HOOKER'S

ICONES PLANTARUM.

THIRD SERIES.— VOL. VII.

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LOSIHJN

HOOKER'S

ICONES PLANTARUM;

OR,

FIGURES, WITH DESCRIPTIVE CHARACTERS AND REMARKS,
OF NEW AND RARE PLANTS,

SELECTED FROM THE

KEW HERBARIUM

THIRD SERIES.

EDITED BY

SIR JOSEPH DALTON HOOKER, K.C.S.I., C.B., M.D., F.R.S.,
D.C.L. OXON., LL.D. CANTAB., DUBLIN, EDIN., AND GLOTT., CORRESP. MEMB. INST. FRANCE:
LATE DIRECTOR OF THE ROYAL BOTANICAL GARDENS, KEW.

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1886–1887.

PLATE 1601.

GLEICHENIA MONILIPORMIS, *Moore.*

FILICES, **Suborder** GLEICHENIACEA.

Gleichenia moniliformis, *Moore, Ind. Fil.* p. 11; candice erecto gracili ramoso, stipitibus elongatis castaneis nndis, frondibus linearibns simpliciter pinnatis rigide coriaceia glabris, pinnis oblongis ubtusis contiguis patulis multijngis margine recurvatis, venis immerais flabellatis, soris solitariis ad pinnarnm basin anteriorem sitis, sporangiis paucis sessilibus paraphysibus paleaceis copiosis brevissimia interraixtis.—*Hook, et Baker, Syn. Fil.* p. 11.

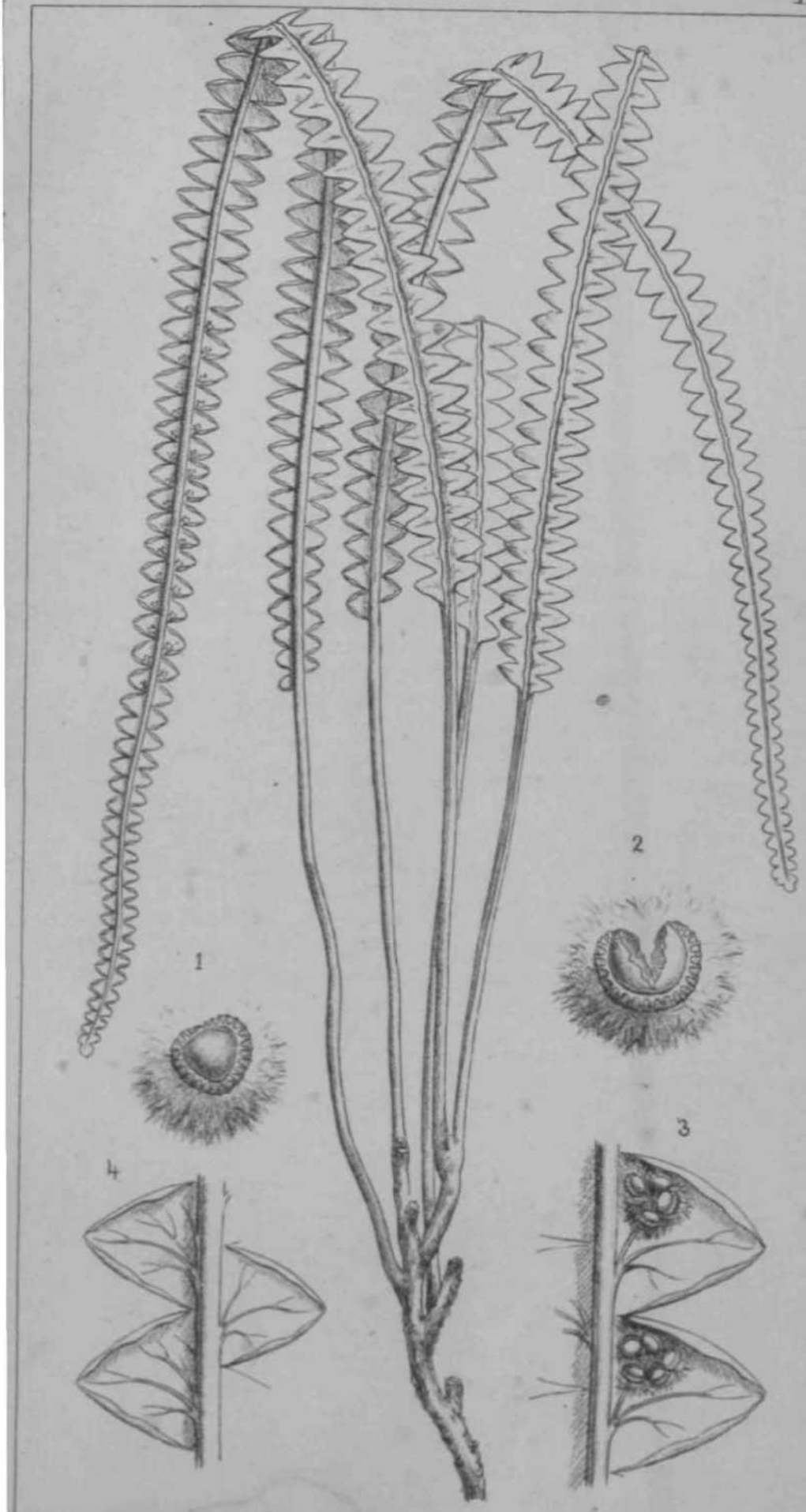
***Stromatopteris moniliformis*, Metten. in Ann. Sc. Nat. Bot. aer. IV. vol. *xv.* p. 84, tab. 3; Fonrn. Fil. Nov. Galed. p. 2G8.**

HAB. New Caledonia, *VieiUard,* 1571; *Richards.*

***Stifites* 2-4 poll, longi. *Lamina* pedalia et ultra, 3-4 lin. lata, pinnis interdnm 60-80-jngis.**

This is one of the most interesting of the endemic ferns of New Caledonia. It is so different from all the other Gleichenias that it has been regarded by Mettenius and Foamier as forming a monotypic genus.—J. G. BAKER.

Fig. 1. Spornnge in an early stage. 2. Sporange in an advanced stage. 3. Fertile portion of fiond. 4. Sterile portion. *All more or lets •nlarged.*



Gleichenia moniliformis, Moore.

PLATE 1G02.

GLEICHENIA MILNEI, *Baker.*

FIMCES, Suborder GEEICHENIACEJE.

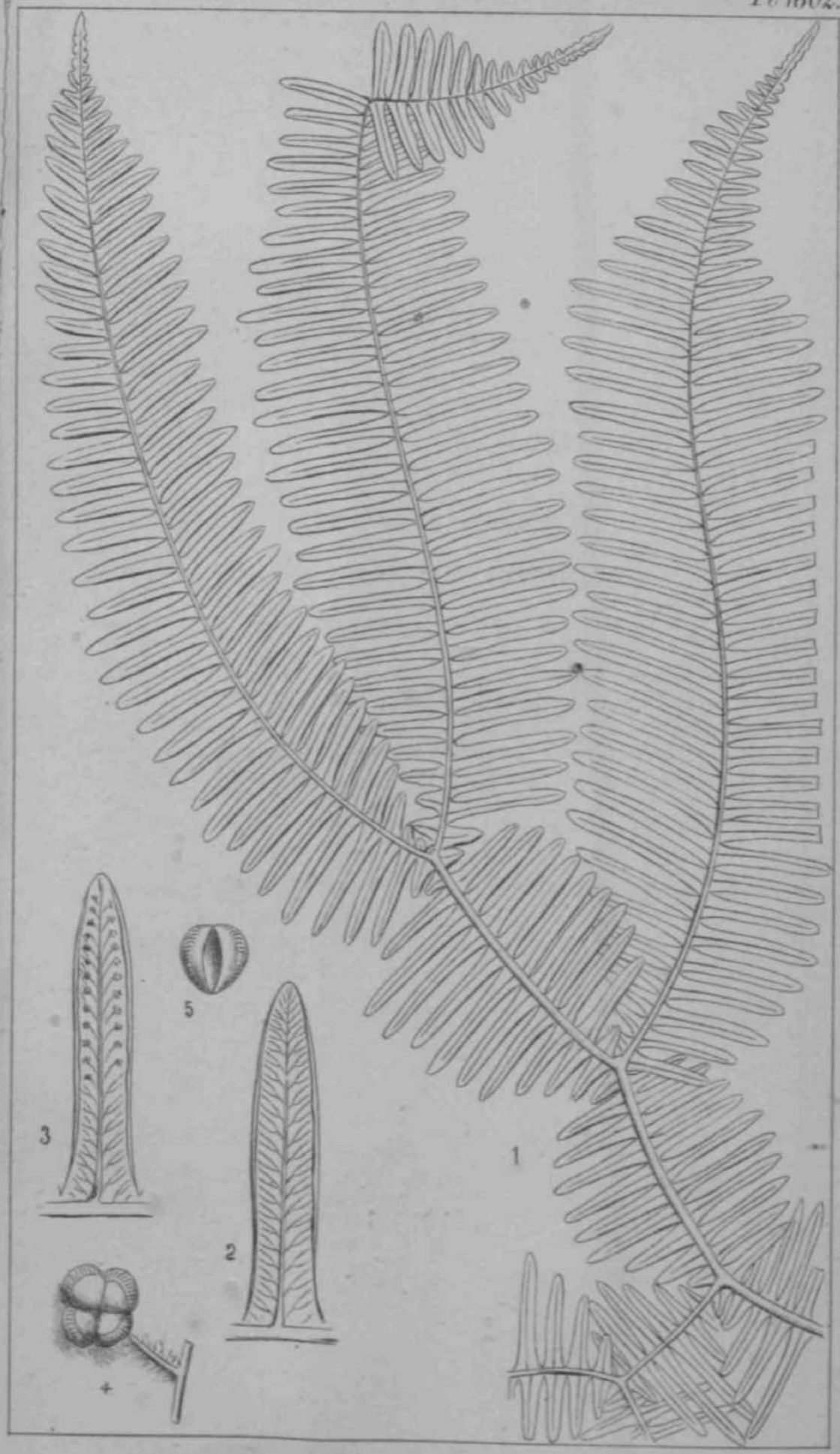
Gleichenia Milnei, *fidver in Book, et Baker, Syn. FU.* edit. 2, p. 449 ; frondibas amplis glabns utrinque viridibns, pinnis deltoideis tripio dicbotomiter furcatis pedunculo nudo basi segmentis parvis refleris stipulatis, segraentis ultimis linearibus obtusis adnatis patulis, vennlis multijugiserecto-patentibus profunde furcatis, soris parvis medialibns.

HAB. Aneiteum, *Milne*> 341; *Ma&jilUvray,* **912**; **Vaneoolla,** *C. Moore.*

Segmenta stipularia **6-12 lin. Ionga.** *Pedunculi* **nndi** pinnarum H-2 poll, longi. *Segmenta ultima* 6-9 lin. longa, 1 lin. lata.

Closely allied to the Maecarene and Malayan *G. jtageUaris,* Spreng., and the Polynesian *O. oceanica,* Knhn.—J. G. BAKEB.

Fig. 1. Portion of a pinna, *life site,* 2. Final segment, sterile. 3. Final segment, fertile, 4. Soros. 5. Sporange, slit opeu. *Mi enlarged**



Gleichenia Milnei, Baker.

PLATE 1603.

DICKSONIA CHAMISSOI, *Hook, et Baler.*

FIUCES, **Suborder** POLYPODIACEJE, **Tribe** DICKSONIU.

Dicksonia (Cibotium) Chamissoi, ***Hook, et Baker, Syn. Fil.*** **p. 50; paieis basalibns filiformibns mollibus brnnneis, frondibns amplis deltoideis rigide snbcoriaceis dorso pallide viridibus furfuraceis, pinniB obloDgo-lanceolatis, pinnnlis sesailibus lanceolatis basi pinnatis sursum profnnde pinnati6dis, se^mentis tertiariis oblongis integris multijugis, venulis erecto-patentibus furcatis, indusio inflexo rigide coriaceo, valva interiore lingulata exteriore duplo longiore.**

Cibotium Chamissoi, **Kaulf. Ennm. p. 230, tab. 1, fig. 14; Sprang. Syst. p. 127; Presl, Tent. p. 69, tab. 11, fig. 8; Brack. Fil. p. 279 ; Moore, Ind. Fil. p. 259.**

Dicksonia splendent, **Desv. Prodr. p. 318.**

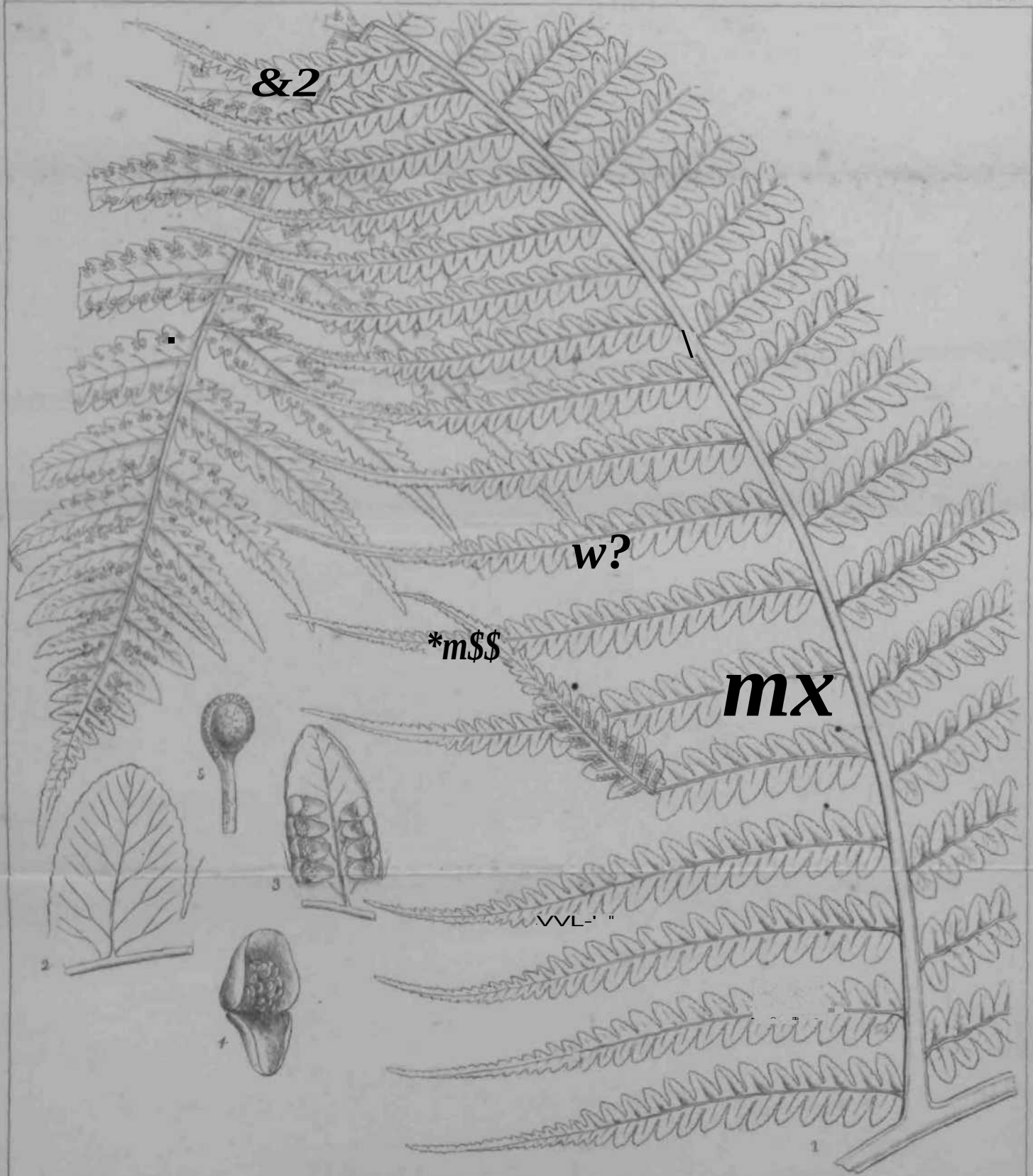
Pinonia splendent, **Gaudich. in Ann. Sc. Nat. vol. iii. p. 507; Freyc. Voy. pp. 96, 369; tab. 21.**

HAB. Sandwich Islands, ***Gavdichaud, Macrae, Barclay, Hildebrandt.***

Pinnce inferiores **pedales vel sesquipedales.** ***Ptrnvulce*** **4-5 poll. longeB, 6-9 lin. latad.**

This is one of the most interesting of the endemic ferns of the Sandwich Islands. Two genera have been founded npon it, ***Cibotium*** **of Kaulfu8s, and** ***Pinonia*** **of Gaudichand.—J. G.** BAKER.

Fig. 1. An entire pinna, ***life size.*** **2. Sterile tertiary segment. 3. Fertile segment. 4. Single sorus, with indnsiuw * [s]p'»range.** ***All more or less enlarge!.***



Dicksonia (Cibotium) Chamissoi, Hook.& Baker.

PLATE 1604.

DICKSONIA ABBUPTA, *Bory.*

FILICES, Suborder POLYPODIACEA, Tribe DICXSONIEJE.

Dicksonia abrupta, *Bory; Hook, et Baker, Syn. Fit.* p. 52; stipibus brevibus nudis ctespitosis, frondibus lanceolatis simpliciter pinnatis glabris viridibus, pinnis inaequilateraliter lanceolatis antice produotis facie prope znargincm punctis paucis cretaceis pweditis basi articnlatis trnncatis, fertilibns angnstioribns, inferioribns sensim minoribus, vennlis crebris arcaato-ascendentibns furcatia^ soris oopiosis patulis, indnsio bivalvi valvis coriaceis semiorbicularibus interiore pa^lo minore. ^

Leptopleuria abrupta, Presl, Tent. p. 137, tab. 5, figs. 9-11.

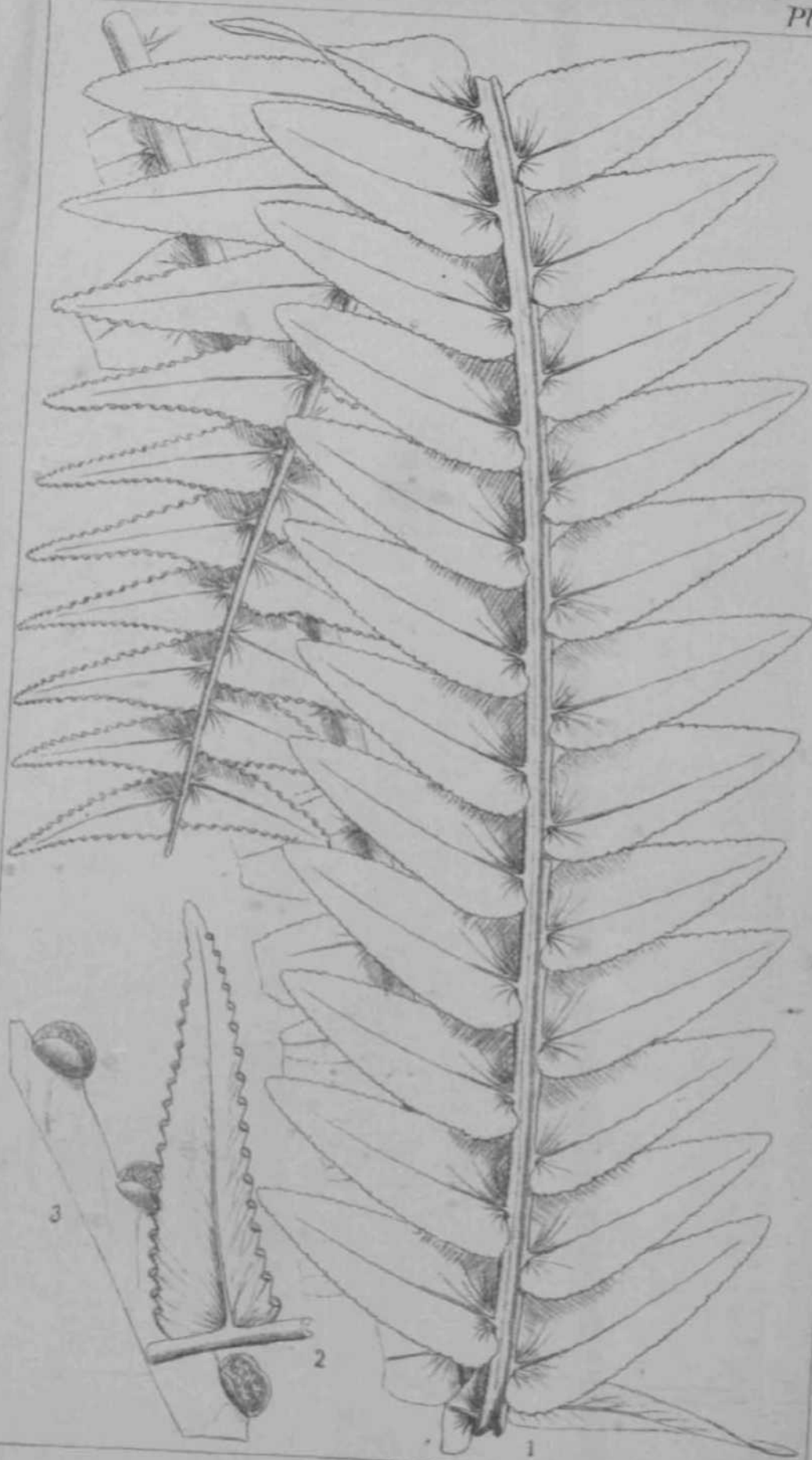
NephrolepU abrupta, Mett. Fil. Hort. Lips. p. 99; Kuhn, FiL Afric. p. 154.

HAB. Bonrbon, *Carmichael, Balfour;* Mauritius, *Lady Barkly,* Madagascar, *PenOU,* 725.

Lamina sesquipedalis vel bipedalis, 4-5 poll. lata. *Pinnce* basi 3-9 lin. lataB.

This has the habit, the cretaceous dots and deciduous pinnae of *Nephroiepis,* but the indusium is that of a normal *Dieksonia.*— J. 0. BAKER.

Fig. 1. Portion of frond. 2. A single fertile pinna, *both life sue.* 3. Margin of fertile pinna, showing son and indnsium. *Enlarcd.*



Dicksonia abrupta, Borry.

PLATE 1605.

DICFSONIA SCANDENS, *Baker.*

FILICES, **Suborder** POLYPODIAC&B, **Tribe** DICKSONIEA.

Dickfionia scandens, ***Baker in Journ. Bot.*** **1877, p. 162; rhizomato late repente, stipitibus remotis nudis eloogatis, frondibaa amplis deltoideis tripinnatis subcoriaceis glabris viridibus racbibus furfuraceis, pinnis oblongo-lanceolatis infimis reductis, pinnulis sessilibas ranltijogis lanceolatis obtusis profunde pinnatifidis, scgmentis tertiariia oblongis obtusis contiguis ascendentibus, venis pinnatis Teoulis ascendentibus simplicibus, indusii valva exteriore majore recurvata.**

HAB. Andes of Quito, ***Sodiro.***

SHpes **9-10-pollicaris.** ***Pinnce*** **majores pedales et ultra, 2-2^ poll, latee.** ***Pinnules*** **4 lin. lataa.**

This is one of tbe numerous new ferns which have been discovered by Father Sodiro, who, during the last twenty years, has worked diligently and successfully at the botany of Ecuador. Its indnsium is peculiar, and the long comparatively slender scandent rhizome is a new feature in this genus.—J. G. BAKES.

Fig. 1. An entire pinna, ***l{fe size.*** **2. A pinnule. 3. Margin of fertile pinnule,** showing **two** son. *Both enlarged.*

Dicksonia scandens, Baker.

PLATE 1G05.

DICXSONIA SCANDENS, *Baler*

FIUCES, Suborder POLYPODIACEJE, Tribe DICKSOMKJ:

Dicksonia scandeas, Baler *m Journ. Bot.* 18,,, p 162; rhizomato lute reoente stipitibus remotia nudis elongate, frondibns amphs deltoidcia tripinnatis subconaoeiB glabris yiridibus wchibne farfuracew, Tennis oblongo-lanceolatis infimia reductis, pmnnhs Bessahboa molt.. incU lanccolatis obtnsia profunde pinnatifidis, aegmentis ierbarua obloDgia obtusis contigais ascendentibu3, venis pinnatis venuhs ascendentiboa simpHcibus, indnsii valva eiteriore mapre reeurvata.

HAB. Andes of Qaito, *Sodiro.*

SHpes 9-10-pollicaris. PMMMB majores pedales et ultra, 2-2^ poll. kt(B. *Pinnulm* 4 lin. lat».

This is one of the numerous new ferns which have been discovered by Father Sodiro, who, during the last twenty years, has worked diligently and successfully at the botauy of Ecuador. Its indasium is peculiar, and the long comparatively slender scandent rhizome is a new featnre in this genus.—J. G. BAKKR

Fig. 1. An entire pinna, *l\fe* tire. 2. A pinnule. 3. Margin of ferti: e pinnule, sbowing **two sori.** ***Both tmlary-*** d.

Dicksonia Henriettae. Baker.

PLATE 1607.

LECANOPTERIS CTJRTISII, *Baker,*

FILICES, Suborder POLTPODUCEJ:, Tribe DICKSONIEÆ.

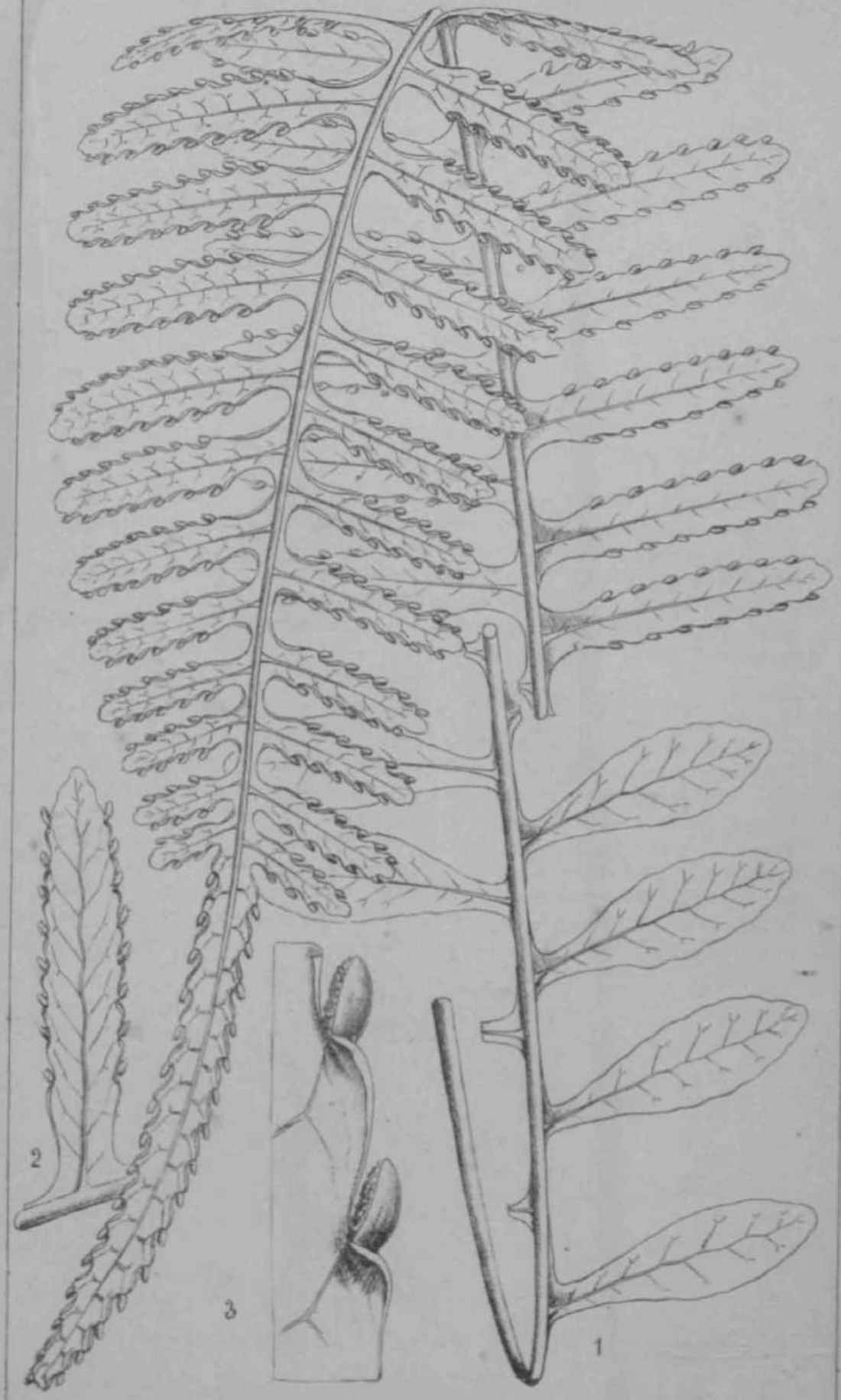
Lecanopteris Curtisii, *lial-er* in *Joum. BoL* 1881, p. 366; stipitibua brovibus strict is nudis, frond ibns lanceolatis c:\udatis Bimpliciter pinnatiB glabris subcoriaceis dorso glancis, pinnis ligalatis uhtusis basi dilatatis adnatis, fertilibus crenatis, sterilibus integris, venis primariis perspicuis erecto-patentibus, interniediis subtilibus obscuris in areolas hesagonas anastomosantibus, indnsio unilaterali cncullato pereistente.

HAB. Sumatra, *Curtis.*

Lamina sesquipedalis, 2^-3 poll. lata. *Piavat* fertiles 3-4 lin. latre.

At the date of the publication of oar ' Synopsis Filicum' we had yery little material, and this genus *Lecanopteris* was not admitted. Since that date we have received numerous specimens of the plant on which it was founded by Blume ; and in addition to Blnine's Iwo species at least two others have been discovered, all in the Malay region. Of the present plant the rhizome is not known, but no doubt is like that of the other species—stout and tuber-like, sending out phjliopodia which are articulated at the apex.—J. G. BAKER.

Fig. I. Apex and *base* of a frond, *life* B«. 2. Fertile pinna. 3, Margin of fertilc pinna, Blowing two son. *Both cttlum>*.



Lecanopteris Curtisii, Baker.

PLATE 1608.

DEPAEIA NEPHRODIOIDES, *Baker.*

FILICEB, Suborder FOLTPODIACEJE, Tribe DICKBONIEJB.

Deparia nephrodioides, *Baker in Qard. Chron.* 1872, 253; stipitibus elongatis deorsnm paleis atrocastaneis lanceolatis rigidalis vestitis, frondibns deltoideis decompositis glabris viridibus, pinnis deltoideis basi postice cuneato-truncatis infimis multo maximis petiolatis, pinnulis inaequilateraliter deltoideis, segmentis tertiariis profande pinnatifidis, lobis erecto-patentibus obtusis vel cornicnlatis, yenulis ultimis furcatis, soris crebris, indnsio profunde biralvi.—*Hook, et Baker, Syn. Fil* edit. 2, p. 463; *Benth. Fl. Austral,* vol. vii. p. 714.

Davallia nephrodioides, F. Muell. Frag. vol. z. p. 104.

HAB. Lord Howe's Island, *G. Moore, Fullagar.*

Lamina interdum 3-4-pedalis, 12-18 poll. lata. *Stipites* pedales. *PaleoR* basales semipollicares.

Lord Howe's Island has been well explored for the first time of late years, and has been found to produce several curious endemic ferns, of which this is one of the most interesting. In habit and cutting it much resembles *Nephrodium decompositum.*—J. G. BAKER.

Fig. 1. Pinna, *life size.* 2. Tertiary segment, with son. 3. Edge of tertiary segment. 4. Sporange. A. [illegible] J

Depa ina nep: rodioides, Baker.

PLATE 1609.

HYMENOPHYLLITM POOLII, *Baker.*

FILICES, Suborder HYMENOPHTLLEJE.

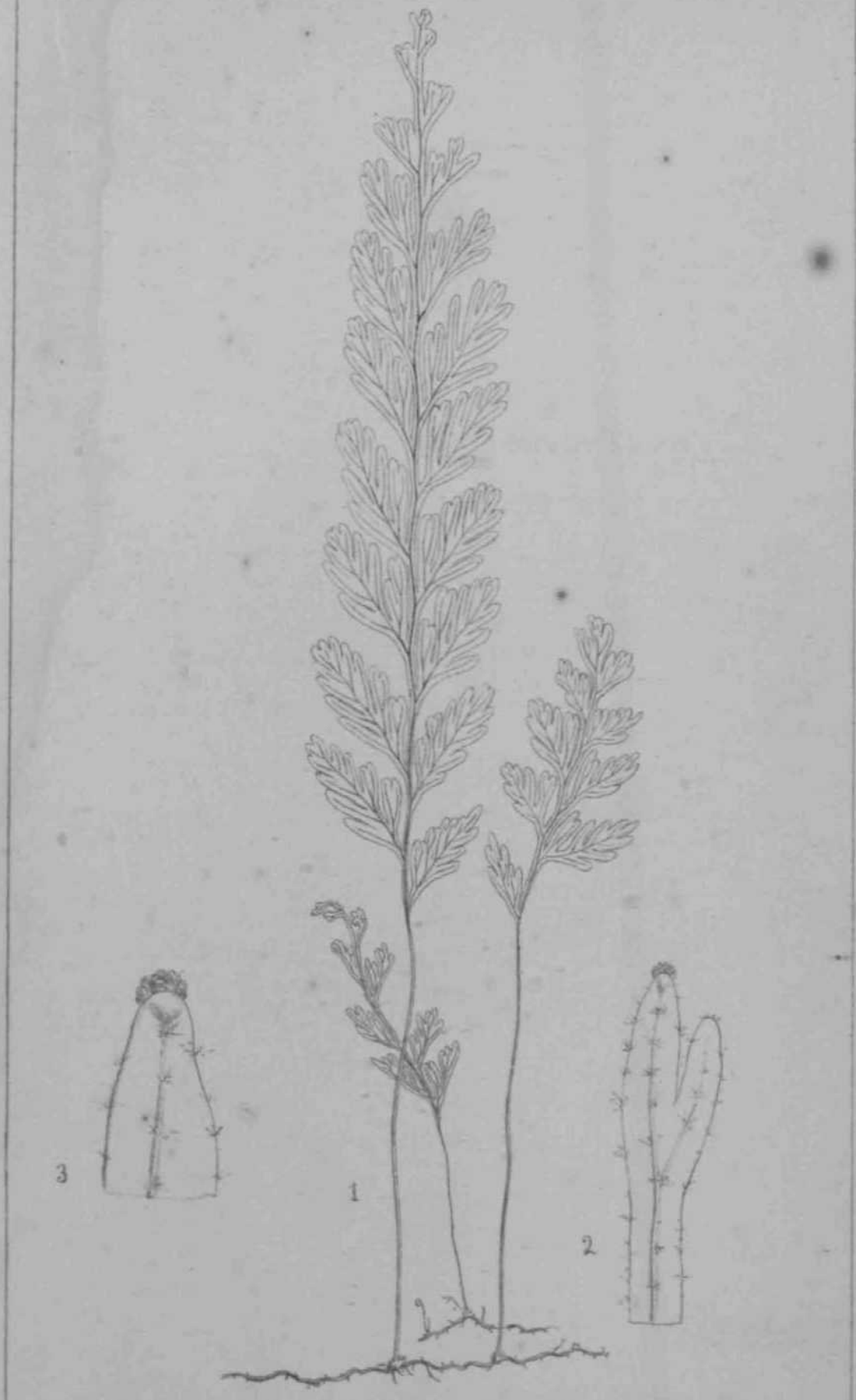
Hymenophyllum Poolii, *Baker in Journ. Linn. Soc.* vol. xv. p. 413; rhizomate filiformi longe repente,stipitibus elongatis gracillimis sursum, pilosis, frondibus lanceolatis bipionatifidis membranaceis dense steJlato-pilosis, rachi primaria supra basin angnste alata, pinnis ascendentibus inaequilateraliter rhomboideis profande pinnatifidis basi postice caneato-trnncatis infimis reductis, pinnnlis contiguis ascendentibns linearibns integris nninervatis infimis anticis furcatis, Boris parvia terminalibus, indusii valvis rotnndatis.

HAB. Forests of Central Madagascar, *Mrs. Pool.*

***Stipites* U-2-polHcares. *Lamina* 3-5-pollicaris, medio 9-10 lin. lata. *Pinna centrales* 9-10 lin. long©.**

This formed part of the first large collection of ferns which we have received of late years from Central Madagascar, which was formed by the late Mrs. Pool. It is most nearly allied to the Sonth American and New Zealand *H. subtilissimum,* Kunze.—J. G. BAKES.

Fig. 1. Whole plant, *life size.* 2. Apex of forked lower anterior pinnule. 3. Apex of pinnule, showing sorus. *Both enlarged.*



J. Allen del.

Hymenophyllum Poolii · Baker.

PLATE 1610.

HYMENOPHYLLUM DEJECTUM, *Baker.*

FILICE8, Suborder HYMENOPHYLL^B.

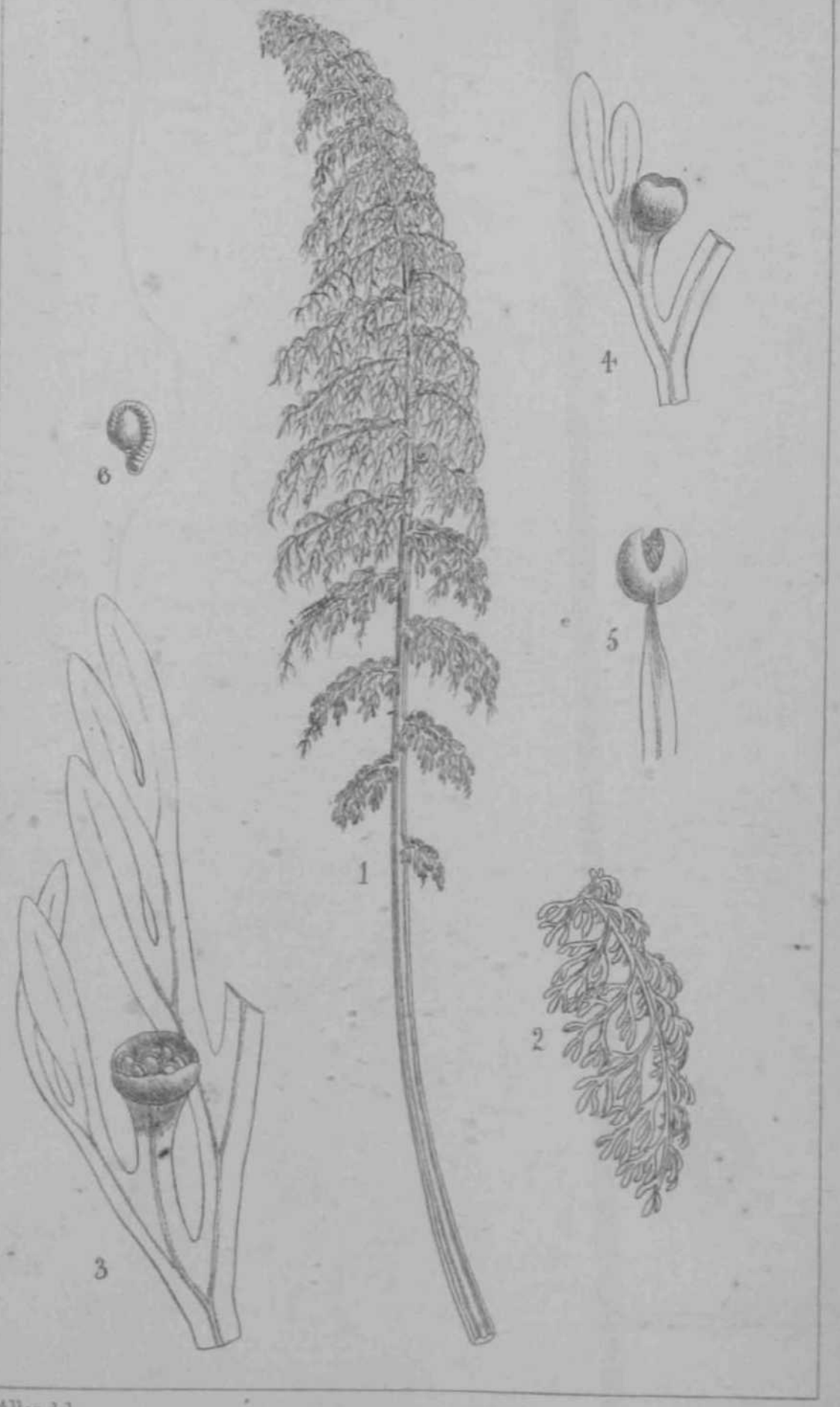
Hymenophyllum dejectum, *Baker (sp. nw.);* stipitibus productis cum raohi primaria stricta paleis lanceoiatis albidis preeditis, frondibns obloDgo-lanceolatis 3-4-pinnatifidis glabris pro genere firmulis siccitate nigrescentibus, pinnis confertis oblongo-lanceolatis squarrosis, infimis sensim reductis, pinnulis deltoideis imbricatis, segmentis ultimis linearibns integris uninervatis, Boris ad pinnularum segmentos inferiores terminalibus, indusii valvis rigidnlis rotundatis truncatis vel leviter emarginatis.

HAB. Summit of Mount Roraima, *E. F. im Thurn,* 318.

***Stipites* 1^-2-pollicares. *Lamina* 4-5-pollicaris, medio 10-12 lin. lata. *Pinna centrales* 8-9 lin. longad.**

This is one of the most curious of the many new ferns discovered by Mr. Im Thurn in his recent expedition to Mount Roraima. It came from the very summit of the mountain, which his party scaled for the first time. Its nearest alliance is with *E. polyanthos* and jff. *myriocarpum.*—J. G. BAKER.

Fig. 1. Whole plant, *life s'ue.* 2. Pinna. 3, 4. Portion of pinnule, with sorni. 5. Sorus. 6. Sporange. *All more or lets enlarged.*



J.Allen del.

Hymenophyllum dejectum, Baker

PLATE 1611.

HYMENOFHYLLTTM BALDWINII, *Eaton.*

FILICES, Suborder HTMENOPHTLLEJ:.

Hymenophyllum Baldwinii, *Eaton in Ball, Torrcy Club,* vol. vi. p. 293; etipitibus ccespitosis brevibns paleis subulatis brunnois debiHbas vest iti a, frondibus ovato-lanceolatis tripinnatifidis membranaceis glabris, pinais confertis lanceolatis ascendentibus basi post ice cuneato-trancatis inferior] bus sen si m miuoribus, pinnulis inferioribns rhonv. boideis, segment is tertiariis nninervatis oblongia vel Hneari-oblongis. integris, soris ad pinuularum segmentos inferiores terminalibus, indusio basi cuneato immerso, valvis rotundatis.

HAB. Oahn, Sandwich Islands, *Hon. D. D. Baldwin, Miss E. 8. Boyd.*

SsUpites pollicarea. *Lamina* 4-6-pollicaris, medio 2-3-poll. lata. *PmntB eentrales* li-2-pollieare.s, 3 lin. latae.

This handsome fern has about equal right to *be* regarded as a *Tv"ichamanes* and a *Hymenophyllum.* In cutting aud texture it most resembles some of the smaller forms of *TrichomOHes ajiifolium*. All our three specimens came from Professor Eaton.—J. Ch BAKER.

F#. I. Whole plant, *lift sue,* 2. Lower pinnule, 3, 4. Sori. 6. Sporange. *All* .....-;iJ,

J.Allen ad.

Hymenophyllum Baldwinii, Eaton.

PLATE 1612.

HYMENOPHYLLUM GLAZIOVII, *Baker.*

FILICES, Suborder HYMENOPHYLLE£.

Hymenophyllum Glaziovii, *Baker (sp.nov.)-*, rhizomate filiformi longe repente, etipitibns prodactis filiformibas glabris, frondibus lanceolatis bipinnatifidis ciliatis. rachi primaria alata, pinnis lazis ascendentibus lanceolatis ad alam angustam pinnatifidis basi postice cuneato-troncatis inferioribus reductis, pinnulis lazis linearibus uninervatis simplicibus vel inferioribus furcatis, soris terminalibus, indusii valvis orbicularibus dense ciliatis.

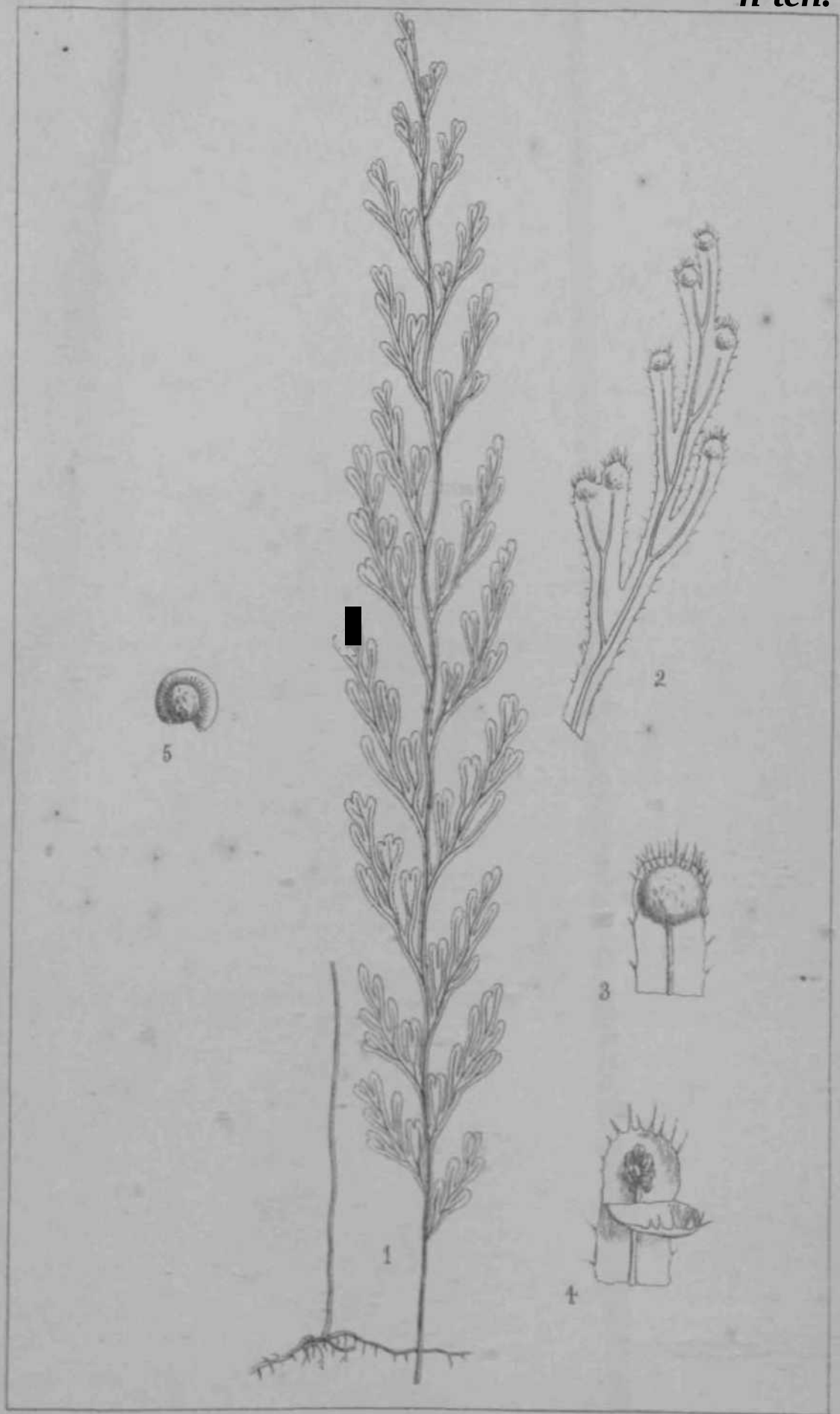
HAB. Bio Janeiro, *Glaziou,* 7890.

Stifitea 2-3-pollicares. *Lamina* 6-8-pollicaris, medio 9-12 lin. lata.

Received in 1875 from Dr. Glaziou, director of the Passeio Publico at Bio Janeiro, who has collected most assiduously in Southern and Central Brazil and the Amazon valley during the last fifteen years. Its nearest allies amongst well-known species are *H. hirsutum* and *H. ciliatum*__J. G. BAKER.

Fig. 1. Whole plant, *life stue.* 2. A pinna. 3. A soros with closed valves. 4. A sorns with valves of the indusium opened. 5. Sporange. *All enlarged.*

n ten.



J.Allen del.

Hymenophyllum Glaziovii, Baker.

PLATE 161.

HYMENOPHYLLUM TRIANGULARE, *Baker.*

FILICES, Suborder HYMENOPHYLLEJE.

HymenophyUam (Leptiocionium) triangTilare, *Baker in Hook. et Baker, Syn. Fil.* p. G9 -, rhizoniate filifornii longe repente, Btipiibus elongatis filiformibus nudis, frondibus ovato-oblongis tripiuBatititlis glabris, rachi primaria supra basin alata, pinnis ascendeiitibus basi postico caneato-truucatis iufimis maximis deltoid eis, piunulis ina?quilateraHterrhomboideiBjSegmentistertiariislinearibns uninerv;ttis nrgnte serratis, soris paucis basi immersis, indasii valvis ovatia obtasis aubintegris.

M. Mannianum, Mett.; Kuhn, Fil. Afric. p. 40.

HAS. Mountains of Fernando Po, alt. 3,000 ft., *Mann,* 333.

Stipite • 2-3-pollieares. *Lamina* 4-G poll, longa, basi 2-2,\ poll. kt*. *S&jmenta ultima* 14—2 tin. longa.

Discovered by GoBtav liann in 1860. It is allied most nearly to the New Zealand and Polynesian *II. muliifiJum* and *II. bivalve.*—J. G. BAKER.

Fig. 1. TVhole plant, *life size.* 2. Pinnule. 3. Portion of pinnule. *4.* Indicium. *5, 6.* Sporangia. *More or hit eniargtd.*

J. Allen del

Hymenophyllum triangulare, Baker

PLATE 1614.

HYMENOPHYLLUM ARMSTBONGII, *Kirk.*

FILICES, Suborder HYMENOPHYLLEJ:.

Hymenophyllum Armstrongii, *Kirk in Trans. N. Zeal. InstiL* vol. x. (1877), p. 43, tab. 21, fig. A; dense caespitosum, rhizomate filiformi longe repente, stipitibus brevissimis, frondibus parvis simplicibus vel farcatis vel raro palmatifidis glabris, segmentis lignlatis margine incrassatis setosociliatis, soris terminations basi immersis, indusii valvis rigidnlis ovatis obtusis integris margine incrassatis.

H. melanoeheiioSy Colenso in Trans. N. Zeal. Instit. vol. zvii. p. 255.

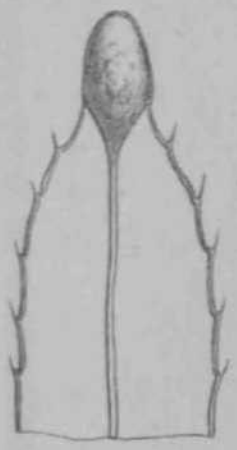
Trichomanes Armstrongii, Baker in Hook, et Baker, Syn. Fil. edit. 2, p. 465.

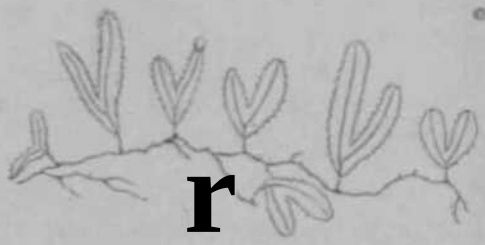
HAB. New Zealand, *Armstrong, Enys, Kirk,* 618; *Rowson.*

Stipites 1-2 lin. longi. *Lamina* 8-6 lin. longa, segmentis f-1 lin. latis.

This is one of the most interesting of the new ferns that have been discovered of late years in New Zealand. We first received it from Mr. Armstrong in 1868.—J. G. BAKER.

