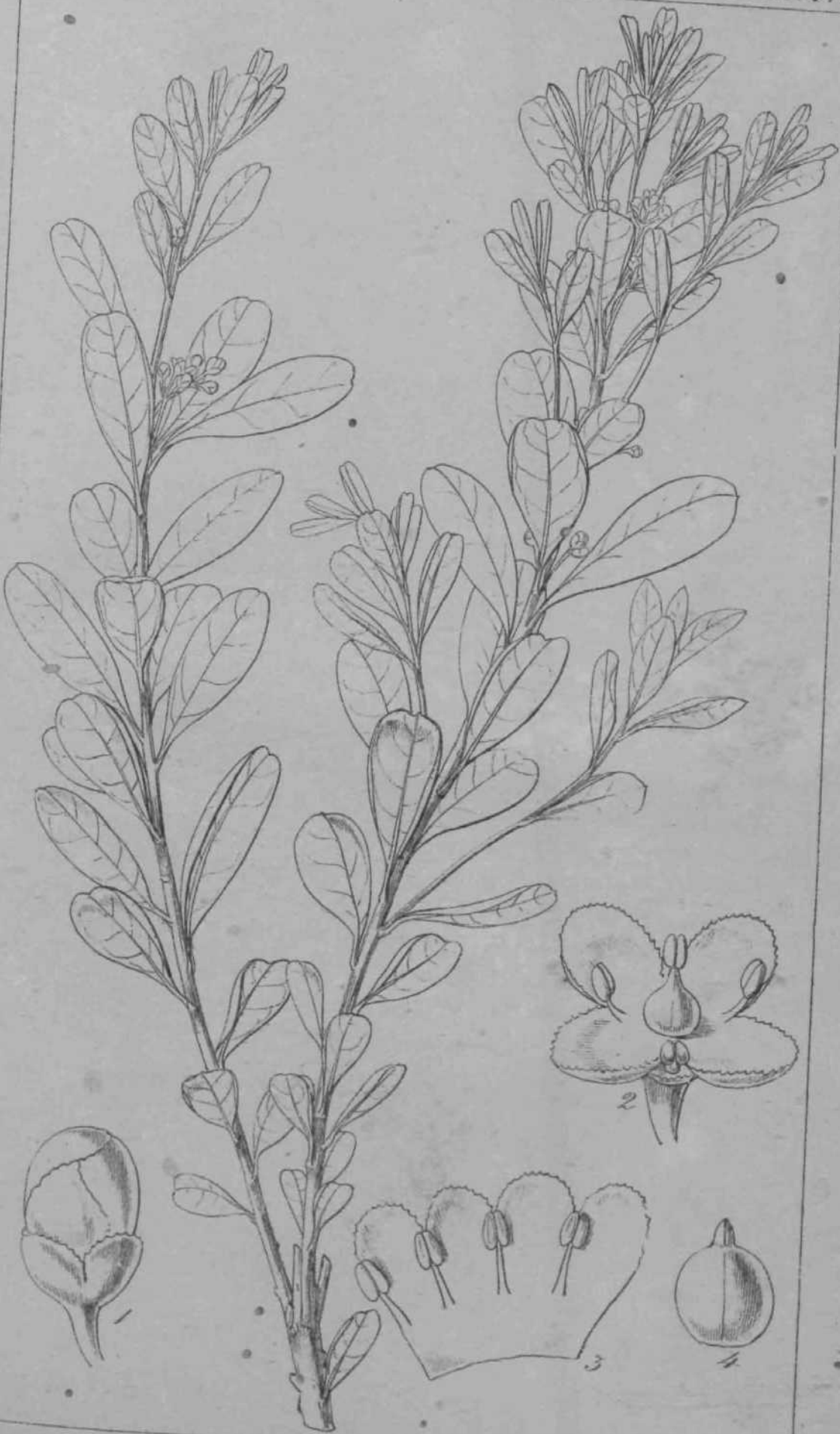
ILEX CUNEIFOLIA.

Tetrandra, ramis angulatis, foliis alterm's brevi-petiolatis ob-
ovato-cuneatis, coriaceis glabris supra nitidis convexis subtus
pallidioribus, pedunculis 1-3 floris, calycibus corollaque crenu-
latis.

