

R-79

5

KAYEA FLORIBUNDA. Tab. 210.

CRES₁
collecto² in montosis Sillet confinibus, unde specimina et plantas vivas miserunt De Silva et Gomes, plantarum
Nom³. Floret mensibus Martii—Maji.
Khasiunum, Kurrum-Jura.

Annos
patentesprocera, coma ampla, frondosa et umbrosa (ex De Silva). Rami cylindrici, oppositi, nunc subverticillato-fasciculati, erecto-compressoglabri, recti, cortice aquila, griseo obtecti, ad divisuras subarticulati; *recessus* glauci, obtuse quadrangulares, sursim subrotundata, utr omnes relique partes glaberrimi. *Folia* ad extremitates ramosorum valde numerosa et approximata, opposita, patentia, pilosa oblonga, attenuato-acuminata, integerima, levissime undulata, margine vix cartilagineo leviter recurvata, basi acuta, 5—7-opp⁴, interstitiis plures longiora, plana, coriacea, firma, utrinque glauca et opaca, subtus costâ planiusculâ prominentia, nervis subincisis transversalibus, approximatis, parallelis, capillaris et vix prominulis, prope marginem arcuato-anastomosatis, venisque *Stereocaulis*, in vicis foliis minorum reticulatis. *Petioles* cylindrici, graciles, pollicares, supra plano-angusti, basi squalli subarticulati. De 8*g* nullae. *Florae* perquaque numerosa, magnitudine florae *Calophylli* *Inopphylli*, pedunculata, *n* alba (liliwi mmli, (fahnttlic⁵ ex fer⁶ n⁷), subrotundata, ternata, subracemosi, paniculatae formantes terminalem ramosorum ramosorumque, amplias, denseas, latae ovatam, planisiliem, subbrachiatō-ramosum, undan vel ad lassu stipitatum pari usq altervo foliorum florium reliquis conformium sed minorum, axillaceis subquadragularibus, leviter complanatis, glaucis, insertione subarticulatis; ramosus d U M rtiritr kngi, rmctivn⁸ aliquot ex mediis supremis sepi fasciculatis progredientes, e basi ferè divisi in *partes* oppositis, breves, apic⁹ triSan-. petiolis semiplicares, Caxi tibicinotaki. Basix inflo omnes dirimus opposite, patentia, linearis-oblatae, acute, *lima* *d¹⁰ dura longe, coriacea, dense quadrisquamis, coriacosis, globosis, dentatae vix patulae; *sepala* integerima, duplice irtV npjm.in dura exterior hemispherica, seta valde xiaicu, htm Wiur (tUMNB, integrabilis subtruncata, membranacea-incurvata Minion ninti. in consimilia, caeruleo crassa, obscurè rotusa, ab «Imnrlil» niini an h, Anno poiHrr communisior istorum pressuram ante Mil. sin subpetiata, marginibusque extenuatis inibrantia. *Corolla* 4-petala, subaequalis, *n* albo dilatè rosa, calyx parum longior, decidua; plur. ovato-oblonga, obtusiuscula, integerimis, lineato-vincularia, opposita, Htr rvnlitionem imbricatio. STAMINA in »imi, fttcU, m^m/m, omltipifiri dntAqw wric dfe vi •JTitt—i f «-U. nn At bmtfaift: filaments capillaria, levia, basi imâ connata ^"niiuima myutiTia—. •£• h in onrit uwntaa, apwr (fillMKa w concretae subpetiata, atea, uniuizontales, bilocularis: flos tristes, cylindrici, gyroto-semilunares, subtilis dehiscentes; pollens minutum, globosum. PISTILLUM stacum: ovarium cylindraceo-oblongum, 1-loculare: senda 4, erecta, lata fundo loculi oblique inserta; style erectus, teres, filiformis, nimbis longior: * * * JHrm. «bwleU d « in bbniw i subulatos, apice divergentes. Fructus hand-visus.

pl. Not bavins mxvwiM iti procuring aoj frail, I mi iinabk- lo give a naiplfir aniwi I of this nui tnv. Tlie great-collectors tiliirin n¹¹ tbnl it ttniws in j large on the mountains bordering on the district of Silli in Itcn' al, and bears a jirofu>in¹² '4* »bi(f or JHJC) >itik u-n -uniU wvnrd Mossoms. Even the dric¹³ ¹⁴ -imens prnt¹ thai the scene* <nitJ br vi-n beautiful. Tin- rrw i....>» a IM gemas in ih i...» = "• " /..•</, uliir- ' to ilniicatc to IUS litrUly raV¹⁵ friend Robert Kaye Greville K-i! , I. It .i' KdnbMx'i, si inost dist. intJ ami atatc boUaHt, who ha¹⁶ enricbeH the ^imrf sill¹⁷ "OH- «f ibr m<i beantil¹⁸ »"d gratnOr w., rU j, has boast uf. A* thwr alrcailY e»t» 4 (iirr-Hrit, nJlit after a diflrmrt perM*, 1 Utr ddoplrd a nj.-if.i] not infrequently used 1 bentafoiT*. by rtr*cratin¹⁹ n'y plant Km)m.

The genus belongs to ibr tribe nf CficAfUrr, which Pn4²⁰essor DeCannolic ka c*si* pushed, approaching both in habit ta²¹ 'i-M-nf 'i-²² acter to *Mannea*, /' /, and *CuiapfyBnt* bui diffrinne • be valvate calyx, and in the structure of f ()*•.iBthrr²³ AIK(*U)f>a • &«" <» la²⁴t->CBlii>ur, genus ts h're* al one distingash it. It resembles also a *Gardneria*, but it wants the .i, Him j.n. and the sessile stigma of that genus.

I * * haVlitr^ lu " GrrriDf l*slr* * * * u²⁵" "e " " " M²⁶ |Ay|t, «wl to Professor Salley for the analysis of the flower.

- | | | | | | |
|---------------------|------------|-------------------------------------|-----------------------|----------------------|---------------------|
| seen from be | 7. Lower. | 2. Calyx. | 3. The same, divided. | 4. Stamens. | 5. The same |
| 10. Detached ovule. | 6. Pollen. | 7. A section of the ring into which | W K> IIH'r tbr pi | are united the base. | 8. 9. Ovary, opened |
| | 11. Upper | pvfuTliv | hr <Jnmrnt> | | |
| | | style, shown in /U» «<fa» | | | |

< II \\\ MIOIN M iBTUN t Tab 1

Caudicelato; petiolis vagina rdkubti, W< in margine leviter dentatis ianthospalis albis, furfuraceis, ligula rotundata, foliolis intermis, apice bifidis; spatulis partialibus pluribus; fructibus 4-bris, lepidotis, hinc salatis; spadiceis (adulta palmae) interfoliaci.—/r 1/ mss.

Crescit in ijm; illi Napalsa oagita, aMtudue pedum 5000 supra oceanum. Floret Mayo; fructus Augusto.

Nomen Newar n-i-e. Tuggu.

CACBKL ilnro nE (*) >ulHimjid mm, (•....[urinriim terra iiiisus, in i;uurlaKiiL;i yn'iluii :ill itrnliiiui Mniiu:, ipsam bar-
leviter conico-increvatu». iM-**j**k' untntu pt-dra ilue nuitieiu, mpem!> eylimhrftiM, duuntrw 1—**i**-**j**-Uitfiri. Smti-cincerueEisi,, i.
ar •ukrlm*, pka», cnpiliM* aotatm. per aliquot pedan) infra CDPuturi ili-Cmtiai obvuhituj parfe busilli p ifalnrvi, tpi •>,.
abrupti CMS hac ipa a p nittBnt PCDWIBH n...;im palrherrinnjn, ipbfifiricEin, K—J*-h*tlafljn uuDStStnuDt. (ktrellifoi
tripedalis rt loajtir. 10 inu |rt| triente in vngmm • ti^:H». 1.- autau hec cogin „ rj{ndrma. ubi H(tmcaLa, in ktw
altior' rt arntio<cTil«, TMW»ia Ibris fuscis, complanatis, rhombico-decussantibus extimi scilicet et intimi strati a dorso ter-
ventrale su de nIB t w i lat>i.i Mtar ir p n , , W k nrriawa vrjw- *r m r> adspex i I|MMI! • En versus
siccis, cineris
infriui' Luce carinato-cavata, ><superiore planissima; versus vaginis nonnulli exstans, superius plana et leviter biserialis, lata, it marginem fuscogigantes atque in parte intima dentibus subteretis, parum pro-
armata, glaber, excepto basi, que intus paritur ac vagina paleo, cinereis, crispis pubet. Latus subobtectularis, diametro se-
bipedali, constans passo 60 et pluribus, int. basi, ubi circum ligatus crasto-orbicularum. Icula (in quatuor petiolis apex tuus latus
nascuntur, omibus inter se coadunatis, triplicatis, indeque per te **ao Wuji-nirt- Lnrotita** conjunctis, sorsum vero liberis, linearis, sulcatis,
ferè sequiplicatis, lati et ob conduplicationem tandem apice, biliis (alioquin filis intermedio), levitis, late rigidibus, in
intervallis. lit-unus margine denticulos minimis, sublepidotis adspersis, percursis cervis, intermedio crasso, subtilis acutè carinato-prae-
supernè conicus, et lateribus multis, valde approximatius. Serratus phrys inter frondes evanescit (primum ramus junioris i. q. ad
itripertii* infra m^o n^o e vaginis nudio prouenient); ramulosq; spatios vagis incompletis lati et ad ramifications m^o n^o i. q. ad
2—5 pedes longi, patentes. **irt>n** *) i. crenulas crenulas circiter pedali longitudine simplex, sursum in ramus alternos, cren-
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taffidi, semitegri, anicipiti, latiis planissima, subtruncata marginem longitudinaliter solent atque tenuitate griseo-fusa, milda adspersa,
exitus ex apice handem illasque latere. **to i** ILLU *OM|MB ——— H M alternatio-patens, pedunculo altiss ad recto-
prime, crenulæ, latiis ramis oblique aperte, ore parvæ fida. Quines haec statim evanescunt testacea, tagedes præsentibus,
margines findendæ, atque colore testaceo-W solo gaudent, denique fuscescunt. **rrtw MM .j ijrt-** spatios sine primis, progradugis
ramus floriger, illamque longitudine virg. discrinimine, quod spatios breviores sunt angustioresque. Rami nuberos spatios propriæ non distinguuntur. Racemos sive pedunculi in rosæ,
spatios continuo inferiò pollicem crassæ, terminalia, imperni, ubi in ramis phrys ab aliis secundum atque attenuantur. Ad divisionemque
que spatios distinctio non instrumenta, brachia per rectas membranaceas, formal crista transversæ apparet, ejus ex aliis ulterior ramis ad
procedit. **NWl<Ittr** ————— cu. ita quidem ut crenulatio quod irrigatur ab apice inveniuntur bracteis in ultimi-
tum rami usq; continentes. Rami et rami crenulas ordinatas tertioscali, glabi, pallide virides. Rami ultimi semiplicatae ad secundum
pollicem longi. Flores in rami crenulas (non latentes) parvi, linearis vel squamulæ ali, albidæ-flavescens, glabi, in crenulis ibidem
quasi in nodulum truncatibus solitariis aut gemini, dense dispositi, si quidem lego ut novi, non plenaque perpendiculariter primo
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solida, tripli major, ferè latior, subobtectularis, tenerissima, erecto-potentia serrata ex. ————— thil hypognathis
basi inter se quasi distincta, subulata, in, que curvilineo opponuntur, vix ac ne vix quidem longiora. Anserinae ————— latioribus, nent
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corus numero alienæ crenulas, tenetem longitudinaliter exstans, ut genitale, aliæ, subulata, nonnulli suculentes
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constricta. Ovarix coriaceus, aliæ semibulata crassus, introvix solidus, et quæ granulos
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transversalis figuram cordatum nec ferri rotunda, tanquam ruminacionis principium, valde

ALBUMEN semis, i iiiuurnii. ¹¹ angineo-cor Deitu, in T.nil ilur-ili [;nill]. infu medium tectulo irivulplnni i-yimlrlini, prftmJi, obtuso axis wauui ¹¹ attingente atque illifit rnirA, l* tlbumlnii> tulisuitia furti tccto, mi embryo bmmtil lilm. ¹¹ >i- rmfrmi.ui, rttmni'late radicali planiuscula, parum latiore peripherinui *pi stante, extremitate cotyledonea, interna, centripeth, obtusa — D Jfar/. ITS*

For the preceding minute nui ¹¹ ¹¹ Hv iIL'sfrijrion, ;i* iiCL ax tor tlic eofnwitt! drawing from wltili ihr Hu grwing has been executed, Tam gradat ¹¹ Ts i.i.li'lili-tl In ui m estimablp frieul Pmfi—.nr Vi.n Mitrtin-. ilu- Jllii-triini* badist and traveller, author of sev ¹¹ III.W tctoriblf mtI -IIJHTII nurk-, (liiclh uir "n IiisM, Hhida fnded h ears the palm of all th ml KBIT ever been ji.d on any haock of Natural History. The principal figure in the plate has been improved from a drawing by a native artist, of a young tree which was seen in the Calcutta Botanic Garden in 1817; ¹¹ H this will « n w t far (W inflorescence being repro*r*ird » i—ing UU iU: crutm j whereas in the full-grown state of the tree H <pnMiwr partly among and partly below the leaves.

in the valley of Nipil. »hrrr. bownr. it is a large tree, with a globular hnd if fan-haieri sliming hoo. In **U**/Wigil it •! •** from 40 to 50 feet, of which the crown forms about one-sixth. I am ii.nl aware rlii any part of it. «(ji*- i.e. except the yellow olive-shaped berries, which are eaten by the natives, though thnr p"if" ** 1<¹ & " > ••^ *u »* tasteless.

I loqq iu> <> -«trJ tini tk» 1**1 might perhaps prove the same as Thunberg's *Clamaria p. excede* I Fltira Jspfhira. [i. I."I i, «*J imirr tka MUr I* actually sent plants and seeds of it to England, where it now ex*ist* in several hothouses. IK I now believe that they are distinct; at any rate our knowledge of n>n>Jcr. i. i., Iv i.i too rifi.eni rn <IrriiV>fcr point. I may add that I have seen plants of the *Clamaria Martiana* establishment belonging to the worthy and liberal Messrs. Loddiges at Hackney, which on comparison with the *Clamaria Martiana*, also growing there, seem quite different.

1hHICl \I Fig. 1. A leaf. — 2. Section of the petiole, showing the scales on the inside. — 3. A scale detached from the petiol. 1. Top [part of] the trunk, showing the position of the sheathing bases of the petioles. — 6. Apex of a flower-branch (natural size). H. PnL. together with the two peduncular bractlets on the rachis. — 7. Flower before expansion. — 8. Expanded flower. — 9. Iflf 1KB, seen from below. — 10. Calyx. — 11. Corolla. — 12. Parts of fructification in an expanded flower, exhibiting the relative position of the petals. — 13. Stamen, viewed from two sides. — 14. Pollen. — 15. Projection of the flower, with the bracts, bractlets, and organs of fructification. — 16. Flower after fecundation. — 17. Three petioles. — 18. Two petioles, exhibiting their inner sides, the third being removed. — 19. Hair taken from the upper part of the ovary, showing the oricle and its short cylindrical funiculus. — 21. Dorsal style and its filaments, exhibiting the point of foundation noticed by •if «*(rt h • n (micrograph of M. Tarpin). — 22. Horizontal section of the three ovaries, one only containing Hi uvukv 23. Apical portion of a petiole (natural size). — 24. Berry separated from its calyx (natural size). — 25. Irregular scales separated from o!, ., .)tl - II P- Im-7 — 26. Horizontal section of the berry through its embryogenous cavity, showing the two-lobed albumen. — 27. Seed, viewed from the side of the raphe. — 28. A berry, having part of the pulp and testa removed from its back to show the position •4 ill'embryo.

PRAJNCIOS i'm LAW v Tab. 212.

Prangos padana Lindl. in Quarterly Journal of Science, vol. xix. p. 112.
Laserpitium Wall. in Act. Soc. Agric. Calcutt. vol. i. p. 94.

THE object of the accompanying tab. is of such importance ¹¹ tu n agricultural point of view, that i 'nis 1 ftbaH he re illj I"ured for making •"ious extracts concerning it from two valuable works. It will be •a thai all nr practical knowledge of the Prangos is derived from observations made on the spot where the plant grows, by the late Mr. William Moorcroft, a gentleman of the highest scientific and professional acquirements ¹¹ <. ml'a wjf HMI'IMII will an extraordinary degree of enterprise and zeal as a traveller, and whose loss will •4Y W hai m d by all Om km-tv and appreciated his sterling worth and talents. Unfortunately, the Ooni. alignment of seeds which he had forward ¹¹ t" C. L. will. « I did not vegetate; and notwithstanding the prompt and liberal assistance afforded by the Bengal Govern ¹¹ ihCII for the attainment of so desirable an object, all endeavours to procure a second supply have liitkfrt^M**1 iiu-ili in-il. A large quantity of seeds was collected at ¹¹ I me some years ago under thi IuiKir oi Prnnjn*, I"1" I"1" proved to be lucerne only; I took care, however, to distribute portions of them through many [irTs of India i> well .iv KurtijK¹

The following are extracts from a letter which I wrote to Mr. Charles Lushington, Secretary to the Bengal Government, in September 1823, and of Mr. Moorcroft's communication referred to in it:—copied from the Transactions of the Agricultural Society of Calcutta, vol. i. p. 94 to 103.

«Conformably to the orders of Government, I immediately proceeded to examine the two boxes, the contents of which I found to be as follows: 1. In the larger box, a bag of the seeds of the plant producing the Prangos hay. 2. In the small box three parcels each containing an entire Prangos herb, one of them cut a month before the usual time of gathering; a cross section of the top of an old Prangos root; three specimens of young roots with the bottom of the plant attached, also a separate fourth section; and a small parcel of unripe Prangos seeds.

“With the exception of the bag itself containing the seeds, and a few of the outermost of these latter, which were much dried by mouldiness, I had the satisfaction of finding all the rest of the seeds and the other articles in excellent condition: a very great circumstance, considering the vicissitudes they must have undergone during the thirteen months of their passage down to the port of Madras^{**16}. I have taken every possible precaution with the view to the preservation of the seeds, but I greatly apprehend that their age subject them to the extremely detrimental influence of this climate on their vegetative power, form a barrier against every expectation of any plant from the present supply. As far as I can judge from detached seeds and dried leaves only of a plant belonging to the most difficult tribes, the Umbelliferous, the Prangos constitutes a gigantic species of *Laserpitium*, which the valuable d^ contained in Mr. Moorcroft's letter establishes beyond a doubt, as a most important and interesting object of rural economy. I give every chance of success to the laudable and meritorious exertions of that scientific gentleman (to whom this present supply due), I beg leave to suggest the following mode of distribution, which I feel assured would be approved of by him if he were present. As soon as the weather becomes a little dry (the present damp state of the atmosphere being extremely unfavourable to the undertaking), I propose packing up two boxes to the address of the Honourable Court of Directors of the East India Company^{**17}, containing a large quantity of Prangos seeds, with the specimens of hay, &c. divided between them; and I shall transmit to you a memorandum of their contents, in order that they may, with the least possible delay, be forwarded to the first two ships that may sail. I shall likewise, conformably to the instructions contained in your letter, forward to the Government of the Cape of Good Hope. The quantity of seeds in the present collection being so very ample, I am sending small parcels, containing about an ounce each, to Nipal, Saharunpur, Kamaon, to the Eastern Islands^{**18}, affording this remarkable plant every encouragement of growth from variety of soil and climate. This mode will, however, chance of success, on the supposition that the seeds, though still alive, may possibly lose their last spark of vegetatin^ & additional four or five months of trial which a passage to England necessarily implies. Most happy shall I be if the present & power during the seas, which we are upon, may enable me to report favourably of their germination.”

“The document of Mr. Moorcroft is so highly deserving of promulgation, that I solicit the sanction of His Lordship in Council for my sending it to the Agricultural Society of Calcutta; and finally I request the favour of being indulged with a copy of the communication to the Board of Agriculture of Great Britain alluded to in it.”

[^] Extract from Mr. Moorcroft's letter to Mr. Secretary Bayley, dated at Wakka, on the left bank of Molbee Ch^{-nes} the 15th of August, 1822.

Wishing to employ as usefully as possible the time I am compelled to wait for the final answer of the Chinese authorities of V my representation, I lately undertook a journey to Imbal or Droz, for the purpose of examining into the reported qualities of Prangos, is employed in the form of hay as winter fodder for sheep and goats, and frequently for neat cattle, but its seed when horses is said to produce inflammation of the eyes and temporary blindness. During a stay at Imbal of nearly a month in which I occupied principally in acquiring an acquaintance with various details respecting the plant, I drew up a letter on this subject to the Secretary of the Board of Agriculture of Britain, which I purpose to request the favour of having forwarded under cover to the Court of Directors; and the whole will be transmitted to your address, with the envelopes unsealed, if I think proper to examine their contents.

“The properties of Prangos, as a food, appear to be heating, producing fatness in a space of time singularly short, and to the *Fasciola hepatica* or Liver Fluke, which in Britain, after a wet autumn, destroys some thousands of sheep by the rot destructive to the best of my knowledge has in its advanced stages hitherto proved incurable. The last-mentioned property of itself ^ ^ ^ that by the plant in Britain (and there appears no reason for suspecting that it will be lost), would render it especially valuable ^ ^ ^ retained. But this, taken along with its highly nutritious qualities, its vast yield, its easy culture, its great duration, its capability of flourishing on lands of the most inferior quality and wholly unadapted to tillage, impart to it a general character of probable mifit on history of agricultural productions. When once in possession of the ground, for which the preparation is easy, it is ^ ^ ^ UnrivaUed in the ploughing, weeding, manuring, or other operation, save that of cutting and of converting the foliage into hay.”

“Of its duration I have two facts: viz. one, of its seeds having been carried westward along with those of yellow *Lucerne* over forty years ago, and sown on the eastern frontier of Kashmeer, where they vegetated, and of which the plants of the first instance flourished for about forty years; but in consequence of a long period of drought, during which there was no snow, the Prangos perished along with the crops of that district in general. From various facts it is conjectured that or presume that by the cultivation of this plant, moors and wastes hitherto uncultivated, and a source of *disease* ^J TM unpeasable to be made to produce large quantities of winter fodder, and that the yield of highlands and of downs, enjoyin^ J ^B ^f Culture, may be trebled. I have made every precautionary arrangement in my power, by presents &c., for the ^ ^ ^ ^ ^ ^ a useful depth of J ⁸ ^T ⁸ ^{Packil} ^{*} ^{*}

^{to} the Most Noble

the Governor General in Council the probability of this plant being of use to the new settlers, our countrymen at the Cape of Good Hope, and to the colonists in general.

" As the Prangos has hitherto been of spontaneous growth alone, practices better adapted to the nature of the plant or of the country may be adopted at a future time; but from a view of its habitudes in its wild state, I venture to suggest that the seeds be dibbled singly into holes an inch deep and a foot apart, a short time before the rainy season. During three years the plants will be little productive, but in that interim they will not be in the way of any other surface-crop, should the proposition I shall further submit in conjunction with this culture be not approved. I have purchased and made arrangements for the keep of upwards of a hundred head of a race of sheep, the smallest peffials known, but which in fineness of fleece may vie with the Merino, under the advantages of a much hardier constitution, and of a better carcase. By the time the Prangos will be fit to cut, this flock will probably admit of supplying drafts for transmission to the Cape; and for the convenience of the wool staple and of the woollen manufacture, I have divided the stock into blacks and into whites, to be kept apart; but the bodies alone of the latter are of this colour, the heads, and frequently the legs, being orange dun or black. Should the present arrangement fail, measures are taken for procuring future flocks, and the details will be found amongst my papers, should I fall, and they pass into British hands. In connection with the preceding speculation, it is respectfully submitted, that eight or ten pounds of the Prangos seed be transmitted, under the precautions which may be suggested for the preservation of their vegetative power, by the Superintendent of the Botanic Garden to the Governor of the Cape of Good Hope. Should they vegetate, it will be perfectly easy to procure a large supply of Prangos seed by the agreement I have made with Ribjhias, the Keuphun, and with Mahomed Khan, the Chummul of Droz, and of which the details will be seen in the note on Prangos seed attached to my letter to the Secretary of the Board of Agriculture.

" Yellow Lucerne.—This plant, which is also a spontaneous production of this country, is of a constitution more hardy than that of Europe, requires no other culture than that necessary for sowing it, and lasts in vigour for a long series of years. It is submitted, that as it naturally grows along with Prangos, it would be well to imitate this habitude. The joint yield is vastly greater than that of the richest meadow-land, and is produced in this country on a surface of a most sterile nature in regard to other herbage; hence is respectfully suggested the propriety of furnishing a few pounds of this seed to the Cape of Good Hope, to be sown along with the Prangos. I have furnished money to the Hakeem of Pushkoom for two sacks of Lucerne seed, but am not so sanguine as to this being pulled when in as perfect a state of ripeness as that of the Prangos; arrangements have been also made with the above-mentioned person to furnish more if called upon so to do."—WILLIAM MOORCROFT, *Superintendent of the Hon. Company's Stud, on deputation to Upper Asia.*

I shall conclude with an extract from an interesting account of the plant by Professor Lindley, printed in the Quarterly Journal of Science, vol. xix, p. 4—6.

" The Prangos Hay-plant is a perennial herbaceous plant, with a large fleshy root-stock, usually measuring at the top from eighteen to twenty-two inches in circumference, and formed by the aggregation of an infinite number of crowns or wint *c* buds, clustered together at *iv* above the surface of the ground. The crowns are closely covered over by the coarse fibrous remains of the old leaves, by which the buds must be effectually protected from frost or accidents when the plant is in a state of rest. From each crown rises an abundance of finely cut leaves, about two feet long when dried, of a highly fragrant smell, extremely similar to that of very good new clover hay. They are supra-decompound, quite smooth, with linear, entire, or three-parted segments; their principal petiole is slightly sheathing at the base, with a crisp thin margin; upwards it is solid, round, or slightly angular, with a smooth finely striated skin. Of the secondary petioles there are from six to ten opposite pairs, according to the vigour of the leaf: they are in all respects like the primary petiole, except being smaller and more compressed, and having the first pair of their segments proceeding *fr* i their veiy base. In these leaves the whole crop may be said to consist.

" From the centre of the leaves rises the flower-stem, which I have only seen in a young and mutilated state. Good specimens of the inflorescence have not reached me; but from some imperfect umbels of flowers I can state that the male and female flowers are produced upon distinct umbels. Of the male flowers the umbels are compound, shorter than the bracteae by which they are subtended, and both axillary and terminal; the bracteae are finely and deeply pinnatifid, with three-parted segments, of which the end lobe is broader than the rest, and often three-toothed. The involucres are both general and partial, each consisting of five or six membranous ovate-acuminate leaflets, which are shorter than the stalks of the umbellules or of the florets. At the base of the umbel are clustered several scarious rudiments of florets. The calyx consists of five distinct ovate minute sepals. The petals are five, lanceolate, spreading, incurved, with a minute dorsal nerve. The stamens are five, spreading, the same length as the petals, and inserted opposite the sepals, beneath a large, fleshy, slightly wavy discus, which surrounds two little processes, the rudiments of as many styles. The filaments are incurved, and quite smooth. The anthers large, square, innate, bilocular; each cell opening longitudinally with two valves. The female flowers have not yet been observed. The fruit is inferior, and consists of two united achenia, at maturity separating from base to summit from their common axis; it is oval-lanceolate, compressed, eight or nine lines long, and is crowned with two recurved styles, arising from the centre of a large, fleshy, wavy discus, and with the corky sepals of the persistent calyx. Of these achenia the commissure or point of union is nearly flat, and narrower than their transverse diameter. Of each the pericarpium is corky, with five primary juga or elevations, which are in the centre produced into a corky wavy wing, and on each side covered densely with coarse tubercles; there are no secondary juga, and the valleculæ or intervals are concave and smooth. The seed is of the same form as the pericarpium, from which it is easily separable; it is covered over with an indefinite number of colourless vittæ, both on the commissure and back; it has an involute horny albumen, and a minute, inverted, white embryo at its upper extremity; the cotyledons are flat and oval, the radicle rounded, and as long as the cotyledons."

Plate CCXII. represents a specimen of the plant as it was found among the hay sent to the Botanic Garden at Calcutta.
Fig. 1. 2. Flower. 3. An umbellet of ripe fruit. 4. Detached fruit. 5. The same, cut across. 6. Segment of a very old root.

ADAMIA CYANEA. Tab. 213.

Adamia cijanea Wall. Tent. Flor. Napal. vol. 1. p. 46. t. 36. Decand. Prodr. Syst. Nat. vol. 4. p. 16.

Hydrangea Elagulia Herb. Hamilt. et Ejusd. Cat. MSS. No. 1091.

Habitat in apricis saxosis montanis Napaliae, a Bechiaco usque ad convallem magnam. Floret Majo et Junio; fructificat Octobre—Decembre.

I have already given a detailed account of this remarkable and elegant plant in my Nipal Flora quoted above, in which I dedicated the genus to the memory of my deeply lamented friend and patron the late John Adam, Esq. of the Hon. East India Company's Service, for some time Governor General of India; one of the most excellent and honourable men who ever visited that country, and the steady and liberal promoter and encourager of every useful pursuit, especially those of natural history. Professor DeCandolle refers the genus to the family of *Saxifragas*, and suggests the near affinity, if not absolute identity, of *Cyanitis* of Reinwardt.

Plate CCXIII. Fig. 1. 2. Flower. 3. The same, dissected. 4. Detached petal, with two stamens of unequal length. 5. Ovary, cut transversely. 6. Stigma. 7. A panicle of ripe berries. 8. Detached berry. 9. The same, cut transversely. 10. Seed! 11. 12. The same, divided two ways. 13. Embryo.

CORNUS CAPITATA. Tab. 214.

Cornus capitata Wall, in Roxb. Flor. Ind. vol. 1. p. 434. Decand. Prodr. Syst. Nat. vol. 4. p. 273.

Habitat in montibus Napalise, provinciarumque Kamaon et Sirmore, florens sub pluviis, fructifera versus finem anni.

This beautiful species has been fully described by me in Roxburgh's Flora Indica. I found it on the top of mount Chandaghiry in Nipal, growing to the size of an apple tree, and covered with yellow heads of scentless flowers in the month of June. Its wood is very hard; the bark ash-coloured.

Plate CCXIV. Fig. 1. 2. Detached flowers. 3. Fruit. 4. 5. The same, divided two ways.

CLERODENDRUM DEFLEXUM. Tab. 215.

FOLIIS cuneato-oblongis, acuminatis, deorsim angustatis, subtus petiolisque longiusculis pubescens, integerrimis* corymbo terminali deflexo, pedunculato, pubescente, subinvolucrato; calycis colorati laciniis linearibus, conniventibus, tubo corolla; gracili dimidiò brevioribus.

In montibus Penang detexit Georgius Porter. In insula Singapur inveni 1822. Floret fructificatque niensibus Augusti et Septembrios. In Horto Calcuttensi floret Januario.

FIBUTBX 4-pedalis, erectus, ramosus. RAMI obtuse quadrangulares, sulcati, molliter pubescentes. FOLIA opposita pat f oblonga, cuspidato-acuminata, integerrima, vel parium repandula, deorsim contracta, basi rotundato-acuta, mine ^{OTM WF} ~~tri~~ ^{*11} latata utrinque subdentata, membranacea, 6-pollicaria usque ad pedalia, quin majora, supra glabra, subtus mollissime pubescens, venosa, reticulata, ima basi sub-trinervia, costa intermedia valde prominent. PETIOLCS teres, pubescens, utrin ^{intum} T li—2i-pollicaris, supernè sulcatus. CORYMBUS terminalis, solitarius, parvus, hemisphaericus, angulo recto insidens ^{intum} ~~intum~~ ^{tubo} diversi-rcflexo, cylindrico, tripollicari, cum pedicellis brovibus subcarnosis, trichotomis, sanguineo-rufis pubesppn-[^]ll!:ntiH[^]l[^] opposite lanceolato foliorum flonilium, bipollicanum; ante anthesm totus corymbus pedunculusque cum foliolig aliquot broctifonnibus subinvolucrantibus, deciduis rufo-sanguinei. FLORES ex albo rosei, ternati, pedicellati, densi. CALYX, unguicularis, sanguineus; lacing linear-lanceolatiae, acuta?, apice conniventcs. COROLLA tabus gracilis, teres, pollicaris, adyce duplo longior, extus puberulus, in cuneato-oblongae, obtusw, subaequales, patulfi, margine rubellw, tubo dimidiò breviores. STAMINA ferè ipqu'alia, recta, corollam exceedentia, glabra, alba; tudherm lineares, flavicantes. OVARICM Ueve, globosum; stylus filiformw, longitudine ttaninum; stigma bidentatum BACCA atropurpurea, lapvis, globosa, magnitudine pisi, calyce persistente, subxquintie suffilfa.

Plate CTXV. Fig. 1. 2. Flower. 3. Calyx. t. Cnmlf. o.,..»i

PHYTOCRENE.

FLORES dioici, in receptaculo globoso, carnoso aggregati. Masculi: Squama urceolata, quadriloba, suffultiens perianthium quadripartitum. Stamina quatuor; filamenta imâ basi coalita; anthene versatiles, Pistilli rudimentum pilosum, pedicellatum, inter filamenta, ex basibus eoram coalitis recte surgens. Foeminei

Glossis Linneana ^{^J}i(Bcia Tetrandra*

Ordo naturalis: Z Jrticece ?

Frutices magni, altè volubiles, ligno mollissimo, pulcherrime poroso, liquore redundante aqueo, limpido, potulento (unde nomen generis derivatum). Folia petiolata, alterna, magna, cordata, nunc palmata; in unica specie oblonga. Flores parvi, aggregati in capitula pisiformia, racemosa, corymbos maximos, oblongos, flaccidos, congestos, ex ipso trunci basi vel secus ramos inferiores progredientes saepius formantia.

PHYTOCRENE GIGANTEA. Tab. 216.

FOLIIS lato-cordatis, basi subiobatis, subtus villosis; racemis maximis, ad basin trunci densè congestis, nudis.

Crescit copiosè in sylvis densis orae Martabaniae, ad Amherst versus mare, florens mense Februarii.

FRUTEX verfc giganteus, poti&s arbor dicendus, super alias arbores altissime volubilis. CAULIS cylindricus, sulcis aliquot profundis excavatus, e viridi griseus, glabriusculus, irregularifcr tuberculatus, varfc tortus, ad basin proprio suo pondere terre laxfc incumbens, brachii, im& cruris dimensionem attingens. RAMCJLI graciles,, longissimi, cylindrici, aculeolis brevibus, conicis, minutis, cinereis armati, densè vestiti villis canis, mollibus, ferrugineis, subreflexis, insequalibus ; juniores molliter tomentosi. FOLIA tantfrm e ramis supremis ramulisque proveniunt; sunt magna, patentia, plana, petiolata, alterna, interstitiis longiora, lato-ovata, cordata, acuminata, integerrima, subsinuata, ssepi&s subtrilobata, lobis obtusis vel acutiusculis, sinu basis brevi, lobis lateralibus magnis rotundatis; spithamea, quin pedalia, membranacea, suprk nitida, seeds vasorum tractus ferrugineo-villosula, subths molliter villosa, canescentia, distant&r nervosa, venis transversis, prominentibus, reticulatis, basi quinquenervia. PETIOLI cylindrici, crassiusculi, ferrugineo-villosi, pilisque brunneis nitidis conspersi, varife curvi, snprk sulcati, basi vix intumescente mediante articulatione tuberculo ramuli inserti, 2—3-pollicares. STIPULE nullse. INFLORESCENTIA constat corymbis vel racemis compositis, maximis, cylindraceo-oblongis, 5—8 vel pluribus fasciculatis, subsessilibus, lateralit^r ramis inferioribus ipsove trunco insertis, flaccidis, pendulis vel terre prostratis, spithamseis—pedalibus, duos tresve pollices diametro emetentibus, villosis. Sunt vero hi compositi ex racemulis innumeris undique sparsis et patentibus, vald^ approximatis, pollicaribus vel sesquipolllicaribus, digitum minimum crassis, sessilibus, gerentibus capitula florum 5—7, sparsa. PEDUNCULI omnes crassi, carnosí, villosi, indivisi; communis basi pennam scriptoriam vel cygneam emetiens, apicem versus senshn attenuatus. BRACTEOLA villosa, carnosá, caduca, lanceolata infra pedicellos capitulorum; nunc nulla. FLORES MASCULI circuitfr octo, minimi, inodori, conferti in receptaculo carnosó, globoso, pisi magnitudinem sequante, griseo, suffulto pedicello brevi, villosulo, cylindrico, carnosó. SQUAMA (calyx ?) monophylla, ureolata, 4-loba, nunc 4-partita, villosa, emarcescens, fusca; hbi obtusi. PERIANTHIUM squama pauli5 longius, 4-partitum, viridescens, villosum, intfls puberulum; laciniae lanceolatae, acutiuscuse, apice recurvatae, aestivatione valvatae. FILAMENTA 4, carnosá, alba, glabra, subulata, erecto-patentia, corollse longitudine, ex ejusdem fundo orta, ibique per breve spatium coalita, cum laciniis alternantia. ANTERS magnse, ovatae, acutae, versatiles, biloculares, utroque margine longitudinaliter dehiscentes; pollen flavum, globosum. RUDIMENTUM PISTILLI: corpusculum minutum, carnosum, oblongum, breve pedicellatum, omnib obtectum setis erectis, violaceis, hyalinis, subhamosis, insertum centro basis filamentorum, hisce brevius. FLORES FCEMINEI haud visi.

This remarkable plant belongs perhaps to *Urticeed*, notwithstanding its several obvious discrepancies from this family, both in regard to the leaves and flowers. I found it growing in forests close to the sea shore on the coast of Martaban, and my people told me they knew a similar plant in Chittagong. It forms a gigantic climbing shrub, extending sometimes over very large trees. The structure of the wood is exceedingly curious, and has been represented in the plate, together with the analysis of the flower, from a most beautiful drawing, for which I am indebted to my young friend Mr. William Griffiths, pupil of Professor Lindley of the London University, about to proceed to India as an Assistant Surgeon in the Hon. Company's sendee, whose extraordinary talents and knowledge as a botanist entitle him to the respect of all lovers of the science, and have been rewarded lately by the gold medal of the Company of Apothecaries.

The wood is exceedingly soft and porous, and on dividing the stem, which sometimes measures ten inches in diameter, or the stouter branches, a very large quantity of pure and tasteless fluid flows out, which is quite wholesome, and is drunk by the natives; a circumstance which I have endeavoured to express in the generic name (*Vegetable fountain*). The leaves are produced only from the uppermost slender and long branches; while the innumerable small heads of flowers are collected in dense fascicles of large flaccid racemes which issue from the lower and tortuous part of the stem (rarely from the first branches into which it divides), sometimes covering thickly a considerable space round its base, and giving the plant a most extraordinary and striking appearance.

I am acquainted with three other species, which were discovered in the mountains of Prince of Wales Island, by Mr. George Porter, and of which I subjoin the specific characters. I have never been so fortunate as to see the female inflorescence of any of them.

Phytocrene bracteata, foliis ovato-cordatis, sinuato-dentatis, integris, subtus villosis; racemis axillaribus, pedunculis racemulorum in bracteas setiformem, longissimam desinentibus.

Phytocrene palmata, foliis palmato-cordatis, quinquelobis, subtus ferrugineo-hirsutissimis; racemis axillarib, ebracteatis.

Phytocrene oblonga, foliis integerrimis, oblongis, utrinque acuminatis, subtus pubescentibus; racemis brevibus bracteolatis, axillaribus?

Plate CCXLV All the dissections greatly magnified. Fig. 1. A head of flowers. 1 a. The same, divided v^it-uHy. 2. Detached flower, without its outer envelope. 3. The same, with its outer envelope. 4. Outer envelope laid open. 5. Unexpanded flower. 6. Flower opened. 7. Stamens, with the central body. 8. Central body detached. 9. Section of the same. 10. One of its hairs. 11. 12. 13. Stamens. 14. Pollen grains. 15. Fibrous cells of the endothecium. 16. Transverse section of one of the small branches. 17. Transverse section of one of the medullary rays. 18. Transverse section of the spongy part. 19. Dotted duct inclosed in woody fibre, showing that the former is composed of cylindrical vesicles or cellules, placed one upon the other. 20. One of these cellules more highly magnified. 21. A series of the same cellules, removed. 22. Longitudinal section of medullary rays. 23. Spotted vessel isolated.

CLEMATIS MONTANA. Tab. 217.

Clematis montana Hamilt. (olim Buchanan) in Dec. Syst. Nat. Regn. Veget. vol. i. p. 164. Ejusd. Prodr. v. i. p. 9. Crescit in montibus Napaliae, florens et fructifera mensibus Aprilis et Maii. In Kamaon legit Robertas Blinkworth.

FRUTEX magnus, ramosus, lâte scandens, caule digitum saepè emetiente, cylindrico, obducto cortice glabro, griseo, subspongioso, longitudinaliter fisso et secedente. RAMI longi, graciles, cinerascentes, ad insertionem foliorum tumidi, supernè puberuli; recentes purpurascentes, flagelliformes. FOLIA plura e gemmis oppositis fasciculatim prodeunt, interstitiis saeplus breviora, ternata; foliola lanceolata, valde acuminata, utrinque grossè et acutè serrata, nunc modò dente uno alterove, vèl ferè integerrima, basi rotundato-acuta, utrinque pilis sericeis, adpressis conspersa, subtus distanter nervoso-venosa, subtrinervia, 2—3-pollicaria. PETIOLUS teres, pilosus, foliola longitudine sequans; partiales brevissimi. PEDUNCULI aliquot fasciculate e gemmis foliorum orti, petiolis longiores, graciles, 3—5-pollicares, compressiusculi, pubescentes, 1-flori, nudi. FLOS magnus, speciosus, ex albo roseus, nunc omnino candidus, gratissimè odoratus, diametro 2-pollicari. INVOLUCRUM nullum. SEPALA petaloidea, fere pollicaria, ovalia, cmciatim patentissima, ciliata, subtus sericeo-pilosula, tenuissimè multinervia, suprà reticulata, obtusa cum cuspidé brevi canaliculata. STAMINA numerosa patentia, sepalis dimidiò breviora; filamenta capillacea; antheræ lineares, longiuscuse, lutesc. OVARIA sericeo-barbata. STYLI breviusculi, recurvati. CARYOPSISIDES plurimæ, lenticulares, glabrae, desinentes in caudam longam, tortam, sericeo-barbatam.

Plate CCXVII. Fig. 1.2. Flower. 3. The same, dissected. 4. Ovarium.

CCELOGYNE ELATA. Tab. 218.

Ccelogyne elata Lindl. Gen. et Spec. Orchid, p. 40.

Crescit in sylvis Napalia; et Sillet; floret Februario et Martio; fructificat Aprili.

PLANTA satis magna, speciosa, erecta, rigida, nitida. RHIZOMA sub.lignosum, pennam cygnacm usque ad digitum minimum crassum cylindricum, repens, obtectum squamis magnis, aridis, coriaceis, fuscis, laxè involventibus, acutis, uti omnes plants partes (præ ei radiculos) lsevibus, nitidis. RADICULJE crassiusculse, cylindricæ, tomento denso, mollii, pallido vestitse. PSEUDOBULBI oblongi, ovato-oblongi, solitarii, diphylli subdistantes, nunc approximati, angulis aliquot obtusis notati, lignosi, 3—4-pollicares, basi hinc m'umii squarnd un& duabusè maximis, lanceolato-ovatis, patentiusculis, subaequantibus, structure et colore istarum rhizom'm'ti. FOUA erecta oblongo-lanceolata, utrinque attenuata et acuta, coriacea, plana, suprà otroviridia, lucida, medio canaliculata, costa in pagina inferiore pallidiore carinatâ, tlorrantia ad pedalia. PETIOLUS 3-pollicaris, canaliculatns, dorso convexus, basi dilatatus, alter altrrm amplexens. SCAPUS solitarius, terminalis pseudobulbi, teres, gracilis, erectus, 6-i>olHcaris, rigidiusculus, nudus, apice subclavatus. RACEMUS terminalis, erectus, oblongus, 6-pollicaris, ante explicationem clavatocylindricus, complanatus, obtectus bracteis unifl., lanceolato-navicularibus, pollicaribus, acutis, citò emarginantibus et dilabentibus, inferioribus vacuis, diutius perdurantibus, bifariè imbricantibus et basin pollicarem rachis racemi crasse, cylindricæ, involventibus. FLORES majusculi, candidi, sparsi, inodori, patent. PETALA patentia, ferè pollicaria, plana, oblongo-lanceolata, obtusiuscula; interiora duo linearia. LABELLUM sessile, convolito-infundibuliforme, petalis vix longius, basi levissime gibbosum, intfs cristis binis nimbriato-cremulatis, versus laminam flavidantibus, deorsum albis, usque ad fundum percurrentibus: lamina triloba: lobi laterales breves, rotundati; medium ovato-cordatns, patens, seminnguicularis, suprà occulis duobus magnis, flavis, lineisque totidem mediis, longitudinalibus, panillelis, aongiineis ornatnv (OLUMNA clavata, inclusa, apicc marginato-dilatata, antice plana. ANTHERA conica, semibilocularis. POIXINIA 1 plana, rlvata, basi filo granuloso geminatum. OVARIUM clavatum, obsolete sulcatum, semiunguicularr, suffultum pvdunculo cylindrim. quanta, (APSVLA clavui unciali<. rrrecta. basi attenuata.

JEGINETIA PEDUNCULATA. Tab. 219.

Subcespitosa caulescens; pedunculis elongatis, terminalibus, unifloris.

Orobanche pedunculata Roxb. Hort. Beng. p. 45. et ejusd. MSS.

Habitat in Bengala, infra gramina altiora, praecipue varias species Bambusae, eorum radicum parasitica(P). Viget, floret fructificatque sub pluviis.

PLANTA valde singularis et dtim florens speciosissima, aphylla, erecta, palmaris, subcespitosa, carnosa, glaberrima, texturae mollis, fragilis, trita odore ferfe agaricino. RADIX carnosa, cinerascens, divisa in ramulos breves, cylindricos. SCAPI aliquot erecti, pennam cygneam crassi, subcylindrici, hinc inde irregulariter obsoletaque flexuosi, 2—3-pollicares, indivisi, primis flavi, deinceps atrosanguinei, muniti squamis subadpressis, carnosus, sparsis, triangulari-ovatis, acutis, inaequalibus, lineas circuit&r tres longitudine emetentibus, concoloribus, emarcescens. PEDUNCULI pauci, terminates, bracteis interspersi, cylindrici, longitudine insequales, scapum superantes, longiores 2—3-pollicares, purpurascens, 1-flori, nudi. FLORES magni^ leviter nutantes, inodori. CALYX monophyllus, spathaceus, oblongus, par&m compressus^ acutus, dorso latusculo subsulcatus, subtils ferre ad basin attenuatam fissus^ partim ventricosus, flavus^ mucilagine copiosus, limpida intius repletus, sesquipollucaris. COROLLA speciosissima, tubulosa; tabus anipulus, cylindricus, parum incurvus, basi contractus, fuscescens, iritis flavus; limbus patens, atropurpureus, diametro pollicari, obsolete bilabiatus, 5-lobus; lobi ferre sequales, subrotundi, spinuloso dentato-crenulati, tubo dimidib breviores, labii inferioris intermedius maculat ampli, suborbiculata, flav& notatus. FAUX magna, pervia, flava. STAMINA 4 supra fundum corollae contractual inserta, tubo breviora, inclusa; Jilamenta alba, carnosa, teretia, curva, subsequalia, apice conniventia; antherae conico-infundibuliformes, albse, per pares connexae, vertice 1-loculares, inferiores deorsim productae in calcar breve, subconicum, obtusum. OVARIUM ovatum, carnosum, 2-loculare, polysporum. STYLUS cylindricus. STIGMA in fauce corollae magnum, carnosum, cordato-peltatum, postic^ puberulum. CAPSULA magnitudine nucis avellanae, subrotunda, farcta, flavescens, levis, stylo persistente coronata, bilocularis, demiim irregulariter bivalvis. SEMINA minutissima, vald^ numerosa, fusca, undique in septa receptaculis duobus crassissimis, carnosus, convoluto-rugosis, semiovatis, valvis oppositis.

Plate CCXIX. Fig. 1. Calyx. 2. Corolla, opened. 3. Detached stamens. 4. Pistil. 5. Ovary. 6. Capsule. 7. The same, cut across. 8. Two placenta and seeds.

H Y P E R I C U M CORDIFOLIUM*. Tab. 220.

Jypericum cordifoUum (Chois. MSS.) Decand. Prodr. vol. 1. p. 545.

Habitat in montibus Napaliae, florens initio anni.

FRUTBX valde elegans, peda bipedalisque, paniculatus, omnino glaber. RAMI longiusculi et graciles, cylindrici, coitice glabro, fusco, nitido; supern^ ramulos plures breves et simplices, subtetragonos emittentes. FOLIA numerosissima et patentissima, valde approximata, sessilia, oblongo-lanceolata, cuspidato-acuta, basi subcordata, amplexicaulia, coriacea, pellucido-punctulata, lineolische rubescens. Diaphanis notata, laevia, glauca et opaca, pollicaria ad sesquipollucaria, costata ad paginam inferiorem elevate, nervis inconspicuis; ramulorum multo minora fer^ bracteiformia. FLORES magni, aurei, terminates^ ternati, pedunculati, inodori, paniculam ramorum ovatam formantes. PEDUNCULUS filiformis, teres, pollicaris, mediis munitus bracteis duabus oppositis, ovatis, sessilibus, semiunguicularibus. SEPALA ovata, acuminata, apicem versus purpurascens, basi coalita. PETALA patentissima, oblique ovata, hinc apice acuta, ^-pollicaria, calycem dupl majora. STAMINA valde numerosa, corolla breviora, insequalia; Jilamenta capillaria. STYLI 5 longitudine staminum.

Plate CCXX. Fig. 1. 2. Flower. 3. The same, dissected. 4. Stamens. 5. Pistil.

HENSLOWIA.

CALYX monosepalus, urceolatus, quinquefidus. Corolla nulla. Stamina quinque, brevia, incurva, sinibus ealycis inserta, laciniis alternantia; filamenta carnosa; antherae biloculares, loculis distantibus. Ovarium liberum, subglobosum, bilocularis, polysporum; ovula placenta centrali inserta. Stylus cylindricus. Stigma convexum, obsoletè bilobum. Fructus.

Classis Linneana: *Pentandria Monogynia*.

* It is requested that the name on the Plate may be altered to that here given.

Ordo naturalis . . .

Arb. unaniosa., folia ovata, integerrima, breve petiolata, cum ramis exstipulatis opposita. r lures tmiaun, dispositi rracemos gracillimos, oppositos, axillares vel terminates, paniculatos.

n. elicav hoc genus novum, cuius locus in ordine naturah mihi prorsus ignotus, amico honoratissimo et astuuia-
tissimo Johanni Stevensio Henslow, A.M. Societatis Linneanæ Socio, quandam Mineralogia; mine Botanices in I'ni-
versitate Cantabrigiensi Professori, totius historic naturalis peritissimo, botanico et geologo acutissimo et indefesso.

HENSLOWIA PUBESCENT Tab. 221.

FOLIIS ovatis, acutis, subtus ramis racemisque pubescentibus.

In montibus insulae Penang legit Georgius Porter.