Fig. 1. Whole plant, *life sure.* 2. Whole plant. 3, 4, 5, 6. Upper part of fertile segments, showing the sorus and indusiom from different points of view.





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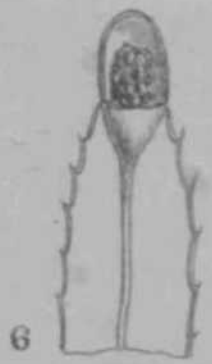
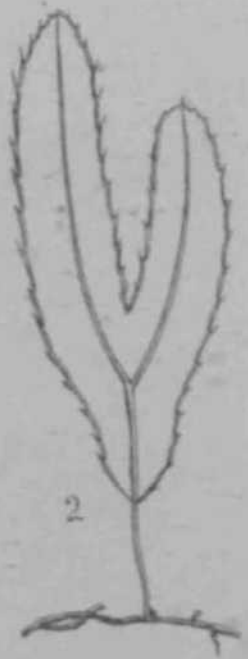




J.Allen del

Hymenophyllum Armstrongii, Kirk.

PLATE 1614.

HTMENOPHYLLUM AEMSTRONGII, *Kirk.*

FILICES, Suborder HYMEXOPHYLLEJ:.

Hymenophyllum Armstrongii, ***Kirk*** *in Trans, N. Zeal. Instit.* vol. x. (1877), p, 43, tab. 21, fig. A; dense csespitoscm, rhizomate 61iformi long© repente, stipitibns brevissimis, frondibus panris simplicibns vel furcatis vel raro palmatiBdis glabria, segmentis lignlatis margine incrassatis setoso-ciliatis, soris terminalibus basi immersis, indnsii valvis rigidulis ovatis obtusis integris margine incrassatis.

//. *,/>e!anocheihs*$_y$ Colenso in Trans. N. Zeal. Instit. vol. xvii. p. 255.

TricJiomanes Armstroiigii, Baker in Hook, et Baker, Syn. Pil. ed:t. 2, p. 465.

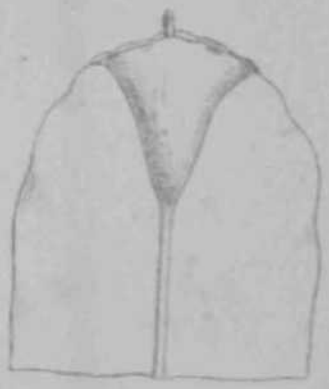
HAB. New Zealand, *Armstrong, Enys, Ktrl* G18; *Rmoson.*

Stipi'tes 1-2 lin. longi. *Lamina 3-6* lin. longa, segmentia f-1 Iin. latis.

This is one of the most interesting of the new ferns that **have** been discovered of late years in New Zealand. We first received it from Mr, Armstrong in 1868.—J. G. BAKER.

Fig. **1. Whole** plant, *life sue.* 2. Whole plant, 3, 4, 5, 6. Upper part of fertile **segments,** showing **the** sorus **and** indusinm **from different** points of **view.** ***All tnlargrd.***

5



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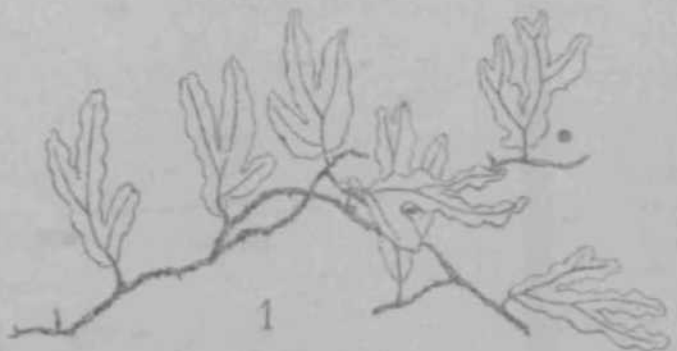

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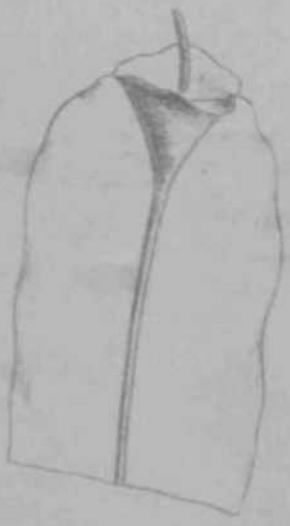

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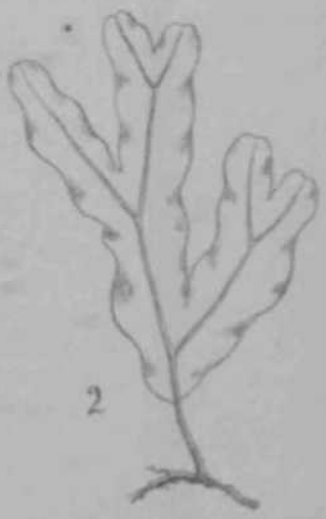


2

J. Allen del.

Trichomanes Powellii, Baker.

PLATE 161G.

TRICHOMANES LYALLII, *Hook. et Baker.*

FILICES, Suborder HYMENOPHYLLEÆ.

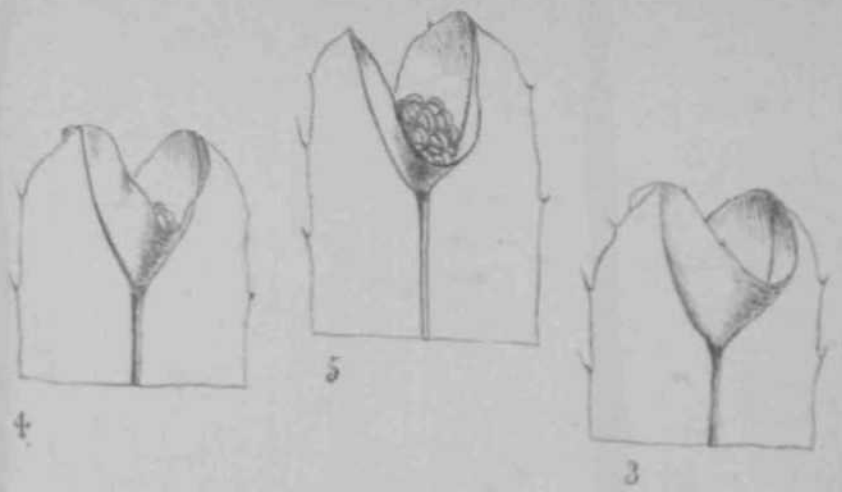
Trichomanes Lyallii, *Hook. et Baker, Syn. Fil.* p. 77; rhizomate filiformi longe repente, stipitibus capillaribus elongatis erectis nudis, frondibus membranaceis glabris palmatifidis deltoideis vel orbicularibus, segmentis linearibus uninervatis margine parce breviter setoso-ciliatis haud incrassatis, soris profunde immersis, indusio cuneato ore breviter bilabiato.

Hymenophyllum Lyallii, Hook. M. N. Zeal. vol. a P. 16, Handb. p. 355.

HAB. New Zealand, Thomson's Sound, *Dr. Lyall*; Otago, *Hector and Buchanan*; Titirangi Ranges, *Cheeseman*.

Stipites 9–15 lin. longi. *Lamina* 9–12 lin. longa et lata, segmentis 1–2 lin. longis, ¾ lin. latis.—J. G. BAKER.

Fig. 1. Whole plant, *life size*. 2. Whole plant. 3, 4, 5, 6. Tips of fertile segments. *All enlarged.*

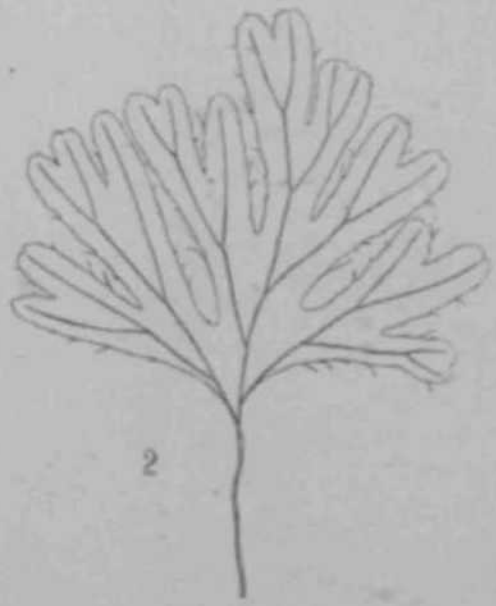


4

5

3

1



2

6

J. Allen del.

Trichomanes Lyallii, Hook.

PLATE 1617.

TRICHOMANES KALBREYERI, *Baker.*

FILICES, Suborder HTOEXOPHYLLEJE.

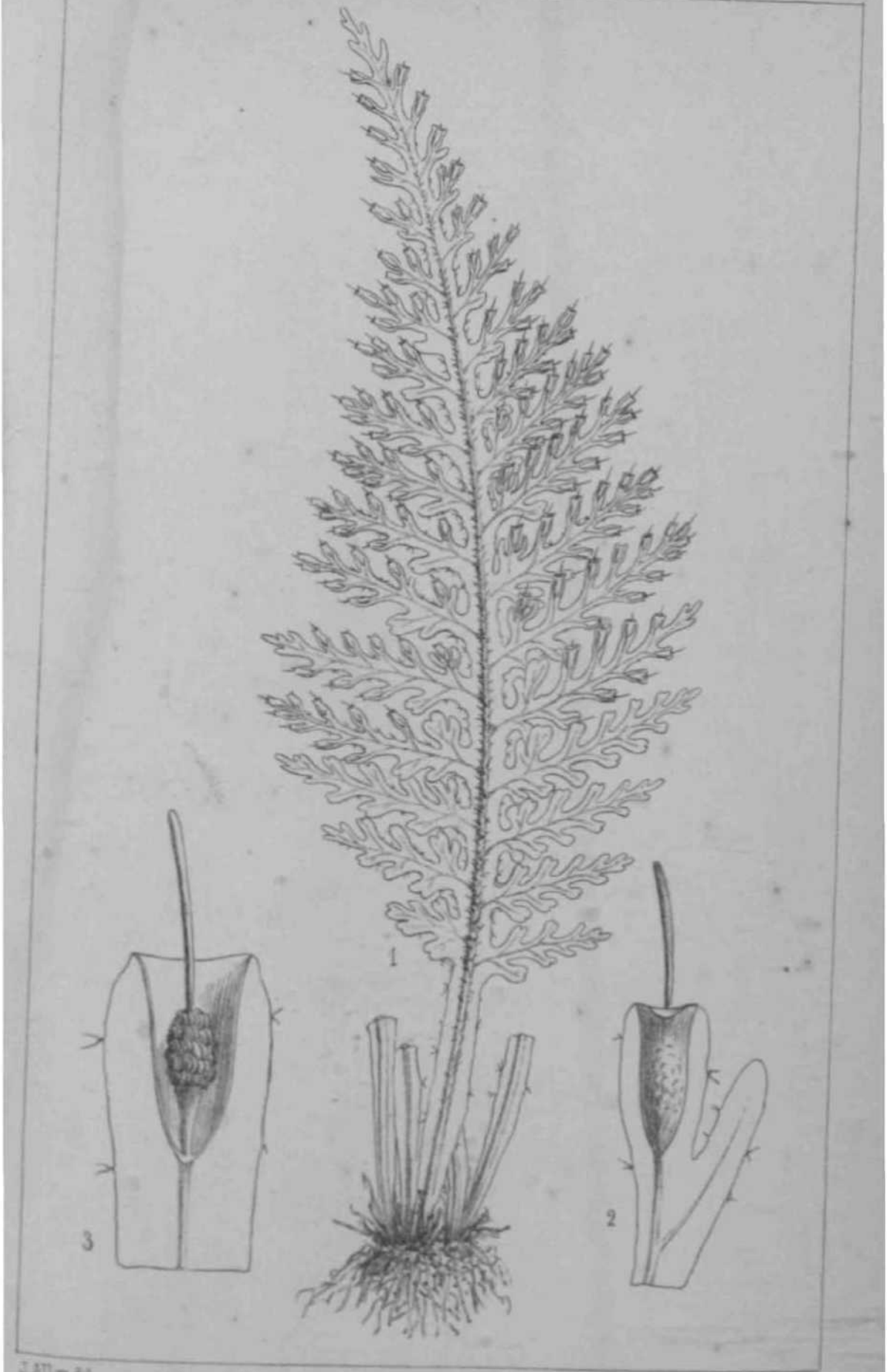
Trichomanes Kalbreyeri, *Baker (sp.rtov.)*; rhizomatebreviterrepente paleis lanceolatis parvis membranaceis ferrngineis praedito, stipitibus brevibns ad basin conspicae alatis, frondibas oblongo- lanceolatis bipinnatifidis glabns praesertim ad venas primarias hispidulis, pinuis lanceolatis infcrioribus sensim minoribus, pinnulis lineariбas uninervatis erecto-patentibns simplicibus vel infimis furcatis, soris terminalibus, indnsio infundibulari ad apicem saepissime alato, ore trancato vel obscure bilabiato, receptaculo longe exserto.

HAB. New Granada, province of Antioquia, alt. 6,500 ft., *Kalbreyer*, loo/.

***Stipites* 1-2 poll, longi. *Lamina* 4-6-pollicaris, xnedio 1½-2 poll, lata.**

Allied to *T. Kaulfussii* and *macilentum.* Discovered by Mr. Kalbreyer, 1880, on a collecting expedition for Messrs. Veitcb.— J. G. BAKES.

Fig. 1. Whole plant, *life* ÀM, 2. Apex of fertile pinnule, showing sorua. S. The same, with half the indnsium cat away. *Both tnlargtd.*



J. Miller del.

Trichomanes Kalbreyeri, Baker.

PLATE 1618.

TBICHOMANES BRACHY BLAST OS, *MtU.*

FILICES, Suborder HVMESOPHYLLEJ.

Trichomanes brachyblastos, ***MtU.;*** *Kuhn in Linniw,* **vol.** xi xv. p. 388 ; rhizomate breviter repente, stipitibus strict is clongatU era tis nuguste alatis, frondibas obiongo-deltoideis dtTomjiositia firmi; lis glabris, pinnis erqcto-patentibus dettoidois imbriciitis **bosi** \ostice cnneato-trnneatis, infiniis reductis, segmentis ultinitH litiearibuH nninervatis, sons terminalibna imtnersis, induaio infundibtilari **ore** troiicato, receptaculo exserto.—*Baker in Hook, et Baker, Syn. Fil.* edit. 2, p. 406.

HAB. Eastern Pern, on Mount Gnayrapurima, near TarapoW, *Spruce,* **4708.**

Stipites 4-5 poll, longi. *Lamina* 5-G-po)licaris, raedio 2-2.j, pull. lata. *Setjmenta ultima* 1 — 1A lin. longa, rix £ lin. lata.

Allied to the well-known T. *maximum* of Malaya and Polyci ssia. Discovered by Dr. Spruoe in 1856.—J. G. BAKES.

Fig. 1. Whole plant, *life size.* 2. Upper portu n of fertil a segmer t. 3. Apex of fertile segment, with sorus. 4. Sorus, **w;ih !.** alf the ind **ilium ctit(aw»j**, *All enlarged.*

J.Allen del.

Trichomanes brachyblastos, Mett

PLATE 1C19.

TRICHOMANES HISPIDULTJM.

FIMCES, Snborder HrMEsopRVixuE.

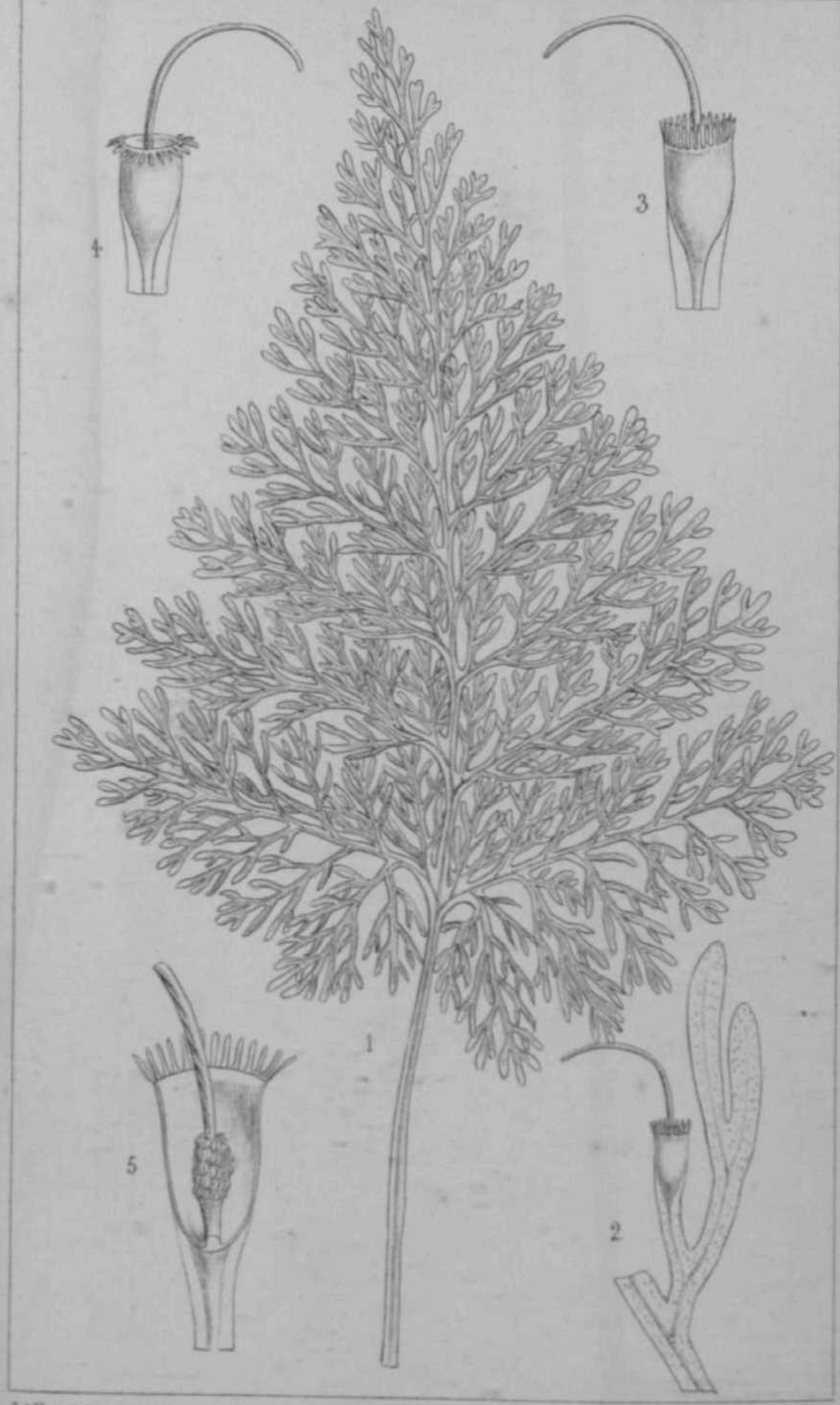
Trichomanes hispidulum, *Heit.*; *Kuhn in* tflwcM, vol. H I T , p. 389 ; caudice erecto, paWis linetiribus minutis castaneis, Btipittbus ei ectis elongatis ingastissime marginatis, frondibos deltoid*is decomjositis pro genere crassis dorso hispidolis sicctiate ni^rescentibus, racbibus furfdraceis, pinnis deltoideis, infimis tnaximis post ice prodcctis, reliquis erecto-patent ibas basi postice cuueato-truncatis, segment is ultimis liuearibas uuincrvatis, sorts basi soluin imraersis, indusio infunditmlari ore trancato setis dense ciliato, recoptaculo longe exserto,—*Baker in Hook, et Baker, Syn. Fil.* edit. 2, p. 4G6.

HAB. Borneo, iu the forests of Labaan, *MotUy.*

Stipitex 4-7 poll, longi. *Lamina* pedalia, basi 6-8 potl. lata. *Segmenta ultima* 1V-- liu, longa, ^ tin. lata.

Allied to r. *maximum* and the last species.—J- G. BAKER.

Fig. 1. A mall frond, *li/r fin.* 2. Fertile segment. 3. 4. Son», f oti™. 6. Sorus, with half the iodiuiaa cot away. *All enlarged.*



J.Allen del.

Trichomanes hispidulum, Mett.

PLATE 1621.

DAVALLIA TYERMAKTII, *Baiter.*

FIUCES, Suborder POLYPODIACEJ, Tribe DAVALLIES.

Davallia (Humata) Tyennanii, *Baker in Hook, et Baker, Syn. Fil.* edit. 2, p. 467; **rhiaomate** epigteo valido longe repente palois adpressis lanceolatis ferrugineis vel albidis dense vcstito, stipitibns strict is erectis nudis, frondibus deltoideis 3-4-pinnatifidis subcoriaceis glabris, **rati**hi primaria angnste f ^ta, pinnis infimis maximis deltoideis postice pro-dnctis, reliqnis ascendentibus basi postice caneato-truncatis, segmcntit* tertiariis oblongis profande pinnatiBdis basi attennatis, segmenti.s ultimis obtubis vel comiculatis, sons medialibas, indusio orbiculari rriaceo marginibus liberia.

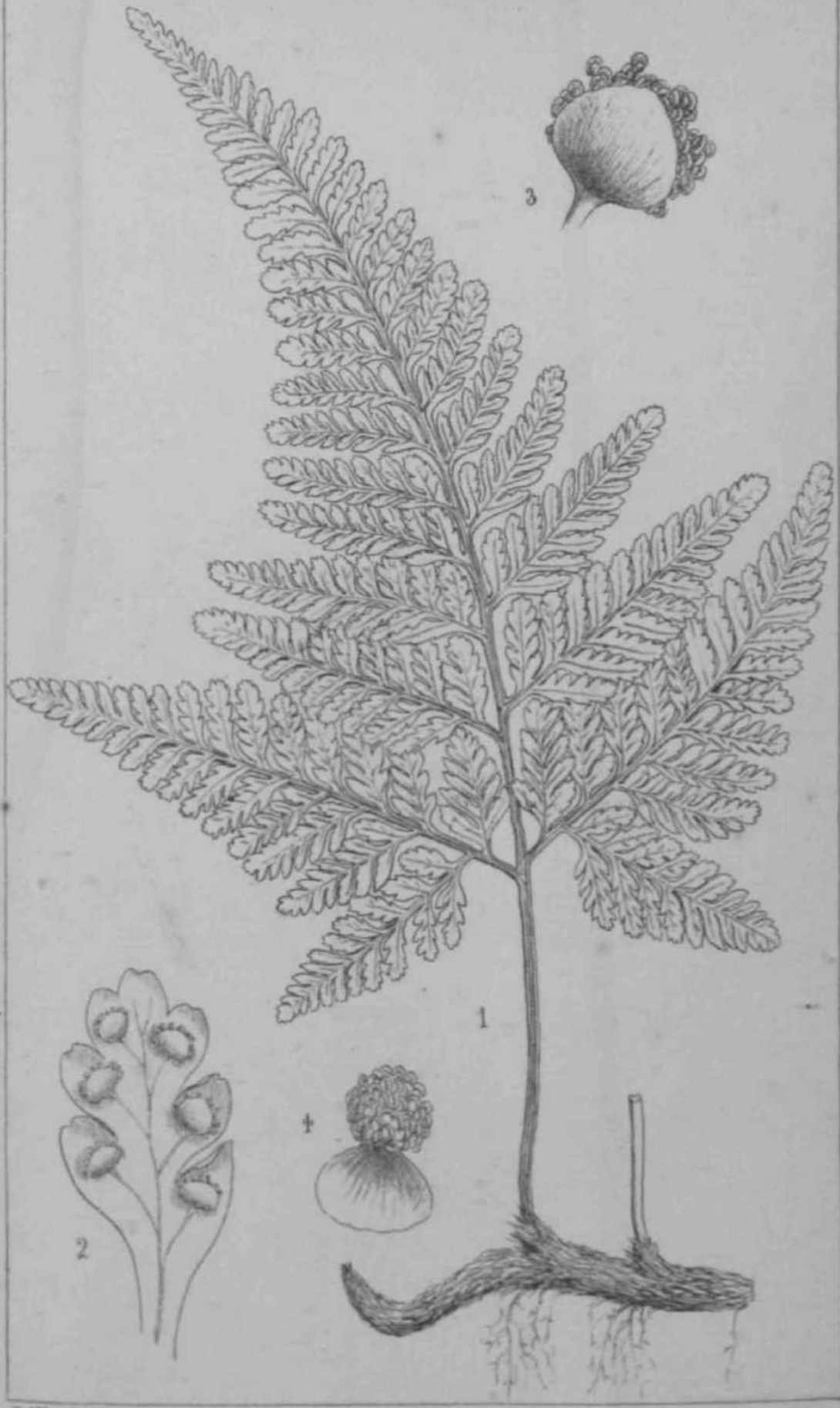
Humata Ttjermanii, Moore in Gard. Chron. 1871, p. 870, tab. 178.

HAB. China; Ningpo, *Evtrard* \ KiB-kiang and banks of the river Tangtse, *Maries.*

St• pitet 2-3 polL longi. *Lamina* 3-6-polHcaris, 3-4 poll. lata,

Habit of *IK bullata,* bat the sorus and indnsium entirelj different. We first received it from Mr. Tjerman, of the Liverpool Botanic Gardens, in 18C9; and he thought it had been received from West Africa.—J. G. BAKER.

Fig. **1. Whole plant,** ***life fdse.*** **9. Tertiary segment of lowest pinna.], 4. Sori, with iodtuia.** ***Ml enfarged.***



J.Allen del.

Davallia Tyermanii, Baker.

PLATE 1621.

DAVALLIA BOTBYCHIOIDES, *Hook, et Baker.*

FILICES, Suborder POLYPODIACEJE, Tribe DAVILLIEJE.

Davallia (Hnmata) botrychioides, *Hook, et Baker, Syn. Fil.y>.* 90; rliizomate gracili epigivo longc repente, paleis lanceolatis rigidulis adpressis castaneis tenuiter vestito, stipitibns elongatis gracilibus nudis, frondibus deltoideis 3-4-pinDatifidis snbcoriaceis giabris, pinnis deltoideis basi postice cnneato-trnncatis, infimis maximis, segmentis nltimis sterilibus oblongis, frondibus fertilibus magis dissectis, segmentis nltimis minutis obtusis vel corniculatis, indusio reniformi angnsto coriaceo gldbro, marginibus liberis.

***Hnmata botrychioides*, Brack. Fil. U.S. Ezpl. Expedit. p. 231, tab. 32, fig. 1; Carrnth. in Seem. Fl. Vit. p. 336.**

***H. rigida* and *multifida*, Carrnth. in Seem. Fl. Vit. p. 335.**

HAB. Aneiteum, *Milne*, 294, 367, *MacgOlivray*, 43; Fiji, *Home*, 800, *Milne*, 330, *Lieut. Hope, Hon. J. B. Thurston*; Samoa, *Whitmee*, 36; Society Isles, *Solander*.

***Stipites* 3-5-pollicares. *Lamina* 3-6-pollicaris.**

A variable plant, widely spread in Polynesia, differing from the other species of the snbgenus *Humata* by its dimorphic fromds.— J. G. BAKEE.

Figs. 1, 2. Whole plant, *life *Ue*. 3. Pale* of the rhizome. 4. Pinnule of fertile frond. 5. Segment of fertile fronJ. with a single soros. *All mart* or *km* wtorywt

J.All- & L

Davallia botrychioides. Brack

PLATE 1622.

DAVALLIA KINGII, *Baker.*

FILICIS, Suborder POLTPODIACEJB, Tribe DAVALLIEJE.

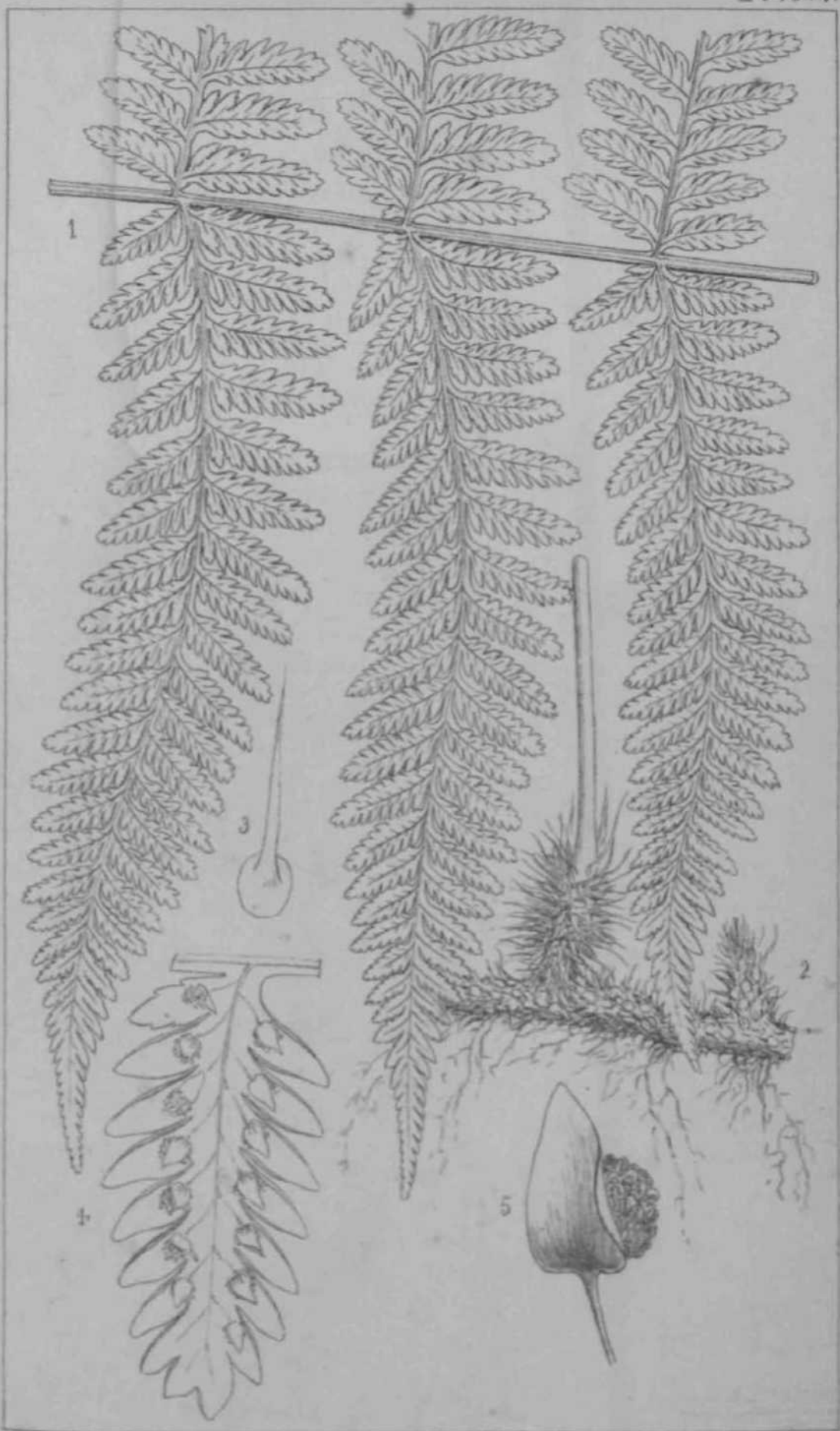
Davallia (Leucostegia) Kingii, *Baker (sp. nov.)*; rhizomate valido epig&o lignoso longe repente, palcfls patalis densis snbnlatis basi peltatis margine libero membranaceo, stipitibns erectis strictis nndis, frondibus oblongo-lanceolatis tripinnatifidis ntrinque parce pilosis, rachi primaria pilosa utrinque angoste alata, pinnis lanceolatia infimis hand reductis, pinnnlis oblongis adnatia profande pinnatifidis, segmentis tertiariis contiguis oblongis, Boris ad basin segmentorum solitariis, indnsio ovato marginibns liberis.

HAB. Java, Mount Waringin, alt. 4,600 ft., *H. 0. Forbes* (King, 657).

***Stipites* semipedales. *Lamina* sesquipedalis, basi 9-10 poll. lata. *PintuB* centrales et inferiores 4-5 poll, longas, 12-15 lin. latie.**

A very distinct novelty, discovered in 1882 by Mr. H. 0. Forbes when collecting in Java for Dr. King. It is most like the Philippine D. *ciliata* in habit, bat differs totally in the structure of the indusium. —J. O. BAKER.

Fig. 1. Portion of frond. 2. Portion of rhisome, both *life ṅee*. 3. Palea. 4. Fertile pinnule. *6.* Soros. *Ml man or leu enlarged.*



J.Allen del.

Davallia Kingii, Baker

PLATE 1623.

DAVALLIA HYMENOPHYLLOIDES, *Baler.*

FILICES, Saborder POLYPODUCE*, Tribe DAYALLJEJE.

Davallia (Odontoloma) hymenophylloides, J?<»Aw m *Hook, et Baker, Syn. Fil.* p. i*3; rhizomme hypo^aeo breiriter ropen&\ Btipittbu brevissimis cavspitosis straraineis nndis, frondibus tanceolatis bipinnatiBdis glabris ln?te viridibas e medio ad basin seusim attenaatis, pinnis mnltijngis dimidiatis ad alara arifjnstnm dissect is, pi mini is angnste cnneatis superioribos siroplicibns nninervatis inferioribua fnrcatis, Boris intramarginalibns ad venarnm apices impositia, indusio obverse oblongo raarginibus adnatis.

Lt'ndsrva hymenophyl[illegible]*ides,* Blnmc, Ennm. Pil Jav. p. 218.

Lindtaya repent var. *laeiniafa,* Mett.; Kuhn in Ann, Mas. Lasjd. Bat. vol. iv. p.ii: 7.

HAB. Java, *DeVriese;* Luzon, *Prof. Ste&rc;* New Caledonia, *Richards;* Fiji, *Home,* 636.

Stipites 1-2 poll, longi. *Lamina* iuterdam pcdalU et **ultra, medio 15-18** lin. lata.

Tbis very handsome fern is probably, as suggested by Mwttcnitis, a laciniated variety of *Davallia repens*, bat we bare not yet seen any intermediate stages between the two.—J. G. BAKES.

Fig. 1. Wfeole plant, *life n*t. 1.* **mn* pinnule. S. Sama, with indusium. Both en[illegible]

J Allen del.

Davallia hymenophylloides, Baker

PLATE 1»324.

DAVALLIA FALLIDA, *ilett*

FILICES, Suborder POLTPODIACKJE, Tribe DAVALUK*.

Davallia (Hicrolepia) pallida, *Mett.*; *Kvhn* m *Linnasa,* vol. xxxvi. p., 142; rhizomate epigaeo valido late repente, paleia lanceolatia castaneis, stipitibns elongatia erectU nadis straminets, frondibus deltoideis decompositis magnis pallido viridibuB glabris, rachibas nadis stramineis, pinnis deltoidcis infiaiis maximia, saperioribas pinnoUsqae basi postice cuneato-trancatis, aegmentis uktmis rhomboideis obtasis vel comicolatis, soris sabmarginalibas ad venarnm apices imposris, inliasio orbicalftri marginibns adnatis.—*Baker in Uooi. and Baker$_t$* Syn. *FiI* edit 2, p. 4*39.

Davallia Mooreana, Masters in Gard. Cbron. 180l», p. 964, with woodcnt

DavaUia (Loamcaphe) BeccariandL, Ceaati, Fil. Bom. p. 10, tab. 3, fig. 6.

HAB. Borneo, *Bcecari*; Aneiteam, *Ma&jitUvrau* ; Samoa, *Powell,* 203; *Whitmee*, 39-

*Stip•ite** pedales vel sesqoipedales. *Lamina* 2-3-pedalis.

Closely resembling in general habit the Himalayan and Malayan *D. im• merta,* Wallicii, but the fronds do not die duvrn in **winter,** and the structure of the indosmm is totally different—J, U. BAKSR.

Fig. 1. Portion of am*U froad. 2. Rbiwme. *BotAttfen*, S. Pantiewofl ertile ««gioent. 4. Back view of fertile segment. 5. Portion of fertile aegraetiL 6. Palw* of rhiaonw. *Ail arJJ*.**

J. Allen del.

Davallia pallida, Mett.

PLATE 1>325.

DAVALLIA CLABKBI, *Baker.*

FILICES, Suborder PoLYFOPiAces, Tribe DAVALue.fi.

Davallia (Leucosteffia) Clarkei, ***Baker*** *in nook, tt Baker, Syn. Fil.* edit. 2, p. 91 ; rliizomate valido epigwo late ropento, paleis ma^ni* lanceolatis membranacei^ forrngr eis de use vestitn, ntipitibns gmcilibas erect is snpra liasin nudis, frondibns ciottoidcis decompositia membraiiaceis glabris pinnis laneeolato-deltoideia infimis hand redncti n, pinnnlis deltoideia *htmi* postioe coneato-trancatis, segmentis ultimis ltneariboa uninervatis, sons ad segmentomm basin impn«it ;*. indusio se •niorbicatari fflahro marginibas Hberis.

I *AeraphortLs fl ookeri, Moore,* Ind. Fil. p. 2.

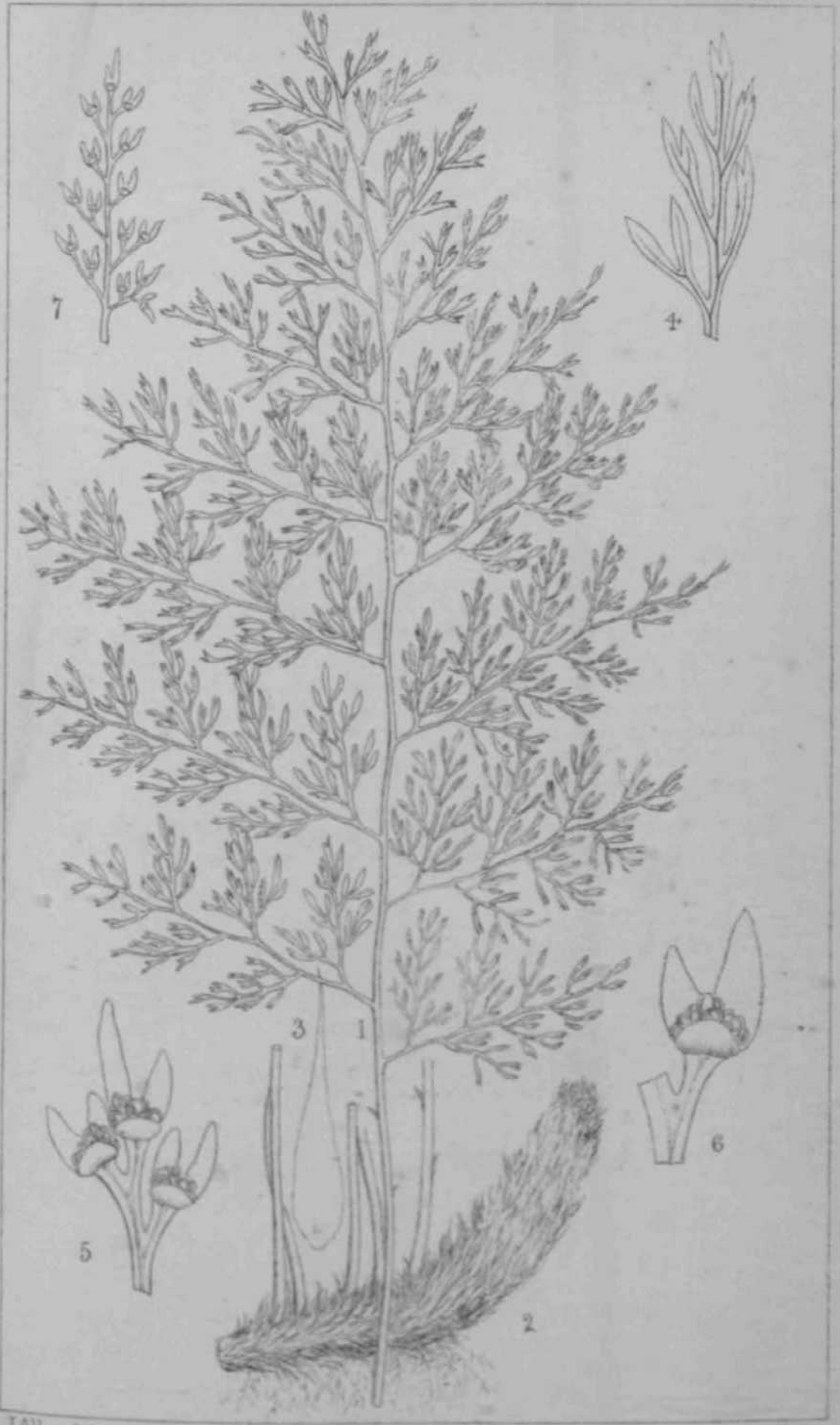
2.

HAB. Sobalpine zone of Eastern Himalayan 8,000-12,000 ft., Sir J. /). *Hooker, Tftonuon, Clarke, Levinje;* raonntains of Ynnnin. Delavay.

Stipiles 3-6.polIicares. *Lamina* 2-3 poll, longa, 1-0 poll, lata.

Allied to *DavaJiia* jwWira, Don, with which it was nmted in the tirst edition of our ' Synopsis Filiearo.' In habit and oatting it closely resembles *Polypodium darmforme,* with which it has been, I tbinlc wrongly, united by Mr. Clarkc^J. G. BAKER.

Fig. 1. Frond. 3. Rhizome. *Both life* **<£». 3. PaUa of Ih* rhi«o«#.** 4. Sterile segment. **A, S. 7. Fertile** segments. *All more*



J.Allen del.

Davallia Clarkei Baker

PLATE 1626.

LINDSAYA JAMESONIOIDES, *Baiter.*

FIUCES, Suborder POLTPOPUCE*, Tribe LISDSATEJC.

Lindsaya jamesonioides, *Baker* m *Jour*. *Bui.* 1879, p. 39; rhizomate breviter rcpente, paleis basalibos minima lanoeolatis nigris ritzidulis, Btipite com rachi atro-casUneo nudo, frondibns line&rit simpliciter pionatis rigidnlis nadis, pinnis orbicularibas sessilit venis flabellatU occultii* immerais, indasii valvis latis rigidalie pureis-tenfcibas.

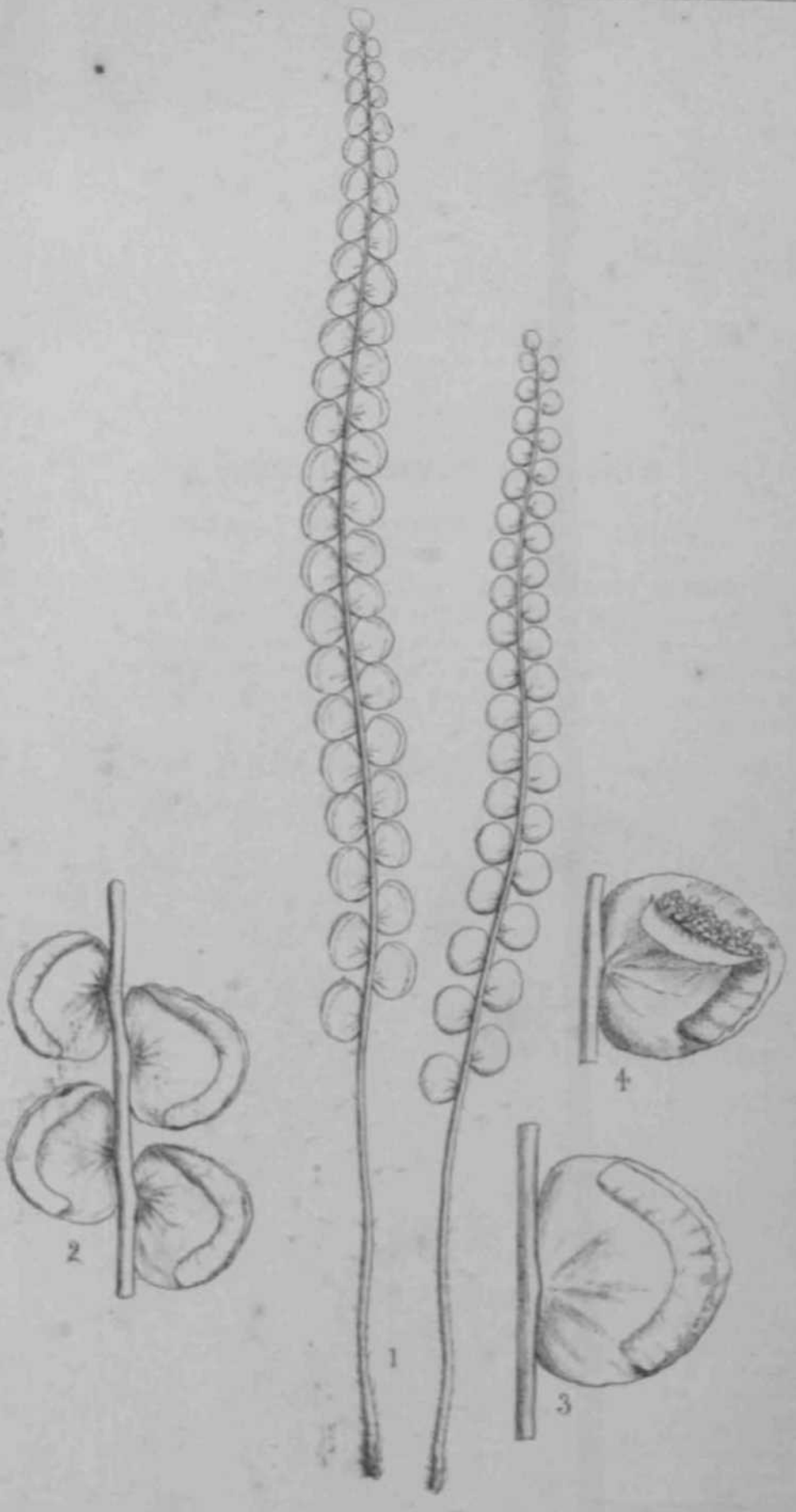
HAB. Borneo; rocks on Kinalialu, alt. 9,000 ft., *Burbidge**

*'He** 1-3-poUicarfs. *Lamina* 3-6-polliearis, 3-4 Iin. lata. PtnmB **11-2** Iin. lat©.

"Th This is one of the most inr esting of the new ferns which were discovered in Borneo bj Mr. ¥. *W.* Burbidge in 1878, when collecting fur Mrs. Veitciu It has entirely the habit of the Andine geniu *Jame* mtnia*.—J. G. BAKER.

F^. 1. Tvo fionds, *life ticc* 2. Portion of frond. 3, 4. Single piane.

Jfcfapl.



J Allen del

Lindsaya jamesonioides, Baker.

PLATE 1027.

I.INDSAYA CRISPA, *Baker.*

FILICES, Suborder FOLTPODUCEX, Tribe LINPSAYEJL

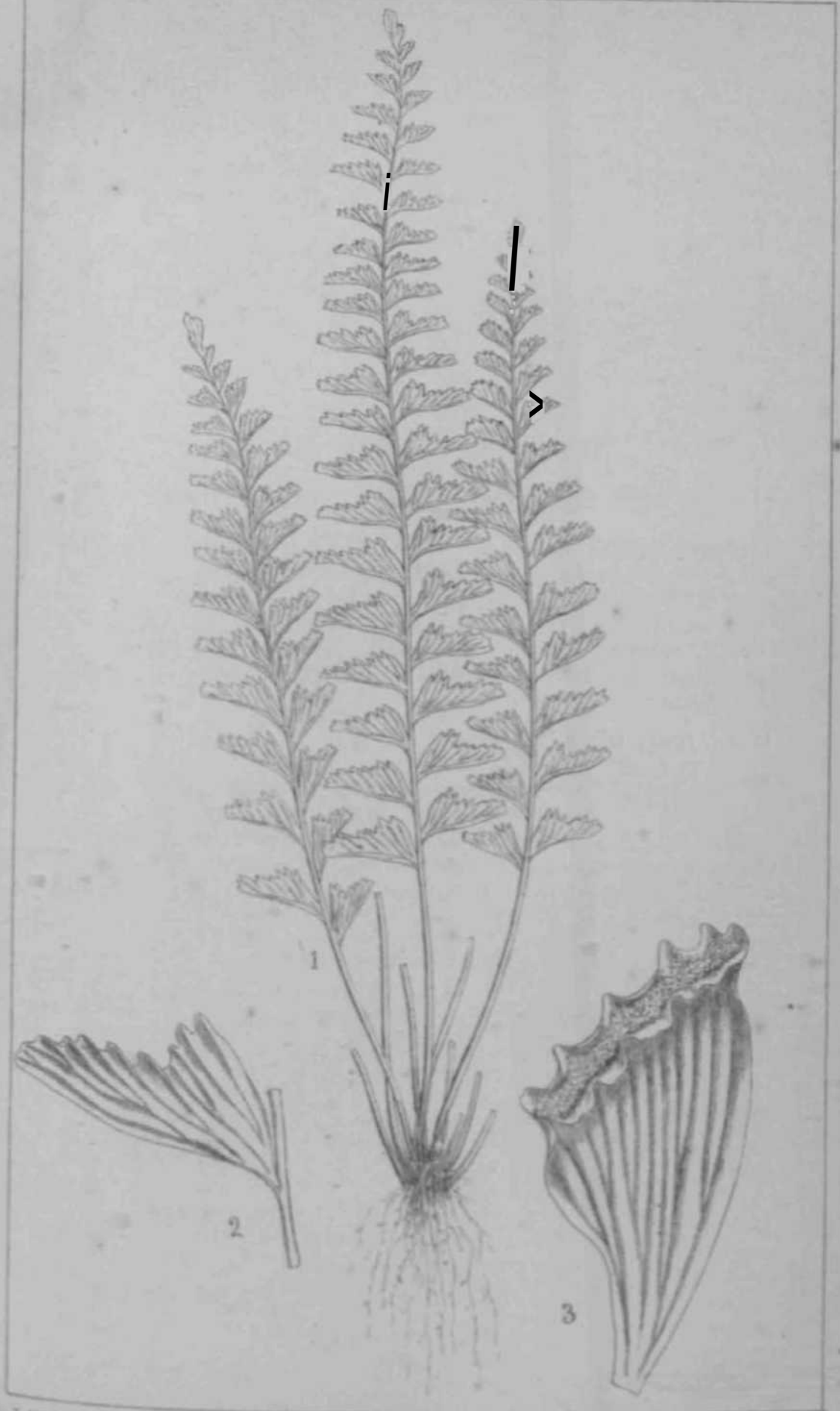
Lindsaya erispa. *Baiter in Jouru. Hot.* 1879, p. 89; rhizoraate brcvitcr repcnte, stipitibns graciliboB stramineia nndig brevfbns Tel elongatis, fnmdibus lanceolatis simpliciter pinnalis membranacoig giabris^ pinnis ruultijn^is wseililms Terticaliter jilicati-i subcmeatis ditnidiatis margine superiore irregatariter crtimto marjritie iufcrioro Kctc< intesrro, Tents libcris flabellatix perspicois, inJusii Talvis aagustis gidalia persistentibas valde crtspatis.

BIB. North Borneo, *Burbidge.*

Stipiles 1-9 polL Lamina 3-6-iwllicivria, 6-9 lin. latii, pinnis intimis hand redncti fl. *Pinna'* 3-4 ltd. loiiti*?, btui li-2 lin. lats.

Tins also is one of Mr. Barbidge's iiocovcrieH in North Borneo. In habit it most resembles *A. ttiitdtUvm* v»r. *Edgevxnihit.* It ia remarkable in the ptnus for it* very crisped pinna?, with a Terr irregalar npper margin.—J. G. BIKER.

Fig. 1. A toft of fronds, *life tist.* 2, *i. Piaam, mhagti.*



J Allen del.

Lindsaya crispa, Baker.

PLATE 1628.

LINDSAYA LEFTOFHYLLA, Baiter.

FILICES, Saborder POLTPODUCU, Tribe LINDSAYEÆ.