HAB. Jamaica. *Dr M'Fadyen. (n. 26.)*

Much as the island of Jamaica has been visited in a commer-
cial point of view, we are satisfied its extensive woods and lofty
mountains are not yet explored as they ought to be, by the
botanist; and we are glad to find that Dr Macfadyen, limited
as his professional engagements allow his excursions to be,
seldom undertakes a botanical journey that is not rewarded by
some new or little known plant. A future number of this work
will exhibit a new and very distinct *Garrya*, which that gentle-
man has discovered in Jamaica. The present plate is devoted
to what we consider a new *Ilex*, although the fruit is at present
unknown to us. It does not accord with any described species.

Fig. 1. Flower-bud. /. 2. Fully expanded flower. *f.* 3.
Corolla laid open. /• 4. Pistil:—*magnified.*



TAB. CCXCV.

TILLJEA VERTICILLARIS.

Caule ascendente basi praecipue ramoso, foliis oppositis lato-lanceolatis costatis venis lateralibus arcuato-deflexis, novellis axillaribus fasciculatis, floribus quadrifidis pedunculatis axillaribus solitariis v. subverticillatim congestis, squamis hypogynis fasciculatis.

Tillsea verticillaris. *De Cand. Prodr** 3, p. 382.

Tillaea pedunculata. *Sieb. PL Exsicc. Nov. Holl n.* 173. (*non Sm.*)

HAB. New Holland. *Sieber.* Van Dieman's Land; abundant on rocks where there is a scanty soil, being, as it were, the first production after the original *Lichens* have constituted a little soil. *Ronald Gunn, Esq.* (w. 91.) 'King George's Sound. *Mr Fraser.*

Caules palmares ad spithamaeam, basi procumbentes ramosi, dein erecti. *Folia* semiunciam fere longa, membranaceo-carnosa, opposita, lato-lanceolata, acuta, integerrima, sessilia, fere connata, costata, nervosa, nervis arcuato-deflexis. *Folia* novella axillaria, fasciculata. *Pedunculi* axillares, vel superiores congesti, saepe subverticillata, nunc foliis breviores nunc longiores, uniflori. *Sepala* 4, late ovata, acuminata, petalorum ovato-lanceolatorum longitudine. *Stamina* 4. *Squama hypogynae* 4, spathulatae germini appressae, staminibus alternantes. *Ovaria* 4, in stylum acuminatum recurvatum attenuata.

This is the largest species of the genus with which I am acquainted. It seems not uncommon in Australia.

Fig. 1. Portion of the stem with leaves and flowers. / *2.* Single flower. / *3.* The same fully expanded :—*magnified.*



Gunniance.

N. O. Portulaceoe*

TAB. CCXCVI.