ARBUSCUA. RAMI oppositi, patentes, basi subgummaceo-bracteati, cylindrici, glabri, cinerei; superiores quadrangulares novellique pubescentes. FOLIA opposita, patentia, breve petiolata, interstitiis duplē triplove longiora, 3—4-pollicaria, subcoriacea, ovata, acuta, integerrima, basi acutiuscula, suprà laevia, nitida, subtus mollia et pubescentia, costa mediocri, nervis gracilibus, suboppositis, obliquis, versus marginem arcuatis et anastomosantibus, venisque reticulatis. PETIOLI unguiculares, pubescentes, subtus convexi, suprà plano-
_{su.ca.1.} STIPULE nullse. FLORES valde parvi, magnitudine seminis sinapis, globosi, viridescentes, dense dispositi in racemos gracillimos,
teretes, _{ve.1} _{nx} 5-pouicares, rectos, patentissimos, oppositos, subsessiles, pubescentes; horum quinque tresvè formant paniculam terminalcin
adranjmlaris, crassitie pennae columbinae, vix apice dilatatus, infra racemos unciam longus, interque eos semipollcaris vel pollcaris;
patentissimi, capillacei, vix lineam longi, undique sparsi et approximati, uniflori, suffulti bracteold subulata, subaequante, acuta. CALYX
ürceolatus, 5-fidus, extus pubescens; lacmwe lanceolatse, valde àcutae. CORILLA nulla. FILAMENTA 5 carnosa, glabra, brevissima,
sinubus inter lacinias intus inserta, hisce multo breviora, incurva. ANOTHER* bilocularis; loculi parvuli, longitudinales, distincti
connectivo crasso, lato, subtruncato. PISTILLUM calyce duplb longius. OVARIUM globosum, sessile, nudum, pube capitellata cana copiosâ
obsitum, 2-loculare; ovula numerosa, cuneiformia, placentae centrali subventricosee dense inserta, transversalia. STYLUS crassus, cylindricus
exsertus, ovarii diametrum vix sequans, puberulum. STIGMA glabrum, convexum, carnosum, obsoletè bilobum.

I am quite ignorant of the natural family to which this tree belongs. Mr. Brown has been so good as to point out to me the striking resemblance of the branches and leaves, especially the abrupt termination of the former, to the *Olei/ue*, particularly to *Syringa*; but beyond this all further relation between these plants seems to cease. I am acquainted with another species, a native of Penang, which resembles ours very closely, except in being smooth, and havin^ the leaves a little more lengthened; of this I will add the specific character below. Unfortunately I have not seen the fruit of either; but there are sufficient data in the inflorescence to establish these plants into a distinct new ffenus, which I feel great pride in having the honour of dedicating to my highly valued and esteemed friend Professor Henslow of Cambridge, a most excellent man, an ardent and distinguished botanist, and a very eminent geologist. For the drawing I am indebted to the kindness of Mr. Griffith.

Henslowia glabra, foliis ovatis, valdè attenuatis, obtusis, utrinque tavibus, ramis racemisque cflabris.

In montibus Sillet detexit DeSilva. Floret Decembre.

Plate CCXXI. Fig. 1. A portion of a rut-cine, highly magnified, as are also all the other parts. 2. Flower, the pistil being removed.
3. Part of the calyx, with the stamens. 4. Pistil. 5. Ovary, opened.

Z A L A C C A EDULIS*. Tali. -222, 223, & 234.

Zaiacca edulis Reinwardt et Blume in Schult. Syst. Veg. vol. 7. part 2. p. 1334.

Zalacca Kumph Herb. Amboin. vol. 5. p. 114. t. 57. fig. 2.

Calamus Zalacca Roxb. Hort. Beng. p. 72.

Crescit in Amboina (Rumphius), in Java (Reinwardt et Blume). Ipsc obsrvavi in syhis M;clss n;kus minimum
Martabania; Saluen et Attrau, et ad Chappedong one Tenasserim ; frnrtifnr.iin im-iw ^>fruarii. In Horto Botanico
flarutn> maviila planta e Sumatra allata floret sub pluviis.

As my generous friend Professor Von Martius has done me the favour to undertake the detailed description of my Palms, and of this species among the rest of that family, I have only to make a few observation* on it in this „;““;

* 11* name on the Plate should be altered to that here given, published in 1830 in the valuable work of my Int.,....., „;““; „;““; „;““;
I*ndriZt which I hope *Hl be continued by hi. worthy .on.

The plant grows to a very large size, measuring from sixteen to twenty feet in height, and forming extensive thickets, which are formidable on account of the number of large, flat, and very sharp thorns with which the dorsal rib and petioles of the leaves are armed, and which are penetrable only by wild beasts. It is not used for any particular purpose; but the fruit is much sought after by the Burmese on account of the fleshy and juicy covering of the seeds, which has a pleasantly acid and refreshing taste.

Plate CCXXII and CCXXIII. The whole shrub greatly reduced; with male inflorescence, one of the branches of which has produced a new plant with roots. Fig. 1. A detached male spadix, of the natural size. 2. 3. Flower. 4. Calyx. 5. Corolla.

Plate CCXXIV. The principal figure exhibits a cluster of ripe fruit, natural size. Fig. 1. Part of the petiole of a leaf, natural size. 2. Detached leaflet, also natural size. 3. Berry. 4. The same, divided horizontally. 5. A scale, detached from the outside of the fruit. 6. Seed, with its arillus. 7. The same, cut longitudinally.

LORANTHUS PENTAPETALUS. Tab. 225.

Loranthus pentapetalus, Roxb. Flor. Ind. vol. 2. p. 211. Decand. Prodr. vol. 4. p. 295.

Habitat in Sillet, et in convalli minore Napaliae, Noakote dicta; illuc mense Junii, hie mensibus Februarii et Martii florens.

Plate CCXXV. Fig. 1- 2. Flower. 3. The flower, opened.

VITEX HETEROPHYLLA. Tab. 226.

FOLIIS quinatis; foliolis ovato-oblongis, valde acuminatis, integerrimis, levibus; paniculâ terminali, brachiatâ, floribus pubescentibus, cymosis.

Vitex heterophylla, Roxb. Hort. Beng. p. 46.

Habitat in Bengala orientali ad Tipperam. In Horto Botanico Calcutta floret tempore anni calido.

ARBOR magna, ramosa et umbrosa. RAMULI sordide grisei, quadrangulares, foliaque glaberrima. FOLIA opposita, patentia, petiolata, quinata, raro ternata. FOLIOLA ovato-oblonga, valde acuminata, integerrima, basi acuta, intermedium 5—7-pollicare, lateralia sensim minora breviisque petiolulata, coriacea, saturate viridia, nitida, sub tenui nervoso-venosa reticulataque. PETIOLUS communis 3-pollicaris, teneriusculus, supra planus; partiales pollicares vel infra, foliorum exteriorum semiuguiculares. PANICULA ampla, tertinalis, sessilis, constans corymbis oblongis, brachiatis, oppositis, approximatis, inferioribus 6-pollicaribus. PEDUNCULI tetragoni, glabri; pedicelli brevissimi, puberuli. FLORES majusculi, ochroleuci, ternati, dispositi in fasciculos approximatos, rotundatos, bis tenui dichotomos, suffultos basi et ad bifurcationes bracteolis linearibus, subpersistentibus. CALYX ovatus, lineam circuitus longus, remote et breviter 5-dentatus, adpresso pubescens. COROLLA calyce triplicis major, extremitate adpresso cano-pubescent; tubus leviter compressus, flavescens; limbi bilabiati labium superius breve, acutae bidentatum; inferius trilobum, lobi laterales oblongi, obtusi, intermedium ovatum, purpureum; faux purpureo-punctulata. STAMINA glabra, exserta, didynama; antherae fuscentes, bilobae, lobis divergentibus. STIGMA longitudine circuitus staminum, bilobum, acutum.

Plate CCXXVI. Fig. 1. Flower. 2. Calyx and Pistil. 3. Corolla, opened. 4. Detached stamen.

HYMENOPOGON PARASITICUS. Tab. 227.

Hymenopogon parasiticus Wall, in Roxb. Flor. Ind. vol. 2. p. 157. Decand. Prodr. vol. 4. p. 351.

Super arborum truncos et ramos primarios, rupesque radicans in montibus Napaliae tamen inferioris quam superioris. Floret Junio et Julio; fructificat Decembre et Januario. •*&

Plate CCXXVII. Fig. 1. Calyx opened, with the pistil. 2. Corolla, opened. 3. Ovarium, dissected. 4. Ripe capsule. 5. The same, divided horizontally. 6. The same, divided vertically. 7. A detached seed.

POTENTILLA ARBUSCULA. Tab. 2-28.

Potentilla Arbuscula Don. Prodr. Flor. Napal. p. 229. Decand. Prodr. Syst. Nat. vol. 2. p. 580.

Potentilla rigida Wall. Catal. Herb. Procur. Ampliss. Angl. Ind. Orient, num. 1009.

Incolit alpes Himalaya ad Gossain-Than et Bhuddrinath, florens sub pluviosis, mensibus Julii et Augusti.

FRUTEX rigidus, adscendens, basi repens, cespitoso-ramosissimus, pedalis bipedalisque. RADIX divisa in fibres numerosas, longas, teretes. CAULIS valde rigidus, usque ad digitum minimum crassus, fuscus, laevis, nitidus, epidermide fibroso-scedente. RAMI admodum numerosi et subdivisi, cylindrici, fusi, stipulis emarginatis undique obtecti. FOIJA dense approximata, alterna, patentia, petiolata, sesquipollucaria, inferiora pinnata, bijuga cum impari, superiora ternata; foliola ovato-lanceolata, nunc subcuneata, unguem longa, integerrima, utrinque acutiuscula, coriacea, subsessilia, supra nitida, villis longis, sericeis, decumbentibus obsita, subtillis glabriora, costa nervisque paucis prominentibus, parcius villosis; novella villis copiosis, sericeis, fulgentibus lanata. PETIOLUS connexus unguicularis, villosus. & TIPULE ad basin petioli longissimae, oblongae, acutae, membranaceae, fuscie, erectae, subimbricantes, persistentes. FLORES tenuinales, solitarii, flavi, diametro pollicares, suffulti pedunculati gracili, tereti, barbato, sesquipollucari, medio stipato bracteola foliacea saepius simplici, stipulate CALYX dupli serie 15-phyllo, extus lanatus, intus glaber; series exterior constat foliolis unequalibus lameofatis vel subovatis, nunc bilobis vel bipartitis; interior exteriore paull6 brevior constat foliolis lato-ovatis, acutis. PETALA patentissima ovato-subrotunda, semiuncialia, obtusa, calyce 4-plo longiora. STAMINA numerosa, brevia. PISTILLA villosa. RECEPTACULUM drn villoso-barbatum.

CCXXVIII. Fig. 1. 2. Flower. 3. Two exterior leaflets of the calyx with an opposite interior. 4. ^mara. 5. l'i.til.

FAGRREA AURICULATA. Tab. 229.

Fagrxa auriculata (Gulielmi Jack) Wall, in Roxb. Flor. Ind. vol. 2. p. 34 et 574. Jack in Malayan Miscell. vol. » num. 7. p. 82.

JFillughbeia auriculata Linn. Syst. Veg. ed. Spreng. cur. poster, p. 71.

Crescit in Singapur et insulis vicinis (Jack et Wall.); in Sumatra ad Tappanuly (Jack). Fructifera Octobre.

To the description which I have given in the Flora Indica I shall add the following extract of an account by the late Mr. Jack, contained in the second volume of the interesting, but unfortunately very scarce, Malayan Miscellani*, of which the botanical papers will be successively inserted in the excellent and valuable *Botanical Mhcellanii*, || Professor Hooker.

« The *F. auriculata* is a large shrub, and from the size of its flowers is the most splendid of the species I have seen met with it at Singapore, but have since found it also at Tappanuly. The following particulars may be added to the description given by Dr. Wallich. Flowers terminal, generally three, rarely five, on short thick pedicels, h embraced by four opposite bracts, of which the outer two are the smallest. Corolla very large yellowish, r Stamina inserted near the bottom of the tube. Stigma large and flattened. Ovary 2-celled, polygynous, t. w. e. of the placenta* revolute. Fruit as large as a duck's egg, acuminate by part of the persistent style; seeds numerous, nidulant. »

Plate CCXXIX. A branch, with nearly ripe fruits.

LORANTHUS VESTITUS. Tab. 230.

Loranthus vestitus Wall, in Roxb. Flor. Ind. vol. 2. p. 218. Decand. Prodr. vol. 4. p. ago.

Habitat in montibus Napaliae, arborum parasiticus, florens per tnm ferè annum.

Plate CCXXX Fi?. I. Flower. 2. Corolla, opened. 3. Calyx and pistil.

GARDNERA OVATA. Tab. 231.

Gardnera ovata Wall, in Roxb. Mor. Ind. vol. 1. p. 400. et vol. 2. p. 318.

Habitat in montibus prope Sillet. Floret mensibus Aprilis—Septembris; fructificat Januario.

Plate CCXXXI. Fig. 1. 2. Flower. 3. Tube of anthers, opened. 4. Berry. 5. The same, cut transversely. 6. Seed. 7. The same, divided vertically, showing the embryo. 8. The same, with part of the outer covering removed. 9. Embryo.

TODDALIA FLORIBUNDA. Tab. 232.

CAULE densè tuberculato, ramis aculeatis; foliis petiolisque inermibus, foliolis acuminatis; floribus corymboso-racemosis, axillaribus terminalibusque.

Xanthodylon floribundum Wall. Cat. Herb. Ampl. Procur. Brit. Ind. Orient.

Crescit in summis Napalise montibus; florens Januario, fructifera siib pluvii.

FRUTEX magnus, altè super arbores scandens. CAULIS cylindricus, pollicem et ultri crassus, plures orgyas saepè longus, fuscens, calloso-punctatus; obsitus tuberculis frequentibus, magnis, conicis, sparsis, approximatis^ semipollicaribus, horizontalibus griseis, annulatis, subtruncatis, basi ad insertionem obscure compressis, suberoso-lignosis, nudis vel terminatis aculeo parvo, subulato, recurvato, acutissimo. RAMI longi, teretes, fusci, calloso-punctati, pubescentes, dense armati aculeis brevibus, hamato-recurvis, compressis, puberulis; juniores ferrugineo-villosuli. FOLIA alterna, approximata, petiolata, ternata, inermia. FOLIOLA sessilia, oblongo-lanceolata, obtuse acuminata, insequaliter crenulata, basi attenuato-acutâ articulata, plana, coriacea, laevia, lucida, subtus costata elevata, gracili, albicante, nervis tenuissimis, parallelis, approximatis, subtransversalibus, intra marginem anastomosantibus^ punctis conspersa copiosissimis, dia-phaniis^ odore et sapore vix aromaticis; intermedium 3—4-pollicare, lateralia parù breviora, basi minùs attenuata, hincque paullè angustiora. PETIOLUS communis inermis, gracilis, utrinque parium incrassatus, leviter curvus, suprà planus cum linea intermedia elevata, corpusculo brevissimo, conico, glandulaeformi terminata. FLORES parvi, inodori, e viridi flavantes, pedicellate subumbellatum fasciculate dispositi in racemos admodùm numerosos^ compositos, solitaries pedunculatos, axillares, folio breviores, vel ad apicem rami nudum subpaniculatos. PEDUNCULI teretes, villousuli. BRACTEOIS aliquot sparsse, lanceolate infra pedicellos. CALYX minimus, urceolatus, villousulus, acut^ quinquedentatus. PETALA 5 linearis-lanceolata, acuta, carnosa, lineas 3 longa, calycem quadruple superantia, cumque dentibus ejus staminit usque alternantia, extis punctato-scabrida, intiis glabra, mediis lineol^ elevate notata, aestivatione valvata. STAMINA 5, corolla longiora, patentia, laevia, distincta; filamenta filiformia, basi aequali circum discum hypogynum minimum et obsoletum inserta; anthera majuscule, ovatae, erects. PISTILLUM staminibus brevius; ovarium oblongo-cylindricum, punctulatum; stylus carnosus, crassiis, brevis; stigma convexum, obsolete 5-angulare. BACCA subglobosa^ carnosa, flava, glanduloso-punctata 5—7-locularis, magnitudine pisi.

Plate CCXXXII. Fig. 1. 2. Flower. 3. A fruit-bearing branch. 4. Berry. 5. 6. The same, opened in two ways. 7. Section of the base of the stem, showing the conical tubercles.

HUMBOLDTIA.

CALYX bibracteatus, tubo turbinato, limbo quadripartito, lacinia postica (e duabus conflata) binervi. Petala 5 vel (suppressione inferiorum) 3. Stamina 5, omnia antherifera, distincta, fauci calycis inserta, ejusdemque laciis opposita. Ovarium pluriovulatum, stipite tubo calycis hinc adnato. Stylus subulatus. Stigma capitatum. Legumen (oblongum, compressum, *FahlJ*).—Brown MSS.

Humboldtia Vahl. Symb. Bot. vol. 3. p. 39 et 106 (sub *Batchia*). Decand. Prodr. vol. 2. p. 488.

Frutices (vix arbores) inermes. Folia abruptè pinnata, subtus glandulis nonnullis adpressis instructa. Stipite foliacese, persistentes, peltatim adnatae, infra insertionem products in lobum transversim dilatatum, subtus foliorum instar glandulosum, (in sicco saltern) saepius reduplicatum stipulamque accessoriæ exteriore aemulante. Racemi axillares, pedicellis bracteis, praeter duos calycinos, unicâ, caducâ subtensis. Calycis limbus, aestivatione imbricata, deciduus, tubum persistentem superans. Filamenta aestivatione induplicata. Antherae versatiles.—Brown.

HUMBOLDTIA BRUNONIS. Tab. 233.

TRIPETALA, foliis bijugis, stipularum lobo postico subaequilatero, utrinque rotundato, ramis farctis, aequalibus.

Humboldtia Herb. Heynean. in Museo Ampl. Procur. Brit. Ind. Orient.

Patria vix non montes Malabariae peninsulae Indio Orientalis.

FIUTEX ramosus, inermis, verishniliter decumbens, fors subscandens. RAMI patentissimi, fusi, laeves, farcti, aequales, extiores graciles, pubescentes, hinc sulculo exsculpti, inde vix angulati, internodiis subdivaricato-arcuatis. FOLIA alterna, patentissiroa/subsessilia, intersticiis majora, abrupt pinnata, bijuga. FOLIOLA exacte opposita, cuneato-oblonga, acumine brevi, obtuso terminata, integerrima, deorsum attenuate, latere interiore ut in Mimoseis angustiore, basi inaequali obtusiuscula, texture inter chartaccam et choracieam media?, plana, laevia, suprà nitida, dam sicca minutum reticulata, subtus eleganter nervoso-venosa, glandulis nonnullis parvis, depresso-excavatis, vagis instructa, costa gracili, basi intumescente, rugosua et puberuia, nervis frequentibus, filiformibus, parallelis| subtransversalibus, intra marginem arcuato-anastomosantibus, venis prominulis reticulatis; jugum exteriorum foliorum deorsum magis attenuatum, 6—8-pollicarium, omnino sessile; interiorum isto tertia vel quarta parte minus, costaque paullum ultra producta brevissima petiolatum. PETIOLUS communis brevissimus, lineas duas tresve emetens, cylindricus, crassiusculus, transverse rugosulus, pubescens- continuatio ejus inter paria pinnarum gracilis, pennam columbinam crassa, uncialis vel sesquiuncialis, pubescens, supra plano-sulcata terminata sett gracili, linearis, ciliata, unguiculari. STIPULE laterales, oppositae, persistentes, foliacea, peltatum adnata, oblique lanceolate erect* parallelae, cuspidato-acutae, nervoso-lineatae, unguiculares ad pollicares, rarissimè coalitae in unicum intra-axillarem, concavam et na icu' larem, dum juniores subtus margineque integerrimo puberulse, nunc glandula una alterave minuta impress* 'supra rnarina^ImiA opposite stipule obversa) glabrae nudaque, basi parum contracta, utrinque villosua infra inscriptionem horizontalem* product* in lobulum magnum, transversè dilatatum, reniformem, semiunciam latum, retusum, subaqualaterale, plurinervium venoso-reticulatum (invivapatem et horizontalem?) in sicco saepius sursum reduplicatum paginisque quasi reversis stipulam accessum n simulmto.,/ subtus puberulum glandulisque duabus tribus parvis, depresso notatum. FLORES magnitudine circiter illorum T* arntr oria forsana laete aurantiaci Jonesia; (quo gaudet Humboldtia laurifolia), pedicellati, aestivation imbricati, disposition *** axillares solitarios, simplices, breve pedunculatos, erectos vel adscendentes, oblongo-attentatos, 5-pollicares, ferrugineo-v. 11 -TTT Tlorum par infimum longitudine subaequantes. PEDUNCULUS communis pollicaris vel semipollicaris, rachisque recta villosa T 1 * pedicelli filiformes, approximati, sparsi, nunc geminati, unguem longi, uniflori, sufluti bracted brevi, lanceolati »*, i. decd A dorso uniglandulosa villosa CALYX ovatus monophyllus suffultus bracteis JloraUbus duabus ovalibus, concaviusculis, ... inque obtusis, extus villosis, versusque medium uniglandulosis, tubo turbinato paullum longioribus; limbis quadripartiti laciniæ ovatae, obtusiusculæ, pauci-recurvatae, lineas tres emientes, extus villosæ, intus petaloideæ et venosæ, supremæ due in unam binervem TM. PETALA tria, erecta, conniventia, subunguiculata, lanceolata, obtusa, obsolete repando-crenulata WinH T T ^ ^ ^ TTM Comt*, venosa; posticum impar (vexillum analogum) paullum majus, subovatum, evidentis ungiaculatum ax 1 : ^ ^ ^ ^ ^ ^ k « U » S labra » it 5 faci calycis inserta distincta rectiuscula s b 1 1 calycinie supradictis bincrvi respondentis, opposita, petalis longiora; filamenta glabra, filiformia, omnia antherifera, cestivatione ^ ^ ^ Z. anther* majusculæ, ovatae, versatiles, bilocularis, citiosuabescentes; polknglobulare. OVARIUM obli quo Uon* rehquis brevior a; dense cano-vilosum, oligo-(3- vel 4-)sporum, ovulis appensis, apice hinc acutiusculum, inde gibbosum, suffultum stipe PM8i Uculuii, tubo hinc adnato; stylus subulatus, glaber, ante anthesin circinatus; stigma parvum, glabrum, capitatum FRU^TOSUS hny, CULyds to the plant by Dr. Heyne. In speaking of Amherstia in the first volume of this work, I alluded to the Ma^bar ed t, where it « di.cove^ by the Ute D, Benj a1 Heyne. Independent of the curious structure of its stipules, and, in some degree, of its flowers, there is another consideration which claims for it a very high degree of interest, the genus to which it belongs being called after Baron Alexander de Humboldt, to whom it was given nearly forty years ago by my revered preceptor Professor Martin Vahl of Copenhagen, one of the very first T*¹¹⁰ed of his time. Anxious for an opportunity of testifying my profound respect for the illustrious name which it commemorates, I have associated with it, as a specific appellation, a name not less immortal—that of M. P. Brown; and I have therefore ventured to cancel the specific name, though perfectly unobjectionable w^t f. r. obert to the plant by Dr. Heyne. In speaking of Amherstia in the first volume of this work, I alluded to the leguminous plants having a tubular calyx; to it Humboldtia belongs, besides several others. In the genus stands in Pentandria Monogynia, in the section with polypetalous corolla and superior fruit completely characterized by one single word: Legumen. In the natural system a greater detail is given to the generic character, and for the general remarks which are in the article, as well as for the subjoined amended character of Vahl's H. laurifolia, of which this specimen in the collection of the Horticultural Society of London, gathered in Ceylon by Mr. Griffith, to whose extraordinary botanical talents and accomplishments I have already advert in the observation annexed to Phytocrene gigantea.

The beautiful drawing and dissections from which the accompanying Plate has been made, were executed by Mr. Griffith, to whose extraordinary botanical talents and accomplishments I have already advert in the observation annexed to Phytocrene gigantea.

//. laurifolia Vahl; pentapetala, foliis 3-S-jugis; stipularum lobo postico !, in. product* interno diis superioribus incrassato-fistulosis.—Brown.

Plate CCXXXIII. Fig. 1 and 3. Two branches, showing the stipules in their original position the non-more or less in the same plane as that above. Fig. 2. A portion of the lower part of the stipule with the betoir tm0 "inertion i., more or less manfed. 4. Flower-bud, with its bracteolae. 5. Calyx just expanding, the bracts and BII UIC foliis »ng advanced. 7. The same, the calycine segments removed. 8. Flower fully expanded, three of the three * retrorvri, »ng reexpanded, the anthers having fallen. 10. Front view of the anther. 11. Uack ?it,w of the range. 12. Pollen-granules. 13. Vounir ovary, with its pedicel adhering to one side of the tube of the calyx, and circinate ityle. 14. Jit. 15. Pollen-granules. 16. Vounir of the ovulr ^{torc»} acuto; rani u lor urn

RUBUS RUGOSUS. Tab. 234.

Rubus rugosus Smith in Cyclop. Reesiana, vol. 30, in loco.

Rubus Hamiltonianus Sering. MSS. Decand. Prodr. Syst. Nat. vol. 2. p. 566.

Habitat in montibus Napaliae, florens tempestate anni pluviosâ; indè in hortum botanicum Calcutta allatus. In montibus Sillet vicinis legerunt De Silva et Gomez. In jugo Nilghiry dicto observaverunt dom. E. Noton et Leschenault.

This fine and large species has been excellently described by the late Sir J. E. Smith in Rees's Cyclopaedia, under the article *Rubus*. The fruit is red, and has a pleasantly acidulous taste.

Plate CCXXXIV. Pig. 1. Ripe berry.

DOMBEYA PALMATA. Tab. 235.

Dombeya palmata Cavan. Diss. 3. p. 122. tab. 38. fig. 1.

Dombeya angulata Roxb. Hort. Calc. p. 50 (haud. Cavan.).

Habitat in insula Borboniae. In horto calcuttensi floret versus finem anni.

FRUTEX, vel poti&s arbuscula, ramosa, patens. RAMI cylindrici, cinerascentes, tuberculato-cicatricati, supernâ villosuli. FOLIA sparse, patentissima, longe petiolata, ad apicem rami valde approximata, circumscriptione rotundato-cordata, diametro 5-pollicari, adulta palmaria, 5—7- quin 9-loba vel palmate-partita, lobis nunc latis brevibusque, acutis vel acuminatis, im5 longe acuminatis, tune (in foliis nempe profundi&s palmatis) ovatis vel oblongo-lanceolatis, longissimfe subcaudato-acuminatis, basi valde coriactis, marginibusque sub-imbricantibus ; omnibus acut& serratis; sinu basis acuto, integrerrimo; subcoriacea, suprâ saturate viridia, lsevia, subtfrs pallida, nervis tot quo lobi gracilibus, elevatis, puberulis, lateralit&r ramosis, venis capillaceis, reticulatis; *tenetta* ferruginea nervis viridibus. PETIOLUS teres, gracilis, puberulus, longitudine circiter folii. STIPULE oppositae, lanceolate, acutae, extis pilosulae, emarcescentes. PANICULA amplissima, terminalis, valdè lata, depresso-subfastigiata, constans corymbis axillaribus, long^ pedunculatis, erectiusculis, simplicit&r bifidis. PEDUNCULI teretes, pilosuli. FLORES magni, albi, inodori, diametrum pollicarem emetientes, subracemosi, solitarii vel 2, 3 plurimae fasciculati, inserti pedicellis teretibus, pollicaribus, uti calyx involucellumque valde pilosi; flos solitarius in bifurcatione corymbi. CALYX 5-partitus; *lacinia* reflexae, lanceolatae, acutae, ferfe unguiculares, intils lseves. *Involucrum* dimidiatum, calycem unilateralit^ extis suffultiens eodemque pa-ilm brevius, constans foliolis tribus ovatis, acutis, hirtis, basi imbricantibus, mox deciduis. PETALA 5 obovata, obtusa, leviter retusa, semipollucaria, calye fer^ dupl5 longiora, venulosa, emarcescentia, basi attenuata parumque obliqua. FILAMENTA 20 basi in tubum brevem concreta; *sterilia* 5 filiformia, reliquis dupl5 ferfe longiora, nuda; *fertilia* subulataj *antherce* eréctae, cuspidatæ. OVARIUM globosum, hirsutum> 5-loculare, polysporum; *stylus* staminibus parilm longior; *stigma* 5-lobum, lobis brevibus cylindricis, recurvatis.

Plate CCXXXV. Fig. 1. The leaf of a luxuriant shoot. 2. Flower, opened. 3. The same, with the petals removed. 4. A division of the corymb, with the involucre of the flowers, the latter being removed. 5. Tube of stamens, opened. 6. Ovary, cut across. 7. Ovary, cut vertically.

MUCUNA ANGUINA. Tab. 236.

FLORIBUS cymosis, densis; leguminibus subrotundis, transversè lamelloso-rugosis, hispidissimis, monospermis; foliolis suprâ glabris.

Habitat in Chittagong, ubi detexit J. Roxburgh, et anno 1811 in hortum botanicum Calcuttae introduxit. Floret Novembre et fructificat Aprili.

FRUTEX amplius, latfe volubilis. CAULIS crassus, cortice cinerascente, cylindrico-compressus, utrinqu^ profund^ sulcatus, duos trunco connatos ssep& referens. RAMI juniores cylindrici, uti omnes superiores et recentes partes horridi setis longis, fulvis, rigidis, solubilibus, cutem facilfe penetrantibus, ardorem et pruritum excitantibus. FOLIA alterna, patentia, ternata, petiolata; *foliola* integerrima, obtuse acuminate, suprâ glabra, subt&s pilosa, novella utrinque pilosa; 3—5-pollicaria; terminata ovatum, lateralia dimidiato-cordata. PETIOLUS cylindricus, 3-pollicaris, articulatus. *Stipules* laterales, falcatae; *stipe* *Ua* subulatae, parvse. CvMiB axillares lateralesve (ex axillis neru^ foliorum delapsorum), solitariae, geminatae vel ternatae, globularesj lax pendulas. FLORES magni et speciosi, atropurpurei, foetidi, fasci-

ml*....., pedunculata. Peaceccles brevis, subdierus; petiolis cylindrici, angustioribus, lato-ovali, lato-ovali, concavis; petiolaris interiores tres calyci adpresso, lanceolatae, utrinque, praeceps pagina exteriora hirsuta-setosa; flos irregulariter 5-dentatus, lobis 5, 2-3 mm, in r. n. i., s. l. n. ii. Vs x a n i alii cari orbiculatae, utrinque profundus. Lu. (l. ..., ill. a. j. i. .n-nui-jin ..., u. t. m. l. herbatis, copiosissimis. SEMES magnum, solitarius, reniforme, e qndfaa nigricans, sustentum funiculo longo.

I tun iinli'lifii En Mr. II. Colehrnolte For tlic ttniwing and description of thiil trolj roperb bul... s! n, reely sting fim pfame AD ebu m*a and rmidiT |art-. aiul particularly the pod, art- fivnisbed with lewd] adberiu; bog and st iff mfop^ IT fithtm* bristtks, which easily penetrate the skin and create an intolerable itcbin^ and irritation.

FUt* i i W X I I Fir I lilyx, opened 3. Sonnem. i. K₄-1 uf rh. Hi., L .One of in wings 3. Legumen.

PONGAMIA ELLIPTICA. Tab. 237.

FOLIOLIS 3—5-jni^is cum inipan, "nj" incremento-oblongis, pubescentibus, ramulis, pedunculis calycibusque ferrugineo-illuminis; raceiuU fitfcitiAaw; InjmuQC elliptico-lanceolato.

Gnb'dtpn eSiptira Rath. Hart. Brog. p. 53.

Ex \niliniiit in lili; cam botafimi (att-ulw ullab, ubi floret Marri,, (V,, tificatque Augusto. Etiam crescit secus nan ditniuv Ittmn iu SfartaC.iii.-i. flonpjw Martio.

Folium angusti, pubescens, petiolata, in r. n. i., s. l. n. ii. in ramulis approximata, pedalis et longe laevigata, opposta, oblonga, membranacea, integerrima, deorsum prout angustiora, basi rotundata, brevè petiolata, pubescentia, glaucescens, recentia utrinque ferrugineo-villosa, supra nitida, subtus costis nervisque suboppositis pubescentia, ferruginea; terminalia digitata ad epithalamum longiora, cetera diversa tendit decessentia, inflo 2-3-pollucaria. IV. TOLUS teret, crassus, basi rabilis intumescens, radisque gracile villosa, supra solatis; petiolas crassi, cylindrici, tomentosi, lineas duas longi, basi stipulis acutis minata, subulata. SEMINA lati-orata, subacute, crassa et carnea, ferruginea-tomentosa, emarginata. Racemi axillares lateralesque, solitari vel fasciculati villosi, foliis dimidiis vel tertio breviores, nonne eadem serie sequentes. Pedunculi annales calyptro ferrugineo-villosi, cylindrici. CALYX amplius sessilis, pedicello villositas brevi; os subrenunciatum, obliquum, 5-dentatum, dente superiori parum longiore. BRACTEOLAE duae, lanceolatae, perianthias, parte basi calycis utrinque adpresso. COROLA bilobata; ovulis ovalibus, obtusis, reflexis, nigrescentibus, hirsute rugosulatis, basi calloso dilatis planis, minusculis; ab longitudine carinis ex quo adpresso, obtuso; carina rotunda, apice biloba, strigosa gibbosa. FILAMENTA connata in tu. >>> sli' m fiwuken, AVENAS pilosula. Ovaria exstans, villosa, pubescentia; stilo brevi, digita minutum, caputum. Lacinias levae, 2-3 pollicare, sessile, oblongo-lanceolatum, ve obellipticum, acutus, marginatis lobisculis, 1-2 speciem. SEMINA reniformia, nitida.

Plate CCXXXVII. Fig. 1 <.i\ and Mammens. ^ ^ B v " Krai A wing. 5 ls num. 6. Seed.

!*PATHOI>i \ WII ! VI I 1. 2;3

Jufi...., erecta, foliis pinnatis 5-jngis, foliolis oblongo-ellipticis, acuminatis, IBIT-Yrrimis, subtus pubescentibus; (Innldii i i i imis, terminalibus, racemosis, capsula ensiformi, longissima, calyxque maxime tomentosis, corolla camiliata extus glandulosi.

/; . MI tculata Roxb. Hort. Beng. p. 47. Colehr. MSS. et icon. pict.

.V, t/hetirm" capsularata Hamilt. Herb.

florat in Pegu, inde in hortum Calcutta introduxit Gofieldius Carey. Floret initio anni; fructificat Aprili. Ipse observavi aliquot rWwn kl> regna type Irrawaddi, oppidum Ave contra, inter colles calcareos, floribus inapertis Novembre.

ARBOR magna, ramosa. TRONCUS rectus, cutice cincta, inepalli. RAMI cylindrici, cincti, superne villosi. Folia decussatim opposita, patentissima, pinnata, 5-juga cum impari, sequenti ad bipinnata, petiolata. Foliola opposita, brevissime petiolata, oblongo-elliptica, acuminata, integerrima, exorsim incrementa, basi rotundata hinc inepillata, terminalia reliqua majus, usque ad pedem

•••

emetiens, infima subovata; chartacea, supr Uevia, subt&s reticulata, costa nervisque pubescentibus, elevatis. PETIOLI villosuli; communis crassus, lignosus, cylindricus, basi valde tumidus, extors&m leviter coimpressus, ad insertionem pinnarum dilatatus; partiales brevissimi. STIPULE nullae; sed ramuli novelli axillares foliolosi stipularum ferfe speciem induunt. FLORES maximi, 4-pollicares, flavi, foetentes, pedunculati, opposite subdecussantes, dispositi in racemum terminalem, erectum, sessilem, pyramidato-oblongum, 8-pollicarem. PEDUNCULI crassi, cylindrici, tomento denso ferrugineo vestiti; partiales pollicares, medio geniculati. BRACTEA ovata, parva infra basin pedicellorum, duseque minimae ad eorum medium. CALYX spathaceus, oblongus, attenuato-acuminatus, recurvatus, coriaceus, bipollucaris, extis dense ferrugineo-tomentosus, intus albicans levisque, yentre tota longitudine fissus. COROLLA calyce ferfe dupl longior, extis glandulis aliquot vagis, concavis, orbicularibus, purpureis, villisque paucis conspersa, crassa et coriacea; tubus ventricosus, superne valde dilatatus, purpurascens; limbi patentissimi, lacinia ovato-rotundae, obtusae, crenulatse, supra bipollucaris, reliquis ferfe dupl major, emarginata; /wo ampla, 1^-pollicaris. STAMINA quatuor, didynama, cum rudimento quinti brevissimo subulato inter superiora; Jilamenta e medio tubi, crassa, purpurea, cylindrica, arcuata, levia; antherae conniventes, loculis divaricatis. OVARIUM breve, oblongum, glabrum, circum-datum disco carnosus, tumido, flavo, undulato: stylus cylindricus, vald^ crassus, adscendens; stigma ad antheras elevatum, divisum in lobos duos ovatos, contiguos et parallelos. CAPSULA ensiformis, marginibus parallelis, rotundatis et obtusis, utrinqu^ subcarinatis, lateribus planis; attenuato-acuminata, pendula, pedalis bipedalis, pollicem et par&m ultr^ lata, densissime vestita tomento copioso, mollissimo, ferrugineo; facil^ separabili; 2-locularis, spurie 4-valvis. VALVÆ lineares planae, coriaceae. DISSEPIMENTUM subcrustaceum, lineare, lateribus capsulae parallelum, valvis contrarium, harumque medio lined, utrinqu^ elevata latiuscul^ inserta. SEMINA numerosa, linearis-oblonga, plana, tertiam uncise partem lata, ahd, tenuissima, obtusa, argenteo-alba trinque terminata, bipollucaria. COTYLEDONES latissim^ reniformes, bilobae, obtusae.

I have again to express my gratitude to Mr. Colebrooke for his drawing and manuscript relating to this fine tree, of both of which I have entirely availed myself.

Plate CCXXXVIII. Fig. 1. Calyx. 2. Corolla. 3. 4. Ovary, opened. 5. Capsule. 6. Seed. 7. Embryo.

PHOLIDOTA RUBRA. Tab. 239.

Pholidota rubra Lindl. Orchid, p. 37.

Creșcit in Napalia, super arborum truncis; florens Majo.

RADIX constans fibris lbgis teretibus. PSEUDOBULBI aliquot oblongi, rugoso-sulcati, bipollucares^ diphylli^ uti tota planta leves; recentes subcylindracei, involuti squamis lanceolate, acutis, adpressis, alternantibus, quaruit paucae emarcide perdurant. FOLIA brev^ petiolata, erecta, lanceolata^ utrinqu^ acuta, coriacea, plano-plicata, supr atroviridia lucida^ subtus par&m nervosa, 5—6-pollicaria. RACEMUS pseudobulbi recentis adhuc aphylli terminalis, solitarius, pedunculatus, gracilis, lineari-oblongus, 6-pollicaris; fructiferus pseudobulbi folios elongatus, lax& nutans, folia dupl superans. FLORES parvi, sanguine^ bifarii, alternatim patentes, demum decurvi, subapproximati, hvevh pedicellati. BRACTEA infra singulum florem lanceolata, acuminata, fusca, membranacea, decidua, unguicularis, pedunculum cum ovario aequans; inferiores vacuae. PERIANTHIIUM campanulatum^ vix bilabiatum; follola ovata, acuta, concava; exteriara aequalia, interiora linearia. LABELLUM flavum, perianthio pacl-ilm brevius, trilobum; lobi acuti, intermedium ovatus, levit&r recurvatus. COLUMNA flava, clavata, apice membranaceo-dilatata. OVARIUM cuneatum^ cum pedicello brevissimo unguem longum. CAPSULA obovata, 6-costata, pendula, semiuncialis.

Plate CCXXXIX. Fig. 1. Flower. Fig. 2—6. The same, dissected.

OSBECKIA TERNIFOLIA. Tab. 240.

Osbeckia ternifolia Herb. Hamilt. et ejusd. Catal. n. 915. Decand. Prodr. vol. 3. p. 142.

Habitat in omnibus Napaliae partibus, in regione inferiore secus ripam fluminis Rapti tortuosam ad Hetounda alibique; in superiore ascendet ad cacumina montium altissimorum Sheopur et Chandaghiry. Floret fructificatque a mense Julii ad Decembrem. Etiam inveni in jugo Taong Dong dicto Ava, florentem Novembre. In sylvis Kamrupc legit b. Hamilton.

FRUTEX erectus, superne ramosus, statufra valde variabilis, a pedibus duobus ad altitudinem humanam; quid? quod decempedales frutices in Napalise inferioris locis humidis uliginosis observavimus. CAULIS obsolete quadrangularis, digitum minimum circiter crassus, epidermide grise&, separabili. RAMI stricti, octangulares, uti folia obsiti setis brevibus, sparsis, subadpressis^ vetusti glabriores. FOLIA ternata, vel opposita^ patentissima^ brev^ petiolata, lanceolata, attenuato-acuminata, basi subrotundata, sub lente minutu

orenuiuit, 5-pollicaria, 7-nervia, secus nervos marginesque adpresse setosa. PANICULA terminalis, ovata, ampla, ramosa, furcata, constans floribus magnis, atropurpureis, racemosis, secundis, brevissimè pedicellatis; in bifurcationibus solitarii, sessiles. PEDUNCULI names' rachesque quadrangulares, rufi, setosi, oppositi, sulcati. BiucTEiE parvae, lanceolata?, opposite infra divisuras inflorescentiae et solitaria infra pedicellos. CALYX cylindraceo-conicus, semipollicaris, basi parvum ventricosus, 8-lineatus, conspersus setis brevibus, patulis subcapitatis, salva basi evanidis, casterum laevis; lacinie⁴, linear-lanceolatae, acutae, erubescentes, lineas 3 longe, patentissimè ciliata? crubescentes, deciduae, faucom calycis truncatam linquentes. PETALA patentissima, obovata, ciliata, cuspidulata. STAMINA 8, 'descen' dentia cuim stylo clavato. CAPSULA semipollicaris, ventricoso-oblonga, lineata, setoso-scabra vel tuberculata, oollo subcylindrico tñin<-:itn" disposita in racemum elongatum, secundum.

Plate CCXL. Fig. 1. Corolla. 2. Stamen. 3. Calyx, opened. 4. 5. Ovary, divided in two ways.

GLYCINE INVOLUCRATA. Tab. 241.

RAMIS filiformibus, longissimis, volubilibus, pilosis; foliolis ovalibus, ciliatis; racemis axillaribus, pedunculis verticillo bractearum 3 orbicularium, cordatarum, nunc dupli.

Crescit in montibus Napaliae, florens fructificansque mensibiis Februarii et Martii; etiam in Sirmore fJ. Gerard^A et Kamaon (R. Blinkworth). In horto botanico calcuttensi floruit primâ vice Maio 1822.

FRUTExramosus, laxus, volubilis, obsitus pilis patentissimis, mollissimis, canescenscentibus. RAMI Drouim lonn! ^{n; m; o; *;} [^] janiores valde pilosi. FOUA alterna, remotinscula, patentia, trifoliolata, petiolata • / o / ^ o v X ur^n T 7 " * . ciliata, apice cuspidulata, nunc retusa, integerrima, deorsum subangustata, pollicaria vel | * F ^ | J £ ^ I ^ petio apice cuspidulata, nunc ciliata, supra glabra, s. peque nubecula albicante notata, sub us juxta ^ ^ T Z ^ E t * ? T f a t e a b u s p a ^ m maju, PEXOU filiformes, pilosi, longitudine foliolo J . 8 . ^ 1 ^ 3 Z ^ Z E t * ? T f a t e a b u s lineari-setiformes, longiuscute. RACEMI axillares, solitarii, erecti, densiflori, ob culati, f t ? duplo longiores. PEOUNC'S filiformis, teres, pilosus, subtripollicaris, verticillis ^ £ £ 2 £ ^ culati, f t ? munitus, aliquand6 brevissimus et nudus. BRACTE* foliaceae, patentissima, *tn* »pridi?*^ mne mo UniCo cilia, semipollicares, basi latiuscula cordata subimbricautes, subttis < L ; j £ ^ ^ ^ ^ rosei, pedicellis brevibus, pilosis, basi aride bibracteolatis suffulti. CALVX pilosus b l b i a l 1 K densè approximati, dilute ovatum, acutum. PEXA^ unguiculata, conniventia, calyce triplo ^ ^ 7 ^ in superius vexillum suffultiens lato-bidenticulata. LEO.MEN lineare, sesquipollicare, ferrugineum, pilosum, nutans, ^ T ^ I J ^ L ^ ^ ^ ^ I 7 * " ** SKMNA6reniformia, lucida, fusca. rculatum, cuspidatum; immatuniñ senceo-barbatum.

Plate CCXLI. Fig. 1. Flower. 2. The same, dissected. 3. 4. Pod. 5. St. &c.

ROSCOE A PTJRPUREA, gigantea. Tab. 242.

Roscoea purpurea Smith Exot. Bot. vol. 2. p. 97. t. 108. Id. in lot STM I • • >0 Flor. vol. 2. fol. et tab. 144. ^P ^{**" */*, W} vol < 13 < P. 460. Hook. Exot.

Incolit haec varietas cacuinen montis Sheopur Napalia, florens mense Julii.

I only found this stately plant on the very ton of Sheomir tin K; w. were paler than those of the original species, which has been excellently described by Dr Hw>ker, and which is no, uncommon in *?fff!??£****'! the genus, as well as by Dr Hw>ker, and which is no, uncommon in *?fff!??£****'! pnncl mottyc for inserting the variety here, is to pay a grateful tribute of M i X i T ' T " 0 : - to fc. My of my lac. iUus, riou friend WuJian luLe, Esq., JLL J — \ ? £ i X £ ' T ' T " 0 : - to fc. his nation as long as literature and botany have any votary.

Plate CCXLII. Fig. 1. Detached flower. a. T1,e BnK, , , , ! . , Nvt. s. Dorsal lacini*. 6. One of the inner lacini, detached. 7. f) v,, v , innerCHIM* of the corolla and ami, *,

BERBERIS WALLICHIANA. Tab. 243.

Berberis Wallichiana Decand. Prodr. vol. 1. p. 107. <
Habitat versus apicem montis Sheopur Napaliae, florens Aprili.

FRUTEX erectus, ramosus, rigidus, 6—8-pedalis, cortice sordid[^] griseo, epidermide laxā, mox separabili. RAMI longi, subbifari patentes, uti omnes partes laeves, levitcr flexuosi, flavicantes, nitidi, obtusfe subangulati, ad insertionem spinarum utrinque subcarinati. FOLIA brevfe petiolata vel ferfe sessilia, disposita in fasciculos alternos, interstitti longiora inferiores eadem sequantia, oblongo-lanceolata, utrinque acuta, deors&m in petiolum attenuata, cuspide epinescente terminata, cuspidato- vel subspinescenti-serrata, coriacea, valde rigida, 2—3-pollicaria vel ultr&, suprā atroviridia, lucida, par&m canaliculata, subt&s pallidiora, nitida, costa gracili prominente, nervis tenferrimis, transversis, versus marginem arcuato-anastomosantibus. PETIOLI unguiculares ad semipollulares, saepfc brevissimi, sulcati, basi articulate circumdati squamis gemmaceis fuscis, triangulari-lanceolatis, cuspidati-acutis, adpressis, imbricantibus, persistentibus. SPINA infra singulum fasciculum foliorum divaricato-patentissima, ad basin usque tripartita, rigida, subulata[^] pollicaris, pallid[^] fusca, ad insertionem utrinqu[^] margine elevato per ramum parū decurrens. FLORES flavi, densi, dispositi in fasciculum rotundatum centro' fasciculi foliorum insertum, bisce tripl5 vel quadruple breviorem. PEDUNCULI uniflori[^] filiformes[^] semipollulares, basi brarteold lanceolatā suffulti, apice subclavati. SEPALA 9 ad 15 oblonga, obtusa, insequalia[^] exteriora breviora, fere squamseformia. PETALA 6, sepalis par&m longiora[^] hisce formā convenientia, basi glandulis duabus adnatis, oblongis[^] mucosis. STAMINA 6 erecta; *Jilamenta* subcarnosa[^] planiuscula[^] apice levit&r dilatata; *antherarum* hculi marginales, oblongi, introrsilm dehiscentes[^] valvulis lanceolatis. OVARIUM oblongum, ovuh erecto, funiculo crassiusculo sustento; *stylus* columnaris brevissimus; *stigma* concavum.

Plate CCXLIII. Fig. 1. 2. Flower.. . 3- The same, dissected. 4. Detached stamen, after dehiscence. 5. The same, before dehiscence. 6. Pistil. 7. The same, the ovary being opened.

H Y P E R I C U M OBLONGIFOLIUM. Tab. 244

Hypericum oblongifolium Chois. Prodr. Monogr. Hypericin. p. 42. t. 4. Decand. Prodr. vol. 1. p. 545.
Crescit in monte Sheopur Napaliae, ejusdem cäcumen versus, florens Julio.

FRUTEX erectus, lsevis, 6—8-pedalis, ramosus. RAMI graciles, cylindrici, fusi. FOLIA opposita, subdecussatim patentia, subsessilia, lanceolata vel oblongo-lanceolata, attenuato-acuta, integerrima, basi acuta, 2—3-pollicaria, minutlm pellucido-punctata et lineolata, supr[^] saturate viridia, nitida, subffis glaucescentia. PBTIOLI perqu^m breves, lato-sulcati. FASCICULUS FLORUM terminalis sessilis, rotundatus, irregularit^r bifidus, cum flore solitario in bifurcatione; divisiones tri-quadriflore. FLORES magni, flavi, subglobosi, pedicellati, demiln nutantes. PEDUNCULI subquadrangulares, opposite bisulcati, rufescentes; *pedicetti* unguiculares. BRACTEJS foliacese, opposite, lanceolate, concaviusculae, acutae, unguiculares, demiim deciduae. SEPALA patentissima, ovata, obtusa, concava. PETALA subrotundo-obovata, obtusa, concava, valde inaequilatera, marginibus conniventi-imbricantia, ^-pollicaria. STAMINA plurima, erecta, petalis breviora, filamentis in cohortes 5 basi connatis. OVARIUM magnum, ovatum, 5-sulcatum, staminibus longius. STYLI 5 subulati, superati stigmatibus clavatis.

Plate CCXLIV. Fig. 1. Flower. . 2. The same, opened. . 3. A fascicle of stamens. . 4. A detached stamen. . 5. Ovary, cut transversely. . 6. The same, opened longitudinally.

LIMONIA LAUREOLA. Tab. 245.

Limonia? Laureola Decand. Prodr. 1. p. 536.
Habitat in montibus Napaliae; in Sirmore (G. Govan, M.D.); in Kainaon (Blinkworth). Floret Aprili.

FRUTEX pulcherrimus, quadripedalis, erectus, inermis, glaberrimus, odore omnium partium viridium tritorilm vald[^] grato[^] citrino. RAMI cylindrici, cinerei, subdichotomi, nunc subverticillati. FOLIA ad apices ramorum approximata, sparsa et undiqufc patentia[^] nunc subopposita ternatave, oblongo-lanceolata, acuta, deorsdm attenuato-acuta, integerrinaa, breve petiolata, 3—5-pollicaria, laevia, lucida, punctis frequentissimis pellucidis notata, supr[^] atroviridia, subtils flavicantia, costa gracili; subcarinat[^] nervis inconspicuis. PETIOLUS crassiusculus, semiunguicularis, suprifl planus. FLORBS pallid[^] flavi, fragrantissimi, densi, dispositi in *corymbum* terminalem, erectum, subsessilem, compactum, ovatum, obtusum, foliis summis breviorem, 2—3-pollicarem. RACHIS crassus, angulosus, *pedunculique* teretes breves pubescentes, purpureo-punctulati. BRACTE[^] duse versus apicem pedicellorum oppositse, lanceolatee, subadpresso, pubescentes, basi

subg ibbosae; alise infra pedunculos fasciculorum florum majores, solitarioe, caducae. CALYX ovatus, basi puberulus; *lacm'ue* ovate, obtuse ciliatae. PETALA 5 oblonga, obtusa, lineas 3 emetientia, calyce tripl5 longiora, basi parum angustata, supra notata lined elevata. STAMIINA 5 erecta, distincta, longitudine petalorum, cumque his alternantia, disco obsoletissimo inserta; *filamenta* carnosa, subulata; *antherce* erectse, ovata, parum complanatse, utrinque debiscentes, basi subbilobae. OVARIUM ovatum, carnosum, glabrum, glandulosum-punctulatum, 2-(3-?)loculare, 2-spermum, *ovulis* pendulis; *stylus* carnosisy staminibus brevior, sulcatus 2-(3-?)fidus, lobis divergentibus; *stigmata* parva, convexa. BACCA ovata, laevis, magnitudine fere fructus oleae sativse, 1-locularis (2-locularis, loculis monospermis, altero stepiis abortiente?). EMBRYO inversus, viridis.