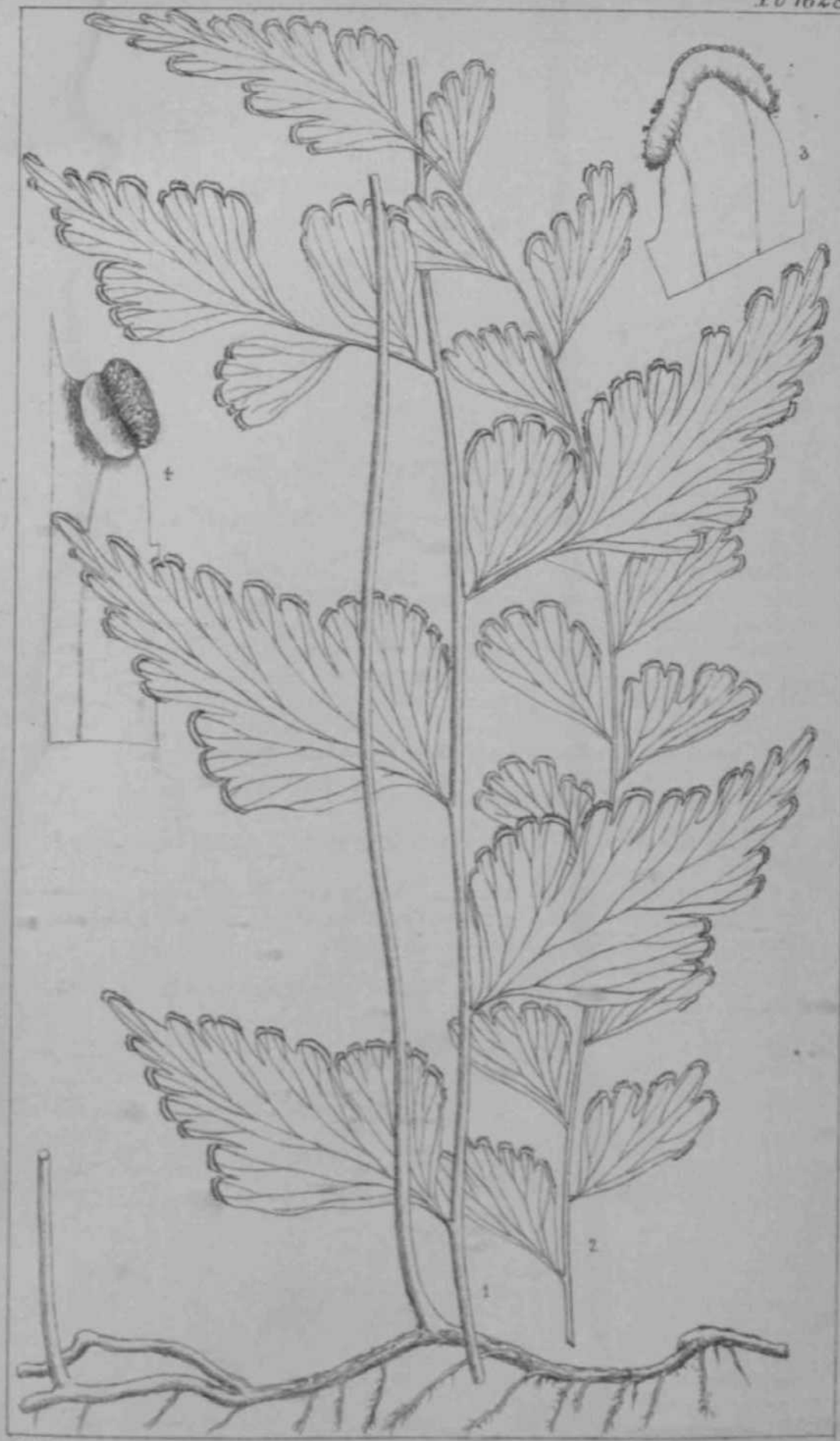
Lindsaya leptophylla, *Baker in Journ. Hot* 1884, p. 141; rhUomate filiformi longe repent© epigreo paleis tninntis lancoolatis m«m> branaceis bronneis decidnis vestito, shpitibus ffrncilibns atro-castanets elon^atis nndis, frondibus laneeolatis simpliciti?r pinnatiB merabrftnaoeis glabris, piunis rbomboideis dimidiatis magnis luxe dispoatis sobsfssk libus marginibos intcrioribufi et inferioribos rectis integria reliquis profande irregulariter lobatia, veuis liberU fl&bel]&tt8, sons linearibus ralde interruptis, indnsii valvis angustu chartaoeis glabria.

HAB. North-east Madagascar, *Iluinhht*, 495.

*Stipite*i semipedales. *Lamina* pedalis et nltra, 3-4 poll. lata. *Pinnm* 1-2 poll, longae.

A *very* distinct Hpeciefl, discovered lately, with several other curious noreltieft, by M. Humblot in his explorations of the tropical forest* of the north-east of Madagascar.—J. G. BAKER.

Fig» 1, 2. Whole plant, *l\f<* *size.* 8. Scrifopoui portioo of «dg« of pinna,



J.Allen del.

Lindsaya leptophylla. Baker.

PLATE 1629.

LINDSAY A MADAGASCABIENSIS, **Safer.**

FIUCES, Suborder POLTPODIACE*, Tribe Lrs»aATE*.

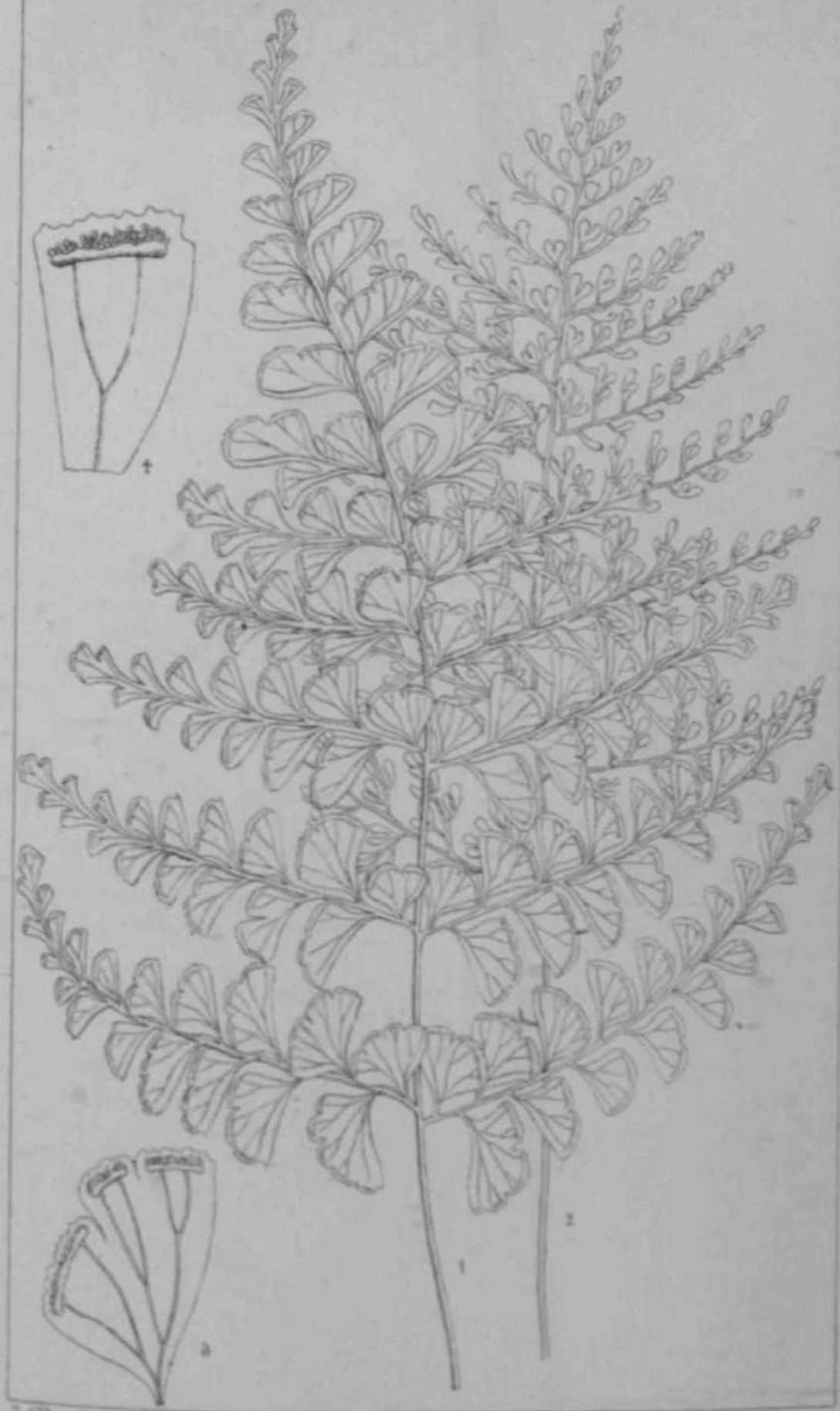
Lind&aya madagascariensis, ***Tlaktr in Joum. Lmm, 800.*** **vol.** xvi. p. 198; rhizomate graeili <?piga?o long© repente paleis lanceolatis miiiutis brunneis crtspatls fnrfaraoeo, stipitibus elongatu gnu-ilibns IIDdis deorgnm castaneis sursum stramioeis, fromlibas deltoideis glab-is '2-^-pitinatis, piunis lancenlatia infimis maximis. pinnulis rbomboideiu vel cuneatis integris inargine exteriore irregnlttritcr ii so-crenatis vel intcrdum profunde palmatim dirisis, venis liberis flaWli atis, iudasii valva intt riun.* intramarginali aognsta persisttnte.

HAD. Damp woods of the central region of Madagascar, *Cameron, BeU* Oilpin, Hiidebramtt,* 4150.

Stipitet 3-6-poll. longi. *Lamina* 4-6 poll, longa et lata. *Pinna* 4-6 I in. longn.

Allied to the Tropical Asiatic *L. flaleUulata*, Dryand., and the Bralilitin *L.* **wrutwm, Bw,** Very variable in cutting, **toe** type being sinuply biptnnatc another form with pinnules palmntely ck'ftto tbe bate, and % third decomponnd with final segments not more than half a line broad.—J. G. BAKER.

Figs. **1, S. Fronds of two form*,** ***lift tut.*** **3, 4. Soriferou*** segments, ***t9Mrgtn.***



J. Allen del.

Lindsaya madagascariensis, Baker

PLATE 1630.

ADIANTUM BALFOUBII, *Baler.*

FILICES, Suborder POLYPODIACEJE, Tribe PTERIDEJE.

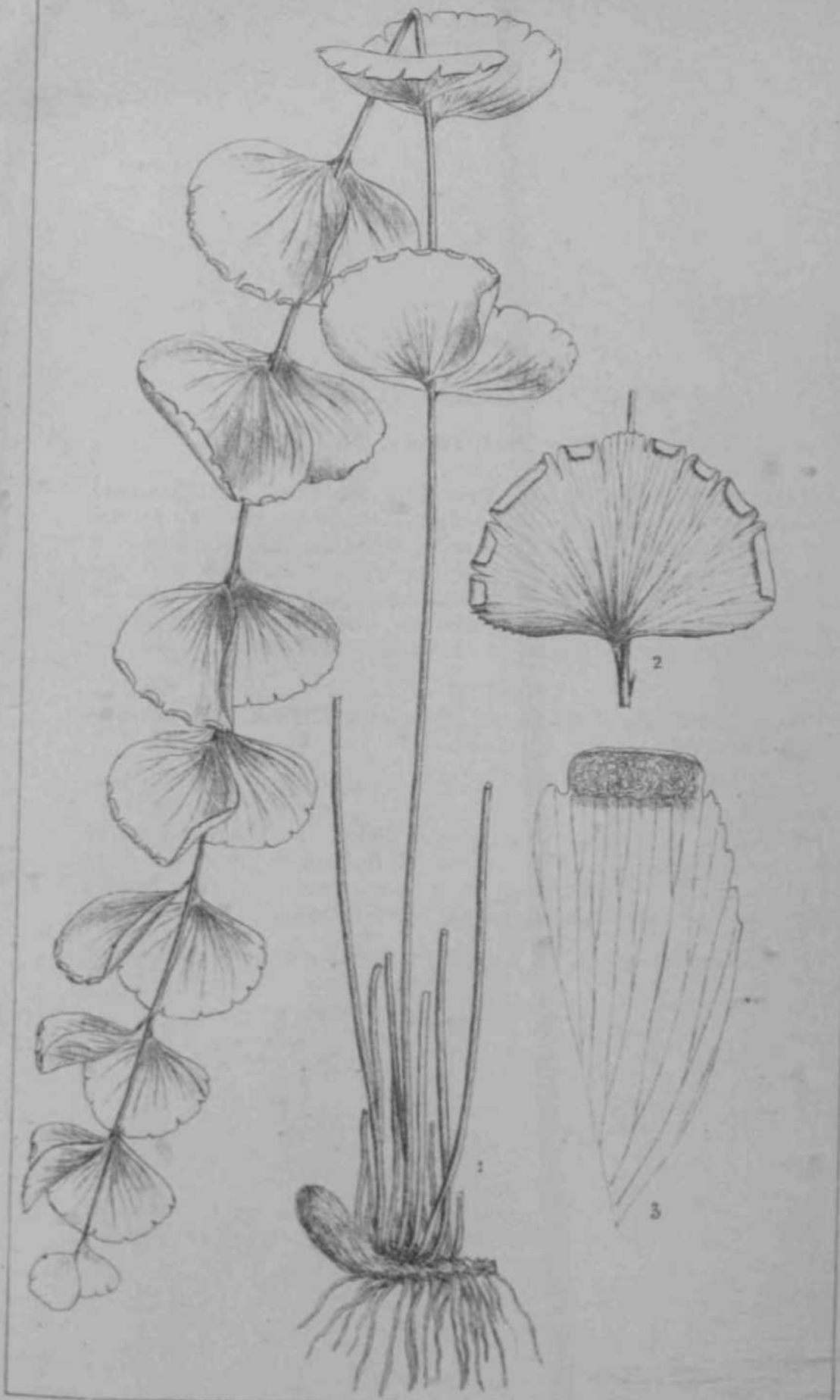
Adiantum Balfourii, *Baher in Proc. Royal Soc. Edinl. ine&it.*; caudice breviter repente paleis parvis linearibus castaneis dense vestito, stipitibus contiguis elongatis castaneis nudis, frondibus lanceolatis glabris simpliciter pinnatis, pinnis 6-12-jugis brevissime petiolulatis oppositis orbiculatis basi integris late deltoideis vel trnncatis margine exteriore leviter lobatis infimis haud reductis, venis liberis contiguis flabellatis, soris valde interruptis linearibus vel lineari-oblongis, indusio angusto glabro.

HAB. Mountains of the island of Socotra, *Balfour*, 198; *Schtceinfurth*, 544, 774.

Stipites 4-6-pollicares. *Lamina* 4-8 poll, longa, 9-18 lin. lata. *Pinnm* 6-12 lin. latae.

This is the most remarkable new fern which was discovered during the recent exploration of the island of Socotra by Professor Isaac Balfour and Dr. Schweinfnrth. It is nearest to *A. lunulatum*, but the pinne are opposite and nearly sessile.—J. G. BAKES.

Fig. 1. Whole plant, *Itfe list.* 2. A pinna. 3. Portion of a pinna. *Both enlarged.*



J.Allen del.

Adiantum Balfourii, Baker.

PLATE 1631.

ADIANTUM GROSSUM, *Mett.*

FILICES, **Suborder** POLYPODIACEJE, **Tribe** PTERIDE*.

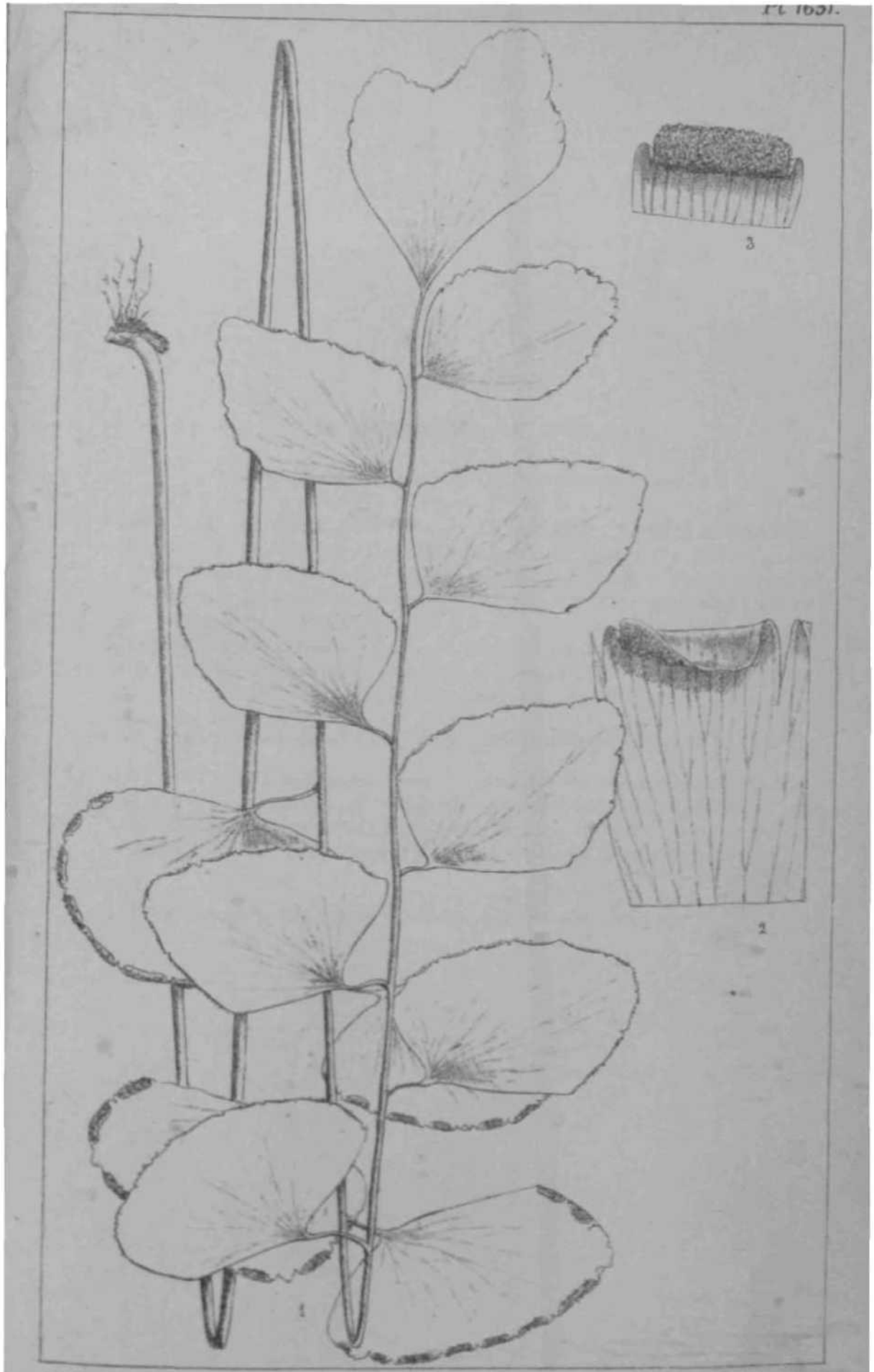
Adiantum **grossum,** *Mett. in Planch, et Triana, Prodr. Fl. Nov.* **Gran, vol. ii. p. 296; rhizomate breviter repente paleis parvis branneis linearisubulatis dense vestito, stipitibus elongatis nitidis nigris nudis, frondibas lanceolatis glabris simpliciter piunatis, pinnis 7-12-jugis alternis magnis petiolatis soperioribus rhomboideis inferioribas semi-orbiculatis basi integris margiiie superiore irregulariter inciso-crenatis, venis liberis flabellatis, soṅs linearibus valde interruptis, indusio angnstissimo gla**bro.—*Hook, et Baker, Syn. FU.* edit. 2, p. 472.

HAB. Andes of New Granada, 3,500-7,000 ft., *Lindig.*

***Stipites* semipedales vel pedales. *Lamina* pedaliset ultra, 3^-4 poll, lata. *Petioli* siipremi brevissimi, infimi 6-8 lin. longi.**

This is a very distinct species, nearest to the simply pinnate form of *A. peruvianum,* which has not yet been introduced into cultivation.—J. 6. BAKES.

Fig. 1. Whole plant, *l\fe sire.* 2,3. Sorifenras portion of a pinna, *enlarged.*



J Allen del

Adiantum grossum, Mett.

PLATE 1632.

ADIANTUM GRAVESII, *Hanee.*

FILICES, Suborder POLYPODIACE*, Tribe PTERIDEJ:.

Adiantum Gravesii, *Hance in Journ. Bot.* 1875, p. 197; caudice erecto paleis minutis apice vestito, stipitibus csspitosis gracillimis nigris nudis, frondibus lanceolatis simpliciter pinnatis glabris, pinnia 4-7-jugi8 petiolatis ascendentibus cuneatis ©qailateralibus apice late emarginatis, venis liberis flabellalis, soro Bolitario in pinnaram Binu apicali imposito, indusio lato glabro lineari Tel lineari-oblongo.

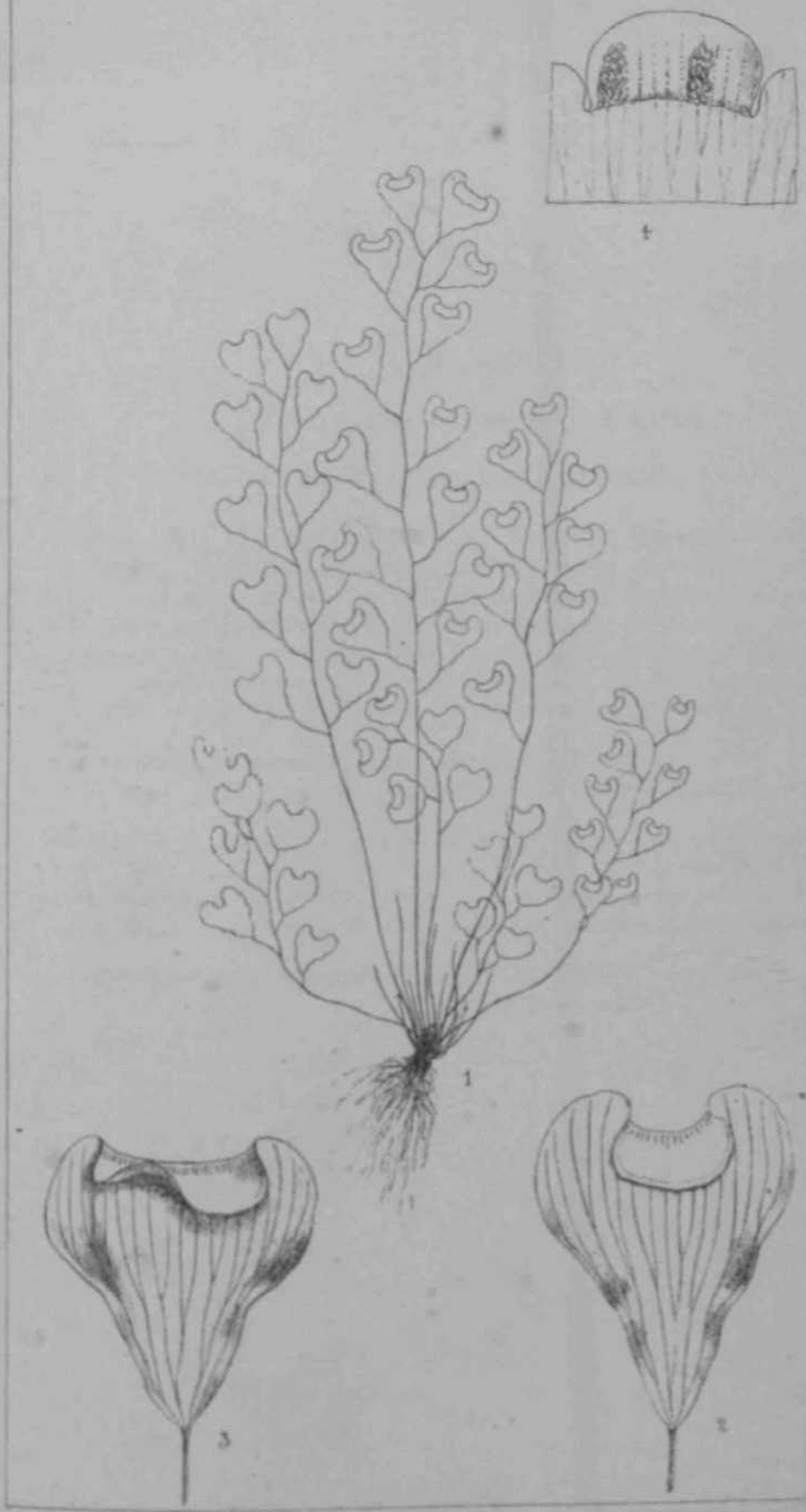
Adiantum Mariesii, *Baker in Qard. Chrcn.* N.8. vol. xiv. p. 494.

HAB. China; banks of the North river, province of Canton, *Rev. J. Lamont (Hance,* 18831) ; Ichang gorge, *Maries.*

Btipites \-\\ poll, longi. *Lamina* 1-2i poll, longa, 4-6 lin. lata. *Pinnce* 2 lin. lato, petiolis l£-2 lin. longis.

This tiny new *Adiantum* combines the segments of *A. vionochlamyi* with the habit of the dwarf varieties of *A. lunulatum.—J.* 0. BAKEB.

Fig. 1. Whole plant, *life* tue. 2, 3. Pinnae. 4. 8oras and indnnnm, *E*larg$d.*



J.Allen del.

Adiantum Gravesii, Hance

PLATE 1633.

ADIANTUM MONOSORUM, *Baker.*

FILICES, Suborder POLYPODIACE^, Tribe PTERIDEJE.

Adiantum monosorum, *Baker in Hook, ti Baker, 8yn. Fil* edit. 2, p. 472 ; stipitibns cum rachibus atro-castaneis nudis nitidis, frondibua firmis glabris deltoideis bipinnatis, pinnis lauceolatis infimis maximis basi postice furcatis, pinnulis rhomboideis multijugis petiolatis contiguis apice obtusis marginibus interioribus et inferioribus integris reliquis denticulatis, venis liberis flabellat.is, Boris solitariis ad pinnularuin marginem Buperiorem impositis, iudnsio firmo persistente orbiculari vel oblongo-reniformi.

HAB. New Caledonia, *Herb. Macleay.*

Stipites 3-4 poll, longi. *Lamina* 6-8 poll, longa, pinnulis 20-25-jugis 8-4 lin. longis, petiolis castaneis ascendentibns i-1 lin. longis.

Allied to the well-known *A. affine* of New Zealand, but easily distinguished from all its allies by its solitary sori.—J. G. BAKER.

Fig. 1. Whole plant, *life site.* 2. Pinnule. 3. Soros. *Both enlarged.*

J Allen del.

Adiantum monosorum, Baker

PLATE 1634.

ADIANTHM SERICEUM, *Eaton.*

FILICES, **Suborder** POLTPODIACE-E, **Tribe** PTEBIDEA.

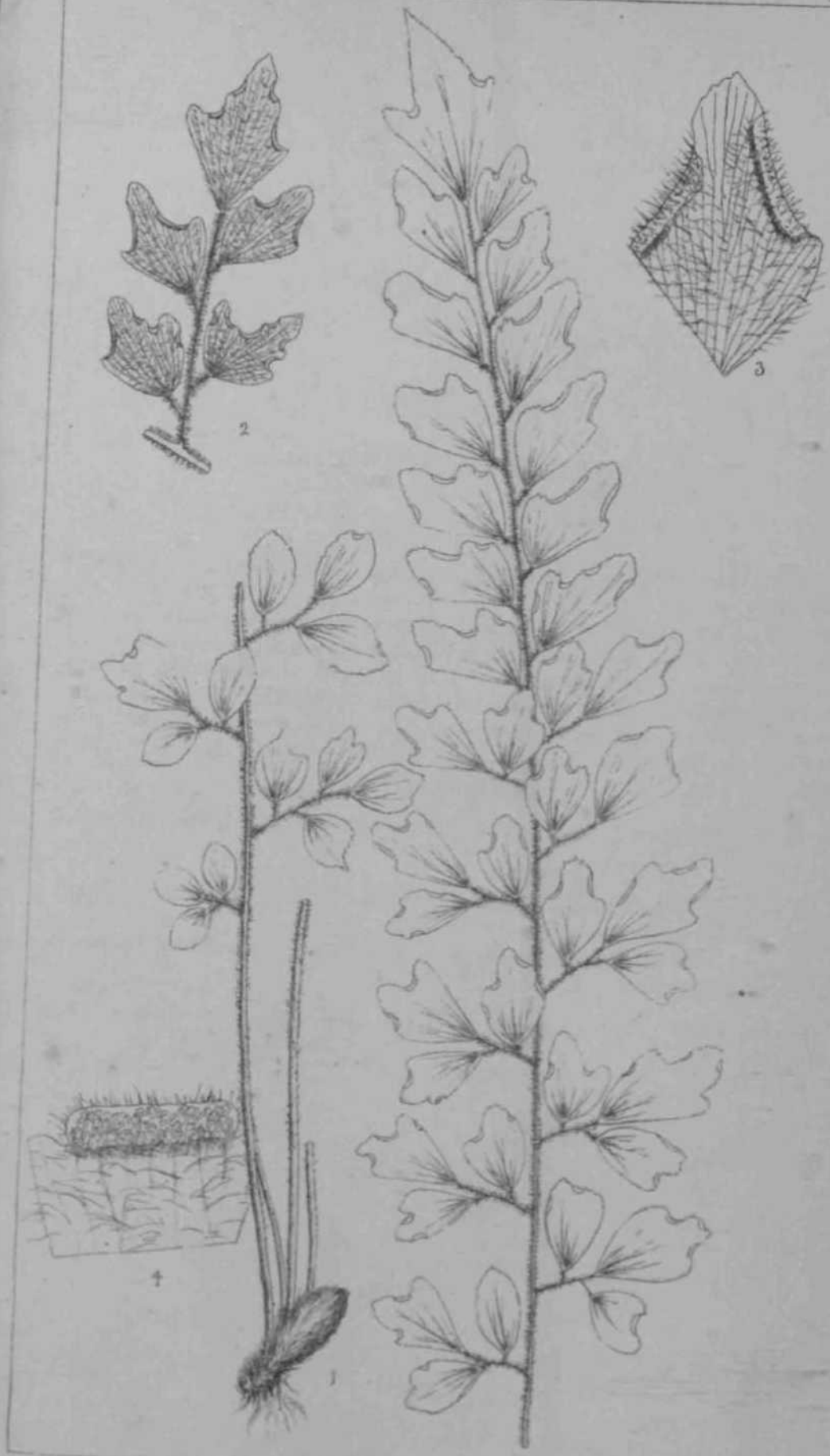
Adiantum sericenm, *Eaton in Bot. Zeit.* 1869, p. 361; caudice suberecto apice paleis membranaceis brnnneis lineari-subuiatis dense vestito, stipitibus gracilibns contiguis castaneis sursum cum rachibns dense pilosis, frondibus oblongo-lanceolatis sarsum pinnatis deorsum bipinnatis utrinque pilosis, pinnis brevibns, pinnnlis terminalibus cuneatie, lateralibus rhomboideis dimidiatis breviter petiolatis latere snperiore basi auricnlatis sterilibus margine inciso-crenatis, venis liberis flabellatis, soris lincaribus, indusio angastissimo piloso.—*Hook, et Baker, Syn. Fil.* edit. 2, p. 473.

HAB. Southern Cuba, banks of tbe river Curbani, near Trinidad, *Wright,* 3950.

***Stipites* 2-4-pollicares. *Lamina* pcdalis et ultra, deorsum 2-3 polL lata. *Pinnulce* terminales 9-12 lin. lataB.**

A very distinct species, easily recognised by the persistent hairiness of both its surfaces.—J. G. BAKER.

Fig. 1. Whole plant 2. Pinna. *Both life size.* 3. Pinnule. 4. Sorus. *Both enlargid.*



J. Allen del.

Adiantum sericeum, Eaton.

PLATE 1635.

CHEILANTHES LIDGATII, *Baker.*

FILICES, Suborder POLYPODIACEÆ, Tribe PTERIDEA.

Cheilanthes Lidgatii, ***Baker in Hook, et Baker, Syn. Fil.*** **edit. 2, p. 475; rhizomate repente, stipitibus nudis stramineis, f rondibus deltoideis 2-3-pinnatis subcoriaceis glabris, pinnis superioribus lanceolatis, infiaiis maxirais latere inferiore furcatis, segmentis oblongis contiguis adnatis sterilibns dentatis, venis liberis pinnatis venulia occultis farcatis, indasiis latis rigidis glabris obloBgis segregatis vel confloentibus.**

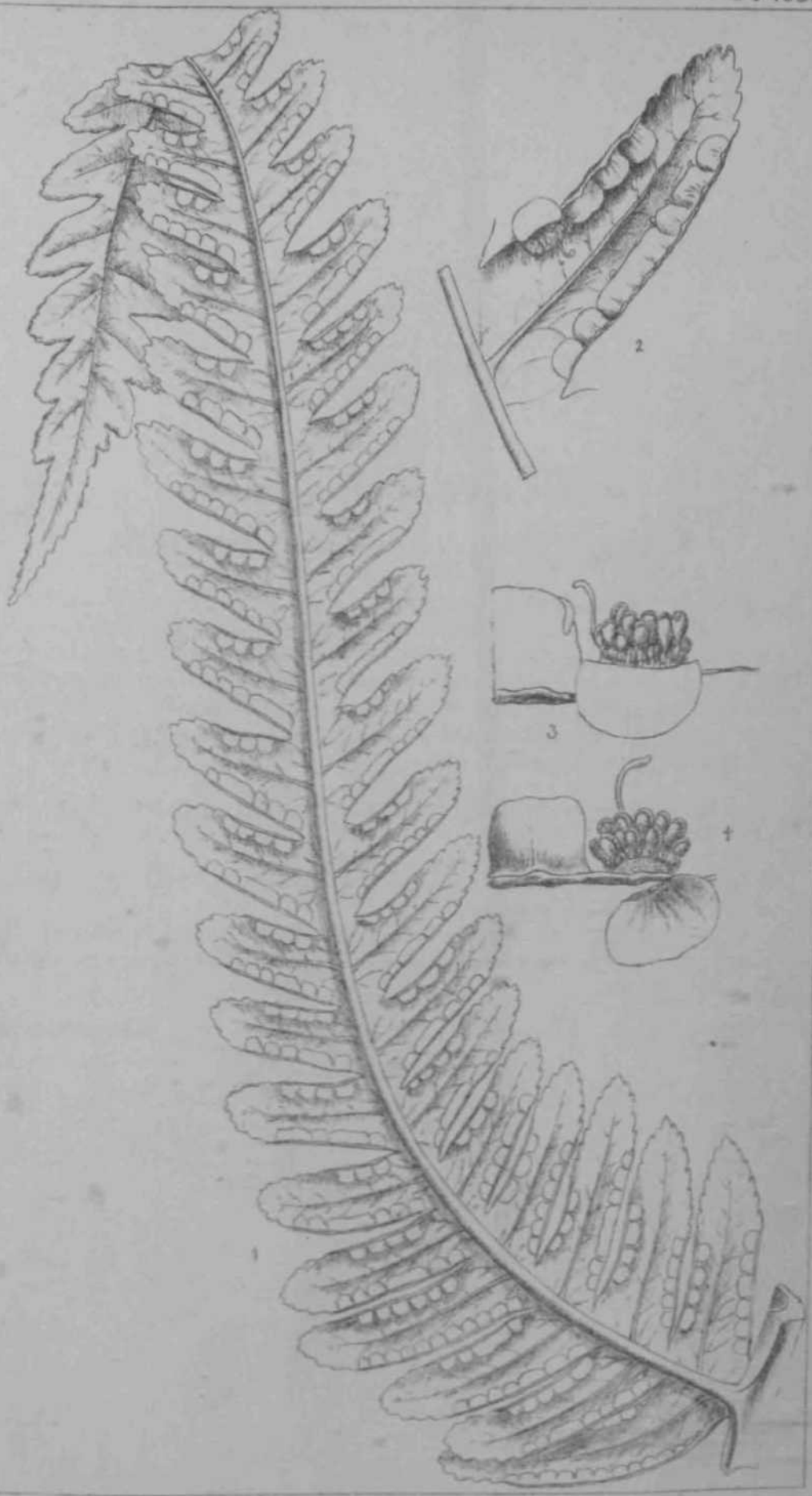
Schizopteris Lidgatii, ***Hilleb. HISS.***

HAB. Sandwich Islands, moontains of Oahu, only two plants seen, ***Hillebrand.***

Stipites **pedales.** ***Lamina*** **H-2-pedalis, pinnis 18-21 lin. latis, segmentis nltimis 3 lin. latis.**

This is totally different in habit from all the known species of ***Cheilanthes,*** **and was regarded by its discoverer as the type of a new genus. —J. G. BAKER.**

Fig. 1. A central pinna, ***Itfeiiu.*** **2. Final segment. 3, 4. Sori, with indusia.** ***Enlarged.***



J.Allen del.

Cheilanthes Lidgatii, Baker.

PLATE 1636.

CHEILANTHES BOLUSII, *Baker.*

FILICES, Saborder POLYPODIACEJB, Tribe FTERIDEA.

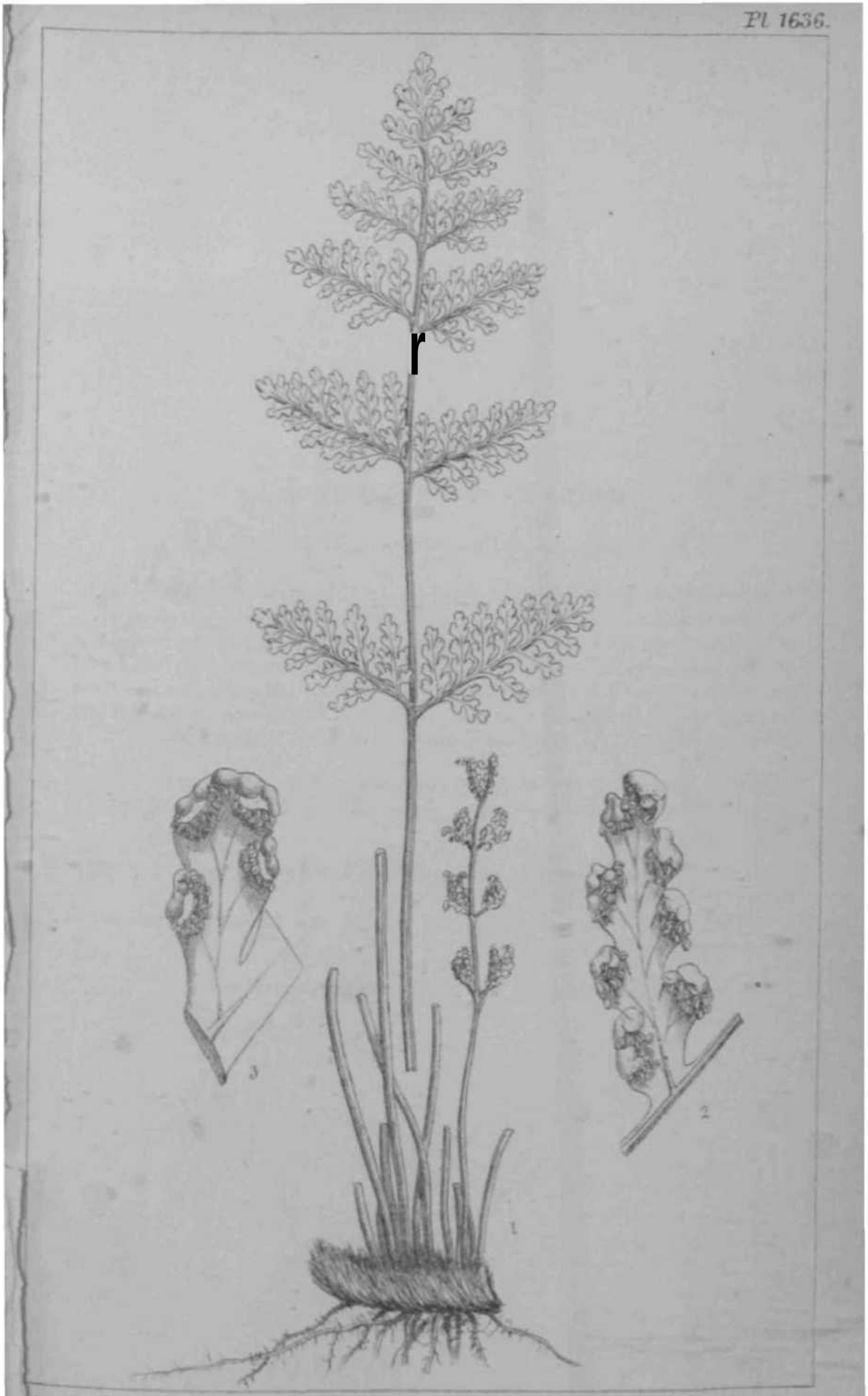
Cheilanthes Bolnsii, *Baker (sp. nov.)*; rhizomate breviter repenie paleis lanceolatis firmis nigris branneo-marginatis patulis dense vestito, stipitibus elongatis cum rachibus atro-castaneis nitidis nudis, frondibus oblongo-lanceolatis3-4-pinnatifidis rigidulis viridibns facie glabris dorso glandulosis, pinnis deltoideis ascendentibus laxe dispositis baai postice cuneato-truncatis infimis maximis, segmentis nltimia parvis incarvatia orbicnlaribus Tel obovatis, yenis pinnatis, indusio angusto glabro.

HAB. Cape Colony; south-western district on the banks of the Breede river at Darling bridge; *Bolus*, 2801. Gathered also by L. Kitching,

***8tipite8* 3-8 poll, longi. *Lamina* 3-8 poll, longa, deorsum 1-2 poll, lata. *Pinnce infimce* 12-18 lin. long©.**

Allied to the Australian (7. *Sieberi* and the Indian *C. bnflosa.*— J. G. BAKER.

Fig. 1. Whole plant, *life siue.* 2,3. Soriferous segments, *enlarged.*



J.Allen del.

Cheilanthes Bolusii, Baker.

PLATE 1638.

PELLJEA PEABCEI, *Baker.*

FHICES, Suborder POLTPODUCEA, Tribe PTEBIDEA.

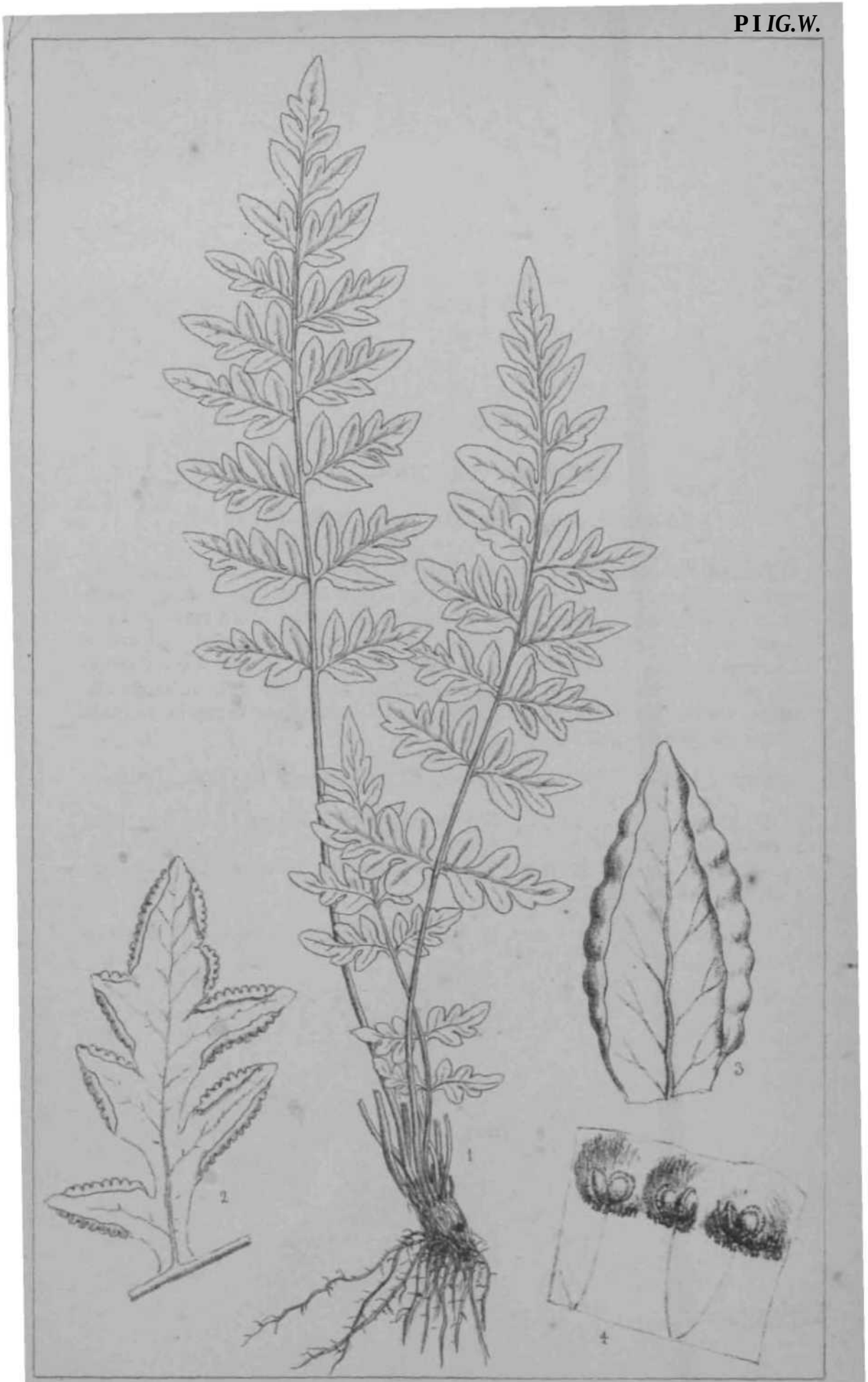
Fellsa Pearcei, ***Baker in Hook, et Baker, Syn. Fil.*** **edit. 2, p. 476; caudice erecto, stipitibus cesspitosis nudis gracilibus castaneis deorsum paleis pancis lanceolatis sordide brunneis praeditis, frondibus oblongo-lanceolatis bipionatis membranaceis yiridibus glabris, rachi primaria nuda castanea, pinnis sessilibus paucijogis deltoideis basi postice cuneato-truncatis infimis viz rednctis, pinnnlis oblongis integris ad-Datis, venis liberis pinnatis venulis erecto-patentibus furcatis, indusio continuo crenato glabro.**

HAB. Andes of South Columbia; El Volcan, alt. 6,000 ft., ***Pearce.***

Stipites **2-3 poll, longi.** ***Lamina*** **2-3 poll, lonsa. 12-15 lin. lata. pmnuhs 1^-2 lm. latis.**

Allied to the Californian P. ***Breweri*** **and the Mexican P.** ***Seemanni.*** **—J. G. BAKER.**

Fig. 1. Whole plant, ***life stze,*** **2. Pinna. 3. Pinnule. 4. Son, with indusium rolled back.** ***More w less enlarged.***



J.Allen del.

Pellæa Pe[illegible]arcei, Baker.

PLATE 1639.

PELLJBA KITCHINGII, *Baker.*

FILICES, Suborder POLYPODIACE*, Tribe PTERIDEJS.

Pellsea Kitchingii, *Baker in Journ. BoL* 1880, p. 327; rhizomate repente, paleis lanceolatis brunneis membranaceis dense vestito, stipitibns contiguis elongatis castaneis nndis, frondibus deltoideis tripinnatifidis crassis snbcoriaceis viridibus glabris, pinnis inferioribas in&quilateralibns, infimis maximis deltoideis postice productis, segmentis ultimis lineari-oblongis obtusis, venis immersis occultis, indnsio angnsto firmulo continuo persistente.

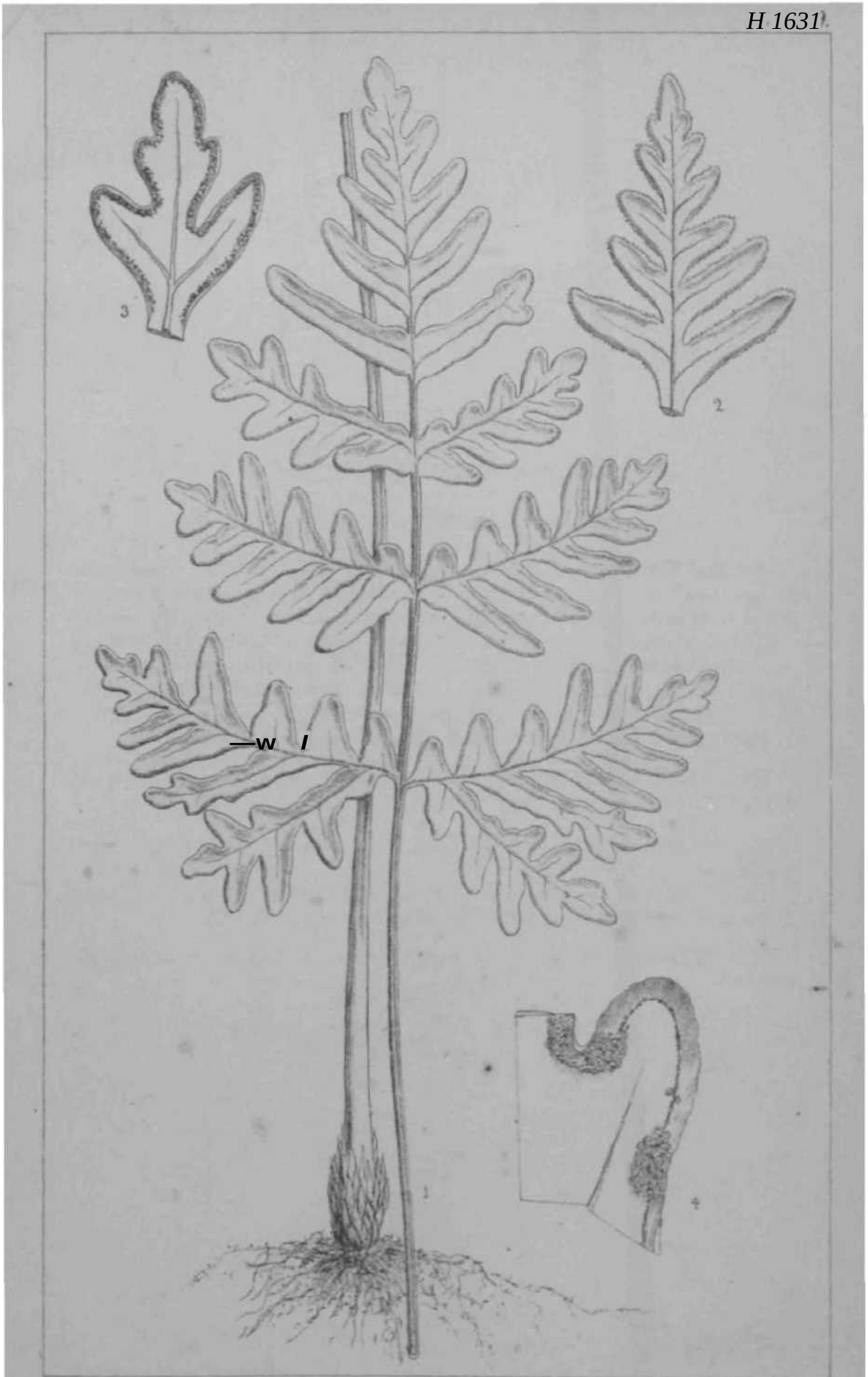
Doryopteris Kitchingii, *Kuhn in PI. Hilleh. Exsic.* No. 4163.

HAB. Central Madagascar; Betsileo land, *Kitching, Hillebrand,* 4163.

Stipites interdum pedales et ultra. *Lamina* 2-4 poll, longa, segmentis nltimis H-2 lin. latis.

This is one of the most interesting and distinct of the new ferns discovered recently in Central Madagascar.—J. G. BAKER.