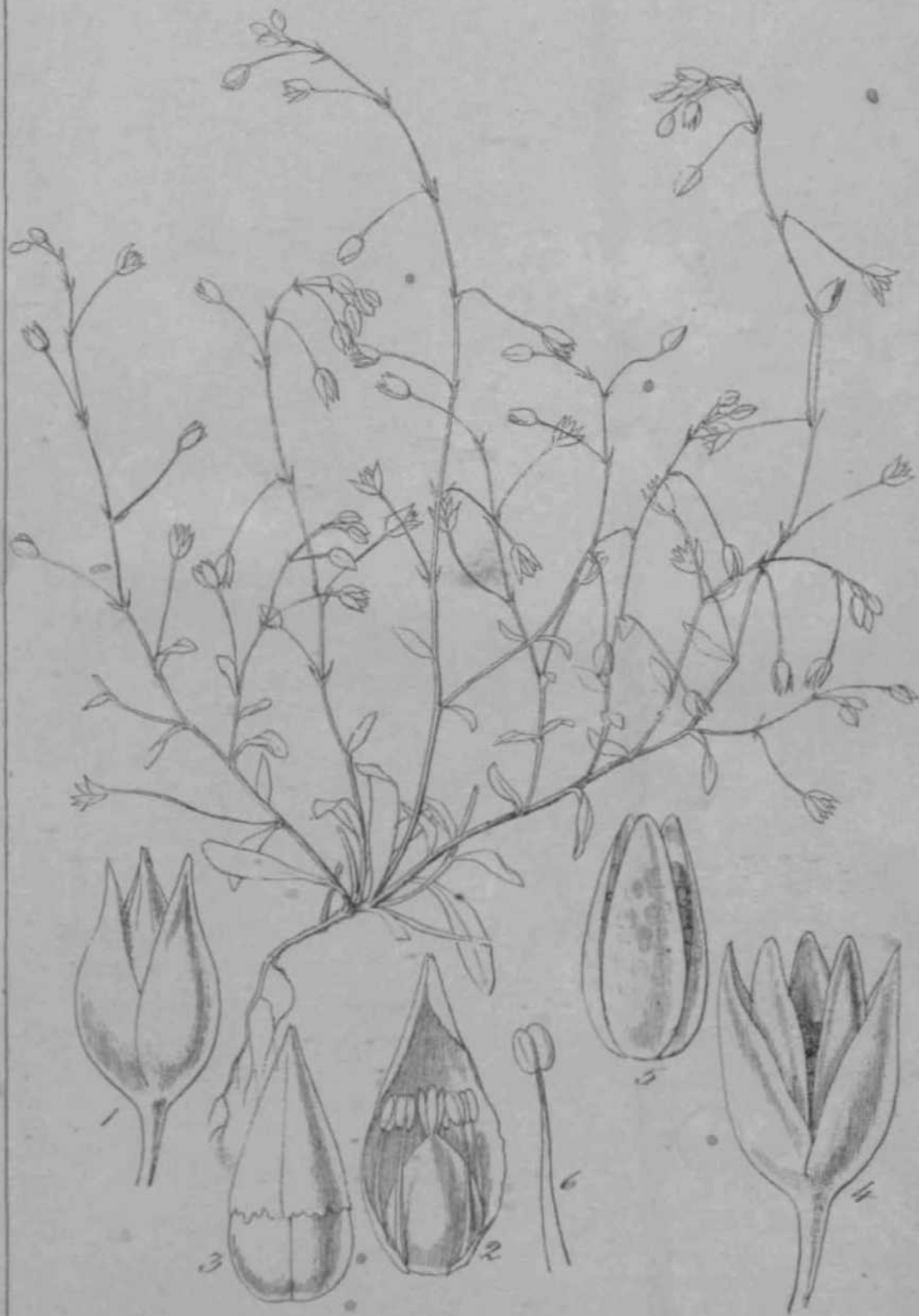
CALANDKINIA CALYPTIATA. J. Hook.

Annua, caule ramosissimo ramis valde diffusis, foliis lineari-spathulatis superioribus minutis bracteiformibus, pedunculis axillaribus post anthesin deflexis, petalis in corollam calyptriformem unitis.

HAB. Circular Head, Van Dieman's Land, where it grows with *Tilted verticillate* usually on the tops of large rocks. *Ronald Gunn, Esq. (n. 128.)*

I am doubtful whether to refer this to *Calandrinia* or to *Cloytonia*. * the numerous seeds rather induce me to place it with the former genus. The singular calyptriform corolla will scarcely suffice to constitute a distinct genus of it. Nuttall's *Calyptridium* (from California) with a similar corolla and habit of *Calandrinia*, or *Cloytonia*, has a very different fruit.

*Fig, 1. Flower: the 2 sepals including the calyptriform corolla. / 2. Corolla laid open to show *~ stamens and pistil. / 3. Ripening ovary about to throw * orolla. / 4. Calyx, including the fruit. / 5. Fruit separated from the calyx:—magnified.*



Gunniance.

N. O. Onragnarise.

TAB. CCXCVII.

EPILOBIUM MACRANTHUM. J. Hook.

Caule elato terete simplici puberulo, foliis lineari-lanceolatis obtusiusculis dentatis glabris alternis rarius oppositis sessilibus superioribus paululum decurrentibus, calycis pubescenti: limbo fere ad basin 4-partito, petalis (magnis) obcordato-bilobis, siliquis longissimis incanis, stigmatibus clavatis inaequaliter bilobis.

HAB. A very common plant in wet places in Van Dieman's Land. *Ronald Gunn, Esq. (n. 252.) Dr Milligan* (who finds it at Woolnorth, and Circular Head.)

This, Mr Gunn observes, is the finest species in the island, often 3-4 feet high, having a long creeping perennial root. The flowers are of a fine pale purple colour and of an unusually large size for a true *Epilobium*.

Fig. 1. Upper part of the ovary and style:—*magnified.*



Gunnianm.

N. O. Myrtacea?.

TAB. CCXCVHL

BJECKEA LEPTOCAULIS. *J. Hook.*

Ramis erectis virgatis gracilibus, foliis oppositis angusto-linearibus acutis impressopunctatis, pedunculis in axillis foliorum superiorum binis ebracteatis folio brevioribus unifloris, floribus pentandris.