Plate CCXLV. Fig. 1. Flower-bud. 2. 3. Expanded flower. 4. The same, dissected. 5. Ovary, opened.

PINUS SMITHIANA. Tab. 246.

FOLIIS solitariis, gracilibus, tetragonis; antheris longissimis, cristâ crenata; strobilis terminalibus solitariis, crectis, ovato-oblongis, squamis obovato-rotundatis, planis.

Habitat in montibus Himalaya proximis, ubi legerunt Webb, Govan et Blink worth. Floret fructificatq[ue] Majo et Junio.

Nomen monticolarum: *Raga*.

ARBOR vasta. RAMI cylindrici, suboppositi, distiche patentes, cinerei, pube brevi, patula obsiti, tuberculis ab insertione foliorum decurrentibus densissimè notati, cinerei, recentes fusi. FOLIA dense approximata, sparsa, erectiuscula, vel subincisa, subsecunda, solitaria, subulato-subtetragona, acuta, integerrima, saturate viridia, sessilia, pollicem ad sesquipoluoem longa. AMENTA *mascula* terminalia, solitaria, ovata, magna, pollicaria, basi circumdata involucro calyciforme et squamis conflato ovatis, dialis, imbricantibus, apice jptndem recurvato-patulis, stipitem brevem staminum filiformem includente; *antherce* valde dense imbricata, linearis-clavata, elongata, lineas 4 crenatae, loculis gracilibus, longissimis, crista terminata subiunctu, crenato-filiubriatula, *divaricata-erecta. STROBILUS terminalis, oblongus, vel ovato-oblongus, obtusus, nunc attenuatus, sessilis, basi acutiuscula nudus, 4-6-pollicaris, fuscus, levissimus, glauco-cens; *squanue* rigidae, subrotundo-ovatoe, obtusissimoe, laxiusculè imbricantes, deiunctum patuloe, integriniae, marginibus subincuris, doreo versus apicem leviter convexae, basi contractae, pollicem fere longa;. SEMINA parva, angulata, aia terminata cunctata, pallide femiginea, retusâ, sursiun crenulata, unguem longa.

This tree seems to be allied to Tournefort's *Abies orientalis*, and still more so to the specimen from China, figured in Mr. Lambert's splendid Monograph, plate 29. It is however a distinct species, and as such I have dedicated it to the late immortal President of the Linnean Society.

Plate CCXLVI. Fig. 1. 2. 3. Scale, detached. 4. Seed. 5. Ovary.

PINUS BRUNONTANA. Tab. 247.

FOLIIS solitariis, planis, secundis, apice serrulatis, subtus lacteo-furfuraceis; strobilis terminallihiK. rrooi< m-t^ obtusis.

Habitat in Butan, W. S. Webb. In Napalia* crescit ad Bunipam et ad Gossain Than. Flow*. fni<'tmV..i.,,,,. \i_a u et Junio.

Nomen vernaculum : *Tangshing et Cfian^afhasi-DIup*.

ARBUK iiruwrri, 7<>—8<>|Hwa>>; unco recto lo—au-pedali, coma patua, valde numnft. RAMULI cylindrici, grarilrs nutantes fusi asperi propter tubercula e foliorum insertione linea lata, in novellis ramulis pilis ferrugineis pubentf, decurrentia. FOLII vald* approximata, solitaria, sparsa, patentia, secunda, ad faciem nempi rami Hupcriorem tondentia, recta, linearia, obtusa, plana, nureinr aubincnwsnto paullo decurvo, ultra medium vel apice tantum sub lente scatoco-serrulata, pollicaria, glabra, coriacca, percn'iu, dcriduu supra latif viridia, nitida, vix glaucescentia, subtus niveo-furfuracea, cottftt vlevutfr; suffulta petiolo incurvo, canaliculato, brt-vissimi, VMBNTA m<r>//TM numerosiBsima, parvula, ovata, axillaria et terminalia, foliis quadruplo breviora, ^nam ovatw, basin stipitis fir.f0rn,i8 lucâ imbricunUbuR . ^W subrotundo-reniformes, apicalat ^ secentes; *filamenta* capillacea brevissima. STROBILU Mmfinalw sewilw omfUM v f ovatus, obtusus, demum apice subfa^tigato-patulus, pollicaris, piillidè ftweus, gUuccKcens, bahi ml insertion!^M III»m«IU n' urans gen integerrimæ, parallele lineolata, unguem longæ, demum patentissimæ, W munitir squamula extenore ;uH-<>oria reniformi, subunguis lineas 6 longæ, squamâ paullo br.

The first discoverer of this tree was Captain Webb, to whom we are indebted for much important and valuable information concerning the geography and natural history of the Himalaya and the lofty mountains contiguous to it, and to whom I have dedicated a noble species of Pine, with large dark-purple cones, from which the Tartars prepare a sort of indigo. He found it on the southern confines of Bhote (Butan), where it forms a spreading beautiful tree, seventy to eighty feet high, throwing out branches at fifteen or twenty feet, with leaves so extremely deciduous that the slightest shake of the branch is sufficient to detach them. The natives call the tree *Tangshing*. They do not use the wood, as it is liable to warp. I have found the tree at Bunipa in Nipal, attaining a very large size: and it also grows at Gossain Than, where it is called *Changathasi Dkup* (the last word meaning Fir). It comes near to *Pinus canadensis*, but differs in the larger obtuse cones, and the partially serrated leaves, which are covered underneath with milk-white mealliness.

I sent abundance of specimens home to the museum at the India House in 1824, marked *Pinus decidua*, under which name duplicates were distributed in the following year by order of the Hon. Company. I adopted that name in conformity with Captain Webb's remark, which I had verified repeatedly, by observing that not a single leaf would remain attached after a branch had been put between paper, even for a single day only; but as it is objectionable, I now call the species after my inestimable friend Mr. Brown.

Plate CCXLVII. Fig. 1. Male ament. 2. 3. Detached stamens. 4. Ripe cone. 5. Detached scale showing the outer appendix at the base. 6. The same, viewed from within, showing two seeds *in situ*. 7. A bud. 8. A detached leaf, seen from below.

ERIOCAULON BROWNIANUM. Tab. 248.

RHIZOMATE annuo (?) inter folia parè arachnoideo; scapis quinquangulis (sesquipedalibus), parè pilosis; foliis linearibus, acutis, scapos subaequantibus vaginisque pilosis; capitulis tandem hemisphaericis sphaericisve; bracteis involucralibus oblongis, obtusis, testaceis, interioribus spathulato-rhombeis periantbiisque plumbeis albo-barbatis; rhachi pilosa.—*Be Martii MSS.*

In Sillet crescentem legit et retulit F. de Silva.

RHIZOMA parvum, subglobosum, ubique obsessum radiculis subsimplicibus, fibrosis, albis, pollicem et quod excedit longis. FOLIA erecta, pedem et sesquipedem longa, linearia, duas vel duas cum dimidia lineas lata, acuminata, acuta, Unâ basi nonnihil dilatata et vaginantia, margine ibidem lati&s; albido-extenuato, omini longitudine striata, plana aut complicata, nervio medio nonnihil prominentem munita, pilis albis, patulis, tenuibus ubique adpersa. Lana arachnoidea plumbeo-cinerascens, intra foliorum basin irregulariter expansa, eaque ibidem connectens. VAGINAS foliis breviores, scaporum tertiam dimidiavm longitudinem aequantes, arctae, teretes, longitudinaliter striate, apice oblique, pilis albis patulis pubentes. SCAPI sesqui- imm& ferfc bipedales, erecti, stricti, angulis quinque acutis prominulis instructi, inter eos obscurts virides, pariter ac vaginae foliaque pube, surftm tamen parciore, muniti. CAPITULA circiter tres ad quatuor lineas diametro sequantia, primfrm hemisphaerica, sursim planiuscula, dem&m hemisphaerica aut tand&m subglobosa. FLOSCULI intra bracteas (uti in *E. fVallichiano*) plerumque phyllo-taxi ff positi. BRACTEJI: VACUJE, invblucrales, circiter duodecim, oblongae, apice rotundatse, plumbeo-fuscidulse, nitidae, margine integerrimae, passim pilis tenuissimis adpersae, quales etiam in rhachi (receptaculo communi) intra singulos flosculos crebrfc enascuntur. BRACTEAE INTERIORES rhombese, at basin versus longifis cuneatse, apice inflexo pilis erectis, nitidis, eburneo-albis barbatse. Pili alii nonnulli subulate septati, diaphani, quales per rhachin sparsi, in basi quoque bractearum, FLORES FCEMINEI intra bracteas serierum exteriorum, *densh compact*[^] ita quidem, ut interdum duo ex unicte bracteae axilla progreedi videantur, bracteS, altera detrusS; lineam longi. FOLIOLA CALYCIS e celhilis angi'stis facta, inferne nigricanti-plumbea, siipernfc ad medium usque albo-barbata pilis rigidis, eburneis, sub lente simplicibus quidem attamen septatis, erectis; duo lateralia carinata seseque ad marginem nonnihil vaginantia; posticum lato-ovatum; planius, ilia latitudine fer[^] aequans, ininfis barbatum. PETALA basi in stipitem tenuissimum connata, vix linee 4 longa, infernè linearia, nuda, virescentia, supernfe in penicillum tenuem pilorum septatorum, quales in calyce proveniunt, attamen' nonnihil crassiorum, abeuntia, medoque pilis nonnullis opacis in palmatam formam confluentibus terminata. OVABIUM trilobum, oblongum. STYLUS inferne simplex, supernfc in *stigmata* tria subulata rudia solutus. PETALA in sinus ovarii fractiferi immissa, superque illud commiventia. FLOBES HIASCULI intra serierum interiorum bracteas, quse paull6 angustiores sunt, longiusculfc pedicellati. Calycis foliola hujus pedicelli mediae circiter parti adnascuntur, petala apici. CALYCINA FOLIOLA oblanceolata, basi longfe attenuatâ confluentia, nigro-cinerascentia, facta e cellulis inferne longioribus tenuioribus, supernfe brevioribus latioribus et pachydermis, ide6que surAm obscuriora, apice cristâ densâ, latft pilorum alborum, longitudine subaequalium ornata. COROLLA tubaformis, petalis *lough* conatis extus pilis albis tenuibus ipsius longitudine villosa, LACINIÆ limbi lineares, pilis albis, opacis, subulatis tenninatae et dorso extis involutae pilis strictis, intiks pro nervo linea' obscuriore notatae. STAMINA sena; *filamenta* tria, quae divisionibus corollae opposita lonffiora, subulata. ANTERJE lineari-oblongae, bilobae, erectae, basifixae, nigi-icantes, polline globoso, flavo-virescente farctae. Post anteriarum lapsum filamenta sepcic ex crescunt.-*De Martins.*

Plate CCXLVIII. (AH the dissections more or less magnified). Fig. 1. A capitulum after impregnation, seen sideways. 2. The same seen from beneath. 3. 4. Scales of the interior ranges, which contain female flowers. 5. Female flower, in the axilla of its

- scale, seen from the posterior leaflet of the calyx bent down to the middle of the flower,
state of maturation, with the rtdjx expands* 8. The same, *ftfc<ithicalyx; one of
9. The pistil. 10. A section of the flower, seen from the exterior side. 11. Male flower, seen from the exterior side. 12. Male flower, seen from the exterior side. 13. Male flower, expanded. 14. Segment of the corolla of a male flower, with a stamen. 15. W- AntbewsHnlSTOj both sides, with two globules of detached pollen.

ECRIOCA1TLON WALLICHLA^A D M. I.L. jin.

Rnnaiuirt perenn. iiter folifl nradniaidi»; wapis (sesquipedalibus) abris foll n tim. iri. Hm, g. que parti [ukMU dapla »uperaiitibujn rapinilk firnmli*. tantlim conids bnrini ii. voluceralibus alutaceis, r. dis, suoorbicularibus, interioribus apice albo-pulveraceis, perianthii aiwdis. ...wi..i1w.,,,eraceo-ciliatis.—L Martii MSS.
In Tavoy detectus Gal. Gomez.

Rotundum cylindricum, crassitie digitii nubium, simplex, interdum luceps aut multiceps, intus carnosum, albido, extremitate ubique densum, oblongo-ovaliformibus, suboblongis pallidis et ultra longis, aliis, secundis, fibuloso-tomentosis. Ininitius rhizomatibus cespitosis foliis et superius sesquipedalis, erectis, strictis. Folia primordia squama fioris, angusto-lanceolata, alba, tenera, in numero, rhizomate tandem deflexentia. Reliqua folia (s. radicula), que in cespite exteriora, una basi vaginantia, linearia, breviter acuminata, anteque pedem ferentes longa, semipellucida fata, nervis parvulis tribus percursa, cellularum septis transversis valle quibus folia nonnulli levigatae, opacitatem, inferne tenetes et strictas, superne subnigritas, apice obliquè aperta, in sua basi villo cinerascens, possestam apicem versus, sparsis, luteis in basi pariter anachoreto-pilosis. Scutellae pedales et sesquipedales, tenues, strictissimae, angulis ex prominentibus quam facies pallidioribus rotatis, levigatis, non distorsim sive sinistram sive dextram contorti, glabri. Flores dense compacti in capitulum primo hemisphaericum, deinde, dum hæctes invulnerales ab illis altitudine superantes, evanescunt et obtusum. BRACTEÆ capituli extensae elevare 12—13 versus, atque invulnerum constituentes, quod formam et solititudinem in interiores sensim sessimque transentes, arido-membracone, nitide, pallide olivaceae, margine nonnulli extenuato et nonnugquam fuligineo-facero pallidore, albido, suborbiculari, aut latiores quatuor longe, versus basin pallio attenuata, utr. unius totius capituli squamae densissime imbeventur. SUGARAE interiores s. fortissime suborbiculari in rhizomato absentes. Interdum liris superioribus brevioribus (itaque cimento-rhizome numeroso, aliis, detergibili, et squamulis siccis albidis evanescit, interdum bi-vel tri-lobata, constante sunt obsoletis, seruatis medius ibidem nonnulli tunc atque in invulnerum subtilissimum adit. Flores sub anteros et maturationis studio facile diversi; antea tam formam quam nasciunt bracteas, cui singulus subest, pressione ita emarginatus, ut planisim evanescat atque multi diligentius opus sit, ut rite seu possint divelli. Flores resimtas exteriores series occupant, nonnulli tunc insequuntur interrupto fuso ordinem, ita ut sparsi inter formosus interiores sapient ocularii nascantur. Flores vero fasciati non interrupto agmine primus spira unius tenent. Cuius triphyllus, membranaceus, albido, siccus, foliolis et cellulis elongatis costatus. Dos folioli antice oblique oblonga vel oblongo-ovalis, marginaque (ab hæcente composta) ciliata, six; linea longa, lata, sub basi vaginante arcu indicatrix atque vel cum septatorum ab apice ad medium usque secat. Ovarium, pedicello brevi insidios, media-ovalis, trilobatum, viride, glabrum. STYLES pentagona, hoc fasciatis persistens statu flexuoso, latescit. Pediceli calyculis dorsi quatuor in alios transversam s. cristam tenue-irumpentes. Petala calycis paucis minus, inferne linearia, superne luteo, base, utr. ciliata, apice divisa ut ligulam portant. Corolla membranacea in tres loculos tunc, singulis monopernis et medio dorso longitudinaliter divisaentes. Scutella granularia magnitudinem aquant, subglobosa, basi (superior in ovary) illi armilla utr. conspicua velutina, spica in invulnerum nubium apiculata. Tertia rufa, docecent cristalis parum elevatis, instrutis sericeis, latidem palmae tenuisimorum longitudinalibus, qui apice depresso dilatato claviciformes, leviter subtili-apparent. Compagines testae: cellulæ hexagonæ, tenellæ longitudine parietibus pressione ferre complanatae. Pili tenax, pellucidi basi formæ circundantes. Calyx rambunctio-foliorum, leviter pedicellatus, antice in margini pars subtilibus ciliatis, opacis, nitidis, nonnunquam osmias decidatis, ciliata; foliolum tertium s. posticum marginis a membranaceis, aliis, basi, que stipitis in suum discovit prodicatur, tenuis, tuberosus. Legumen leucose brevissimum, subtriangularis, ex parte crista minimis palmatissimis, que reperit sunt ex parte pilorum cylindricorum simpliciorum nec stolidi, hæc septatorum, basi convexa, decolorata intra corollæ lobis confluentia. Illius lumen longiora, subulata, ciliata, tria, que ligulae corollæ opposita, integra. Atrumque avante, cordata, magnitudine ferre aequalis, ex tamen, que filaments longioribus adhuc, come-tiello instructæ evidenter

atque in locellos magis sejunctos lobatae, basifixae, locellis turgidis antrors&m medib dehiscentes, in sicco specimine olivaceo-nigrantes. POLLEN globosum, flavidulum. Post anthesin hi quoque masculi flores mutantur: corollse scilicet *xmk* cum filamentis, quorum anthers jamjam dejecta[^] nonnihil excrescunt, firmioresque fiunt atque carunculse glandulosae, squamiformes, triangulares vel sublobatse vel infra stamina vel in ipsis passim apparent.

The above masterly account of the subjects represented in plates 248 and 249, the reader will observe, is from the pen of Professor Von Martins of Munich; and I have further to thank that excellent friend for the following valuable Synopsis of the families *Eriocaulae* and *Xyridea* (formerly comprised under *Restiacece*) in the Herbariums of the Hon. East India Company at present under my charge.

Plate CCXLIX. (The parts more or less magnified.) Fig. 1. A head of flowers, seen from one side. 2. Base of the same, with the peduncle. 3. Bractea of the exterior range. 4. Bractea of the interior range. 5. 6. The two lateral leaflets of a female calyx. 7. A female flower, seen from the interior side, the upper part of the posterior leaflet of the calyx being cut away. 8. The same, seen from the exterior side, less magnified. 9. Pistil. 10. 11. Seed. 12. Section of the seed, exhibiting the embryo and the disposition of the hairs on the testa. 13. A single hair of the seed. 14. A young male flower, viewed from the exterior side. 15. An advanced male flower, from the interior or posterior side. 16. Hair of the male calyx. 17. Withered male flower. 18. Corolla of the same. 19. Corolla and stamens of an expanded male flower. 20. Stamen of the exterior series.

ERIOCAULEiE ET XYRIDEiE INDLE ORIENTALS.

Eoopomit C. F. P. DE MARTIUS, Professor Monacensis.

ERIOCAULON Gronov.

linn. Gen. 100. Brown Prodr. Jlor. Nov. Holl. p. 253. (Nasmythia Huds. Leucocephala Roxb. MBS. Randalia Petiv., Pal Beauv. Sphaerochloe et Sympachne? Pal Beauv.)

Character naturalis. Flores minuti, plurimi in capitulum androgynum per spiras arctissimas compacti, super rhachin (receptaculum) (plairam aut convexum, nudum aut pilosum), persistentes/singuli fulti bractea (squama, Br.), quarum extimae saepè vacuae involucrum constituent. Calyx triphyllus: foliis binis anticis, tertio postico (A); aut diphyllos. Corolla tripetala (v), aut dipetalia, substipitata, aut petalis (in <J> deorsum longiscute connatis tubaeformis vel infundibuliformis, in floribus femineis semper distinctis. *Masculi* in disco capitulo. Stamina sena aut quaterna, longiora corollse divisionibus opposita. Antherae basifixae, ovato-didymae, bilocellares, locellis medid longitudinaliter bivalvibus. Pollen globosum. *Faminei* in ambitu capitulo. Ovarium (superum) triloculare, globoso-trilobum, loculis duobus posticis (v), aut bilocular, didymum (rarissimf, in speciebus brasiliensibus, quadriloculare). Ovula solitaria, pendula. Stylus centralis, basi simplex, sursùm in criura tria (rarè duo, rarissimf quatuor) subulata, cellulis longiusculis stigmatqsa, divisis, persistens. Capsula tenuiter membranacea, globoso-ovato- aut oblongo-triloba b&obave, dehiscentia loculicida, petalis in sinibus valvularum persistentibus cincta, tandem hygroscopic[^] se contorquens. Semina minima, oblonga aut cylindracea, solitaria, pendula, ad hilum acutiuscula. Testa simplex, cristis longitudinalibus (semper 12?), quae pilis tenuissimis pellucidis apice clavaeformibus instruuntur. Albumen farinaceum, album, semini conforme. Embryo ovato-globosus, minimus, in extremitate hilo opposita, ttnc testae, ind[^]albumini continguis. Herbæ annuae perennes vfc, acaules; rarii herbae aut suffrutes caulescentes. Radices plurimæ fasciculatæ, albidae. Caulum, loco in pluribus rhizoma, nunc tenue, nunc crassum, carnosum, ubique phyllophoron; in paucioribus caulis adest fluitans radicans, aut erectus divaricato-ramosus, foliosus, subind[^] inter pedunculos lateraliter proliferus; Folia numerosa, in acaulibus speciebus omnia radicalia rosulata, caulina alterna, sessilia, basi membranacea viginantia, angusta, parenchymate regulari rectangulo saepè quasi fe-

nestrata, rard ob lacunas centrales seriatas quasi fistulosa, lat& viridia, basi membranaceo-albida. Scapi e rhizomatibus aut pedunculi e caulis, solitarii, plpresve aggregati, certo angulorum numero distincti, e vaginae prodeentes, ipsorum basin amplectente, cylindrica, ore transversf aut oblique truncata; singuli singulumferentes capitulum multiflorum. Bracteæ (squamae; Br., convenientes paleis *Compositarwn* peripheriae pleraeque vacuae, firmiores siccioresque involucrum formantes, nudæ; interiores teneriores singulae florem emittentes atque fulcrantes, anticæ barbatae aut villosæ pilis albis opacis, rard glabrae. Calyces saepè cinerascentes aut plumbei. Corollæ laciniæ aut petala saepè cristulis formæ variae, palmatis, lobatisque, quasi essent pili confluentes et connati) apic dorso ornata.

Observatio. Praeante eel. *Richardio* (Annal. du Mus. d'Hist. Nat. torn. 17. p. 52.), quern jam eel. *Kunthius* (Nov. Gen. vol. i. p. 251) insequutus est, *Eriocauli* genus, *xmk* cum *Tonina* Aubl. (*Hyphdrya* Vahl.) proprium plantarum ordinem efformare judico, inter Restiaceas et Xyrideas medium. De hujus notis utinitatibusque disserere heic locus non est. Id unum moneo, cardinem diagnoseos versari in partium perianthii dispositione, antherarum fabrica, ovulorum directione, ovarii loculis monospermis distinctis, placentatione immediata, semen hirsutie singulari, embryonis situ, habitu. Calycis dispositio in Eriocaulis et Xyrideis: A, in Restiaceis: v; quam quidem perianthii partem verum esse calycem neque bracteas approximatam (quod *Tonina* levis inspectio indigitare videretur) autumo. In illis porrò ordinibus antherae bilocellares, in Restiaceis fer^e omnibus (quas examinavi) unilocellares. Convenient Eriocaulae cum Restiaceis ovarii loculis monospermis, ovulis pendulis, eaque nota diffemnt a Xyrideis, quae ovula in longis funiculis peritropia plurimi erigunt, intra capsuam unilocularem (attamen tribusphyllisfactam). Haec sufficient.

Species hujus generis quæ in India Orientali provenientes exstant in herbariis inclytse et amplissimae Procuratiois Britannicae India Orientals, pro tempore sub custodio Wallichii, haec sunt:

1. *E. Wallichianum.* Vid suprk, p. 26.

Crescit in Tavoy (W. Gomez). Inherbario Wightiano sine nomine et loco. Eadem species, verosimiliter e Ceylona a Burmanno ad

Schmidelium miss. luhtux ID. . . . • E m n v M B: Academie Regia Mon. enu*. JMUCnjJtd inuHiv w. J. C. Cockmette.

2.

scapis sex—septangulis, sessipedalisibus, patentim pilosis, quin folia linearis-lanceolata, obtusissima vaginante pubescens pilosa subduplicata longioribus; capitulis tandem glabris; bracteis omnibus subrhomboidoblongis, acutis, aliud, albo-barbatis villosisque; perianthio aliud, apice albo-barbatis.

Habitat ad Molucas in Martalana (Wallie), 1827. Herb. Heyne (ali. *E. sexangularis* dicitur). Haec specie per alios haec II * * * * * *E. dimorpha* Linn., America borealis incola.

3. *E. Brevisetosa*. Viz supra, p. 23.

Crescit in Siliet (Pr. de Silo).

4. *E. virginiana*, rhizomate annuo; inter folia anchiroides; scapis sexangulari-pedatis, strictis, glabris, folia lanceolata, acuta, fronte vaginante glabra tripli superantes; capitulis tandem glabris; bracteis involucratis testaceis, aliud, oblongis, oblongis, interioribus mucronatis, subdentatis, dorso barbulatis; perianthio fiso-pilosis albo-barbatis.

In agro oryzarum Nipponi (Wallie).

5. *E. rotundata*, rhizomate multicapsi (perenni?); inter folia anchiroides; scapis sexangulari-pedatis folia angusti-linearis, acutissima dupli vaginas acuminatas subglandulosa superantes foliisque glabris; capitulis dicoccis depressis-globosis; bracteis involucratis oblongo-oblancis testaceis plantaris, interioribus transverso-ovalibus calycisque plumbeis ciliatisque aliis albo-crinitis.

Crescit in monte Siliet confirmata (Herb. Brax et Pr. de Silo).

Species digeruntur. In specimenibus, majoribus foliis longioribus et latores observantur. "Muscicolum, capitulum basale numerosum. Bracteae involucratae elevatae, obtuse, irregulariter lacerae at non mucronatae, ligulae 3 longa, taurinae, versus apicem plumbae; glabrescentes interioribus elongatae, spatulatae-plumbeae, breviter mucronatae et in dorso introrsum duos pilos albos, exsertis barbulatis. Calyx plumbeus, foliis lateribus elongatis, tertio pleno erato, omnibus pilis stamineis crinitus." Pilis proculis operi et aliis pallidci longioribus calycis basi aliatis. Corolla plia, tubulosa-tuberiformis, extus paucipilosa, petalorum basae longi albo-crinita, crinita post anthesis super calyces et bracteas emergente. Minima sex, antheris globosa-ovata, nigricantibus. In commissione petalarum vel ad latere corporeus glandulosa pigmantia. Feminorum calyx ut in masculis; corolla longior et lingua divisa, petalis lateribus patet aliud pilosique, cum appendiculis aggrigatis. Ovarium triloculatum. Ovulum unicum pendulum. Stylus ad medium trifidus.

6. *E. laevifolium*, glabrum, caule perenni, simplici, radicibus apice foliis et floribus; pedatis quinquangulis folia angustifoliantia, acuminata, subtus tenerrata quadruplici et ultra superantes; capitulis tandem hemisphaericis; bracteis involucratis subtenuis-oblongis, testaceis, nivalis, interioribus indumentis perianthio apice albo-barbatis ciliatis-argenteatis.

Crescit in Siliet (Brax).

Caules inferni radicibus dressis aliud obiecti, superne densi foliis et pedunculis. Folia sexaplicata; scapi tandem ultrapodales, rigidip, strictifolii. Vaginae salangatae. Bracteae levigatores oblongae, apice sessuim truncatae, undae, testaceae, marginis pallidiori, nitide, capituli juncta omnia obvolventes. Bracteae angustioris oblongo-subrhomboides, cellulis densi-pachydermatibus undulatis, obscurae, cinerascentes, summo margine nude aut plena, plus quam semita. Calyx foliis lateribus carinata, quin petala duplo latior. Styli tres.

7. *E. quinquepunctata*, Linn., glabrum, rhizomate annuo simplici, scapis etiatis setaceis, quin folia semicordata, linearis-lanceolata duplo et apice vagine tripli longioribus; capitulis tandem glabris; bracteis involucratis punctis oblongis nitidis, glabris, latus, veluti, interioribus perianthioque albo-barbatis ciliatis-barbatis. — *E. quinquepunctata*, Linn. Fl. Zeyl. p. 48. Willd. Sp. Pl. vol. 1. p. 485 n. 2. Rott. et Schult. Syst. Veg. vol. 2. p. 862. Burn. Fl. Ind. p. 50. — Scabiosae primitiva mediaevalis, capituli angusti et Stylus minus.

— iHf-MH.M. 1964 A. p. 366. t. 221. f. 7.—*Erodia sanderiana*, Pcti, V. n. n. 796 (misi non visa). — *Leucophyllum granatum* Robt. MSS.

Corri, Bengalenibus (ex Roxb.)

Planta communis in oryzetis aliquaque locis cultis per omnes ferè Indianum orientalem, versus tempestatis pluvias fines progressans (Roxb.). Legerent Zingg, Rödder, Radde, Wight, Wallie.—*E. triloba* (Herb. Hamilt. ex horto hot. chil.) — *E. pilosius*, Mich. e speciminebus americanis hinc et in sequenti comparari potest.

Ittol longitudine (2—10—12-pollicibus) et angularum (5—6) numero variabilis, folia semper duplo supernat. Folia quin in aliis speciebus, *E. sexangulari* et *angusta*, latiora, proscripta in parte inferiori. Bractea exterioris oblonga, obtusa, membranacea, nitida, flavescens-virides, post capituli maturationem plerunque reflexa; interiores colori unito obscurore et longiusculè rhombicæ, cum pilis in dorso, quales in calyce quoque præveniunt. Corolla pallidior calyx, attamen nungam alba. Antherae circulentes, siccatate nigrescentes. Semina dilute fuscida, exacti elliptica, ad embryonis situm tamen nonnulli acutissimi; sericeis instructa pilorum diaphanorum, detracutorum vel quasi biflororum, quam in *E. Brevisetosa* et *Wallieana* minorum.

8. *E. sexangularis*, Linn., glabrum; rhizomate anno simplici; scapi setaceis, strictis quin folia linearis, acuminata, strictiuscula vaginante obtusissima, apice aliudo-membranacea duplo triplice longioribus; capituli laxiusculi, globosis, glaberrimis, nitidulis; bracteis oblongis, involucratis testaceis, interioribus perianthioque cinerascentibus belvolive, margine pallidiori.—*Ericodes sexangularis*, Linn. Fl. Zeyl. p. 49. Burn. Fl. Ind. p. 30. t. 9. f. 4. Willd. Sp. Pl. vol. 1. p. 485 n. 3. Rott. et Schult. Syst. Veg. vol. 2. p. 863. — *Erodia missouriensis*, Linn. Enc. vol. 3. p. 273. Sprng. Syst. Veg. vol. 3. p. 776. n. 24.—*Grasses jucunda* Indie orientalis, Plak. Mant. p. 58.

Crescit per vastas Indie orientalis plenum, similibus locis cum praecedente (Radde, Wallie). Legerent præterea col. König (*E. quinquepunctata*), Blatter (Herb. Schreb.), Heyne (*E. setaceum*). In Tavay. (Gomez, cuius exemplaria colere hec huius sunt insignia).

Varii praesertim calyx et aliore capitulum: s. capituli cinerascentibus; s. capituli rigoreis-nigricantibus, seminibus fuscis (*E. nitida* et *E. tenui* Hamilt.) s. p. capituli testaceo-pallidi.

Scapi ex Kindigione quinque sunt ex singulis insignes. Differit ab *E. quinquepunctata* statu, foliis, interiori, folia brevioribus, angustioribus, strictioribus, minus conspicuè fenestratis, capitulis minoribus, exstans et pilosius ornamenta destitutis, neque, ut in illa, pluribus aliis aliis pilosis, sed, excepto bracteis extimus, que pilis tota et aliis foliis sunt, rufulus cineras, marginis bracteas pallidiori. Bracteae extimus rotundis rotundis capituli nonnullis leviores, apice redita-patulae; unctae, ali calycis foliis, e cellulis lanceolatis, crenatae. Petala forma fastigiformis percurrenta, a styllo trifidae impensa.

9. *E. argentea*, glabrum; rhizomate anno simplici, scapis sexangularibus sexaplicis quin folia linearis lanceolata, acutis et vaginis apice obtusissimis membranaceis, subtropis longioribus; capitulis rotundis, glabris, uniformibus, levibus membranatis, involucratis testaceis, foliis nitidis lanceis aliisque, interioribus rhombicæ perianthioque aliobracteatis. — *Grasses jucunda* Chineensi capituli aliis epiphyllo, Herb. Fl. Zeyl. p. 486. — *Grasses jucunda* capituli paucimaculata, Flora. Min. Zeyl. p. 17.

Oportet in oryzatis (Heyne, Wight, Wallie).

Species media media hinc *E. quinquepunctata* sive *E. sexangularis* minus, nigra, ali mina quidem videtur, a minusculis nocturnis cum illa confundit, valuisse foliis aliisque *E. quinquepunctata* propinquior, amplexu capituli *E. quinquepunctata*, capitulis rotundis angustioribus et levioribus, fenestratis, dorso minus *E. quinquepunctata* superat. Flores alii pilis sparsis albinas cyathis et vegetative parte obvici. Stylus ad basem apicis tenet. Semina aliisque, utique extremitate leviter levigata, latitudine, formam, rufulas pilorum apicis brevius, non subtilius velutina.

10. *E. Hamiltonianum*; glabrum; rhizomate simplici perenni; scapis sexpollicaribus striatis folia linear-lanceolata acuminata plus dupl superantibus; capitulis globosis nitidulis testaceis glabris; bracteis oblongis, involucralibus obtusiusculis, interioribus breviter mucronulatis; calycibus foemineis vix corollis latioribus.—*E. dnereum*, Herb. Hamilt.

Crescit in Gualpara (Hamilton).

Rores longitudine bractearum. Calycis foliola linearis, lateralia carinata et petala, quae vix angustiora, alba. Styli ultra dimidium trifidi. *E. sexangulari* affine.

11. *JS. truncatum*, Hamilt.; glabrum; rhizomate simplici annuo; scapis striatis folia angusto-lanceolata acuminata (bipollucaria) dupl superantibus; capitulis floridis hemisphaericis nitidulis testaceis glabris; bracteis denticulatis, involucralibus oblongis, interioribus obrhombeis; perianthiis albidis; foliolis calycis foeminei linearibus qu&m petala dupl latioribus.—*E. truncatum* Herb. Hamilt.

Crescit in montibus Monghir (Hamilton).

Planta quatuor ad sex pollices alta. Rhizoma fasciculum densum radicum fibrosium albarum emittens. Folia duos pollices longa, e basi amplexante tres vel quatuor lineas longa sursum angustiora, acuta, nervis longitudinalibus valde conspicuis. Vaginae foliis breviore, sursim nonnihil ampliatae, oblique truncate, acutae. Capitula juniora obconica, bracteis involucralibus perianthia superantibus et subincidentibus; florida hemisphaerica. Bracteae involucrales lineam longs, planse, pallid^a stramineae, nervo medio parium conspicuo, e cellulis elongatis factae, irregulariter, praesertim antice, denticulatae. Bracteae interiores obrhombeae, illis pauld breviores. Mores albidi. In foemineis calycis foliola angusta, linearis, acuta, duo lateralia omni longitudine complicato-carinata, apice nonnihil denticulata; tertium acutum, in margine pilis nonnullis septatis ciliatum, solummod sub lente composita conspicua. Petala ferme dupl angustiora, linearis, pariter pilis parcis marginalibus, basi in pedicellum intra calycom sat longum confluentia, atque ovarium amplectentia. Florum masculorum foliola calycina lateralia lato-ovata, carinata; tertium angustius, ssepe apice bifidum. Corolla longiuscula tubaformis, virescens, in laciniis divisa tres parvulas apice cristata pilorum septatorum munita. Stamina cum corollae sinu confluentia. Antherae subglobosae, bilobae, nigrantes.

12. *E. setaceum*, Lran, v.; caule (perenni?) ramoso, (fluitante?) inferne radiculoso, superne foliis subulatis laxis patulis; pedunculis terminalibus umbellatis striatis vaginas obtusas dupl et ultr, superantibus; capitulis globosis cinerascentibus glabris; bracteis involucralibus lato-ovatis rotundatis, interioribus spathulato-rhombeis.—*Eriocalon setaceum*, linn. FL Zeyl. p. 50. Willd. Sp. PI. vol. 1. p. 50. Röm. et Schult. Syst. Veg. vol. 2. p. 863. n. 8.—*Tsieru-Kotsi-telleli pulla*, Rheed. Hort. Mai. vol. 12. p. 129. t. 68.—*Randalia mdabarica*, capillacea folio₉ Petiv. Gazoph. t. 33. f. 10.

Crescit in Ceylona (Thunberg in herb. Schreber); in Tavoy Gomez.

Bracteae involucrales pallide virescenti-testaceae, margine extenuate albide; interiores centro cinerascente. Calyx cinerascens. Petala albida, apice albo-pilosa. Caulis saepe pedalis. Folia pollicaria. Pedunculi digitales.

13. *E. sericans*; rhizomate annuo; scapis (spithameis) septangulis pilosis, folia linearia acuminata glabra vaginasque ad medium apertas pilosulas quadruple superantibus; capitulis hemisphaericis; bracteis involucralibus testaceis ellipticis, interioribus subrhombatis acutis perianthiisque albis et superne dense albo-barbatis.

Crescit in Tavoy (W. Gomez).

14. *E. gracile*; rhizomate annuo; scapis (spithameis) quinqualis setaceis, folia angusto-lanceolata acuminata multoties (7—10) superantibus, foliisque fenestratis vaginisque dupl longioribus oblique apertis glabris; capitulis subglobosis albo-pulverulento-barbatis; bracteis involucralibus oblongis, interioribus subrhombatis, calycibus cinerascentibus, corollis albis.

Crescit in montibus Prome, ad ripas fl. Irawaddi (Wallich 1827).

15. *E. melaleucum*; rhizomate annuo; scapo (tri-quadripollucari) striato, folia angusto-linearia acuta fenestrata vaginasque transversae truncatas dupl superante; capitulis subglobosis; bracteis oblongis

nigrantibus, perianthiis nigrantibus superne pilis eburneis barbatis.—*E. quinquangulare* Herb. Heyn.

Crescit in Coromandel (Heyne).

Folia radicalia rosulata, pollicem longa, vix lineam lata, tenera, subtiliter fenestrata. Vagina teres, ore nonnihil ampliata et scarioso-membranaceo transverse truncata, foliis pauld brevior. Scapus e quavis rosula foliorum solitarius, 3-4-5-pollicaris, uti tota planta, exceptis perianthiis, glaber. Bracteae oblongae, linn&paul6longiores, nigrantes, margine passim inciso-lacerae, tenerae, uti perianthia nigrantes. Masculorum calyx constat foliolis oblongis acutis; corolla angusto-tubaformis, laciniis triangularibus. Cilia eburnea, opaca, nitentia. Stamina sena: longiora laciniis opposita. Anthene subglobosae, flavescentes, tandem nigrantes. Foemineorum calyx uti inmasculis. Petala oblate, albida, ciliata. Ovarium oblongum. Stylus tripartitus. Semina elliptica, nitidit lutescenti-fuscida, pilis seriatis. Huic affine in systemate ponendum est *E. septangulare*, quod foliis latioribus et scapi longioribus praesertim dignoscitur.

16. *E. Xeranthemum*; rhizomate annuo; scapis (bipollucaribus) striatis folia angusto-lanceolata acuminata vaginasque glabras dupl superantibus; bracteis involucralibus scariosis nitidis apiculatis serulatis capitula hemisphaerica dupl superantibus, interioribus nudis, perianthiis vertice subtiliter pilosis; receptaculo nudo.

Crescit in Napalia (N. Wallich 1821); in Tavoy (W. Gomez).

Plantula elegans. Rhizoma nonnihil elongatum, anne forsan bienne aut perenne? ubique radiculosum. Folia pollicis pauld longiora, vaginas laxas amplas nonnihil superantia. Bracteae invoke crales sesquilineam longae, albaeaut ex albopallidae, angusto-blonge apiculatae, antice irregulariter serrulatae, serraturis incumbentibus, juniora capitula omnina obvolventes. Mosculi vix dimidiam lineam alti, bracteis obovato-oblongis suffulti, quea parium pbscuriores et subinterrima. Calycis foliola lateralia carinata, apice parce pilis subpellucidis adspersa, petalis dupl latiora, quae ad medium usque penicillato-pilosa. Stylus trifidus. Semina cylindrica, seriebus pilorum emarginatorum instructa, uti in reliqui speciebus, pallid^a virescentia, basi obscura.—Receptaculi nudi notam adjecimus, quod atque foliorum formam a specie quadam brasiliensi dignoscatur, quam *E. Xeractiden vocdLmns*.

17. *E. echinatum*; digitale, glabrum; rhizomate annuo, scapis quadrangulis folia angusto-linearia acuminata tripld-quadruplo superantibus; capitulis globosis per bracteas subrhombreas longe mucronatas rigidulas echinulatis, pallidis.

Crescit in Tavoy (W. Gomez).

Bracteae semilineam longae, firmuloe, siccae, mucrone totius longitudinis dimidium aequante. Flosculi minimi; masculis foliola calycis lateralia carinata, carinata sat prominula; corolla tubaformis, laciniis cum staminibus brevioribus alternantibus. Antherae globosae, nigrantes. Flores foeminei virescentes, stipati pilis septatis. Calycis foliola lateralia obliqua carinata elongato-rhombea. Ovarium longe pedicellatum. Stylus tripartitus.

XYRIS, Linn. Gen. 64.

Gaertn. Carpol. vol. I. p. 52. Brown Prodr. Flor. Nov. Holl. vol. I. p. 255.

Character essentialis. Bracteae scariosae in capitulum imbricatae terminale; singulae uniflorae, infimae saepe vacuae. Calyx triphyllus (V), foliolis glumaceis, posticis carinato-amplectentibus persistentibus, antico teneriore calyptoriforini deciduo. Petala tria, longe unguiculata, unguium apice staminifera. Antherae posticae, bilocellares. Stamina tria sterilia, penicillata. Stylus trifidus. Stigmata obtusa. Capsula (v) unilocularis, trivalvis, valvulis mediis seminiferis. Semina plurima, oblonga.—Herbae, foliis equitantibus, linearibus. Scapus basi vaginatus, angulatus aut compresus. Bracteae cupreae aut fuse*, aridae. Petala flava. (*Xyridaea* pree aliis *Irideis* affines.)

1. *X. pauciflora*, Willd.; scapo tetragono scabriusculo (1—5-unciali), foliis linearibus margine denticulato-scabris, capitulo paucifloro subgloboso, bracteis subtundis (dorsa discoloribus). T\$A Prodr. Flor. Nov. Holl. vol. 1. p. 256. n. 1.—*Xyridaea pauciflora*, Willd. Phytogr. vol. 1. p. 2.1.1. f. 1. Vahi. Enum. vol. 2. p. 207. Spreng. Syst. Veg. vol. 1. p. 182. n. 5.

Crescit in ora Coronandellia (Heyne).

Crescit in omni fert India orientalis continent: in Napatia (Weddell); Tamy (C. Gossé); Coronandellia (Heyne); Sillet (B. W. « t De Sillet); Madras (F. Kr.

3 i" *teresoides*; scapis angulatis (sesquipedalibus), folia linearis acuta margine levia duplo tripliō superantibus; capitulo ovali paucifloro, bracteis ellipticis dorso concoloribus, prater apicem emarginatam integerrimis.

Crescit in Napatia (Wallie).

3. X 1^ifitw, Herat, npi* Urrt^ugvUta uJlrlmlfibus, UK linrii acau DCTTU »>(ti crassis-lin JU 4-< ir^M bta< T.ii-ia raj nnlilnM , (^p**t* pmmlnn) [V|tw— tmcto* afcliap* dorso cou. Ambu ijKt brrnfrr luuncordato asperi.—JT *Lepagea*
Berb Hlyyn.

• A. indic Linn., scapis tereti-angulatis (sesquipedalibus) folia linearia acuminata basi crenata marginé pallidore superantibus, capitulo ovatis vel cylindricis multiorbis suborbicularibus dorso concoloribus, apice submarginatis ineque tempioribus tandem paucim denticulatis.—Xpia indic, Unn. Klur.

•qLy.14 VAI b . . HL i. p. 204, cum synon.

In India orientali variis locis: Tranquebaria (Röttler, Künig, Heyne); Madras (Wight); Tamy (W. Gossé).

5. X. robusta; scapis tereti-angulatis (sesquipedalibus) folia linearia acuminata fimbria multinervia, marginé integerrima superantibus; capitulo <n*M rtl ofalop* molt*** ofah^pc^ftt his, bracteis oblongis¹ dum* dona concoloribus scutis marginé extenuato paucim dmtinUtir

Cresc 4 10 >JWt /> Sillet.

LAURINEARUM INDI

I niui:\r\us » PI-I.MII \ H \ I , \.\.: j \ . p . >, seqq.)

Scriptor

Præses.

VI. TETRAPETALA.

p. 64. 2. *Tetrapeta* un. **Wm** t Um rtrm*, 1Ush * Wall. Cat. n. 2564 B. Ex hort. b. Calc.

— 4. *T. spinosa*, Bas et Thomsen, Herb. Made. Wall. Cat. n. 2567 D. Ex hort. Missionis Tranquebaria Wight. Herb. prop.

VII. TETRAPETALA.

p. 65. 2. *Tetrapeta angustifolia*. Beludar hanc speciem inter *T. diffusa*, est omni anatomia non grata.

— 3. *T. Rostkovii*. Diagnosis adde: "folia glabra, ant pubescens"; Var. a. Wall. Cat. n. 2534. b. d. et f. E Sillet, Guil. Gossé, 1828. Var. a. f. Wall. numero exsto L. Ex hort. b. Calc. Var. b. g. Wall. n. e. M. herb. Flodrys.

Var. g. crenata-angustata, pedunculo compuncto magis elongata, interfoliis versio recurvata, apice umbellata, folia puberula, basi evidenter angustata. *Litora* crenata. Hort. b. Calc. Wall. n. e. N. 2.

Var. f. mucronata, folia vel ovatis vel obovatis vel ellipticis oblongis-viridis, prouisoribus utrinque adspicibus subtiliter pubescens-tomentosus, umbellulis umbellatis, pendente crenatis propter pedunculus vel longiori vel leviori. *Indi*, Wall. Cat. n. e. O. Aya, Octobre 1828. f. et P. Madagascari ann. Martabanig, 1827. f. — *Indi*, Wall. Cat. n. e. O. Segain, Novembre 1828. d.

Adnot. A varietatibus a et f. haec sola pubescens: qui indumentum, distinguatur. In fragibus masculis rugosis locis glaucis extensoe ordinatissimis tres linearis-spatulatae subtilitatem.

p. 66. 5. *T. laevigata* Jacq. Adde. Var. b foliis majoribus apicem versus magis attenuata propterque minus cuneata, apicem non omnino opaca, umbellularum pedunculis longioribus, crenatis, profundando proprieatis plus duplo excedens. — Z. 1. Herb. Wight. prop.

Adnot. Non solum structura omnia, sedem essentiam IM *Tl . . . T^1 -> 'ki in *laevigata* exemplis, hanc latitudinem diversam intrare inter **NK** *laevigata* *laevigata* Jacq.

p. 66. 8. *T. suspensa* Roxb. Var. a. d. Wall. Cat. n. 2549 H. Ad. Attra, fluvii ripas, Mayo 1826. Var. B. d. g. Wall. n. c. I. Molayna n. Aabent. nnaituiB BUTPJI*. Februario 1827. Var. c. Wall. Cat. n. 2549 K; e C. Guil. Gossé. Var. g. grossifolia. Folie . . . ped. longum, 8 pollicis latum. Wall. n. c. L. Chappedong ore Tenasserim, 1827.

— 10. *T. affinis*. Var. a. Wall. Cat. n. 2534 B. Ex hort. b. Calc. et Sillet. Inter varietates a et β omnino intermedia. Wall. n. c. C. e. montibus Sillet configua. Guil. ——. Bid. D. Ex hort. b. Calc. ubi e Sillet est introducta. p. 67. post *Tetrapeta oligosperma*, n. 12. inseratur.

12 b. *T. rugosa* Wall. perhactio sexto, umbellulis axillaris valde distantes, folia oblongo-lanceolatis acuminatis subtiliter pubescens-scalaris, ramis strigiloso-tomentosis, glaucis viridis. — *T. rugosa* Wall. Cat. n. 6344, **i** i&^i*i* (in sicc.) ferruginea, densius pubescens. Wall. n. c. B. d.

E Tamy, Septembre 1827, Guil. Gossé. Var. β ad Syrum in Pegu, ibid pocal s. Rangoon, Augusto 1828. A. *T. rugosa* foliis latioribus, subtus dense pubescens, glaucis scalpis nec villosi, ramis pubescens strigiloso subtomentosis bene distinguuntur.

Qui lati sunt multo magis aequali *T. Umm hndm*, **fibra** Bybl. p. 562, evident. **ad** -1,«fl ramis, nisi ad extremum apicum, glabris, foliorum cyathis e nervo medio procurrentibus passim, scel. 3—6, qui in nostra 10—12, umbellulis denique in singulo fasci **iii** a.i:ari plurimi, qui nostra vel singula, vel geminae ad summum tributus.

T f. (see) *anare* Bl. 1. c. **U**. «, «, ^, neque acuminata, basi obtusa neque acuta, et umbellula brevissimè pedunculata, pedunculo compuncto ipsius umbella altitudine, qui in nostra umbellæ duplo tripliō longior. — Caterium pubescens et nervatio foliorum in **T** —r. **K** magis ad *T. rugosa* similitudinem resonant; at vero costarum numerus raro ad 12 redit, frequentius ad 14—18 extenditur.

— 14. *T. chartacea* Wall. Adde. ? Wall. Cat. n. 2531 B. Amherst, Februario 1827, cum fructu ferè matura.

Ramus est arboreus f. 1.IHT*. 4Umi W< fall **<** nullimus, sed hinc tamē a reliquo discedit: cortex est glaber, tota aliquanto majora, ex olfactis in elliptica transvers.

* Haec nominis existens plantæ Herbari. Wightianæ, si quis Wight, vix distinxisse, nullus datus. — N. et E.

acumine turn verò minus producto; pedunculi communes 2—3, axillares, aggregati, 2—2 $\frac{1}{2}$ linea \bar{s} longi, crassiusculi, glabri. Fructus in singulo 1—2 residui. Pedicelli fructu s lineam longi, obconico-cylindrici, angulati, crassissimi, fructum quern dicunt infernum mentientes, glabri. Calycis limbus persistens, patens, lacinii ovalibus obtusis membranaceis glabris. Staminum aliquot series satis complete, cum limbo expansae, restant. Filamenta horum glabra; antherae imperfectae. Bacca, pisi magnitudine, globosa; structura fructu s interna nihil ostendit peculiare, nisi quod chalaza amplissima quasi auro polito niteat. In umbellulae unius gemmula, quea libera exemplo adjecta erat (nescio an consul t d), nihil explicari potuit, nisi involucrum hexaphyllum, foliolis orbiculatis; flores enim vix apparabant.

Species videtur diatincta, sed ea hoc tempore non potest confinnari, donee perfectiora exempla inveniantur.

- p. 67. 17. *T. myristicifolia*, Wall. Cat. n. 2548 B. Tavoy, Octobre 1827, Guil. Gomez. Ramus sterilis-? Var. foliis brevioribus obovato-ellipticis, subtus minus glaucescentibus. Wall. Cat. n. c. C. e Tavoy, ab eodem.

- 18. *T. nitida* Roxb. Wall. Cat. n. 2540 C. Rangoon, Augusto 1826. ?