Fig. 1. Whole plant, *life size. 2,*3. Apex of pinnae. 4. Edge of fertile segment. *Enlarged.*



J. Allen del.

Pellæa Kitchingii, Baker.

PLATE 1640.

PTERIS PHANEROPHLEBIA, *Baker.*

FILICES, Suborder POLYPODUCEA, Tribe PTERIDEJ:.

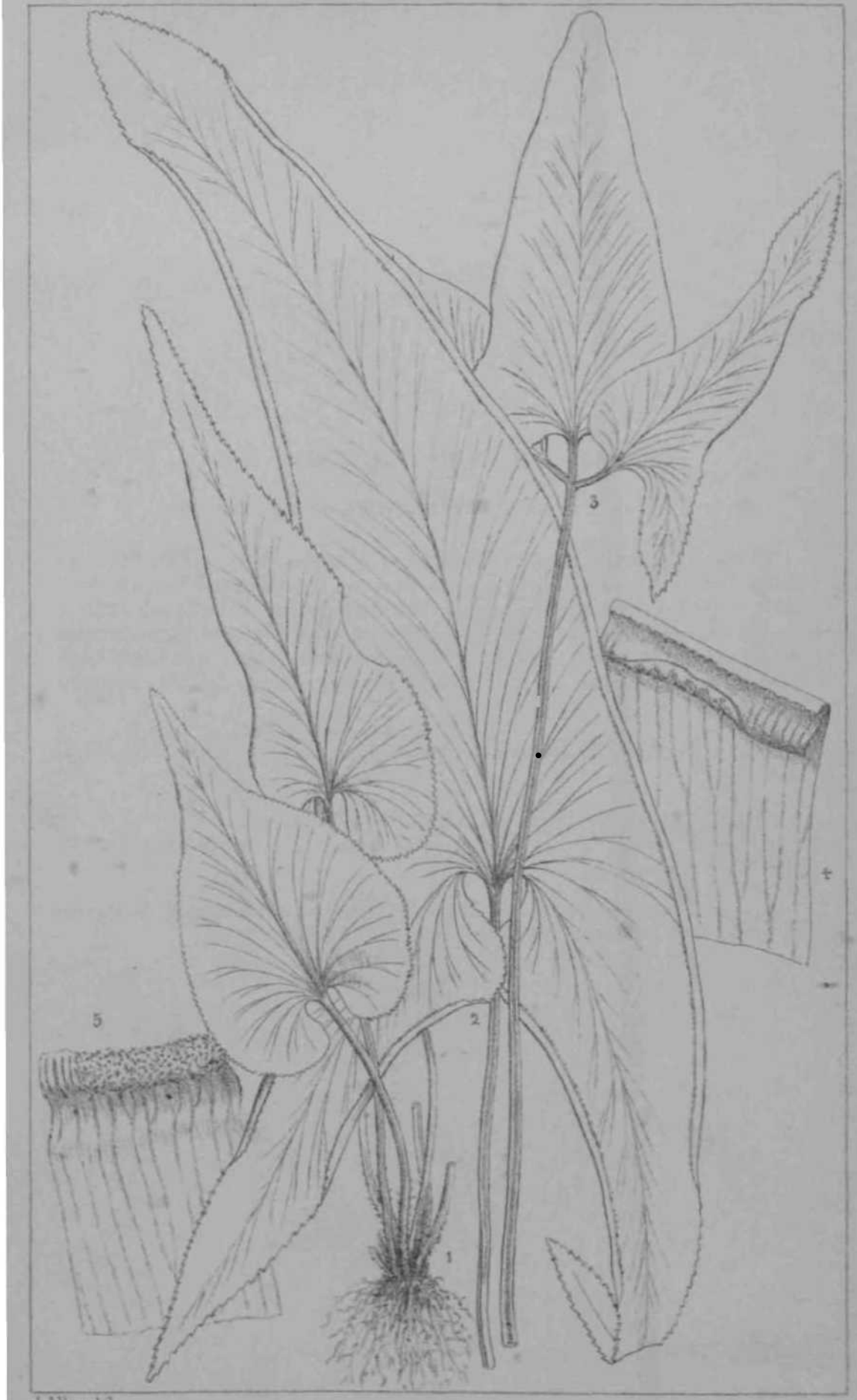
PteriB (Eupteris) phanerophlebia, *Baker in Journ. Bot.* 1881, p. 367; candice erecto paleis paucis minutis lanceolatis brunneis prsadito, stipitibns c©spitosis elongatis dastaneis nudis, frondibus membranaceis glabris viridibus simplicibns sagittatis anriculis eloDgafcis acutis rarissime trifoliolatis, sterilibus margine dentioulatis, venis pinnatia vennlis ascendentibns furcatis liberis, soris continuis, indusio angnsto glabro.

HAB. Central Madagascar, *Curtis,* 126; *Baron,* 2634; *Humblot,* 256.

Stipites 3-12 poll, longi. *Lamina* 6-8-pollicaris.

Allied in habit to the well-known Brazilian P. *8agittifolia*$_y$ Raddi, but the veining free.—J. G. BAKER,

Figs. 1, 2, 3. Whole plants, *life rise.* 4. Portion of fertile frond. 5. Portion of fertile frond, with indnsium rolled back. *Both enlarged.*



J Allen del.

Pteris phanerophlebia, Baker.

PLATE 1641.

FTEBIS DECOMPOSITA, *Baker.*

·FILICES, Suborder POLYPODIACE-E, Tribe PTERIDEJE.

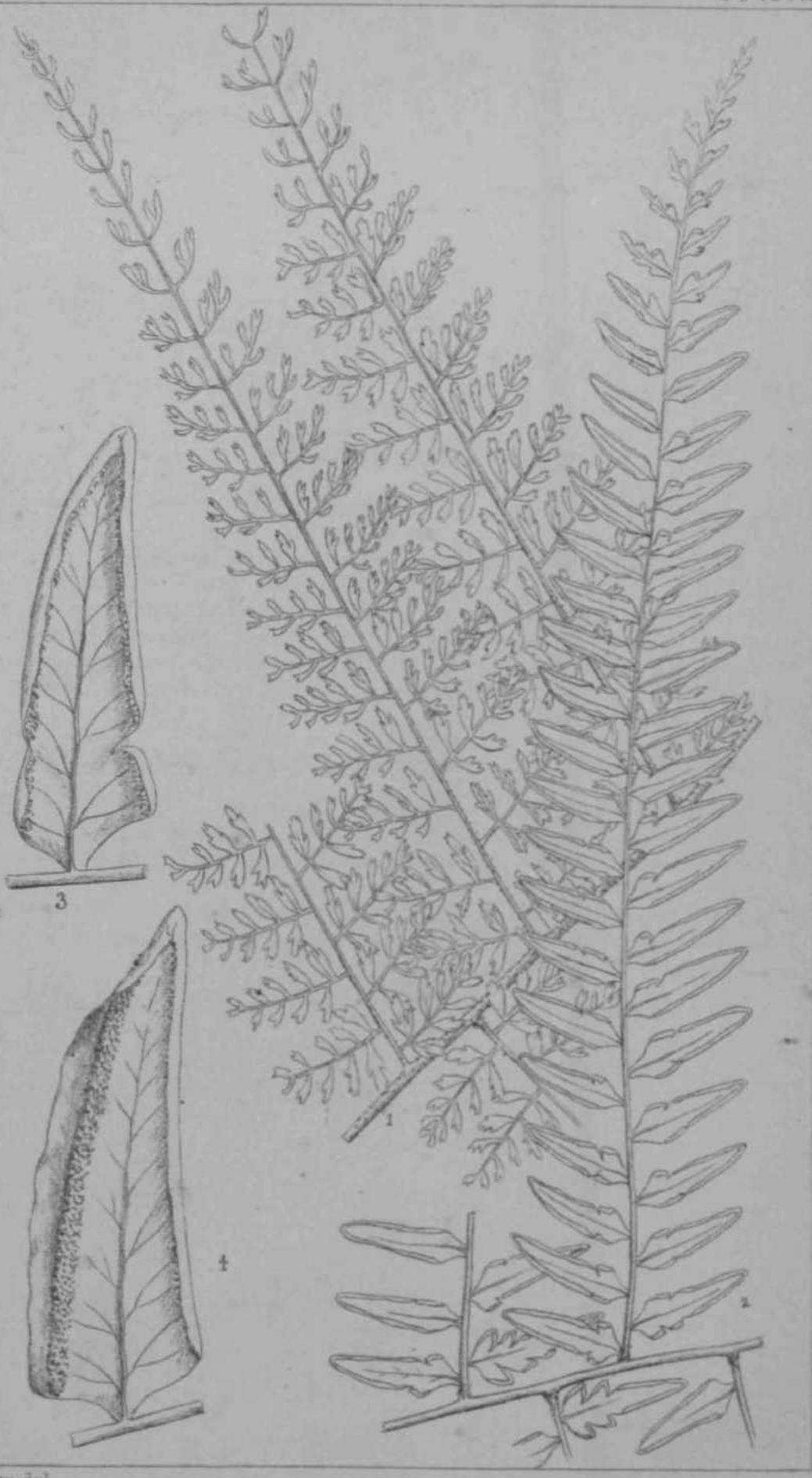
Pteris (Enpteris) decomposita, *Baler in Hook, et Baker, 8yn. Fil.* edit. 2, p. 479 ; stipitibus eloogatis castaneis nudis, frondibus amplis deltoideis decompositia viridibus glabris, rachibus castaneis parce muricatis, pinnis infimis maximis basi postice furcatis, segmentis nltimis segregatis adnatis ascendentibus lanceolatis interdum parvis uninerviis interdnm majoribns venis pinnatis, sori's continuis, indusio firmulo glabro persistente.

HAB. Peruvian Andes; Mnna and Pozuzo, alt. 10,000 ft., *Pearce.*

Lamina 3-4-pedalis. *Pinna infimm* 1-2-pedales.

This is one of the most interesting of the new ferns that were discovered by the late Mr. B. Pearce whilst travelling in South America on behalf of Messrs. Yeitch. It is apparently tripartite, but it is very difficult to judge of the general habit of these large ferns from herbarium specimens. There is no previously known species to which it is nearly allied.—J. G. BAKER.

figs. 1,2. Portions of frond, *life size* * 3. Fertile ultimate segments, *enlarged.*



J.Allen del.

Pteris decomposita, Baker.

PLATE 1642.

FTEBIS DOMINICENSIS, *Baker.*

FILICES, Suborder POLYPODIACEJE, Tribe PTERIDEJE.

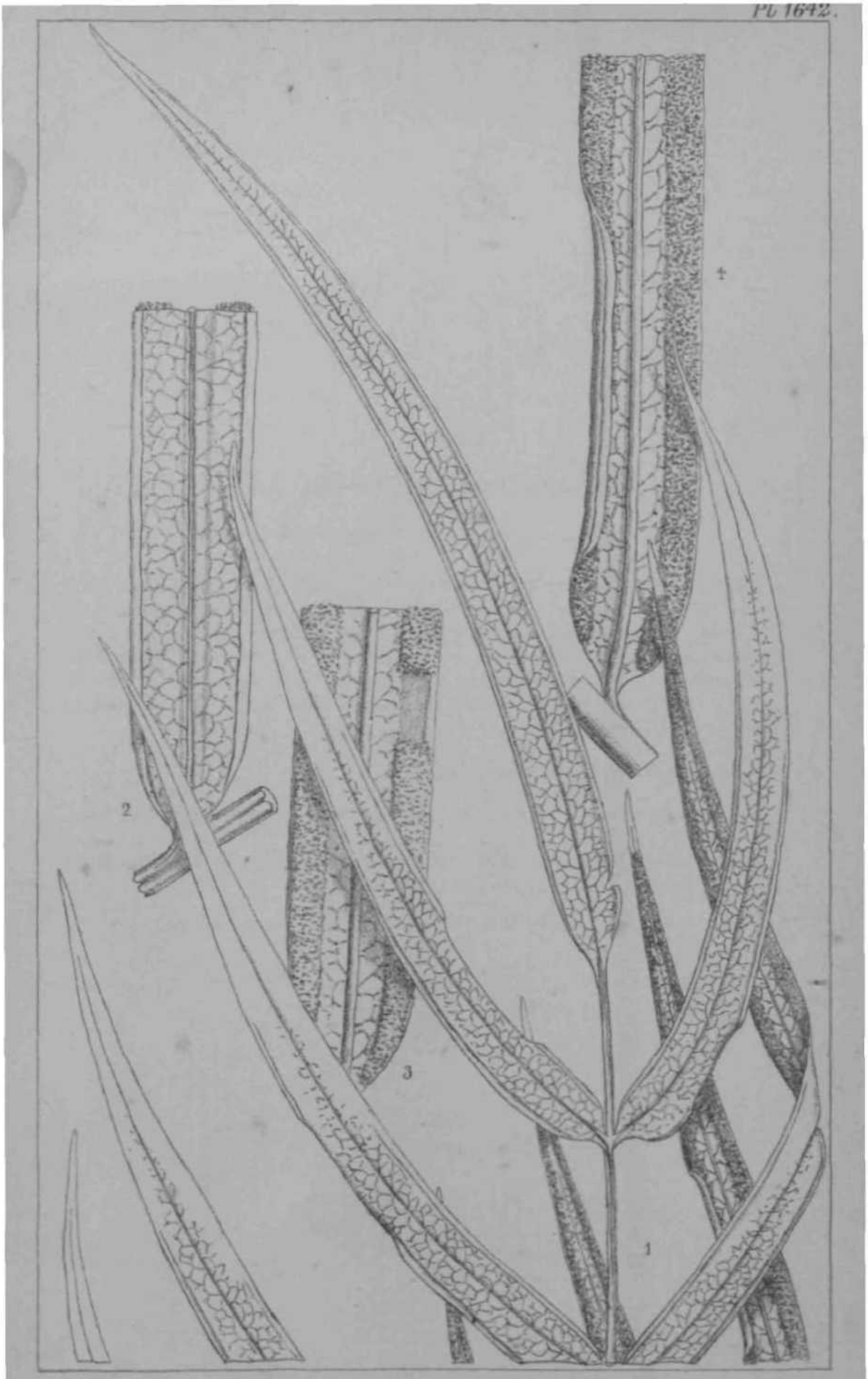
Pteris (Litobrochia) dominicensis, *Baker* (sp. *nov.*); stipitibus cum rachibus nndis stramineis, frondibus oblongo-lanceolatis simpliciter pinnatis modice firmis glabris viridibus, pinnis 17-19 linearibuB acuminatis integris oppositis ascendentibus, superioribus sessilibus, inferioribus brevissime petiolatis, infimis baud reductis, venis in areolas bexagonas anastomosantibas, soris latis e basi ad pinnarum apicem continuis, indusio angustissimo glabro.

HAB. Dominica, *Baron Eggers,* 960.

Lamina bipedalis, 8-9 poll. lata. *Pinna* semipedales et ultra, 4-4£ lin. latro.

Habit of P. *longifolia,* from which it differs by its anastomosing veins and very broad son.—J. G. BAKER.

Fig. 1. Portion of frond, *life size*. 2, 3, 4. Portions of pinnae, *enlarged*.



J. Allen del.

Pteris dominicensis, Baker.

PLATE 1643.

LOMABIA BIPOEMIS, *Baker.*

FILICES, Saborder POLYPODIACEJE, Tribe FTEBIDEJB.

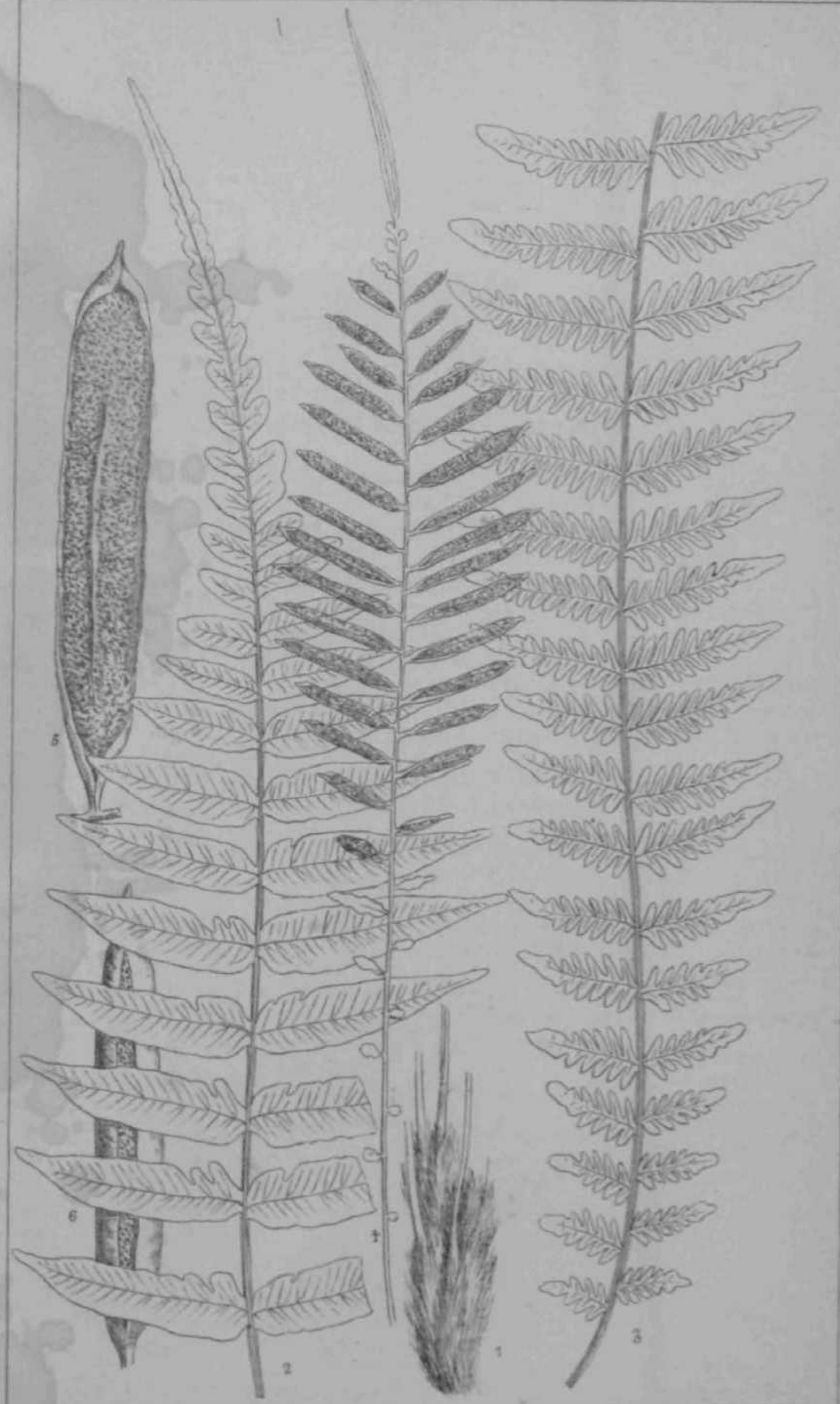
Lomaria biformis, *Baker in Journ. Linn. Soc.* **vol.** xv. p. 415; rhizomate crasso scandente paleis membranaceis lineari-subulatis brunneis dense vestito, stipitibus brevibus stramineis vel castaneis, frondibus sterilibus biformibus lanceolatia firmnlis glabris viridibus basi sensira reductis simpliciter pinnatis, pinnis mnltijagis sessilibas lanceolatis obscure crenatis venis pinnatis, venulis erecto-patentibus farcatis, vel bipinnatis pinnis ad costam pinnatis pinnulis permultis contiguis parallelis lineari-oblongis obtusis uninerviis, frondibus fertilibns pinnatis, pinnis linearibus integris.

HAB. Forests of Central Madagascar, *Heller, Pool, Kitching, Miss Gilpin, Mm H. Baker, Baron,* 2645, *Humblot,* 543.

Lamina sterilis sffipe pedalis et ultra, pinnis centralibus U-2^ poll, longis, 3-4 lin. latis. *Pinnmfertiles* 1 lin. late.

One of the most interesting of the new ferns found lately in Central Madagascar, remarkable for the great variety in the cutting of the barren fronds.—J. G. BAKEB.

Fig. 1. Base of stipes. % 3. Barren fronds. 4. Fertile frond. *Ml life size. 5,* 6. Pinna of fertile frond, *enlarged.*



J. Allen del.

Lomaria biformis. Baker.

PLATE 1644.

LOMABIA CONCINNA, *Baker.*

FILICES, Suborder POLYPODIACEJ:, Tribe PTEEIDEJE.

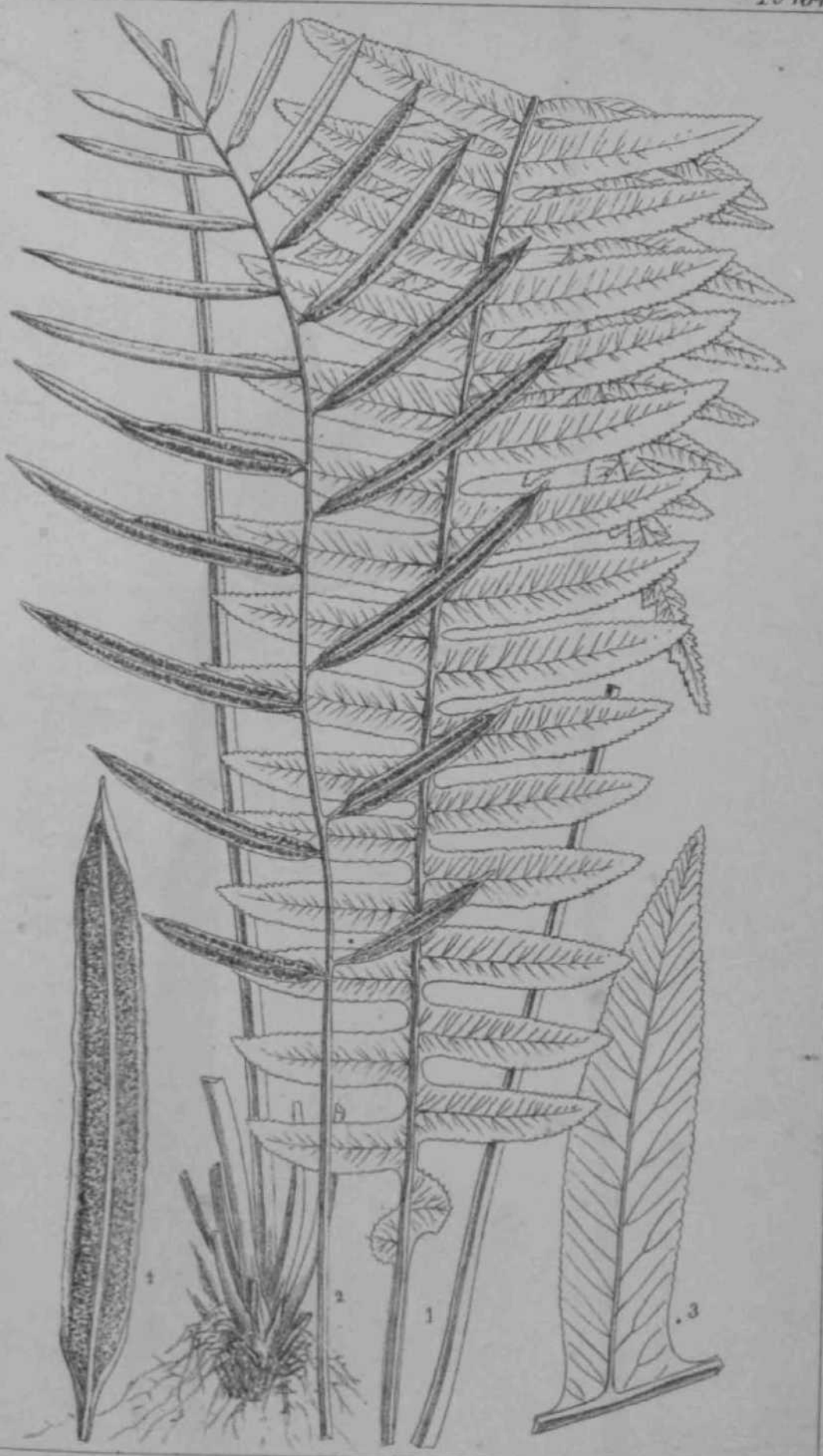
Lomaria concinna, *Baker in Jowrn% Bot.* 1885, p. 103; candice erecto, stipitibus eloDgatis nudis, frondibus sterilibus oblongo-lanceolatis simpliciter pinnatis membranaceis glabris viridibus, pinnis lanceolatis acutis multijugis contiguis late adnatis denticulatis inferioribas reductis, venis pinnatis, venulis **laze** dispositis multijugis erecto-patentibus fnrcatis, frondibus fertilibus pinnis liṇearibus, stipitibus multo longioribns.

HAB. Formosa; Tamsui district, *Hancock,* 39.

Lamina sterilis 9-10-pollicaris, 2^-3 poll, lata, stipite 3-4-pollicari. *Lamina fertilis* 4-5-pollicaris, pinnis segregatis, stipite 8-9-pollicari.

This is one of the new ferns discovered lately by Mr. W. Hancock in Formosa. It is most nearly allied to the Central American L. *semicordata,* Baker.—J. G. BAKEB.

Fig. 1. Sterile frond. 2. Fertile frond. *Both life sue.* 3. Sterile pinna. 4. Fertile pinna. *Both enlarged.*



J.Allen del.

Lomaria concinna, Baker.

PLATE 1645.

ASPLENIUM POOLII, *Baker.*

FILICES, Suborder POLYPODIACE«, Tribe ASPLENIEX.

Asplenium (Euasplenium) Poolii, *Baker in Journ. Linn. Soe.* vol. xv. p. 416; caudice erecto, paleis snbnnllis, stipitibus nudis viridibus elongatis, frondibus oblongo-lanceolatis simpliciter viridibus glabris, pinnis 5-ll lanceolatis ascendentibus acuminatis irregnlariter crenulatis sessilibus vel brevissime petiolatis apice saepissime proliferis basi sab-seqaaliter angustatis, venis pinnatis venulis ascendentibus simplicibus vel f urcatis, soṅs medialibus elongatis, indosio membranaceo glabro.

HAB. Damp forests of Central Madagascar, *Pool, Kitching, Hilde-brandt,* 3775, 4137.

***Stipites* 3-6 poll, longi. *Lamina* semipedalis vel pedalis, pinnis medio 2-8 lin. latis, centralibns interdnm semipedalibns.**

Allied to the Indian *A. Wightianum,* Wall., the Malayan *A. salignum,* Blame, and the Polynesian *A. CamUherrii,* Baker.—J. G. BAKER.

Fig. 1. Apex of frond, showing proliferous pinnae. 2, 3. Fertile pinnae. *All lift site.*

J.Allen del.

Asplenium Poolii, Baker.

PLATE 1646.

ASPLENIUM MACROPHLEBIUM, *Baker.*

FILICES, Suborder POLYPODIACEJE, Tribe ABPLENIEJ:.

Asplenium (Euaspleninm) macrophlebium, *Baker in Hook, et Baker, Syn. Fil.* edit. 2, p. 485; rhizomate breviter repente paleis ovatis brnnneis membranaceis dense vestito, stipitibns contiguis elongatis yiridibns deorsum parce paleaceis, frondibus oblongo-lanceolatis simpliciter pinDatis glabris viridibus pinnis mnltijugis sessilibus lanceolatis obtnsis crenatis basi postice cuneato-truncatis, infimis deflexis vix reductis, venis pinnatis venulis erecto-patentibus plerisqne Bimplicibus infimis anticis furcatis, sorifl medialibusregulariter parallelis, indnsio angnsto glabro.

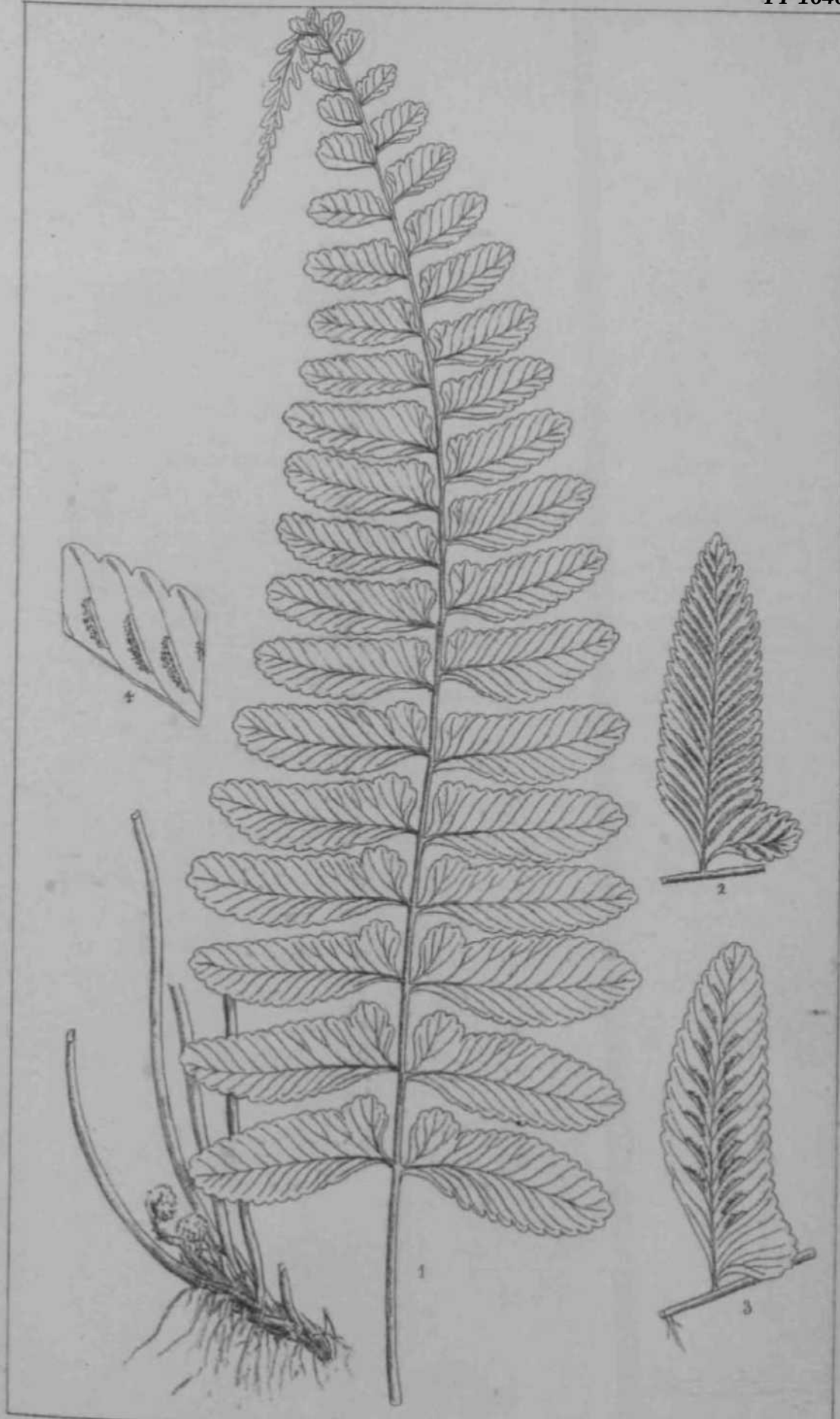
HAB. Fernando Po, alt. 2,000 ft., *Mann,* 338; Cameroon Mountains, *Kalbreyer.*

***Stipites* 3-5 poll, longi. *Lamina* 5*10 poll, longa, 2-2^ poll. lata$_y$ pinnis 5-6 lin. latis.**

Intermediate between *A. tenerum$_f$* Forst.$_y$ and *A. lunulatum,* Swartz.

J. G. BAKER.

Fig. 1. Whole plant, *life net.* 2 and 3. Pinnae. 4. Portion of pinna. *All more w leu enlarged.*



J.Allen del.

Asplenium macrophlebium. Baker.

PLATE 1647.

ASPLENIUM MICROPTEBON, *Baker.*

FILICES, Suborder POLYPODIACEA, Tribe ASPLENIEJS.

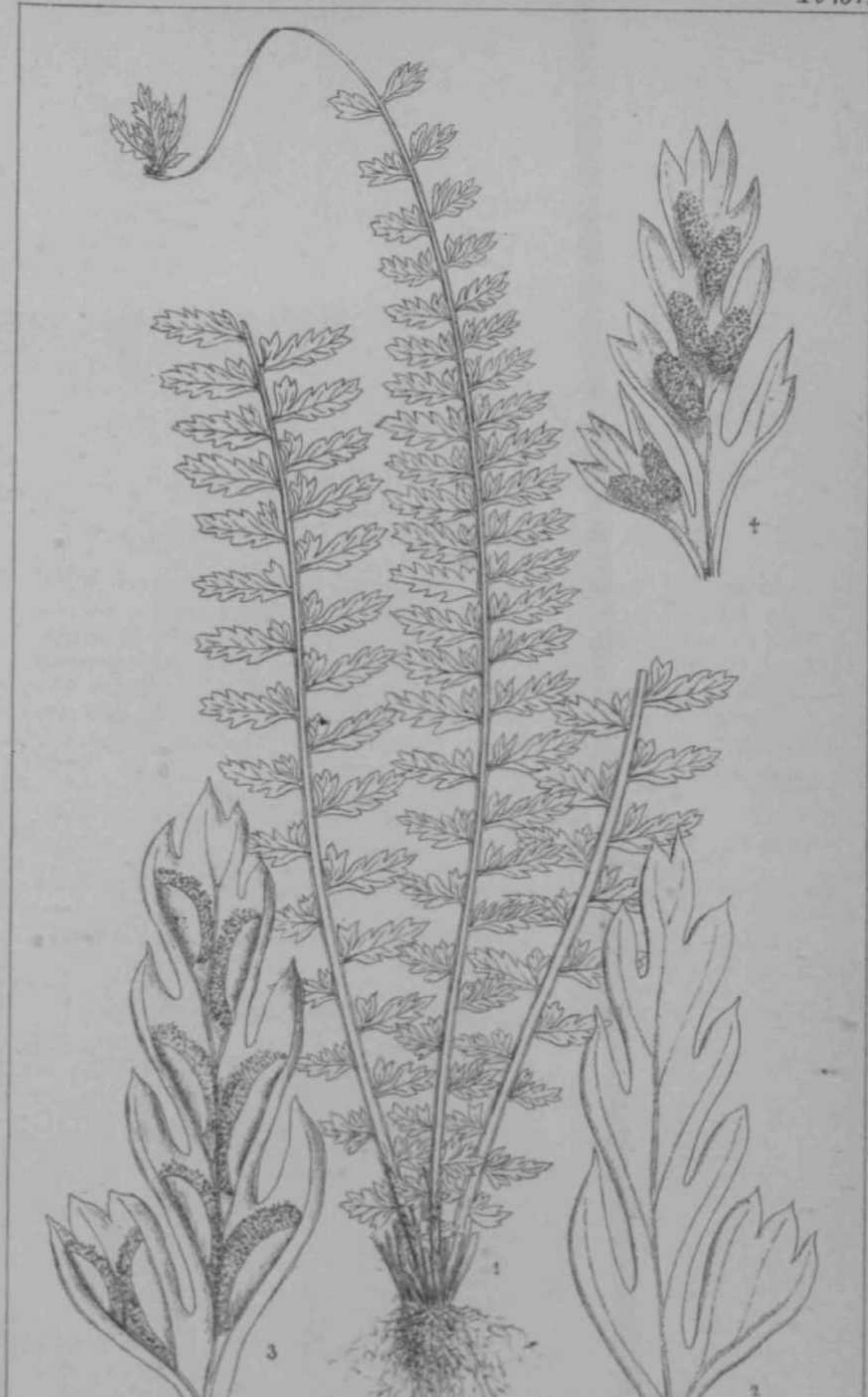
Aspleninm (Euasplenium) micropteron, *Baker in Hook, el Baker, Syn. Fil.* edit. 2, p. 488; caudice erecto, paleis lanceolatis membranaceifl clathratis nigrescentibns, stipitibns brevissimis castaneis csespitosis, frondibas lanceolatis bipinnatifidis firmulis glabris viridibns apice Sfflpissimecaudatisradicantibas, pinnis multijagis sessilibus lanceolatis basi postice cnneato-truncatis deorsum profunde sursum leviter pinnatitidis, pinnulis infimis anticis cuneatis, venis liberis ascendentibus, sorís medialibus, indusio lato glabro.

HAB. San Luis, alt. 7,000 ft., *Pearce*; Paraguay, cascade of Mba. tobi, *&c, Balansa,* 344, 2900.

Lamina 3-6-pollicaris, cauda terminali 1-1^-pollicari, pinnis 2 lin. latis.

Closely allied to the well-known Old World *A. fontanum,* Bernb.—J. G. BAKER.

Fig. 1. Whole plant, *life stue.* 2, 3, 4. Pinnae, *more or leu enlarged.*



J. Allen del.

Asplenium micropteron Baker.

PLATE 1648.

ASPLENIUM GLENNIEI, *Baker*.

FILICES, Suborder POLYPODIACEJ:, Tribe ASPLENIE*.

Asplenimn (Euasplenium) Glenniei, *Baker inHook. et Baker% Syn. Fil* edit. 2, p. 488; candice erecto, paleis basalibns linearibus rigidulis castaneis, stipitibus crcspitosis brevibns castaneis, frondibus lanceolatis 2-3-pinnatifidis glabris viridibns apice haud radicantibns, rachi primaria deorsum* castanea sursum viridula, pinnis sessilibns lanceolatis obtusis basi postice caneato-trancatis deorsnm profunde pinDatifidis inferioribus sensim reductis, pinnulis basalibus rhomboideis, venis liberis pinnatis, sons medialibns obloBgis, indusio glabro.—*Eaton in Bullet Torrey Club,* 1883, p. 29.

Athyrium gracile, *Faurn. Fil Hex.* p. 102.

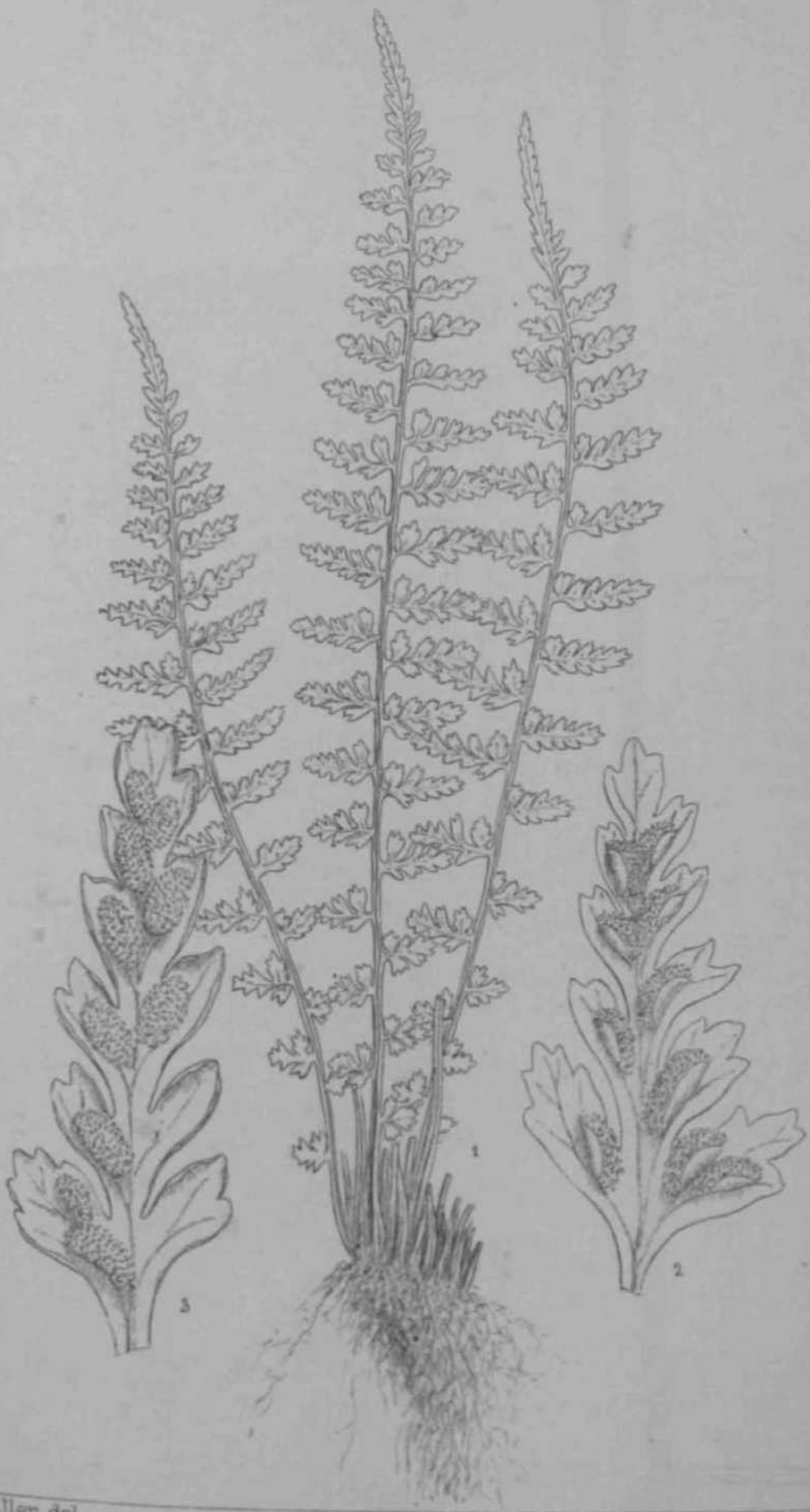
Aspleninm (Athyrium) gracile, *Hevisl. in Biol. Cent. Amer.* vol. iii. p. 634, non *Fée.*

HAB. Mexico, *Qlennie*; Rochers da Pedragal, valley of Mexico, *Bourgeau,* 252; Huachuca mountains, Arizona, *Lemmon.*

Stipite8 6-12 lin. longi. *Lamina* 3-4-poUicaris, medio 12-15 lin*. lata, pinnis 1^-2 lin. latis.

Closely allied to the last and *A. fontanum,* Bernh. It is the Mexican plant mentioned nnder *A. fontanum* in ' Synopsis Filicum,' p. 216.—J. O. BAKER.

Fig. 1. Whole plant, *life site*. 2, 3. Pinnae, *enlarged.*



J. Allen del.

Asplenium Glenniei, Baker.

PLATE 1650.

ASFLENIUM PORPHYRORACHIS, *Baker.*

FILICES, Suborder POLYPODUCE-E, Tribe ASPLKNIEJE.

Asplenrum (Diplazium) porphyroracMs, *Baker in Jaurn. JJot.* 1579, p. 40; candiee crueto, stipitibus ta'spitosis elongatis castaneo-ebenoia paleis liueari-subulatis nigrescent ibuB stepissirae pmKlitifl, frondibn.s lanceolatis rigidulis glabris subpinnatis, pinnis multijugis contiguis lineari-oblongin ubtusis subintegris basi conflnentibus inferioribas sensim rcdactis, venis pinnatis veuulis erecto-patentibus funatis, soris medialibus elougatis infiniis diplazioidcis, indusioangusio glabro.

Asplenium zejlanicum, *Cesaii, Fil. Born.* p. 21, non *Hook.*

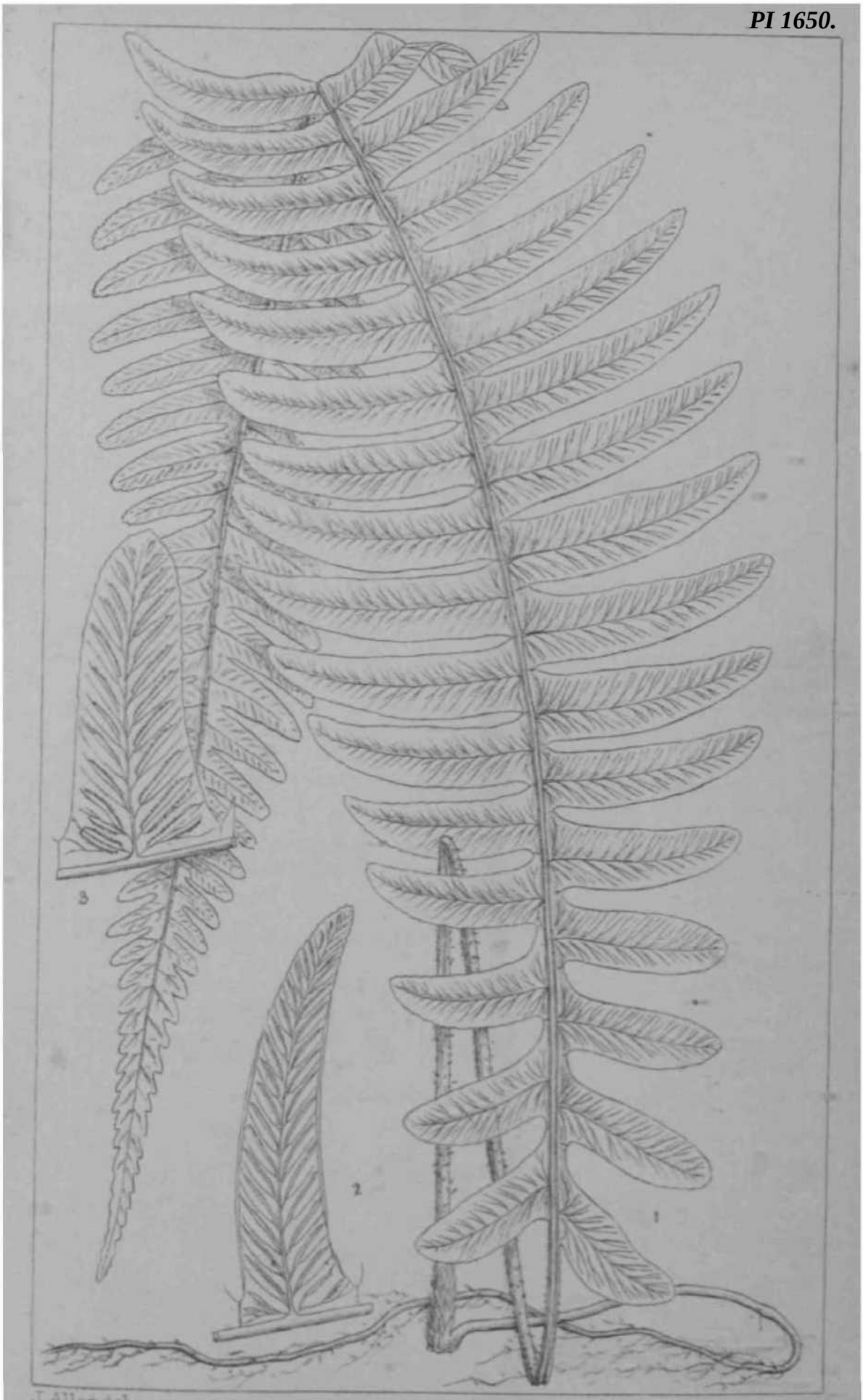
Polypodium subserratum, *Hook. 8p. Fil.* vol. iv. p. 202 j *Suol. et Baker, Syn. Fil.* p. 8S5.

HAB. Forests of North Borneo, *Wallace, Beccari, Burbidge, Dr. Hose,* Also found lately in Perak by Dr. Hose, Bishop of Singapore and Sarawak.

*Stil*iles* 3–U poll, longi. *Lamina* semipedalis vel pedalis, medio 1½–3 poll. lata.

TMB was first found in a sterile stato by Mr. A. R. Wallace, and supposed to be a *Polypodium.* Tbe copious specimens more recently gathered show it to be a diplazioid *Aspleniitm* near *A. mylanicum* Hook.—J. G. BAKER.

Fig. 1. Whole plant, *li< size.* 2, 3. Feitilo pinmc, *enlarged.*



Asplenium porphyroraclus, Baker

PLATE 1651.

DIPLORA INTEGRIFOLIA, *Baler.*

FILICES, **Sub-order** POLYPODIACEJE, **Tribe** SCOLOPEXDRIEJE.

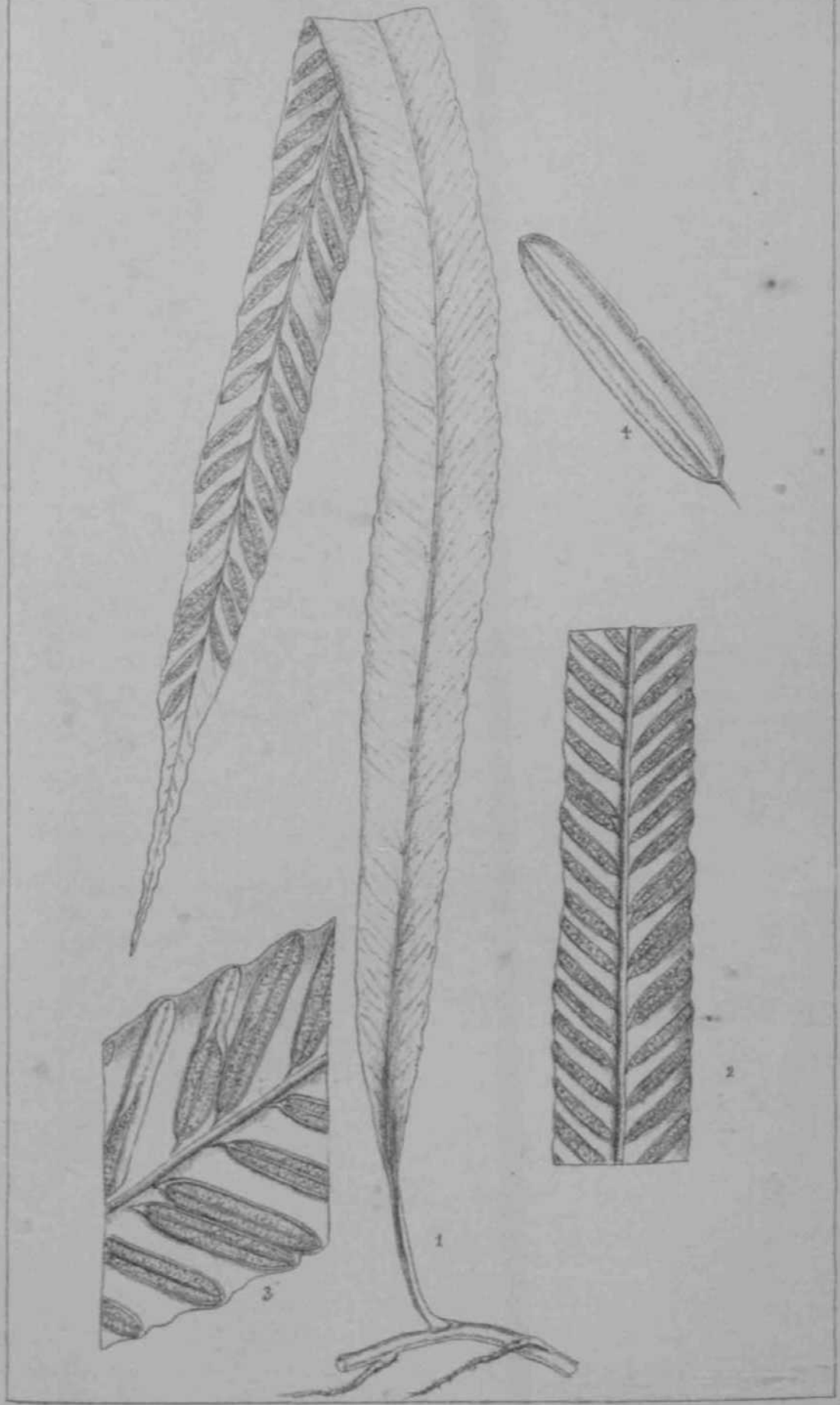
Diplora integrifolia, ***Baler in Jonrn. Bot*** **1873, p. 235; rhizomate gracili Dudo late repente, stipitibus brevibus nudis erectis baai articulatis, frondibus aimplicibus lanceolatis glabris membranaceis subintegris acumiiiatis e medio ad basin sensim attennatis, venis erecto-patentibns simplicibus vel furcatis, soris e costâ ad marginem productis.—*** ***Houk. et Baker, Syn. Fil.*** **edit. 2, p. 492.**

HAB. Solomon Isles, ***Mrs. Burnett***

Stipites **9-12 lin. longi.** ***Lamina*** **snbpedalis, medio 7-8 lin. lata.**

The genus ***Diplora*** **is allied to** ***Scolopendrium,*** **bat the pairs of indusia, instead of springing from contiguous veins and meeting in the inter-space, spring from both sides of the vein, and hide it till they burst.—J. 6. BAKER.**

Fig. 1. Whole plant: ***life size.*** **2. Portion of frond:** ***slightly enlarged.*** **3. Portion of froml. 4 SoiMi* •** ***both muck enlarged.***



J. Allen del.

Diplora integrifolia, Baker.