HAB. Top of Rocky Cape, Van Dieman's Land. *Ronald Gunn, Esq. (n. 817.)*

This has the habit of *Backed frutescens* from China, and of *B. trichophylla* of Sieber (*Exsicc. Nov. Hol. n. 280*) and of *B. diffusa* of the same author (*Exsicc. Fl. Nov. Holl. n. 276*):— but the foliage and inflorescence will readily distinguish it. The leaves are grooved on the upper side, and semicylindrical on the back.

Fig. 1. Flower. / 2. Calyx and corolla laid open:— magnified.



TAB. CCXCIX.

MIUJGANIA COHDI FOLIA. J. Hook.

GEN. CHAD.—MILLJGANIA.* Hook.—Dioica. MASC. *Spica* pedunculata.¹ *Ffores* sessiles, monandri, nudi, I-bibracteati. *Filamenla* brevissima. *Anth&ne* (magno) subrotundae, bikicuJares, ad marginem longitudinaliter dehiscentes,—FIEM. *Fiores* capifati, {*capitulum* sessile) bracteati. *Calyx* ovario arete **adhaerehs**; *tubus* ovatus, subtriangularis, limbo tripartito, ina^uali, piloso, unico duplo longiore. *Styli* 2, subulati, pubescenti-hirsuti, atquales, nunc 4 inaequales quorum dutK breviores. *Ovurium* 1-loculare, 1-ovulatum, ovulo pendente ex apice podosoermi. *Fructus* drupaceus siccitate rugosus, *Nucula* ovato-triangularis, calyce persistente coronata.—Herba patiidosa, acaulis, radio: *subfusijbrmi,jibro\$a*. Folia radically petiolabi) **paientia**, cordata, obtusa, serrata, supra glabra stibtus nervis petiolisque glanduloso-hirsutis. Pedunculus (sew scapus) **radicaUs**. Fiores masculi *spicali*: foerainei *capitalat**, i/W-teati. Fructus *capitulum rvhrum^* Rubi Idai magnitudine.

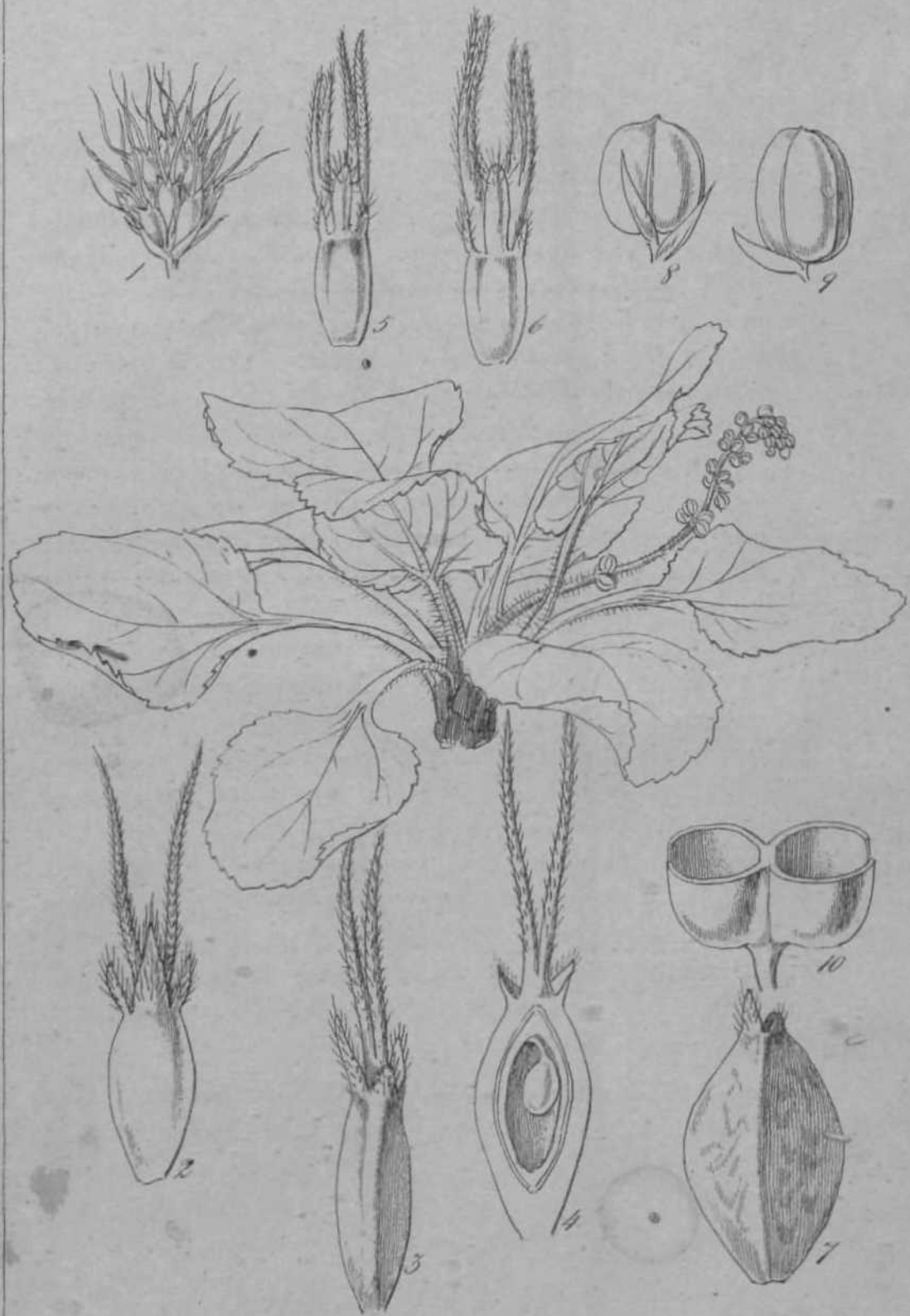
M. cordifoHa. J. Hook.