- ante *T. glabratam*, sub eadem divisione specierum umbellulis racemosis gaudentium, inseratur:

19. a. *T. semecarpifolia* Wall.; perianthio sexido, umbellulis axillaribus racemosis, racemis paucifloris, foliis obovatis obtusis subtus pubescentibus, filamentis hirsutis.—*T. semecarpifolia*, Wall. Cat. n. 6345.

In Aava montibus Taong Dong dictis, 1826. <J. Dabue in ripa Irawaddi fl. Foliorum forma inter species hujus divisionis jam e longinquo dignoscitur. Femina latet.

VIII. CYLICODAPHNB.

- p. 68. 1. *Cylcodaphne Wightiana*. S et ? in Herb. Wight, prop

IX. ACTINODAPHNE.

Generis character ita rescribendus:

Flores dioeci, e gemma imbricata paniculati, racemosi vel fasciculati, sub singula squama singuli. Perianthium sexfidum lacinii aequalibus, vel lacero-persistentibus vel juxta basin deciduis. Stamina antherigera novem perfecta, triplici serie disposita, quorum tria interiora statimodiis geminis sessilibus stipata. Antherse oblongae, quadrilocellatae, omnes introrsum dehiscentes valvulis sursum reflexis conformibus. Pistilli in masculo flore rudimentum. Bacca calycis tubo cyathiformi, aut laci-niarum residuig appendiculato, aut sexlobo imposita.—* Inflorescentia vel panicula, vel racemulus, vel, ubi axis inaxim f c contrahitur, fasciculus, simplex aut compositus, ante anthesin squamis gemmae axillaris involuta. Folia verticillata, penninervia. Gemmae foliiparae imbricatae, squamis pluribus chartaceis.

- 1. *A. pruinosa*; foliis subtus pruinosis, floribus paniculatis (?) vel racemosis (?).—*A. pruinosa* N. ab. E. Synops. Laurin, in Wall. PL Rar. vol. 2. p. 68.

- 2. *A. concolor*; foliis concoloribus, floribus simpliciter fasciculatis.—Wall. Cat. n. 6346.

Crescit in Tavoy; lecta die 2. Augusti 1827, primos flores evolvens, a GuiL Gomez. 6.

Diffr. ab *A. pruinosa*: foliis concoloribus minus acuminatis plerumque terms, quae illi quaterna aut sena, turn floribus in parvos fasciculos, quasi glomemlos, collectis, nec paniculatis aut racemosis. A sequente recedit: foliis ternis concoloribus minoribusque et magte glabris, turn fasciculis simplicibus nec compositis. Plura forsitan, cum planta feminea et fructus inveniuntur, ad notas istas distinctivas accedent.

- p. 68'. 3. *A. angustifolia*; foliis subtus glaucis costis ferrugineis, florum fasciculis compositis, (perianthio fructu s lobato.) —*Tetranthera angustifolia* N. ab E. Synops. p. 65. n. 2.

Adnot. Cognito jam fructu, et structurâ partium accuratius ponderatâ, hujus esse generis intellexi. Con-junctio intima patet comparatâ *Actinodaphne concoloris* inflorescentiâ; scilicet loco pedicellorum simplicium, quos in *Actinodaphne concoloris* videmus, in *angustifolia* nas&tur fasciculus ramorum, quales eos in *A. pruinosa* mare conspicis ad basin paniculae. Hi ramuli, sive pedunculi, squamarum generalium defluxu mox denu-dantur. Singuli autem fasciculi apice solvuntur in fasciculum sive umbellulam quinquefloram, squamis involucralibus quatuor decussatis, fugacibus ante anthesin involutam. Tota autem, quae umbellula videbatur, evi-denter ortum dicit e rand panicuke quinqueflori contrac-tione, quâ fit, ut florum oppositorum juga duo cum ter-minali flore ex eodem ferfe puncto prodire cogantur. Involuci foliola duo exteriora primo florum oppositorum pari propria sunt, duo interiora secundo. Flos inter-medius non eidem puncto medio, ac par florum antecedens, sed paulo altius, pedunculi communis apici articulo conjunctus est.—Pedicellorum etiam longitudo, florum amplitude*, reliqua ut taceam, conferunt ad probandam sententiam, qua motus *Tetrantheram* genus hac civi im-micâ denique liberavi.

Var. (3. latior. 6. Wall. Cat. n. 2559 D. \$.) In Tavoy oræ Tenasserim 1827 legit Gail. Gomez marem. Feminam, mod6 defloratam, ad Syrian in Pegu 1826, cum fructu maturo autem in Moalmyne exente Januario 1827 invenit Wallichius.

Exempla haec docent:

1°. Masculinam plantam, cuius in Synopsi, 1. c, ut dubiae mentionem feci, omnino ejusdem esse speciei ac feminam. 2°. Foliorum tarn amplitudinem quâm formam usque ade6 in his ludere, ut magis magisque con-firmetur sententia, *Litsaam glomeratam* et *macrophyllum* Blumii ejusdem esse speciei formas. 3°. Restat tamen id differentiae, praesertim inter *Litsaam glomeratam* Bl. et nostram *angustifoliam*, quod illi pleraque folia, eoque magis, quo majora existunt, cuneata, apicem versus latiora et ab apice rotundato in acumen brevius contracta sunt; nostrae contra non nisi pauca ejusmodi atque ju-venilia ea et minora; plurima autem circa latera magis arcuatim curvantur, in medio, vel paulo citr $^{\wedge}$, latiora; sed haec quoque in aliis aliter comparata.

Folia in eodem ramo invenimus alia 5—5J pollices longa vix unum pollicem lata, et 8—9 pollices longa, 3 pollices lata, lanceolata, oblonga, elliptica, tum.superiora nonnulla 3 pollices longa, 1—1 $\frac{1}{2}$ pollices lata, obovato-elliptica.—Flores masculini feminis dupl6 ma-jores sunt, lacinias latioribus praediti. Fructus agglome-rati. Pedicelli fructu s duas lineas longi, crassiusculi, strigulosi. Calyx fructifer pateriformis, rugulosus, sex-llobus, nonnihil undulatus et hinc ind $^{\wedge}$ lacerus, rigidus, intiis strigoso-hirtus, duarum linearum diametro. Bacca pisi magnitudine, laeviuscula; colon s nigri ?

XL GYROCARPUS Jacq.

1. *Gyrocarpus asiaticus*. Herb. Wight, prop.

XII. CASSYTA Linn.

- p. 69. 1. *Cassyta filiformis*. Var. [3. Herb. Wight, prop.

XVL MACHILUS Rumph.

2. *Machilus macranthus*. Wall. Cat. h. 2587 B. Herb. Wight, e jugo Nilghiry dicto. Ramus absque florib u *

Adnot. Folia alia obtusa sunt, alia in cuspidem brevem obtusamque producta.

XVII. OCTEA Auct.

- p. 71. 1. *Octea stricta*. Ad hanc speciem pertinet secundum ratus cum foliis aliisque floribus. Wall. Cat. n. 2606 C. Ex Aca. Octobre 1826. Folia et reliqua convenient, sed dentes unicus pubescens, qua forte in foliis retusioribus erant. —

- 2. — prop. —
3. O j^—I, TV* fit i. 2593 C. Amherst, medio Febrero dellerata, i. Tavoy G. Gomez, Octubre 1827. inchoante infloresc.

- 8. O. ligustrina. — Wall. Cat. n. 2588 B. Tavoy, Decembre 1827 cum floribus, Gul. Gomez.

Adnot. Pubescens foliorum adulorum subtusca, neotomato vir illa.

XVIII. ALEXANDRIACE > ab E.

- p. 72. Deleatur *Ceratopeltis grandis*; est enim hoc Persea genera. Eadem pagina, ante *Camphora* inseratur.

XVII. IIk. PERSEA Gaert.

Flore: — Arrodis, paniculati, medi. Perianthium sexpartitum, chartaceum, iH tlonMt usque deciduum, integrale. Stamen i tcnibm ami Infiin i rie, quorum tria interiora staminodis binis capitatis ad basim stipata; filamenta efformibus villosa. Anthere oblonge, quadricollata, valvula tunicula adscendentibus deliscentes, loculis quinquilibus, exteriorum omnium arbores, tenui interstitio positis. Staminodia tria stipata capitata usquato in serie: nunc interior, dico epistola: Stigma gibbosum. Buxa monosperma, pedicello modo incremento truncatim insidens. — Inflorescencia: panicula, ex unius genere aculeis vel tristylia axilla solitaria; ramulis robustis bellidifloris bracteolis subtus inservit. Genera fructuaria bivalvis, compressa. Folia rotundata-penninervia.

Adnot. Persea genus differt a Merillae et Alliandapine calycis ad fructum hypogynum usque defluente, quo evanit, ut fructus modo perficit apicem incrassata truncatique inferiore videtur.

1. *Persea gratissima* Gaert.; foliis ovatis ut orata-oblongis "variolis reticulatis pubescens" glauco, bacca pyriforme grana. — P. gratissima Gaert. fl. De Fruct. et Sem. vol. I. p. 222. Blume, et Baud. Nov. Gen. et Sp. vol. 2. p. 158. Kunth Synops. vol. I. p. 453 n. 2. Blume Epit. p. 467. Sp. Syst. Veg. vol. 2. p. 268 n. 11. — P. microcarpa C. B. P. p. 41. — Louria Persea Jacq. Obs. flac. I. p. 37. Willd. Sp. Pl. vol. 2. p. 480 n. 13. sive meliaca veterum synonyma.

- Buxa. America tropica. Colitur in India orientalis hortis. Vidi exemplum exhort. h. Calc. Wall. Cat. n. 6348
— 2. P. grandis, foliis crenatibus glabris subite glaucis, bacca negra. — *Glossopeltis grandis* N. ab E. Synops p. 72 n. 2. Wall. Cat. n. 2594 C. Ex Amherst Februario 1827. D. Tavoy, Decembre r*27.c IrOEb irrtt a Gul. Gomez.

Adnot. Pedunculi communis fructus 3—4 pullicis longi, incurvi, rigiduli, glaci, rotundato-asperi, panicula parva fructu remis levibus foliis terminali. Pedunculi fructuosa grana, rugos, a basi tangentes, elongato-cylindrici, recente statu probolites succedenti et carnosuli. Perianthium sola basis ut dicunt hypogynum articulatum resupinum est. Buxa magnitudine nachi insolita, ovata ut oblongo-ovata, macromela, nigra, carne fusa. Semina dissecata nulli progra existent.

XIX. CAMPHORAE

- p. 72. post *Camphora officinalis* inseratur.

1. b. *Camphora inusta*, foliis elliptico-oblonga venosis sub-

triplinerviis concoloribus, supri i lucidissimis, aSSla re-
serum gDukwii, jjudenlu wultaribM Eaminalibuque
paucifloris. — *Id.* Cat. n. 6347. In Tavoy legit, Gul.
Gomez, i. October 1827.

Adnot. Differt a C. officinale petiolis hen i Iibus,
foliis magis oblongis basi minus acutatis in utripe su-
perfice velutina. Triplex collinita et concoloribus, neque
tam evidenter tripinnervia, sed dubia tamet MMMI ent,
nata ac commixta Camphora vaneta.

XX. CORYNTHIACE Barn.

- p. 73. 2. *Corynthes Benth.* Var. *β perfoliatum*. — Herb. Wight. PPV.

C. Wightii benevolentia debet exemplum hujus specie-
ris, raro et petiolatum structuram singulari, calore
fuso epidermis, tan cortex odore et sapore eximiit
cum reliquo ejusdem operis exempli congruo, sed
diverso: foliis micropetiolatis — *β* petiolis longis 13—
17 pol. lat., orata obtusa, alio ministerio etiam in-
tuscentibus. Nominis autem hinc rigida sunt, ob-
scuri venosi, atque tripinnervia, accidente in aliis peri-
petiolatum magis latissime. Petioluli fructus in hoc
exempli petiolis via dupli longiores sunt, basi leviter
obtusata, non utrumca uero capula obconica de-
trorsaque et rigidi praeediti. Lacinae carnosae, ut in
C. leoni crux-dissimilata, jam maximum partim penitus
coincidentia.

Adnot. Extrahimus illud Herbarii Wightianus, cuius
in adnotacione J. Syringos Litorianum: Pl. A. Bar.
vol. 2. p. 74. sub C. cylindrica mentionem feci, ut nunc
eista C. Benthise grandis est bimaculata, quis fortius causa
est, ut nunc minus prominent, ac in reliquo.

3. C. ovata. Wall. Cat. n. 2595 E. Moquinus et ad ripas
Altiss. Rive Aprili 1827, primor ostendit flores.
Chittagong, 1827. — Herb. Wight. prop. e. fructu
gutturn.

Adnot. Lastimae calyx fructuologi prius infra speciem
sunt, ut debeat videri ut tempore maturatione denique a
tali, accipiente vento alteri vertenti cadent, quo facto
capula typica relinquitur. Sed rotundata raro semper
in aliis petiolis latissimis raro dentata irregulariter
se lacrios exhibent. Fructus est parvus et gracilis.

- p. 74. 7. C. zeylanica. — Var. e. Wall. Cat. n. 2573 G. Hart.
h. Cat. — Var. *β*. H. et Herb. Finlayson. — Var. *γ* (32) —
Herb. Wight prop. tout separe. — Var. *η*. Herb.
Wight prop. c. fructu scandens.

Adnot. Calyx hujus scutellatis in fructu annulatum
ventricos, seu arcuatis, parte superiore lacrimosus al-
lato superstita, sed ut caducum parvum. Ovulum hoc
in statu subgloboso, latens. Olor et sapore horum
fructuum Camphora ex ea carpophyllis sunt. Punes
dextra et secundaria latens pars ex. — *η* M^M^ que
date fructu vertice dure aliquo planaque copiis deser-
ptis calyx leui calyx excurrent, et non omnino impro-
baliter vestitum. Plantae Camphora officinalis ab hoc arbore
proficiunt.

8. C. sulphurea. — Var. *β* oblongifolia. folia angustiora
oblonga, pubescens cumulorum et petiolatum et
flori excurrente. — *Camphora jambacea*, u. * H.,
p. 279. Wall. Cat. n. 2583 F.

Loca est hinc var. *β* in Tavoy, Decembre 1827, a
Gul. Gomez, raro flagello.

- p. 75. 10. C. officinale. — Varietas indumentis fructu campanula-
sa. — Wall. Cat. 2569 G. E. Taw, Octobre 1827.
Gul. Gomez.

RUELLIA MACULATA. Tab. 250.

FRUTICOSA; foliis oblongo-lanceolatis, caudato-acuminatis, denticulatis, utrinque valde alteimatis, alternis parium longè petiolatis, adpressè pilosulis, suprà maculatis, floralibus lanceolatis, subsessilibus, integerrimis; floribus laxè spicatis, vel paniculatis; corollae lobis aequalibus, rotundato-obtusis.

Crescit in montibus Sillet confinibus, undè in Hortum Calcuttensem misit M. R. Smith anno 1816. Floret tempore humido, mense Julii.

FBUTEX parvus, erectus, glabriusculi, caule cylindrico, angulis obsoletissimis notato, tumide articulato, ramis gracilibus, adscendentibus. FOLIA longè petiolata, pateatissima, interstitia valde superantia, oblongo-lanceolata, denticulata, caudato-acuminata, utrinque valde attenuata, praecipue basi, ubi integerrima, S^-pollicaria, in jugo paullè magnitudine insequalia, leviter adpressè pilosula, disco, suprà secus costae tractum, maculis majusculis albidis, irregulariter subrhombeis, dentatis, inter nervos solitarii ornato, subtbs pallida, obliquè nervosa; floralia parvula, lanceolata, sessilia, integerrima. PETIOLI gracillimi, bipollicares, sensim in basin foliorum dilatati, alterni dimidiò breviores. FLORES coerulei, breve pedicellate laxe dispositi in spicas axillares terminalesque simplices, brevè pedunculatas, bipollicares, erectas, sufiultas pan foliorum fioralium. BHACTEAE opposite, cuneatse, semiunguiculares, puberulse. CALYCIS laciniæ lineares, obtusæ, pubescentes. COROLLA infandibuliformis; tubus pallidus, pollicaris, ampliatus in limbum patentem, triplò breviorem, divisum in lobos 5 rotundatos, obtusos. ANTHERS in fauce. STYLUS elongatus, purpurascens.

I have only seen this elegant plant once in flower, in 1816, in the Botanic Garden at Calcutta, where it was introduced from the mountains bordering on the district of Sillet, by the late Mr. M. R. Smith. It is possible that it may be the same species as my *Ruelia urophylla*, number 2344 of my Catalogue of the Herbariums of the Honourable East India Company; a point which will be decided in the Synopsis of the family of Acanthaceæ, from the able pen of Professor Nees Von Esenbeck, which will be found towards the end of the present volume.

Plate CCL. Fig. 1. Flower. 2. Calyx. 3. Corolla, opened.

•*g*0*\$

OSBECKIA ANGUSTIFOLIA. Tab. 251.

Osbeckia angustifolia, Don Prodr. Flora Napal. p. 221. Decand. Prodr. Syst. Nat. vol. 3. p. 142.

Osbeckia eiliata et temis Herb. Hamilt.

Crescit in Napalia utraque, florens Octobre, fructifera Novembre. In montibus Kamoun (Robertus Blinkworth). In Gualpara (*Osbeckia eiliata* Hamilt.), et in Nathpur (O. *temis* Hamilt.), florens Septembre (Herb. Hamilton).

FBUTICULUS 2—3-pedalis, erectus, subdecussato-ramosus, hispidus setis patentiusculis, sparsis. CAULIS RAMique simplices graciles, tetragoni, secus angulos setosi. FOLIA patentia, interstitia sequantia, inferiora iisdem breviora, lanceolata, subsessilia, attenuato-acuta, basi rotundata, bi-tripollicaria, trinervia, utrinque setoso-hispida, siccitate uti tota planta flavidantia. PETIOLI vix ultra lineam longi. FLORES purpurei, ratione staturæ plantæ magni et speciosi, sessiles, octo circulæ dispositi in glomerulum terminalem, solitarium, suffultum paribus aliquot approximatim foliorum subverticillato-involutarium, pollicarium. CALYX brevis, tubulosus, hispidus, stipatus *bracteis* ovatis, acutis, ciliato-setosis, divisus in *lacinias* 4 lanceolatas, acutas. PETALA subrotunda, cuspidulata, -f-pollicaria, patentissima. ANTHERS in rostrum longum desinentes. STYLUS clavatus. CAPSULA ovata, truncata, glabra, ferruginea, magnitudine pisi.

Plate CCLI. Fig. 1. Flower. 2. The same, opened.

GENTIANA CHIRATA. Tab. 252.

GLABEBRIMA ; floribus paniculatis; corollæ quadrifidae, rotatae laciniis ovatis, calycinas lanceolatas subaequantibus; foliis lanceolatis, attenuato-acuminatis, basi rotundata amplexantibus.

Gentiana Chirayta, Roxb. MSS. Fleming in Asiat. Research, vol. 11. p. 167. Schult. Syst. Veg. vol. 6. p. 142. Spreng. Syst. Veg. vol. 1. p. 859.

Swertia Chirata Hamilt. Cat. Herb, in Museo Ampliss. Procur. Britann. Ind. Oriental, asservati.

Nomen Sanscritanum, *Chirata* s. *Chiratatikta*. Beng. et Hindust., *Chireta* s. *Chirayta*.

Crescit in alpibus Himalaya; inferioris, Napalensis et Kamounensis, vigens iriicliieaii>uc sul) **pluviis.** Ipse invcni ad cacmnen montis Sheopore in Napalia. In Napalia, Herb. Hamilt. In An^a, Carnala, Napalia et Camrupa, Ejusd. Catal.

HERBA erecta, a basi usque paniculato-ramosa et decussata, 2-3-quin 4-pedalis, omnibus partibus glabra, sanore intense amaro. **RADIX** lignosa, perennis, ramosa et fibrillosa. **CAULIS** cylindricus, penniam cygneam ad digitum minimum cra[^] iii.ix fi.m.[^]1...^{*} tunic ierruicinLiis vel cinerascens. **RAMI** oppositi, infenos crassi, cylindri, superiores acute tetragoni, graciles, subsimplices. **FOLIA** opposite, erecto-patentia, sessilia, lanceolate, attenuato-acuta, integerrima, in juniore planta aliquandis obsolete crenulata, basi rotundato-obtusa amplexantia, utrinque glaberrima, saturate viridia, supra nitidula, subtus 5-nervia, nervis intermediis ad apicem usque excurrentibus extimus ntrinque abbreviatis, 2-3-pollicaria; *mferiora* remote, *superiora* approximatiora, magis attenuata, subacuminata, *floralia* an[^]ustiora semipollucaria. **FIBRES** parvi, lutei, patentissimi, glabri, inodori, pedicellati, per totam fere ramorum et ramulorum longitlineis ex axilis folionum floralium in fasciculis oppositis remotiusculis, bis trifidis, vel subracemosis coUecti, paniculam exhibentes amplam n[^]itentem pyramidato-decussatam, attenuatam. **PEDUNCULI** PEDICELLique breves et teneri, tetragoni. **BRACTE*** pán*, opposite lineales, inferior sensim in folia floralia abientia. **CALYX** patentissimus, partitus in *hernias* 4 lanceolatas, acutas. **COROLLA** rotata, nuda calvec vhc lonior lacmitae plance, ovata, acute. **STAMINA** 4, patentiuscula; *Jlamenta* filiformia; *anthera** lineares, erecta? - **OV^ARUM** oblonirii 1... / duo parallel*; *stigmata* convexiuscula. **CAPSULA** calyx et corolla persistentibus involute, ovata, pallide ferruginea, tJ, J' SEMINA valde numerosa, minute, ovalia, rugosula, ferruginea.

The whole of the dried herb of this plant, chiefly the stem and branches, is in general use among the natives of Hindustan and the mountainous countries bordering on it to the north. It is called in Sanscrit *ChiratL Chir*, atikla, and >> the Bengah and Hindustan, languages *Oureta* or *Ok***. A very able account of this celebrated drug was given to the Asiatic Socie* of Calcutta four and twenty years ago, by my late valued friend Dr. CTeming. F.H.S Present of the Medical Board in Bengal, in h* Catalogue of Indian Medicinal Pla., and Dru^A, and tartrih in the 11th volume of the Asiatic Researches: also printed senaratPlv^gtrol^g • I^o A. A. w.

that the *CMa* contains a larger proportion a n^A a S^g S^g b^g * * T^g T^g * * species of Gent if benefit, I shall add an extract from Dr. Fleming's paper relating to this subject. Many of the European inhabitants of India can bear witness with me to the excellence of the *Chirfta* as a stomachic and diuretic. The *Chirfta* is added to the ext^s simp^cci, y . we,, a s c h ^ o f the ^ , 1 ^ l ^ ^ ^ ^ ^ ^ T T^g once is added one of the most valuable med.cnes which the materia medica of Hindustan possesies. JFZ once it has convmced me, however, tlat the right mode of preparing it has not always been adopted, aid that in consequence, much of the benefit, wh.eh its proper exhibition rarely fails to produce, ha, been lost. A weak intio, made v.th spnng or ram water, should be used in small quantities, repeated several times daily for some X, when it may advantageously be kft off for a short time, and then resumed again. The p^Atic of i S ^ \ng decoctions or nf^s.ons made w.th hot water, especially in large quantities. I have myclf found objectionable in more res ^ ts than one; especudly on account of the headache and sensation of redundant bile in Ac simach, whrh the consequences. I may even venture to adduce, as a favourable testimony of the innocence of th i ^ r T T^g I have known young children, my own among others, prefer chewing a piece of it, to anythin? swc,

I have mentioned already that the plant is a native of the lower alps of the Himalaya, both of Ni, and tha. I found ,t on the top of Shcopur, in flower and fruit during the rainy season 1W p t e l f i t T '' be reasonably expected to thrive well in various parts of this kingdom, where I hop, to live, " re" " " " " Miated and

Mr. Richard Battley having at my request politely undertaken the analysis of the *Chirfta* at his Pharmaceutical Labo- ratc

all the interesting debit with which he has furnished me. It is, W^b T^g 7 ^ 1 1 kCSt * * * * * *Chirfta* supplied was of the very best and finest description, yet an 4 ^ Z l t Z f Z f ? be/n ** " * ' effects of a long exposure to the vicissitudes of the climate of Indh. « T L ! Tr --- P * * * l b t e " » • << <<

very bitter extractive and resinous matter, and a large proportion of gum • 3 -? _ * " " " T ^ " " f * * » << and lime. By coming the results of the experiments with those previously made on 2 r ^ * * * * f V^{otash} that Ae. extractive matter exists in larger projH.rtion. and con tain's more Ju^g Tin 2 " " " " * " " W - that spirituous extract* of G. *Chirfta* are more aromatic than those of G. Z"

I am indebted to the Honourable East India Company for permission to .. II » from which the plate has been engraved; and the JIher ipd T, ~ U^g A^g T^g ^ ' ^ of " " P^g of that eminent botanist, and partly from my own notes, written when I ill. v^g [Wrtl] froin »»' MSS

"The dried herb is to be met with in every bazaar of Hindu,!" T " " * pUnt * * * " - both the Hindu and European practitioners/ , possesses J ^ ^ 1 , ^ V^f * * ~ " " ~ , , virtues which are ascribed to the *Gentiana iutea*, and in a greater d^rpr. 1 . 1 . f. and antartbriti, in the state in whihcomesness from Europe^gIt may It may therefore o , TM ^ T ^ ^ funcl in " »<< W for i, 1 W efficay of the Chirfta when coined wit! I S ^ ^ ' C^g S u ^ ^ * * nted

mented. It is found equally powerful in exciting and strengthening the action of the stomach, and obviating flatulency, acidity, and redundancy of phlegm, in dyspepsia and gout. For restoring the tone and activity of the moving fibre in general debility, and in that kind of cachexy which is liable to terminate in dropsy, the Chiravita will be found one of the most useful and effectual remedies which we can employ. The parts of the plant that are used in medicine are the dried stalks with pieces of the root adhering to them. A decoction of these or which is better an infusion of them in hot water, is the form usually administered. Spirituous tinctures are also prepared from the plant, with the addition of orange-peel and cardamom-seeds; and those who consider such tinctures as of any avail will find these very agreeable bitters. The most useful purpose, however, to which the tincture can be applied is that of being added to the decoction or infusion, with the view of rendering them more grateful to the stomach! — *Fleming.*

Plate CCLII. Fig. 1. 2. Detached flower.

BAUHINIA SEMIBIFIDA. Tab. 253.

SCANDENS; foliis obovatis, profundè bilobis, stipulis lato-falcatis; racemis terminalibus, calyce 5-phyllo petalis oblongis unguiculatis staminibus 5 quorum 2 sterilibus; legumine piano, glabro, lanceolato, oligospermico. — *I.L. MSS.*
Hab. in msulis Malayensis. In Horto Calcuttensi e Sumatra aucta floret Octobre, Novembre, fructificatque Aprili.

FRUTEX scandens. RAMI varie torti; juniores ferragineo-tomentosi. FOLIA annpnm^ KV^o polices 3-5 longa, 2-4 lata, 7-0-nervia, subglabra, profunde bUoba; 1 o b ^ ^ s T I ^ J T M ^ ? T f f H S ^ lato-falcatee, obtuse CIKHH, lignei, persists. B — terminal, magni, erect ^ ^ Z ^ t cub, fragrantes, albi, demin pallide flavi, successive a basi ad apicem inflorescentia, aperti. PEDICELLI ascendentes, J ^ T ^ Z licares, apice (infra pedicellum ovarii) concavi, cum pedunculus ammuni omnibusque partibus recentibus ferrugineo villoso. R A C T K ^ t T'ST* ^{s lacini} V on ^ C ! T ffiet Cara 0 ^ reflex ^ cad — P-A^5 oblonga, unguiculata; 2 multo majon, RL U O ST glabra, alba, quorum extenora 3 fertiha, incurva, petalis majoribus breviora; interiora 2 brevissima. ANTHKR^ m a U, incumbentes! OVARIUM breve pedicellatum, oblongum villosum, ovulis 8-10. STVLUS brevis, crassus, villosus. STIGMA maximum, viscosum LKGUMEN lanceolatum, tenui, laeve, brunneum. SEMINA pauca, plana, suborbicularia, glabra. — *Roxb. MSS.*

Plate CCLIII. Fig. 1. Flower, dissected. 2. Pod. 3. 4. 5. Seed. 5. The same, cut across.

EUONYMUS GRANDIFLORUS. Tab. 254.

Euonymm grandiflorus, Wall, in Roxb. Flor. Ind. vol. 2. p. 404. Ejusd. Tentam. Flor. Napal vol. 1 p. 41 tab 30 Crescit in sylvis convallis Napaliae, ubi floret mensibus Aprilis, Maji, fructificatque Septembre. In Kamoun legit R. Blinkworth.

Plate CCLIV. Fig. 1. 2. Flower. 3. The same, dissected. 4. A ripe capsule.

ROSCOEAE CAPITATA. Tab. 255.

Roscoea capitata, J. E. Smith in Act. Soc. Linn. vol. 13. p. 461.

Crescit in montibus Napaliae summis versus Gossain Than, florens mense Julii.

PI^NTA erecte, gracilis tevis, statuta admodum jucundans, a palmari ad altitudinem pedalem bipedalem elevata. RADIX onstans tuberibus pluribus pendulis oblongis, carnosis, pallidis, fasciculatis, triplicaribus, breve stipitatis, apice attenuate fibrillos s ČAU'S cyndincus, basivag. n. tu, leviter complanatus, a penne cygnea usque ad digitum minimum crassus, apice gracillimus nudus approximata, erecto-patentia subbifaria, ferre graminea, linearis-ensiformia, canaliculata, valde acuminata, 6-10-pollicaria, infim brevisima, supra atroviridia, nitida, tenuiter parallele et obliquè nervosa, subtus pallida, basi contracta et complicate desinentia in vaginam

longam, subcompressam, laxiusculam, ore obliquam; harum infcriores mid*. FLOHKS eoculei, subfastigiati illis *Rucot** purpurew minores, conferti in capitulum oblongo-ovatum, 2-3-pollicare, pedunculatum extremitate caulis nuda, elongata, eracili tereti 6° Dolliciri apice ad insertionem capituli paulli⁵ incrassata, foliis breviore. SQUAMA oblongo-lanceolat*, acut*, adprcss*, plan*. dāucLnies' lineatae* quipollicares, 1-flom, perastentes CALYX membranaceus, sūrsum ^ m dilatatus> hmc planiuscula^ Lm, angulif' oreque oblique cihat's, apice tacuspīdatus. COROLLA tubus gracilis, pallidus, calyce bmteamque longitudine subauans. LIMBUS patens, brfbatiatus fere poUicans; ^ lacm* lāteraks lineares, obtus*, recure, intermedia erecta, oblonga, fornicate, ac*c*tūcula; mtenāns lacm* 2 cuneato-fakatoe, obtus*, parallel, attenuato-unguiculat*, intra fornitem for* occult*; Lp//ww recurvato-oaten^ ovatum, bilobum, obtusum, basi attenuatum, ferè pollicare. F.UME^ M brevissimum, antic^ p W - r ^ t l S T S adscendens^ rucuta, basi bdobaOvARicM ovatum, glabrum, 3-locula, ^ olyspurum, ovalis placentae centrali adfixa; stylus capmacus, stigma minutum, convexum, cihat'um. CAPSUH ovata, obtuse 3-angularis; tubo w̄ȳt̄m̄ emeratio superata, membranacea, levis, ferruginea, magnitudine recte rotundata grossularia mod Semina parva, in singulo loculo 10 vel 12, duplice serie placentae axil, gradli d' M 1. ta*c*t tobno., a*se*nden*a*, obova*a*, tevte, fusca, basi munita arillo brevi, tenui et ferè membranacea, teiosoulo, nrbido incqnalitir strcklmiateJentato.

Besides the above species I have found abundance of Sir J. E 8mitli'» » » / i. v. i . * , .. « t Aether one of the two other spiked species ^ ried'b v tha*i* L o r H * K>U, St " & " " to * * * * *

Roscoea elatior, Smith in Act. Soc. Linn. vol. 13. p. 460.

Habitat ad montis Sheopur Napali* cacumen vigen sub pluviis. In Kamoun legit Robertas Blinkworth

PLANTA erecta, caeptita, 1-2|-pedalis. RADIX constans fasciculo denso fibrarum loneanm. viii

in tubera gracilia, cylindracea, utrinque attenuata dilatantur. CABLES plures, cylind ric, incluti ragsis foliorum adpresso, membranaceis, parallelis, purpu_{rc}-c-punctulatis, puberulis, secus in frgme*s* pepur, uTO ibus inferioribus longi¹⁰ribusa^{1h} > U18 5 aP¹ gniciHiuB, nudus. FOLIA aliquot versus apicem caulis subapproximata, patentia, subfibia lanceolata, v. sessilis, ansmiMta, blwl obtusata > " " * ? ^ atroviridia lsevia, nitida, subtus glaucescentia, costa obsolete pubernift; polices S-10 lonea sessilis, PC, IUim ^ ^ ^ ^ atiohUkt ore " " S¹* " ff¹⁴ brevi, roundata, purpurascente. SWCA terrainalis, erecta, apice caulis gracili teret T 7 r Pw¹ lunculata, nunc fert <<< i w 3-5-pol-licaris. FLORES pauci, solitarii, magni, flavi, alterni, subsecundi, remoti scsiles < w ^{rac} r ^ t ^{rac} t ^{rac} t Pw¹ lunculata, nunc fert <<< i w 3-5-pol-obtusa, subtruncata, membranacea, 6 - 8 linea longa, concav¹ CALYX tubulosus 8TDDu¹ anclata, * * * * * ^ & * * * * ovata et inaequaliter bidentata. COROLLA tubus gracilis, calyce parum excedens • limbū& t T¹ pUpUra8ccn8, P⁰ 81 ^ P^{la} <<, ore obtus¹ brevioris faciat B exfrin > oblongo-lineares, obtuse postica latior, w ^{rac} i ^ " ^ 8UlllUabiat¹, tub > Pw¹ k forma subsimiles, cuneat*, obtusae, deorsum attenuatae, intra fornitem convegentes, haec f T V ^ T ^ ^ lateral iba 811111 i nien e et bilobum, lacinias exteriores longitudine sequans, subunguiculatum, basi canaliculatum, lob' o. 1. 1 pec - - - taMiam ¹ lwxatum, profundē FILAMBNTUM brevissimum, carnosum sulcatum, fauci tubi posticē insertum; anthera arcu¹ ¹ dsgn, obtuSo ob solete crenulatis. liberis, subulatis. OVARIUM glabrum, ovatum, purpureum, 3-loculare, polyp^rrmum; tuZ. ^ " U T " ? * ^ " ^ ¹ pamellis, ¹ ma flavis, longiusculis, lateraliter munitus, stamine parum longior, laxequē per sulcum filamentū T ¹ glamulis cluibus >> bulatis, carnosum, bilobum, lobo superiore tumido. CAPSULA globosa, tevis, fusca, bractea De & U ¹ T T a lsCendcis; «%» 'ubclavaturo, coronata.

Plate CCLV. Fig. 1. Flower. 2. The same, opened. * Dorsal segment of the outer limi. r.i M.n^{nt}< of HIP inner limb.

CAMELLIA KJS8, 'al, 256.

Camellia Aissi, Wall. in Act. Soc. Asiat. Galcutt. vol. 13. p. 428

Habitat in montibus Napalia?, florens mensibus Julii—Octōbris fⁱ t/f ¹ Januario.

Having given a detailed account of this species of *Cam/Ha* in the Asiatic Ho

I found this charming shrub in abundance on the mountains surrounding the 1 ! s i ^U f ^ m n » * » » erc, that one, perhaps two new species, both of them natives of the mountains bUnJff ^ ! * ^ ' <> ^ with may be designated in the following manner:— her

Camellia caudata (Cat. Herbar. Ampl. Procur. Britan. Ind Orient i o-fl% tissimis, acute seirulatis basi subinterrimus, petiolis rami_{SQUC}, novellis fasciculatis, staminibns styhsque villoso-barbatis, petalis extus vilbs₁, wnbu₁ axillaribus₁ terminalibus₁ exsertis.

Plate CCLVI. Fig. 1. Flowir, dissected. 2 A fwrtion of the Women* out. 5. Seed. 0. The same, cut across. 7-Embryo.

pclrun

Kftftu

bvcfl.n

SMILACINA FUSCA. Tab. 257.

L/EVIS ; radice moniliformi-articulata; caule arcuato-adscendente, superne foliis ovato-cordatis, acuminatis, petiolatis; paniculâ terminali, subdecompositâ, rachi pedunculisque divaricato-flexuosis.

Crescit versus apicem montis Sheopur Napaliae, florens mensibus Maji et Junii.

RADIX horizontalis, repens, carnosa, more *Convallaricepolygonata* subarticulata et caulum emortuorum vestigis cicatriscata, digitum minimum crassa, viridis, glabra. CAULIS erectus, adscendentis-arquatus, cylindricus, simplex, pennam anserinam crassus, pedalis—læ-pedalis, uti omnes partes reliquae glaber, apice foliosus, inter folia summa flexuosus, basi *vaginis* paucis remotis, brevibus, ovatis, membranaceis, laxiusculis. FOLIA 4 vel 5 ad superiorem caulis partem approximata, alterna, adscendentis-subsecunda, ovato-cordata, longe acuminata, integerrima, plana, membranacea, lobis basis rotundatis, 3—5-pollicaria, usque ad palmaria, supri nitida, saturatè viridia, subt&s lucida, 7-nervia, nervis præterea capillaceis plurimis interjectis, transverse reticulata, PETIOLUS cylindricus, canaliculatus, pollicaris. PANICULA terminalis, oblongo-ovata, aphylla, subsessilis, vel elongatione caulis brevifere pedunculata, 6-pollicaris, nunc subdecomposita ramosa. PEDUNCULUS communis rachis teres, gracilis, partialesque divaricato-flexuosi. BRACTEOLA ovata, acuta, membranacea, emarcescens ad singulam pedunculorum divisuram. FLORES parvi[^] ovato- campanula[^] purpureo-fuscescentes, inodori, alternantes, dispositi in racemos breves[^] patentes[^] suffulti *pedicellis* capillaceis, unguicularibus, divaricato-arcuatis. PERANTHII campanulati, profundè 6-partiti, decidui *lacinice* ovatae, obtusæ. STAMINA erecta, laciñiis opposita iisdemque dimidiis breviora; *filamenta* albida, basi dilatata; *antheræ* parvæ, ovatae. OVARIUM ovatum, obtus[^] triangulare[^] 3-loculare, ovulo in singulo loculo solitario, raro gemino; stylus columnaris[^] brevis; *stigma* subtruncatum. BACCA globosa, magnitudinis seminis *Piperis nigri*, 3-locularis, 3-sperma.

Plate CCLVII. Fig. 1. 2. Flower. 3. The same, dissected.

GARCINIA SPECIOSA. Tab. 258.

FOLIIS, oblongo-ellipticis, utrinque acutis, breve petiolatis ; floribus paucis, terminalibus, fasciculatis, pedunculatis, omnibus hermaphroditis, staminum basi monadelphorum cobortibus 4 divaricatis, stigmate crassissimo, subquadrato.

Crescit in sylvis litoralibus orse Martabaniae, ad Amherst; florens Februario.

ARBOR magna, trunco recto crasso[^] cortice rimoso, sordid[^] fusco. RAMULI tetragoni, pallid[^] virides, glaucescentes, uti Qmnes partes glaberrimi. FOLIA patentissima, subapproximata, oblonga, vel oblongo-elliptica, utrinque acuta, valde firma et coriacea, 6-pollicaria ad pedalia, plana, lucida, subt&s nervis copiosissimis parallelis capillaceis, ferre inconspicuis transverse lineata, costis, carinata. PETIOLUS semipollicaris; supri plano-concavus. FLORES valde magni, patentes, flavi, fragrantissimi, diametro pollicari, pauci (4 vel 5) dispositi in fasciculum terminalem, omnes hermaphroditæ. PEDUNCULUS petiolo bis terve longior, cylindricus. CALYCIS *lacinice* crasse, concavæ, exteriores lato-ovatae, semiunguiculares, interiores breviores, subreniformes. PETALA valde crassa, flava, rotundata, calyce quadruple majora, viz basi in unguem contracta. STAMINA admodum numerosa, brevia, disposita in cohortes 4 divergentes, ovato-globosæ, basi confluentes. STYLUS brevis, columnaris, crassus. STIGMA maximum, subtetragonum, veriè convexum, vix supra stamina elevatum. FRUCTUS haud visus.

This fine tree has the largest flowers of all the species with which I am acquainted. Their fragrance is exquisitely delightful, like that of Roxburgh's *Garcinia paniculata*. The foliage is very large, coriaceous, and shining. Almost every part of the tree abounds in a copious yellow juice, which on desiccation resembles the true Gamboge.

Plate CCLVIII. Fig. 1. Flower, dissected.

ANGUILJ^ARIA INDICA. Tab. -259.

Angullaria indie a, Brown Prodr. Flor. Nov. Holl. vol. 1. p. 273.

Inveni copiose in Napatiræ sylvis florens fructiferaque Majo. Fructiferam legi in montibus Promæ ripæ fluminis Irawaddi Januario. In Kamaon (R. Blinkworth). In peninsula Indiae (Herb. Russelianum, Heyneanum, Madraspatanum, Wightianum, in Museo Ampliss. Proeur. Britann. Ind. Orient. asservata).

HERBA erecta, glabra, glaucescens, a pollicibus 6 ad pedem et dimidium usq; emetens. BULBUS parvus, ovatus, tunicus, fuscus, duplo vel triplo indutus. CAULIS gracilis, debilis, teres, lineatus, superficie angulatus, distantier vaginatus, simplex vel superficie ramum uniuersum alterumve

prodeuntes, simplices, pedunculate, globulares, multiflor*. BRACTEA parva, ovata, concava infra pedunculum communem pedicellosoue FLORES e viridi lutescentes, hermaphroditi. CALYX parvus 5- (4-6-) partitus; *laciniis** rotundat*, ciliat*, persistentes. PETALA 5 (414) ovata, patentia. FILAMENTA subulata, incurva, ladinii calycinis petalisque numero aqualia. OVARIUM rotundatum, sulcatum STYLUS nullus. STIGMA peltatum, 5-8-lobum. BACCA globularis, carnosa, subpellucida, glabra, nitida, rufescens, magnitudine seminis *Piperi** *mgri*, suffulta, calyce persistente, vestigio stigmatis coronata. PLACENTA centralis, columnaris. SEMINA 5—8, dorso convexa 3 sulcata latere interfere acute angulato, colons melini, subdiaphana, obtecta *arillb* membranaceo. PUTAMEN osseum, fragile, hinc trisulcatum INTEGUMENTUM *interim* membranaceum. PERISPERMUM cavitati seminis confonne, carnosoleosum, album. EMBRYO minutus erectus.—

Mr. H. Colebrooke has had the goodness to favour me with the preceding account, as well as with the drawing from which the engraving was taken. The late Dr. Hamilton called this plant *Ilex rotunda* in his herbarium, and quotes both that species and *I. asiatica* with a doubt in his unpublished Catalogue; but it is probably different from both.

Plate CCLXI. Fig. 1-3. Flower. 4. Umbel of berries. 5. A detached berry. 6. The same, divided transversely.

STERCULIA ROXBURGHIAJVA. Tab. 262.

FOLIIS oblongo-lanceolatis, acuminatis, integerrimis, glabris; floribus longè pedicellatis, racemosis, laciniis lanceolatis, patentibus, acutis, distinctis; folliculis oblongis, villosis, 4—8-spermis.

Sterculia lanceofolia, Roxb. Hort. Beng. et MSS. (haud *S. lanceolata* Cavan.)

Habitat in Sillet et in montosis contiguis. In Hortum Calcuttensem introduxit M. R. Smith; specimina sicca miserunt De Silva et Gomez. Floret Martio et Aprili; fructificat Majo et Junio.

ARBOR mediocris trunco ramisque cinereis; *ramuU* teretes, uti folia primum brevitè pubescentes, demum glabri. FOLIA patentia approximata, sparsa, oblongo-lanceolata, attenuato-acuminata, integerrima, basi obtusa nunc obsolete retusa, membranacea, 4—8-pollicaria, laevia, supra nitida, subtùs costa nervisque valde obliquis anastomosantibus, gracilibus, pallidis. PETIOLAE graciles, jfollicem vel 2 longi, utraque extremitate cylindraceo-tumidi, demum glaberrimi. STIPULE parvæ, subulatæ, crassæ, gibbosæ, valde deciduae. RACEMI simplices, subsessiles, solitarii, axillares, vel infra folia sparsi, iisdem breviores, tenuiflori, patenti-nutantes, 4-pollicares. PEDUNCULUS filiformis, teres, *pedicellique* capulacei, longi, bipollicares, alterni, pubescentiastellata, tenui conspersi. BRACTEOM: minutæ lineares per pedicellos sparsae. FLORES coccinei, extus leviter pubescentes, plurimi masculi. PERIANTHH subcampanulati *lacinitæ* lanceolate acutæ, patentes, planœ, distinctæ, unguiculares. ANTHERS paucae congestæ in capitulum parvulum, suffultum stipite declinato, gracili perianthio tertio breviore. FOLLICULU 1—5 oblongi, obtusi, 3-pollicares, pubescentia brevi asperuli. SEMINA 4—8 ovalia. INTEGUMENTA 3; *exterius* fragile; nigrum, nitidum; *medium* tenui, fuscum; *interim* membranaceum, pallide ferrugineum; inter *exterius* et *medium* invenitur *lamina* mollis, fuscens, sebacea. PERISPERMUM parcum. EMBRYO rectus, pallide flavus; *cotyledones* crassæ, carnosæ, magnitudine ferè perispermii; *radicula* in apice seminis, extremitati umbilicali opposito locata, ovata.

The foregoing account of this elegant and very distinct species has been chiefly derived from the manuscript of Dr. Roxburgh, after whom I have called the tree, in order to prevent the name *Sterculia lanceofolia* which he had given to it being confounded with Cavanilles's *S. lanceolata*.

VALERIANA HARDWICKII. Tab. 263.

Vaknana Hardwickii Wall, in Roxb. Flor. Ind. vol. 1. p. 166. Decand. Prodr. Syst. Nat. Regn. Veffet vol. 4 p. 640.

V. Hardwiciana Roem. et Schult. Syst. Veg. Mant. 1. p. 259.

*Valeniana** Hardwicke in Act. Soc. Asiat. Calc. vol. 6. p. 350.

Habitat in inontibus Napaliae, Kamaon et Sirmore. In montibus Sillet (DeSilva et Gomez). Florens et fructifera ferè toto anno.

Since publishing my account of this species in Roxburgh's work I have met with it in the forests of Nipal, where it grows in abundance, and is in flower and fruit almost the whole year round. While I resided in that country it was also brought to me by my collecting parties from the road leading to Gossain Than. Its usual height is two or three feet.

The following observations refer to several plants of the tribe of *Vaiavaem* noticed by my most revered >>e,i
Professor !•! undolle in Hie ith roame of the umlmhle woi which he U publishing.

*Valeriana rff***, Decmml Pnxlr, Sjrt. Nat. Refn. \<!. rol. I. > B*O, Will. Qlt i. 434.

Habitat i hi alpUiui rerHM UamaiL Than, linn t., Julio.

CAULES sepiè plures, pedales 2-pedalesque, graciles, lineati, subsimplices, inferiore parte repentes, *radiculis fasciculato-rotis fasciculatis*, graveolentibus, e basi sa pi * * dentes ramos lux,, b...., CH.IHbrm., gracillimos, apice foliosos; uti ceterae partes pube conspersi tensi, canescere. FOLIA inferiora simplicia, latè ovato-cordata, acuminata obtusè et valde inéqualiter sinnato-dentata, 3-pollicaria, lobis basis latis, rotundatis, integroribus, longis breviusve petiolata, tenuia, pù pubescentia, parè ciliata, subtis grossiusculè nervoso-venosa et reticulata, venis extimis subglanduloso-incrassatis dentes obtusè terminantibus, basi obsoletè 5—7-nervia; superiora terg brevè ovatum, caudato-acuminatum, sinnato-dentatum, basi rotundatum vel cordatum, magnitudine varians, aliquando inferiora folia fort. lateralia lanceolata vel ovato-lanceolata, inéqualitatem, intermedio pluriè minora, integroraque, •;I-H-(.ilhuria:•) omnia subsessilia, testa nata. frrf limrk Petioli pubescentes, canaliculati, graciles, inferiores 2—3-pollicares, superiores -i,-i'n I"iores. PANICELA terminalis, cory , b h < ~ | ~ f.i:— par supremum e ovalis, pubescens, pedunculus oppositis, bifidis, -cere, ½-pollicibus, bracteas scilicet elongatas aequantibus. FLORES parvi, albi, roseo tinti, fasciculati, Ifcolitjrii P; bifurcationibus pedu hermaphroditici, insidentes pedicellis capillaceis, basi suffulti bracteolis linearibus, ciliatis, sub- i.vilu:; formibus.

Valeriana Wallichii, Decand. loc. cit. V. villosa, Wall. Cat. n. 431.

Locat ad agrorum margines et in fissuris vallis Thoka Napalia, florens Martio. In montibus valli Deyrae confinibus, 1825. Ad regnum (Kamrup). In montibus Sillet (Gulielmus Gomez).

Venen (omniem specimen) in Napalia.

RANTIS cylindrica, 2-pollicaris, usq; M! o%itam •ilniaii crassa, valde fetid*, -^u,< plurimas carnosas, crassas, longas, rufescentes. CAULES sepiè 3—5 ex eadem radice, erecti, graciles, levissime nudi et (tota planta uti interdum) purpurei. FOLIA subcarnosa, pube brevi mollia, pallida, aliquantum purpurascens, subtis nervoso-reticulata; crenulata, lobis basis obtusis, rotundatis; ultimTTBos paucis, remotissimis opposita, ternatim secta, subsessilia; foliolum intermedium lanceolatum, denticulatum, ½-pollicare, lateralia minima, cuneiforme-lanceolata; par unum alterumve supremum indivisum vel trisectum, lancea. PETIOLE carnosi, sulcata, villosi, inferiores foliis triplo apice caulis elongati pili longè pedunculatus, fastigiatus, densioris, diametro 2—3-pollicari, trichotomis, ramificationibus puberulis his terre dichotomis, purpurascens, inferioribus ferè pollicaribus. BRACTEAE opposita, lineares, unguiculares, villosae, basi subconnatae. FLORES parvi, inodori, ex albo erubescentes, ternati cum solitario in bifurcatione; pedicelli instructi bracteolis longis, alterbris, ampliatus in limbum 5-fidum, subaequalem. STAMINA 3; antheræ albæ. OVARIUM complanatum, striatum, villosulum. B, MINA

Nardostachys g. loc. cit. p. 624. *Fedia grandiflora*, Wall. MSS. *Valeriana Jatamansi*, Ejusd. Cat. n. 43, amb.

Incolit alpes Nitidulae ad Gossain Than. Kamoun (Robertus Blinkworth). Srinaghur (Kamrup).