PLATE 1652.

TEIPHLEBIA PINNATA, *Baker.*

FILICES, **Sab-order** POLTPODIAGEA, **Tribe** SCOLOPENDBIEA.

Triphlebia pinnata, *Baker in Malesia,* vol. iii. p. 42; stipitibns nudis,' frondibus magnis oblongo-deltoideis simpliciter pinnatia membranaceis glabris, pinnis paueijugis alternis sessilibus lanceolatis acuminatis integris basi aequaliter cuneatis, iniimis hand reductis, venis gracilibus erecto-patentibus saepissime furcatis, Boris medialibus elongatis.

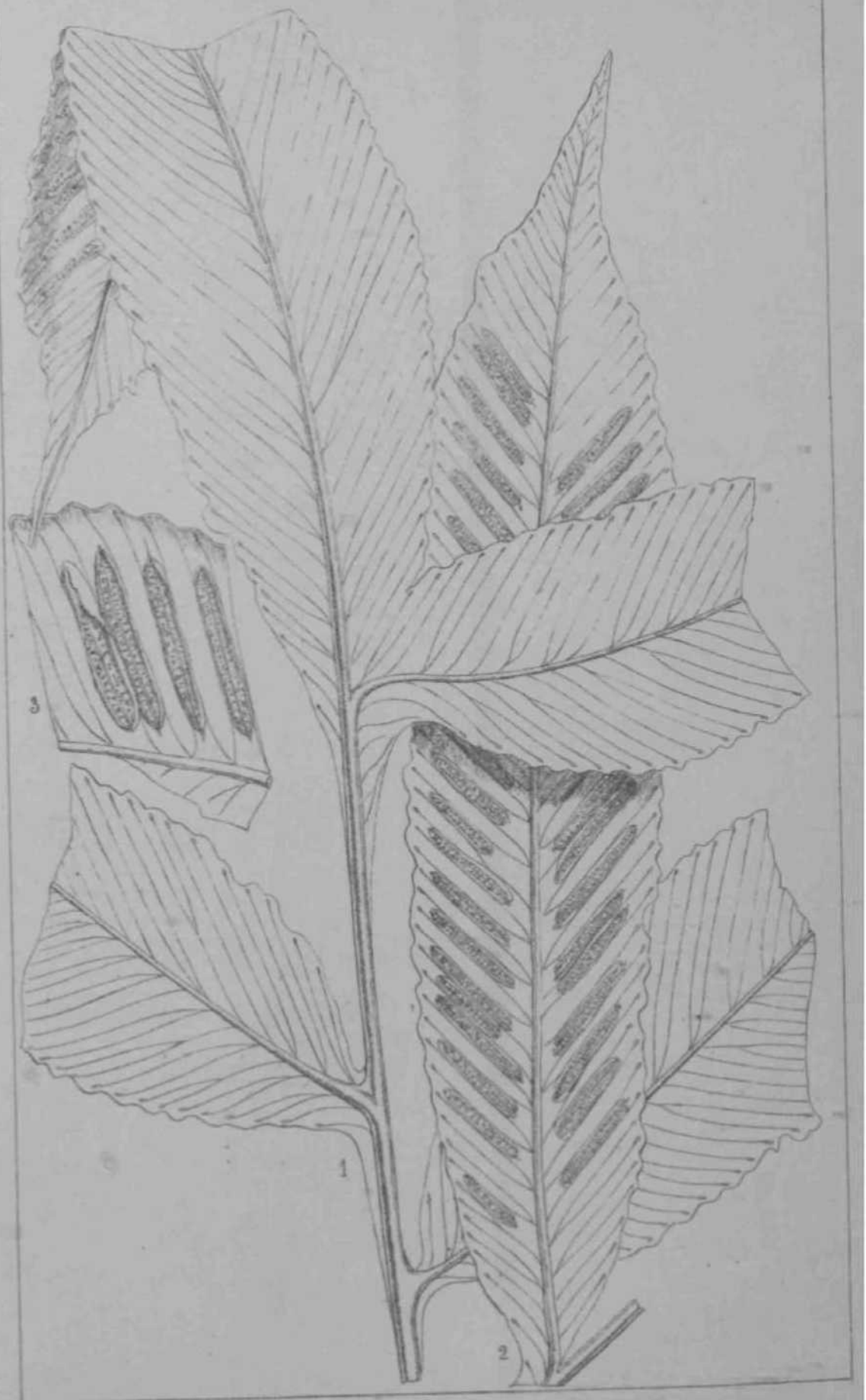
Scolopendrium pinnatum, *J. Sm.*; *Hook. 8p. Fil.* vol. iv. p. 2; *Hook, et Baker, Syn. Fil* p. 247.

HAB. Philippines, South Camarines, *Cuming,* 187; Island of Leyte, *Cuming,* 311.

***Caudex* ignotns. *Lamina* pedalis vel sesqnipedalis. *Pinna* semipedales et ultra, 15-18 lin. late. *Sori* 5-6 lin. longi.**

This is selected mainly to illustrate the structure of the new genus *Triphlebia,* which was described lately in the *Malesia,* as above cited. Signor Beccari has discovered and figured two new species, and *Scolopendrium longifolium,* Presl., is a fourth.—J. G. BAKER.

Figs. 1-2. Portions of frond: *l\fe rise.* 3. Portion of a fertile pinna: *enlarged.*



J. Allen del.

Triphlebia pinnata, Baker

PLATE 1654.

ASPIDIUM MACLEAII, *Baker.*

FILICES, Sab-order POLYPODIACEJE, Tribe ASPIDIEÆ.

Aspidium (Polystichum) Macleaii, *Baker (sp. nov.)*; caudice erecto, stipitibas elongatis csespitosis prope basin paleis lanceolatis membranaceis ferrugineis dense vestitis, frondibns magnis oblongo-lanceolatis simpliciter pinnatis rigidulis glabris, pinnis multijugis sessilibus confertis lanceolatis acuminatis breviter pectinato-pinnatifidis basi antice auriculatis postice cuneato-tmncatis, venis pinnatis venulis paucijagis liberis ascendentibas obscuris, soris medialibas aniseriatis vel irregulariter biseriatis, indasio parvo glabro subperoistente.

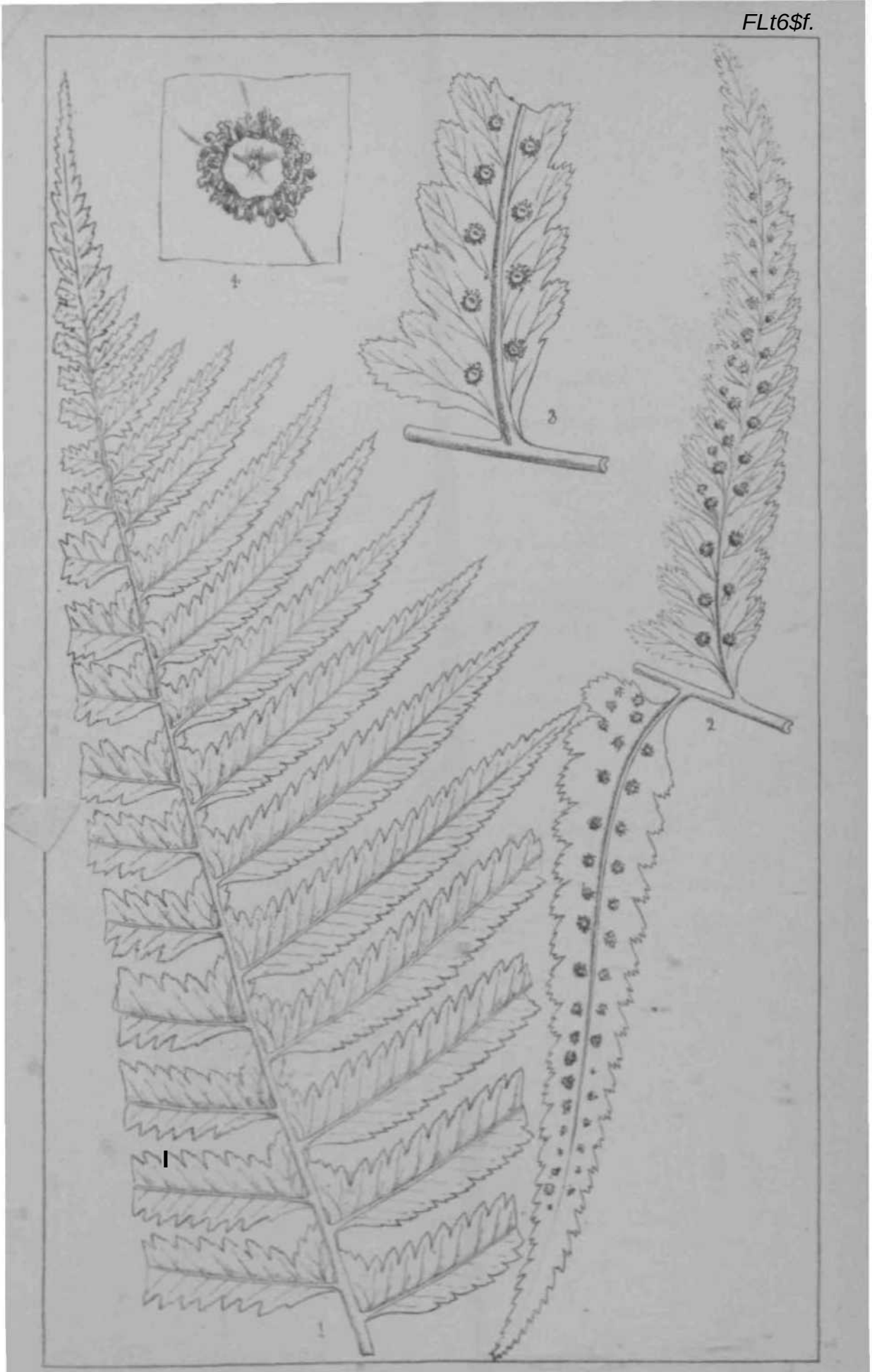
HAB. Transvaal, in damp valleys of the Drakensberg range, &c.; *McLea (Bolus* 3080), *Ayres (Sanderson), 0. Mudd.*

***Stipites* pedales. *Lamina* li-3-pedalis. *Pinna* 40-60-jng8B, centrales 4-7 poll, long©, supra basin 5-6 lin. lataa; inferiores paulo breviores.**

A very distinct new species from the South African goldfields, allied to the North-western American *A. munitum* and the Madeiran *A. falcinellum.*—J. G. BAKER.

Fig. 1. Portion of plant. 2. Fertile pmnse: *life size.* 3. Base of fertile pinna. 4. A single sums, with indusium: *enlarged.*

FLt6$f.



J. Allen del.

Aspidium Maclean. Baker

PLATE f655.

ASPIDIUM CEASPEDOSOEUM, *Maxim.*

FILICES, Sab-order POLYPODIACE£, Tribe ASPIDIE*.

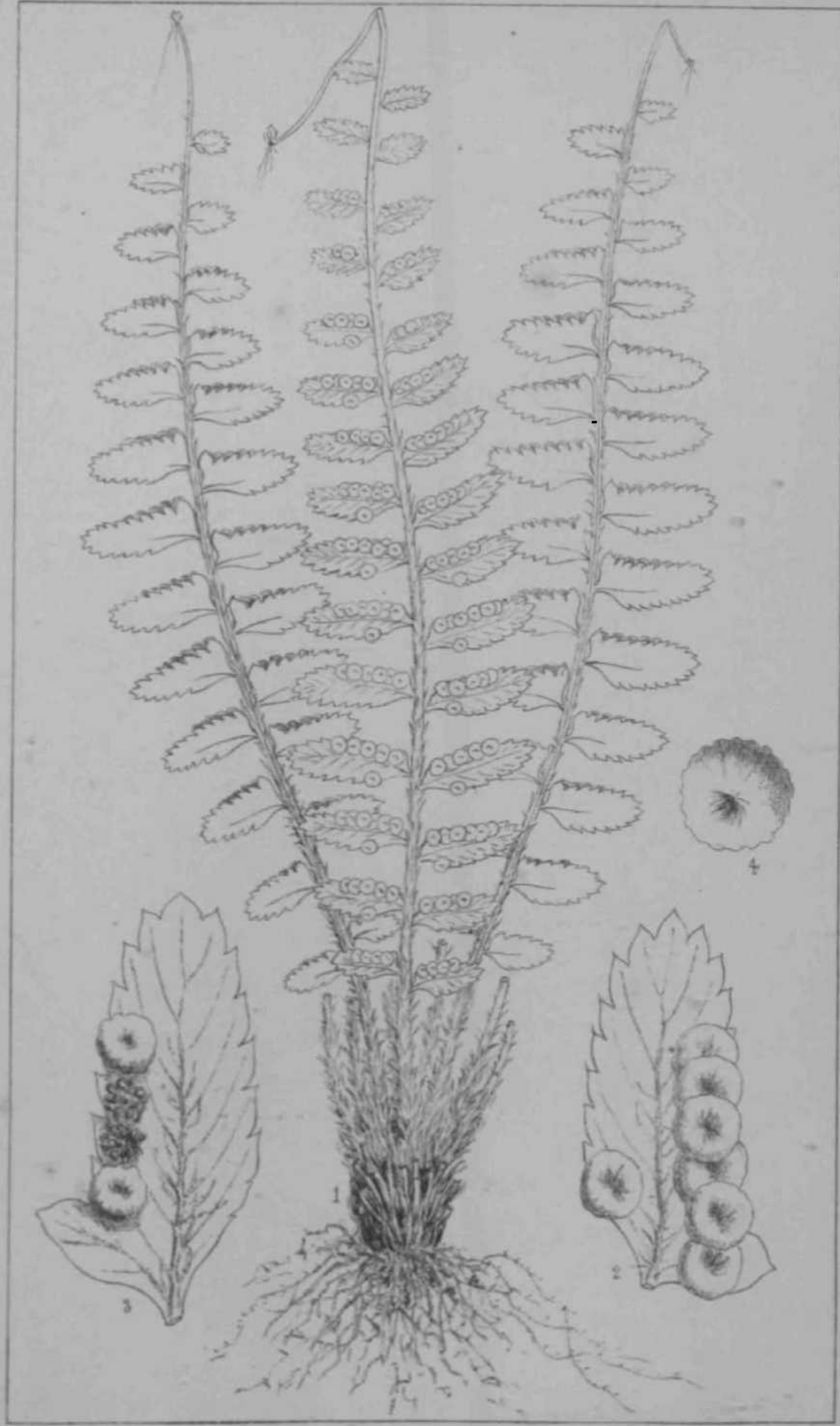
Aspidium (Polystichum) craspedosorum, *Maxim. Decad.* vii. p. 341; caudice erecto, stipitibus brevibus dense coespitosis paleis lanceolatis membranaceis ferrugineia dense vestitis, froudibus parvis lanceolatis simpliciter pinnatis glabris apice stepe radicantibus, pinni* setsilibus multijugis inflequilateraliter lanceolatis basi antice anriculatis postice cnneato-trancatis, inferioribns reflexis sensim minoribus, venis liberis obscuris erecto-patentibus, soris inter margincm et costam uniseriatis in pinnarnm lateribus snperioribus śaepe solum productis, indusio magno peltato persistente.—*Hook, et Baker, Syn. Fil.* edit. 2, p. 492.

HAB. Japan, *Maximoicicz, Tschonoski, Hope, Dickins, Maries*; South-eastern Manchuria, *Mazimowicz,* 71; North China, *Buss, David* (2272), *Eance* (17013), *Webster.*

Stipites l-2£ poll, longi. *Lamina* 3-6-pollicaris, medio 9-12 lin. lata.

A very distinct species, widely spread in North-eastern Asia, remarkable for its very large persistent bullate indusia.—J. 6. BAKES.

Fig. 1. Tuft of frond: *Itfe ṅze.* 2-3. Fertile pinnae. 4. Indusium: *enlarged.*



J. Allen del.

Aspidium craspedosorum, Maxim.

PLATE 1656.

ASPIDIUM BAKERIANUM, *Atkinson.*

FILICES, Sub-order POLYPODIACEJE, Tribe ASPIDIKJE.

Aspidium (Polystichum) Bakerianum, *Atkinson in edit.* \ candice erecto, stipitibus elongatis ca»spitosis paleis magnis lanceolatis membranaceis ferrugineis vestitis, frondibus magnis oblongo-lanceolatis tripinnatifidis rachi prorsas paleaceo, pinnis multijugis sessilibus lanceolatia, iuferioribus sensim minoribus deflexis, pinnnlis sessilibua inaeqailateraliter ovatis argute pinnatifidis basi postice cuucato-truncatis, venis pinnatis venulis ascendentibus, sons medialibus, indnsio membranaceo glabro.

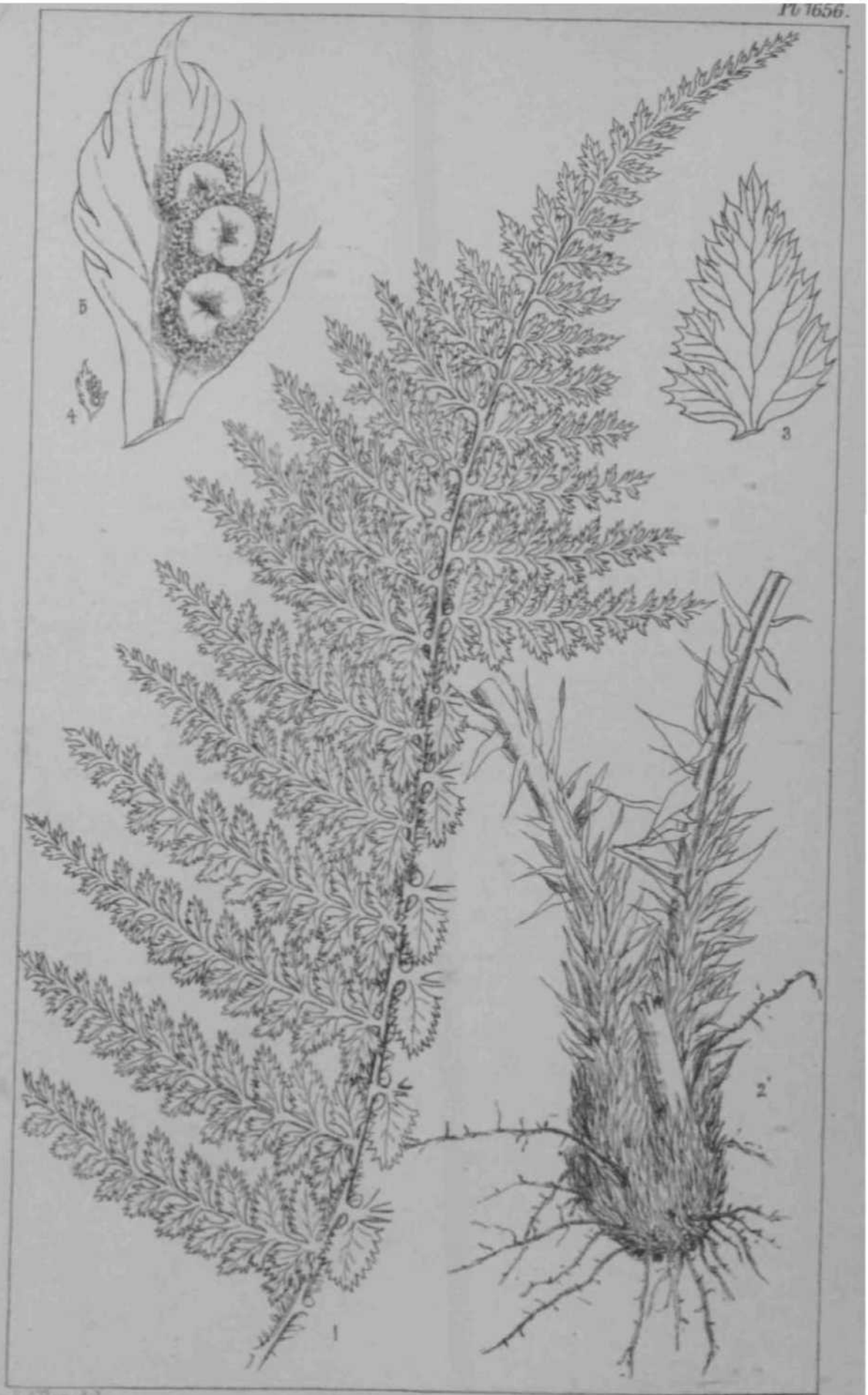
Aspidium Prescottianum, var. Bakeriana, *C. B. Clarke in Trans, Linn. Soc. But.* ii. ser. p. 510, tab. 66.

HAB. Temperate region of the Central and Eastern Himalayas, *Thomson, Strachey and Winterbottom, EJgeworth, Duthie, C.B. Clarke, &c.*

***Stipites* semipedales et ultra. *Lamina* sesquipedalis vel bipedalis, medio 6-10 poll. lata.**

Intermediate between *A. Prescottianum,* Hook., and *A. angtdare,* Swartz.—J. G. BAKER.

Fig. 1. Apex of frond. 2. Tuft of stipes: *life size.* 3. Sterile pinnule: *ealarard,* 4. Fertile piunule: *Itfe sue.* 5. The same: *enlarged.*



J. Allen del.

Aspidium Bakerianum, Atkins.

PLATE 1657.

ASPIDIUM MULTIFIDUM, *Mett.*

FILICES, Sab-order POLYPODIACEA, Tribe ASPIDIEA.

Aspidium (Polystichum) multifldum, *Mett in Fil Lechler,* No. 3060; caudioe erecto, stipitibus erectis caespitosis deorsum paleis magnis patnlis lanceolatis firrais brunneo-nigris dense vestitis, frondibus magnis oblongo-lanceolatis decompositis, rachi prorsus paleaceo, pinnis multijugis sessilibus lanceolatis inferioribus sensim miuoribus reflexis, piiiDnlis inaequilateraliter ovat is basi postice cuneato-truncatis, segmenti8 tertiariis profnnde flabeUatim dissectis, venis obscuris, sons parvis, indiisio glabro.—*Hook. 8p. Fil.* vol. iv. p. 35; *Hook, et Baker, Syn. Fa.* p. 256.

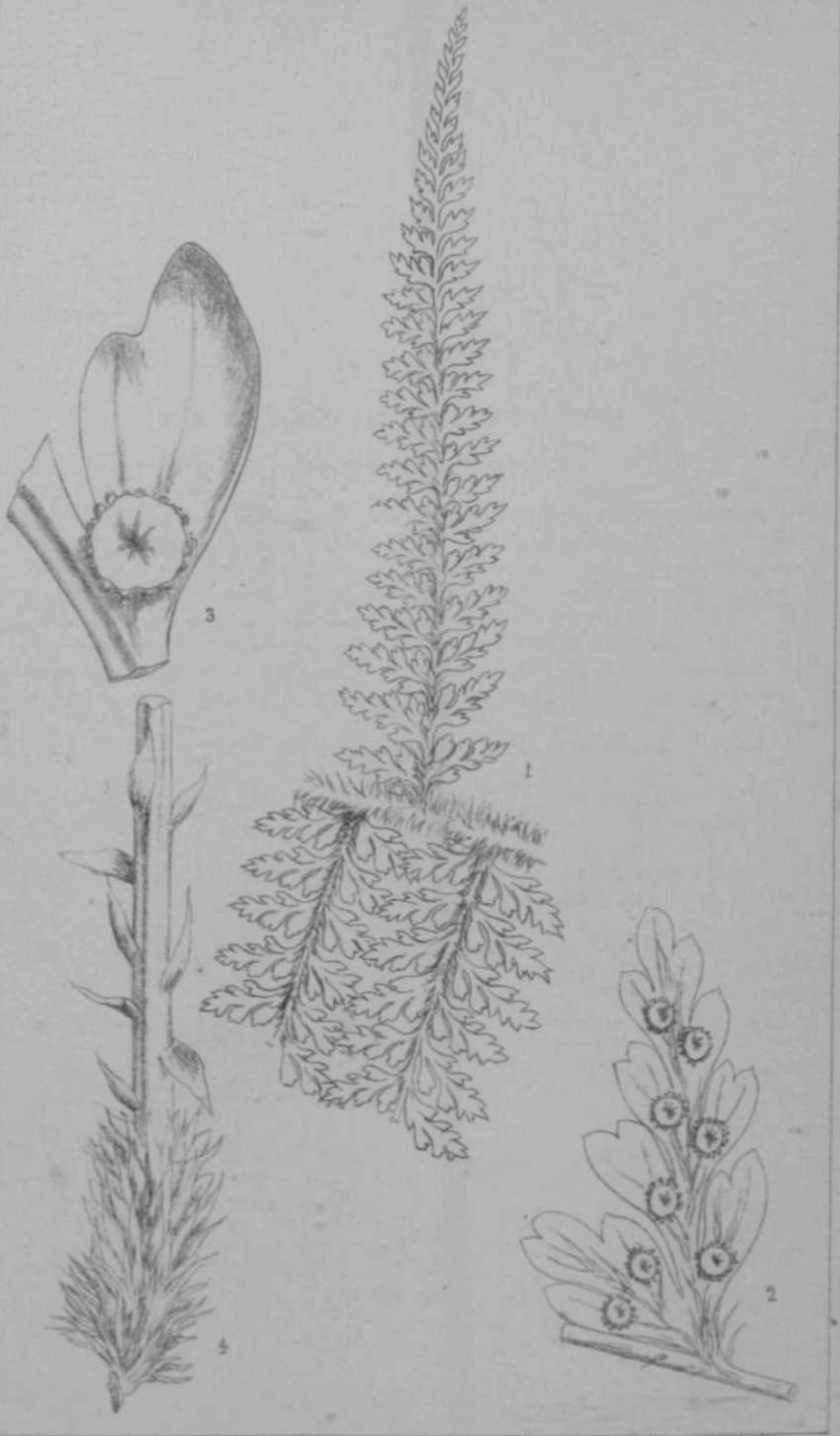
Polystichnm Pearcei, *Phitippi in Linncea,* vol. xziii. p. 305.

HAB. Chilian Andes; *Lechler, Doumton, Pearce, Dr. E. 0. Gunningham, &c.*

***SHpites* semipedales et ultra. *Lamina* sesquipcdalis vel bipedalis, medio 6*10 poll. lata.**

This is a very handsome plant, with the habit of *A. angulare,* but much more finely dissected.—J. G. BAKER.

Fig. 1. Portion of frond: *life sin.* 2. Pinnule: *enlarged.* 3. Fertile segment, with a single sorus: *enlarged.* 4. Base of stipes: *life she.*



J.Allen del

Aspidium mulufidum, Mett.

PLATE 1658.

NEPHRODIUM LOUGICATJLE, *Baker.*

FILICES, Snb-order POLYPODUCE^, Tribe ATRNDIEÆ.

JTephrodmm iXastrea) longicaule, *Baker in Jmirn. Bvt.* 1881, p. 204; caadiee elong&to decumbento paleis pnrvis firm is laneeolatis brunneis veistito, **fttipitibua** Begregatia gracilibus erectis nndts nitidis clonfratis, frondtbas lauceolatii; glabna simpHciter pinnatis ntnnque viridibtis, rachi nudo stramineo, pinnis malt\]'Dgts eessilibas inteqo"-lteraliter liinccolatia brcviter pintiatifidis, segmentis oblongis basi tice aaricala-tis postice truncatis, infimis remotis minutja, venis pinnatis, venalis paacijQgis ascendeutibus, soris parvis medialibas, indasio minuto glabro.

U\K New Granada, mountains of the province of Autioquia, *Kalbreyer,* 1454.

Stipites &cmipedalc3 ct ultra. *Lamina* pedalis vel sesquipedalis, medio 1^-2 poll. lata.

Tliis rery distinct species was discovered by Mr. Kalbreyer in 1880, when on **a** collecting expedition for Messrs. Vehch.—J. 0. BAKKR.

Fig, 1. Entire fron-1. 2. (.'amJex. **with Imse of itipm:** ***boll lift nzt.*** **3. Central** pimm. 4, *b, &.* Sori, **with iodoau: **** *l*^.

J. Allen del.

Nephrodium longicaule, Baker.

PLATE 1659.

NEPHRODIUM DICKINSII, *Baker.*

FJLICES, Snb-order POLYPODIACEJE, Tribe ASPIDIEÆ.

Nephrodinm (Lastrea) Dickinsii, *Baker;* candice erect", stipitihni elongatis ctespitosis prope basin paleia firmis lanceolsitis nigro-brnuneis dense vestitis, frondibus magnis oblongo-lanceolatiB membranaceia glabris simplicitcr pinontig, mchi paleis linoarilms atris copioais pnoiito, pinnis lanceol&tis mnltijngis Pessilibos iuciso-cnnniis basi trancatiB, int'erioribns sensim minoribus, vcnis prinuiriis veil ill is pancijugis ascendentibas, soris parvis mcdialibuB, indasio parvo glabro.

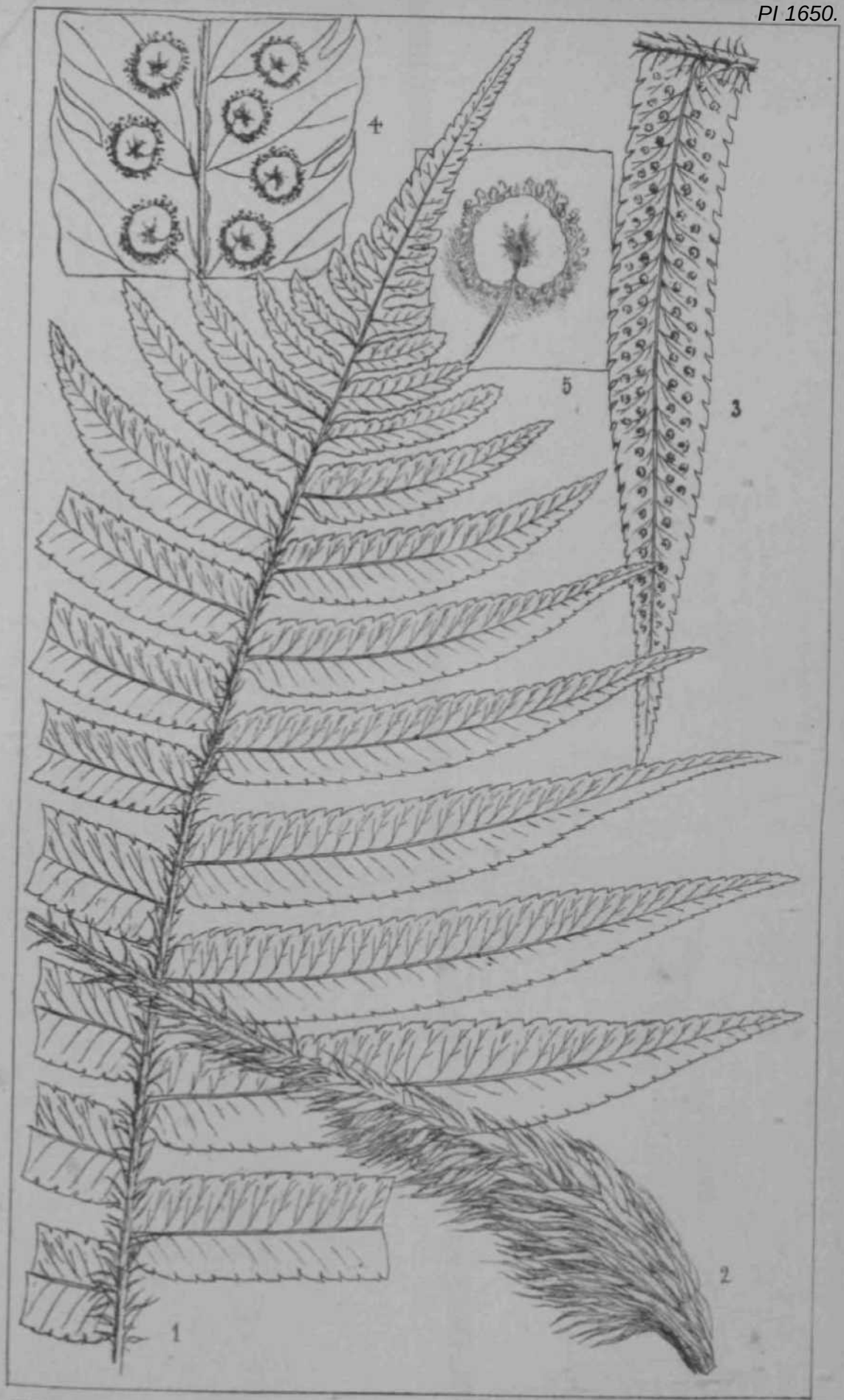
Aspidinm Dickinsii, *Franch. et Saval. Enum. FL Jap.* ii. pp. 'J36, 629.

HAB. Jnpan, *Maximowicz, Dtckins, Bitsett.*

8tipit.es 6-9 poll, longi. *Lamina* Ii—2-pedalis, mcdto 6—8 poll. luta. *PinncB* cent rales 6-8 Jin. lata?.

Allied to the common Indian *N~. hirtipes,* Hook., and *N. cu$)>idatum,* Baker, and the Chinese JT. *decipiem.* It was named after iJr. F. V. Dick ins, now Assistant Secretary to the **Univenrity** of London, who whilst resident for many years in Japan paid special attention to ferns.—J. G. BAKER.

Fig. I, Apex of frond. 2. Bn&e of stipes, with poles. 3. Centra! furtili j.iinaa: *ail Itft site.* 4. Portion of fertile pinna, showing tori and indagi*: *tntar..ed.*



J.Allen, del.

Nephrodium Dickinsii, Baker.

PLATE 1660.

NEPHRODIUM SUBCRENULATUM, *Baker.*

FIUCES, Sub-order POLYPODIACEA, Tribe ASPIDIEA.

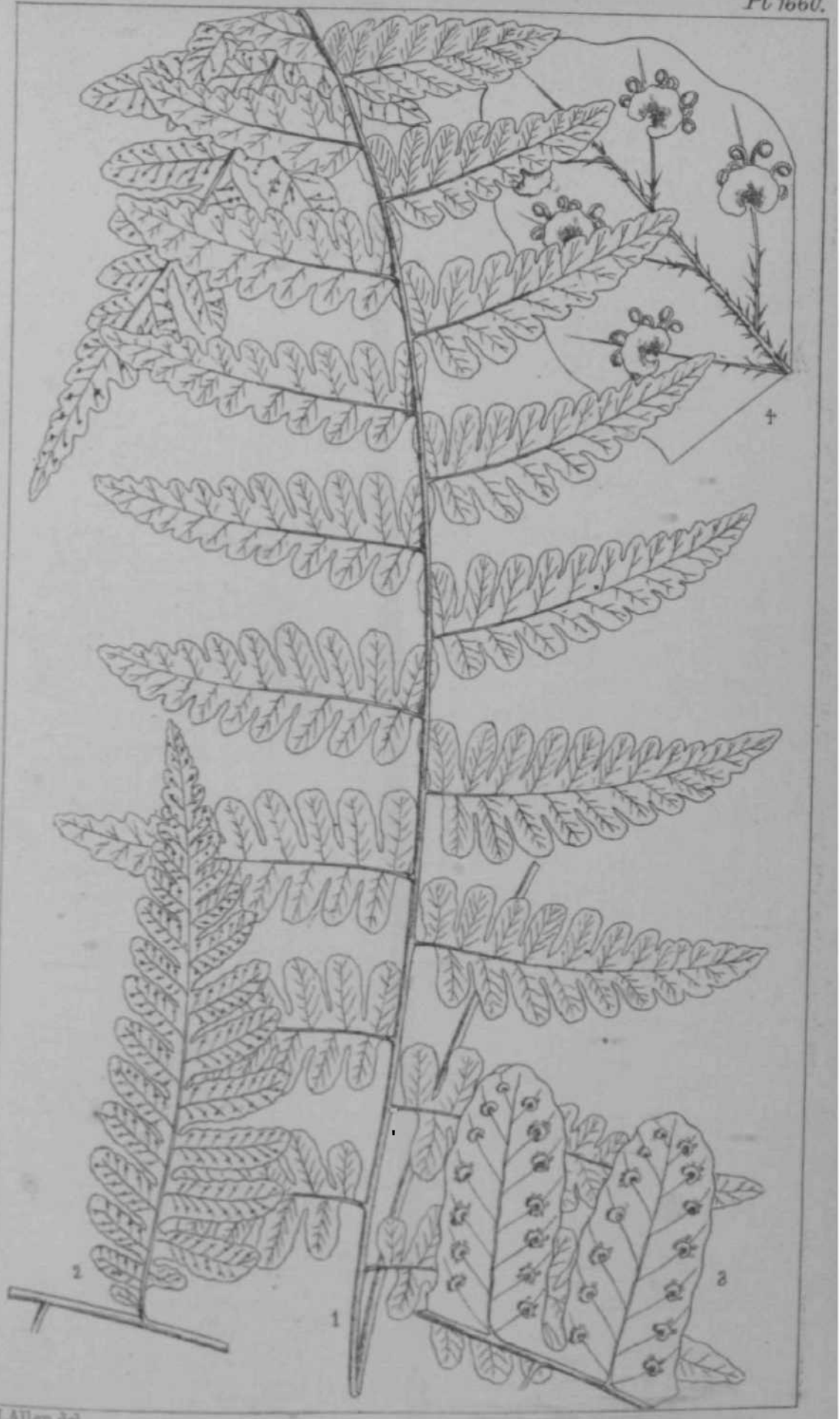
Nephrodium (Xastrea) subcrenulatum, *Baker in Journ. Linn. 8oc.* vol. xvi. p. 2l>2; stipitibos gracilibus nudis castaneis, frondibus membranaceia oblongo-lanceolatis profunde bipinnatifidia, rachi paroe paleaceo. pinnis multijopris laDceolatis profunde piunatifidis obscure petiolatis infimis maximis latere inferiori productis, pinnuliaoblon^ia obtusia]ntegri8 basi conflaentibus, venis pinnatis obscure paleaceis, venolis perspicuia erecto-patentibua paucijugia saapissime simplicibus, aoria parvis supramedialibua, indusio par^o glabro.

HAB. Foreata of Central Madagascar, *Miss Eden Gilpin.*

Caudex ignotus. *Stipites* completoa baud vidi. *Lamina* aubpedalis. *Pi mice* centralea 8-9 lin. late.

This is one of the many new species discovered recently in Central Madagascar. It ia allied to the Tropical American A[T]. *chrytolobum.*—J. 0. BAKER.

Whole frond. 2. Lower pinna: *both lift tiut.* 3. Two fertile pinnulei: enlarged. 4. Fertile pinnules: *monenlargti.*



J. Allen del.

Nephrodium subcrenulatum Baker.

PLATE 1(160.

NEPHRODIUM SUBCRENULATTtTM, *linker.*

FILICES, Sub-order POLYPODUCEJE, Tribe ASPIDIE*.

Nephrodium (Lastrea) subcrenulatum, ***Baker m*** *Journ. Linn, Soc.* v(1. xvi. p. 202; stipitibns gracilibus mid is castaneis, frondibus membranaceis oblougo-lanceolatis profnude hipinnatifidis, rachi paroe **paleaceo**, pinnis muUijnpris lanceolatis profnnde piunatifidis obscure petiolatie intimis **mazimia** hit ere inferion product is, pitinulisoblongis obtnsis integris basi conflnentibns. venis pinnatis obscure piileaccis, venulis perspicais erecto-pateutibus pancijugis saapissime simplicibus, soria parvis snpramedialibns, indusio parvo glabro.

HAB. Forests of Central **Madagascar,** ***Miss*** *Eden Gilpin.*

Caudex ignotus. *Sit'pites* completoa baud vidi. *Lamina* subpedalis. *Pinna* centralee 8-9 lin. **late.**

This is one of the many new species discovered recently in Central Madagascar. It is allied to the Tropical American .V. *chrysolvbum.*—J. O. BAKER.

Figs. 1. Whole frond. 2. Lower pinna: *both* ***lift site.*** **S. Two fertile pmnuleo:** *enlarged.* **4. Fertile pinnules;** *wore enlargtd.*

J Allen del.

Nephrodium Prenticei, Baker.

PLATE 1CG1.

NEPHRODIUM PRENTICEI, *Bttlrer.*

FILICES, Sub-order POLYPODUCE^, Tribe ASPIDIEJ.

Nephrodium (Lastrea) Prenticei, ***Baker*** **in** *Hook, et Baker,* **Syn.** *Fil.* edit. 2, p. 404; caadice erecto, stipitibos cajspitosis s*ramineis elongatis basi paleia brnnneis lineari-subnlatis dense vestiti-, fronciibus oblongo-lanceolatis firmulis viridibus proftmde hipinnatifidifi, rachi stramineo pnberalo, pinnis sessilibns lanceolatia acumintitis aseenilen-tibns basi attenuatis, infimis haud reductis, pinnnlis laiiceolatis con-tignis falcatis, venulis multijagis erecto-patcatibus simplicibu-s, soris parvis supramedialibos, indusio persistente ciliato.

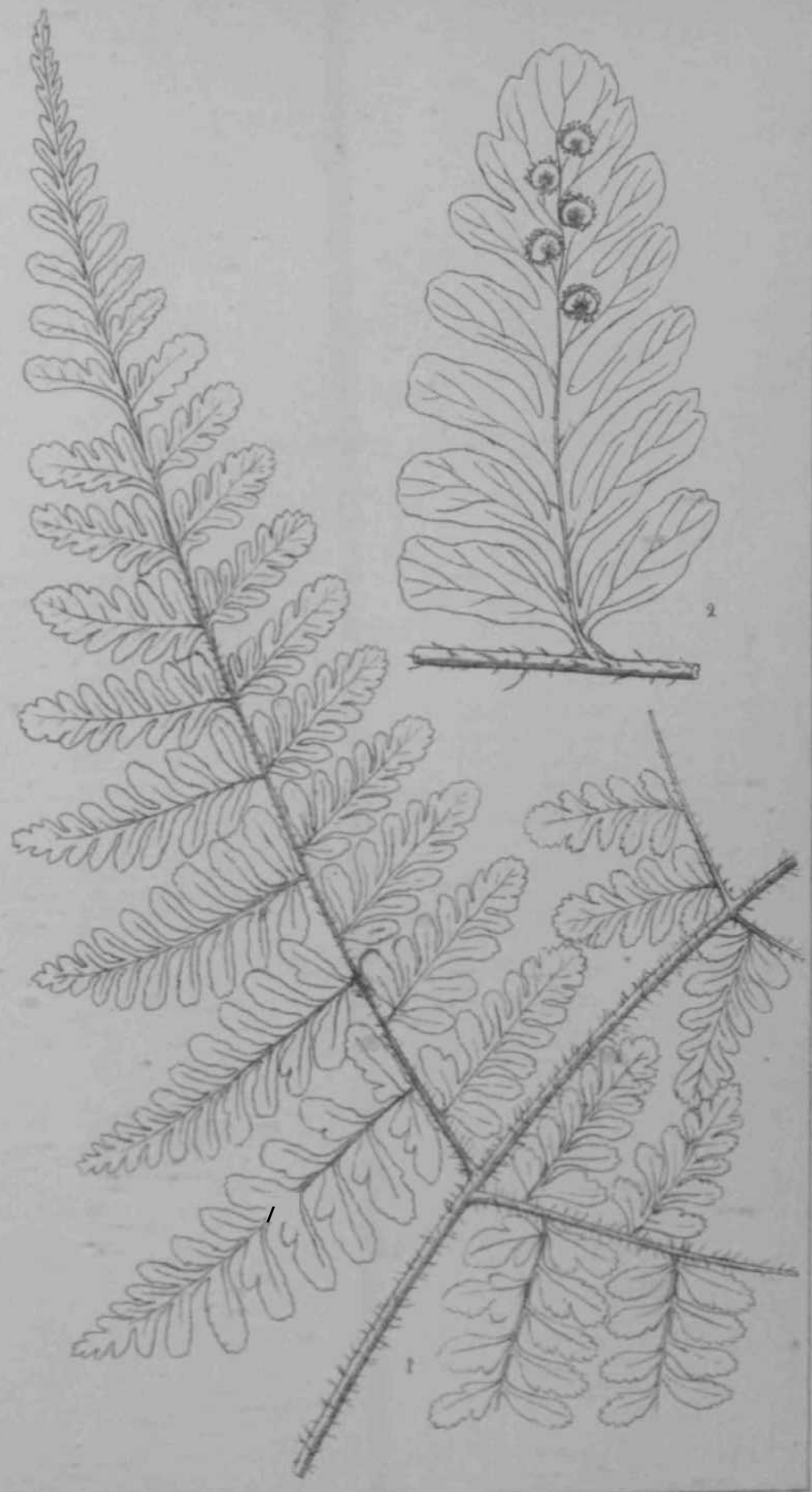
Laatrea Prenticei, *Carruth. in Seem. Fl. Yit.* p. 359.

HAB. Fiji isles, *Home,* 1003; *Milne,* 247.

Stipites semipedales et ultra. *Laviina* 1-2-pedalis. *Pinna:* intt?nliim semipedales.

A native of the Fiji isles, nearly allied to the widely-spread **and** variable Tropical Asian *N, calcaratum,* Hook.—J. G. BAKEB.

Fig. 1. Aj*x of frond. 2. Rise of stipes: *both life size.* 3. Fe.-rile pimnule: *enlargtd.* **4. Portion of fertile** pin:.a: *life size.* **rtioa** Po ol j-iunuli-, to shol indusiira : *muck enlarged.*



J Allen. del.

Nephrodium Buchanani. Baker.

PLATE 1663.

NEPHBODIUM MAGNUM, *Baker.*

FILICES, Sab-order POLYPODIACES, Tribe ASPIDIEA.

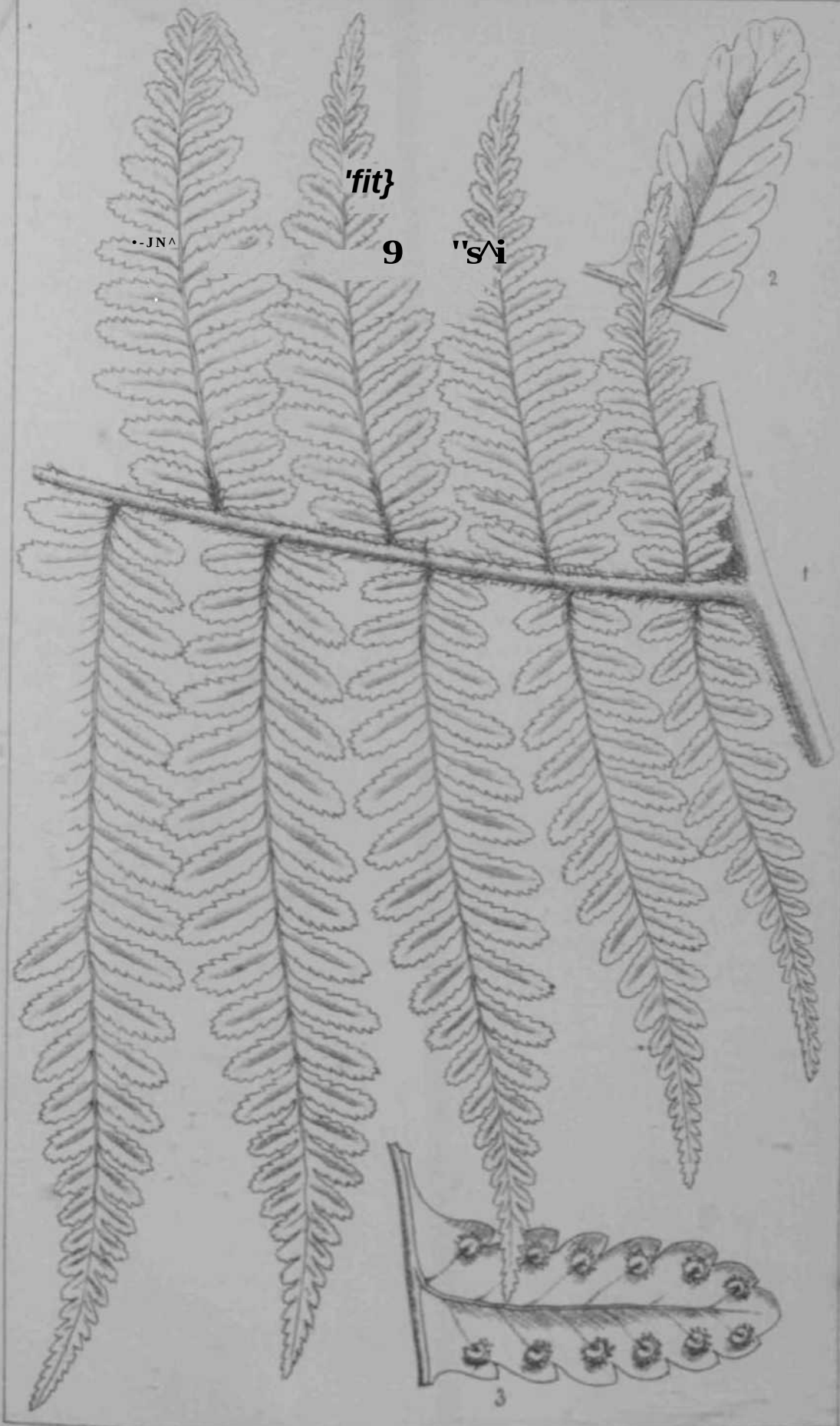
Hephrodium (Lastrea) magnum, *Baker In Joum. Bot* 1884, p. 142; frondibus magnis bipinnatis tirniulis viridibus glabris, pinnis oblongo-lanceolatis rachi minute paleaceo, infimis latere inferiori productis, pinnulis multijugis sessilibus lanceolatis pinnatis, segmentis tertiariis oblongo-lanceolatis obtusis crenatis segregatis basi adnatis, venulis erecto-patentibus saepe furcatis, soris medialibus, indusio parvo glabro subperaistentr.

HAB. Forest of North-west Madagascar, *Humhlot,* 265.

***PintuB* pedales vel sesquipedales. *Pinnvla* 3-4 poll, longce, segmentis tertiariis 5-6 lin. longis.**

A large subarborescent species, most resembling the glabrous varieties of the Tropical American *N. villosum,* Presl.—J. G. BAKER.

Fig. 1. Lower front of pinna: *life* use. 2. Barren segment. 3. Fertile segment



J. Allen del.

Nephrodium magnum, Baker

PLATE 1GG4.

NEFHBODIUM BAKERI, ***EarrmgU***

FILICES, Sub-order POLTPODIACRE, Tribe ASPIDIE*.