HAB. Burghley and Middlesex Plains, Van Dieman's Land, growing in wet places, in large dense patches, many feet **l** extent. *Ronald Gunn, Esq. (n. 877.)*

"Of this curious plant," Mr Gunn observes, "I could only procure one or two old spikes of male flowers. The fruil is as large and as red as a strawberry." Of the natural family to which it belongs I think there can be no doubt; nor can one lull to observe its close affinity both in habit and structure of its flowers with some *Gunnera*. J. Hook,

The principal figure represents a male plant *nut. size*. *Fig.* \. Capitulum of female flowers. / 2, 3. Single female Mowers. *f.* 1. Ovary laid open. *f.* 5, 6. Female flowers, varieties, with 4> styles. / 7. Fruit in a dry state. / 8, 9. Male flowers. *f.* 10. Anther, cut through transversely:—*magnified*.

* So named in compliment to *Ur AlilUtjan*, of Van Dieman's Land, the friend of Mr Ronald Gunn, and bis companion in many of **ills herborizing c:**ursions.



Gunniance.

N. O. Umbelliferce.

TAB. CCC.

CALDASIA ARGENTEA. *J. Hook.*

Pulcherrime argenteo-sericea, pedicellis tomentoso-sericeis involucre vix longioribus, fructibus ovatis acuminatis demum glabriusculis.

HAB. Middlesex Plains, Van Dieman's Land. Feb. 1837.
Ranald Gunn, Esq. (n. 823.)

An extremely beautiful species, owing to the silvery silkiness of the whole plant; the fruit only, *vihen ripe* being nearly destitute of hairs. It was gathered at Middlesex Plains, by my indefatigable friend Mr Gunn along with *C. eriopoda* DC. and *C. brachycarpa*,* *J. Hook.*, under the following circumstances:—"Middlesex Plains," says Mr Gunn, "were about 35 miles from our head quarters on the Hampshire Hills and from the nearest inhabited house, and over a mountainous country. A very limited means of carrying a large collection of plants had, I regret to say, the effect of reducing the number of each species very considerably. All my specimens, tent, blankets, food, &c, had to be carried on the backs of two men, and mercy toward them induced me to load them with as few specimens as possible. On my return to Circular Head, after an absence of a fortnight, my collection of plants, after being partially dried, weighed 40 lbs., and had to be carried on a man's back from Emu Bay to Circular Head, 60 miles; and the plants in question were carried altogether on my servant's back, about 115 miles before they were half dried."

Fig. 1. Fruit, scarcely mature. / *2.* Section of a carpel:—*magnified.*

* *C. brachycarpa*; laxa pilosa, pedicellis piloso-aericeis involucre subduplo longioribus, fructibus ovatis acutis glaberrimis. (n. 822.)— *C. eriopoda* (also found at Launceston) is Mr Gunn's n. 491 and 824. "