RADIX cylindrica, crassit penna aspernata, fibras emittens longas et filiformes; collum elongatur et ampliatur in basin plantæ nunc duplice triplicemve, cylindrico-oblongam, erectam, 3—5—7-pollicarem, digitum minimum crassam, carnosam, laxè imiutin .ir.Li., aliquot contiguis tenui fibroso-reticulata, pallide ferruginea, arida, demum obliterata. CAULES erectus, indrisus, palmaris, pedalis, vel 14-pollicaris, cylindricus, crassiusculus, leviter lineatus, salvo apice obsoletè quadrangulari sulcisque duobus oppositis cano-vilosulis glaber, pallidus, paucifolius, supernè nudus. FOLIA radicilia 4—6 erecta, oblongo-spatulata, vel oblongo-lanceolata, magnitudine varia, palmaria, 8—10 quin 12-pollicaria, caule breviora, acuta, nunc attenuato-subacuminata, integerrima, deorsim valde attenuata in petiolam planum, marginatum, striatum, basi dilatatum, cum reliquis imbricantibus et quasi vaginantibus caulem referentibus; membranae, pallida, glabra, subtis nervis gracilibus parallelis, insertione distantibus, apicem versus 3—7-nervia, venis tenuissimis, reticulatis. FOLIA caulinis paribus duobus remotis, nunc modò unico opposita, erecto-patula, basi marginibusque pubescentia, cuneato-lanceolata, 3—4-pollicaria, sessilia, basi breviter vaginata; superiora breviora et latiora, interdum ovata, vaginal brevissima vel nullæ; aliquando tertium adest par 2 minimum e cuius basi decurrent sulci canis villosi. CORONAS terminalis, erectus, ovato-oblongus, 3—6-pollicaris; pedunculi paribus 2 vel 3 oppositi, quadrangulares, ferè 4-alati, villosi, 1—2—3-pollicares, graciles, elongatione inflorescentiae remotissimi, apice simplici, nunc bifido gerentes fasciculum parvum; globularia, involucratum florum magnum, dilutè roseorum, extis basique villosulae; 2 infra fasciculum mm<KM,mm acriformes; et 2 vel 3 infra singulum florem istis angustioribus et breviores, tubus cJyrr multò longior, leviter compressus, basi hinc protritus in processum parvulum obsoletumque, brevissimum, calcariformem, supernè sensim ampliatus in limbum patentem, ferè dimidiò breviorum, 3-fidum; lobii ovato-rotundati, subaequales; fau pervia et OTARIUM Dompressoem, ovatum, villosum, linea 2 longum, sessile, 1-loculare, continens ovoidem pendulum; stylus filiformis pubescens, vix stamina aquans; stigma obtusum.

This noble species is very like the celebrated Spikenard, *Valeriana Jatamansi* of Sir W. Jones, now formed into a new genus by Professor Decandolle, and called by him *Nardostachys*. It differs however in the size as well as the structure of its flowers, and in the shape of its leaves. The root res hat of the Indian Spikenard; but it is much larger, and its smell is far more agreeable.

Triplostegia glandulifera, Decand. loc. cit. p. 462. Wall. Cat. n. 436.

Crescit in alpibus Himalaya ad Gossain Than, florifer Augusto, fructifera Octobre.

RADIX longa, gracilis, pennam columbinam crassitie haud excedens, deorsum attenuata, exserens fibras frequentes, capillaceas. CAULIS gracilis, erectus, a palmari ad pedalem altitudinem attingens, obsolete quadrangularis, secus latera 2 oppositae levissimne sulcatus, indivisis, vel ramos paucos, oppositos, simplices emittens, obsitus pubescens brevi, can&, villis intermixta longiusculis, articulatis, terminatis glandulâ glutinos&; basi foliosus, apice ferè nudus. FOLIA ad i^eriores caulim partem approximata, opposite, patentia, ovato-lanceolata, obtusiuscula, inaequalifera et acutae dentato-serrata, 2-pollicaria, deorsum attenuata integra vel pinnatifida, interdum oblonga, profundè pinnatifida, prseprimis caulinâ quæ sunt 3—4-pollicaria; suprâ pubescens, subtfrs secus costam nervosque gracillimos obliquos, veriasque villoso-pilosula; laciniae opposite vel alternse, ovatse, laevo-lanceolata vel oblongatse, inaequalit&r et acut& inciso-serratse, acutiusculse, decurrentes. CAULINORUM FOLIORUM par unicum vel duo, parva, remota, serrata, subsessilia, integra vel pinnatifida. PETIOLAE pollicares bipinnicollares, a foliorum basi decurrente marginati, supr& leviter sulcati. CORYMBUS terminalis, 6-pollicaris, demum elongatus, ovatus, trichotomus, ramis ter quaterve dichotomis; omnes partes villoso-viscosae. BRACTEAE infra divisuras lineari-lanceolatae, serratae, inferiores foliacese. FLORES valde parvi, albi, breve pedicellati, ternati, cum sessili, in bifurcatione extima. INVOLUCRUM duplex calycem hypogynum mentiens, una cum calyce persistens; *exterius* oblongum, profundè 4-partitum, obtuse, 4-carinatum, interius occultans, laciñis erectis adpressis, lineari-lanceolatis, rostrato-subrecurvato-acutis, viridibus, intis canaliculatis glabris, ext&s carinatis et conspersis setis copiosis patentibus, glandule glutinos^ oblongis, fuscescens terminatis; *interius* monophyllum, tenue, membranaceum, oblongum, leviter complanatum, ovarii formam referens idemque omnino amplectens, iptus laeve, extus costatum nervis 8 viridescentibus, pubescens, subcarinatis, apice obsolete productis, feuce subtruncata, contract^ glandulosi-ciliata, irregularity 8-dentata. CALYX minimus, ovarium coronans, 4-fidum; laciñis patentes, lanceolatae, acutae. COROLLA infundibuliformis, involucro exteriore duplo ferè longior, extis pubescens punctisque glandulosis notata; tubus brevis, angustissimus, simplex et ecalcaratus, ampliatus in limbum aequalem, 5-fidum, lobis ovalibus, obtusis; faux majuscula, pervia. STAMINA 3 e basi tubi; filamenta capillacea ? imthene erectae, subexsertae. OVARIUM leue, oblongum, compressiusculum, 1-loculare, 1-sporum, ovulo pendulo; stylus teres, longitudine circiter staminum, deciduus; stigma carnosum, clavato-capitatum. UTRICULUS tenuissimus, membranaceus, subtransparens, laevis, oblongus, terminatus rostro gracili, tereti, subsequante, cuius apici adfixus est calyx emarginatus 4-dentatus, paullisper auctus; inclusus involuoris parium auctis, exteriore 4-carinato, interiore 8-carinato. SEMEN oblongo-cylindricum, laeve, utriculo angustius, ex ejus vertice pendulum; structura interior vix non ut in *Valeriana rubra*. Gserth. Carp. vol. 2. p. 35. t. 86.

The structure of the flower at once distinguishes this genus from all the other members of *Falerianeæ*, to which family it undoubtedly belongs. Neither the root nor the herb has any peculiar smell in the fresh or dried state. The whole plant is covered with a clammy pubescence. The leaves vary so much that I was at first inclined to consider them as belonging to two different species, being sometimes nearly entire, at others deeply pinnatifid or almost pinnate, or pinnatifid only at their base; but I have since ascertained that they furnish not even marks by which to distinguish varieties of our plant.

Plate CCLXIII. Fig. 1. Flower. 2. Corolla, opened. 3. Pistil. 4. Ripe seed. 5.6. The same, dissected. 7. Embryo.

THALICTRUM ROTUNDIFOLIUM. Tab. 264.

Thalictrum rottendorfii, T. cinctum. Syst. Nat. Regn. Veg. vol. 1. p. 185. Ejusd. Prodr. p. 15.

Habitat in Napalia, florens sub phiviis.

PLANTA pedalis bipedalis erecta, undique conspersa villis brevibus, hyalinis, septatis. RADIX constat fibris longis, fasciculatis, cylindricis, fibrilloso-ramulosis. CAULIS gracilis, teres, integer, rectus, basi ips& circumdatus tegmine arido setoso-fibroso demum evanido. RAMI pauci, alterni, nudiusculi vel subfoliasi, breves, erecto-patentes. FOLIA pauca subradicalia et ad inferiores caulim partem alterna, patentia, orbiculato-foerata, 3—4-pollicaria, obtusissimè sinuato-7—9-loba, lobis brevibus, rotundatis, inaequalifera latiuscula et obtuse dentatis, sinis basis profundi et angusti, lateribus rotundatis subimbricantibus, suprâ pilis brevibus scabriuscula, subt&s mollier villosula, radiatim 7—9-nervia, nervis gracilibus extrorsum ramosis, ad marginem excurrentibus, venisque elegant&r reticulatis extantibus; superior a et ramea brevi&s petiolata et minora; *Ikratia* pax-vula, subsessilia, minima rotundata, subinciso-lobata. PBTIOLAE erectiusculi, teretes, canaliculati, graciles, inferiores foliis ssp̄ dimidiata vel semel longiores, superiores iisdein breviores, tandemque brevissimi. STIPULÆ oppositae, lanceolatae, subdimidiatae, erectae, subpersistentes, pilosulae, apice fimbriato-laciniatae, bilineares. FLORES tione statuse plantae majusculi, ad apicem caulim ramorumque tenui^r subcorymbosi; nunc obsolete umbellati, albi; suffulti pedunculis ra nriusculis, tenerrimis, filiformibus, pubescens, 2—3-pollicaribus. BRACTEAE: ad basin peduncularum (foliola ista floralia) nunc approximata et quasi fasciculata. SEPALA 5 semiunguicularia, lanceolato-cuneata, acutiuscula, glabra, patentissima, parallel^ venulosa. ENTA circifera 25 patentia, capillacea, sepalis paull6 breviora; anthera lineari-oblongae, erectae, utrinque longitudinaliter dehiscentes. FILAMENTA minibus numerosiora brevioraque, glabra, subulata, conferta supra receptaculum convexo-elevatum, 1-locularia, 1-spora, ovulo OVARIA 5 a tulsi cyindrici, breves, apice papilloso-villosulo recurvati; stigma acuta. CARPELLA subulata, breviter stipitata, stylo pendulo; coronata.

Plate CCLXIV. Fig. 1. Flower, dissected. 2. Carpellum. a. The same, divided transversely.

FOLIIS foliis oblongis, attenuato-acuminatis, undulatis, pubescentibus, subtus glaucescentibus; pedunculis lateribus, elongatis, unifloris, bracteolatis; sepalis deminum increcentibus subfoliaceis, petalis linearis-lanceolatis, undulatis, subequalibus, patens.

Xanthodendron undulatum, Roxb. Hort. Beng. P. II.

Habitat in Sillet, florens Martio. In Chittagong, Roxburgh. In horto Ifimtiit.i t J<-iitirui Aw et tempore calido.

FOLIIS magnis, erectis, ramosis. LAMINAS greciles, teretes, recti, patent, callos-punctatae superne morenigae pallidiori subtili-undulatae, basi obtusa, aliquando subreniforme-rotundata, 6—8-petiolata, utrinque pila rara adpresso-squamata, supra nitida, subtus glaucescens et opaca, costis nervisque oblique parallelis gravibus, tessellata reticulata; novella tenuata falso alterante subrecta. Petioli brevissimi, cylindrici, crassissimi, adpresso-villosi, supra leviter vultati. Flores pauci, magno, florid, laterales, ad apicem gerens alterius, linearis-lanceolatas, serice deciduae. SERA 3, triangulare-hastolata, acuta, levigata, utrinque sericeo-villosa, post anthesis incrementata, dominique ferè foliacea, angustiora ad pollicaria. PETALI 6, oblongi vel lanceolatae, acuminatae, valde rotundatae, 2-pollicaria et ultra, interiora 3 parvo angustiora. GANGLIA conferta in formam hemiplatynam, levem. STYLUS 1 numerosus, apice obliquè truncata. FLORES haud ciliati.

As there is still a doubt whether Dunal's *Xylopit undulata* is a real *Urtica* or not, I have retained the specific name given to our shrub in Roxburgh's *Hortus Bengalensis*. In my Catalogue of the Honourable Company's Herbarium I call the species *Urtica Roxburgiana* (n. 6423.), which name I propose for adoption, in case the old one should require change. I have never seen the fruit, but the habit of the plant is so »»» Mr «M m» the genus to which I have referred it, that I have not hesitated to remove it thither. I am not quite certain whether the Sillet specimens may not belong to a distinct though nearly allied species, remarkable on account of the singular manner in • trr li tfe sepals enlarge, immediately after the petals have fallen off. I cannot allow this opportunity to pass, without rendering my thanks to Dr. Blume for the great advantage I have derived from his excellent *Flora Javea* in the arrangement of the plants belonging to the difficult family of *Amarantaceae* »» thr brrfaria under my charge.

Plate CCXV. The Caudex flower exhibits its state of perfect expansion immediately before »• [Htib fall off.

(1 ATltit) SESQUIPEDALIS. Tab. 266.

[P((Lus i,t)] de approximatibus, longissimis, oblongis, acuminatis, levibus, lucidis, subtus argenteis; pedunculis subaxillaribus, unifloris; petalis interioribus in formam conuentibus; buccia ovato-oblonga, subsessilis — Colebr. II.VV.

Guatteria ~~racemosa~~, Colebr. MSS. et Icon. Piet. Insd. Hiltat in montibus Sillet vice ^, flores fructiferisque mensibus Aprilis et Maii (Colebrooke). ~~Specimina siccata et~~ plantas ~~uu-nrci ID M.<~~ am Calcuttensem misit Franciscus De Silva.

AHCWIL > cortice sureratè fuso. RAMIS cylindrici, levissimi et subnudi, subflexuosi ut nubes plante partes glaci. FOGLIE validissimae, subobcordatae, petiolosissima, levè petiolata, longissimi oblongi, marginibus interprimis, paralleli, attenuato-acuminatae, basi rotundatae, costis validi elevata, nervis subtransversalibus inter nervisque complexe reticulatis — ~~venis distansibus~~ venis distansibus reticulatis; ramosa conduplicata, pilosa, erigentes. Petala cylindrica, brevia, supra longe vel perianthii rugos, punctatissima, subobcordata, petiolosissima, levè petiolata, ex viridi fluctuantes, florid. Bractea 2 vel 3 parvulae, acutæ. SERA 3 fissa, levigata, 12—16-oculata, supra atroranda lucida, subballato-rugosa, statim argenteo-pallida, opaca, acutissima, costis validi elevata, nervis subtransversalibus inter nervisque complexe reticulatis — ~~venis distansibus~~ venis distansibus reticulatis; ramosa conduplicata, pilosa, erigentes. Petala cylindrica, brevia, supra longe vel perianthii rugos, punctatissima, subobcordata, petiolosissima, levè petiolata, ex viridi fluctuantes, florid. Bractea 2 vel 3 parvulae, acutæ. SERA 3 fissa, levigata, 12—16-oculata, supra atroranda lucida, subballato-rugosa, statim argenteo-pallida, opaca, acutissima, costis validi elevata, nervis subtransversalibus inter nervisque complexe reticulatis — ~~venis distansibus~~ venis distansibus reticulatis; ramosa conduplicata, pilosa, erigentes. OVARIA circumsita, ab aliis cylindraceis nodulis longiora, levata, acuta, persistens. PETALI 6 lanceolata, acuta, sessilia, pilosa; exteriora 3 patensissimæ, petioles majora, longe excurrentes, interiora angustiora, basi concavissima, curvata concurvata et tenus marginis subdistorsa in expeditam subpungititudinem basi subiecta tribus lacinias. ANTHELLE validi numerosi, sessiles, oblongi, apice dentato-lobatae. OVARIA circumsita, ab aliis cylindraceis nodulis longiora, levata, acuta, persistens. CAPSULA plura, subsessilia, oblongo-ovata, levata, acuta, glabra, ex annulari excaesa, levigata, magnitudine florae minus. PERIANTHEIUM tenue conforme, cornuo-durum, rufa circumdatum profunda, levigata, validi nodulatim. EMBRYO minutus, cotyledonibus rotundatis, radiculis cylindricis, inferi. — Colebr. MSS.

I am indebted to my revered friend and patron Mr. Colebrooke for the description and drawing of this new vyle of *Guaiteria*. I had a living plant of it on board the ship in which I came to Europe, which blossomed during my voyage, and is now at the Botanic Garden at Kew.

Plate CCLXVI. Fig. 1. A flower. 2. Calyx and pistils. 3. A detached petal. 4. Stamen, detached. 5. Pistil. 6. Cluster of ripe berries. 7. A separate berry. 8. Inside of the testa, lined with lamellate processes. 9. Longitudinal section of the Dendrospor in the place of its furrow. 10. Embryo.

(m)QUHOUNIA VESTITA. Tab. 267.

FOLIIS ovato-oblongis, valde attenuato-acuminatis, subtus ramulisque densissime cano-tomentosis.

Colquhounia vestita, Wall. Tentam. Flor. Napal. vol. 1. p. 14. Benthams Synopsis Labiarum in Bot. Resist. vol. 15. fol. 1292.

Habitat in monte summa Napaliae Sheopur dicta, et in alpibus Gossain Than Emodi napalensis, florens sub pluviis.

The character which I have given above comprises all the points in which this species differs from *Colquhounia coccinea*, which it resembles perfectly in stature and habit. It is almost white, especially on the underside of the leaves, the ends of the branches and calyces, owing to very dense soft and stellate tomentum.

COLQUHOUNIA ELEGANS. Tab. 268.

FOLIIS ovatis, acutis, dentatis, supra pubescentibus, subtus villosis, floribus in ramulis novellis subracemosis (corollis aurantiacis, sanguineo-punctatis).

Observavi ad apicem jugi Taong Dong dicti, prope Avam, florentem Novembre 1826.

FRUTBX 8—10-pedalis, parce ramosus, subscandens, ramis elongatis, subquadangularibus villosulis. FOLIA opposita, patentia, brevissime petiolata, ovata, acuta, obtusiusculè dentata, utrinque momssima, supra pubescens, subtus tomentosa. FLORES in ramulis novellis brevibus foliolosis fasciculato-racemosi, aurantiaci, punctis frequentibus sanguineis conspersi, pollicares, fere sessiles. CALYX ovatus 5-dentatus, cano-villosus; *dentes* lanceolati, acuti. COROLLA, STAMINA PISTILLUMque ut in *Colquhounia coccinea*.

I only saw one single shrub of this elegant species, at the very top of the mountain called Taong Dong, near Ava. Like the preceding species it resembles very much the type of the genus, *Cofyuhmmia** *coccinea*, published in the Linnean Transactions; nor have I the means of giving a good mark by which to distinguish it, except the colour of the flower, which, instead of being pure red, is orange, dotted with crimson specks.

UVULARIA UMBELLATA. Tab. 269

Uwlaria umbeUata, Wall, in Act. Soc. Asiat. vol. 13. p. 379.

Habitat in montibus Napaliae, florens Aprili, Mayo.

Plate CCLXIX. Fig. 1. Flower. 2. The same, dissected.

Lie STRUM (TAPALETSE. Tab. 270.

Ligustrum napnietue, W:iil. in Hiwh, K]«r. Int. wJ. I. p. 151.

I'nliti.it fit NajiaJia. liorjir. uKaubu Apri!»—Jltnii, fructiferum lIecfnibrr rt Jannario.

Tin- late Mr .1. E. Smith informed me, in a letter dated the 1st of March 1820, that he considered this tree as identice] with 1Tmnben(• *Zigustrum jepaaitmB*. I fotad another specie io (rut" on Taong Dong, near Ava, which resineblea our plant ret) CIOKI^> IIUI wbicb maj jwrlmjn* IK dutioguUbcd in ~~E~~ following n inner:

Lfdeuetu (Wafl- Cat. Hvrli, a. 1742); folis lanceo*lbvis »:utui-zulis, subglabris; ramis ocalU-iit, n1¹* r* betcntibiliis, Wrie oUaqgis, puuiuxn, puucdg)iis.

Roxbm^h'i i.^tiiifmii Itirrifflitt. Hur. Betig', p. 1, nf uhcilt lk* bag Irft no description or drawing, is probably im *Chmtmprmim aukejfi&o**, Catat Hrrh. n. 2837, dewtfeted bj ne psder Uie name of *Chiomwlkiat t<"* in Roxburgh* ^Zwn ficiar, ml. I. p. 158.

Plate 7. 8. The amp, ilni.lnl in tire ways.

panicle. 6. Detached berry

AVHTAM.V TOKI STOSA Tab. 271

Ace mk hmumtata Lirni., Bnnn. Prod. R.r, Nui. Hod M.I. i. p.iin.
Oepata, Rkeed. Bon Ma \.,i t, p.git, 1. ir.

Ace

Crescit ad litora maris marginesque m. •rtmWum totius Indie, florens fructiferae tempore calido et pluvioso. Ad ripas astuarii fluminis Hoog 1. Suunderfcnu dkti CHaulttcn et ipse). In Penang et Singapur, 1822. Ma... t... t... i... Hrrbarin Kinaysoniano.

Anios magnitudine varians, ante expolu. ••r i i i w i i , nodb atliuM'uiip »J*iirijn* rht aitt&cdU- Rut' cylindrici, fusco-canescens, patentes. Folia approximata, patens, opp. *** . *•*** "fcunn, infjerri, !-i »Jj^t¹, IMrt,, a. ui¹, 5—*p«I*irill*, coicinas, supra levida, subula mollis, incisa vel flaviatia, oblonga squamu*m*inotissimis, do- gient inaequaliter arcuato-trigonotomatis, rebusque capillaceis reticulatis, siccata, levior sulcatus, sulco versus basi dilata, cano-villoso, marginato, inserzione lisso*la* ad petiolam oppositi foli trans canum excurrent. PASCULA terminalis erecta, cylindrica, puberula, simpliciter ramosa, costans floram parvorum, sessiliis fasciculis remotis exiliis, aliquando ramosa, raro altera articulata, alia foliis superius apice fasciculos paucos gerens. »^—<¹ui** quadrangulares, villosi. BRACTEA infra diricta, panicula opposita, linearis oblonga, patens, coriacea. CAREX sessilis, exiuncta, ovatis, li parti** fc...**! is baculideque aliq*e* sufficiens vireta, oblonga, elata, non fluorescentes. COMATA flav. crassula, i, iii|UllilltiiM . t^lmmmmfis; calyx longior, basius foliisque 3-fidus villosus; lobule exserta, scaphulaque, patens, subaequales, postea levissime fornix. Filamenta 4 m. eri*r* inter herilia inserta, foliis breviora, exserte ovalis, crassitudine cylindricus, tu. ¹ OVARIA ovata, dense villosa, 2-laciniata, 4-pozitum, osula oblongo-cunata, pendula ex apice axis compresum tetragonum; stylus acutum, styli basi po emareidis. FRUCTUS 1. ^W ^Hafaw 1. crassus, tentram flos partem epoxata, italic herminatum, coriaceo-carnosus, siccata volla, arvensis, cäsadens omnis repleta pericarpio formi simili, basi compresum utiles, receptaculo parvulo, e regia volla, alba effundent osula tri ster, X pendula, connuda, membranosa, fusa. Corixioides latissimus, reniforme-exserta, crassula, latis, volla, integriforme, endocarpiate, subaequales, exterior oblongulus, interior angusta; lobi tridi magni, rotundata, trianguli. ¹ <mm+ RIB» ta longa et crassa, dimissum barba longi illi longi et molli, obliqui intercotyledones ascendens usque apice attigit, basi nulli papillae, exterius primam valle, sed max, secundam inter pectus genitantes, elongatus, cylindricus, antennatus, levius, plena*la* diplytha.

The discovery of the singular structure of fc fmir.rf this tree, as contrasted with that of the unimpregnated profound researches in natural history which has ever been offered to the world. It will be seen that the ovary contains four pendulous ovules; of these, one only becomes impregnated, and changes into a perfect erect seed; the other three ~~change~~ in their ~~shape~~ postea reduced to withered scales, which may be observed at the bottom of the cavity of the fruit, or ¹ <t*re*, ¹ ~~re~~ receptacle to which seed at first adhered. But there is a slight modification in),, m*l*y account given by Mr Brown, which he has done me the honour to point out. F''T-sely that it on the present occasion; namely, although the ovules are pendulous, and the

seed itself erect, yet no inversion takes place, but only an elongation upwards, the foramen of the testa (microp^{*}
being, as Dr. Brown supposes, situated at the lower or free extremity. [^]

There is little doubt that Rumphius's *Manghtm album* (Herb. Amboin. vol. 3. p. 115. t. 76J) is the same species[^]
as our tree, although so acute an observer as my late friend Mr. Jack thought differently, (Malayan Miscellanies,
vol. 2. n. 7. p. 58).

The vitality of the seed is so great that it never fails germinating long before the fruit falls off; and it often happens
that an infant plant is seen protruding its tender leaves and roots through the integument of the fruit while yet
attached to the tree. A similar phenomenon frequently occurs in the fruit of *Brownlowia data*, which ripened in
the Calcutta Garden for the first time in September 1825. At the time I furnished the notices in the Botanical
Register, vol. 17. n. 1472. on this fine tree, I had mislaid my carpological memorandums: having since found them,
I introduce them here.

Humea elata. CAPSULA depresso-globosa, diametro transverso pollicari vel sesquipolllicari, verticali semipolllicarij crassa, dura et lignea,
ferè drupacea, tomento incano-viridescente, brevissimo, denso, tenaci, extus vestita, intus levis, unilocularis, bivalvis, sutura parum
elevata e basi ad verticem depresso-dehiscens; solitaria super calycem persistentem maturescit, fundo ejus lateraliiter inserta, ibique oc-
cultans stamina emarcida, im5 ovarii ipsius vestigium cum stylo, nunc basi fisso: vel (teste Roxburghio) usque ad 5, sseptis vero 2 vel 3
maturescunt. SEMEN unicum (rard 2 ex Roxb.) frequentissime intra capsulam dehiscentem antequam dilabitur genninans, fructus forma,
obtectum integumento duplice, exteriore spongioso, molli, interiore membranaceo tenuissimo. EMBRYO magnus, subtransversaliter
decumbens (in capsula saltern solitaria). COTYMDONES valde crassae, subcordatse, obtusae, amygdalinap, parum insequales, superficie
externa rugosulæ. RADICULA crassa, cylindrica, centrifuga. PLUMULA minutissima.

Plate CCLXXI. Kg. 1. 2. Flower. 3. Corolla, opened. 4. Vestige of the ovary taken from the ripe fruit, showing the place
of insertion of the ripe seed, and two of the withered ovules. 5. Section of the ovary before fecundation. 6. Ripe fruit. 7. The
same, divided horizontally. 8. Seed. 9. The same, divided longitudinally, parallel to its sides. 10. Embryo before germination
has commenced. 11. A germinating seed. 12. The same, showing the posture of the embryo, the outer cotyledon being removed.
13. The same, both the cotyledons having been removed, exhibiting the radicule, scape, and plumule. H. An infant plant, with the
cotyledons still attached.

WILLOUGHBEIA MARTABANICA. Tab. 272.

CIRRIFERA scandens; foliis ovato-oblongis, acuminatis, parallele nervosis; baccis globosis.

Habitat in provincia Majtabaniae ad Araherst et Moalmyne, fructifera mense Aprilis.

FRUTEX magnus,,volubilis et scandens, oīhiAtraspartibus glaberrinus. RAMI longi, cylindrici, dichotomi. CIRRI laterales vel e dichoto-
tomia ramorum, lignosi, elongati, 6-pollicares, nunc longissimi, flagelliformes, 2-pedales, teretes, variè torti, ramulos emittentes breves
recurvato-hamosos, teretes, uncinato-acutiusculos, pollicares, alternos, duobus infimis nunc oppositis, elongatione cirri remotos, basi suf-
fultos bracteolæ obsoleta, subulata, demum evanidæ, lineolam insertionis linquente. FOUA opposita, patentia, approximata, breve petiolata,
5—7-pollicaria, ovato-oblonga, acuminata, integerrima, basi acutiuscula, suprà leevia, nitida, subitus costa elevata nervisque frequentibus
parallelis, gracilibus, venisque inter hos capillaceis reticulatis. PETIOLI cylindrici, supra plani, ij-jwit_m longi. INPLORESCENTIA haud visa!
BACCJS solitarise in axillis foliorum delapsorum, (oppositæ in specimine nostro,) globosæ, diametr_m "jaris, magnitudinis circiter
fructus aurantii, globosæ, rugosæ, flavee, glabrae, basi aucta vestigio calycis immutati, saffultse pedunculo brevissimo, columnar}, crasso.
CARO lineas 3 crassa. SEMINA numerosa ovalia, complanata, nidulahtia in pulpa glutinosa, ex flavo-rubicunda.

I have not seen the flowers of this shrub. The structure of its fruit, which I was prevented from noting down at
the time I found it, corresponded entirely with that of *Wukuglibem edulis* (Roxb. Corom. Plants, vol. 3. t. 77X to
which plant, indeed, our shrub comes very near. The presence of tendrils in this as well as in the above-mentioned
species, is very remarkable among *Apocynæa*. Dr. Blume long ago noticed them in his valuable *Bydrageti*,
p. 1024, and they seem to corroborate the generic difference between the two genera of Aublet, on which Schreber
(Sc'opoli according to Sprengel,) founded his *WiUmghbeia*. One of these genera, namely *Pacuria*, seems to have a
tendency to produce similar tendrils, and is certainly nearly allied to, if not identical with, the genus to which our
plants belong, and for which the name *Ancylcladus* might, if required, perhaps be applicable. I have found a plant
at Singapur, without flower or fruit, which, from the presence of the tendrils, and the general habit, probably belongs
also to this group, and which I have called *JViUoughbela coriacea* in the Catalogue of the Honourable Company's
Herbarium, [•] I⁶²⁰, ^{lt} [^] oval-oblong coriaceous leaves, ending in a short blunt acumen, with prominent parallel
rives underneath, and seems to differ from all the species enumerated by Dr. Blume.
^{ne}

RATZEBURGIA PVLCHERJUMA* Tab. 73.

Ratzeburgia pulcherrima, Kuutli, *Retifflorii As* Gmmiuues.*, ji. Isr. i. 158.
 I liliit-lt (irnjif ri(kim llniuuiv Erawaddi in oolhlm- aridis subulos)
 PaghrineM- ngera fioreraqoe tnenac Septembri.

WMfe- my acrowM of this yr;t" ntw in progren through tin- press, I was informed by Dr. Brown that it had been deser /KA anil simirvtl nirvaiK in u Number ffl my indued friend 1'rurfrMor h ^{anth's} splendid work on Grasses, which Josl nadial thU nxxtutn, The neresMtj nf tits- offif&g ,isS i!,-,r,,, ion is adopted the i>i< ngffle given b> MM-KKanth (b> thaf dP&üm etfnz, n^mvoil i,, i,> p] ate whic, and I have die [receding \HH.IKT of rbii ralinue. The iprew i>. irifcnui a uafjp exEoption, i(n' mt^i 1,,,"lv i ili" elegant of any I have en-r MI-1 : it b> MT ;i paJe gbacone colour. asd the crc*i of thu mtrcr -Inutf has a iiUski-li t,,| arid .iml T\HIMII siruarions not (iir fnnn the baolt&oftBe IJOTBAII, among the \i/U i_Mrlr <> It lights Yenanghe on, and amtug the ndn rf pagoda* ai PagSanww. The Plate bat bm> CMBWTM iv.r ^T" " " " expressly f, His m> by my envlkm Etxsd Profaao Limh-v,

Foi tte fatlwioq- geneii'chnratrr and obsrrrandnt n*i* * * * * * Iwn pMefuh tndd honoured at H J ^ttTiiLfti Friend 1>r Brown.

Ratzeburgia, Kuntz Recis. Gramin. p. 487.—Spica articulata, rachis flexuosa. Lomenta in singulis articulis 3. Dens sonans, per globose superiores parallelo-contiguae, bilobae. Gloma cylindrica inferior cartaginea, dense depressa sericea, sericeoflava, spine membranaceo bilobae, superior chartacea planissima levius. Flaccidia hyalina matris: superior hermaphrodita univalvis nervis. Squalus hypogynus 2. Quam duas exteriores sublateralis dilatato-cuneatae rotundatae: tercia interior trilobata (pro pedicelis superiore latius a Dom. Kuntz). Semina 3. Ovarium bilobatum. Styli ad basin distincti, interjecti obtusus. Stigmata exserta-pinnatis. Flaccidus inferior noster unicus obsoleti hispervis gurgitibus inflexus. Lomenta tercia pedicellis liberis basiliis, rotunda, univalvis.—Brown MSS.

Gramen perpendicularis, basiliis cylindrica, glabrescentia. Calyx subrotundatus, monostichus. Folia levia, rigidae, plana, ante conduplicata, obtusa, marginata, virgini compedit, ligula imberbis, involuta.—Brown.

Obs.—*Ratzeburgia* may be readily distinguished from all other genera of *Paspoa*, as I have defined that extensive tribe, in having at each joint of its rachis three locusta, of which two are sessile, sterile, and without awl, while the third, which is merely rudimentary, consisting of a single valve, is supported on a pedicel entirely distinct from the rachis.

In most of these characters, indeed, it agrees with *Mosseae* of Kuntz (*Ratzeburgia* perfusa of Rothburgh), which differs, however, in having the pedicel of its third, still more imperfect locusta, exsert at both extremes with the awl, and thus contrasting to form the univalvular winter flower.—An opinion which seems to be founded solely on its membranous texture, and which, if adopted, would exclude this genus from *Paspoa*, as I have defined them—a definition which M. Kuntz certainly does not adopt, as he has included in his tribe of *Ratzeburgiae* several genera belonging to *Paspoa*, namely, *Lepidium*, *Oropetum*, *Palaeo*, and *Nardus*.

According to **1v lk rn krt titk** of the structure of the two genera, *Mosseae* would have surely the same relation to *Ratzeburgia* as its most important characters bear to *Ratzeburgia* perfusa of Rothburgh, Prudi. Flor. Nov. 1811, which I have in this work adopted as might form a distinct genus. This genus has very recently been adopted by M. P. Bongard and named *Coleosphaea*, with a character, pedicellata locusta contains an hermaphrodite and a winter flower, and *Astelia* *Coleosphaea* of Poerster, in which that locusta contains *Mosseae* merely in the form of the outer valve of the awl.—Some of the sterile locusta

Two other views, different from those above, have been adopted, of the structure of *Ratzeburgia*, have been taken; the first by M. Kuntz, who considers, and perhaps more correctly, the third squamula as the upper valve of the hermaphrodite flower. According to the second view, which is obviously suggested by the figure, the locusta would be regarded as containing one flower only.—B. nov.

Plate CCLXXIII. Fig. 1. A spike. 2. The same showing the rachis with two awls remaining. 3. Rachis without the flowers. 4. A diurit, spread. 5. Back of the awl. 6. Back of the inner awl. 7. Palate, with pistil, the stamens having been removed. 8. Platit, with hypogynous scales. 9. Hypogynous scales, seen from above.

JASMINUM DISPERMUM. Tab. 274.

Jessamine disperma, Wall. in Roxb. Flor. Ind. vol. 1. H- stat in montibus Nipal. It. sens a mense Aprili usque ad Octobrem: fructiferum fine anni. Eriam observari in valle Deyral dicta. In montibus Sirmorensibus (W. S. Webb), Kamounensis (R. Blackworth).

Having already given a detailed description of this fine Jessamine in Rothburgh's *Flora Indica*, it is unnecessary to introduce it here. The Jimbo is among the less common species in Nipal, where it is found on the higher mountains.

Plate CCLXXIV. Fig. 1. 2. Flower. 3. 4. Calyx and corolla, opened.

* The reason for changing the name *Jessamine disperma*, proposed in the Flora, is cited in the text above.

JASMINUM HETEROPHYLLUM. Tab. 275.

18t. 1

m

Jasminum heterophyllum, Roxb. Flor. Ind. vol. 1. p. 99. Wall, in eod. vol. p. 164.

Habitat in montibus Napaliae, florens fructiferumque cum praecedente specie.

Of this most beautiful and fragrant Jessamine I have given a full description in the work quoted above • and I will only add here that the berries are oblong, kidney-shaped, sometimes obovate, generally twin, shining, of a dark purple colour, one-seeded, the epidermis ash-coloured, separating.

Plate CCLXXV, Fig. 1. 2, Flower. 3. 4. Calyx and corolla, opened.

EXACUM TETRAGONUM. Tab. 276.

Exaeum tetragonum, Roxb. Flor. Ind. vol. 1. p. 413.

Habitat per totam fere Hindustaniam gangeticam in pascuis agrisque, florens fructiferumque sub pluviis. In Nanalia 1821. In Kamaon (Robertas Blinkworth).

A description of this species has been given by Dr. Roxburgh in his *Flora Indica*, who concludes it in these words • "This is one of the most elegant plants I have met with, the flowers being not only numerous, large, and beautiful but retaining their beauty for many days, which is a rare circumstance in an Indian plant."

Plate CCLXXVI. Fig. 1. Calyx, opened. 2. Corolla.

FRAXINUS FLORIBUNDA. Tab. 277.

Fraxinus floribunda, Wall, in Roxb. Flor. Ind. vol. 1. p. 150.

Crescit in sylvis Napaliae, florens fructiferaque a mense Aprilis usque ad Junium.

Since the time when I published the description of this noble tree, which is called *Lakkurree* in the Newar language, I have seen it in its native country, where it attains an immense size. The flowers are most frequently hermaphrodite. The ovary is small, compressed, covered with detachable purple scales, two-celled; each cell with two cylindric pendulous ovules; style short, flattened, smooth; stigma very long, fleshy, erect, furrowed, its apex, which is on a level almost with the anthers, bifid.

The wood, according to Mr. Aikin, is precisely like English Ash. (See List of Indian Woods, in the Transactions of the Society of Arts, vol. 48. p. 454.)

Plate CCLXXVII. Fig. 1.2. Flower. 3. 5. Petals and stamens. 4. Calyx, opened. 6. Cluster of fruit. 7. Samara, opened lengthways. 8. The same, divided horizontally. 9. Seed.

SALACIA LONGIFOlia. Tab. 278.

• • Nwlia In horto botanico Calcutta floret fructusque profert sub pluviis.
Crescit in Nap^{ia}*.

amus levis. IUMI longi, cylindrici. FOLIA opposita, patentissima, oblonga, acuminata, serrulata, basi acutiuscula, TKX inagnus, ^{acc} > ^ tenuiflora, nervosa, petioles insidentia semipollicularibus. F^KBS pallide virides, longiuscula (i-pollicaria, lucida, con ^{acc} frumentos ^{acc} axiUares pedunculatos rotundatos, petiolo duplo longiores, uti fructus omnino istis Jotmias sofa. ^{wi} ⁱⁱ ⁱⁱ ⁱⁱ ⁱⁱ ⁱⁱ Jonci V airreffo) »» minores.
rividis, Roxb. (*Salacia Roxburghiana nostrae*)

This shrub is nearly allied to Roxburgh's species just quoted, but it differs in having longer and altogether larger serrated leaves, and very densely crowded flowers. *Solatia dews/Zora*, n. 4224. of my Catalogue of the Honourable company's Herbarium, is the same as our species.

Plate CCLXXVIII. Fig. 1. 2. Flower.

INDIGOFERA BRUNONIANA. Tab. 279.

ERECTA, ubique pube adpressa glauca; petiolo subelongato, foliolis 1-3, (poll. 4-3* longis, li—2\$ latis.) ovato-lanceolatis, mucronatis; racemis folio longioribus, calycibus dentatis, leguminibus (immaturis) patentibus, rectis, rufo-tomentosis.—Graham MSS.

Indigofera Brunonianana, Graham in Wall. Cat. Herb. n. 5491.

Habitat in Burma; montibus Prome, florens fine anni; inde in hortum Calcutta? botanicum introducta.

PLANTA suffruticosa, erecta, per totam superfidem pube adpressa glauca. PILI centro adfixi. CAULIS erectus, subflexuosus, aneulatus (simplex). STIPUL* a petiolo distinct*, filiformes, patentes, vel minutissime, recurvæ, adpressæ; stipelle 2 ad apicem petioli PKTK,, altemi, subdongati, supernè canaliculati, 1—3-foliolati. FOLIOLA ovato-lanceolata, mucronata, venosa, pollices 4-5\$ longa 14—2* laf lateralia minora, breve petiolata, impar longe petiolatum; venæ parallel*, subtransversales, subitus elevate. RACEMI spicatiaxill* pedunculati, folio longiores. CALYX 5-dentatus, demum fere planus. COROLL* 4-petalse vexillum majus, oblongum striatum e*ff areæ pubescens; carina ciliata, calcaribus rectis, dongatis; ala> carina breviores. STAMINA diadelpha, imo calyci initia ca. 1* sp. fibmenta glabra; anther* cordate, mucronatae. PISTILLUM stamna sequans; ovarium lineare, stylus subulatus • stila parva, pubescens; 8immbus (TM naturis) tatum, glabrum. LBGUMEN dongatum, patens, rectum, rufo-tomentosum, compressum, marginibus callosum L»f»H parva, C8pi, isthmis cylindricis fere disjunctis.—Gr»A. MSS.

I am indebted to my valued friend Professor Graham for the character and description, and to Dr Greville f. ti elegant drawing, of this interesting *Indira*. In the wild state the leaves attain a much greater size than those of the annexed Plate, which represents a cultivated plant. Dr. Graham observes, that the cultivated plant besides the leaves smaller, narrower, and more lanceolate, has the stem less flexuous. The dried specimens of both states indicate, by their colour, the presence of a proportion of colouring matter, which may perhaps prove of importance, the leaves being infinitely larger than those of the plant cultivated for indigo (*I. tinctoria*) or *ind 1st* of the other species of this most extensive and difficult genus. I have taken measures to cultivate a suffi * t, o. ** cuen. quality of the plant to enable me to ascertain what proportion and quality of the dye may be obtained from it.

Plate CCLXXIX. Fig. 1. Side view of a flower. 2. Front view of the calyx. 3. Vexillum; seen from its out* -i same, from the inner side. 5. Alee. 6. Carina. 7. Stamens and pistil. 8. Unripe legume. Alf (except T'xx *** ^ less magnified.

ANDROPOGON SCHOSNANTHUS. Tab. 280.

Andropogon Schosanthus, Linn. Roxb. Flor. Ind. vol. 1. p. 278.

I beg to refer the reader to Dr. Roxburgh's work, just quoted, for a full description of this plant. Dr. Fleming gives the following account of its medicinal properties in his Catalogue of Indian Medicinal grass. Drugs, inserted in the Asiatic Researches, vol. 11. p. 156. (separate edition of the Catalogue, n. 1st edit. 1811)

" This plant, under the name of *Juncus odoratus*, had formerly a place in all European Pharmacopœias and now rarely met with in the shops. It continues however to be a favourite herb with the Asiatic and Culinary practitioners and culinary purposes. The Hindu practitioners consider the infusion of the leaves as sudorific and aperient, and aromatic smell, aromatic flavour, and warm, bitterish but not unpleasant taste, is generally known on account of its grateful to the stomach in sickness. Many Europeans with whom tea does not agree, use it as a drink verj. of this plant, to which they have given the name of *Lemon-rass*."

Dr. Maton, one of the Vice Presidents of the Linnean Society, and Physician Extraordii Charlotte, tells me that he has repeatedly been treated with a dish of Lemon-grass tea J'u" 7 !. th> ill> Q<i>, "y HerMaio^f, .. i ised

fond of it and was supplied with the plant from the Royal Gardens at Kew. At the Doctor's request I
to be very ^ & ^ ^{quar} of the dried grass from the Botanic Garden at Calcutta, on purpose to ascertain
have recently ^ ^ rf ^ preserved in this state) in which case the drug would deserve to be
whether the delight H to the European Materia Medica. There are few people who have experienced the influence of an Indian
resto CHINA who have not found benefit from the wholesome and refreshing beverage prepared from this grass.

CCLXXX. Fig. 1. A branchlet of the panicle, with two paired spikes. 2. Hermaphrodite flower, dissected. 3. Male, ditto.
Plate

GARDNERA WALLICHII. Tab. 281.

FOLIIS oblongo-lanceolatis, acuminatissimis; pedunculis axillaribus trifloris vel bifido-trifloris, corollis supra dense
villosis, antheris 4, coalitis.

Gardnera Wallichii, Herb. Wight.

Habitat in montibus ad Salem (Wight).

RAMI cylindrici, graciles. FOLIA opposita, patentia, subdistantia, oblongo-lanceolata, attenuato-acumina-
FRUTBX v. b. U I is, ^ ca ^ coriacea, lucida, subitus pallida, costa elevata, nervis intra marginem arcuato-anastomosantibus gracilibus,
tissuna, mtegernm^ Jj ^ u ngtu uares'. PEDUNCUM axillares oppositi, solitarii, petiolo bis ferre longiores, triflori, vel bifido-triflori,
vems re tCU. JS-S. pediceli Mi semiollicares, basi mediisque bracteolati. FLORES magnitudine form& et structure prorsus
EHH flore so ^ corolla supra dense obtecta vilis brevibus albicantibus.
Gardnera oxalis) corolla supra dense obtecta vilis brevibus albicantibus.

I am greatly obliged to my kind friend Dr. Wight for specimens of this interesting plant, and for the drawing from
V h the Plate has been engraved. In 1820 I gave a detailed account of the genus; and of the only species then
w IC frn*J>*m mafa ^ in Roxburgh's *Flora Indica*, vol. I. p. 400, of which a figure has been added to this
volume (Plate 231). • Fo - ^ & [^], £ £ << 1 published in the 2nd volume of Roxburgh's work, p. 318, an account
of a second species, which I found in Nialma. > eiy^<< > ^ << - Our plant is different from both.

Plate CCLXXX. Fig. 1. Calyx. 2. Corolla.

nein vel

BOXBURGHIA VIRIDIFLORA. Tab. 282.

iv MMforo Smith Exot. Bot. vol. 1. p. HI. t. 57. Id. in Cyclop. Reesiana, in loco.

Roxburg ^ a^Tur Flor. Cochinch. vol. 2. p. 404.

Stemonia tuoeraw, ^ A^ Htora sinu Siamensis (G. Finlayson). In horto botanico Calcuttae floret
Habitat in Chittagong (F. Hamilton);

^ cembre--Febr<ario; fructificat Martio.

f 11 described, with the exception of the details of the fruit, by the late excellent President of

This plant has been ^ o in ^ ^ ^ specific difference from *Rowburghia gloriosaoides* of Dryander (in Rox-
the Linnean Society, M P^ A^ P^ ^ ^ j is confirmed by the flowering specimens preserved in the Honourable
burgh's Coromandel V an s, ^ ^ t e possession of the Linnean Society,) as well as by the smaller size of the fruit of
Company's Herbarium. L "o W ^ ^ incomplete drawing made many years ago from samples which had ripened in
Dryander's plant, of w ic Herbarium of Sir J. E. Smith there is a specimen which blossomed in the late Lady
the Calcutta Garden. In th ^ bury corresponding exactly with our species. There is likewise a specimen in
Amelia Hume's stove ^ Aout flower or fruit, labelled " *Dioscorea t*" which seems to be the same as our plant
Mr Finlays^ Herbarium, wi fed ^ j , a doubt by Dr. Roxburgh in his manuscript *Flora Indica*, under
and LoureWs *Stemonia tuberosa*, quo

R ffloriosoides. h fc has hitherto been a desideratum,—a complete carpological account of the genus
I am enabled to supp ^ ^ Ktv of professor Lindley, who has kindly furnished the following description, illustrated
Roxburgkia, ^ ^ i ^ L I dicate directions by Miss Dike, a very skillful and elegant artist, from specimens
by a drawing ^ made under is i ^ ecceive A from Calcutta. It is with feelings of pride and satisfaction that I am thus
reserved in spirits, recen ^ r f one j^tanist, to contribute to the memory of another, to whom the science owes far
Enabled, through the fren s ipo

naturalist who ever visited India; of a predecessor so eminent and indefatigable, that greater obligations than to any one could be me full worthy occupying his post; of a friend and patron whose kindness and no exertion of mine can ever make me forget his hospitality. In the manuscript of the excellent Dr. Roxburgh, now before me, there is an affecting anecdote, which is not found in the printed account of *Miqihi ghomde*, in his Coromandel Plants, although it refers to specks, no alop ^{for necessar} w^s brought in wh^d attempt one of the last ⁴ over him. He desired that I would describe it, particularly, for he it, but was unable; the cold hand of death seize^d him. This vaccination from a worthy friend, a preceptor and predecessor, has made me ^z n belongs not only to a distinct genus, which Dr. Dryander has justly ^{?Ti7f*£ZZ^an} probably a new tribe ^o ferny of planU, which Mr. Lindley, wh^o has aU dedicated to Jr. ^{TMTM} elucidating it in the following observations and in the annexed plate, - the honour and credit of which I accordingly call *Roxburghia*.
has generously conceded to

Kx—*Pericarpium superum, oblongum, compressum, carnosum, olivaceum, maculis pallidis conspersum, pendulum*
ROXBURGHIA VIRIDIFLORUM ^l *ruinj contextu celuhsu interiore dodecaedrali, cellulis plurimis materie pallid^v viridi farctis, quibusdam (intc Uoculare, 2-valve, po y^o per ^{ompre} venis ^{*^} substantia pericarpii rectiusculis, subparallelis, ramulis quibusdam vagis e vasibus rioribus) ^{*^} f^aV^g?J^{AAA} contextu inclusis fibroso.* *Vahuloe planiusculse, dorsi medio longitudinaliter convex*, intiis niveae. Placenta 2, spiralibus simplicibus, nat^a aU^{8e} carnosae, plante, divisus in funiculos plurimos filiformes, longissimos, subspirales, apice arilliferos, c basi utriusque va plurim^o spirarium, simplicissimorum, teia cellulosa prismatic^s; vacua inclusorum* Arillus stuporus, constans fascicul^o spicis rostrata, medio paullufem constricta. Testa suberosa, sulkata, compage cellulossi, secus nucleus valde compress^v, superficiem versus sensim inflate et rotundate. Raphe obsoleta, angulum internum setinmis occupans, in rostrum incurvum desinens. Chalaza: areola rotunda fusca, subdepressa sub rostro. Embryo rectus, filiformis in axi albuminis carnos, extremitate radiculari clayaffi testae contigui, cotyledonea attenuate, albumine breviore. Plumula minutissima, conica, intra embryonem recondita, rima nulio.—Lindl. MSS.*

There is no order of monocotyledonous plants to which *Roxburghia* can be very certainly referred. Its habit is that of *Smilaceae* and *Dioscoreaceae* but the venation of the leaves, the structure of the fruit, and the number of the parts of the flower, are entirely at variance with those orders. It approaches the *Jrioidea* more nearly than any other tribe, especially in the quaternary proportion of the jewmnr* tamens in its placentation and offensive odour: it may also be compared with the Vnvhg species of that order in regard to the venation of its leaves very much at variance with many of the ribbed-leaved *Pothos*. But the highly developed diuum, and the absence of any lateral rima in the embryo for the plumula, are such important points of difference, that it is impossible to refer it either to *Aroideae* or to any of the tribes that modern botanists have struck off. —Lindl.

Plate CCLXXXII. Fig. 1. A front view of a mil-grown fruit, natural size. 2. Side view of the same. 3. A fruit, after the dehiscence, showing the two valves and the seeds hanging by their long tunics in two pairs, ^{unguis} ⁱⁿ ^{the} ^{two} ^{valves}. natural size. 4. A portion of one of the placentae, with four funiculi, a seed attached to one of them: a, a piece of the placenta; b, funiculi; c, the stipule anulus; a, » BCC, luagiuuTM. 5. A highly magnified view of one of the hairs of the arillus, showing their cellular structure. 6. A longitudinal section of a seed, magnified: a, the embryo; b, side of the testa where the raphe passes; c, the cellular structure. 7. Transverse section of the same: a, the embryo; b, the side along which the embryo passes. 8. A highly magnified view of a longitudinal section of the radicular extremity of the embryo: a, the plumula; b, the rudiment of an internal radicula. 9. A highly magnified view of a transverse slice of the testa, and of a portion of the nucleus: a, the nucleus; b, the testa. 10. A highly magnified view of a longitudinal slice of a thin part of the pericarpium: a, the cellular tissue of the outside; b, that of the middle; d, that of the lining; e, a bundle of spiral vessels incased in woody fibre, which appears to have been a ramification of one of the principal veins. 11. A highly magnified view of a longitudinal slice of one of the funiculi: a, the external prismatic cellular tissue; b, the central bundle of spiral vessels without a cavity or cavity.

MELANORRHGEA GLABRA. Tab. 283.

FOLIS cuneato-oblongis, Uevibus.

Habitat ad Tavoy ora Tenasseri, florens in Decembbris (Gulielmus Gomw).