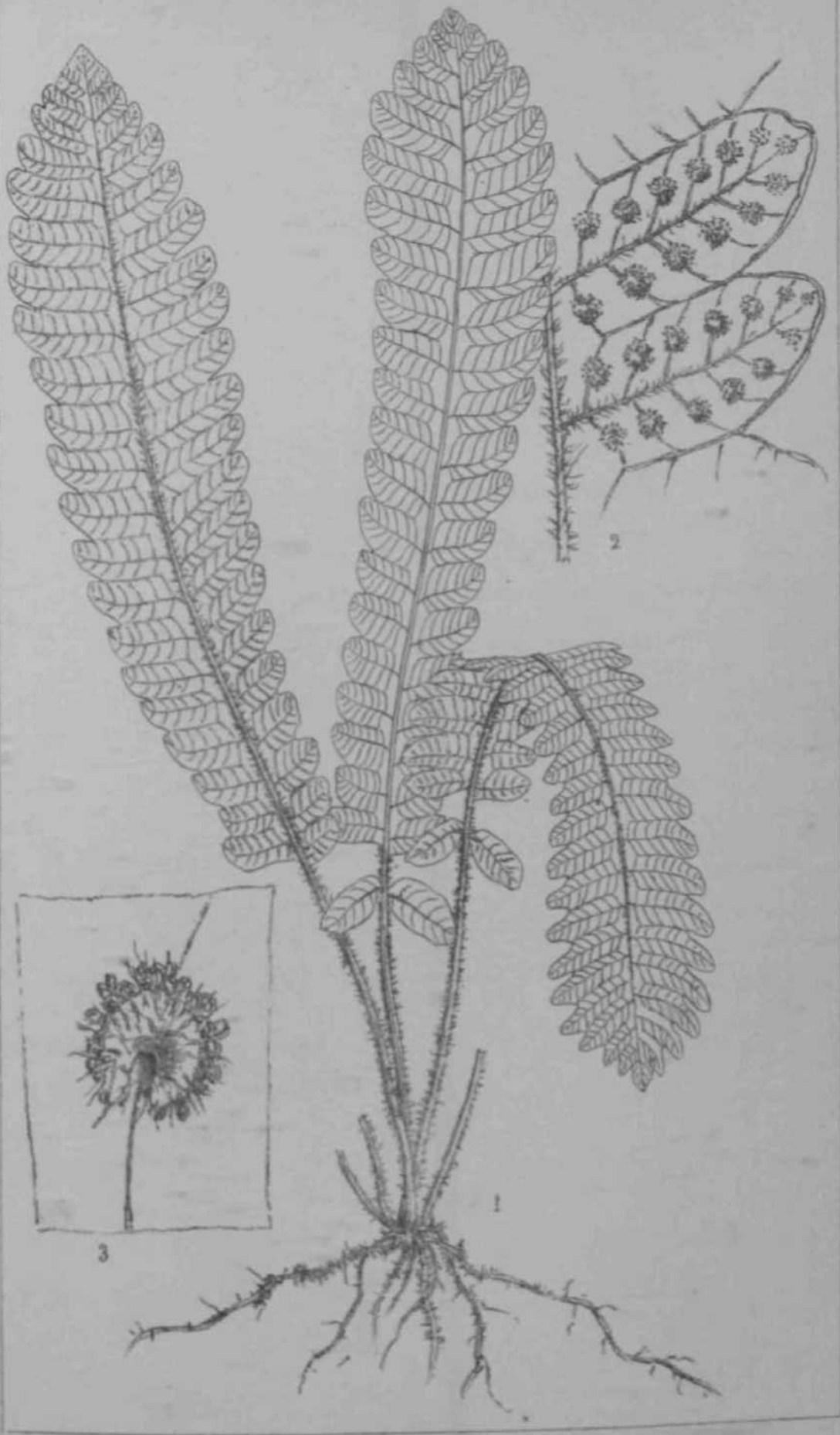
Nephrodium (Eunephrodimn) Bakeri, ***Harrmft.*** *inJourn. Linn. Soc.*, TO), xvi. p. 29; caadice erecto, stipitibus etwpitosis elongntis minntc crinitis, frondibng lanceolatis hispid is brer tt IT pinnatificlis **rimplioibn** s Tel basi pinnatis, segmontis ovatis obtasis, vpnis pinnatis. vonnlis 6-S-jn^is erecto-patentibas simplicibna, pluribaa ad apicem ana* stomosantibus, soris **parris** medialibus, indusio miuato membmnaceo hispido.

HAB. Philippines; mountains of Panay, *Steere.*

SttpUes 2-4-poIlicares, *Lamina* semipedalis, supra medium 9–12 lin. lata.

Allied to the West Indian *N. scolopendrioides*, Hook.

Fig. 1. Fronds: *life size.* 2. Portion of fertile frond: *enlarged.* 3. Portion, showing sorus with indusium: *much enlarged.*



J. Allen del.

Nephrodium Bakeri, Harringt.

PLATE 1665.

NEPHBODIUM HEDEB-ZEPOLIUM, *BaJcer.*

FILICES, Sab-oider POLYPODIACEJ:, Tribe ASPIDIE*.

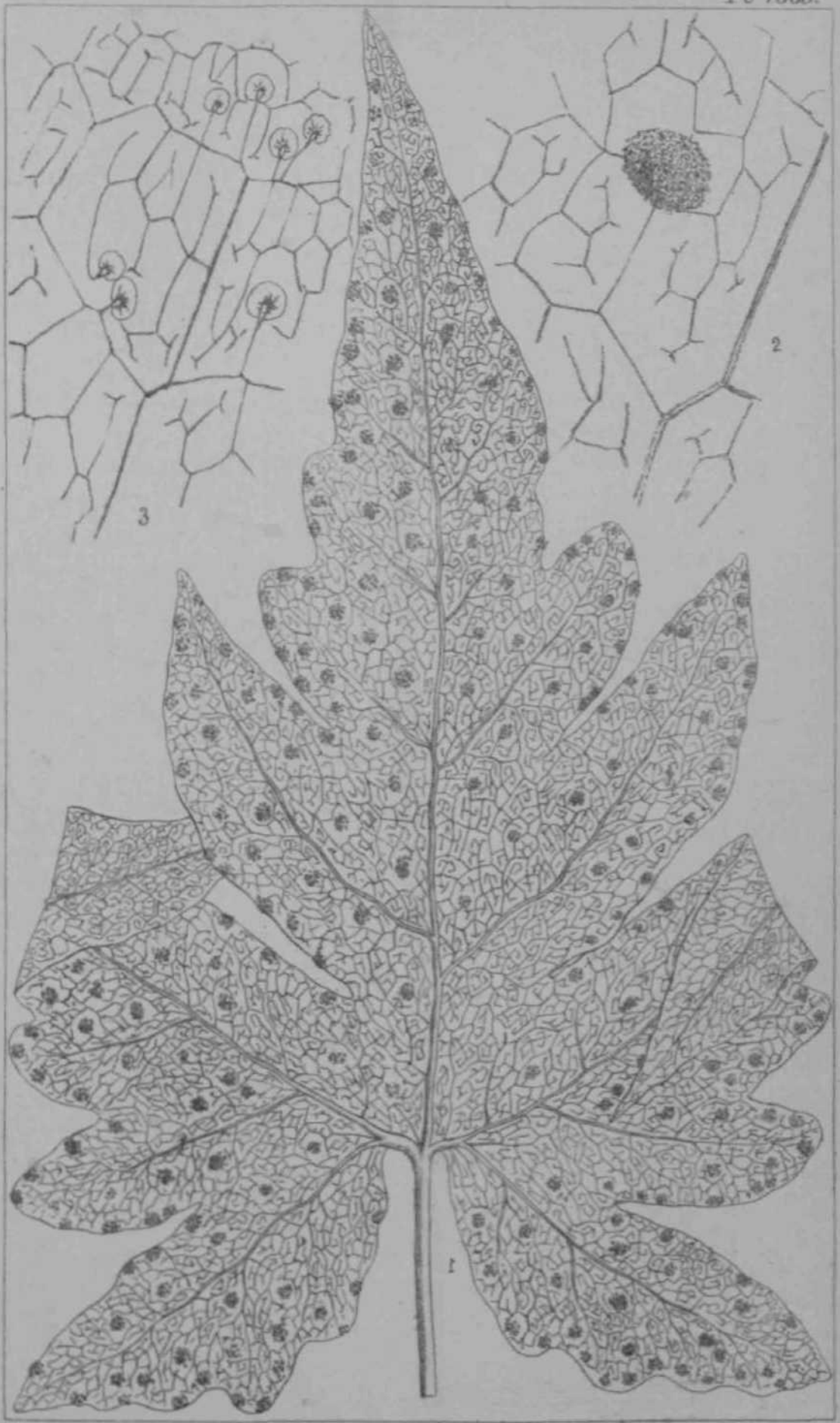
Nephrodiam (Sagenia) hederaBfolium, *Baker in Jour*. Linn. Soc.* vol. xiz. p. 295 ; stipitibus elongatis gracilibus nudis castaueis, frondibus subraembrauaceis glabris cordato-deltoideis profunde pinnatitidis, segmentis pancis latis ovatis acutis, infinris multo maximis inaequilateralibus postice valde productis profunde lobatis, venis in areolis parvis anastomosantibus, Boris inter costam et marginem regnlariter uniseriatis, indusio membranaceo glabro fngaci.

HAB. Solomon Isles, *Rev,* S. *B. Comins.*

Stipites 6-9 poll, longi. *Lamina* 5-6 poll, longa et lata.

Allied to the well-known Mauritian *Nephrodium (Sagenia) Pica,* Baker.—J. G. BAKER.

Fig. 1. Frond: *life *ize.* 2. Portion of frond, showing mature aorus, with indusium fallen. 3. Portion of frond, with young son: *both enlarged.*



J.Allen del.

Nephrodium hederæfolium, Baker.

NEFHRODIUM TRIPARTITUM, fid*er.*

FIUCES, Sub-order POLTTODIACE*, Tribe ASPIDJE*.

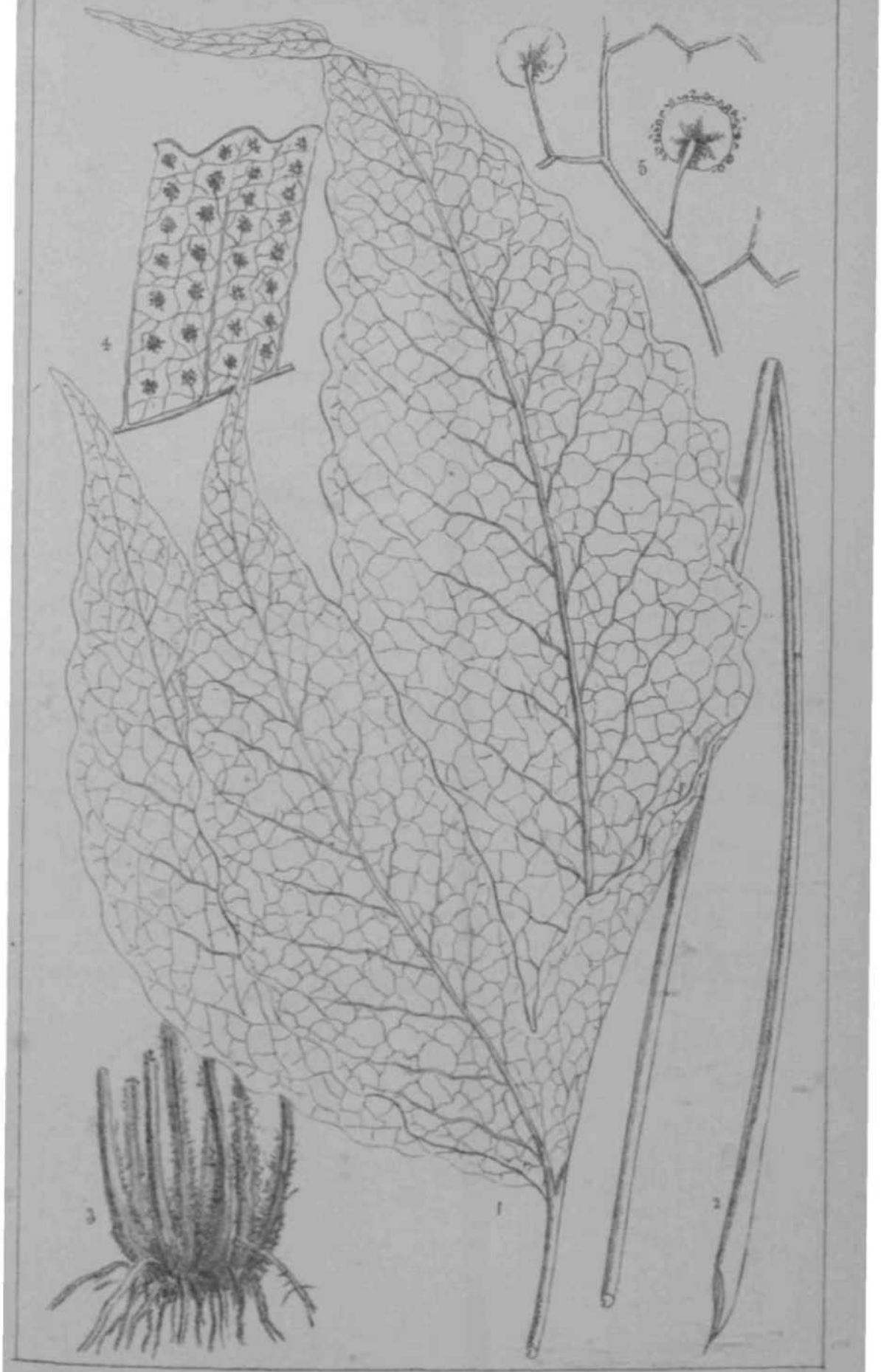
Nephrodium (Sageaia) tripartitum, *Baker in Journ. Bot.* 1879, p. \16; cauidioe i'r^cto pali/U p;iucis laneeolatis brtmneiB TCMito, stipitibus cjespitosis elongatis atrocastaaeia nudis, froudibus deltoid ins tripartitismembranaceis glabris, scgmento terniinali oblongo-lancetilato iH'iiininato crenato, lateral ibua consimilibu^ siraplicibaa vel postira productts baai lobatis, venis primariis punvllelia aaceudentibas flexu-osis, intermedia copiuse unastomostmtibas venults liljeris inolnsis produ-ctis, soris inter venas priu\arias regul&riter biseriatis, iudusio mcmbranaceo glabro.

HAB. Fiji Islands; steep earthy banks at Lara Lain Bay, Vanua Luvo, *Hortie,* 562.

Stipites pedalea. *Lamina* 6-8 poll, longa. *Verne primarüB* 3-4 lin. inter se distantes.

This is one amongst the many interesting ferns discovered by Mr. John Horne, of tne Manritian Bot&nio Garden, during his rtcent explorations iu Fiji. It is allied to the iudian and Malayan .V. *variolaum,* Baker.—J. G. BAKER.

Fig. I. Fronds, 2. Stij>». 3. Tuft of stipes: *life tin,* 4. PuMtun of fertile segment: *enlarged.* 6. The name, *untch ttttargtd.* showing iudusia.



J. Allen del.

Nephrodium tripartitum, Baker

PLATE 1667.

POLYPODIUM MAXIMOWICZII, *Baker.*

VILICES, Sub-order POLYPODIACEA, Tribe POLYPODIES.

Polypodium (Ptilopteris) Maximowiczii, *Baker in Hook, el Baker\ Syn. FiL* edit. 2, p. 504; caudice erecto, stipitibus gracilibus castaneis nudis, frondibus lanceolatis simpliciter pinnatis viridibus glabris apice interdum radicantibus, rachi nudo viridulo, pinnis multijugis sessilibus lanceolatis regulariter crenatis basi antice auriculatis postice cuneato-truncatis, inferioribus sensim minoribus, venulis simplicibus erecto-patentibus, soris terminalibus marginalibus.

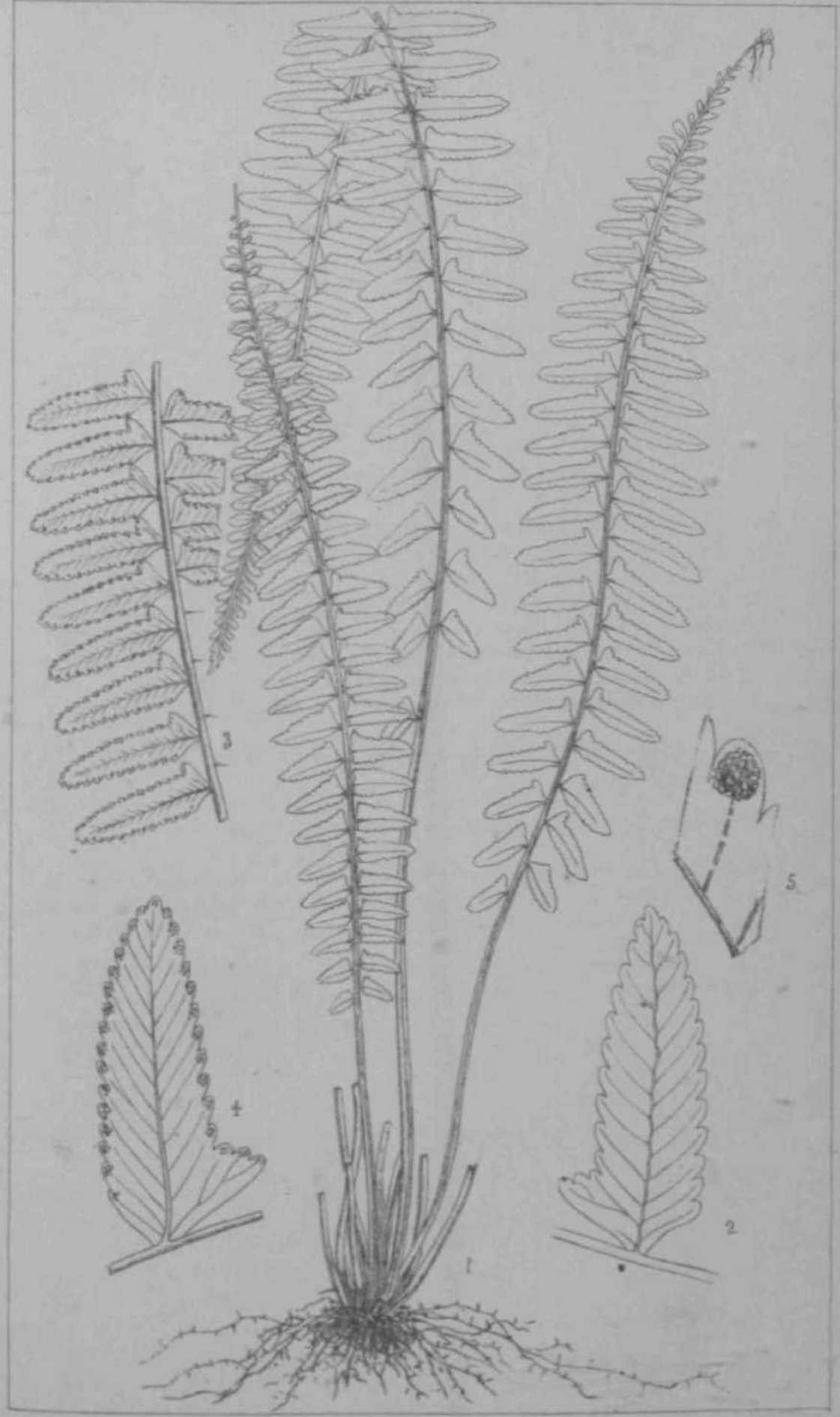
Ptilopteris Maximowiczii, *Hanee in Journ. Bot.* 1884, p. 139.

HAB. Japan ; high mountains of the island of Nippon, *Maximowicz, Hancock.*

Stipites 2-3-pollicares. *Lamina* pedalis et ultra, medio 8-12 lin. lata.

This is one of the few endemic ferns of the high mountains of Japan. It is one of the two species on which Dr. Hance founded his penns *Ptilopteris,* the other being my *Aspilium reductum.*—J. G. BAKER.

Fig. 1. Whole plant: *life size.* 2. Sterile pinna. 3. Portion of fertile frond. 4. Fertile pinna. 5. Lobe of pinna, with boras: *all man or U$s mdargtd.*



J. Allen del.

Polypodium Maximowiczii, Baker.

PLATE 1668.

POLYPODIUM KRAMERI, *Franch. and Savat.*

FILICES, Sab-order POLYPODIACEJB, Tribe POLYPODIES.

Polypodium (Phegopteris) Krameri, *Franch, et Savat. Enum. PI. Jap.* vol. ii. p. 24-1;* rliizomate gracili late repente paleis parvis lanceolatis membranaceis adpressis vestito, stipitibus segregatis gracilibus nudis, frondibus parvis cordato-deltoideis profunde pinnatifidis viridibus membranaceis, pinnis lanceolatis profunde crenatis infimis iflazimis profunde lobatis, venulis gracilibns ascendentibns simplicibus, soris medialibos, inferioribas oblongis.—*Moore in Gard. Chron.* 1881, TOI. i. p. 136.

Polypodinm oyamense, *Baker in Journ. Bot* 1877, p. 366.

HAB. Mountains of Japan, *Bissett.* Received also from Professor Eaton, and a drawing from Dr. Franchet.

Stipites 3-4 poll, longi. *Lamina* semipedalis et ultra.

A very distinct species, with the habit of the European P. *Phegopteris.* It has been brought into cultivation both in Britain and the United States.—J. 6. BAKEK

Fig. I. Whole plant: *lijt* sue. 2. Primary segment 3. Lobe of lover pinna: *both enlarged.*

J.Allen del.

Polypodium Krameri, Franch, et Savat.

PLATE 1668.

POLYPODIUM KRAMERI, *Franch. arid Savat.*

FILICES, Sub-order POLYPODUCE-E, Tribe POLYPODIES.

Polypodium (Phegopteris) Xrameri, *Franch. et Savat. Enum. PI. Jap.* vol. ii. p. 244 *f* rhizomate gracili late repente paleis parvis lanceolatis membranaceis adpressis vestito, stipitibus segragatis gracilibus nudis, frondibus parvis cordato-deltoideis profunde pinnatiBdif viridibns merabrannceis, pinnis lanoeolatis profunde crenatis infimis inaximis profaode lobatis, venulis gracilibus ascendentibas simplicibus, soris medial ibas, inferioribns oblongis.—*Moore in Gard. Chron.* 1881, vol. i. p. 136,

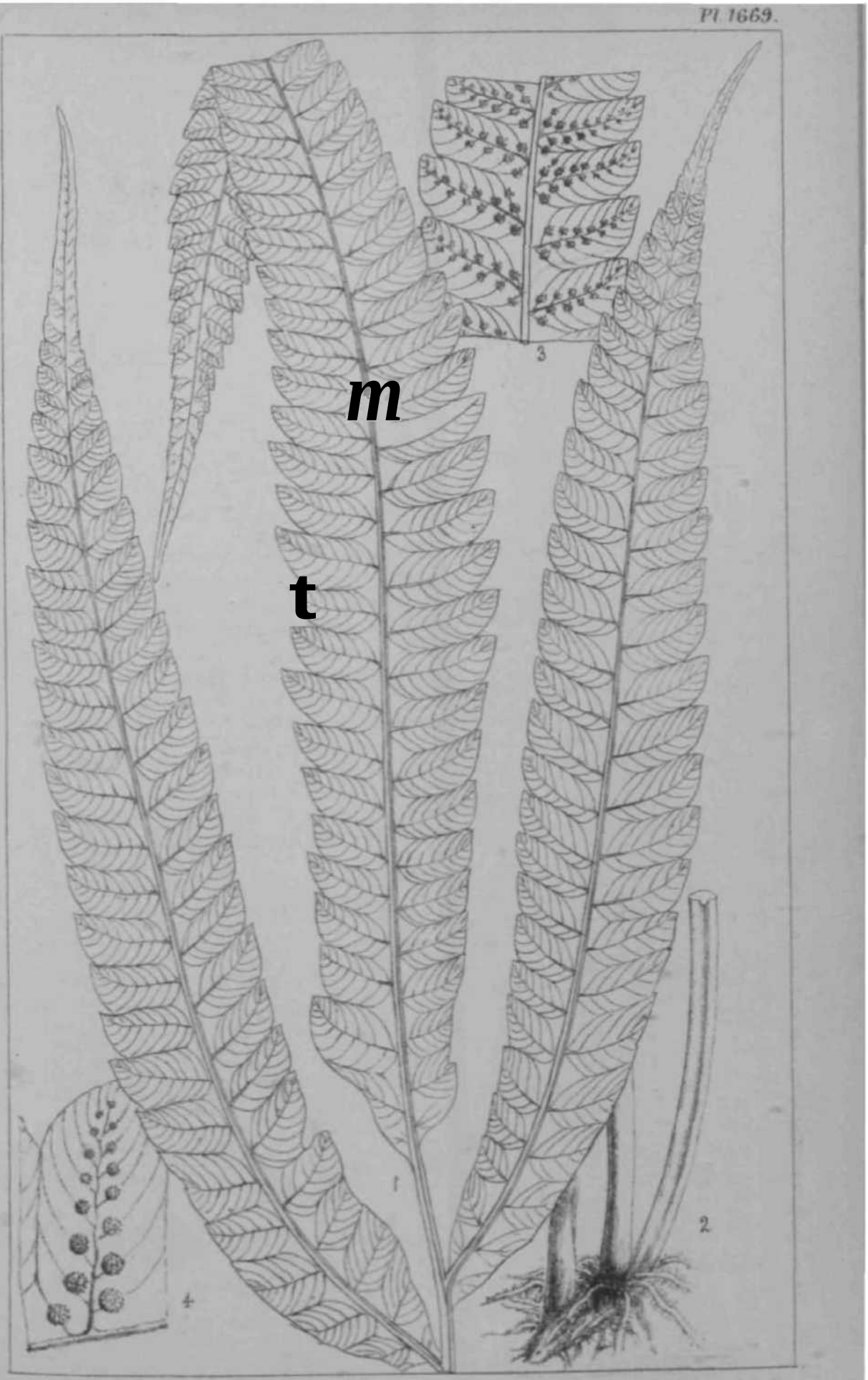
Polypodium oyamense, *Baker in Journ. BoL* 1877, p. 366.

HAD. Mountains of Japan, *Bisseti.* Received also from Professor Eaton, and a drawing from Dr. Franchet.

*SVpite** 3-4 poll, longi. *Lamina* semipedalis et ultra.

A very distinct species, with the habit of the European P. *Phegopteris.* It has been bronght into cultivation both in Britain and the Un:ted States.—J. G. BAKER.

Fig. \. Whole plant: *life size,* 2. Primary «gmenL 3. Lobe of lower pinna: *both wlarged.*



J. Allen del.

Polypodium obliteratum Sw

PLATE 1670.

POLYPODIUM TATEI, *Baker.*

FILICES, Sub-order POLYPODIACEJE, Tribe POLYPODIES.

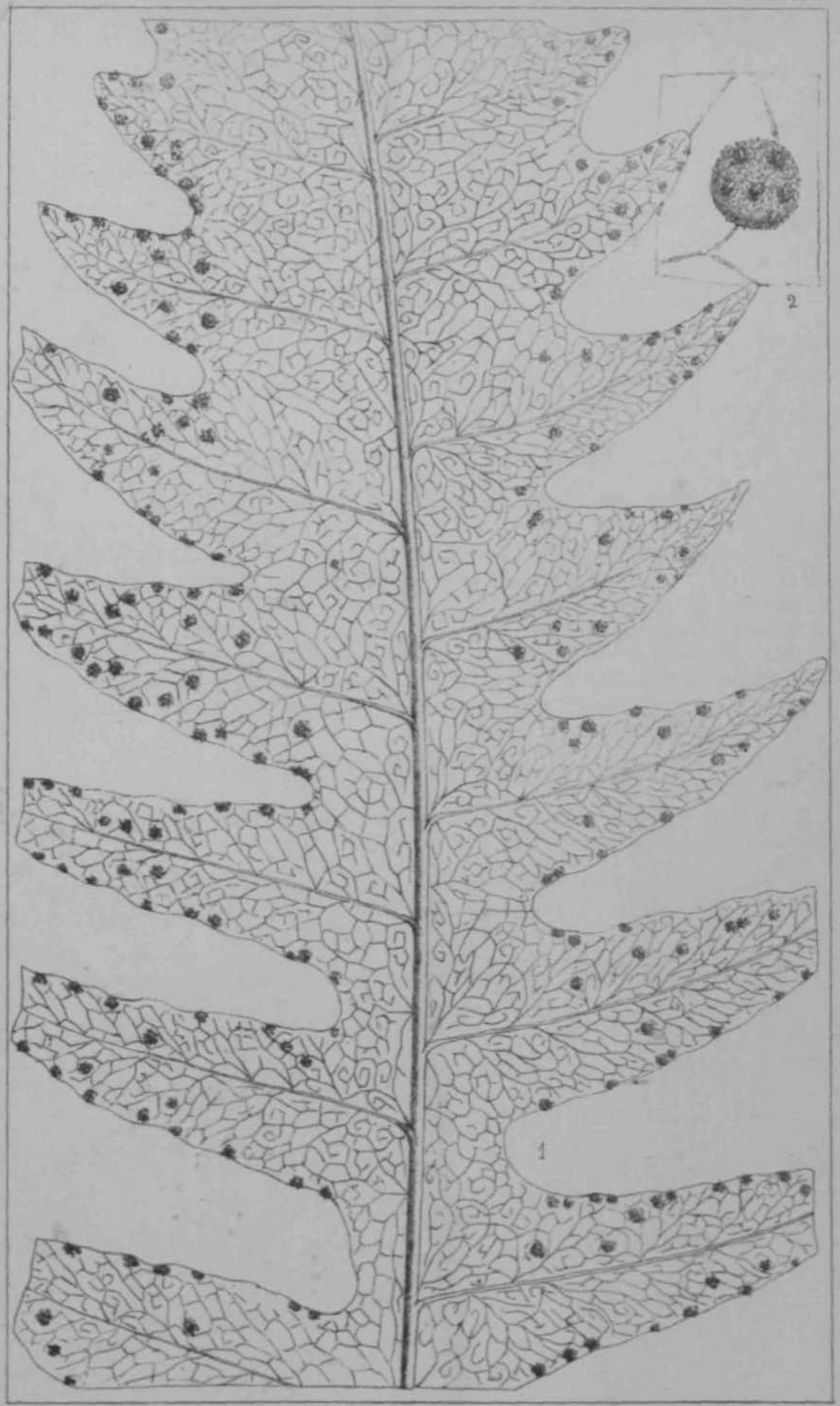
Polypodium (Dictyopteris) Tatei, *Baker in Hook, et Baker Syn. Fil.* edit. 2, p. 506; stipitibus elongatis castaneis nudis, frondibus "magnis oblongo-deltoideis membraDaceis viridibns glabris, apice caudatis pinnatifidis lobis ovatis vel lanceolatis, deorsum simpliciter pinnatis, pinnis lanceolatis acuminatis repandis, superioribus basi adnatis, infimis maximis subpetiolatis, venis copiose anastomosantibns, venulis liberis inclusis multis productis, Boris globosis snperficialibus sparsis multis submarginalibus.

HAB. Nicaragua; forests of Chontales, *Ralph Tate.*

***Caudex* ignotus. *Lamina* 2-3-pedalis. *Pinna* infim© subpedales, medio 12-15 lin. latee.**

This very distinct and interesting species was discovered by Professor Tate when he visited the gold-mines of Chontales in 1868.—J. G. BAKER.

Fig. 1. Portion of apex of frond: *life-site*. 2. Small portion with sorus: *enlarged*



J.Allen del.

Polypodium Tatei, Baker.

PLATE 1671.

POLYPODIUM EGGERSII, *Baker.*

FILICES, Sub-order POLYPODIACEJE, Tribe POLYPODIES.

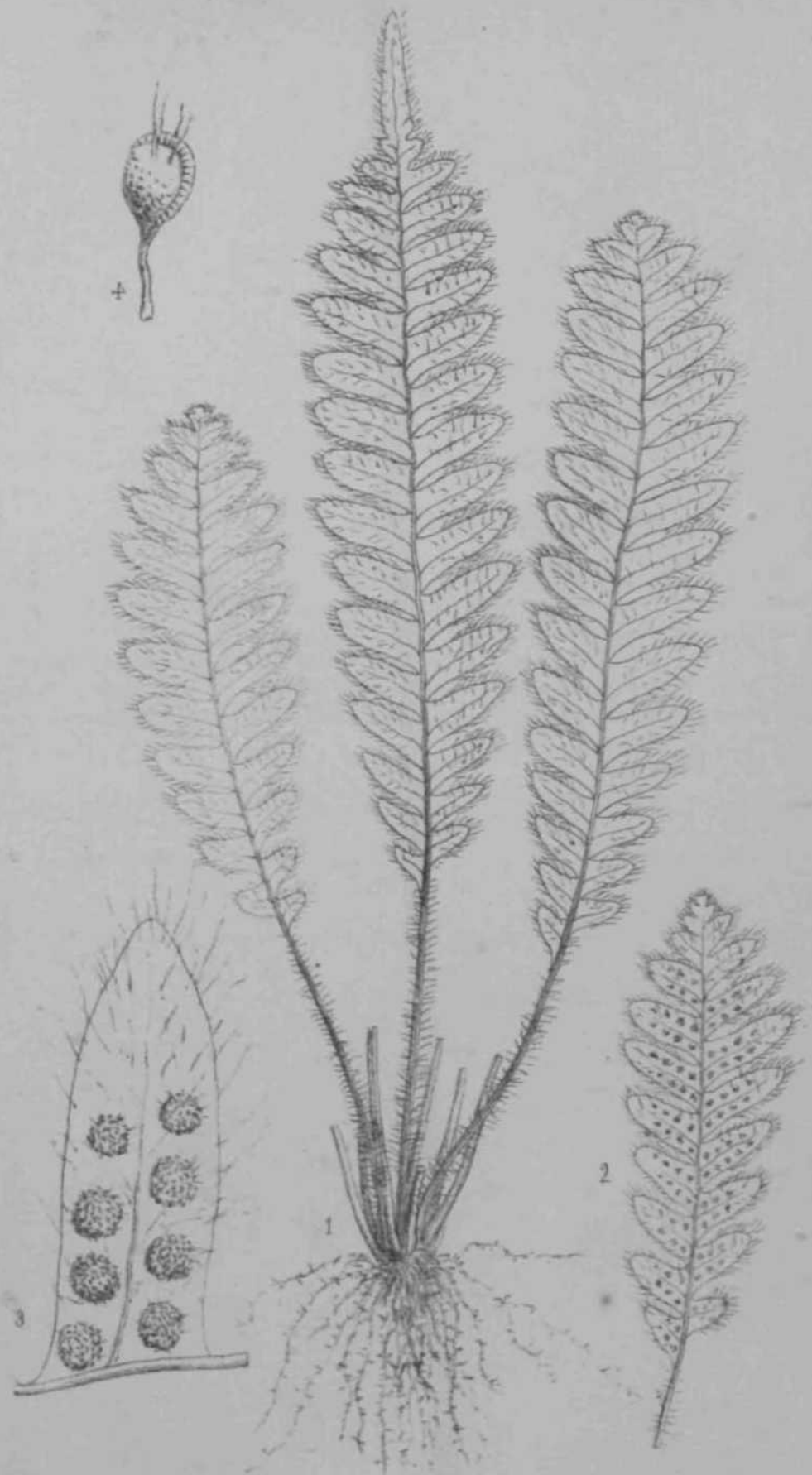
Folypodium (Eupolypodium) Eggersii, *Baker (sp. nov.);* caudice erecto, stipitibus brevibus coespitosis erectis gracilibus viridibns pilosis, frondibas parvis lanceolatis simpliciter pinnatis membranaceis ufcrinque viridibns pilosis, pinnis multijugis ascendentibns lanceolatis integris basi adnatis, inferioribus sensim minoribns, vennlis 5-6-jugis erecto-patentibns simplicibus, Boris magnis globosis snperficialjbus medialibns.

HJLB. **Dominica, *Baron Eggers,* 937.**

***Stipites* 1-2 poll, longi. *Lamina* 3-4-pollicaris, medio 9-10 lin. lata.**

Intermediate between two well-known West Indian types, P. *pendulum* and P. *siuspensum.*—J. G. BAKER.

Figs. 1 and 2. Fronds: *life rtee.* 3. Fertile pinna: *enlarged.* 4. A single capsule: *much enlarged.*



J. Allen del.

Polypodium Eggersii, Baker.

PLATE 1672.

FOLYFODIUM POZUZOENSE, *Baker.*

FILICES, Sub-order POLYPODIACEA, Tribe POLYPODIES.

Polypodinxn (Eupolypodium) poznzoense, *Baker (sp. nav.)*; stipitibus brevibus gracilibus caeapitosis parce pilosis, frondibua firmulis oblongo-lanceolatis pinnatis pendulis glabris obscure viridibus, pinnis 30-40-jugis linearibus basi adnatis crenatis vel saepe pinnatifidis lobis asccndentibus valde irregularibus, Tenulis erecto-patentibus immersis occultia, soris globosis superficialibus.

HAB. Cordilleras of Pozuzo, alt. 8000 feet, on trees, *Pearce,* 248.

***Stipites* 1-2 poll, longi. *Lamina* pedalis vel sesquipedalis.**

This curious species was discovered by Mr. Richard Pearce, in 1863, when on a collecting expedition on behalf of Messrs. Veitch. It is allied to the Peruvian P. *myriophyllum,* Mett.

Fig. 1. Frond. 2. Large pinna : *both l\fe åge.* 3. Portion of pinna: *enlarged.*

J.Allen del.

Polypodium pozuzoense Baker.

PLATE 1673.

POLYPODIUM TORULOSUM, *Baker.*

FILICES, Sab-order POLYPODIACEJ:, Tribe POLTPODIK^.

Polypodium (Eupolypodium) torulosum, ***Baker in Jonru.*** **W,,,,,,.. Nov. vol. xvi. p. 204; stipitibas brevibus ccespitosis gracillimis pilosis, frondibus parvis peudnlis firmulis lanceolatis viridibus pilosis, pinnis multijugis adnatis ascendentibns linearibua integris vel pinnatifidis, venis occultis immersis, soris snperficialibas globosis.**

Polypodium muscicola, ***Cordeniay MSS.***

HAB. Central Madagascar, ***Miss Helen Oilpin;*** **Bourbon,** ***Cordemoy, Delisle.***

Stipites **1-1 i poll, longi.** ***Lamina*** **3-6-pollicaris, medio -i-12 lin. lata.**

Allied to the Brazilian P. ***achillecefoHum,*** **Kaulf. Interesting geographically as being a species common to the mountains of Bourbon and Central Madagascar.—J. O. BAKER.**

Fig. 1. Whole plant: *life site.* 2. Pinna. 3. Portion of pinna: *enlarged.*

J All Tnde:

Polypodium - toru losum, Baker

PLATE 1674.

POLYPODIUM NOVJE-ZEALANDLSS, *Baker.*

FILICES, Sab-order POLTPODIACEA, Tribe POLYPODIES.

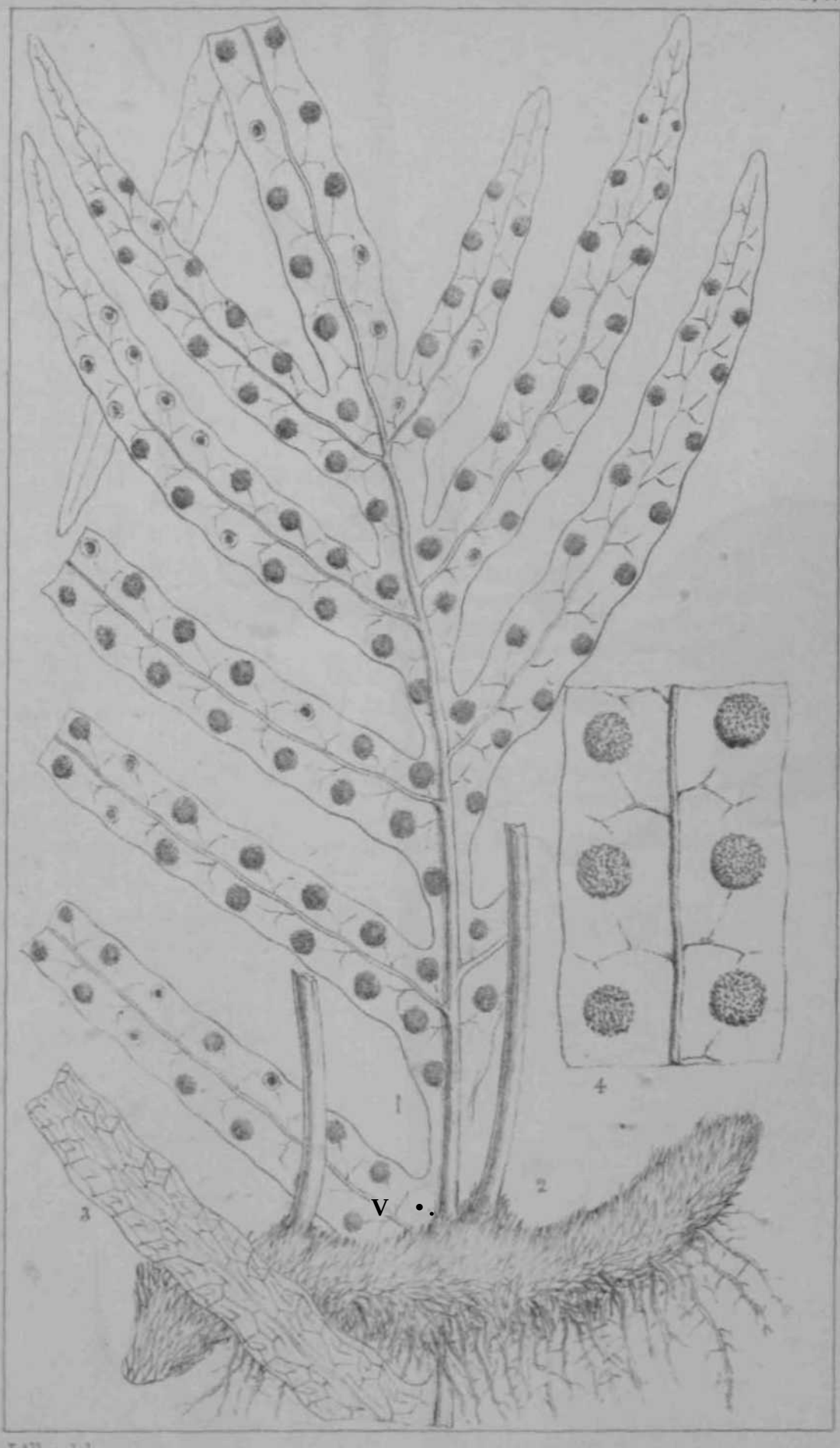
Polypodium (Phymatodes) Nova-Zealandis, *Baker (sp. nov*): rhizomate crasso late repente paleis ferrugineis lanceolatis dense vestit< » stipitibns elongatis strictis stramineis nudis, frondibus magnis oblongo-lanceolatis simpliciter pinnatis firmulis viridibus glabris, pinnis multi-jugis lanceolatis basi late adnatis, venis gracilibus immersis obscnris copiose anastomosantibus, sons magnis globosis superficialibus media-libus.

HAB. **New** Zealand; mountains of the Upper Waikoto district, alt. 2500 ft., *Cheesman.*

Stipites semipedaJes **vel** pedales. *Lamina* 1-4-pedalis, medio 6-12 **poll. lata.**

An interesting new species of the group of *Polypodium Phymatodes.* It is fully described, but not named, by Mr. Cheesman, in a paper in **the** *Transactions of the New Zealand Institute,* vol. x. p. 356. — **J. G. BAKER.**

Fig. 1. Portion of frond. 2. Rhizome. 3. Pinna, thowing veining: *life sue.* 4. Portion of fertile pinna: *enlarged.*



J. Allen del.

Polypodium novæ-zelandiæ Baker

PLATE 1675.

POLYPODIUM MACBOCHASMUM, *Laker.*

FIMCES, Sub-order POLYPODIACE<B, Tribe POLYPODIES.

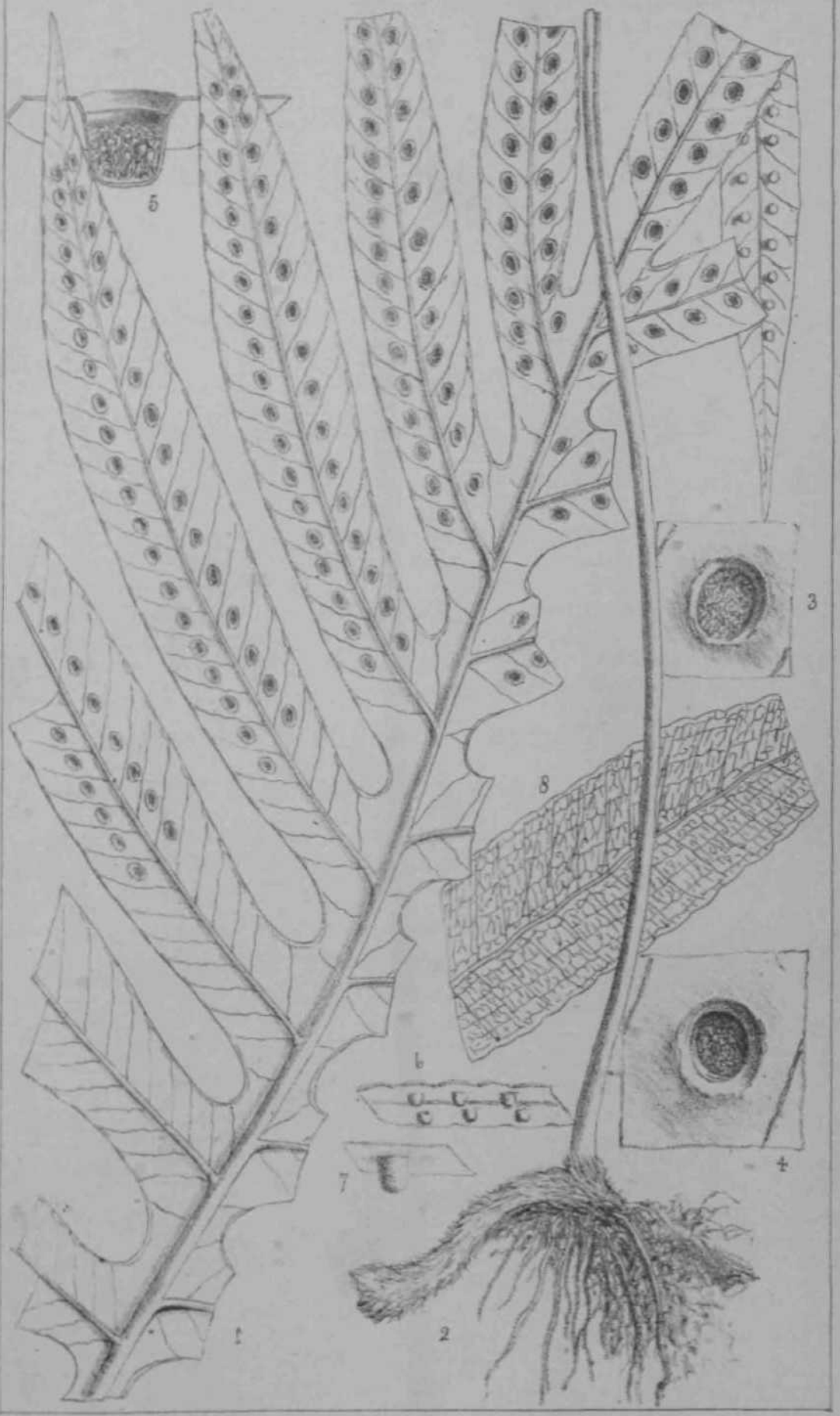
Polypodium (Phymatodes) macrochasmum, *Baker in Journ. Hot.* 1880, p. 216; rhizoniate late repente paleis linearibas ferrugineis membranaceis dense vestito, stipitibns strictis elongatis nudis, frondibus oblongo-deltoideis simpiicirer pinnatis rigidulis viridibus glabris, pinnis lanceolatis basi confluentibus, venis primariis parallelis ad marginem productis, intermediis obscuris immersia anastomosantibus, soris sub-costalibus uniseriatis profande immersis.

HAB. Sumatra; Mount Singalan, alt. 5000-6,000 ft., *Dr. Receari.*

***Stipites* semipedales. *Lamina* pedalis, pinnis medio 6-12 lin. latis.**

A very distinct species, discovered lately, with many other novelties, by Dr. Beccari, in his explorations of the mountains of Sumatra.—J. G. BAKER.

Fig. 1. Portion of frond. 2. Rhizome and stipes: *life size.* 3-4-5. Portions of frond to show sori. 6-7. Papillose upper surface: *both enlarged.*



J. Allen del.

Polypodium macrochasmum, Baker.

PLATE 1676.

NOTOCHLJENA CHINENSIS, *Baker,*

FILICES, Sub-order PULY POMACES, Tribe GRAMMITIDEJB,

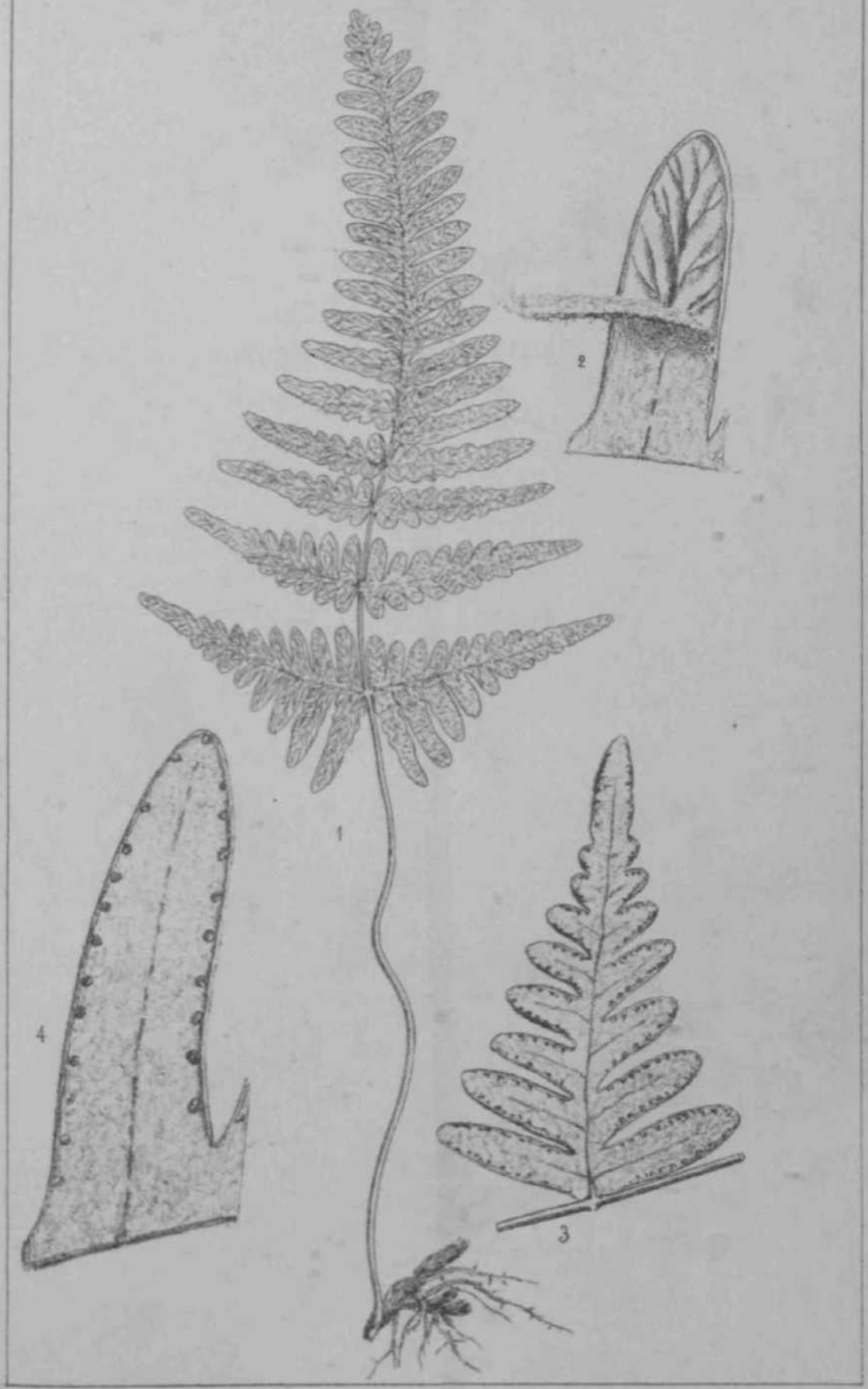
Notochlsena chinensis, *Baker in Gard, **Ohron.* **n.** *$,* vol. xir, p. 494; rbizomnte gracili repent* paleis parvis castaneis lincaribus adpressis vestito, stapitaboa **gracitibns** elongstis caetaneis uadis, frondibas purvis **oblongo-deltoideifl** bipiuuatis facie viridibns parce pilosis dorso dense persist enter albo-brunneo-tom&ntosis, rachi castanea parce pilosa, pi n n is nmltijugis soSMlibn^ huici-oJatiB, infimis maxim is inseijuihtteriilibus deltoideis, **piiinulu** intimis lanceolatis integria vel crenati^, venia immerais occult is venal is e rtcto-patent ibas furcatis, soris minTitis globosis marginalilma.

HAH. Central Cbiua; Ichang Gorge, *Maries.*

Stipites 3-4 poll, longi. *Lamina* 3—**t** poll. Ionga, pinnis infirais 8-9 Jin. lotis.

Nearly allied to the we!l-kno.vn **ESoropaa** *n N. Marante* •, R. Br.—J. G. BAKER.

Fig. 1. A frond: *life size. 2.* A pinnule. 4. A pimui. 3. A pinnule, with tnmeiitnm loruawiiy to show the ve;ns: all *more or less enlarged.*



J. Allen del.

Notochlæna chinensis. Baker.

PLATE 1677.

NOTOCHL.ENA BAiANSJB, *Baker*,

FILICES, Sab-order POLTPODIACBJE, Tribe GRAMMITIDEJE.

Notochlsena Balans®, *Baker m Jonrn. Bot.* 1878, p. 801; rliizomate breviter repente paleis linearibus brnnneis patulis dense vestito, Btipitibus brevibus coutiguis castaneis tomentosis, frondibus oblongo-lanceolatis facie viridibus parce ptlosis dorso dense persistenter minute squamosis, radii castanea paleacen, jiinnis multijugis sessilibua la:ceo-latis infimis redncti s, pinnulis maltijngis par vis oblongis contij,uis adnatis, venis occultis immersis, soris copiosis confluentibns.

HAB. Paraguay; rocky banks of the Rio Paraguay near Assam]-tion, *Balansa,* 330.

Stipites 1-2 poll. Iongi. *Lamina* 6-9 poll, longa, medio IS–15 lin. lata.

Allied to the Mexican and Arizonan *N. Asehenborniana*, *K\otzsah.*— J. G. BAKER.

Fig. 1. Whole plant: *l\fr* si>r. 2. Pinna: *enlarged.*

J Allen del

Notochlæna Balansæ, Baker.

PLATE 1678.

NOTOCHUENA PALMERI, *Baker.*

FILIGES, Sab-order POLYPODIACEJE, Tribe GRAMMITIDE*.

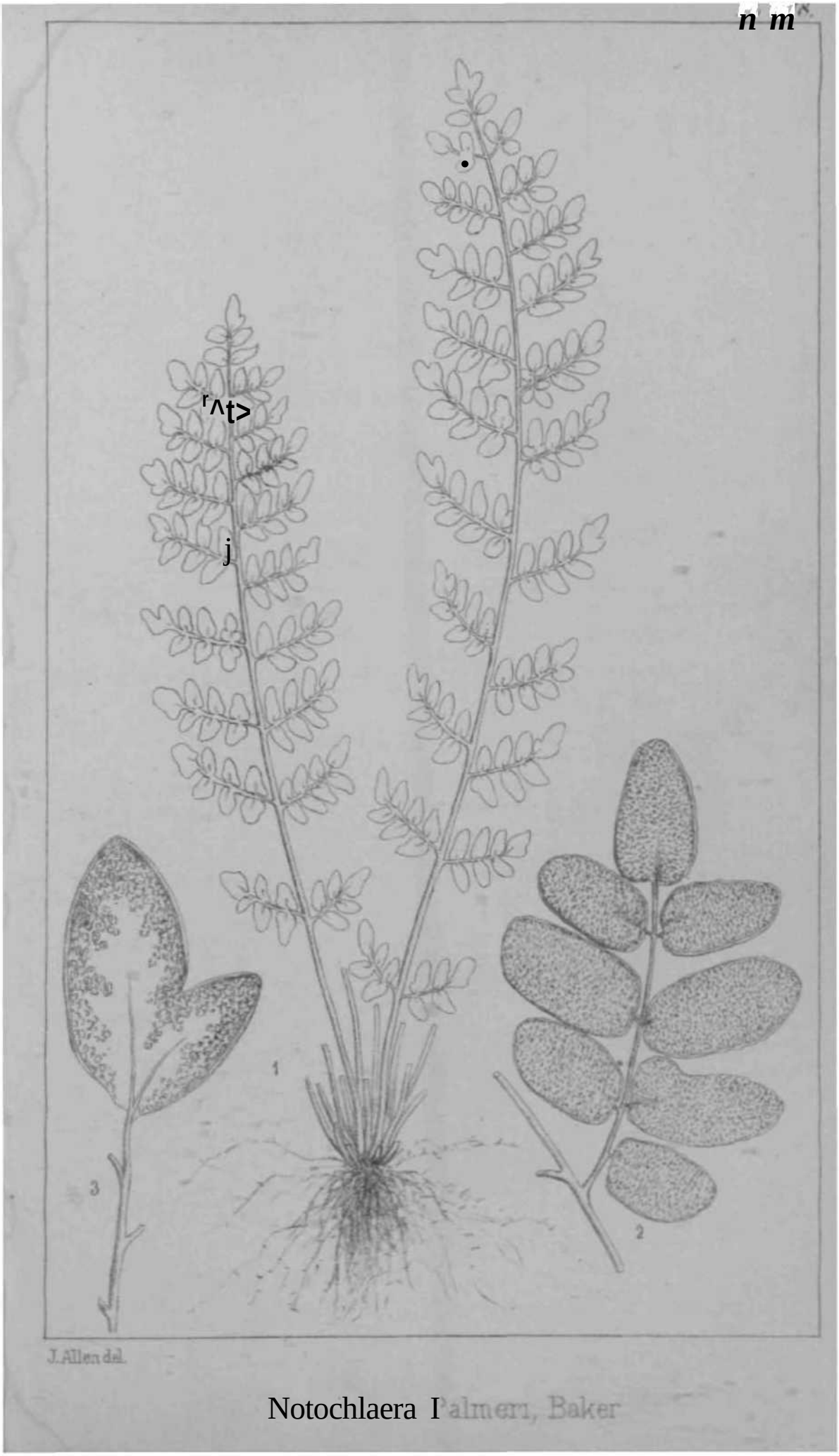
NotochlflBna (Cincinalis) Palmeri, *Baker (sp. nov.)*; caudice erecto paleis paucis lanceolatis bmnneis membranaceis apice vestito, stipitibus brevibus ceespitosis atro-castaneis nudis, frondibus oblongo-lanceolatis bipinnatis facie viridibns glabris dorso albo-ceraceis, pinnis mnltijagis sessilibus lanceolatis, pinnnlis paucijugis sessilibus oblongis integris, venis immersis occultis, sonis copiosis demum pinnnlaram dorsum totam oocapantibas.

HAB. Mexico; mountains of San Lais Potosi, alt. 6000-8000 ft., *Parry and Palmer*, 991.

***Stipites* 1-1^ poll, longi. *Lamina* 3-6-pollicaris, medio 6-12 lin. lata.**

This is only one amongst a large number of new species of *Notochlcena*, several of which have been figured by Professor Eaton, which have been discovered in Mexico and the South-western United States since the publication of the last edition of *Synopsis Filicum*. Of the species included therein the present plant comes nearest to *N. affinis*, Hook.—J. 6. BAKER.

Fig. 1. Whole plant: *life sue*. 2. A pinua. 3. Segment to show sori in a young stage: *both enlarged.*



Notochlaera Palmeri, Baker

PLATU 1079.

NOTOCHL^SWA HOOKEHI, ***Baton.***

FILICES, Sub-order POLYPODUCE.8, Tribe GRAMM HIDES.

Kotochleena (Cincinalis) Hookeri, *Eaton, Ferns Southwest,* p. 808, tab. 30 ; rhizomate breviter repeute paleis lanceolatis brunneis patnlis medio nigris dense vestito, stipitibns elongatia castaneis nndis, frondibus parvis cordato-quadrangularibua palmatim qninquefidis facie viridiboa glabria dorao albo-ceraceia, lobia rhomboideia pinnatis vel profunde pinnatifidis, segment is lanceolatis integris vet infimis crenatis, veuis immersia occuUis, sons maT^inaiibna confluontibus.—*Eaton, Ferns Brit. North Amer.* vol. ii. p. 25j tab. 49.

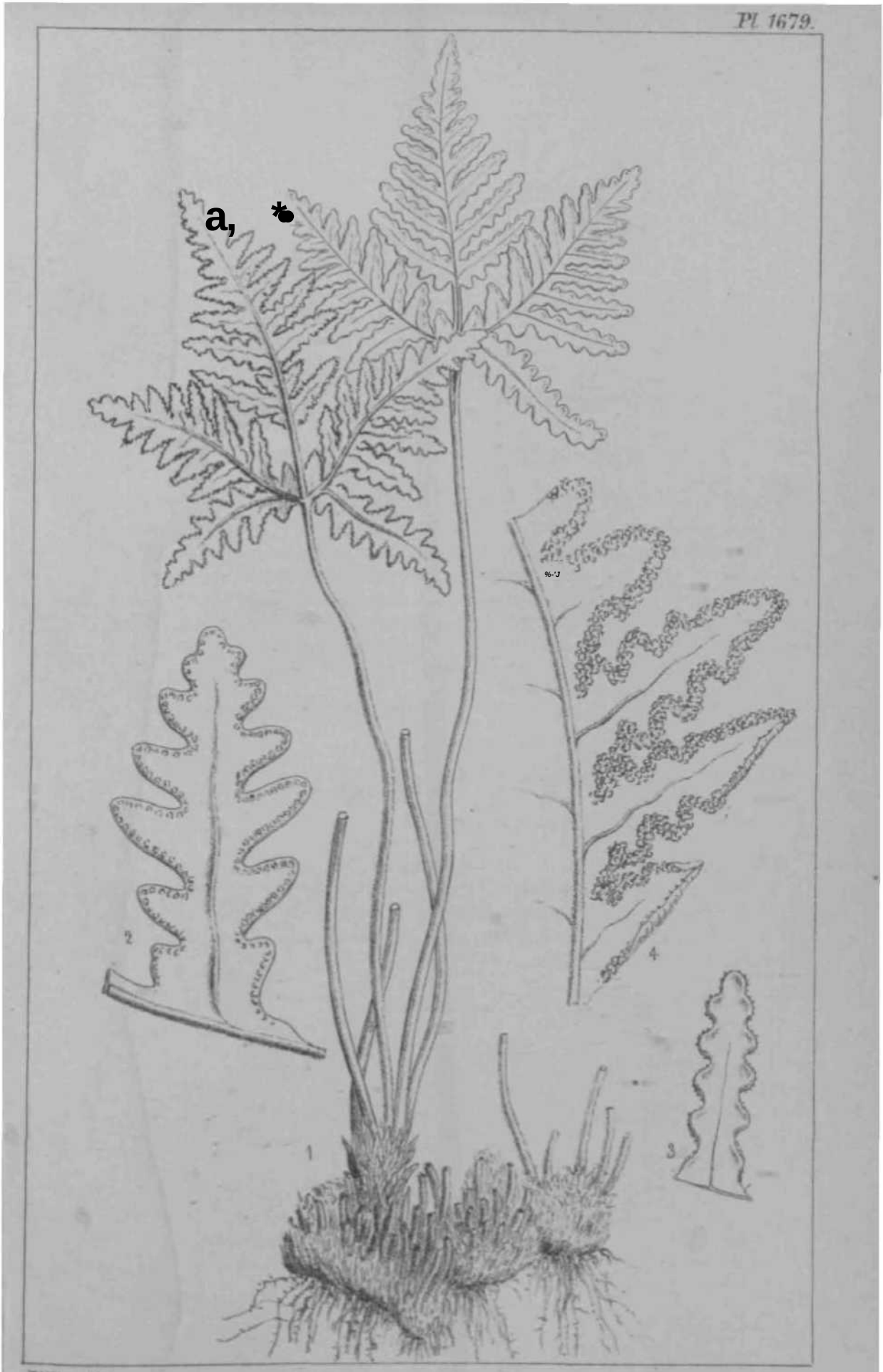
Notochlrona Candida, var. quinquefido-palmata, *Boot. S}>. Fil.* vol. *v.* p. 211.

HAB. California, *Bigehw* ; Arizona, *Lenunon, Pringle* j New Mexico, *O. Wright,* 821, Fa*ei/, 583, *Rttsby* ; Mexico ; San Luis Potosi, a variety with yellow powder, *Parry,* 022.

Stipitee 2-n poll, longi. *Lamina* 2-3 poll, longa etc fata.

Differs from all the other cerac«jous Notochlosnaa by its pal mate cntting. It was first characterised as a species by Professor Eaton, and has been gathered in numerous localities of late years, bat is not yet brought into cultivation.—J. G. BAKEB.

Kig. 1. Whole pUat: *hfe size,* 2, 3, 4, Segments : *mart or lot enlarged.*



J. Allen del.

Notoclila^na Hool eri, Eaton

PLATE 1680.

GYMNOGRAMME ANDERSONI, *Beddome.*

FILICES, Sab-order POLYPODIACE£, Tribe GHAMMITIDEI.

Gymnogramme Andersoni, *Beddome, Ferns Brit Ind.* tab. 190; caudice erecto, stipitibus dense caespitosis Btramineis pilosis, frondibos parvis oblongo-lanceolatis bipinnatifidis membranaceis utrinque viridibus dense pilosis, pinnis multijngis sessilibus ovatis profunde pinnatifidis segmentis contiguis oblongis, venis pinnatis vennlis graoilibns ascendentibns, soris globosis medialibus demum confluentibus.—Handbook, p. 382; *Hook, et Baker, Syn. Fil.* p. 380.

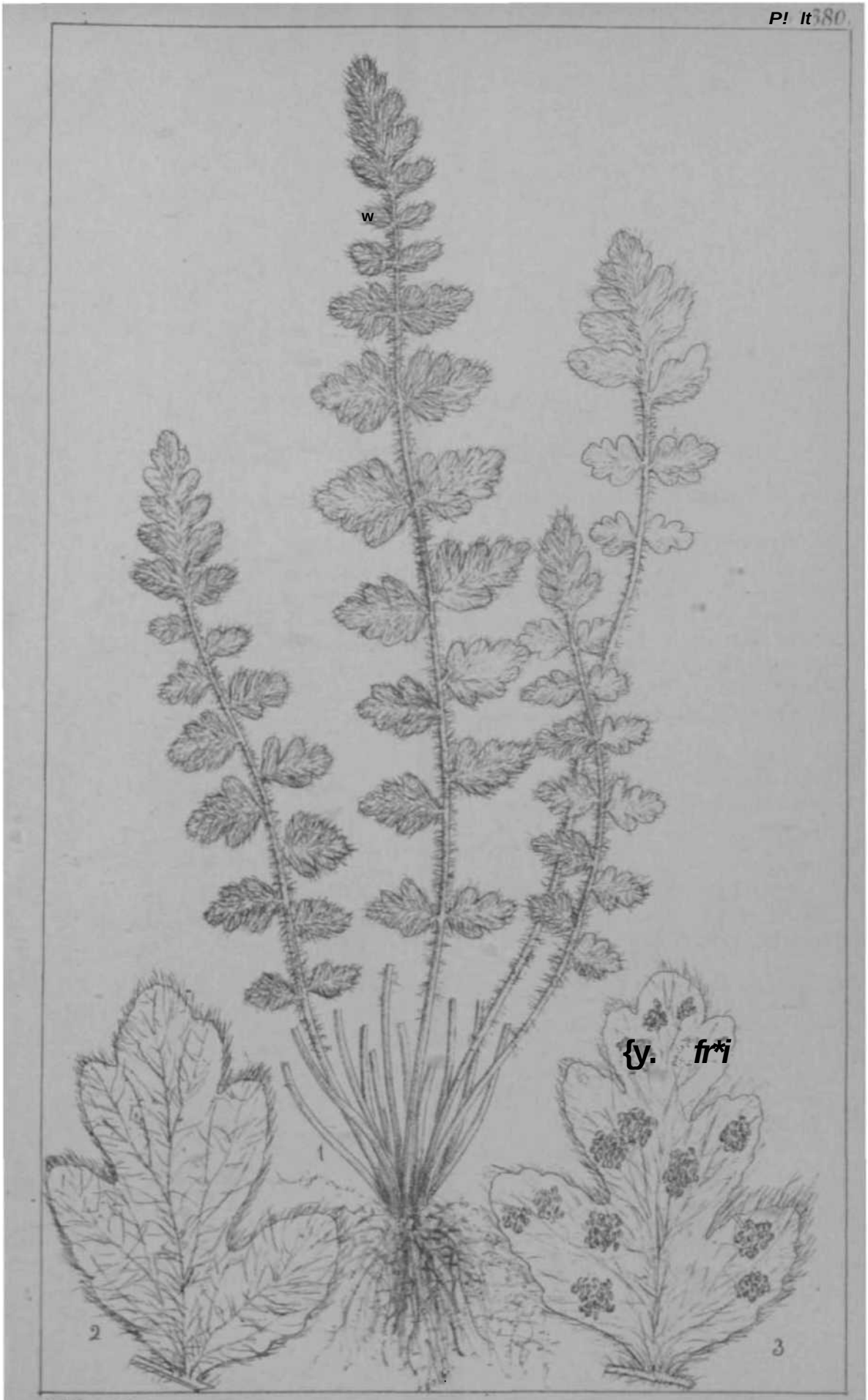
Woodsia lanosa, *Hook, et Baker, Syn. Fil.* p. 47.

HAB. Alpine region of Central and Eastern Himalayas, Kumaun, and Garwhal, 11,000-12,000 ft., *Strachey and Winterbottom, Duthie;* Sikkim, 14,000-16,000 ft., Sir /. *D. Hooker.*

SHpites 1-3 poll, longi. *Lamina* 2-5 poll, longa, pinnis 5-6 lin. latis.

This has the habit of *Woodsia ilvensis* and *hyperborea,* bat I find no trace of an indusinm, so that Colonel Beddome is quite right in placing it in *Gymnogramme.*—J. G. BAKER.

Fig. 1. Whole plant: *life sue. 2* and 3. Pinna;: *cntargrd.*



J. Allen del.

Gymnogramme Andersoni, Beddome.

PLATE 1681.

GYMNOGEAMME XEROPHILA, *Baker.*

FILICES, Sub-order POLTPODTACE^, Tribe GKAMMITIDEJ:.

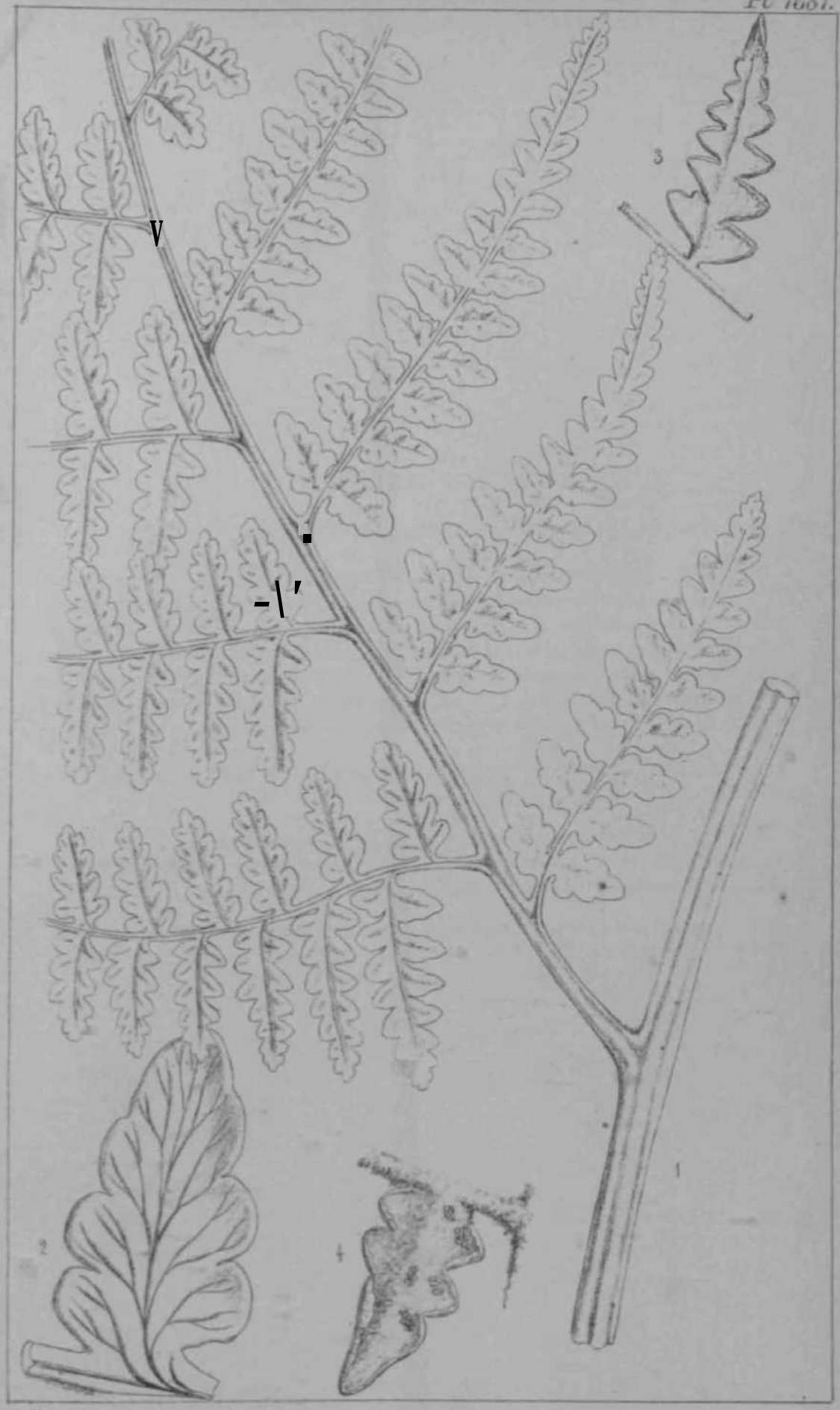
Gymnogramme xerophila, *Baker in Journ, BoL* 1881, p. 206 ; frondibus amplis deltoideis decompositis subcoriaoeis facie viridilma glabriB dorso dense persistenter ferrugineo-tomeutOBis, racbibas castaneis tomentosis, pinnig magnis petiolatis oblongo-lanceolatis, pimialis raultijngis lanoeolatis, segment is tertian is ovato-obiongia obtusis lobis rotundatis marginibas leviter rovolutis, venis pinnatis liberis venalis ascendentibns furcatis, soris tnedialibos.

HAB. New Granada; province of Antioquia, in open rocky places, alt. 8000 ft., *Kalbreyer,* 1563.

Lamina 4-o-pedalis. *Pinna:* inBmes pedales et ultra.

A very striking and distinct new species, discovered by llr. Kalbreiver in 1879 when collecting on behalf of Messrs. Veitcb,—J. G. BAKER.

Fig. 1. Lower put of a pinna: *lift Hte, 2.* **Barren** segment, denuded of tomentum to show the reining. 3 and 4, Final segments: *tniargtd.*



J.Allen del.

Gymnogramme xerophila, Baker.

PLATE 1682.

GYMNOGRAMME SCHIZOPHYLLA, *Baker.*

FILICES, Sub-order POLYPODIACEÆ, Tribe GRAMMITIDEÆ.

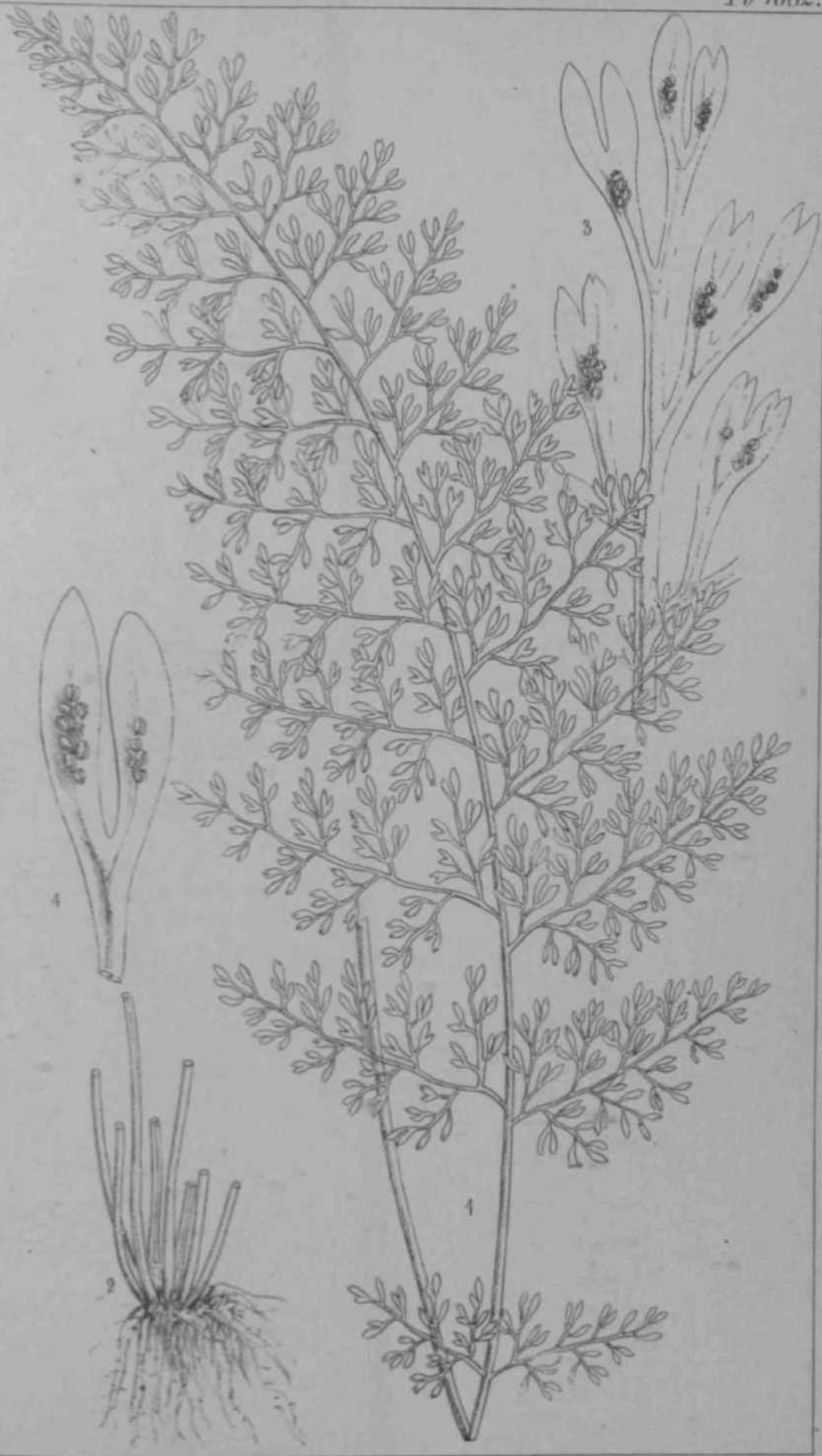
Gymnogramme schizophylla, *Baker* m *Journ. Bat.* 1877, p. 266; can dice erecto, stipitibns brevibns nudis graeilibus castaneis, frond i bus oblongo-lanceolatis decompositis mem bran aceis glabris viridibns, rachi recta castanea, pinnis multijugis deltoideis basi postice cuneato-truncatis, inferioribns redncti3 remotis, segmenti3 ultimis linearibas uninerviis segregatés deorsum atteuoatis, soris ad venae decurrentibus obltmgis.

HAB. Mountains of Jamaica, alt. 4*300-5000 ft, *Mies Taylor, Jenman, No.k.*

Stipites 1-3 poll, longi. *Lamina* ped&lia vel semipedalis, media 2-4 poll. lata.

This lmndsome species was found long ago by Miss Taylor, but was not described. It was rediscovered by Messrs. Nock and Jenman in 1875, and has now been introduced into cultivation.—J. 0. BAKER.

Fig. 1. An entire froti>l. '2. Tuft of stipes: *lift tUe.* 3 and 4. Final divisions: *mtmtytd.*



J. Allen del.

Gymnogramme schizophylla, Baker.

PLATE 1683.

GYMNOGRAMME PREHENSIBILIS, *Baker.*

FILICES, Sub-order POLTPODIACEJ:, Tribe GRAMMITIDEJS.

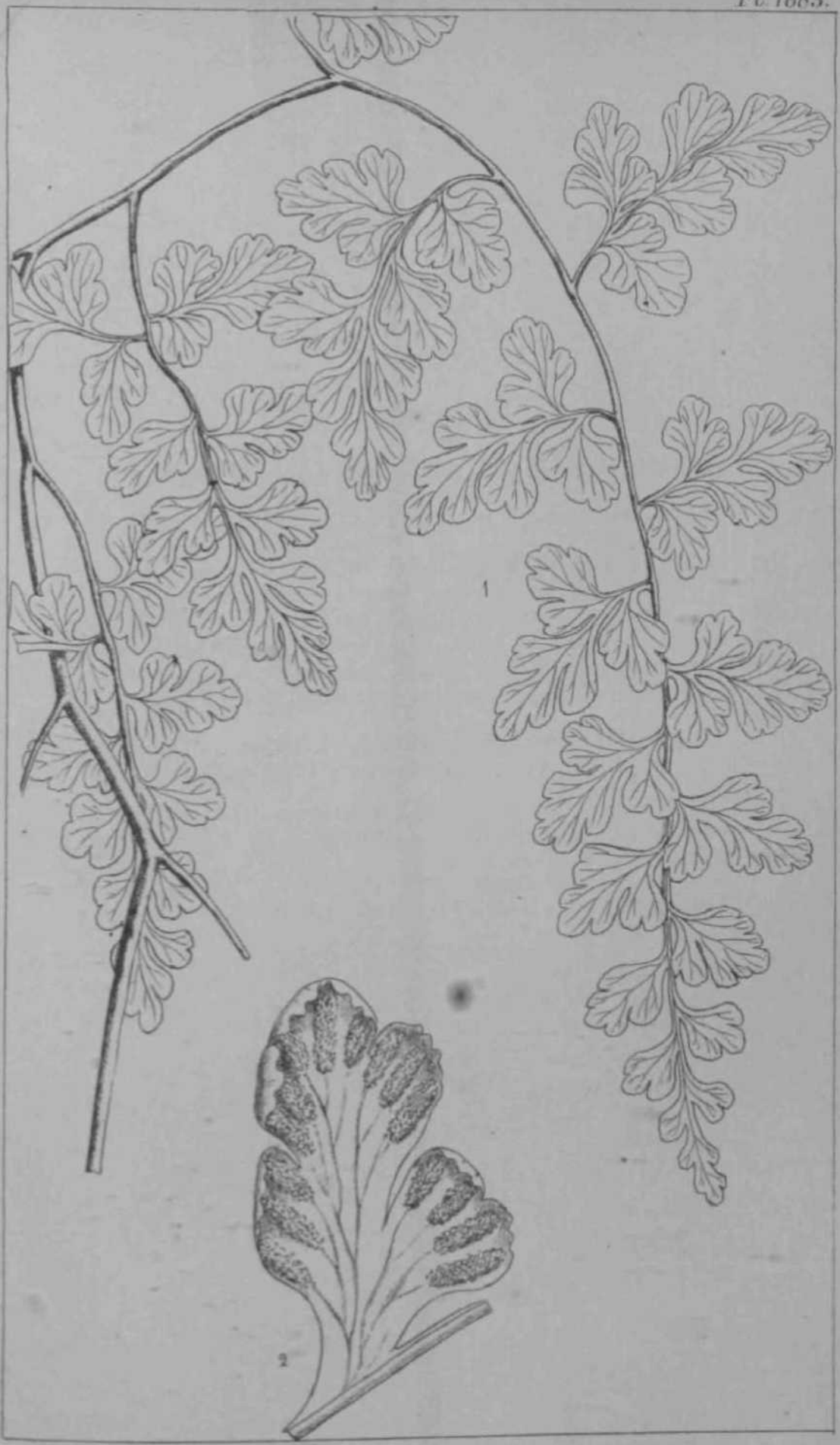
Oymnogramme prehensibilis, ***Baker in Book, et Baker, Syn. Fil.*** **edit. 2, p. 517; frondibus amplis scandentibus membranaceis viridibus glabris, pinnis oblongo-ianceolatis rachibus castaneis valde flezuosis, pinnulis ovatis basi postice cuneato-truncatis, segmentis ultimis latis cuneatis inaequaliter flabellatim sectis, venis liberis flabellatis, Boris oblongis vel cylindricis supra medium venularum decurrentibus.**

HAB. Andes of New Granada; province of Antioquia, alt. 6000 ft., ***Kalbreyer,*** **1365; Ecuador; Sandillani, 8000-9000 ft.,** ***Pearce.***

Lamina **4-6-pedalis.** ***Pinna*** **pedales.** ***Segmenta*** **ultima 3-4 lin. lata.**

A very fine large scandent species, discovered by Messrs. Veitch's collectors.—J. G. BAKER.

Fig. 1. Lover pinna: ***life sùe,*** **2. Final segment:** ***enlarged.***



J. Allen del.

Gymnogramme prehensibilis, Baker.

PLATE 1684.

GYMNOGEAMME EXTENSA, *Baker.*

FILICES, Sub-order POLYPODIACILB, Tribe GRAUMITID&S.

Oymnogramme extensa, *Baker in Endl. et Mart. Fl. Brasil.* vol. i. part 2, p. 599; stipitibus elongatis gracilibus nudis castaneis, frondibits elongatis decorapositis membranaceis glabris viridibus, rachi recta gracili castanea, pinnis remotis patulis'deltoideis cum pinnulis deltoideis basi post ice cimeato-trnncatis, segmentis ultimis cuneatia flabellatim sectis lobis uDinerviis, Boris medialibas oblongo-cyliudricis.

Anogramme Biardii, Fee, *Crypt. Vase. Bras.* p. 241, tab. 77, fig. 1.

Gjninogramme Biardii, *Baker in Hook et Baker, Syn. Fil.* edit. 2, p. 516.

HAB. Rio Janeiro; forests of the Organ mountains, *Glaziou,* 3331.

***Stipites* 8-12 poll, longi. *Lamina* sesqnipedalis vel bipedalis, pinnis 2-3 poll, longis.**

This is one of the discoveries of Dr. Glaziou, irho has collected most energetically in Sooth Brazil daring tbe last fifteen years. It is allied to the Andine *0. hirta,* Desv.—J. G. BAKER.

Fig. 1. Portion of *frond: l\fe site.* 2. Fertile pinnule: *enlarged.*

J.Allen del.

Gymnogramme extensa, Baker.

PLATE 1685.

GYMNOGRAMME **CANTONIENSIS,** *Baker.*

FILICES, Sab-order POLYPOQIACEJE, Tribe GRAMMITIDEA.

Gymnogramme (Sellignea) cantoniensis, *Baker*; rhizomate gracili late repente, paleis lanccolatis adpressis membranaceis nigrescentibos clathratis, frondibus valde diniorphis, sterilibas parvis ovatis obtusis integris basi rotundatis vel subcordatis, stipitibns frondibas fequilongis nudis viridalis, venis inconspicais iramersis copiose anastomosantibns, frondibas fertilibas lanceolatis, soris cylindricis cite confluentibus.

Poljpodium P cantonieDse, *Baker in Journ. Bot.* 1879, p. 304.

HAB. Banks of the North river, Canton, *Ford.*

Lamina sterilii 2-3-pollicaris. *Lamina fertilis* 3 poll, longa, medio 2-3 lin. lata.

Tin's very distinct species was discovered in 1878 by Mr. Charles Ford, of the Hong Kong Botanic Garden. It is only quite recently that we have seen the fertile frond, and it has lately been brought into cultivation.—J. G. BAKER.

Fig. 1. Sterile fronds. 2. Fertile frond: *both life BU* . 3. Fertile frond: *enlarged.*

J.Allen del.

Gymnogramme cantoniensis, Baker.

PLATE 1686.

DRYMOGLOSSUM NIPHOBOLOIDES, *Baker.*

FILICES, Sub-order POLTPODIACEA, Tribe GRAMMITIDEA.

Drymoglossum niphoboloides, *Baker* \ **rhizomate gracili flexuoso late repente, paleis ovatis ferrugineis membranaceis conspicne ciliatis, frondibas valde dimorphis, sterilibus breviter petiolatis coriaceis parvis oblongis obtusis basi cuneatis pilis stellatis deciduis prseditis, frondibas fertilibns majoribus lanceolatis, venis inconspicuis immersis, Boris perfecte marginalibus continois vel interrnptis.**

Trenitis (Drymoglossum) niphoboloides, *Literssen in Beh'q. Ruten.* **p. 49, tab. 1, fig. 3-6.**

HAB. Forests of North-west Madagascar, *RiUeiiberg, Humblot* **310.**

Lamina sterilis **sabpollicaris.** *Lamina fertilis* **3-6-pollicaris, medio 3-4 lin. lata.**

This very distinct species, which was first gathered by the unfortunate traveller Rntenberg, has lately been refound by Humblot. It has not been sent home by any of the English collectors.—J. G. BAKER.

Fig. 1. Whole plant: *life size.* **2. Cross section of fertile frond. 3. Palea.** 4_a **5. Stellate hairs:** *all enlarged.*

J.Allen del.

Drymoglossum nipitoboloides. Baker.

PLATE 1687.

HEMIONITIS PINNATA, /. *Smith.*

FILICES, Sub-order POLYPODIACEJS, Tribe GRAMWTIDEJE.

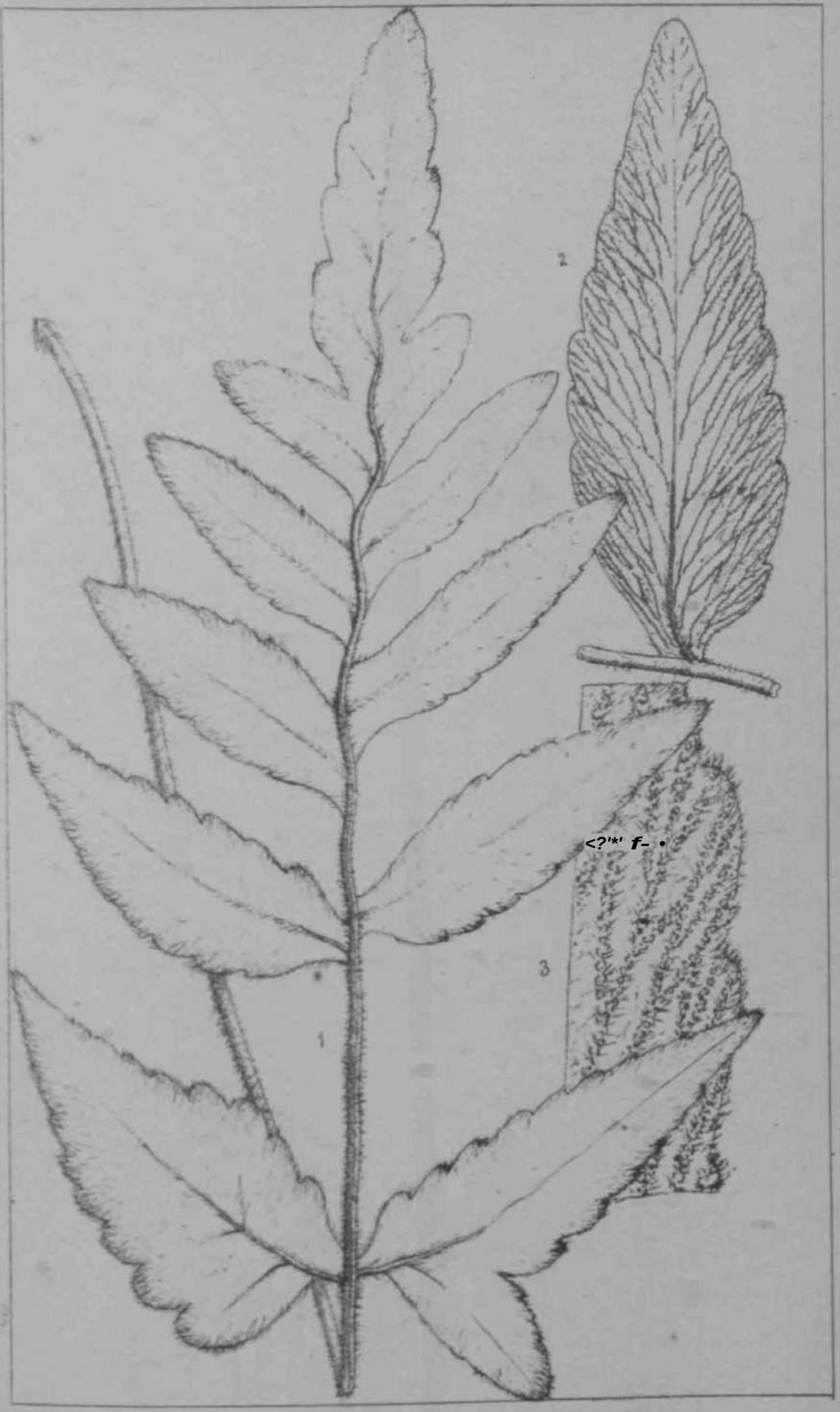
Eemionitis pinnata, /. *Smith, Gen. Fil* p. 33; caudice erecto apice paleis parvis lanceolatis membranaceis pallide brunneis pnedito, stipitibus elongatis casspitosis castaneis gracilibas nudis, frondibas ovato-oblongis membranaceis pilosis apice pinnatifidis deorsum simpliciter piunatis, rachi castanea pilosa, pinnis paucijugis sesailibQS, centralibus oblongo-lanceolatis obtusis crenatis, iufimis mazimis postice productis basi profunde lobatis, venis arcnatis extrorsam anastomosantibus, soris ad venas omnes productis.—*Hook, et Baker, 8yn. Fil* p. 399.

HAB. Jamaica, *Wiles, Jenman, Sherring.*

***Stipites* 6-8 poll, longi. *Lamina* 6-8-pollicaris.**

Of this, which is one of the most curious and rarest of the West Indian ferns, we have lately received a specimen for the first time from Mr. G. S. Jenman.^—J. G. BAKES.

Fig. 1. Whole frond: *life rite.* 2. Fertile pinna: *a little enlarged.* 3. Portion of fertile pinna: ***much enlarged.***



J.Allen del.

Hemionitis pinnata, J.Sm.

PLATE 1688.

ACROSTICHUM SODIROI, *Baker.*

FILICKS, Sub-order POLTPODIACEA, Tribe ACROSTICHEA.

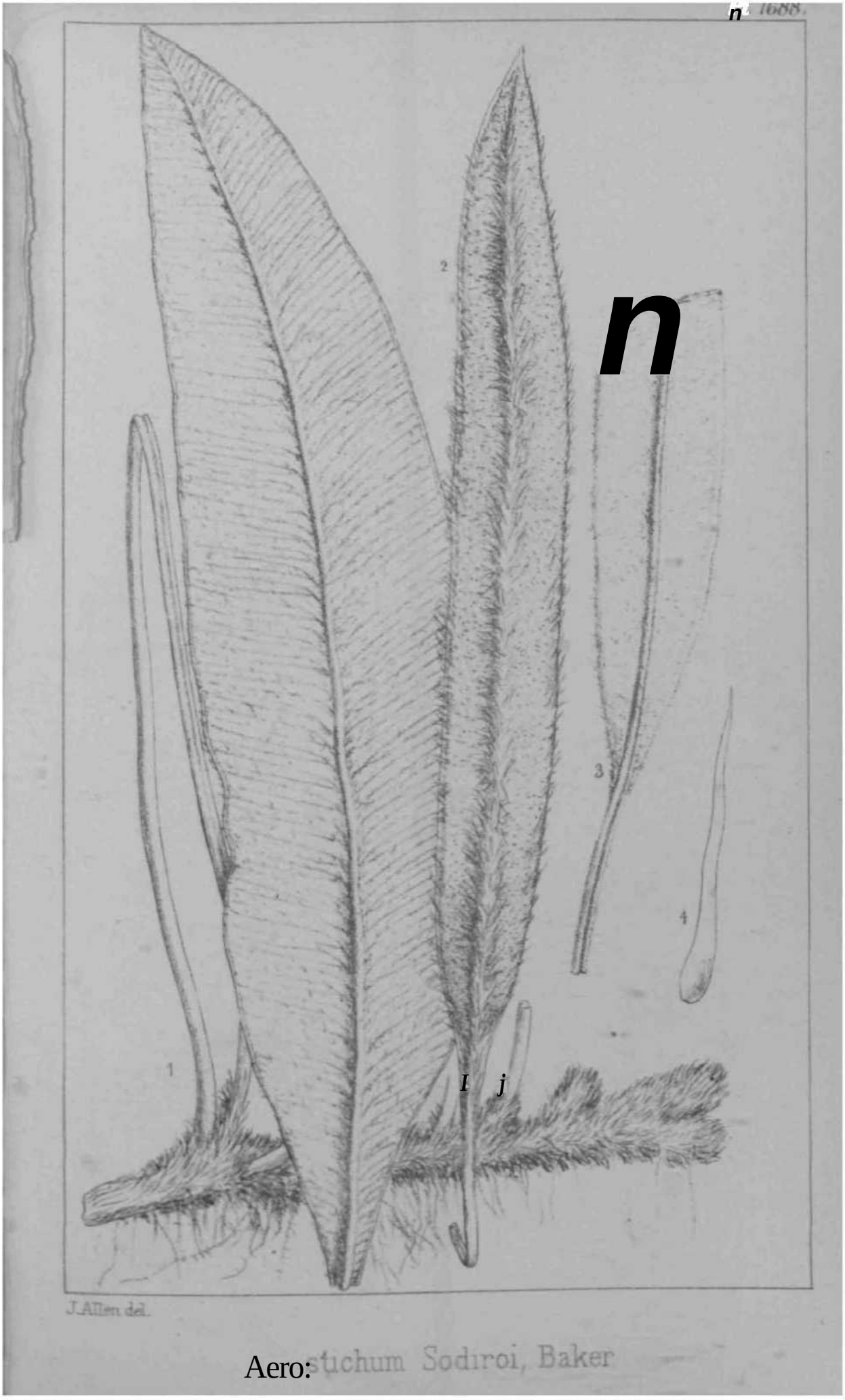
Acrostichum (Elaphoglossum) Sodiroi, *Baker in Journ. Bot.* 1877. p. 167; rhizoniate valido liguoso late repente paleis parris Castanet membranaceis lanceolatis dense vestito, frondibus dimorphis, stipitibus longissimis viridulis parce paleaceis, frondibns ererilibus ligulatc lanceolatis subcoriaceis basi angustatis utrinque paleis adpressi-linearibns castaneis hand ciliatis tenniter vestitis, venis obscuris fiubpatulis seepe fnrcatis, frondibus fertilibus lanceolatis, costis faciei inferioris dense paleaceis.

HAB. Andes of Ecuador, in pastures of Mount Garazon, *Sodiro.*

***Stipites* pedales et ultra. *Lamina* sterilis 6-8 poll, longa, 12-15 tin. lata; fertilis 8-9 lin. lata.**

This is one of the many new species discovered lately by Father Sodiro in the Andes of Quito. It belongs to the group of the *OligolepOfBy* in the neighbourhood of *A. 6cobpendrifolium.*—*J.* G. BAKER.

Fig. 1. Sterile frond, with rhiiome. Figs. 2 and 3. Fertile fronds: *both life sise.* 4. Palea: *cnlargwU*



Aero: stuchum Sodiroi, Baker

PLATE 1689.

ACBOSTICHUM NEGLECTUM, *Baihij.*

FILTCES, Sab-order POLYPODIACEA, Tribe ACROSTICHEJS.

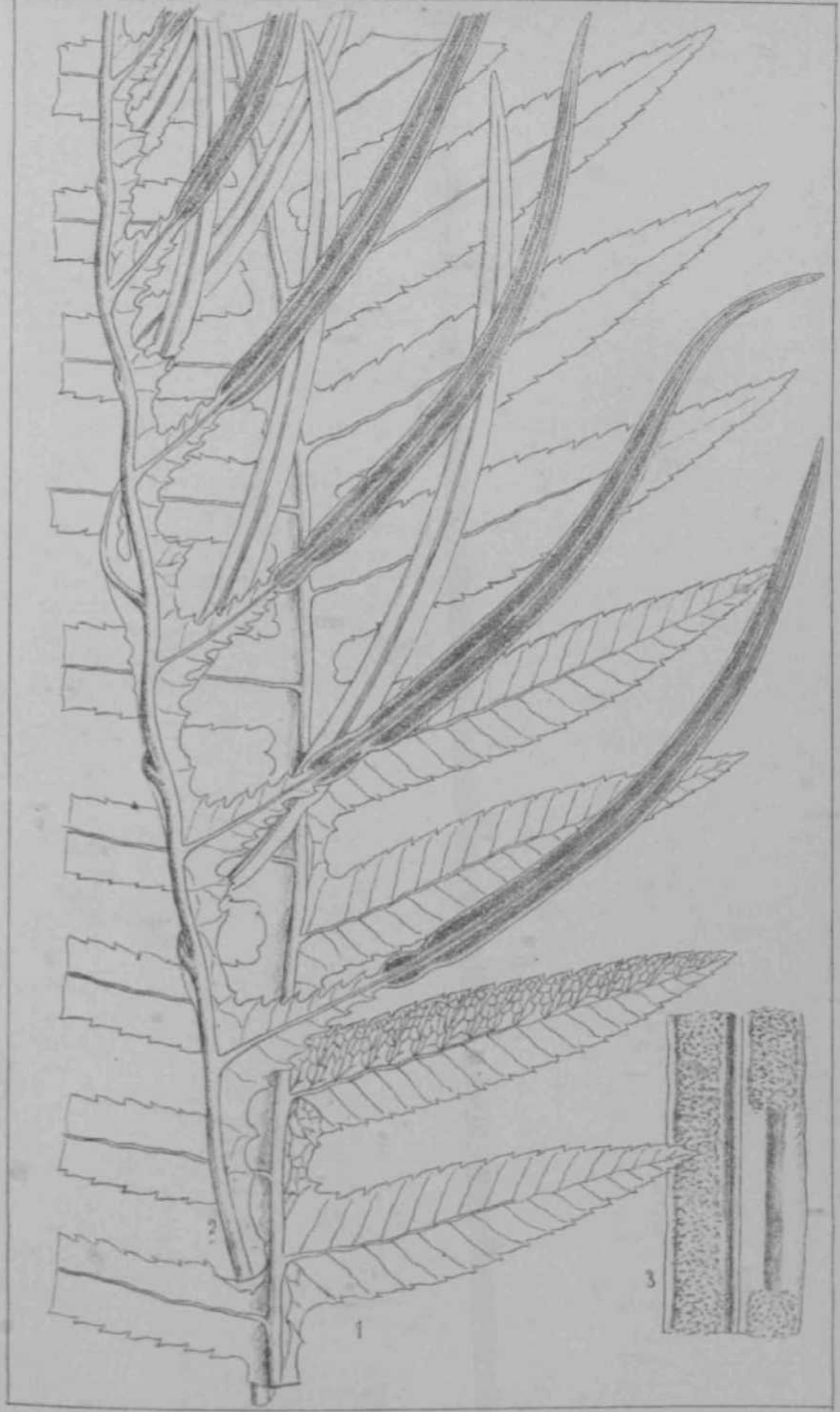
Acrostichum (Oymnopteris) neglectum. *Bailey, Synnpe. Queenl. Flora,* p. 222; rhizomate re pen to, frondibus dimorphifl, sterilibas oblongo-lanoeolatis profunde pinnatifidis membranaceis glabris viridibus, stipitibus elongatis fere ad basin alatia, pinuis multijugis lanceolatis acuminatis breviter pinnatifidis, lobis antice cuspidatis, venis primariia erecto-patentibus rectis parallelis, venuits intermediis copiose anastomosantibus, frondibus fertilibns minoribus, stipitibus longioribus, segmentis linearibus integris.

HAB. Queensland; gullies of Trinity Bay ranges, *Bail ;*.

***Lamina* 3-4-pedalis, stipite alato incluso. *Pinnae* centrales 4-5 polL longse, 8-9 lin. lat&.**

This very distinct new species was first received at Kew from Baron von Mueller in 1880. It comes nearest to the widely spread Indian *A. virens,* Wall. It was discovered and described by Mr. F. M. Bailey, Government botanist to the colony of Queensland.—J. O. BAKES.