ARBOR. RAMI cinerascentes, superne cano-pubescentes. FOLIA ad apicem ramorum valde ^{UTM} xunata, sparsa, patentia, cunctato-oblonga, obtuse mtegenfma, leviter undulata, deorsum valde attenuata, basi subacuminata in petiolum brevem subdecurrentiu 6-10-polycaria, coriacea, laevia, supra lucida, subtus costata elevata, nervisque in recentibus foliis puberulus, frequentibns, tenuiwerTM intramarginem anastomosantibus, venis reticulatis. PETIOLUS semipolyicaris, »prà plau*, fiabtu pubescens. CORVMBI axill_{are} so^{shn} fo^{shn} brev^{ore} B, ongiuacule pedunculati. PEDUNCULU leretes, glabri; univenalU 3-pollicam; partial*altemi, pedkelli temi~. B^{shn} ACTEO_M lineares, oduc* ad basin pedicellorum. FWRES pauci subfasculati, albantes. SB_{PAM} 5 fc^{shn} ed!v. • ..; ^{polli} lirftn>..

culata, extbs pube minutft obsita, in calycom calyptraeformem citb deciduum, valvatim
ceolata, acuta, ciliata, extfts puberula, venulosa, lineas 5 longa, mox decidua. STAMINA I
petaloruixi; Filamenta capillacea, glabra; antheras parvae, ovatae, biloculares, oscillantes
gibbosum, stipite brevi, pilosulo suffultum, lseve, ovub solitaries reclinato, funicolo brevissi
parvum.

TANNIC* IND'* ORIENTALIS,, NUNC SOCIE-

I have already adverted to this tree, under *Meknwrhcea usitata* (Vol. 1. t^h*. Med. et Chir D M^{^N}_M • rr .
any use to which it is put, nor do I know if it produces any acrid juice, like

Plate CCLXXXIII. Fig. 1. A flower, with the hooded calyx. 2. The same, after the
inserted on the torus.

nearibus sessilibus, omnibus in margine revoluto
Crescit in Gossain-Than; Kamaon (R. Blink-
e (Dom. Gerard.); v. sp. oo. *

nob.: spica brevissima subglobosa, bracteis omni-
usiuscuhs, staminibus only^{^N} ^{^N} superquantibus.—

ANDROMEDA FASTICHATA I ^ ^ S ^ t L T ^ : f f l i

Andromeda fastigata, Wall, in Act. Soc. Asiat. vol. 13. p. 394.

Habitat in Himalaya ad Gossain Than. Kamaon (R. Blinkworth).

Plate CCLXXXIV. Kg. 1—3. Leaves seen in various directions. 3 (bis). A leaf. Spicis cylindcis oblongis, bracteis infimis quam
dissecta. 6. Corolla, opened. 8. Capsule. 9. The same, divided horizontally.

S^{^N} T^{TM*} tantim exhibent folia eaque ufrinque.
n.)! * W^{^N} anS^{astifli} Wallich! Cat.

i affine, Don. Wallich! Cat. „ 168J A, B, C, et

ostra & P. affini Don (nobis ex diagnosi tantum
discrepat: foliis obtusis, margine revolutis,
obtusis, ochreis spica rotundatis, apicis:
P. vivipari equalibus nee triplo majoribus, iylis
op^{^N}is accedit ad P. stenophyllum (MELL. c.

HEDYCHIUM SPECIOSUM.T

Hedychium speiiwim, Wall, in Roxb. Flor. Ind. vol. 1. p. 13:

Habitat in montosis afrmiN*i*F AMv^{^N}t Gulielmus Gomez).

J^{^N} "foliis subtus
aro L, cui tam
J^{^N} in w^{^N} simil in V, die^{^N} guntur:
nunquam 1^{^N} * II^{^N} wBN^{^N} * delatum

Plate CCLXXXV. Fig. 1. Fascicle of flowers. 2.3. HoW^{^N}, od?c^{^N}u.^{^N} , * -A in. P

"neisvel

M A R A N T A RAMOSISSIMA. Tab. 286.

BUTICOSA, paniculata; radice constante tuberibus stipitatis, jjendulis, fesciculatis, clavatis • foUis radicali I «
petiolatis, oblongis, subcordatis, rameis ovat(M)longis. —iu& longe

Crescit ad Sillet Bengalae orientalis, unde in hortum botanicum Calcuttae misit F. DeSilva.

I am unable to offer a detailed description of this species, which is very distinct from *Maranta dichotoma* TB
(burgh's *Phrynum*) by its numerous, long and clavate tubers. The plant resembles the West Indian *Marantæ* «
dinaced, and its root contains a large proportion of starch, commonly called Agwv-root.

Plate CCLXXXVI. Fig. 1. The base of a plant, on a reduced scale. 2. Tubers. & *A radical leaf.

POLYGONUM EMODI. Tab. 287.

SPICIS ffcmminatis, angustis, floribus inapertis, achenii acutangtdi feciebus tevibus nitidissimis; foliis anfflisti lan.
Jatis sublinearibusque, acutissimis, utrinque *quahter attenuatis, margine revoluto integerrimis, supra dense pen-
Lrvosis; truncu epigeo, prostrato, ramoso, radicante, ubique foioso, caulis annotinis, erectis, simplicibus
da —Metiner MSS.

P. 3fminm, Wallich! in Cat. fol. 46. ns ^ (anu 1830) haud Chamisso et Schlechtendal in Linna, vol. j, (1828) p. 40. P. Emodj, Meisn. in Waj Cat f. 214, sub n. 1693.

In Kamaon legit Robertus Blinkworth

FRUTICULUS humilis, editioram regionum nHj_{ninilli} Kamaonensis incola, trunco ramisque prostratis in soli super ter muscos proprepens, vel rarius hinc inde ramos agens per hnn gpatium s_btteraneos. TRUNCUS vel CADEX horizontalis, lignosus, tores, ssepe sesquipedalis, crassitie penne anserine, strictus ^ parmi fl_{exu}osus, ad nodos et maximè ramorum origines paullo incrassatus subtusque radikulas emittens fibosas teneras, glaber, e pu_{pureo} fagciis ve_l cimercascens, lineatus, ochreis marcidis laceratisque circumvolutus, aut cortice fisco ac discedente snbdenudatus. RAMI_{primariae} et trunco communi orti, huic similes, tenuiores, flexuosiore, divaricati, prostrati. Internod_k trunci subaequalia, 1-1[^] poll, longi[^] sub buda; ramorum sterilium vix f poll, longa, ochrearum rudimentis tecta; ramorum annotinorum denique spicigerorum erectorum, que circiter pollicaria, crassitie pennae corvinae. OCHR_M (in ramis nonnisi annotinis primariam atque normalem indolem exhibent_s), cylindricse, oblique truncate et hinc quasi acuminate, acute, laxè vaginanles, basin versus sensim angustate, \$-§ poll, longse, in wodiis mox breviore, mox subsequales vel dimidiò longiores, membi-anacce, tencr_r, fuses, nervis tenerrimis louglitudinaliter lineate, lseves, glabres, 1~2 lin. supra basin folium gerentes, ore subintegro, vel in latero folium spectante fisso, serius fissuris pluribus iacerato, laciniato, laciiniis linearibus vel fere setiformibus. FOUA lanceolata, acuminata, utrinque sequaliter attenuata, brevissime petiolata aut. superae sessilia, perhinde squamulifera, septem 2-2[^] poll, longa, iudio 2-4 lin. lata, coriacea, supra obscure viridia, subtus eviridi fuscresentia, utrinque glaberrima, margine revoluta integro nee crispato-onduata, nervo medio subtus acute prominente,ote supra inconspicuo subimpresso, nervis lateralibus permultis densissimisque, angulis 1-locuare, & modic pennatim discedentibus, parallelis rectis subdivisis, in pagina superiore acutè prominulis, subtus vix prominulis acutissimis a in. sp. per minus conspicuis; quae e ramì cujusum uiafiunt e ramuli stenlis apice oriuntur folia, ob horum internodia admodum contracta et quasi confluentia, primo intuitu fasciculate credid_s k. eo. magis, quo eorainsertiones ochreis hibraticatim quasi se invicem obtentibus absconditae' haud facilè distingui possunt. ^icm ramos^annotinos erectos vel adscendentes terminantes geminate (radis solidae) Mdnnenate, in w H " (altera 1-1[^] pollican, altera dimi ^ d_u Sfr brerior) " " " # * * * TM₁ lineares, continuB d_{ewtfie}, baM ncnanquamsabintemipte, ante erotatknemixptaii fob «[^] ««»»», acotoe.oj btacteas turn regalariter imbricata sitro Whifecian imitantes. Pgoimcou communes dreitet_gi longitudine aut parimbreTM_^ teretes, strictiusculi, tennes, teres ghbri, TM. BR_> CTE* ener.emembranace acuminate. MBq. 1[^] U n e r ^ b a s . ^ TM tegerrim_{IB} aria_{d,m} ms_{blaco} B₃ primo arct; imbricate adpressaque, seribus taiores rt s ^ i «* «* ta «! * », Iwes, perastentes. to[^] to rfngul_g binate solitarii, rarius, 2 dimidiò breri_«, 1 - O * B teMrt_r f¹ ^ * * » » » * * ^ . f - » C TM «* A * ^ magitudTM, cUuTM degantir srturat p_{nice} eglandulosos, « tan usque 5-part.ta 1[^] mus subequaUbTM ovaBte, d_{ob} W, s obtuski, intqrri « Lk apice H » « mirartita (cc) T T ^ ^ 1 ~ 5 T ⁸ TS⁴ R¹ i C_o n_t e_v m_i o_x 1 Urbrera, Jlame L Ldiam seTM P ^ " " " rTM 1 18 , 11 f T T * , ^ 3 , ^ 11 « ^ « > _B ct_i, uice dWrgenu, ubnutaates, s_E p_{*} p₋ breriores[^] cap, **, exgns 4. TM il - « calyce totun, hdusum, magnit^{dr_E V} J.,, e L, e fusco rufon, stylorund, _{ans} deteta in corona, tuquetrum, [^] tul_m, [^] an^uli, j[^] ^m r_{TM} oeo ipicis tevibus mtidissimis, jaw . ^ ^ Jf o Aja ' abdiuuw, - ie J w / ue pro matuns aperui, mama erant.— Mdmr.

" " " " " Thelbove account of this plant, as well as for the beautiful drawing from which the engrTM s v, h tako, am indebted to my most valued friend Professor Meisner, of Basle in Switzerland. At my request that truly excellent

barium, (n) ow in the possession of the Lmnean Soaety of UndonO whch he has honoured me with p e r m i t ₁₀ to insert in my

Plate CCLXXXVII. Fig. 1. Diagram of beretarie depositio of the (ralpart 8. axis of the spike (common peduncle); 2. diagram of the anthesis[^] stamens asttation[^] at a i, exterior series of stamens, alternating »Ub the segment_s of the spike; 3. segments of the spike[^] alternately, the sides of the lamen[^] l i s f^{..} the exterior ca series i /, ovariu during the anthesis[^] tta[^] iintbreeways. 7- H4 - " e «. distinct_s, with JX^{only a little divergent} 5. Detached K[^] TN_e yripeachenum. «• Tta »*, its de excavated at the ap*. 10. Upper part_s of the achenium.

Variet. brachia obtusata et longi acuminata, in setas fer-
productis, folia subovatae utriusque glabra, aut, maximi radii
lata, tenuioribus et non plerisque pale rara brevissima, in nervis
principali, puberula, marginaque ciliata, basi interdum subtruncatis
aut ex incisa in petiolam praeedita.

P. speciosum Meissn. Wallich Cat. n. 1716, A!

Adnot. 1. Species nostra a *P. petiolata* Don, (Prod. Fl. Nepal.
p. 70) »il. illt. Jerrc r.t. tut, cui tamen abyangere est non audemus,
quoniam planta Dominae e dignis tantum nobis innoverit.

Adnot. 2. In MaMfTspIu* antrv Prodromo (1826) *P. speciosum*
sectione *Persicariae* (p. 97) falso adscriptum;—rectius hodie *Eur-*
tortis ad sociatum prodit, cum quibus habita, et percepit vegetatio modo
rhizomate perenni; plantae concretae, dum a *Persicaria* ochre-
arum maxime heterotropique inde recedit. A *P. rotunda* Roth cui
olim affine credimus (h. c. p. 67) absunt subsecutus, staminum
numero, etc.

R. 9. unigente nob.: spica terminalibus geminis, longissimis,
succiso, ciliatis dentifera, bracteis longi acuminatis basi dilatatis
imbris. Floribus pedicellis insperatis, folia ovatae vel ovato-
triangulis, cordatae satis longi acuminatae, rupes levigatae, subitis
nervosis puberulae, marginae oblonge rotundatae sinuosa crassatae
undulatae, supremis subterminalibus oblongo-lanceolatis subcomplectentibus.

In Kamman legit Blackworth; v. s. sp. no.

P. speciosum Meissn. var. *acuminatum* Wallich? Cat. n. 1716, R.

A *P. speciosum*, cui folia, obovatae habent similitudinem, satis superque
distinctum: spica semper geminata, longi pedicellis angustis
longissimisque (sic pedicello 4—5-pollimero), bracteis longi
acuminata, floribus distictis ferit quam prioris marginis, etc.

A *P. amplexicaule* Don, (h. c. p. 70, Muell. L. c. p. 51) recedit
species geminis, exale oblique glaberrima.

6. *P. corymbosum* Wallich? (Ad. n. 1715): spica terminalibus
geminis, ruris subtiliter subtecta, lumen granulata longa,
exclusa apice subtecta, floribus pedicellis parvis, folia exaltata
ossiculus erato-oblongis sensim longe testacea, basi exaltata
subpinnatifida, levigata, marginae subplanae ciliatae integriformes
vel oblonge crassatae.

In Kamman legit Blackworth; v. s. sp. plena.

A *P. speciosum* differt: species linearibus, longioribus, superiore
gemina, floribus ferit duplo tempore. «T.O.” m. f. j. — ex bracteis
minoriis, foliis tenuioribus ministris, spicae versus satis alter-
nantes, rupes linearis oblonga vel pubescens. Propria seredit ad
P. amplexicaule, recedit autem: species debilibus laxioribus leviori-
bus, floribus brachiatibus minoribus tenuioribus, folia sessilibus
levioribus. A *P. amplexicaule* Don, differt: species gemina, exale
oblique glabra, folium color (pallidi integrato). An cum *P. amplexicaule*
nostra non forte varietate *P. amplexicaule*? Quod notemus ex no-
tis plante Dominae diplicandas.

7. *Tropaeolum* trigono ramis approp. vel epigeo radicans,
internodii contracti, rami adscendentes foliosi, exaltata
specie recta, internodii elongati. Folii coriaceis gla-
boriosis.

7. *P. surinamensis* Wallich? (Cat. n. 1805): species suberecta
solitaria, floribus pallidis. Ellis brevipedatis exaltis vel ellipticas
utriusque latitudine longioris, fructu epigeo ramosa.

In Bladzirinti legit Blackworth; v. s. sp. no.

8. solitaria nob.: species solitaria, ramisque adscendentes con-
tracti, folia parvula oblonga confertissima.

9. nudicaulis nob.: species solitaria, folia arctioribus aut brevioribus
acuminatis rami subrecta.

7. *Serruliferum* nob.: species in apicibus ramosa, vel subpinnati-
fida, ciliatae utriusque longioribus debilibus profecta.

Primum habemus, vir semipedalis, ligula foliisque similis. Vene-
tum Myrtilli. Folii 3—8 cm. longi, 3—4 cm. lati, marginae sub-
rotundatae oblonge obcordatae, ralo venoso exiguo utriusque vir-
gineo. Spica oblongo-pinnatis 1—2-pollimero. Flores magni-
tudine. *P. Bonariensis* Lodd. non certum. Achenea reticulata (im-
materialis) oblonge granulata-punctata. Cauda in vir. 2-poll.
2-pedales et alii, subsimplices, vis spicae adscendentes.

8. *P. Brunnei* Wallich? (Cat. n. 1822): spica cylindrica compo-
cta solitaria, floribus magnis subpetiolatis, acheniis reticulati facies
has teneras punctata-granulata, folia lateralia acuminata, basi
attenuata, utriusque fructu reticulata-serrata, marginae revoluta undu-
lato-crispata, truncus tunicae hypogaea spicae tantum spicis fo-
liosis.

In Kamman legit Blackworth; v. s. sp. no.

Fructibus praestans, codice plantae modo vegetans nec v. g. Salix
herbacea (de qua cfr. DeCand. Organogr. Veg. I. p. 145.) Folia
nervis cum petiole pilosis 3—4-pollimero longa, ultra modum
tessima, 4—6 cm. lata, superba subsecuta. Cauda acheniis erecta
vir semipedalis, simplicissima, spica terminali nichil 1—2 poll.
longa obtusa 4—6 cm. lata. Flores densissimi, bractea absentia,
lis *P. Bonariensis* magis, sive pulchri purpurei, sive rufi
(excavatione tantum 3-pollim. inviolata carnis).

Adnot. A proximo et foris satis affini *P. macropoda* Don,
principali differe videtur foliis margine crispatis, stylis staminis
percurrentibus, etc.

9. *P. Emodi* Sch. (vide supra), p. 51.

10. *P. polystachys* Wallich? (Cat. n. 1824). Species in Pindus
kota a F. De Silva, nobis penitus ignota. An hanc secundum?

Sectio II. AKAIGENOS.

Cotyledones incolentes, (ff.) lineares. Achenea tempore bra-
vissimae compressa (utriusque triquetrum) obtusa-pilosa, acuminata,
calyx revoluta. Staminea 7, rufiis 5 vel 6. Stylos 2
et digrediens-habitu staminibus brevior, signatibus capitulo.
Spica linearis-cylindrica confortifera. Bractea inclusa utriusque
foliacea, cylindrica. Tilla integerrima. Radix fibrosa fortissima.
Habitus *Persicariae*.

11. *P. orientalis* L.: spica paniculatis densis ramentis, longa
autem 3—5-doris, floribus petiolatis 7-andris, glandula 7 syn-
mafioribus perigynis inter staminum inseritis, acheniis basi
obtusa angulis rotundatis lineis notatis, facetus suboblongularius
depressis levibus, obovatae recurvatis hypostichiformibus, folia
erectis subnudis in petiolis subdecurrentibus utriusque petiolo-
ris et caule rufis alto mediterraneo pilosis.

12. *P. graminifolius* nob.: species juniperi mutatis, floribus magnis
latis ac acheniis nigro distinctissimis, pube omniis, partim lev-
is, rufis.

Hab. in India Orient., Form. Borneo Spec (ide specie in Herb.
DeCand. 9, in Japonia (Tribh.), Nova Hollandia (R. Brunei).—In
horto hortis ornamenti curvi frequentissime culta.—Inter plantas
Wallichianas non occulta.

P. tricornis L. Meissn. I. c. p. 53 tab. III. K. Iterum variat flo-
riae pauciora et aliis, maxime 3-andris, folia subnudis sub-
ciliatis, superbus utriusque oblongis, non fasciolatis.

13. *P. pilosus* nob.: species anomala ex achenis strictissimis, durissi-
meribus, basi in acheniis ramosis subnudis, pale oblique tu-
pentes, longiori supra levibus.

Hab. in Ind. 96, (ide sp. in H. B. C. 1826, tab. 11, Produc-
tores, in Sillit leg. 13. Sillit) et aliis in Herb. Det. Calcutt. v. s.
sp. no.

P. pilosus, Herb. Borneo Spec. p. 29 (namen Borneo) Meissn. I. c.
p. 54. Wallich Cat. n. 1715? Spec. in H. B. C. 1826, tab. 11, R.
Sp. ex Herb. Borneo 1. c. *P. pilosus*, Herb. Borneo ex H. B.
C. 1826, D (H. B. Borneo, in Borneo, idem, p. 29, 1826, H. B. C. 1826, idem).
P. pilosus Wallich? — *Lepidium* *Cochlearia* Longex
Roth? (ide Wallich Cat. sp. n. 1715).

Variae florae rufis 1715 et aliis 1705, R.

Adnot.—*P. pilosus* Wallich? (ide sp. 1826, tab. 11, R.) prope
hunc hodie cognitis portugali gallicis characteribus distingu-
tis fructu-petiolatis. Congruentem (convenientem) sive
discrepantem portugali gallici sive huius, hinc, hanc, scholae

hypocrateriformibus. Varietatis tamen locum tenere meretur, prae-
cipue ob flores quam in var. a fr& dimidiò minores, spicas rariis
nutantes, paniculam subfoliosam, nee, ut in var. a, aphyllam, caeteris-
que. Eodem quoque loco (p. 55), *Laguneam Cochinchinensem* Lour,
ad hanc sectionem adducentes, affinitatis quae hanc plantam inter et
P. orientale intercedere nobis videbatur sensum saltern jam indica-
vimus.

12. *P. tomentosum* Willd.: spicis paniculatis linearibus strictis,
confertifloris, bracteis obtusis ciliatis, staminibus squamisque peri-
gynis 7, rariis G, achenii angulis non lineatis faciebus convexis
laevibus, ochreis longis ore erecto longè setaceo-ciliatis, foliis oblongo-
lanceolatis utrinque attenuatis adpressi pilosis vel supra punctato-
scabris subtus sericeo-splendentibus, caule erecto ramoso crasso sul-
cato infernè glabrescente.

Hab. Secus fluvios regionum inferiorum per plurimas Indian Or-
terras vulgaris species. Habemus ante oculos specimen lecta in
Bengala inferiore 1815,—in Pegu et ripis fl. Irawaddi, 1826,—circa
Tavoy (W. Gomez, Septembre 1827), circa Rangoon (Augusto 1826),
in Coromandelia (Herb. Wight!), Travancore (Herb. Madraspat.),
etc.

P. tomentosum Willd. (cfr. Meisn. 1. c. p. 81.) ex *Wallich!* Cat.
n°-1709. (exclusis specim. sub B, G, et H enumeratis; cfr. adnot. 2).

P. tomentosum duas exhibet formas per gradus insensibiles, altera
in alteram confluentes, ia eodem imi specimine nomnunquam com-
binatas, et hinc pro varieatibus constantibus vix habendas.

a *seficeo-velutinum*, foliis vel omnibus utrinque, vel senioribus
nonnisi subtus, densissimè velutinis sericeo-splendentibus, bracteis
pedunculisque platis miniis (saepius confertissimè, v. g. n. 1709, A)
pilosis.

Hujus loci sunt: Wall/Cat n. 1709, A (paucis speciminibus ex-
ceptis, de quibus cfr. adn. 2), C (sp. ex Herb. Heynean.), D (plu-
rima specim.), E | F ("P. tomentosum?" Hb. Madr.), et "P. glabrum,"
var." Herb. Wight! (N.B. Specimina sub litt. /citata, "P. tornen-
tos. Hb. Wight." non vidimus.)

j3 denudatum | * foliis vix nscobtUvpusisS^ceorvslutmis, reliquis
omnibus utrinquid pube rariore brevissima, in superiore pagina sajpiis
ad puncta prominula reducta, scabriusculis, bracteis breviis ciliatis
pedunculisque glabris.

Hue re/eras: Wall. Cat. n. 1709, D (partim). *P. barbatum*,
Hb. Wight, prop. n. 8! et ejusd. Herb. specim. quadam e Vithees-
perencoil et Palaar! (Wall. 1708, G!) et "P. barbati" var. *Plucken-
etii*" Herb. Madrasp.! (partim, quod est *P. barbatum*, Burm. Ind.,
Herb. Madr. ex Wall. Cat. n. 1708, /.

Intermedia inter aefi sunt: quedam specim. sub Wall. 1709, 2),
et *P. barb. var. Pluckenettii.*

Adnot. 1. A diagnosi Willdenowiana (Sp. PI. II. p. 447; Meisn.
1. c. p. 81) planta nostra differt: floribus rarissimè 6-andris, stylo
numquam trifido, foliis oblongo-lanceolatis utrinque attenuatis, nec
ovatis; cum icone Houttuyniana (PI. Syst. t.49. f. 1) a Willdenowio
laudata, bene tamen convenit.

Adnot. 2. Quedam specimina sub n. 1709 A, pertinent ad *P. stag-
nitum* nobis, n. 16,—N. 1709 B, est *P. orientale* 0 pilosum; vide
suprà, n. 11. Sub n. 1709, D (Wall. Cat) habemus specimina inter-
se incongrua, alia certissimè ad *P. tomentosum* pertinentia, alia aliena,
Mabrescentia, foliis tenerioribus, subtus glandulis fuscis punctata,

entia.

Meo errore in Wall. Cat. fol. 214, sub n. 1709 G et H, synonymis
P. tomentosum adjunctasunt: *P. stagninum*, Hb. Hamilt. et *P. Bishira*,
Hb. Hamilt. quae species duas proprias novas in *Persicariarum* sec-
tione *A.* infra, n. 16 et 18) formant Inter specimina stib n. 1708,
et A. infra, n. 19) — ^ ^ ^ ^ p *barbatum*, *stagninum* et

Species huius ^e *poxi* ^ *iricubentes* (yleuu>venda. et sectioni
glabrum, sed ^e *gpti* / ^ ^ ^ ^ 3—*sponcedrit* vix pol.
Amblygono adsocia ^e *ndia*. ^ 1—a. *picaM(B.* Flores nunc albi et turn
licem lata. Singula spicis

magnitudine *P. orientalis* hortom, nostrorum (cfr. 1709, A) nunc
carnei vel purpurei, dimidiò ferè minores (cfr. 1709, C, D, E, etc.)

Sectio III. PSRSICARIA.

Cotyledones accumbentes. Achenium lenticulare aut triquetrum
obtusangulum, calycem includentem nunquam superans. Stylus
semi- 2-, 3-fidus stigmatibus exiguis. Stamina 6 aut 8, rariis 5,
rarissime 4. Flores racemoso-spaciati. Bracteas raembranaceae sub-
infundibuliformes. Ocreae cylindricae, circumscisso-truncatae. Ra-
dices fibrosa herbae annue, raris perennes.

13. *P. glutinosum* Wallich! (Cat. n. 1717): spicis subgeminatis
angust & cylindricis densifloris, bracteis muticis glabris pedicellis
superantibus, floribus 6-andris semidigynis, calyce 4-fido nervoso
extus glanduloso-punctato, achenio lenticulari ochreis brevissimè
ciliatis, foliis lanceolatis inferioribus subtus incanis suprk canescen-
tibus, superioribus, utrinque glabrescentibus subtus glandulis fuscis
dense punctatis, caule adscendente ramoso glabrescente.

Hab. ad ripas Hum. Irawaddi, v. s. sp. oo. lecta 1826.

Affine sequenti, sed satis diversum foliis floribusque glandulosis,
achenio nunquam triquetro, faciebus planis tenerim & puncticulatis.
Folia margine scabra sepius erosive vel undulato-crispata.

14. *P. lanigerum* R. Brown (Prodri. Fl. Nov. Holl. I. p. 419;
Meisn. 1. c. p. 70!): spicis paniculatis cylindricis densifloris, bracteis
pubescentibus muticis, pedicellis subaequantibus, floribus 6-andris
semi- 2-y 3-gynis cal 1 A 1 nomous b-andris
semi- 2-y 3-gynis cal 1 A 1 nomous b-andris
rarius 3-quetro, ochreis c K . 4 5 fido lenticulari
L cantescensibus ciliatis, foliis lanceolatis subtus
incano-tomentosis, supr. ramisque incanis, caule erecto ramoso basi
glabro radicante crasso sulcato.

Hab. Secus fluvios variis locis Ind. Or.; habemus specimen lecta
in Rohilkund 1825 et Napalia 1821 (Wallich!), in Belya (Herb. Hamilt.),
et vidimus fragm. e raont. Neelghery dicto (Hb. Wight!) Occurrit praeterea in Nova Hollandia et ad Cap. B. Sp. (cfr. Meisn. 1. a.).

P. lanigerum R. Br. Wallich Cat. n. 1714, A et JB! *P. lanatum*,
Roxb. (Hort Beng. p. 29). Herb. Wight! (Wall. 1714, C!) et Hb.
Hamilt! (Wall. 1714, D).

Variat: floribus carneis et rariis albidis (cfr. n. 1714, D). Ocrea-
australi-cilia, quae evidentur fugacissima, sapissime penitus desunt;—
in specimibus autem Hamiltonianis j-seterum omnino congruis di-
stinctissima, lineam circanter longam adsunt

15. *P. viscosum* Hamilt. ¹⁷¹³ brevibus cylindricis densifloris,
pedunculis apice densè glanduliferis subbasali hispidis, bracteis hirtis,
floribus 8-andris semitrigynis, calyce 6-fido eglanduloso, achenii
ovato-triquetri faciebus convexis, ochreis brevibus laxis ubi lutei
hispidis, foliis, caule ramisque hirtis glandulosisque.^

Hab. in Napalia, Sillet (Wall.!), Chimbada (Hamr^P^)
P. viscosum Hamilt in Don Prodri. Fl. Nep. p. 71. Meisn. 1. c.
p. 73.

a ramosissimum nob.: caulinibus adscendentibus divaricato-ramo-
sissimi, foliis oblongo- rariis ovato-lanceolatis obtusis, in petiolum
abrupte attenuatis, margine saepius crispato-undulatis, utrinque parce
hispidis glandulosisque, spicis remotis subsolitariis.

P. viscosum Hamilt Wallich! Cat n. 1713 (plurima specimina),
V. 8. Sp. 00.

P. vernicosum nob.: caulinibus erectis « K • r -u
lanceolatis utrinque sensim attenuatis » Vmbau foliis angust^
que adpressis hispidis punctisque resilTTVf^I^A^A^A

matis subpaniculatis.

P. viscosum Hamilt. Wallich! n. 1713, A! (paucis specimina).

P. hirsutum Herb. Hamilt. (non Wall.).

Caulis circiter 2-pedalis, pilis strigatis flavicantibus patentibus,
circa nodos confertissimis, ubique hirtus glandulisque fuscis pelli-
cidiis brevè pedicellatis pilis interjectis dense conspersus. Folia
sempè 3—4 poll. longa, in var. & circiter 1 poll. lata, in β semper
angustiora. Spicis raro ultra poll. 1 1<4- inasqualis,
plerumque breviores. Bracteas interdum d^late sed
fuse*. Flores subtriangularis. Achenium nigrum, anti-
dum, basi rotundatum faciebus latè ovatis convexis, in stato immatu-

minutissimè punctato-striatis.—Var. α et β , eti primo aspecto satis diversa, omnibus ~~hmnfc~~ ribras specificis optimè convenient. Var. β a *P. hirsuta* Walt., cui similis, differt: spicas continua cylindricis densifloris, omnibus præter flores partibus glanduliferis.

Adnot. Wallich, in Cat. fol. 214 sub n. 1713 adhuc enumerat: *C*, specimen ex Hort. Bot. Calc. (= **NufoJu intrwiur**) et *D*, sub nom. *P. strigosa* Herb. Hamilt. e Chimbada,—que non vidimus. Sub eodem autem nomine habemus specimen ex Herb. Hamilt. (in Goalpara lectum,) quod minime hirs. sed ad *P. microcephalum*, Don, referendum (vid. mfrs. p. 34).

16. *P. stagnorum* Herb. Hamilton! spicas virgatis geminatis subpaniculatis continua, pedunculis firmis dense adpresso-pilosis eglandulosis, bracteis imbricatis turbinatis pilosis longè barbatis pedicellis superantibus, floribus 8-andris semitrigynis, calyce 5-fido subglanduloso extis pubescentia, achenio triquetri faciebus levibus, ochreis laafftuum* **piloxu** longè setaceo-ciliatis, foliis oblongo-lanceolatis utrinque attenuatis adpresso-denseque villosis, caule erecto ne[•]dwo inferne crasso, glabro.

Hab. In Bengala «**fer**» (Wall. 1815), et Sadullapoor (Hamilt.); v. sp. ss.

P. st ifWdUtn lrrb. Hamilt. Wall. Cat. fol. 214 n. 1709 *G*! et quendam specimen sub Wall. Cat. n. 1709 *A*! cum *P. tomentosum* ixte.

Adnot. Primo aspectu *P. tomentosum* simillimum, sed omni jure ab eo separandum, et facile distinguendum: staminum unum, achenio triquetro, pube foliorum longiore, villosa (sec. ut in illa, sericeo-velutina.) Hac pubescens indole etiam, præter alias notas, ad omnia differt a *P. hirsuta*.

17. *P. cooperi* nob.: spicas geminatis græilibus erectis basi subncrupCu, **brwtr** turbinatis subimbricatis glandulosis ciliatis 2—4-floris, pedunculisque eglandulosis pilosis, pedicellis exsertis, ribras 8-andris semitrigynis, calyce 5-fido extis glandulifero, staminibus exsertis, achenio triquetro, ochreis longissimis glanduliferis adpresso pilosis longè barbatis, foliis lanceolatis pube brevi molli adpresso supra evanescere pilosis, marginaque ciliato-scariousculis, subtus glandulæ fuscis dense punctatis, caule subrecto gracili eglanduloso inferne glabro.

Hab. Ad ripas flum. Irawaddi inter Kyank-Tung et Yandaboo (Dec. 1826), circa Pego in ejusdem fluminis estuario (1826, Wallich). In Gualpara (Hamilt.); v. s. sp. ss. Wall. Cat. n. 1709, *D*! specimen quendam cum *P. tomentosum* mixta. Alia habemus specimen, in Wall. Cat. non erga numerata, nom. *P. herbata*, schedula adfixa inscripto.—*P. Goyale* Krcz. Herb. Hamilt. e Gualpara (sive specim. unicui, Wall. 1708, *F*) quod paulò tantum differt punctis foliorum glandulosis mihi utissimis in foliis superioribus inconspicuis.

Adnot. Differt a precedente: habitu graciliori, foliis teneris, pube brevi raro, glandulis — a *P. ricossa*: caule pedunculique eglanduloso, pube brevi molli, achenio, spicas duplo longioribus; — a *P. Bishore* et *P. herbata*: foliis teneris glanduliferis, etc.

18. *P. Bishore* Herb. Hamilt.: spicas pedunculatis geminatis pedunculisque subequalibus, strictis cylindricis densifloris, bracteis turbinatis imbricatis eglandulosis pubescentibus brevi-ciliatis 3—4-floris, pedicellis exsertis, floribus 8-andris semitrigynis, calyce 3-fido eglanduloso, staminibus exsertis, achenio triquetro levè nitido, ochreis angustis adpresso pilosis, ciliatis, foliis oblongo-lanceolatis eglandulosis utrinque pube brevissima pilosiusculis, margine scalaris, caule erecto divaricato-ramoso inferne glabro, ramis dense adpresso-pilosis, spicigeris bis dichotomis.

Hab. in Sukanagar. v. s. sp. *I*.

P. Bishore Herb. Hamilt. (Wall. Cat. fol. 214 n. 1709, *H*, ubi ex errore synonymis *P. tomentosum adscriptum est*) inde specimenis unius in herbario auctoris.

Adnot. Ab omnibus affinis jam distinguuntur rami spicigeris egregie dichotomis spicasque omnes ad eundem altitudinem preferentes, spicas vero cylindricis — a proximo *P. herbata*, præter: pedicellis staminibusque exsertis.

19. *P. herbatum* Linn.: spicas virgatis subgeminatis, strictis paniculatis, continua densifloris, bracteis turbinatis imbricatis fuscis

albido ciliatis 1—2 floris pedicellis subsuperantibus, floribus 6—aut 8-andris semitrigynis calyce 5-fido, achenio triquetro levè nitido, ochreis laximenis longissime setaceo-ciliatis, foliis oblongo-lanceolatis margine ciliato-scalris, caule crasso nodoso erecto rameo, basi radiente glabro.

Hab. Locis humidis per totam Indiæ species. V. sp. lecta in Kampon (Blinkworth); Bengalæ infra 1815; ad flum. Irawaddi, 1826; in Ins. Penang (G. Porter) circ. Madras (Hb. Wight, Heyne, Madrasp.); in Mahuyadabar et Banga (Hamilt.)

P. herbatum Linn. Meissn. I. c. p. 80. Wallich! Cat. n. 1709, excl. *P.* (cfr. a. 17 nob.)

— *e vulgarē nob.* foliis utrinque pube brevissima scariousculis vel supra glabrescentibus, nervo medio subtus, ochreisque adpresso pilosis vel substrigosis.

P. herbatum L. Wallich! Cat. n. 1708, *A*! (partim), *C*! et *D*! *G*! (Spec. ex Hb. Wight) et " *P. herbatum* var. *angustifolium*" Herb. Wight, propr. n. 9! *P. Manoranum* Herb. Hamilt. e Mahuyadabar, (Wall. Cat. n. 1721, *G*) et *P. Rapti*, Hb. Haml. e Banga. (Wall. Cat. 1721, *E*)

P. herbatum nob.: foliis utrinque pube longiori^{***} *dmr*=>a*— densius pilosiusculis, pedunculis adpresso strigoso-scariousculis.

P. herbatum L. Wall. Cat. n. 1708 *E*! (sp. ex Hb. Heynean.) *P. herbata* — **Phdkm* PJ i?**

P. glabratum nob.: bracteis obsoletè ciliatis pedunculisque et ochreis glaberrimis, foliis vix margine scariousculis.—An species?

In Kampon legit Blinkworth, in Ins. Penang Porter; v. s. sp. ss.

P. herbatum L. Wall. Cat. n. 1708, *A*! (partim) et *B*!

Adnot. Var. a iterum variat: floribus pallidè incarnatis rosaceis et saturatis rubris, ochreis pilis mollibus **ittiiii** dense lanuginosis, vel parè substrigosis, foliis 3—7-pollicaris, d=10 lin. lati, caule ramisque glabris vel infra spicas ochreisque più minus adpresso pilosis. Var. β accedit ad *P. stagnorum*, distinguunt autem pube breviore raro, etc. Vg. — *P. hirsuta* subobscurum similis *P. glabra*, sed bene distincta: foliis, ochreis bracteisque ciliatis, floribus minoribus, achenio triquetro. An ad var. γ etiam referenda specimen in Wall. Cat. sub n. 1708, *H*, nomine " *P. glabra* ", citata? Huc enim non vidimus.

20. *P. Pareta* Meissn.: glabrum, eglandulosum, spicas linearibus strictis subpaniculatis, lateralibus suberectis, bracteis turbinatis remotiusculis subunitis pedicellis exsertis, floribus 6—7-andris semidigynis, calyceis 5-fidis, achenii lenticularis faciebus convexis levibus, ochreis laxis setaceo-ciliatis, foliis lanceolatis longissimis, margine, petiolo, nervisque medio seorsim brevibus albis antrovim adpresso scarbris, caule erecto subsimplici.

Hab. in Ins. Mauritii legit Don. Tellier! v. s.

P. Pareta Meissn. I. c. p. 79, var. α ! Wallich Cat. n. 1712! *P. serratum*, Poir. sive specim. autographa in Herb. olim Lamkianum, nunc Rupertiense.

21. *P. quadrifida* Hamilt.: plurimum, caule superne, ochreis, bracteis, calyceibus maximè pedunculis glandulifera, spicas punctulatis cylindricis densifloris, bracteis imbricatis subunitis, floribus sessilibus 6-andris semidigynis, calycebus 4-fidis, achenii lenticularis faciebus concavis levibus (ochreis brevissime ciliatis, foliis oblongo-lanceolatis oblique glandulæ fuscis dense punctatis in nervis marginaque scariousculis, caule erecto ramoso).

Hab. In Chimbada (Hamilt.) et ad ripas flum. Irawaddi (Wallich!), c. s. sp. ss.

P. quadrifida Herb. Hamilt. (Wall. Cat. n. 1711, *F*) et forte hinc inde specimenis quendam sub alijs ipsam numeri literis.

Species ab omnibus affinis certè distincta, a proximo *P. glabra* facile distinguuntur: glandulis sessilibus atro-fusca ciliati, ochreis, bracteis calyceibusque et confertissime pedunculis adpresso, spicas brevioribus ciceriter pollicaris, acutis, interdum subsessilibus, bracteis ochreisque brevissime ciliatis, calyce 4-fido, foliis in nervo

et secus marginem puberulis affrinxque eximiō glanduloso-punctatis
sepiusque vernicoso-nitidis, etc. Optimē convenire
P. Persicaria var. *vernica*, Chamiso et Schlecht. in Linnae, III
(1828) p. 43, (planta Chilensi et Brasiliensi), quam non vidisse dole-
Nostram tamen stirpem pro mera varietate *P. Persicaria*

cesomus.

Willd.: spicis paniculatis strictis continua laxè
multifloris bracteis subimbricatis muticis, pedi-
cel... exsertis, us 8- rariū 7-andris semi- 2—3-gynis, calyce
5-fido, acbenii lenticularis, rariū triquetri, faciebus convexis tener-
e punctatis nitidis, ochreis muticis, superiori, us internodia longè
superantibus, duloso-punctatis caule erecto sub-
glaberrimis et, preter folia, eglan-
simplici, omni-
du

Orientalis regiones inferiores vulgatissima
species. V.sp. - t o. lecta in Oude 1825, et in ripa fl. Irawaddi
Pouckto 1826 (Wall.ch!), ad Tahuyadabar (Herb. Hamilt.), 1-
Vitheesperenco fat* O.y*
(Wight)
Herb. R
vidimus.

P. glabrum Willd. (haud Don.) Meisn. J. c. p. 78. Wallich Ck&
mauritium Hamilt.
p. 29.) fide specim.

(authentic! I) in Herb. »¹ ^ ^ dum 0 · p 1111 cte, is impunctatisve.

). P

Willd. n. 1720! (minime Linn, et auct.)
Wall. Cat. n. 17-su. v
nominis nob.: foliis, maxime subt., punctis glandulosis
immersis densissimè conspersis, pedu-
obsolete glandulifens.

p. ^ITM., Wall. Cat^n. i71^ partim et specimina in ripa
auk a-Long
fl. Irawaddi ad * * * £ J , denique plurima Herb. Wight.
(in Catalogo ^ < * f * £ le Herb. Hamilt.! e Mhayadabar
prop. n. 10 et al. (Wall. Cat. 1711) !

Intermedia α inter var. α et β sunt: plura specimenia Herb.
Madrasp. (17H, * et Herb. Wight. (1711, D). Utraque forma
mod 6 saturatis rubeolis, et
præterea hudit: floribus modopat. illid., mod 6
foliis nunc v. sepe ad 10 polli longis, 14 latis, semper
et 1720) nunc erectis, sed firmis. Glandulæ squamiformes pen-
acuminatis staminum insertiones horumque 9/18 * *
gynfi in 3r affinibus facilè distinguenda ochreis longis org. exacte
Specie ab affinibus facilè distinguenda ochreis longis org. exacte
circumcisso modo bracteisque et foliis haud ciliatis, omniq. pube-
ciscientie levigio vel levissimo in quavis plantæ parte penitus defici-
ente. Proxima, et nimis ferè affinis, *P. acuminata* H. B. K.
23. *P. strictum* All.: spicis laxifl. subcylindrico-linearibus,
interruptis, bracteis brevi-ciliatis gl. fil. longibus
rariū 3-gynis parvis, calyce 5-fido, eglanduloso,
ach rariū triquetri faciebus laevibus nitidissimis,
ochreis ciliatis parce adpresso-strigosis, foliis lanceolatis linearibus ave-
basi sepe rotundatis v. subcordatis glabriusculis ciliolatis, caule
prostato v. adscendente basi radicante.

Hab. In Napalia (Wallich, a. 1821). Goalpara et Lalgunj (Hamilt.).
Nilghiry (Wight, in cuius Herb. prop. sub n. 7 sp. vidimus sine
nom. specifico); v. sp. oo.

P. strictum All. Meisn. l. c. p. 7 *P. minus* Ait. et auct: plur.
subcontinuum nob.: spicis brevibus contractioribus vix basi in-
terruptis, floribus confertioribus.

Meisn. l. c. p. 75, partim, sc. quoad specimen ex
memorata! (cfr. adnot. 2). *P. Banksii* Herb. Hamilt.
(Wall. Cat. «*•£, n. 1722, B!) *P. Poematu* (Hamilt.) Wallich!

(Wall. Cat. «*•£, (haud Dom, nec Meisn. l. c. p. 73). *P. tenellum*
p. 530.

: spicis subfiliformibus elongatis plurimis in-
terruptis laxifloris.

Vxi. III.

Hujus forma; etiam apud nos rareris, ex India Orientali nulla
hucusque vidimus specimen. Reichenb. ic. t. 493 (bona).

Adnot. 1. Specimina nostra indica flores non nisi 5-andros adhe-
niumque offerunt constantissimè lenticulare, nee unquam triquetrum.
Caeterum cum pluribus plants Europeae formis habitu omnibusque
characteribus essentialibus ad amissim convenient.

Adnot. 2. Sub nomine *P. mitis* Pers. piures species diversas
olim confusisse candidè fatemur. Specimina enim, etiam a Wal-
lichio missa, quae ante sex annos in herbario illi: DeCandollei ex-
aminavimus et ad *P. mite* Pers. retulimus, a suprà citatis (praesertim
Wall. n. 1722, A) nullo modo sunt distinguenda. Quid autem sit
verum *P. mite* Pers., quod 8-andrum dicitur, nescimus. Quae enim
hoc sub nomine a cl. Torrefj missa vidimus specimen (Boreali-
Americana) neque in Persoonii diagnosin quadrant, neque *P. stricto*
propinquia, *P. Persicaria* autem simillima sunt.

24. *P. acre* Humb., Bonpl., et Kunth: spicis geminatis v. panicu-
latis longis subfiliformibus strictis basi interruptis, bracteis remotis
obtusissimis angustis 1—3-floris pedunculisque et calyce 5-fido fusco-
punctatis, pedicellis exsertis, floribus 8-andris semitrignis, acheniis
triquetri faciebus granulato-striatis, ochreis glanduliferis ciliatis, ra-
riū muticis, foliis lanceolatis pellucido-punctatis fusco adspersis,
caule eret' ricato-ramoso punctato glabro.

Jitab. In Bengaliā, I^o ^ olia (Wallich!), Belya (Hainilt.), ad flum.
Kaweri in Peninsula (iierb. *L\$***? - 0 5 ••• SP. 00

P. acre Humb., Bonpl., et Kunth, Meisn. 1. c. p. 77 (cfr. adnot.).
P. glabrum Don? J. c. p. 71 (non Willd.) > ^,
a setigerum nob.: bracteis subpilosis dens & f. ^{partim} > ^{longis} hreis longis
barbatis adpressis strigosis v. glabrescentibus, foliis rih3^r*ne scabris
in nervis subtus scabriusculis glaberrimis. (Flores laet^ ilP^a d^{ens} ^
punctati, panicula multispica.)

P. mite Pers.? var. *majus*, Wallich! Cat. n. 1721, C! (parting
P. *Donii*, Wallich Cat. n. 1723, A! (non Meisner!)

3 *breviciliatum* nob.: bracteis ochreisque glabris brevi-ciliatis,
foliis margine scabriusculis utrinque glabris. (Flores albidi v. carnei,
spices geminae et solitariae remotè subpaniculatae, folia saepius eximiō
pellucido-punctata.)

P. *Jlaccidum* Herb. Hamilt. e Belya (Wall. Cat. fol. 214,
n. 1721, <F!)

y *submuticum* nob.: bracteis glabris superioribus muticis, inferi-
oribus ssp. brevissimè et remotè ciliatis, ochreis glabris brevi-ciliatis,
foliis utrinque glabris margine scabriusculis laevibus. (Flores
albidi v. pallid^a carnei basi virescentes, spicae geminatae v. solitaris
rariores, vix unquam paniculatae.)

P. *mite* Pers. Wallich! Cat. n. 1721, A! et partim C!

& *muticum* nob.: bracteis, ochreis foliisque glabris non ciliatis.
(Flores pallid^a carnei, spicae rarae subgeminatae.)

P. *Hydropiper* Herb. Madrasp. (Wall. Cat. fol. 214, n. 1721, H!)

Adnot. Species, quoad specimen nostra, primo aspectu *P. Hy-
dropiperi* L. persimilis, sed certè distincta: spicis etsi tenuioribus
magis tamen erectis strictioribus, nisi basi nunquam interruptis sem-
perque t^ahyllis, bracteis arctioribus firmioribus, floribus paullò mi-
noribus nunquam non 8-andris, achenio denique *semper* (in *P. Hy-
dropiperi* rarius) triquetro. Authenticum quidem specimen *P. acris*,
H. B. K., hucusque non vidimus; quae sub hoc nomine in Herb.
amici cl. Rooper exstat planta (ab am. D^{re} Schiede in Mexico lecta
et a cl. Schlechtendal communicata,) optimè convenit cum varietate
nostra 3. Cum eadem forte conjugendum erit *P. serrulatum* Lag.
(Meisn. 1. c. p. 77).—Nimis affine etiam nobis videtur *P. oryzetum*
Blume, l. c. p. 532.

25. *P. Donii* nob.: spicis subgeminatis paniculatis longis fili-
formibus flaccidis interruptis, bracteis arctis longè remotis setoso-
ciliatis sib^a floris, pedicellis exsertis, floribus 8-andris semi-trigynis,
achenio triqui^a tro ifaciebus, calyce 5-fido subimpunctato, ochreis
laxis adpressi pilosis longe ciliatis, foliis lanceolatis oblongis acumini-
natis, subtus lispidulis margine ciliatis, caule basi radicante ad-
scendente ramoso.

Hab. In Napalia 1821, et Taong Dong Avae 1826 (Wallich!), Go-
alpara (Hamilt. 1); v. sp. oo.

aut vix 2 ta. longo, rariis cari: strigis aculeiformibus in
fohorum margine nervosuj libus simplicibas vel raaiosissi.
mis, nonnunquam basi ~ * ~ d cta dijudicare audemus.

T f p ^ L - if: ** ^ i S brevibus densilori,
floribus 8-andris semitrilnis, achenio triquetro, ochreis fohtac^s
caule p.fossis patentibus/foliis peltato-triangulanbus obtuse, nervo
subtus medio petioloquefum caule angulato ramoso peduncuhsque

re t f r C i a (W c h i 1821), Sillet(F.DeSilva!), Bhawani-
gunj (Herb. Hamilt.); Hilit in Hort Eot ^ ^ s p . > o.
P. perfoliatum Linn JLV Leisn. 1. c. p. 65., Wallich! Cat n. 696'
A ! I. C-D (in Sift, lect a F. DeSilva), E (Herb. Hamlt), et
F (Herb. Roxb.) que * vidimus.

S^olo V. CEPHALOPHILON.

Cotyledones accuj;tes. Achenium triquetrum, ramus lenticu-
lare. Stylus semi-2 C, stigmas, stigmatibus pamis. Stamma 8, ranus
5 aut 6. Calyx co*milia*us infundibuliformis, rarius compresso-urceo-
latus, apice breviter 6. ius 4-fidus, achenium maturum superans
included ipsique quasi adglutinatus. Fibres subsets
capitati. Bractea epilace^v. scariosa parvissima ciliata.

TiKPJfi.Persicay, § 2, et *Aconogoni* § % Meisn. Monogr.
Polyg. Prodr. pp. 82 eVw-V ^ ^

§ 1. *Didymocephalon*, capitulis geminati, rarius solitarii, ochreis
circumscisso-rwcatis. ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^

30? *P. filicaule* Wal sessilibus solitariis geminisque, bracteis paleaceis inconspicuis, flori-
a 1 semi-trignis achenio triquetro calycem sub-superante,
bus T atu iuscilis, faciebus nitidulisti nerrim punctulatis, calyce
anguis acutusculis ochreis brevibus laxis foliisque utr que ad,
profunde 54d Pa lo. ^

presse pilosis ciliata, caule simplici.

Hab. In ! ipo Cat.fol.86,n. 1694! (var. etf>amplectens).

P. filicau Wallich! Cat.fol.86,n. 1694! (non Lour.).

p. olir M Pon ^ u ^ c p ^ 73 (non Lour.).

p. olir M Pon ^ u ^ c p ^ 73 (non Lour.).

p. olir M Pon ^ u ^ c p ^ 73 (non Lour.).

p. olir M Pon ^ u ^ c p ^ 73 (non Lour.).

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p. olir M Pon ^ u ^ c p ^ 73 (non Lour.).

p. olir M Pon ^ u ^ c p ^ 73 (non Lour.).

5 Jin. lata, plurima autem dimidiò niuora, saepius suborbiculato-rhomboidea brevissime acuminata, superiora ovata acumiata sessilia. Capitula vix nisi minoris magnitudine. Flores omnium specierum hujus sectionis facile minimi, albi. Calyx compresso-urceolati laciniis limbi exiguis. Species a P. perforata, quocum confusam accepimus, caute separanda, facilèque distinguenda: capitulis longè pedunculatis semper solitariis, floribus nunquam 8-andris, achenio lenticulari, foliorum formâ, punctis pellucidis raris obsoletis v. nullis, etc. Accedit quodammodo ad P. Napolense, achenio scil. lenticulari, sed longè differt, calyce 5-fido, staminum numero, omnibus partibus minoribus, foliis etc.

32. *P. perforatum* Meisn.: capitulis parvis terminalibus geminatis axillaribus solitariis, bracteis subscariosis glanduloso-ocellatis, floribus 8-andris semitrifugis, calyce 5-fido, achenii triquetri faciebus ovatis granulatis, ochreis muticis deciduis, foliis ovatis obtusis basisubito cuneato-angustatis auriculato-semiamplexicaulibus, eximie pellucido-punctatis.

Hab. in Napalia (Wallich! 1821) v. sp. oo.

P. perforatum Meisn.! 1. c. p. 83, cum descr. *P. punctatum* Don ? 1. c. p. 72.

a *hispidulum* nob.: caulis adscendentibus infra nodos pedunculisque apice pilis patulis v. retrorsis et saepius glandulis pedicellatis hispidulis, foliis utrinque hispidis marginem saepius ciliatis, pedunculis axillaribus solitariis aphyllis folio plus duplo longioribus, bracteis ovatis acutis.

P. perforatum Wall. Gat. n. 1700! (exclusis specim. ad P. humile referendis.)

3 *Icavigatum* nob.: omnibus partibus glabris laevigatis, foliis supremis angustis lanceolatis linearibus basi hastato-auriculatis, petiolis plerisque divaricato-dichotomis, saepius paniculatis, abbreviatis foliosi? trateis subacuminatis.

P. Napolense Wallich! VcS^n. 1701, partim! (non Meisn.)

33. *P. Napolense* Meisn. ^ ^ p m ^ ^ sessili cordate suffultis, pedunculis geminatis, bracteis subscariosis ^ ^ iis! ^ iue muticis g ^ a ^ bris, floribus 6-andris semidignis, calycis limb(N. ^ b ^) acen ^ ^ compresso faciebus convexis eleganter reticulato-scorbuletat^ M^ y ^ summis sessilibus oblongis cordato-amplexicaulibus, inferiorum limbo ovato acuminatae basi subcordatae in petiolum quasi alatum decurrente auriculato-semiamplexicauli, subtus glandulis immersis subpellucidis parcè punctatae.

Hab. In Napalia (Wall. 1821), Sirmore (Dom. Gerard.), Mont. Neelghiry diet. (Wight!); v. sp. oo.

a *glabrum* nob.: foliis utrinque glabris, capitulis plerisque distincte pedunculatis. «

P. Nepalense Meisn.! 1. c. p. 84, cum descr. et ic. t. vii. f. 2.— Wall. Cat. n. 1701, partim!

(3 *scabridum* nob.: foliis in nervis subtus hirtellis margine subciliatis, capitulis sessilibus aut brevissim & pedunculatis. Wällch Cat. n. 1701, partim! "Koenigia?" Herb. Wight, propr. n. 1!

Ab omnibus affinibus differt: calycis limbo semper 4-fido.—Intermedium quasi inter *P. perforatum* et *P. microcephalum*; a priore, cui simile foliorum formâ punctisque subpellucidis, differt: capitulis (pisi majoris magnitudine) folio suffultis geminatis saepè sessilibus, floribus majoribus, achenio lenticulari; a *P. microcephalo*: partim iisdem notis et praeterè bracteis ovatis acutis ssp. acuminatis ochreis muticis, foliis subtus punctatis, etc.

34. *P. microcephalum* Don: capitulis nudis, pedunculis geminatis apice hispidulis, bracteis scariosis subciliatis, floribus 8-andris semi-trifugis, calycis infundibuliformis limbo 5-fido, achenii triquetri faciebus granulatis, ochreis brevi-ciliatis, foliis impunctatis oblongis acuminatis margine ciliatis in petiolum cuneato-angustatis, petiolo nunc alato semi-amplexicauli, nunc aptero basi appendice foliaceo-reniformi ciliato utrinque auriculato.

Hab. In Napalia (Wallich! 1821), Goalpara et Dongtola (Hamilt.); v. sp. oo.

P. microcephalum (Don) Meisn.! 1. c. p. 82, cum descr.

a *subvillosum* nob.: foliis utrinque et ochreis molliter adpresso-pilosus, caule ubique pilis patentibus fuscis hispidulo.

P. microcephalum Don 1. c. p. 72. *P. staticiflorum* Wallich! Cat. n. 1704; 4!

j3 *glabrum* nob.: caule, foliis utrinque ochreisque glabris non ciliatis.

P. staticiflorum Wall. Cat. n. 1704, li! P.? *panduraiforme* Herb. Hamilt.! e Dongtola (Wall. Cat. fol. 214. n. 1704, D! non *P. path duraförme* Herb. Ham. e Goalpara, quod v. sub *P. chinensi* nob. n. 39. Wall. Cat. fol. 214. n. 1707, fi!) *P. strigosum*, Herb. Hamilt.! e Goalpara (in Wall. Cat. non citatum) quod pilis raris transitum ad var. & indicat.

Praecedenti et magis adhuc sequenti valde affine.

35. *P. Wallichii* Meisn.: capitulis geminatis, pedunculis filiformibus elongatis glabris, bracteis scariosis obtusis muticis, floribus 8-andris rarijli 6-andris semitrigynis, calycis limbo 5-fido, achenii triquetri faciebus granulato-striatis, foliis impunctatis glabris ovatis acuminatis e basi subcordata in petiolum non alatum breviter productis, margine ochreisque brevi-ciliatis, auriculis ad petioli basin subdeciduis, caule glabro.

Hab. In Napalia! v. sp. oo.

P. Wallichii, Meisn.! 1. c. p. 83, cum descr. et ic. t vii. f. 1. Wall. Cat. n. 1702!

Proximum praecedenti et forsitan ejus varietas. Constanter tamen ab eo differt: bracteis magis scariosis, nunquam ciliatis, majoribus, semper obtusis (in illo rarissime), pedunculus glabris lsvibus longioribus, floribus nonnunquam 6-andris, foliorum limbo petiolum nunquam ad basin usque comitante.

36. *P. spharocephalum* Wdlich! (Cat. n. 1703.) : capitulis solitariis longe pedunculatis rarijli geminis altero subsessili, bracteis paleaceis acutis muticis, floribus 6-andris semitrigynis, calyx magno 5-fido, ochreis muticis, foliis ovatis acuminatis e basi subcorta. J' y petiolum obsolete alatum basi nudum decurrenti, ^ un 4, ti margini ciliatis subtis in nervis pare* ^ ^ ^ repente ramis adscendentibus glabris.

Hab. in Napalia (Wdlich! 1821); v. sp. oo.

Caulis debilis (Wdlich! 1821); v. sp. oo.
prost. * * * * * prostratus, repens, 1—1 pedans et ultra, rami * * * * * tempedales. Ochrés lax®, lacerse. Folia supra glabra cum petiolo vix pollicaria, rarius sesquipollucaria, 4—10 lin. lata, ne superma quidem sessilia. Appendices petiolaris in nostris specimini bus frustra quaequivimus, inde aut plan& deesse aut perfugaces esse videntur. Pedunculi 1^—2 poll, longi, rarissime geminati, altero brevissimo, apicem versus glanduloso-hispiduli. Capitula cerasi minoris magnitudine. Bracteae satis tenerae ovato-lanceolatae acute nunquam ciliatae. Flores pallid^ rosei, qukm in *P. Bistorta* paullé majores. Calyx infundibuliformis 5-fidus* lacinii subacutis semi-patulis. Stamina calycem subaequantia inclusa. Affine *P. Wallichii*, sed facil& distinguendum: bracteis acutis tenerioribus, floribus capitulisque majoribus, pedunculus solitarius, etc.

37. *P. repens* Wallich! (Cat. n. 1699.): capitulis compactis, pedunculis geminatis insequalibus saepe solitariis, bracteis paleaceis acutis muticis, floribus 8-andris semitrigynis, achenii triquetri faciebus obsolete granulatis, ochreis brevi-ciliatis, foliis ovatis v. ellipticis subacutis, petiolo brevissimo bi-auriculato, caule repente sublignoso ramoso cum ochreis foliisque pube purpurascente hispidulo.

Hab. In Napalia (1821); in Kamoon (R. Blinkworth); in Pundua (F. DeSilva); v. sp. oo.

An cum *P. capitato* Don. (Meisn. 1. c. p. 82) conjugendum?

* *pingue* nob.: foliis crassiusculis majusculis (1—1½-pollicaribus) septe glabrescentibus, petioli auriculis magnis persistentibus, capitulis cerasi minoris magnitudine, ramis elongatis laxis.

j3 *macilentum* nob.: foliis minoribus (ad summura semi-pollicaribus) auriculis petioli parvis fugacissimis, capitulis pisi majoris magnitudine, ramis abbreviatis internodiis contractis.

Wallich Cat. n. 1699, C (partim).

Praecedentium vix ulli arctiore affinitate conjuncture Folia saep& egregi^ insequalatera et basi obliqua; capitula, praesertim ante florum evolutionem, saepius ovato-conica, semper densiflora.

38. *P. runcinatum* Hamilt.: capitulis geminatis, pedunculus hispis, bracteis subscariosis acutis muticis, floribus 6- vel 8-andris

semirigynis, achenio triquetro, ochihispidis brevi-ciliatis, foliis lyratis lobo terminali maximo trian^ acuminato, petiolo basi bi-auriculato, caule adscendente ramos5

Hab. In Napalia (Wallich ! 1821)sp.oo.

P. runcinatum Hamilt. MSS. et V. c. p. 73. Meisn « 1. c. p. 85. Wallich Cat. n. 1698!

Species omnium distinctissima, unis sistens in toto, quantum mouit genere exemplum foliorum b-incisorum! Caulis sesquipedalis debilis; folia nunc dens* || lanato-pilosa, nunc glabrescens, 2-6-pomcaria, lobo terminali 4J poll. I^ g., 3 poll, lato, triangulare v. ovato-acuminato, lajbus utrinque 1 1/2 obtusissimis v. subacutis, brevibus longiori, foliasuprema, et nonnunquam recentiora, lobis lateralibus ant; auriculas petiolaras nepe magne et per aliam petioli cum lobis lateralibus subconfluentes. Capitula magnitudine cerasi, immajoris, densiflora. Calyx albidus viridescens v. rubescens, magnitudine *P. spherocephalum*, infundibuliformis, 5-fidus, lacinia subacutis, minima calyci subsequens styllo trifido dimidiò longiora. Achenia saturum non vidimus.

* 2 *rumboccephalon*, capitula coni-pedunculus subdichotomis ibois, corymbis subpaniculatis, leuis paleaceis, ochreis oblique truncatis.

39. *P. Chinense* L. nob.: 8-an, sp. similibus paniculatis, pedunculis cordatis suffusis, foliis subcoriaceis ovaj' h' acuminatis basi attenuatis cordatis, plfe mias, ido-punctata, petiolis brevibus basi appendice foliaceis subdeciduo utriusque arcuiculatis, caule affractico-cw rtmofc \$, d.

Habitatio: per totut videtur, Indiam Orient, divulgata « .

- * * * * diligens regiones hu-nidas atque S t. * ^ mus specimen permulta, lecta in Napalia, Kamoon i K. Thur (Kamroop), in Nilghiry (Dr. R. Wight, et Dom. N. J. M. Sillet (F. DeSilva), in Taong Dong Avi (W a L), in H. Bruce), in Dhupari, et Goalpara (Hamilt) in Cou* jita " * Cunniwaddi, promont. Madura, Dind, gul(D^ i S S ^ " T (Hb. Mad.), alibique in Peninsula (Herb. H e J o I S ? ^ Java: (Herb. DeCand.).

Adnot. 1. Speciem hanc etiam in Brasilia Meridi. onali gigantea dubitamus. Specimiini enim, quod a Commers adiectum lectum dicitur a Poiretio (Diet Eneycl app. T. ? ^ Roeper, nunc asservato, schedula adjecta (nec adfixa) etiam Poiretii manu scripta, v. s. diud specimen, priori similimum (forte eodem loco 1. s. t. diud schedula (non adfixa) etiam Poiretii manu scripta, v. s. diud utspeciminis inventorem indicat. Hinc illius/p. onati > nime certa. Recentiorum præterea oereorih * origo minus, e Brasilia hanc qLZZSTTM0*** ^ ****

a *Thunbergiam* nob.: foliis ovatis acuminatis, L (rarius subcordatis) in petiolum pl. minus pr. ductis subtus in nervis hispidulis, marene J. subtegumentis gla- solete crenulato-crispato, petioli auriculis rugos, coriaceis subsimplicibus, pedunculis w n f r, coriaceis trifidis, eglanduloso-hispidulis v. rufabri aploë dicotomatis, magnitudine, bracteis elongatis, floribus dbidi, maiores

P. ai**c (Linu., Meisn. 1. c. p. 60 n T. subb. ! specimen autographum, in Herb. DeC. L , cujus **»

8 PA Chin Hb Cat C t fol. 214. n 1707, C! P. p o l. Wa. ^ , Wa. lich 4! P. aumulatum, (Meisn.) Wallich r »

- Herb. Heyn). P. Ofymblm Wh*: + 1705, /, partim J

L c. P. 533. Runes* m U b b u ^ ; d b » . c. dwiflorum Bluine,

(3 ovalifolium nob.: foliis ovatis, H. ^ « » U? glaberrimis (rarissime subtus in pery! Utinque ac nimati, "mo piano v. subrevoluto obsolete puberulis.) niargine i,,,

v. - - - - - capitulo nepe cornu densè glandulosa, calyx.

P. aurikulatum Meisn.! 1. c. p. 59, cum descr. et ic. t. vi. Wallich Cat. D. 1705, *El* (specim. florib. albidis) A! (florib. bracteisque rubellis vel purpurascensibus.) *P. chinense* Herb. Madrasp.! (sp. oo. e Bangalore, florib. bracteisque in aliis rubris, in aliis decoloribus vel albidis, Wall. Cat. fol. 214. n. J705, !)

Coccoloba indica Herb. Wight, prop. n. 3. et 5 (sp. florib. rubris, albivis, e montib. Dindygul, Courtallum, Nilghiry, Promont. Madura, altitud. 1000—3000 ped., et sp. e montib. Cunnawaddi, florib. carneis, Wall. Cat. fol. 214. n. 1705, HI)

y brachiatum nob.: foliis ovatis cordatis, rariis basi subtruncatis, subtus in nervis venisque prominulis hirtellis, margine revoluto crispato-undulato vel subcrenato, petioli auriculis minoribus sub" persistentibus, corymbis laxis paniculatis, pedunculis gracilibus divaricato-dichotomis trifidis patulis eglanduloso-scabriusculis, capitulis (piso vix majoribus) bracteisque minoribus (flor. albidis vel rubellis?)

P. brachiatum (Poir.) Meisn.! 1. c. p. 59, cum descr. Wallich Cat. n. 1706. *P. aurikulatum* (Meisn.) Wall. Cat. n. 1705, A! (partim) et partim F! (sp. ex Hb. Heyn.) *P. patens* Don ? (Meisn. 1. c. p. 60) quod nonnisi caulinis decumbentibus differet, et foliis oblongis quodammodo ad var. nostram accedere videtur. *P. corymbosum* (Willd.) var. *d. asperum* Blume? J. c.

Adnot. 2. *P. brachiatum* Poir. (fide specim. autographi in Herb. Lamarck., nunc Roeper.) quoad inflorescentiam omnino cum var. nostra y, quoad folia autera cum var. a convenient.

I intermediate nob.: foliis inferioribus ovalibus, superioribus oblongo-lanceolatis basi subtruncatis vel subito attenuatis, utrinque glaberrimis, auriculis subpersistentibus saep& inaequalibus, pedunculis strictiusculis. (Cst. ui m van^a ^ .. ^ .. .)

P. zunculatum (Meisn.) Wan. Cat. n. 1705, Fl partim (sp. Herb. Heyn.).

Forma egregia, simul colligens var. JS, y, g, et f.

g subhastatum nob.: foliis oblongis lanceolatisque acuminatis basi truncatis subhastatis subcordatis, in petiolum saeptis parum productis, utrinque glabris vel raritis in nervo subtus puberulis, integer rimis planis subcoriaceis, petioli auriculis parvis subdeciduis, panicula corymbifera trichotomis saep& ramosissima, pedunculis abbreviatis parc& eglanduloso-scabriusculis, capitulis piso rarissimis majoribus.

P. brachiatum Wall. Cat. n. 1706, A, et B! (partim). *P. auriculatum* Wall. Cat. n. 1705, Fl partim (Hb. Heyn.). (Wall. Cat. fol. 214. n. 1707, B.) - "P.?panduriforme" Herb. Hamilt.! e Gualpara, specim. gracile, foliis latioribus insigne. (Haud *P. panduriforme* Hb. Ham. e Dongtola, quod est *P. microcephalum* nob. n. 29).

P. corymbosum (Willd.) b. *subhastatum* Blume? 1. c.

f corybosum nob.: foliis oblongis angustis lanceolatisque basi subito attenuatis integerrimis, nervo subtus piliferulo, corymbis contractis simplicissimis 3-cephalis subgeminatis, capitulis majusculis (fructiferis cerasi magni.) pedunculis brevibus eglanduloso-hispidulis.

P. corybosum Willd. (Meisn. 1. c. p. 60 et 98), var. a. Blume 1. c. p. 533. *P. brachiatum* Wall. Cat. n. 1706, A! (Pauca specimina.) Huc etiam referendum sp. sine nom. in Herb. Wight, prop. n. 2! in Nilghirry lectum.

Adnot. 3. Wallichius (in lit. dat. d. 27 Mart. 1832) sequentes insuper iriemorat plantas hue spectantes et in catalogum inserendas, quas quo vidimus igiturque suis locis inter varietates supra enumeratas distribuebam non possumus: n. 1705, G: sp. ex Hort. bot. Calcutta, e Taong Dong introd.; H. *P. sinense* Herb. Wight, ex Horto Heyneano. I.*- *Sinense* Herb. Madr. e Courtallum. K. *Coccoloba eripspatula*, Herb. Roxb. M. Mont. Sitieth, W. Gomez.

Adnot. 4. Species adeo polyomorpha ut primo intuitu quot singula specimina tot feri species distinguere tentaremur. Magnam affinitatem quid connectuntur *P. chinense*, *aurikulatum* et *brachiatum*, jam ante sex annos in Monogr. Polyg. prodromo nostro (p. 60. sub n. 24) j. * ^ o Rimilemque hypothesis serius protulit Wallichius ^{A.} Cat. Herb. L^ b p. 1705 1706 et 1707. Deinde et Blumi Lcriptiones varietatum *P. corymbosi* Willd. ad conjecturam nos conduxerunt, haec quoque speciem cum prioribus in unam forte esse

conjugendam, (cfr. Prodromi nostri Append. p. 98). Magna denique egregiae specimen copia quae sumisse liberalitati Ampliss. Procurationis Britannicae Ind. OK atque amicite Wallichii debemus, persuasum nobis est, certos limites invariabilesque characteres quibus istae auctorum species distingui possint, re vera non dari, sed omnes per formas intermedias in vice in conjungi,—quod facil & nobis erit probandum v. g. varietate nostra &, specimen quodam sub Wall. i. 1706, A. misso, aliisque. Etsi *P. corymbosi* Willd. specimen authenticum non vidi semus, dubitare tamen vix possumus, quin in variis nostris & quadret. Specie ita reformata, nomen servavimus Linneanum quia antiquissimum.

Adnot. 5. Speciem, olim sectioni Aconogono, in vita natura ad sociatam, speciebus hodi & reddimus cephalophilis quibus, prater inflorescentiam, verà affinitate jungitur florum acheniorumque structure, auriculis petiolaribus, etc.

Sectio VI. ACONOGONON.

Cotyledones accumbentes latae, albulfinis rima immerisce. Achenium triquetrum acutangulum, maturum calycem superans. Stylus trifidus. Stamina 8. Calyx profundus 5-fidus patens, sepals planis. Flores racemosi, racemis paniculatis. Ochreis cylindricis ore nunquam setiferis. —Herbae aut suffrutices radicibus perennibus, regionum globi frigidarum aut calidiorum nonnisi montium incolae.

(Sectio Aconogonon § 1. Meisn. Monogr. Plbyg. Prodr. p. 56).

40. *P. molle* Don: paniculis ramosissimis aphyllis, racemis confluentibus strictiusculis, bracteis 3—6-floris pedicellis erectos subaequantibus, calycis parvi laciniis aequalibus anguste ovalibus acutiusculis, ochreis petiolum aequantibus internovis brevioribus, foliis *, * ^ -ipnenciatis brevi-acuminatis subtus lanato-velutinis, supra oblongo^nxdnrei glabrescentibus, c 2A! fe*¹⁰⁰ 52! amoso cum ramis Pedunculus ochreis que piloSO. —Kn fiw^nrrijl^ ^

Hab. InNapalia (Wallich! 1821), et Pindua (D è S H ^ ^ sp. oo).

P. molle Don. 1. c. p. 72. Meisn.! 1. c. p. 56. Wallich Cat. n. 1685, AI et BI *P. paniculatum* Blume? 1. c. p. 533.

Variat; pube omnium partium rariore, breviore, foliis supra glabris subtus pilosusculis hispidulisve.

Adnot. In hac et sequenti specie in fundo calycis observantur glandulae 8 hemisphaericae sessiles (purplead) hypogyna cum staminum insertionibus alternantes, illis *Fagopyri* (cfr. Meisn. 1. c. t. iv. R. fig. 1 et 2) omnino similes.—Achenii maturi castanei, calycem haud multum superantis, facies rhombob-ellipticae nitidae, punctis exiguis, lentis nonnisi fortioris ope conspicuis, notatae.

41. *P. polystachyum* Wallich! (Cat. n. 1686!): paniculis subsimilibus, racemis folio suffultiis pedunculatis discretis gracilibus, bracteis 1—2-floris, pedicellis patulis, vel nutantibus bracteis triplo longioribus, calycis magni laciniis obtusis inaequalibus, interioribus 3 orbicularibus, exterioribus 2 ovalibus dimidiis minoribus, ochreis petiolo intermodioque longioribus, foliis oblongis longe acuminate, caule fruticoso.

Hab. In Kamaon (Blinkworth), et Sirmore (D' Govan et Dom. Gerard); v. sp. oo.

cc glabrum nob.: omnibus partibus glaberrimis.

[3 pubescens nob.: caule, pedunculus, ochreis, bracteis, petiolisque puberulis vel pilosis, foliis supra glabris, subtus velutinis. Valde affine praecedenti, habitu praecipu & et foliis, sed certe diversum et faciliter distinguendum: floribus triplo majoribus, racemorum pedunculis teneris basi floribus bracteisque parentibus, etc.—Achenium maturum non vidi.

Sectio VII. AvicULAJirA.

Cotyledones incumbentes. Achenium triquetrum calyce parum aucto inclivum. Stigmata 3 subsessilia, globosa, discreta. Calyx 5-partitus. Stamina 8, rarius 5 aut 6. Flores axillares subsolitarii aut fasciculati, in ramorum apice saepissimis aphyllis nonnunquam spicas mentientes interruptas. Ochreae tenerae basi tantum vaginantes, plurimque bipartite, laciniis fimbriato-laceris.—Herbae annuae (rariis suffruticulosae?) radicibus fibrosis (interdum perennibus?)

42. *P. angustus* Meissn. (J. c. p. 30): floribus exiguis tuberculatis, solitariae granulatae, 3-andri, calycis hemisphaericae, acheniis minutiis sexangulis fasciculis levibus nitidis, adhuc bifidis raro facies flores superstitibus, folia fuscida linearibus subcuneatis penitervis planis internodis longi superantibus, caule basali herbaceo fibroso subducendo septi dichotomo-ramosa.

Hab. In Kasmir (Blind-worth); v. sp. no.

P. Dryandri (Spr.) Wallich Cat. n. 1091, *D* specimen plenum.

Adnot. — UIP specimenibus a Perrettio ad flum. Senegal Iertia Wallichiana optime convenient. Accedit quodammodo ad *P. heterostachys* forma a, foliis sed linearibus fuscis, sed differenti evolu. lirioribus, floribus numerosis varioribus subcuneatis, foliis levibus internodis longioribus. — Flores omnium genera specimenum faciliter malos, fortis 6—8-andri.

43. *P. difformis* Lab.: fasciculis axillaris 2—4-dorsi, pedicellis calycis ochraceis levioribus, floribus $\text{---} \cdot \cdot \cdot \cdot \cdot$ t. $\text{---} \cdot \cdot \cdot \cdot \cdot$ pulchris laevibus subcuneatis, extenuatis subcarinatis, acheniis sexangulis fasciculis levibus nitidis, ocellis fuscis, foliis linearibus scutis rigidis marginis revolutis apice canaliculatis, utique punctato-asperis sericeo medio subtus pubescenti, caulinis pauci-adscendentes v. erectis strictissimis ramosis.

Hab. In Nipala (Wall.), Sikkim (DeSilva), et Kasmir (Blind-worth); v. s. sp. no.

P. Dryandri (Spr.) Wallich Cat. n. 1091, *B* (partim) *D* (partim) et principis specimenis expaloribus in catalogo non citata.

Ovalis e basi levigata plana [—] 15 pedales, in vegetabilibus specimenibus inferius ligatus; internodis lineata, ad summum semiplicata, plurimque nolis brevior, in ramorum extremitate levigata et crenata, tunc subcrenata, tunc abscondita. Folia 2—5 ped. 1 longa sententiam internodis digredi duplo 67mm, calycis marginis 1—1.5 mm. lat., crenata, foliis levibus subcuneatis, longioribus, recens, levigatis crenatis, apice levibus, sinuosa usque ad 1.5

alternans plana, serice tenuis subtilis semper prominent. Flores rubelli subtilis, quia in *P. excelsior* 3 numeris, nonque patens, in apice rotundata, ab internodis levigata, solo approximata, ut spicam foliariam ex parte subcuneatis imitus videtur, staminis lateribus 6, petalis 5; achenium rugosissimum et formam cum illi *P. heterostachys* var. 8 non habet, apice tenuem, et sonans in seca immotum, obclivisimis punctato-striatum.

Adnot. Specie nolle dubio prope, jen habita ab efficiens recorda, proxima *P. trigon* Miers et *P. laufia* Roth, sed floribus duplo majoribus, foliis rigidis, v. bene distincta.

44. *P. heterostachys* Delle (Egypt. p. 13): floribus terciis parvis 8-andri, pedicellis calycis longitudine, calycis petali facilius plena obtusa, acheniis sexangulis fasciculis nitidis apice oblique punctato-striatis, ocellis levigatis, foliis levibus linearibus obtusis 1-nervis, emarginatis herbaceis procumbentibus jam rotundatis.

Hab. Pro totam, ut videtur, Indian Or.; v. sp. multa, loca in Bengala inferiori (1816) et Oude (1825 Wallich); Sikkim (DeSilva), Sikkim, Moungie et Dhomdola (Hamilt.).

a grossissima nol.: caulinis diffinis subangulis aliquo levibus, internodis elongatis latiss. plurimque superantibus, ocellis alio utrumque subangulis foliis dimidiis levigatis.

P. heterostachys (Delle) Schleb. Herb. Egypt.; Miers, J. c. p. 59. *P. Dryandri* (Spr.) Wallich Cat. n. 1091, *A* (partim) *B* (partim) *C* (part. *D*, *E*, *F*, *H*, et *K*).

Adnot. 1. Caules simplici index e radice nisi crassa et seu ligata plus degeñitatem, bipinnatis et ultra; internodis plurimque semiplicata, utique levioribus, radios 10 fin. longa; folia petala subcuneata (in speciebus Siberianis Egyptianis apice rotundata) floribus pallidi rubelli (in sp. Sieb. alii utrumque extrema media stra viridi rotunda). Herba gressu aliquod latere terraque laxa, non adpresso, incunibula violacea.

2. primitus sola: caulinis doris eranacaulis divaricato ramosis adpresso procumbentibus, internodis exstictis, foliis axillaris acuminatis, marginis revolutis utique subtus pubescens, radios internodis superantibus, ocellis fuscis, foliis levibus densis levigatis.

P. primitiva Roth! (sic specimen autographi in Herb. DeC.)

Cfr. etiam Cham. et Schlecht. in Linnae III, p. 51. *P. Dryandri* (Spr.) HML! (c. p. 56)—Wallich Cat. n. 1091, *A* (partim); *P. excelsior* Blb. Hamilt. (sp. e Schlecht., Wall. Cat. fol. 214, n. 1091, K); *P. excelsior* Indicus, Herb. Willdenow, ex Cham. et Schlecht. (c. *P. elegans* Soland. MSS.) (sic specimen in Herb. DeC.)

Adnot. 2. Incertum relinqutus cum forte litter specimen Rutherfordi (Wall. Cat. n. 1091, I, qui nondum vidimus) quodcum ad *P. indicum* sint referenda?

? intermedia nol.: caulinis diffinis ramosis, foliis primitis spicis romanesco sociatis adscendentibus internodis contractis, foliis levigatis levigatis, internodis levius levigatis ut exsayam superantibus, petalis, facile dividitis, marginis revolutis utique subtus pubescens, foliis levigatis, ramos levigatis aliis, ramos fuscis, floribus internodis, in ramorum extremitatibus coidatis appressis spicis cylindricis que, v. capitulis terminalia involucratis.

P. scandens a et d. Herb. Hamilt. et sjowden Herb. specimen, et Dhomdola? (Wall. Cat. n. 1091, K).

Adnot. 3. Specimens e Dhomdola foliis intermedioque suprae longioribus, ochraceis aliis truncatis in vte, a indicant. Flores pulchri, carnosae. Varietas y inflacione induta recorda ad *P. Parryi* Cham. et Schlechtend. I. c. p. 51, minimis minus cum hac specie confundenda.

Adnot. 4. Versus *P. excelsior* Link (planta Europea) quoniam in inflorescencia diversimodo forma ludens, a *P. heterostachys* nostro floribus distinguendam principiis acheniis fasciculis (qui in hoc modi floribus antedictis, spica tantum oblongata punctato-strata) operis utique exigit granulato-strata.

45. *P. indicum* Roth: fasciculis axillaris $\text{---} \cdot \cdot \cdot \cdot \cdot$ t. $\text{---} \cdot \cdot \cdot \cdot \cdot$ pedicella longissima, apicem diffusa, — foliis levigatis, marginis revolutis, foliis levigatis, foliis levigatis divergentibus, foliis levigatis, exteriores domini sunt crenatis, acheniis angulis subcrescentibus rotatis subtus apice oblique punctato-stratis, foliis levigatis levigatis subcrescentibus internodis longioribus petiolatis acheniis canaliculis radiatis apicem protrusa durissimis ramosis.

Hab. Cum praeceps in tota India vulgaris species; v. sp. multa loca in Bengala, inferiori (Wall.), Mysore (Herb. Madras?), Madras (Herb. Wight!), aliisque in Peninsula (Herb. Wight!) et Heyne!.

P. indicum Roth! Nov. Pl. Sp. p. 205, n. d. *P. Dryandri* (Spr.) Wallich Cat. n. 1091, *A* (partim) *P* (Herb. Heyne). *P. excelsior* Herb. $\text{---} \cdot \cdot \cdot \cdot \cdot$ prop. n. 121, et Herb. Madras? (Wall. Cat. fol. 214, n. 1091, II).

Adnot. *P. indicum* ali recte dicunt 6 andri, quod in vno et 10 spicis specimen confirmatum vidimus; coloribus a testis plantae vix differt. Petiolas marginis ad lepton marginis recurvo-crescentibus, nec vero serpulatis, ut el. Roth vult, curvatur. — Nostra stirpa variat: caulinis contractis oblongatis, et elongatis petiolatis spicis subcrescentibus, radios 2—10 fin. longa, 1—1.5 fin. lat., levigatis levigatis striisque attenuatis, vel spatulato-linearibus vel oblongis, apice rotundato oblique punctato-stratis, radios obtusis et marginis subcrescentibus. — A praecedente, cum variante il petiolis, concentricis distans majoris (est *P. excelsior* aquilis).

• * * His

Sectio VIII. Tropica.

Corymbos accumbentes. Achenea tripeta, calyx porta triplex recordum. Stigmata 3 achenia incrementis media contracta. Staminis 8. Calyx 3-partit apice angulus, 3 extimus dentes crenata, apice in alio membranaceum dentata, crenata-punctata-petiolata. Flores petiolatis raro utique fasciculatis, raro monopetalis vel petiolatis. Bractea ochracea conferta petiolata-membranacea, oblonga truncata decurrente. Folios levigatis subangulis foliis levigatis, inermes, villosiles. Radix fibrosa.

Sectio Tropica, Nees. Mon. Polyp. Prod. p. 62, tabl. 12.

46. *P. pterocarpa* Wallich! (Cat. n. 1090): floribus 2—5 fascio-axillaris, secundumque in ramos axillares subangulis levibus petiolatis congestis, petiolis subangulis fractibus deflexis

ealycem magnum alatum *quantibus, achenii faciebus elliptic!* granulato-striatis, caule scandente ramoso.

mh In Karaon! (R. Blinkworth); v. sp. oo.

«[»]: WbHu foliis calyceque fructifero omnin* convenit cum

Planta habet fohis c^{JJ} et foliis utraque specie

ZJZf3tf» f * **Aetostoma** **Ore** **lvid**

florum dispositions

FAGOPYRUM. Gartn.

Fagopyri sp. Tourn. Mœnch. *Polygoni* sp. L. et auct. plur. *Fagopyrum* Gaertn. *Polygonum*, Sectio *Fagopyrum* Meissn. Mon. *Polyg-*

pyrum Prodr. p. 61.

Flores hermaphroditici aut (abortu) diclini. Calyx corollinus pro-
lacinis equalibus post anthesin marcescens nec suc-
tus, .cteni. maturo brevior. *Glandula* by οκυνη 9 hemimph
riMe sessile* cam staa.in.bu. alternantes.
ve.aU.es. S., U 3.ongi. *Stigmata* integra, capitata, parva. A che.
.fa. rip k. m ^ m. Semen liberum. *Albumen* fariaosum
hipartitum. *Emryo* centralis: Cotyledones contortuplicatae, albu-
men partim entes, late, palmatinervia.—Herba foliis cordato-
bastatis.

1. *F. esculentum* Mœnch (Meth. p. 290): racemis paniculatis ab-
acheniis faciebus ovato-triangularibus la-
bus, angulis acutis integris, foliis cordatis

kbis obtusi. T. «"»^{od>ti}, ^{too}apaa »», at frumentam colitan. V.
JZXZZS^Z **Aetctitiae** **Napali** **Ut** **Hab**

Bot. Calcutt.! , j 61 (excl# synon. p. </>
Poly

bottys Don. »* «* Hamilt. e Goalpara **A** 2 f 2 M. ... iggT, B!) fide spec.rn.inf.
unici quod. vix diffe *2* f 2 M. ... iggT, B!) fide spec.rn.inf.
libus arplexicaulibus hastatis, floribus sueto minoribus, et, quantum
videre potui, non nisi staminiferis: sed etiam in *P. Fagopyro* nostro
sativo flores semper inveniuntur germine (abortu) destituti.

2. *F. cymosum* nob.: paniculis longè pedunculatis subaphyllis
dichotomis trifidis, racemis conjugatis subconfuentibus divaricatis,
subrecurvis, achenio maturo calyce plus dimidiò longiore, angulis
acutis integris, faciebus ovato-rhombeis .picem versus attenuatis,
inferioribus cordato-riagulibus. M* M. M. obtusius-
ialis, supremis oblongo- v. lanceolato-sagittatis, caule orgyalis annuo-

radicib. **Hab** n ^ H i X ^ ^ ! "» de in Hort. Bot. Calcutt.

introduxit " W § ^ ebb (Wdl.), Goalpara (Hamilt), ia Napalia

* IT' c »» «* Trevir. Delect Sem. H. Vrati. 1824 cum
f * a > . * J t | | t Cur. xar. par. i. P- <7, cum descr.
ding. A ^ A' 94- B ^ M b, o E, ^ eet .. p. 29. t 176 (op-
tim. T / f * * ^ t o. ftt Sem. H. Hamburg. 1820 et aa. «*
(cfr. Cham. et Schlecht. in Linnaea 111 Roth). *P. rugosum*,

P. emarginatum, Wallich Cat. n. 1 Roth. *P. rugosum*,
Herb. Hamilt. e Goalpara, fide specim. unici (Wall. Cat. fol. 214.
n. 1888, B!)

Adnot. 1. *P. emarginatum*, Roth. differt achenii faciebus latioribus
quam longis, angulis alaeformibus. Eodem modo a nostra planta
differe videtur *P. emarginatum* Don, l. c. p. 73 quod non vidimus.
Possideo *Polygoni cymosi* specimina authentica (a seminibus ab au-
tores missis culta et cl. Reichenbach communicata) qua præcipue
quantulum recedunt paniculae sepiùs magis contracta, floribus paullò
minoribus et foliis plerunque etiam ad pedunculorum bifurcationes
occurrentibus, quod vero et in *P. cymosa* ho torum nostrorum sepiùs
observavimus.

Adnot. 2. Num *P. dibotrys*, Don. (Prod. Fl. Nep. p. 78) quod ex
diagnosi et descriptione proximè affine, huic aut sequenti speciei sit
conjugendum, disceptari nequit donec achenii nota sit forma, que
non certum probet criterium.

triangulare nob.: paniculis longè pedunculatis dichotomis

subaphyllis n^c smis conjugatis discretis divaricatis recurvis, achenii
maturi calyce p^cùs duplò majoris angulis integris incrassatis obtusissi-
mis, faciebus o'atis, foliis cordato-triangularibus hastatisè obtusan-
gulis.

Hab. In Napalia (Wallich! 1821), Kamaon (Blinkworth), Sirmore
(Dom. Gerard).

Polygonum triangulare, Wallichf Cat. n. 1689, A| B| C|

Præcedenti habitu, inflorescentia foliisque simillimum, sed diver-
sum: achenio dimidio fer^ minore (magnitude circiter achenii
P. tatarici) angulis basi rotundatis, panicula magis regulariter dichotoma,
rarius trifida, plerumque aphylla, foliis omnibus ratione longi-
tudinis latioribus, ne supremis quidem elongatis angustatis&.—An
etiam perenne?

CERATOGONON. Nobis.

Flores diclini, masculi et hermaphroditici ex eadem bractea. *Masc.*
Calyx corollinus profundè 5-partitus, sepalis eequalibus, oblongis,
angustis, obtusis, planis. Stamina 8, antheris versatilibus (structurâ
Polygon!). *Hermaphr.* Calyx 6-sepalus; sepaHi 3 exteriora cori-
acea post anthesin aucta, dorso acutè carinata in tubum connata tri-
gonum mediò dilatatum apicem et basin versus sequaliter acut^que
attenuatum, apice brevissimè 3-dentatum, angulis e medio in spinam
patentem acutam excrescentibus; sepala 3 interiora petaloidea, ex-
terioribus alterna inter eorum dentes e tubo exserta, patula, mar-
cescentia. Stamina 8, perfecta. *Styli* et *stigmata* *Ache-*

nium calycis tubo inclusum eique accretum, 1-loculare, 1-spermum.
Semen spermoderme laevi fuscâ tectum, formâ calycis tubo respondens,
angulis mediò in dentem obtusum productis. *Albumen* fari-
nosum. *Embryo* centralis rectus; radicula supera; cotyledones plans
sibi invicem adpressae, lat& ovales, obtusae, 3-nerviae, inter angulum
sen* "s et medianum ejus faciem huic angulo oppositam expansae, hinc
albumen in duas partes secantes.—Herba (verisimiliter inua) caiule
reti, sublineato, pauci-ramos; ochreis cylindricis,
adscendentib.

»u. »>i: folius ex ochreae media v: superiore
ore circumcisso setaceo-cniu^o, acuto, abrupte in
parte petiolatis, limbo ovato-triangulari v. has. ^ rā
petiolum cuneato-angustato, crassiusculo, piano v. »n. ^o -un-
dulato-crispato, utrinque et ochreis cauleque brevissimè puoerul¹ glabriusculis;
spicis solitariis, Itoissimis, filiformibus, extra-axillari-
bus! (scil. infra ochreae basin ex ipso ramo ortis folio oppositis);
bracteis cylindricis (formâ omnino ochrearum) ciliatis, 3-floris, re-
motis; pedicellis bracteâ subduplici longioribus, sub flore articulatis,
demùm deflexis. Unica species :

C. atriplicifolium nob. (Flores masc. videntur pallid^ rosei.) Par-
tria ignota. Colitur in Hort. Bot. Calcutt! und& habemus sp. 3.
Polygonum atriplicifolium Wallich! Cat. n. 1719!

Adnot. Genus, ut ex charactere dato patet, distinctissimum. Habitu,
ochreis praecipue et spicis, accedit ad *Polygona* quaedam sectionis
Persicariae calycis structurâ quodammodo ad genus *EmevoNeck.*
(*Rumicem spinosum* L.), a quo autem differt: sepalis 3, interioribus
florum \$ petaloideis, embryone centrali, inflorescentiâ, ochreis, etc.
—Quam maximè dolemus, tam pauca tantum extare hujus stirpis
specimina, eaque tarn pauciflora, ut non omnes florum partes disqui-
sitioni nostrae subjiciendas habuissemus. Flores ? in statu fructi-
fero solummodo videntur, stigmatibus jam orbatis, sepalisque peta-
loideis jam marcidis; neque penitus certi sumus, num in flore g
semper 8 stamina adsint, numve interdum 6.—Pedunculi reverk ex
ochreæ tubo nasci sed usque ad nodum proxiiAum superiore cum
caule connati esse videntur, unde spicae *infra* ochream nasci ideoque
infra axillares oppositifoliae facilè creduntur. Nomine: *exxiag*(cor-
nu) et *ycuvog* (augulus) calycis fructiferi formam indicare voluimus.

RUMEX. *Campdera*. *Rumicis* sp. Linn.

Flores hermaphroditici ant diclines. Calyx 6-partitus; sepalia du-
plici serie, plerumque inaequalia, interiora demùm aucta erecta marginibus
sibi invicem adpressa acheniisque inter se recondentia (valvae dicta) exteriora reflexa. Stamina 6 simplici serie, sepalis
externis geminatim opposita. Antherae basi adfixse; filamenta bre-
vissima. Styli 3 patentes. Stigma penicillata. Achenium libe-

sum ingaeatum, coriaceum. Embryo lateralis albus, angulo inclinans.

§ 1. *Floribus hermaphroditis.*

1. *R. setosa* Hamilt.: glaber, verticillæ densilobæ discretæ foliis suffolatis, valvis oratæ acutis ciliis graniferis, margine bæli iuhulæ 1—2, valvæ septæ longioribz, rectæ paucifloris. •  Hfnm. IH

R. setosa Hamilt.: glaber, verticillæ densilobæ discretæ foliis lanceolatis non uticæ Hfnm. IH attenuatis, repacioloribz plano, radiis calibus oblongis subundulatis, superius linearibus, caule divaricato ramoso sulcata.

lit. In Bengalæ inferiori (Wallich 1820), Sylhet (F. DeSilva); Rungpur (Hamilt.); v. sp. co.

R. setosa Herb. Hamilt. (Wall. Cat. n. 6287) = *R. Roxburghiana* (Wall. (partim) Cat. n. 1731, specimen quodam nub. J et B emendata.

Affinis præcipue *R. Lourteae*. • 1.  *R. Egyptica* et *Muriculosa* Schleb., qui differt: foliis valvularum margine, nec basi tenuis, subuligere, et habitu præcipue, *P. maritima* Linn., a quo distinguuntur eodem charactere, subulis suscipiat verso apicem valvularum surgentibus, sed angulo recto * margine divergentibus, et *vea* (mihi duplo) fere majora.

2. *R. Nepalensis*, Sprng. (Syst. n. p. 159): glaber, verticillæ densilobæ reactæ, fructiferiæ subphyllæ, valvis ovato-oblongis obtusis reticulato-nervosis, marginæ tuberculæ graniferæ, marginæ tuberculæ graniferæ, apice tenuis radiis, subulis valvis latitudine subterioribus apice recurvæ, foliis acutis subundulatis, inferioribus ovato-oblongis basi cordatis, radicalibus oblongis subcordatis, ramiis lanceolatis, caule divaricato-rapido-sulcato, crassæ.

Hab. In regionibus subtropicalibus, Nepal, Gossain Thon (Wallich), Kassan (Blinkworth), Nburghy (Nutan et Wight) ubi ex altitude ad altitudinem 7000—8000 ped. usque ascendit;

R. Nepalensis (Sprng.) Wallich! Cat. n. 1728! A, B, C, D. *R. setosa*, n. ex Herb. Wight prope 1.

Adnot. Inter *Romæcos* ex multis nub. nota *R. Nepalensis* præmissa species est *R. petiolæ* L., qui facile tamen distinguuntur: valvula granaria, et obsoleta vel subnudæ) marginæque marginæ dentatae; *R. petiolæ* non granaria. — Non vidimus *Romæcos* *Amurensis* Tsvit. (Act. Ac. Leop. Carol. XII. pars i. p. 174), quoniam proximæ quidem affines, sed bene distinctæ, prodiuntur valvæ apicis ciliis graniferis.

3. *R. Wallichiana* Schleb. (Hamilt. et Schleb.): glaber, verticillæ densilobæ foliis suffolatis, superiores emarginatæ, valvis radiis acuminatis acutis integriformis, caulis aquilonis graniferæ, foliis acutis, inferiores oblongis marginæ subundulatis, superiores lanceolatis plantis sublineariibus, caule crasso-sulcato divaricato-rugoso.

Hab. In Bengalæ inferiori (1820), Oude (1825, Wallich); Sylhet (F. DeSilva); Borybari (Hamilt.); et solitus in Hort. h. Calcutta (Herb. Hamilt.); v. sp. co.; etiam in Guelpara (Hamilt. locis quoniam non vidimus, indicatur in Wall. Cat. n. 6288).

R. Roxburghiana Wallich! Cat. n. 1731 A. et B. (partim) C. (Hamilt. et Schleb.). *R. mucronata* Herb. Hamilt. Wall. Cat. n. 6288! (ex Fenzl.). *R. setosa* Herb. (Hamilt. loc. cit. Wall. i.e.).

Adnot. 1. In adiunctis in Wall. Cat. fol. 294, nub. n. 1731, emendata. *D. Romæcos* acutæ, "planta bengalensis" Herb. Roth., et E. Herb. Wight! que specimen non vidimus.

Adnot. 2. *R. Roxburghiana* Fenzl. et Schleb. (Syst. n. p. 1402) et *R. tuberosa* Roth. MSS. in Herb. Wild.—*planta Wallichiana* subterranea: "valvis dentata non granifera." — *R. mucronata* Forsk. (Fl. Egypt. Ac. p. 76) species videlicet non granifera, et *R. setosa* Hamilt. non granifera, ut videtur, sed *R. setosa* Hamilt. accedens.

Adnot. 3. Nostra species *pyramidalibus* sed *Romæcos* *angusti* L. & Roth. et Schleb. L. c. p. 1402, sed diversa præcipue valvis acutis. Habitus adeo similis *R. setosa*, ut distinguere viri quoniam non valvis integriformis.

4. *R. dentata* Campd. (Monogr. Ram. p. 81): glaber, verticillæ densilobæ foliis suffolatis, valvis radiis sublineariibus acutis granis graniferæ, granis terminali-punctatæ, marginæ submarginæ et striæ 1—2-dentatae, dentibus obsoletis v. granulis lan-

titudinem subequalibus, foliis subholitus, inferiores oblongi subequalis, superiores lanceolati sublineariibusque basi rotundatae, caulis marginæ superiæ crenato-undulata, caulis runcinæ gracilente runcinæ.

Hab. In Peninsula Ind. Or. (Herb. Heyne), et calcareo in Hort. h. Calcutta (Hamilt.); v. sp. co. *Romæcos* Murr. Wallich! Cat. n. 1730! "R. oblongifolia?" Herb. Hamilt. Wall. Cat. n. 6289!

Adnot. *R. dentata* Murr. (Comment. Goetting. 1774, p. 45, t. 10) a nostra planta differt: "valvis setacea-dentata," — neque congruat *R. dentata* (Thunb. t. 158, fig. 191), quo valvis ostendit striæque 3—4-dentatas, gravitatis ratio talis quæ in nostra steppe minore prodita, magis alijs oblongis subovalibus figuræ qualiter exhibet Hortensi tab. 47, f. 2. — Consideremus omnia diagnosticia et descriptio in nostram plantam præcise bene quadrant, que vix differt, nisi valvularum dentibus duabus angulis peripherie (sec. 2—3, ut indicat Campd.) et foliis superioribus basi crenatae, antedictum fore substantia, qualiter a Murræ *R. dentata* non tribueretur.

5. *R. mucronata* Linn. (Sp. Pl. n. 479): glaber, racemos pedunculatis apophysis, sexæ pallidissimæ, bractæ 2—4-rostr. 3—5-fidæ, valvis motionis membranaceæ pallidissimæ articulato-trigonæ suboblongæ submarginæ crenato-granulæ, radice integræ, umbella modice longitudinem inter plicata, marginæ extremitas reflexa, foliis modice mucronatioribus basi ovato-triangulari obtuso v. basi truncata v. subcordata in petiolum ligatum protracta, caule erecto subramosa.

Hab. In Malagale (Sida. Bl. Hamilt.) — Vidi nam non certa specimen, in Herb. Wight! Hamilt. et Wall. — existat quæque in Herb. Heyne, hoc aut. nullo indicatur.

R. mucronata L. Wallich Cat. n. 1732! (sp. ex Herb. Heyne). *R. mucronata* C. (ex Herb. h. Calcutta) D. (Rh. Hamilt.). *R. setosa* Herb. Wight. prope n. 141.

Adnot. Specimens Indiae penins. emendavit eam in quo se videt Europa hæc legitima. — Pedicellæ plurimæ granulæ, non angustæ, v. 2—5 subverticillatæ.

§ 2. *Floribus diclinis.*

6. *R. Aspera* Don (Prod. Fl. Nep. p. 74): glaber, glauca, racemos paniculatis, pedicellis subverticillatis, verticillæ 2—10-fidæ discretæ, valvis pallidæ-mucronatæ articulato-trigonæ subovalis, radice integræ, spinæ submarginatæ, basi inconcordatis, spinulis obsoleti graniferæ, unica pinnæ, foliis longè-petiolatis hastato-lanceolatis, basi modice acutæ, radice ligato nonque petiolæ teretibus linearis.

Hab. In Kathmandu (Blinkworth) et Dhangar Dina (Wallich) 1820, v. sp. co.

R. Aspera Don. Wallach! Cat. n. 1729! A, B, et C. (Herb. Wight.)

Adnot. A. *R. Aspera*, cui valvis affinis, differt: caule ligato, valvis obsoletis, apicis crenatæ, et striæ 1—2-dentatae. DeC. et v. *R. interna* DeC. Fl. Fr. Indem nuda et laevata foliis media interlobis parvis longis, interlobis ciliatis undulatis, etc. — C. Don suberis reperi pinnæ crenatæ non pallidissimæ. In nostra autem specimen singulæ pinnæ interlobis non pinnatis sunt. Cauda pinnæ singulæ crenatæ dentate-lineatae, (in protuberâ horizontali?) ramis superiæ subfasciculatis crenatæ, radiculis antebasali.

Oxalis. Hill. *Romæcos* sp. Linn.