Fig. 1. Portion of sterile frond. 2. Portion of fertile frond: *both Itfe me.* 3. Portion of fertile pinna: *enlarged.*



J. Allen del.

Acrostichum neglectum, Bailey.

PLATE 1690.

ACROSTICHUM POLYBOTRYOIDES, *Baker.*

FILICES, Sub-order POLTPODIACE^, Tribe ACROSTICHEA.

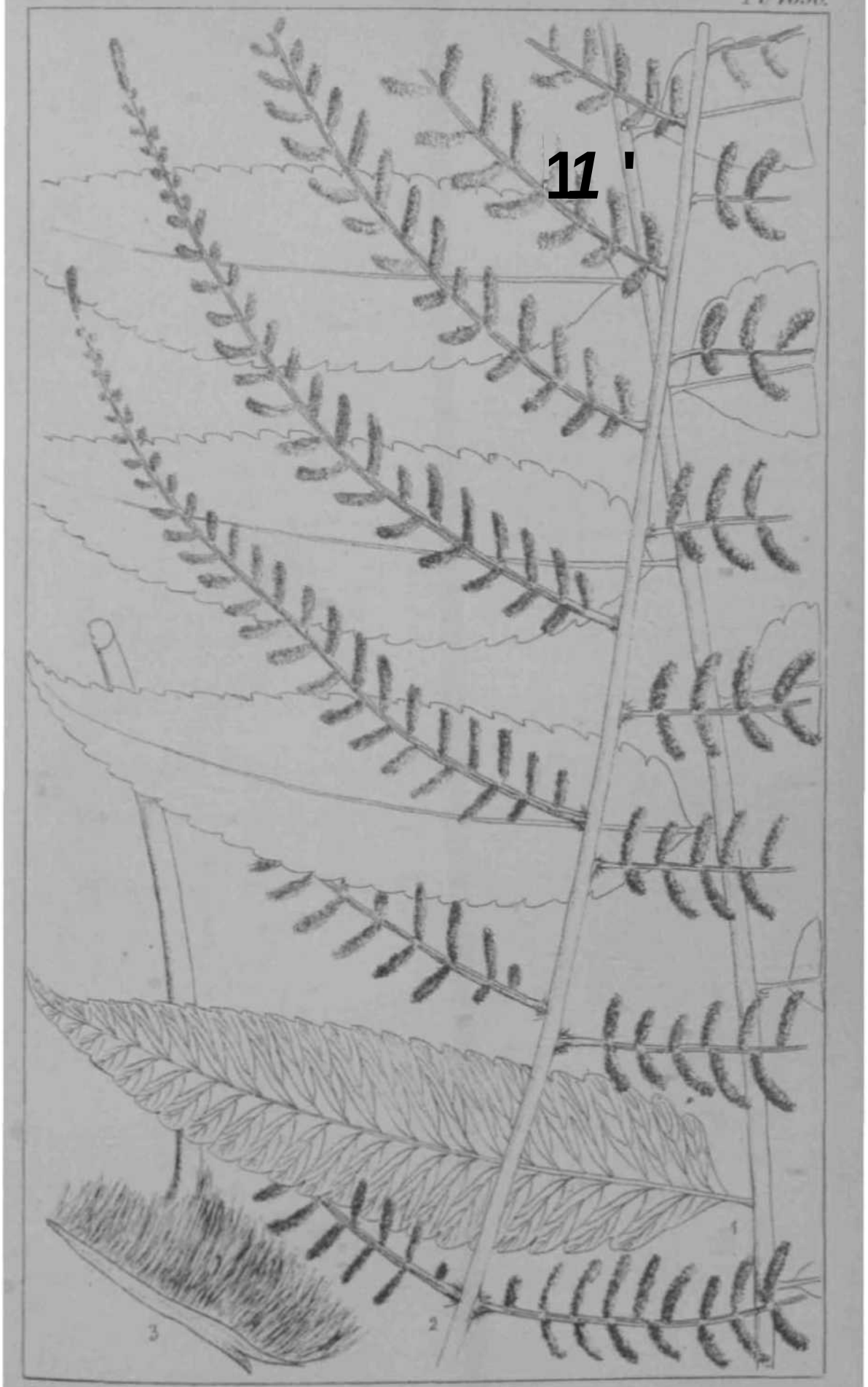
Acrostichum (Gymnopteris) polybotryoides, *Baker in Journ. Bot.* 1881, p. 207; rhizoinate liguoso strainineo scandente paleis magnis membrauaceis ferrugineis liuearibus patulis dense vestito, stipitibua strictis nudis stramineis, frondibas sterilibas oblongo-lanceolatis simpliciter pinnatis firmulis glabris viridibas, rachi nuda straminea, pinnis mnltijugis lanceolatis sessilibus vel breviter petiolatis lobatis basi postice cnneato-truncatis, infimis baud reductis, lobis rotundatis, venis primariis rectis parallelis erecto-patentibus, venalis paucijagis ascendentibas inferioribus apice anastomosantibus, frondibus fertilibua bipinnatis, pinnis lanceolatis, pinnulis oblongo-cylindricis segregatis basi adnatis.

HAB. New Granada; mountain forests of tbe province of Ocana, alt. 7000 ft., *Kalbreyer*, 1254.

***Stipites* 5-8 poll longi. *Lamina sterilis* sesquipedalis vel bipedalis, pinnis 10-12 lin. latis.**

Discovered by Mr. Kalbreyer in 1879 whilst travelling on behalf of Messrs. Veitch.—J. G. BAKER.

Fig. 1. PortioD of sterile frond. 2. Portion of fertile frond. 3. Base of stipe and portion of rhizome: *aU life sue.*



J. Allen del.

Acrostichum polybotryoides, Baker.

PLATE 1691.

ACROSTICHUM JUGLANDIFOLIUM, *Baker.*

FILICES, Sab-order POLYPODIACEJB, Tribe ACROSTICHE-B.

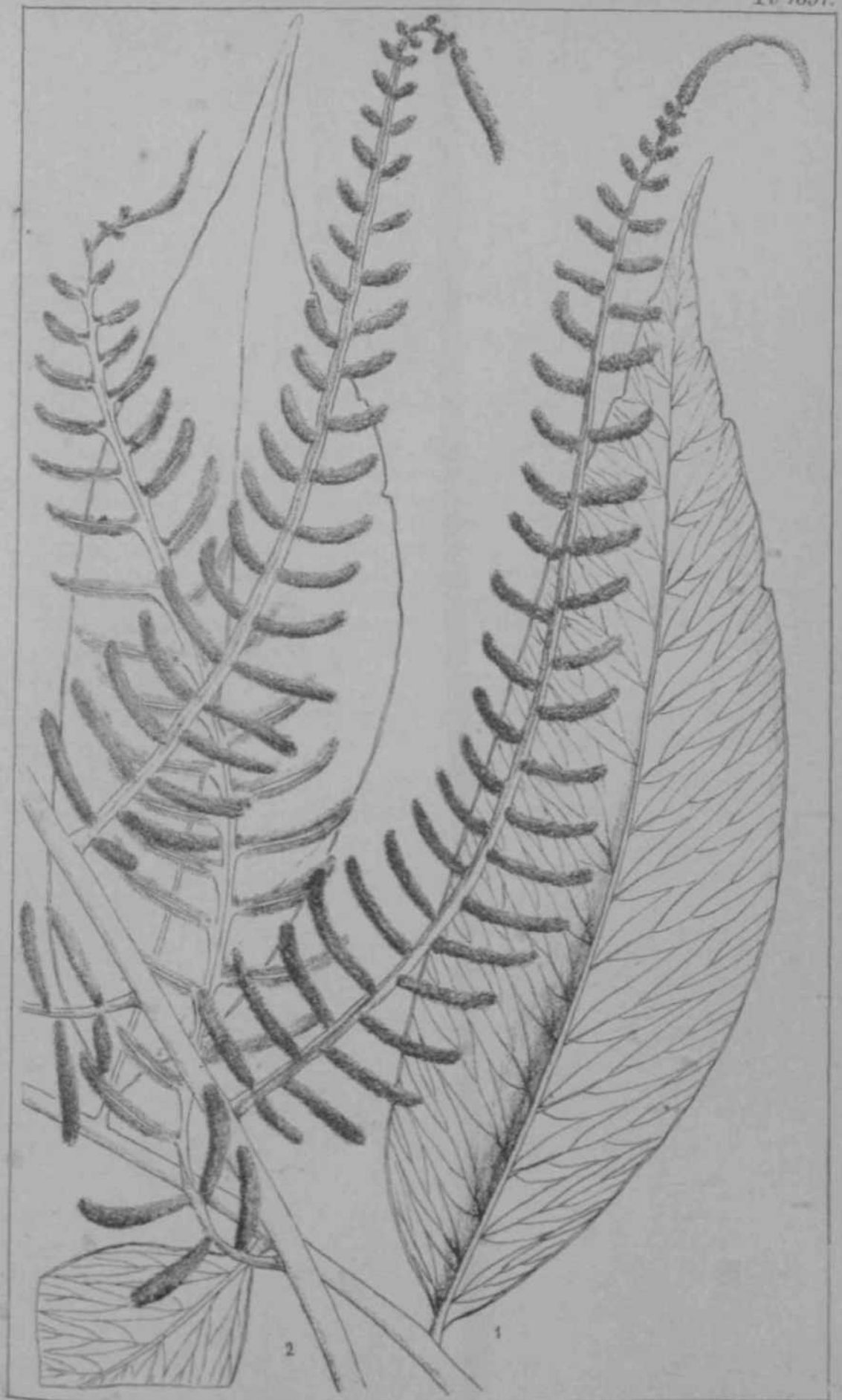
Acrostidram (Gymnopteris) juglandifolium, *Baker in Journ. Bot.* 1881, p. 207; rhizomate lignoso scandente, stipitibus elongatis nudis stramineis, frondibas sterilibus magnis oblongo-lanceolatis simpliciter pinnatis subcoriaceis glabris viridibus, rachi nuda strain inea, piDnia multijagis alternis oblongo-lanceolatis integris acarainatis sessilibus vcl breviier petiolatis deorsnm postice angustioribus, inGmis baud reductis, venis parallelis erecto-patentibus rectis, venulis paucis simplicibus ascendentibus, inferior] bos apice anaatomosantibus, froodi-bns fertilibas bipinnatis, pinnis lanceolatis, pinnalis segregatis adnatis cjlindricis.

HAB. New Granada; forests of tbe province of Antioqnia, on trees, alt. 4000-5000 ft, *Kalbreyer* 1778.

Stipites pedaies. *Lamina sterilit* bipedalift, pinnis 15-18 lin. lntis.

This also was discovered by Mr. Kalbreyer on his expedition of 1880.

Fig. 1. Portion of bterile frond. 2. Portion of fertile frond: *both Itfc $Ue.*



J. Allen del.

Acrostichum juglandifolium, Baker.

PLATE 1692.

ACROSTICHUM StTBERECTUM, *Bahr.*

FILICES•$_t$ Sub-ordeT POLYFODIACE-S, Tribe ACBOSTICHE*.

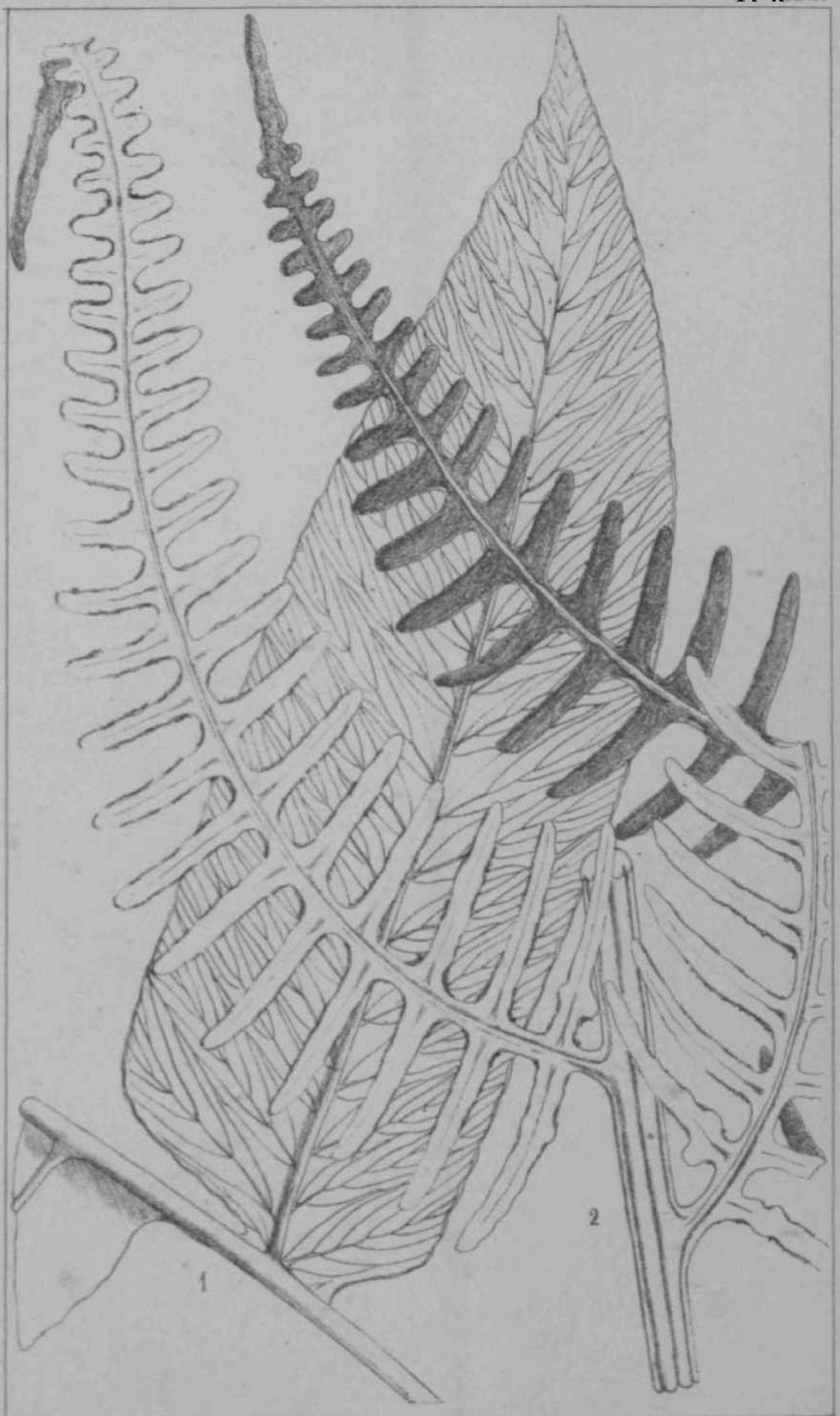
ALcrostichmn (Gymnopteris) suberectum, *Baker in Journ. Bot.* 1881, p,'JU7; rtikomate li^noso scandent.? stipitibus elongatia nudis, frondibua steriliboa oblongo-lauceolatis subcoriaceis glabris viridibus apice pinnati-, deorsum simplioiter piimati«, racbi nuda straminea, pinnis mnltijugis oblongo-lanceolatis »•uminatis, superioribus integris basi aduatis, inferioribus brevissime petiolatis deorsam bre\iter lobatis, Ten is erecto-paten tibns rectis parallelis, vennlis 5-ti-jngis a~cendenI ibus simpHeibns, inferioribns apice anastotni osantibas, nroi; dibus fertil ibus pintmtindis, pinnis lanceolatis, pinnnlis linearibus basi late adnatis.

H\i:. *Sew* Granada; forests of the province of Antioqaia, alt. 4O0O-50(K' ft., *Kalbre i/er,\H77.*

*lamina ties*ilis 4–5-pod'.iUs, pinniB 2^-3 poll, lat is.

A very fine plant, also discovered by Sir. Kalbreyer.—J. G. BAKLE.

Fig. 1. Portion of sterile frond. 2. Portion of fertile frond : *btti life size.*



J. Allen. del.

Acrostichum suberectum, Baker.

PLATE 1G93.

ACEOSTICHUM GTLLEANtTM, *J)<il-cr.*

FIUCES, Sub-order FOLTPODUCEJB, Tribe AcHOSTiciras.

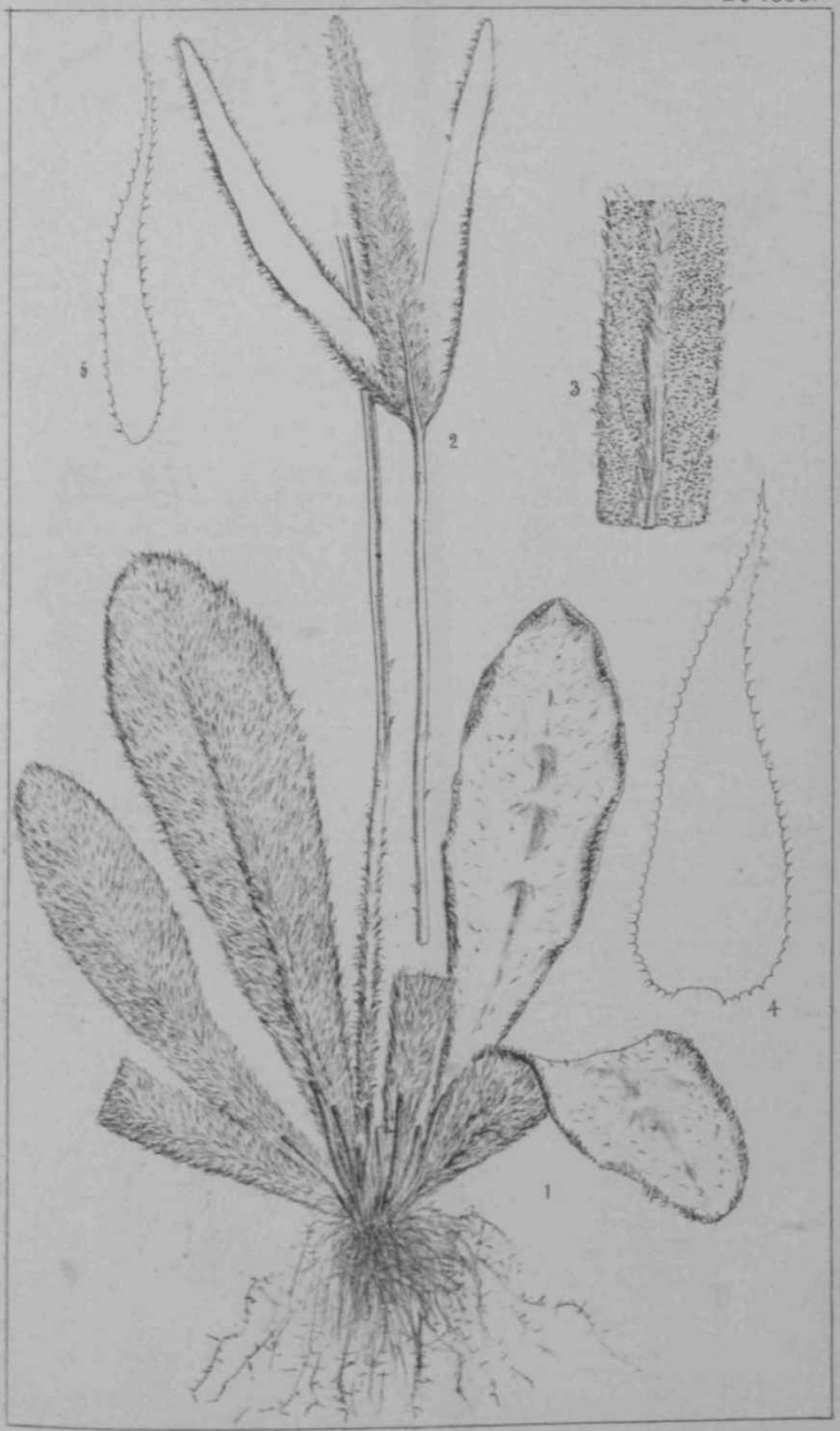
Acrostichum (Chrysociittm) Gilleanum, *Baler in Joura.Hoi.* ±882, p. 310; candice erecto, frondibns sterilibua plnribns eajspitosis sessilibus subcoriftceis oblanceolato-oblongis obtusis e media ad basin snnmm anjriistiitis, facie Tiridibns parc« paleaceis, dorso paleis lancet'latis ciliatis membranaceis pallidt- ferrugineis- iuibricatis dense perBistenter vestitas, venulis immersis occnltis copiose anastoraosantibaB, frondibns ft-rti libns bifid is vel trificii.s lunge ptitiulutis, segmentis lanccolatis, paIris cum sporangiis intermixtis.

HAB. Brazil; woods near Arassnahy, province of Minas Geraes, *Qlaziau,* 13311.

Lautina sterSis 3 poll, longa, supra medium 8-0 lin. lata. *Lamina fertilis* segmenta 2-3 poll, longa; stipitts 9–10-tHiilicares.

This very distinct species was discovered in 1881 by H. Gillc, fin old collector of Dr. Glaziou's, and named after him at the request of the latter. *Its* only near ally is *A. aureonUens,* Hook., of the Galapagos islands.—J. G. JBAKEI:.

Fig, 1. Toft of fronds. 2. F-rtile frond : *both life* ««, 3. Purtion of fertile frond. 4,5. Pales: MA *enlarged.*



J.Allen del.

Acrostichum Gillianum, Baker

PLATE 1694.

ACROSTICHTJM THOMSONI, *Baker.*

FILICES, Sub-order POLYFODIACE£, Tribe ACBOSTICHEJE.

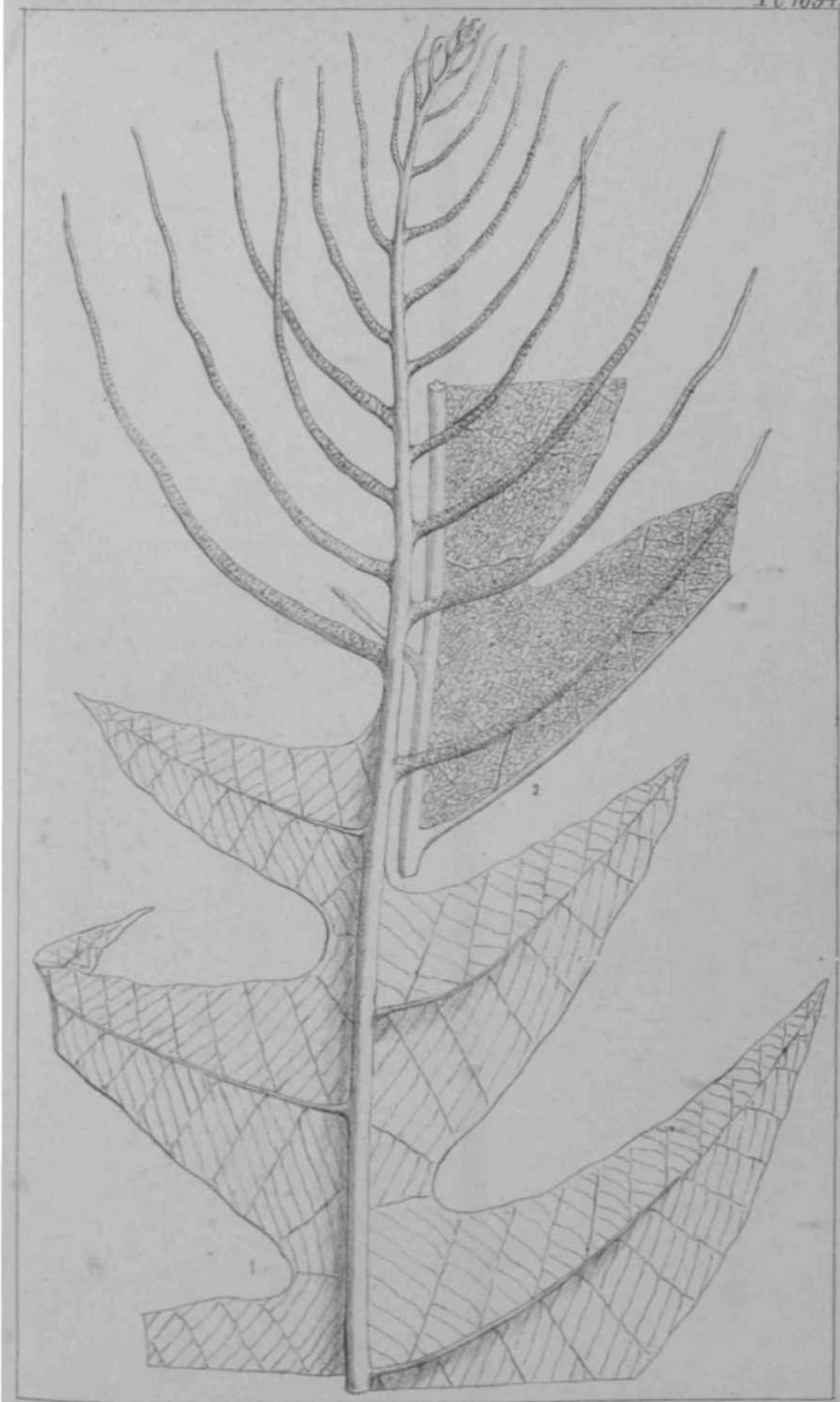
Acrostichum (Photinopteris) Thomsoni, *Baker in Jonrn. Linn. Soc.* vol. zv. p. I11; frondibus sessilibus oblongo-lanceolatis elongatis deorsum sterilibus membranaceis obscure pilosis profunde pinnatifidis, segmentis multijagis ovato-lanceolatis ascendentibus inferioribus brevioribus latioribus, venia primariis e costa ad marginem prodnctia parallelis, secundariis rectis ti-ansveraalibus parallelis, reliquis in areolis venulis inclnsis liberis furcatis anastomosantihas, frondibus ' " fertilibus pinnatis, pinnis multijugis liuearibus.—*Hemsleg in Bot. longer ExpediL Rep* Admiral. Isles*^ p. 256.

HAB. Admiralty Islands, *Moseley.*

***Lamina* 2-3-pedaIis, medio 5-6 poll. lata.**

This is one of the most curious of the new ferns which were discovered by the Challenger Expedition. It belongs to a well-marked subgenus, of which only two species were previously known. It is named after Sir Wyville Thomson.—J. G. BAKER.

Fig. 1. Upper part of frond. 2. Two sterile legments: *both life size.*



J Allen del

Acrostichum Thomsonu, Baker

PLATE 1695,

PLATYCERIUM ELLISII, *Baker.*

FILICES, Sub-order POLYPODIACEJE, Tribe ACROSTICHEJ;.

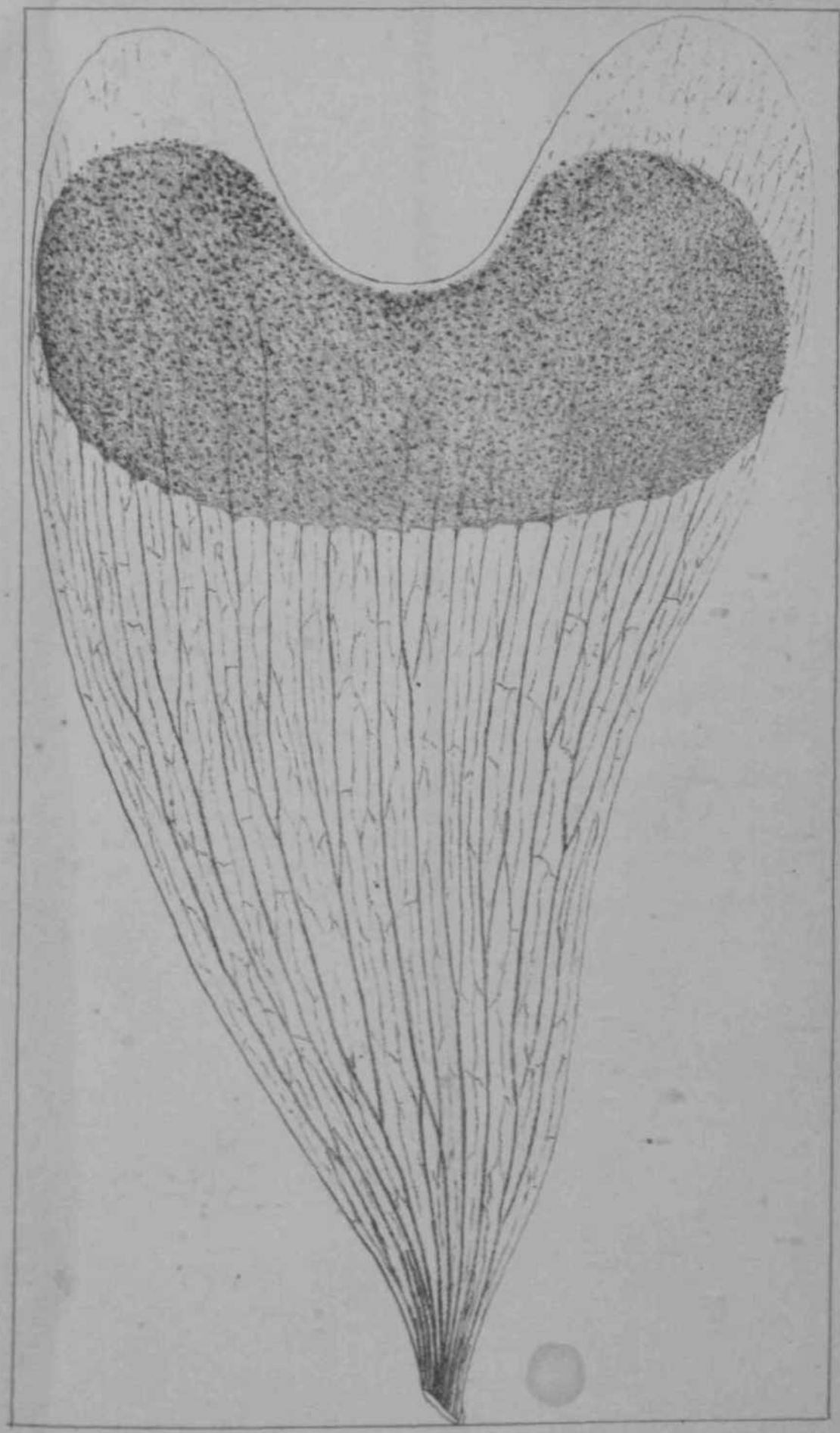
Platyceritun Ellisii, *Baker in Journ. Linn. Soc.* vol. xv. p. 421 ;froil* dibus sterilibus ignotis, fertilibns sessilibus rigidulia glabris viridibua cuneatis, apice emarginatis sinn late aperto, venis primariis flabellatim subparallelis verticalibus valde esBCulptis intermediis subtilioribaB obliqais connexis, soro magno transversali oblongo emarginato ad f urcarum apices hand attingente.

H\B. Forests of Central Madagascar, *Rev. W. Ellit.*

***Lamina* pėdalis vel sesqnipedalis, infra apicem 5-6 poll. lata.**

This very curious species was received from the veteran missionary after whom it is named in the year 1870. Another allied species is also peculiar to the island (P. *inadagascariense,* Baker).—J. G, BAKER,

Whole frond; *reduced in rite.*



J.Allen del.

Platycerium Ellisii, Baker.

PLATE 1696.

MOHBIA VESTITA, *Baker.*

KIUCES, Sub-order SCBIZIACES.

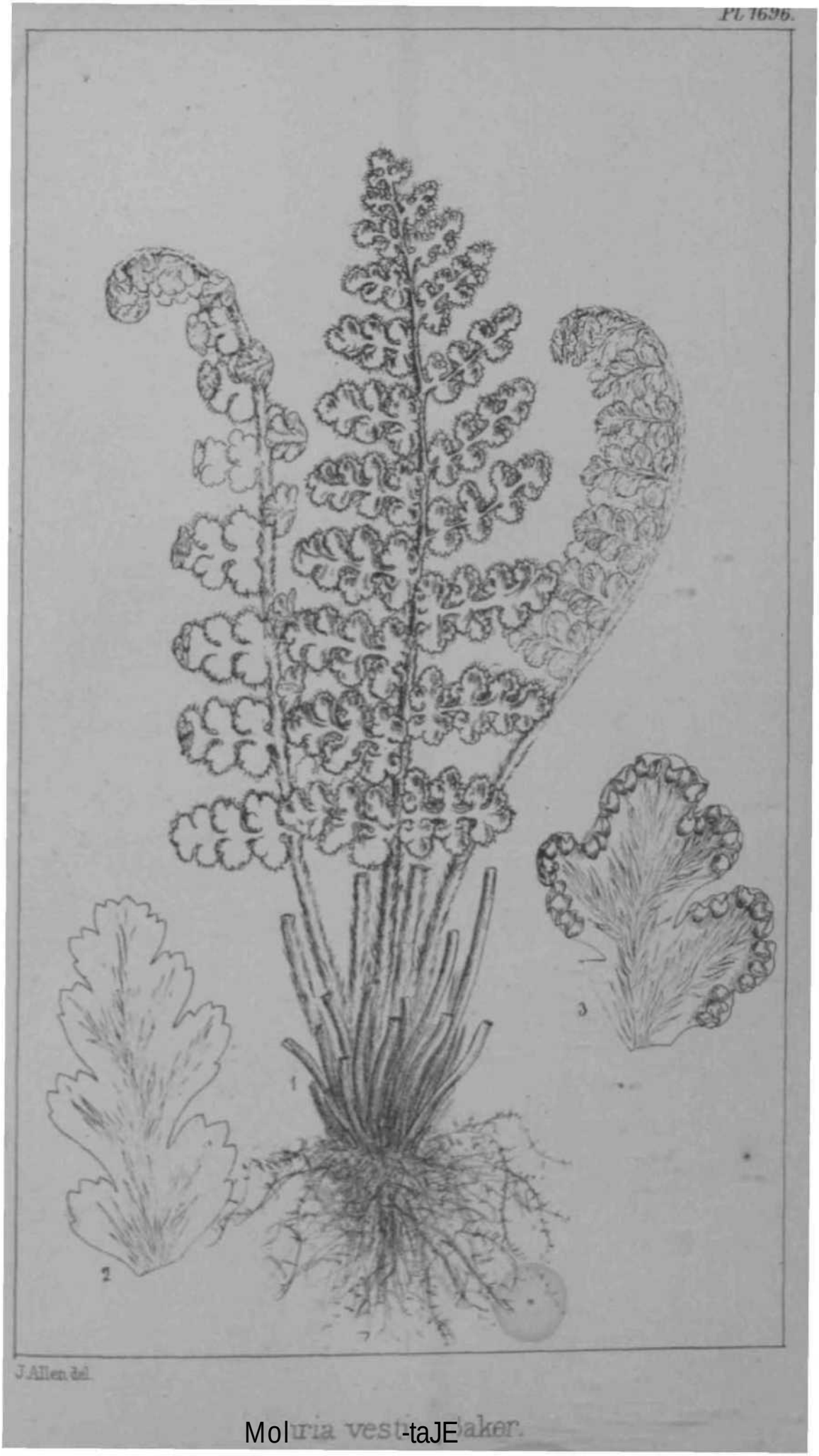
Mtokria Vestita, *Baker (sp. n>v.)*; caadice erecto, sttpitibus brevibus clense paleueeis. irondibns parvis oblongo-lanceolatis bipimiatmntrinque riridibus palei» lanceolatis vel linearibns tuembranaccis pallide brunneis crittitis, rachi dense paleacea, pinnis mnltijtigis sessilibns ovato-obtoDgis, uiSmis hand redoctis, pinnnlis paacijugis cootignis rotnndatis adnatia iuciso-cremit is.

HAB. Crevices of rocks on Mount Kilimanjaro, alt. 6000 ft., *II. B, JohnsUni,*

Stipites 9-12 lin. longL *Lmnina* 3-4-poUicaris, medio 15-16 lin. luta.

This is one of tbe now ferns found on the recent Kilimanjaro exp»* d it ion. It differs from the Caj)e *M. caffrorum*, Desv. principally by its paleaceous indumentum.—J. G. BAKER.

Fig. K Whole plant: *l\fe sure* 3, Sterile Mgmenl, 8. Fertile ngment: *enlarged.*



J. Allen del.

Molluria vestita Baker.

PLATE 1697.

TODEA MOOREI, *Baker.*

FILICES, Sub-order OSMUNDACEÆ.

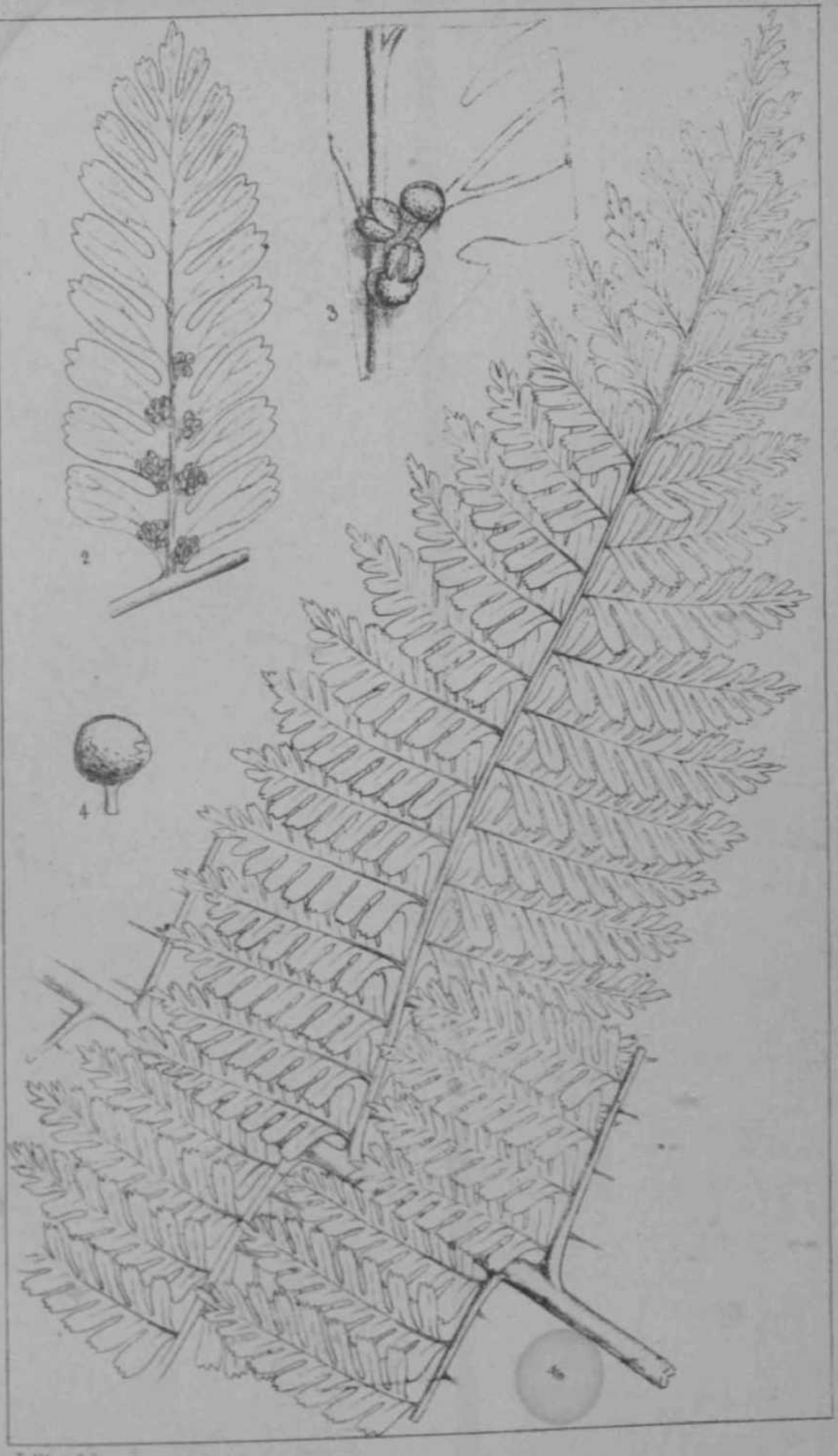
Todea (Leptopteris) Moorei, *Baker in Journ. Bot.* 1873, p. Itf; caudice Bubarboresecnte, stipitibus brevibna, frondibus oblongo-deltoideis tripinimtis atrovinMibtis glabris membranaceia siccitnte nigrescentibus, pintiis oblongo-lanceolfttis multijugis imbricatis, piunulis *lance*<olatis rnaltijugis aessilibaa imbricatin, segmentis tertiariis contiguis erecto-patentibus, supt;i'iiiribas li^ulatis integris uninerviis, infenoribos latioribus apice dentatis, venis farcatis, sona cost alii[illegible]us, sporangiis paucis.—*Hook, et Baker, Syn. Fil.* edit. 2, p. 524; *Benth. Fl. Austral.* vol. vii. p. 700.

H.vit. Lord Howe's Island; summit of Mount Oower, *C. Mi[illegible]ore, Fitzjerald.*

Lamina 3-4*pedalis. *PinucB cmtrales* sen)ipedales. *Cau(ex* pedalis vel wsqnipedalis.

This *is* one of the moat interesting of the many new ferns dwcorered during the recent exploration of Lord Howe's lslntui, which lies seven or eight degrees east of New South Wales in 8. \vt. 32°.—J. G. BAKER.

Pig. I. Portion of fraud: *life* «at. 2. Furtil* pinnitl». 3. FcMfiion of fertile pinnule, with one basal WJTU*. 4. Sporaugtf: *all mort or lut mterytd.*



J. Allen del.

Todea Moorei, Baker.

PLATE 1698.

LYG-ODIUM KERSTENII, *Kuhn.*

FU-ICES, Sub-order SCHIZ,«ACEJS.

Lygodium Kerstenii, *Kuhn, FH. Afric.* pp. 28, 169[1]; longe volnbilis, frondibus niembrauaceis parce pilosis, **raobibofl** strai nineis, pinnis oblongo-lanceolatis, **pinnulia** rnuu ijugis nmfunde piiinutifidis infe-rioribus deltoideis I petiolatis, petiolo inarticniato, segment is superioribns orecto-patenfibas ovatis vel lanceoliitis, intnuis inaximis inajqailatemlibas postice prodactis profumlc lobatis, venis in nefjmc tertiariis pinnntis venulis asccndentibas furcate, spicis te nninalibus elon^atis, bract eis late ovatis navicnlaribus imbricatis.—*Hot. Von der Decken, Eeise,* p. 58, tab. 2.

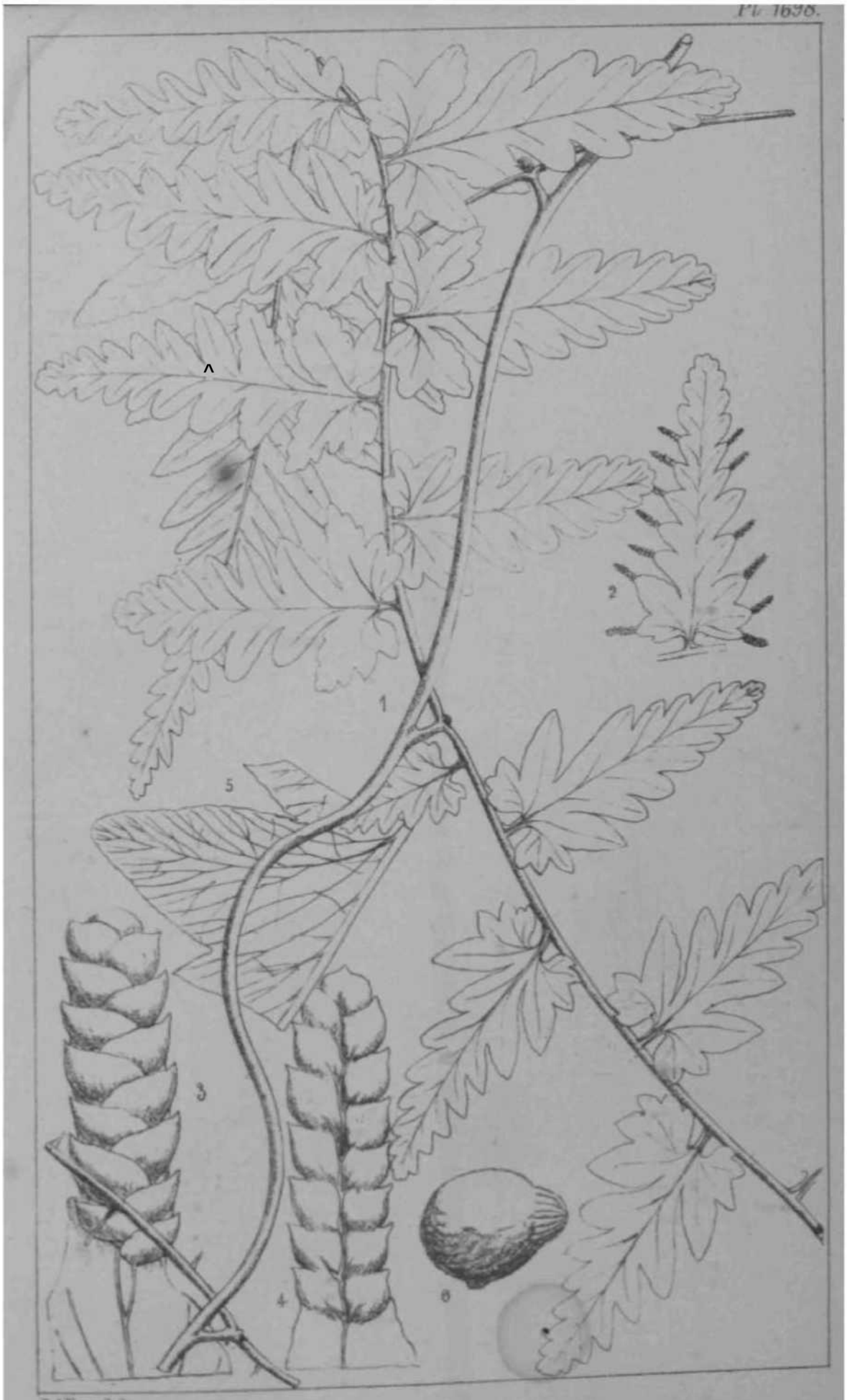
Lygodittm snbalatnin, *B>>jer*; *Hook, ei Baker, Syn. FH,* p. 438,

HAD. Comoro Islands, *Bojer, Speke, Kirk, Bewnher;* **Madagascar,** *Boivin, Kersten, lUldehrandt* j Mombae, *Von der Deeken,*

Pinnts 6-9 poll, longw. 5*picæ* 1–2 lin. longaa.

This very di East African species is intermediate bet we en Zt *pinnaiifidwH* and tbe rare Malayan *L. polyntachyum,* Wall.—J. G. BAKER.

Fig. 1. Pinna. 2. Pinnole: *both life tire.* 3,4. T\ro spikes. *6.* A single eporangv: *mor tor ha <enlarged.*



J. Allen. del.

Lygodium Kerstenii, Kuhn.

PLATE 1699.

DAUiBA SERRULATA, *Baker.*

FiLtCEa, Sub-order MAKATTIACK*.

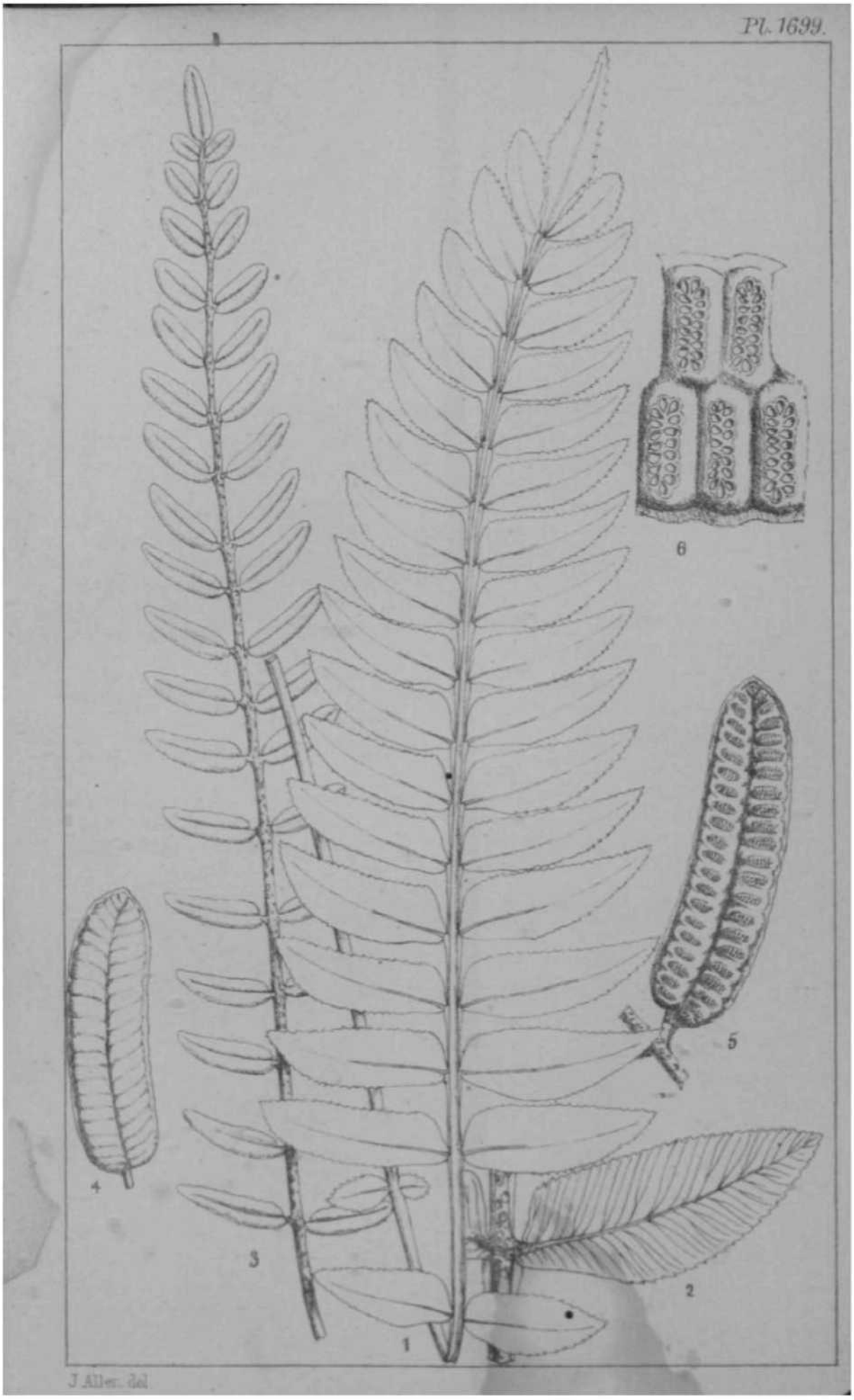
Danaea sermlata, ***Bakm*** *in Journ. Bot.* 1881, p. 2**08;** candiee erecto, Rttpitibus brevibus nodoso-artioulam, frond ibas sterilibus oblonir<»-laueeolatis simpliciter piuuatis firnmlis glabris utrinque virulibtis, rachi augaste alata, pinnis Bessilibus mnltijngiB oppoaitu inief^uiliitemliter oblongo-lancoolatia serrntatis snbacutis deorsam antice prodactis, in* fimis snbrednctis, frondibus fertilibus lanceolatis, pinnis potiolatia lineari-oblongis obtusis.

HAB. New Granada; forests of the province of Antioquia, **ilt.** 4000-5000 ft., *Kalbreyer.*

*Lamina sterili** 6-1 '-pollicaris, medio 2 poll. lata, pinnis 3-4 lin. latis. *Lamina fertUs* 12-15 Ha. lata.

This is another of Mr. Kalbreyer'a discoveries, communicated to ns by N[eesrs. Veitch. It is allied to *D. trichomanoides*, Spruce, and *D. humilis*, Mo**Ore,** differing by its firmer t-exture tmi d;stinctly serrnlate pinna.—J. G. BAKEB.

Kg. 1. Sterile froad; *l\fe tU*>. 2. A -teriU pinnn: *tnlatwd,* Flmwing **v**enation. **3. Fertile froad:** *life* *.- **'tile piawe: *enlarged.* 6. Portion of fertile pino*:** *more en*



J. Allen. del.