Floræ hermaphroditæ. Calyx longulus digiti usq.; sepala in terræ angustæ ercta velutina adpresso, nec acute, extremitas reflexa. Staminæ 6. Filamenta longa. Anthers dorsi adpresso, rotundata. Styli 2 levigata. Siquanta penicillata. Androecium multibranchedum, compressum, angulis sicut peripheria levigatum. Endoxys transversa, extremitates planæ, facies angulis solent spectantes. Aliformes (fig. 1).

1. *O. ciliata* R. Heyne! (in Wallich Cat. n. 1728!) caule apophysis superiæ runcinæ, racemos paniculatis, verticillæ 6—12-fidæ, pedicellæ fructiferæ suberis adpresso, subfasciculatis, septulis interlobis obsoletis-pinnatis crenatæ, ciliatis subfasciculatis aliis.

membranaceis transversè venosis utrinque profundiè cordato-incisa,
foliis radicalibus longè petiolatis reniformibus margine obsoletè cris-
pato-undulatis.

Hab. In Emodo *mai* (Blinkworth!); v. sp. oo.
Oxypetala reniforme nimis sèrè affini, et vix differt nisi sta-
turè altiore, sesquipedali, racemis longioribus magis que paniculatis,
sepalis in Q. erectis apice dilatatis, obtusissimis, sub-
truncatis, ^ - ^ * ^ a i a a fe b Mique fd sem e p que
incisa (in *O. renifolia* autem subintegra v. bas* tantum cordata).

RHEUI*. Linn.

Flores tf *Calyx 6-partitus*; sepalæ dupli serie, rærcentia nee
au na 9; antheræ versatiles. in-
teg discoidea. *Cariopsis al* ryo cen-
tralis; cotyledones planæ marginibus cariopsidis facies spectantibus.
Albumen farinosum.

1. *R. Emodi* Wallich! racemis axillaribus subsimplicibus saepius
aggregatis, terminalibus paniculatis, fructiferis strictis, pedicellis
subternis fructu maturo dimidiò brevioribus, floribus magnis, sepalis
latè ovalibus obtusis, cariopsidis magnæ faciebus oblongo-ovatis basi
subcordatis apice integris obtusissimis, rariùs submarginatis, foliis
integris obsoletè undulatis in nervis subtùs marginæ hirtellis,
unioribus supra adpresso hispidulis, caule superne pedunculisque
puberulis.

Bab. In Tartaria ad Lad*, lat. bor. 37° (Moorcroft); in
n. o. ib. Himalaya, usque ad alt. 1 ped. (Ge); in monte
Himalaya, usque ad alt. 1 Tossain Than ; i. Ka mao Ch.
lat. bor. 30°, alt. 9000 ped. Don Prod., Fl. Wallich! Cat. n. 1727, A Edinb. New PhUo, W Mch .827,
Nep. p. 75 et in Jameson

p. 304. *R. Emodium* Wall, ex Nees et Ebermaier Handbuch d.
Med.-Pharm. Bot. Band i. 1830. p. 455.

Folia nunc subrotunda, nunc ovata oblongave; vidimus nonnis
caulina; a cl. Don 1. c. dicuntur subrotundo-cordata, plana, etc. Fructu
proxim^ accedit ad *Rh. Ribes*, recedit autem faciebus angustioribus
minds cord at is, pedicellis brevioribus parvus aggregates, etc. Radix
liujus speciei verum preebere dicitur *Rhabarbarum officinak*. De
ejus historia et usu cfr. Don apud Jameson 1. c. Transact, of the
Med:and Phys. Soc. of Calcutta, in. p. 451. Edinb. Med. and Surg.
Journ. No. 96. Jul. 1823. p. 168—171. Nees et Ebermaier 1. c.
Journal de Pharma** ^ * 7. t. xnr. p. 344.*

Polygonatum sptx, ^ . jr ignoti.

" *Polygonatum sedifolia*" Wallich! Cat. ri. 6286.

Hab. in Emodo prope Gossain Than (Wallich!);

Specimina floribus fructibusque penitus deficientibus quoad genus
haud determinanda.—Planta humifusa. *Caulis* flexuosus ramosus,
teres, duriusculus, radiculos emittens capillares, hinc indè ipse sub-
terraneus; internodia ad suram semipollucaria. *Ochrea* inter-
nodum subsequantes, rubro-membranaceap, cylindrica integræ laxæ
basin versus sensim angustiores, ore subobliqui circumscisso, mutico.
Folia alterna (crassiuscula?) obsoletissimè 3-nervia, ovalia, v. oblongo-
spathulata, plerūque obtusissima, seniora marginem revoluta,
hinc demum linearia, petiolo brevi in ipso tubo ochreae inferioris
latente. Ad ramorum ortura, nee non in eorum extremitate folia
saepius 3—5 v. plura fasciculatim exserta videntur.—Ochreae folia-
que pilis densis, simplicibus, albis, mollibus, subcrispatis, vix ad-
pressis tecta.

* Etiam conf. Royle, Account of the Bot. QarC. at Saharanpur in Journal
of the Asiatic Soc. of Calcutta, No. 2 (Feb. 1832), p: IS.—N. W.

AIKINIA.

1 * s quinquefidus, aequalis. Corolla hypogyna, irregularis, limbo patente, labio superiore bifido,
CALYX tabuot ^ ^ subaequalibus. Filamenta 4: duo superiora fertilia! antheris cohaerentibus; inferiora
inferiore tñpar t o ^ ^ ransula calvæ cincta, unilocularis, circumscissa! Placentæ 2 liberae, pedicellis parie-
sterilia. Stigma cap seminiferie. Semina erecta, fimiculis elongatis, exalbuminosa.—Brown MSS.
talibus adnatæ II

Systema Linneæum: Richard et Juss. in Annal. du Mus. vol. 5. p. 427; Tribus *Cyrtandraceee*, Jack in
Ordonaturalis: ^ ^ ^ ^

Linn. Transact, voi. * r ^ ^ cordataj subdentata; infenc'd, dum uno. plara, alterna^ termiialia subopposita.

Herbs annuae, prosm sc j g capituliformes, ifructiferae corymbosae, pedunculatae, rachi hinc pedicellis sub-
Spica3 unilaterales, ci zxx^ lœ mde flioli cucullato subrotundo involucra. Flores (*Etint*) coerulei.—row/i.

duplici serie confertis e ra ^ ^ ^ p^j^rto Brunone, dedicavi amico aestumatissimo Arthurio Aikin, armigero,

Genus hoc, annuente *Geologic* soclor egrediaeque Societatis Artium quae Londini est secretario summumque

Qrietatum Linneanae et *w-n:oso* niorumque suavitate praecellenti, pluribus scriptis celebri, botanices cultori

ardenti et s *trenuo*. ^ *dently* belongs to *Cyrtandraceee*, and is most nearly related to *Antoma*, in my
The genus here described ^ v ^ dently belongs to *Cyrtandraceee*, and is most nearly related to *Antoma*, in my
accordi ^ some length into the subje ^ tribe. ^ therefore, only necessary to add that *Antoma*, of which
teret at & > which I have referred to *Natal*. ^ in 1803, during
nenacea) ^ rallich Tene. for Timor (island of Timor) and being considered a very distinct genus from any

Ifoo / *flinders's voyage*, near CooPapong in *but afterwards* (in 1822), at the request of my lamented friend and fellow-
Captain *Flinders's voyage*, was first name d *loxotis*, then described, was first named *Antonia*, it being ^ intended to introduce a figure of the Timor plant under that
traveller Ferdinand Bauer, was called *Antonia*, it being ^ late Baron Jacquin.—Brown.

IMMVT BREW "iA J*-m Tabel. 260.

Folia petiolatis, pedunculis solitariis pluribus, ... — Britton.

Habitat in rupibus subumbrosis prope Coepang in insula Timore; lecta florida et fructifera iuncto Aprilis anno 1803.
— Broun.

Rame annua, flava, brevissima. CAECA teres, succedentia, tenuissimè pubescens pila brevibus acutis: 2—4-pedicellata, sepiù parum caespitosus, rame simplicissimus. FOLIA petiolata, cordata, subovata, obtusa, repanda-dentata, dentibus acutis, subciliata, subciliata, subciliata, subciliata, subciliata, glabra, pube levigata nervis venasque primariae penitus tantum occupante. PRIMA inferiores folia subopposita, alterae late viridia, semiteretes. SICCA sublateralis, circinata, racemosae, densim corymbosae, pedunculatae 2—3 hinc (sicca) pedicellis confertis ebracteatis, florcentia penitus sessili elongatis; inde (posterior) foliolo sessili, subrotundata, ciliolata (*Cassiope adusta*) involucrata. PRÆCRESITA lateralis solitaria, et terminalis 2—4 collateralis, sessili inter folia duo subopposita, petiolata. CAECA liber, monophyllus, tuberosus, pilosissimus, viridis, semiquadrangularis, dentibus angustis, exsertis, acutis, persistens, post anthesis perinde raro. LUNBOQUE folius quinquedentus, bilobatus, patens, ciliolatus, manusculatus, lobis obtusis, crenulata, folio superiore lato, latae tripartito, lacinia 2 superiora sub sessiles, inseruntur in folio. FRÆGMENTA omnia simplicia (ex ione *Breweria ligula*) elementi basi adhaerentes, pallide flavæ, inherbes, apiculis mutatis colorib[us] diversis, libratim, septo via completa, crenulata; foliis hyalina, obliqua, subglobosum, laxe, ciliolata. FRÆGMENTA 2 inferiores absque antheris s. lata basi ciliolata, apice perim dilatata, subrotunda, acute, plana. PLACENTAE 2 subrotundatae, levigatae, compresae, solitariae, polypetala, utrinque exalata, e pedicellis parietaliis abdita angustis ortum dicentes. SISTÈS filiformis, hyalines, glaber, s. situ stramineo in parte postero longior. SICCA petiolata, convexus, populus, indivisum. CAPSULA tubo calycis acutis limbis patente arcuè cincta, obovata, apice exerto, styllo curvato terminata, unilocularia, transversum dehincem, marginibus incisis, operculo englobata membranaceo, dimidio inferiori transversim laevi. PLACENTA subrotunda exappressa, libera, utrinque scindens, e pedicellis abdatis filiformibus orta. SEMINA numerosa, oval-oblonga, castanea, stria spirabilis paleochea insignita, basi suboblique inserta fimbriali elongata, semen ipsum superante, capillari, hyalino, per lenticulae planae argenteo quasi e tubula unico vel duplo ciliolari fermata. TESTA crasso-membranacea, opaca, stria dentata spirabilis hinc inde transversim commissa, rectus, orthotropes, albus. CORYMBOSAE terminali, oblique via adspicitim rotundatae inservit. — Broun.

Gretiola involucrata, Benth. var. *racemosa*. Dr. H. W. Moore, Ind. vol. 1, p. 138, certainly belongs to this genus, and is perhaps not specifically different from the plant here described. But a second species, discovered in 1815, may be easily distinguished by the following characters: AERIA (*Horsfieldii*) folio utramque sessili, caulem simplicissimum terminante, pedunculo solitario. — Broun.

For the preceding description M. icMI of rui plant. u> vwN as fur rbe I,n,ti,i-
from which the accompanying Plate has been taken.

Mr. Ferdinand Bauer,
to whom I offer my warmest regards, a friend Arthur
Aikin, Esq., Fellow of the Royal Society, and Secretary to the Society for the Encouragement of
Arts, Manufactures, and Commerce: a member of a family greatly known to fame, through his father Dr. Aikin,
his aunt Mrs. Barbauld, and his sister Miss Lucy Aikin, the distinguished authoress of the "Court of Elizabeth,"
•Jaf J James the First"; himself less eminent as a man of science, by his almost universal acquirements and
hi* utilerous valuable contributions in the common store of knowledge, great suavity and urbanity of his
manners, and the readiness with which he at all times commands knowledge.

Plate CCLXXXVIII. Fig. 1. A spike of flowers, the greater part of the involucle removed: natural size. 2. Flower. 3. Calyx. 4. Calyx, with pistil. 5. The two upper fertile stamens, covering by their anthers. 6. One of the stamens separated. 7. Pistil, with the tube of the calyx. 8. Ripe fruit in the calyx. 9. The same, transversely sectioned. 10. Ripe capsule, the calyx removed. 11. The same, best. 12. The operculum. 13. The placenta, with the seeds and long capillary funiculus. 14. The same, the greater part of the seeds being removed. 15. A seed, with its funiculus. 16. Vertical section of the seed. 17. Vertical section of the seed. 18. Emissary. All except fig. 1, — finished.

CORIAHIA IVAPALFIKSIFI Tab. 289.

FOLIS OVI lanceolatis. amri*, oppositis, subquinquenerviis, fere sessilibus; racemis fasciculatis, axillaris, florib. luTiiijihroditi:*

Nim 1, 1 t N, H «^! - ^; .. florens et fr...ifa...-TM «J-, amri ad Ma». Ink.—(Blinkworth).

Folium 4—10-pedalis, vel arborescens 12—16-pedalis, erectus, ramosissimum. H. ii. fy osti, divaricato-patentes, longi, tetragnathi, laeves, suci, nitidi, punctis frequentibus callosis elevatis notati. FOU4 OpjXMtU. approximata, patensissima, decidua, subsessilis, coerulea, ovaia, 2-pollinaria, subnitida pallida, 4-nervia, nervo utrinque exstiso capillaceo, leviter ecaudata, ramenta hirsuta, sicca, rufa, squamae leves, vix alba lineam pollucens, vel bipinnatae, basi circundati spongiae geminae pyramidato-ovatam obtusa, oralia, concava, imbricantibus, fuscis, Racini filiformi, terro, pubescentia. Flores densè oppositi, hexaplostodii, brevissimi pedicellati, suffulti bracteolati ovata, concava, marginata, crenulata-ciliata, obcordata, nuda sublobata, ipsum florem longitudine subspansante. Calyx »(Ji)«, laevia, pallido viridia, 10- vel 12-partita; laciniae 5 c. viles, ovatae, obtuse, membranaceo-marginalia, crenulata, imbricantes; anterior subcaerulea, minima, ovata, acute, petaliformes (vel nectariformes) ovaria alternantes. STAMINA 10 calyce longiora; filamenta longiscula, capillacea; antherae magnae, purpureae, nubantes, utrinque tota longitudinaliter dehescentes; pollos magnam, globosum, flavum. OVARIUM profusum dissimile dividitur in lobos & verticillatum dispositos, lunularia, compresos, leves, singulis oricis continentes pendulum. 6 via 5, sub «kli, »nir, uncinatus, puberuli, staminibus paulo breviores, parvis divergentes. Stigmata simplicia, acuta.

Plate CCLXXXIX. Fig. 1, 2. Flower. 3. Bractea. 3 (bis). Flower dissected. 4. Pistil, with the ovary opened.

Q19A1TS VIWSATA. 'nil*. Wet

RAMULIS pendulis
p. icellatis, tetrandris; cap>tb oblique o «^ «-i U ^ P «* ; j « a «
tabiffU ij-vtmw'.....'•
bniariw.

Arbon elegans, 10-pedi-
n., Tim. w. 11 turfwraTM anno m. 12 nocturnum) brevis, s. ub-sicutu, fraastw brerffi, Xdirr ^{wair} feso.
RAMI pauci, valde patentes, exLrnui angustissimi, graciles, penduli, pallidii, scabrosissimi, nigræ alterna, brevia petiolata, oblonga,
obliqua, aquiliter obtuse serrata, firma, securis. I. in 1 [(l-tV'tl
. Octai. p*rmii. irorfr, rfiqwI ^fr, * «*v
MSN.

Plate CCNC. Fig. 1. Flower. 2. Ripe capsule.

LILITUM NAPALENSE. Tab. 291.

Lilium napalense, non in Act. Werner. vol. 3, p. 412.

Habitat in montibus summis valli Napaliae magne conquis, et versus Gossain Thaz Himalaya: florens Julio et Angusto.

Belat's namquam observare contigit.

densè villosa, filiformes, cinerascentes.

foliis crassis, apice attenuatis, fuscis, nitidis, punctis hyalinis opacis subcrescentibus, aliquando luteis, flexuosis.

Flora validi numerosi, uniques spica, erecto-patente, oblongo-lanceolata, in arcuata attenuata, deorsim leviter mucronata, sessilia, basi latissim transversaque cariatis quasi articulatis adusta, nuda sessilis, pectinata, subcarnea, super lucida, saturata

radiculas finit. simplicissimis, erectos, cylindricos, 2—3-pedalis, pennatim laevifloriam

viridula, levissime exadienata, subito pallida, 5-7-nervia, preter nervos capillaceos interspersa, inferioris (versus basin exaltis 6-8-pedunculata) subdistincta, 1-2-policaria, media interstitalis duplo longiora 3-policaria, superne 4- usque ad 6-policaria, approximata in verticillum terminalium 4-5-phyllo, 1-florum, raro in duos verticulos 1-florum, 2-3-policariae distinctae, quorum superior 3-phyllo. Flores magnas, speciosas, pedunculatas, rotundatae, rotundatae, parum odorentes, glaber; lutea, flave tibiisque intus purpureo et minime, solitariae; raro 2 adiectae, quorum inferior lateraliiter ex verticello inferiore progrebat. Petalae oblongo-lanceolatae, acuta, curvata, dorsum attenuata, longitudine ferè petalorum. Anterior magna, oblonga, fuscocastanea. Ovarium leue, pollicare, cylindraceo-angustulare, angulis obtusis, obtuse 3-angularis, levius, 2-pollicaris, matuta hanc via.

ILJCA UIPVREX A, tab, J:IJ

An «%ra. tt*afl. in Roxb. Flor. Ind. vol. I. p. 473. Cat. Ind. %»..!• act. Soc. Art. Lond. vol. 48. p. 457. n. 195.

Habitat frequenter in montibus Nupaliæ; in Sirmore (Webb et Govan), Khamon (Blinkworth).

Plate CCXCII. Fig. 1, 2. Flower. 3. Calyx, opened. 4. Corolla, opened. 5. A branch, with ripe berries. 6. A detached berry. 7. 8. The same, opened. 9. 10. Seed. 11. The same, cut transversely.

ORNATA. Tab. 293.

Plate CCXCIII. Fig. 1. Flower. Fig. 2. Calyx and pistil. Fig. 3. Corolla, opened.

Singapore, floribus fructibusque immaturis 01misi Octom. 1860.

Fig. 1. Flower. 2. Calyx and pistil. 3. Corolla, opened.

TIXTON A HAMILTONIANA. T. I., 794.

Folii ternis.

Tectona ternis, calyce fructifero.

Nomen Burf folia, Hamilt. MSS. « Econ. Pirt. in Musco Banksiano.

Crescit frequentem: Tā-dū-hat (t-r Uamilt.j.

Dong dictæ planter seens ripam BuTuii>, Iravraditi ,nl |, ,ongye, Promé, Seguin, Ayun, 2 ad basin montis Tung et fructifera n'ope Ava m: frwrtir-n-. N.iwuil.n', 1, j ,,, filibus sterilissimis ubique in * Promé x P 4^1 new, fructifera sensibus Junii Juliique it. (H.iinili.).

Arbor maxima, foliis 6-gonis, angulis obtusis. Tomentum albido, i < Iran -num, totam arborum præter trancas, foliorum partem superiorem, terrena, petioligera, aliquando latitans. Pali nonnulli solitari in pagina foliorum superiorem. Rami 6-goni, lenti, lati. Folia ternata, rara, elliptica, integerrima, acute, nervosa, valde reticulata, supra papulosa, hispida, nervis tomentosa, subtus pilosa, longiora, parvula, plana membranacea. Petiolaris brevissima, semiteres, tomentosa. Scutellæ sulcæ. Coryxus asperus, tenuis, folia tereta, rigidas, rara, ramosissima, divisionibus inferioribus 2- vel 5-fida, superiores dichotoma, flos intermedio, sessilis. Praesertim crenulæ, exar. basi dentata, rarus, potentilla. Basisc. r. lineare, breves, pallescentes ad basin singula, divisa. Flos purus, rarus, superfl. Calyx 1-phyllo, persistens, supra stipitatus, 5-fida, latitudo reflexa, ovatis. Conozia 3-petala, infundibuliforme; Filamenta 2- ampliata, longitudine calycis; flos infida, sub 5-gona, ita pilosa; flos reflexus, bipartitus, latitudo ovatis, rarus, longis subulatis, exerta, apic. •Li lkrrta. longitudine pilorum. Arvena cordata. Ovarium minutissimum in fundo calycis. Stylos curvata, subline staminum. Stigma 3-partitum. Nuc 4-locularis, oblonga, calyx flos suetis testa, glandes latitudo

Stigma solitaria.—Hewitt MSS.

Teakwaddi medicoris stature, saltern 12—16-pedalis; ad basin verb jugi Taong Dong magna, trimco recto 16—25

ARBOR juxw np-u, I " ^ ^ pedali₃ coma' aropf et umbrosa; habitu omnino *Tectona grandis*. CORTEX glabriusculus, griseus.

pedes alto, diamet. ^ ^ foliorum delapsorum notati; tenelli obtuse tri-rel quadrangulares totidemque sulcis

RAMUU cmerci, f V mscalycesque fructiferi dense obtecti tormento denso, stellato, cano, solnibili, molli. FOUA teraa, aliquandò

gracilibus, utifoliae brevisimte ptiolata pa tentissima, lato-ovata, vel elliptica, palmaria usque ad pedalia, supr rugis conicis

quaterna, nunc oppo. ^ ^ gubt ss yalde vasculosa, venis inter nervos obliquos transverse reticulatis extantibus; marginibus

densissimis papil. ^ ^ JL Aloreum leviter sinuato-sublobatis. Nnx ovate, obscure quadrangularis, basi spongiosa, villo-

parum irregularis. Junc. ex obtusam quadridam parvum contracto, laciniis triangulari Janceolat* acut*, < t e

hive even above Dr. Hamilton's account of this new species of Teak, preserved, together with a drawing of it,
in the B JLian Collection at the British Museum. My late friend observes, that in a great number of trees which
he examine^d he found no other fruit than that described by him; and that Dr. Roxburgh thought he had not seen
the ripe f its, but only abortive ones: and he adds, that the native carpenters use the leaves as the common
Horsetail employed in Europe, for polishing wood. The accompanying plate has been copied from Dr. Hamilton's

drawing, species of Teak there cannot be any doubt. At the foot of the mountain called Taong
n ^ 1 fmnd% frowij together with the common sort (*Tectina grandis*), but in greater abundance, and of much
Wr size. In stature, habit, and in the size of the leaves, the species much resemble each other.

Plate CCXCIV. Fig. 1. Flower. 2. Corolla, opened. 3. Fruit. 4. Nut. • 5. The same, opened.

STROBILANTHUS AURICULATA. Tab. 295.

A ramosissima, fblis ellipticooblongis, basi cuneifora-oucūlata amplexicaulibus, hirtis; spicis axil-

la rterinalibusque tomentosis, bracteis subrotundis, squarrosis. Nees ab Esenb. Synops. Acanthac. infra.

Buellia aurkulata, Wall. Cat. n. 2341.

Crossandra. V^{ap} H b Hamilt. Orens su, pⁱuvii_s; inde in hortum botanicum Calcuttae, nⁱ oodnta. In agadhae

Habitat in montibus Nagaon, sylvis, ad Belem(Hamilt.).

FRUTBX 3—o-pedalis, erecta jg^gonenj leviter ventricosi, nunc subflexuosi. FOLU approximata, opposita, patentia, aequalia, jiwwbD'oppwos notati, ad o¹⁰ i j ^ ^ Obtusiuscula' cuspidato-serrulata, sessilia, deorsum integerrima, attenuata, basi linearis-

elliptico-oblonga, attenuata, in auriculatum rotundatum dilatata; 5—7-quin 9-pollicaria, atroviridia, supra adpresso setoso-

oblonga, amplexicaule, obn¹ n^ ^ ^ ^ pⁱ Pⁱⁱ pⁱ pⁱ sp^o tanea multo minora, latioraque) in jugo valde inequalia,

bispida, subitis glabpora, o¹⁰ i tenuis. § nfin axillares terminalesque, solitariae, pedunculatae vel sessiles, subquadrigarie dense imbr-

subovalia, sessilia, basi hau a^t ^ ^ cum cusp. idula subulata, villositate capitato-glandulosa, densa, cana obtectae, semiungu-

catae. BRACTK* obovato-cunea ffi, lacmas lineares, glandulosi-ciliatae. CROULA infundibuliformis, pubescens, pollicaris, dilu-

culares. C3u.^o insequaliter ^ ^ ^ ^ 5.i.bo, lobis rotundatis. STAMINA 4, didynama infra foucem inter villos inserta.

tissime coerulea, exstus albicans, bifidum, subulatum.

I feel proud in having i of the Indian jcmjuice-^{gi} for which, as well as for his other valuable contributions,

warmest thanks:

I.

Plate CCXCV. Fig. 1. Flower. 2. Calyx and bract. 3. Corolla, opened.

ACANTHACEAE INDIE ORIENTALS.

Ewpomit C. G. NEES AB ESENBECK, Prof. Fratis Acad. Cm. Leop. Carol. Nat. Cur. Prases.

ACANTHACEAE.

Rob. Br. Prodr. Fl. Nov. Holl. i. p. 472; ed. N. ab E. p. 328. Kunth Synops. ii. p. 29. DeC. Th. Elém. p. 247. Fam. 105. Lindl. Introd. to the Nat. Syst. p. 233. — Class xxiv. *Labiatae* forax Ordo HI. *Acanthacea* Bartl. Ord. Nat. PL p. 122 et 183. — Cl. xii. *Dichorganasiphonantka*: Ord.n. *Siph. toranth. herbac. 2. teithosperm.* Fam. 156. *Acanthaceae* Schultz Nat. Syst. des Pflanzen. p. 403. — Cl. vi. *Sympetak*: Ord. n. *Lobiflora*: Fam. 79. *Perxmato*: c. *Acanthacem*; cc. *Acanthea* Reichenb. Conspl. Regni Veg. i. p. 122. — *Acanthi* Juss; Gen. PL p. 115. Ann. du Mus. d'Hist. Nat. v. p. 251; ix. p. 251; xiv. p. 390. — *Personatarum genera* in Cl. vi. *Monopet.* Ord. n. *Polypenn.* Fam. 1. Batsch Tab. Affinit. Regn. Veg. p. 193 sq.

Character essentialis: Corolla gamopetalia, toro inserta, subregularis vel bilabiata. Carpella quatuor, valvata connexa, alternis marginibus semiinflata et ibidem per membranam internam in dissepimentum appendiculatum transeuntia, alternis aspermis post flexuram extenuatis conquisque suturam loculicidam constituentibus. Cap^sula elastic^a bivalvis. Semina exalbinoosa. Radicula centripeta deorsumque obliqua. Cotyledones magnae. Plantae oppositifoliae, intercalaribus articulis, integrifoliae, multiplinerviae, inaequilaterotrichotomae, bracteis instructae?

Character naturalist: Aideas *Brownium* 1. c, cuius verba, quippe que omnibus nota deciesque exscripta, denud h^ce exscribere nefas. *Lindleyum*, v. d., conferas 1. c, quam plurima prppriis suis expletent. Spicilegium, quod mihi solum relictum, hlc additurus sum. *Animadversiones in Acanthacearum familiam.*

I. *Caulis* plerumque basi fruticosus est, sed rami novelli herbaceam indolem magis, quam plurimorum fruticum, ostendunt dilatè servant. Memorabilis est, magisque ac in aliis conspicuus partis supers saep^a argutissimè anellatus cum tempore progressus in ambitum t^cen. Tu^t medullari^a vtian^a ZP in adiutorio maximè laiconta truncu, amplius et latus. Ligni strata tcrin^a, ^, lii^a; ; ficiatio igitur lenta. Vasaporosa angusta sunt. Cuticula adultioribus sap^a accedit tevis, tumidula, in strata solubilis, (*Eranthemum crenulatum* Wall.) aliis lenticulosa est et valde rudis. Est omnibus caulis in articulos divisus, regulari modo decrescentes, quandoque a basi ad apicem feri aequ^a longos. Tubus medullaris continue genicula pervadit et in ramos excurrit. Geniculi limites notantur extrinsecus annulo non multum elevato, in plerisque setulis rigidis obsito, in quem foliorum bases concurrunt. Hinc superiora versus stratum ligneum exteriorius, extrostra dehiscens, gemmaram basibus cuneiformibus eddit, qu^a ex paullò altiore loco descendunt. Quo altiores illas oriuntur, co magis ultra geniculi exteriorem annulum articulus producitur. Jam brevi spatio in ramo recente intumescit, succo magis tepletos laxiorique per strata transversali medulla farctus, qua parte, In sicco exemplo, caulis corrugatus atque constrictus genicula quasi rhachistica, seu articulo intercalari conjuncta, exhibit. In adultiore et lignescente caule tubus medullaris hic regione stratis transversalibus pallidioribus laxioribusque, in riñas haud raro secedentibus, dividitur. Haec articulorum et geniculorum structure, omnibus hujus familie plantis communis et ante omnes in his exculta, inter characteres, habituales quos dicunt, non levioris est momenti. Accedit alter, a gemmarum suo loco intrantium oppositarumque vi prsecellenti derivandus: in latitudinem extenditur geniculum apparentque compressum, idque haud raro exira gradu contingit. Jam autem, secundum situm foliorum decussatum, quicunque articuli eodem sensu compressiores, alternis lateribus per vices corpressum reddunt caulem, compression in aliis magis, in aliis autem minis evident^a. Quae diversitas projecturis, foliorum generationem prafinitibus, inodis diversis variatur. Prominent wags minii^bve hee projecturae, aciuntur, exasperant setulis; et

turn quidem habes caulem non modi alternatim compressu,, etiam in lateribus angustioribus alternatim ex opposite suatum am canaliculatum. Verum, s, costa media folii seu petioli magis tenuida per medium latus suum (quod est ex angustioribus) descendit. mmula, ancipes oriuntur articulib^a, carinis ucr^a....., satis. Hoc in casu, qui quidem rarior evenit, projector* laterales foliorum ferre obliterata yxdiu^a TZZ Ubi et costa folii et ta. obtuso angulo de c e n g d s ^ a^a habes caulem, ut in multis *Dicliptereis*. Est autem et alia XT in hac *Diclipterae* Subtribu sex r. l. l. n. o. g. u. i. v. i. t. a. t. a. producuntur. Ubicanq^a enim genicula regn^a um v. u. t. a. n. e. n. maxime distrahuntur, latera articulorum latiora, utrinque leniter dclivi, carna obtusa, per medium latus ageniu^a centre d e c u r r e n t i- duntor; his, psis projectur* foliace*. ssbpe argutiores, u**» quatuor acutores per paria magis inter se approximata p. r. a. f, ad quos accidunt duo oppositi, qui ebustiores^a hanc autem, omnia magis puniisse conspicua innumerisque variata modi, hac in Subtribu ostendit.

II. *Pubercentia* ferè omnis generis, a subtilissima lanugine ad setas rigidas tuberculis impositas, hac in familia occurrit. Rariis quidem in tonementum spissatur, sed summam ferè talis integumenti, goesypium usit crassum referentis, *Aechmeathere goesypire* exhibet. Fasciculata quoque hinc inde observantur setulae, sed ea in familia minime frequentes. Singulares etiam sunt in multis seta bescendit, basi pube subtili radiante cincte. Duplex in plerisque p. d. n. setulae vel pili glandula capitata coronati frequenter prae- deunt, quorum in inferiori caulis parte nulla aderant vestigia; nec vel pube alias enjusque generis investitur. Pubes omnia crebre articulata, et saepe numero, vel absoque glandulis conspicuas, viscicula.

III. vegetis, præsent in ramis novellis, fo- raro in quandoque et in corundem inferiori. acutiusculae, jam nudo ocul^a ud^a plega^a Ritu fine Vel utru^a te auxilio discernendi, semicylindraceo-tumuluk. ad. propriE ferè nostre sunt famili*. In aliis brev^a asperula, tolorum ferè exiguitate redit a - l t E^a ma sunt, ad punc- cosa redeutes, quales in ple^a Zzis. Directio eMtm irregularis, majorum curvatorumque p. n. e. n. i. g. a. transversalis quamlongitudinalis. Sub micros opico^a l^a q. e. a. t. e. a. r. r. ^ " CSC Bate^a beniderm^a stenteidem^a et re detracta a foli parenchymate secedent^a T^a u. a. u. a. ut yidebatur, densio et aquabili repletas^a Ad ^ T^a m***, uti costas fine coco prominulse, h^a lines seal v^a 1^a 8^a 1^a fol^a >rum et bispartibus. Ubimaxime contrahuntur Z T, mi^a Kn ind^a TM t re Aluntfolia. Auctore, p. erique h a j) ^ ^ V^a e i verruculo^a setulis appressis vestita describub^a C a v * T W t c l b e e s, ubi folia multis pagin* foliorum superiori^a inspetj. t! " " " BC Mt.

entes, cuius In caule longitudinali situm ^ * f g ^ c on fi ,ndi. grue diceres, intra epidermidis fines reJm^a R101 haut^a homonij ad verticalem, nisi Clm ^ " ^ f * »«g^a «a, IV. ^ " ^ c ^a dicta, in u t F u c n * + " ** mmfenore, valde flexuosa et erpen, ^ / ^ ! * TM " " " * < * « « » » fenore foliorum pagina, sparsi, ext! ^ " " * L " » * **, constantes; in quibusdam adeo & / ^ C duob^a onlibu. donee iterata observatio errorem dejl

V. Glandulas esse his pUnti, o T^a * ! »præ memoratas, glandula, ., / j? * / ^ ^ ^ ikit liticola, omni no odori qnidquam s. c. e. r. m. j. w. n. * . J * V^a «W liquid,

versus grandescem distributionem in ramo oculis
tura sequitur, conf. *Dicliptera* *bupleu-*
ustraveris ^ *VPlath*, ^ *ctricum* istum ordinem cum ingrue asym-
roidem ^ \ ^ nectum videbis. Jam folia involucraha, ubi op-
metria mirifico *J^{an}C* differunt & in aliis vix oculos fenente, in aliis
in qualifasunt *Kl* flares sunt termi, apparent
maxime conspicua. Intra ci *UnU* *kl* flares sunt
idem, alterque bracteola ad latu alterius autem
floris locum bracteola vel una tantum bracteola occupant, que

ipsius exaltis seu ramis, in longitudinem prodicentibus et, oblongis
ramulis ramificatis expositar, capitulo **III**. **Trifoliate** pro more tunc hi-
bernatrix, floribus autem latitudinis penitus evanescit iam uniformis,
et sessile, frondi alterius extrema, indicia, persistunt, quibus ieratico-
epicurum secundumfiorum formam induunt. Evidens est in spicas
huiusmodi traxas apud species nominatae Novi Ordois, p. c. *Dicli-
pterum heterophyllum* N. ab E. in Herb. Hank., et *D. regnandus*
Juss., ubi capitulo illa, juxta vesti uniforme, hirsutissime brachia inter-
libus oppositis suis valvatis rotunda, ipsa etiam in pedunculo con-
cavata brevi sessilia, foliolos exhibent 4—5-filium, strigule brachii
majore (quae branca exstans undulatim), et ab utroque latero
serie hirsutiarum collateraliarum, rarae hirsute capitulum residuae;
alterius series superiore, alterius apice monosporum obvallatum, et quod
si hirsutissimi capitulo hiscum ad alterum fuit alterptus in longitudinem
distrahis, omnes ejus partes in naturalem situm partim ipsa illis,
quasi dicti, translati nocere est. Adjiciamus hanc eam in finem, ut
demonstretur, bracteas quas dicunt, seu extremas infra flores
partes foliacas, diverso esse gradio, prout ipsa evolutio magis mi-
norem ad extremum perficitur. Etiam in isto eam, quem dictum
bracteole superiores ad capitula flores pertinentes iam evanescit, et
bracteas, sed involucrum quendam raparit, in pedicello ad speciem
aristae posuit, bracteolas quidam appellari posse, nec vero eas
bracteolas sive proprias, i. e. *extremas* decurrentes ramifications
folia, neminem legit. Genus alterum, *Rhizome* aspecta, apicale in
cando ramis terminali flores, *Blechnum* Juss. intelligi, similis fin-
iturum originem dicit tristis et contractis *Rhipidium* specie et in
comparacione specie facilius relata, vel (quod idem fuit vidit) e
seminalitate evolutis undulatim et spicis ingressis contracta. Cognit
rei expositiorum ampliorem infit, ubi de *Blechno* *Laciniis* sermo erit,
invenies.

VII. *Studia antica.* Si quis in artificio spaci spacio
spatio ad hanc fractio naturi adhucrum videt, expansiones pos-
tulatae deinceps dies molles, singulari aspecte perducent ad novam
hunc atque insuffitum fortasse adiunguntur. Multo autem intelligi
possunt esse querendas in multiplici partium, ad cunctas spaci
imaginari reddituarum et concentratarum facultates. Constat quid
denique inanitatem legi firmatum, sicut in inferiore, ali simpliciorum
florum evolutis, precepsere superponens, minus realis inferiores
non ita, sed ~~ad~~ ^{ad} in hoc interi ordinem. I. tui recentia compo-
nenda habeat omnes ex cunctis, ut quod partium evolutione pertinet a vertice
ad basim, vel a centro spatio sursum deveniente progradatur. Sed ex hoc legi ratiocinationis, quam Arnius ⁱⁿ scriptis demonstretur, sequitur, cum flore, qui in qualibet parti
sciri et evoluti deluisset, expelli aliquo extingui evolutariorum prae-
parationis, et hoc quidem per rando gradus in eandem parte rursus
redire. Tunc igitur, quod natura maxime respondet, temis ad in-
venientur gradibus compota spacio aliquam ex eisdem numeris, et quod
denser breviusque dictis videtur, terminali extremitate obliuio, ex lege
dichotomiarum, prima evoluti ramis, et statim inveniuntur, tempore di-
versorum facilius eas ^{ad} numeros jactant spacio generali, fenes
repetentes, quae sunt cunctaque partis gradus a summa ad inferiorem,
autem temporis spacio spacio distare flores perfectum a quo-
libet alieni ramis sui (procedere ut belga vel sororium nihil habent),
quantum temporis evanescatur nescire est, ut cuncte deinceps flores
ejusdem gradus, in quo ipse sui ex parte videt, post flores collate-
ralem, qui proxime cum ambo sint, ordine a summa ad ipsa spacio
generalis ab integro revoluta, ad eisdem spaciis serie regulari perfici-
runtur, lineaque jam ipsi prodire. Hac autem, cum triplic com-
posito minime omnes gradus ejusmodi spacio evoluti, sed plures
in plurimis compuncti sint, inveniuntur gradus variolorum etiam exten-
sione, ita, ut vel in specie ad specimen penitus juxta expletis, tenere
alios in multis inferiорibus floribus multa retentur.

VIII. *Folia.* Circa folia *Arenariastrum* parva habent, que profert. Opposita, cune folia rotundata, jam supra dictorum. In spica autem secunda latitudine parva foliorum in spicas parvum elevatas solvantur. Episodio prope folia rapi squamula, pteropspus magis vel cibis terrena, & *Golffiniae* anemone plaga aliena cuiusque pars exiguita, stipula nonnulla ab angustis appellantur. Nec foliolum latera, nec

D. Depositi partis florae. Calyx expusus et regularia frequentia occurrunt ac epox e partibus coadunant innumeris, que quidem sunt: 1. angustior superioris sepali volumen: 2. evanescens simul duo inferiores sepali spatio minore vel majori: 3. diminuentur simul duo lateralia et inter superiora inferiores grande facta, quandoque quasi auditorum penitus integrum, latitudine calycis primis instanti diphyllam heralitatem funguntur. Calyx normaliter pentacarpalis est, sepala huius magis minusve evanescunt, uno supra medio, binis lateraliis, his dictis penultimo magis in exterior communem penicellibus, leviter inferent, huc, aliisque, in interiorum proportione aquilat et congrua. Estimatio calycis penula alios gamosepali salvos, leviter

tubum quinque
magis minusvē
bila-
terpositi. Limbi
do.hu, in U * .uperiu, tribu. u, infetu, co-
biata, partibus
lescentibus. (De aestivatione v. infra)

Stamina quinque sepalis alterna et projecturis totidem ad basin usque tubi decurrentia, quo decemstriaatus exorditur tubus. Sed nunquam omnia perfecta sunt stamina, semper deletam vel maximè incompletum est superius, frequenter aboluntur vel imperfectiora

duo inferiora. Singularis est in hac familia locellorum

f interjecto cras-
omnium hujus

ZL Plantarum quo ad dichotomic imequale, i. e. altero furcē
ramo vel debilitato vel deficiente, feruntur. Hinc oriuntur inaequalia
parium eorundem folia, hinc foliorum magisque etiam bractearum
bases obliquæ, spicæ secundæ binis bractearum orthibus sterilibus
juxtapositis binisque alterius lateris florigeris, hinc calyces saepè in-
juxtapositi binis alterius lateris florigeris, hinc varibus foliorum inaequalium
sequales, v. c

in spiram res-

evanescente,
thera cujusque paris ante pollinis emissionem cum interiore margine
cohærent: Altera autem vià productur anthera, specie magis quam
vera unilocellata, cum locelli duo juxtapositi arctissimeque con-
tigui lateribus inaequalibus ita convergunt, ut angustiora latera con-
 juncta quasi in dissepimentulum retrahantur minus locelli, ab oppo-
sitis utrorumque locellorum mai-

ginibus clausi.

Carpellaquator, sepalis alterna, qumto, sepalorum dñornnt in-
feriorum spatio medio responsnro, deficient » ommibns. Carpella
w in caulis unam concrescunt, cuius sutura labns respondet,
dLpimenū un antem sepalis lateralibns. CarpeUorum conjunctio
in ovario tenero facilis conspectn, ex eo inde tempore ad stetnm
usque maturitatis continua observatione persequenda. Constat ova-
rium e quatuor rufis gitu mod6 descripto dispositis et facilimā
quæ nervo singulo medio, ternisque undat-
o P T S f venu Us cum nervis dicendis ad basin instructa sunt* et
potiusque; ^ contingentia immediate (valvatim) connectuntur. ^-
sese marj, ^ ^ ^ ^ juncturæ; scilicet: margines carpel.
Divergente resone supera et infera floris sibi contigui, post modicam
loranLi costulam introrsum projcentem (trophospermum igitur
flexu, nra ne perficien tem ideoque aspermam), extenuati ita co-
incident ut facile tamen in linea ista tenuissima partibiles suturam
lescunt, u ^ ^ coUaterales carpeUorum ad
contra ea margi

!Muetotror. «m elevate., hk ip.i. co.tuli. arete eoUacunt,
L-T ^ fertiliaperneiente., simulque membranMn intemam
tr., ^ nt, dissepimentum, axin fructis ut plurimùm
cen attingens, rariu lacunam centralem reliquens, secundum axem se-
rabilis in omnibus conficienes, quod dissepimentum quidem e
E lamelus coalitum, plerumque seu simplex lamina diverse eras-
situdinis et rigiditatis persistit, rarii. post maturum fructum a strato
suturali exteriōre incrassatoque costularum geminarum solutum,
arcu elasticu sursum versus attollitur, vel etiam, liberum aut costis
inhærens, rarus in duas, e quibus exortum est, lamellulas discedit.
Hæc partium constituerunt origo atque conjunctio in capsulaex-
planata prodit costis, senis obscurioribus, quarum du* lateripes,
binis autem supere sunt et inferiores. In sicco autem et in sese
contracto fructu his costis respondent totidem sulci, quorum bini
superiores et in singuli ver6 ab utroque latere decur-
membranacei constantem, qu' i dissepimenti originem, intraque inter costulas conti-
runt sulculi, hi dissepimenti designant.

Cum hac pericarpii et dissepimenti structura conjunctus est reti-
naculorum, seu fulcrorum seminum, apparatus memorabilis. Etenim
ubicunque ovulum e margine carpelli spermatico et dissepimentali
propullat, ibidem et processus ipsius dissepimenti, sive carpelli,

* Qui bracteola Adhatode Betonica ven & mediū de ramificatis misque
surcatæ circa marginem in plexum undatum ornatissimis
fuerit, vix diversam a carpello hujusmodi structuram esse fatebitur.

prominet, variae figuræ, cum funiculo umbilicali conjunctus semen-
que fulcens. Trcs hucusque mihi cognitæ sunt retinaculorum formæ^
vald^ diversæ: a) *papillaria*, b re via, funiculum umbilicale non su-
perantia, illique a parte infera et ex utroque latere connata, simplicis
funiculi papilliformis speciem exhibentia; ejusmodi sunt retinacula
Nelsoniarum, quorum similia fortasse et in aliis plantarum familiis
reperiuntur; b) *cupularia*, cartilaginea, crassa, funiculum per cen-
trum suum transmittentia, seminis fer& latitudine idque basi arct^
amplectentia atque cum eo tñn intim& connata, ut simul a tropho-
spermio cadentia; seminis pars esse videantur; talia sunt *Thun-
heriacearum* retinacula; c) *uncinata*, quæ magis obvia et frequentior
retinaculorum forma *Echmatocanthis* communis est. Sunt processus
subulati vel laminiformes, acuti vel obtusi, vel bidentes, plani vel a
latere curvatura interioris magis minusv6 excavati, quandoque coch-
leariformes, semen ab inferiore et interiore parte amplectentes et
fulciantes, basi cum funiculo umbilicali coalescentes. Communiter
sessilia sunt ista retinacula uncinata, aut ad basin, aut proximè a
basi, semen in funiculo brevissimo ferentia. Occurrunt autem et
stipitata retinacula, quæ spatio aliquo cum funiculo connata eâque
parte angustiora, propiis ab apice semen proferunt, a reliqua parte
retinaculi, breviori quidem, latiuscula squamiformi fulcrata. Stipi-
tata haec retinacula a dissepimento cadunt; sessilia persistunt. A
prævalenti nisu, bracteas bracteolasque, saep^ secundas producendi,
apparatum istum retinaculorum hac in familia provocari haud improbabile videtur. Obliquitas partium in foliis carpellaribus, uno
tantum latere ovuliferis, satis evidens est. Quales autem bracteæ et
bracteolæ in nonnullis generibus, praesertim in *Lepidagathia* inaequi-
lateræ sunt, et ex uno tantum margine *cilia rigidula*, serratæ
aemulantia, producunt, sic etiam in his marginæ carpeUorum latiores
retinacula, in axillis suis ovuligera, i. e. gemmipara, edunt. Quod
quidem, in uno hoc bractearum exemplo exhibitum, in otoni plants
ramificatione, inflorescentia, ipsaque florum structura haud magno
negotio demonstrandum.

X. *JEstivatio* corollæ regularis contraria, spirâ dextrorsum ver-
gente. Haec aestivatio per se quidem constans in omnibus Acan-
thacearum floribus regularibus, sed dupli modo ipsæ in his se-
tegunt laciniae. Quæ integrae sunt, plans per se quidem sibi in-
cumbunt rotamque simplicem obliquam exhibent. Ubicunque autem
emarginatae existunt laciniae, alter cuiusque laciniae lobus in-
trorsum flexus a proximæ laciniae lobo ejusdem lateris int̄s contortim
obtegitur, ita, ut transversaliter detruncato corollæ limbo
decem se tegere lobi, vel potis laminae totidem in angulum fractæ
circulo sibi incumbere videantur. In corolla bilabiata labium infe-
rius sursum inflexum superius apicibus laciniarum concavis arctis-
sim^ amplectentur. Laciniae duæ laterales labii inferioris mediara,
quæ paulo interior, tegunt. In hiscc igitur floribus aestivatio con-
torta in imbricatam transit. Stamen interstitiis laciniarum duarum
superiorum respondens deest. Stamina duo ilia, quæ in spatio labia
dirimente proveniunt, perficiuntur. Ilia, quæ laciini labii inferioris
interponuntur, vel breviora sunt, vel imperfecta, vel obliterantur.
Quæ magis labiorum divisiones coalescent, ut in *Dicliptereis* pie-
risque, e6 constantiore lege desunt staminum inferiorum rudimenta.
In *Hypoeste* resurgent cum labio inferiore, in tres lacinias jam ad
basin fer& soluto.

XI. *Ovulum*. Pars ilia; quam in sébjine maturo retinaculi nomine
appellamus, ante evolutionem ovuli cum eodem tñn arct^ conjuncta
apparet, ut suturâ tantum obliquâ distinguatur. Tunc temporis au-
tem ejusdem est massæ atq; texturæ subcartilaginæ, quam in ipso
ovulo, praesertim in ejus nucleo seu tertia membrana observamus.
Forma ejus est coni obliqui, obtusi, basi dilatati, in facie inferiore
convexi, in superiori, cui ovulum incumbit, canaliculati, ad utrumque
latus inferiora versus lobulo seu alula parvâ latera ovuli amplec-
tentis, qui lobuli haud raro cum semine arctius conjuncti perstant et
aream parvam rotundatam pallidiorem ad ejus basin ab utroque latere
construant. Retracto retinaculi apice funiculi fasciculum vides in
ovuli basin intrantem. Ovulum ipsum plerumque ovatum et com-
pressiusculum mox introrsum, i. e. centrum versus, fid basin retinaculi
recurrit ibidemque angulo altero baseos magis prominulo, cui

exostomium respondet, terminatur. Membrana prima et secunda conformes fer&, tenues, cellulos*, structure ejusdem, quam in aliis ovulis invenimus ; tertia, quae nucleus construit, in ovulo jam penitus reverso obovata, basi super& obtusa rotundatque, apice infero conico obtusoque angulum ovuli prominulum expels. Retinaculi generationem benf si consideraveris, simile id esse dices cylindro illo *Statice* accessoris vel eminenti* illi extinxorii form* *Euphorbiacearum*, quas partes, a funiculo umbilicali ab initio discretes, dicimmo exostomium attingere crescendo et cum semine coalescere ab oculatissimo Mirbelio educti sumus. Conf. Ann. des Sc. Nat., JuxL 1829, p. 311. t. 15. f. 5. et t. 13. f. 1—6. R. Br. Verm. Bol. Schr. ed. N. ab E. iv. p. 528 sqq. t. 5. f. 11—17— Differentia omnis in eo quaerenda, quod processus ille accessorius seu secundi ordinis exostomio respondens, (ductus aura seminalis Aug. de St. Hil.) non aliund& acerescat ovulo, sed statim ab initio funiculo conjunctus exspectet quasi ejus conversionem. In *Statice* ovulum, prim& deor* sùm spectans, erigitur ut processum accessorium, a parte supera descendente, ore continget, in *Euphorbiis* primit& adscendens eminentiae succrescenti denique spont& occurrit; h*c autem utraque quae diximus anatropica sunt ovula, *Acanthaceis* autem nostris CAM* PVIOTROPICA.

XII. Semen (*Jwticie Ecblie*). Oblique cordatum, altero lobo cui radicula seu exostomium respondet, productiore, compressum, margine tumido solidoque cinctum. Pellicula non mucilaginosa, in tuberculis siccis pallida inaequalia corrugata. Testa crassa, transversaliter fibrosa, coriacea in maturo semine pallid* fusca. Hilum in sinus cordiformis basi media, lineare. Membrana interna tenuis, hyalina, oitida, a testa solubilis. Chalaza parva, depressa, hilo exteriori subjacta, paulo obscurior in basi membran* internae. Albumen nullum. Embryo figura cavi seminis interni, quae eadem atque ipsius seminis. Cotyledones magnae, carnosso-molles, oblique cordat*, lobo productore basin constitutae ubi radicula sita est. Membrana, quae embryonem cingit vel cum membrana interna confluit, vel tenuissima, vix appareat. Radicula obtusa conica, prominula; gemmula subrotunda, compressa.

Characteres genericos hoc ordine dispositi cl. R. Brownius, a gravissimis ad leviores progrediens (Prod. Fl. N. Holl. p. 474; ed. 2. p. 330): " Semina cum vel absque retinaculis. Dissepimentum valvis adnatum vel liberum. Anther* bilocularis vel uniloculares. Stamina antherifera duo vel quatuor. Corollae irregularis limbū bi- vel uni-labiatus. Calyx aequalis vel inaequalis. Capsulae loculi di-polyspermi." Quibus, ut vacillantes, subjunxit, qui sequuntur: corollam subregularem, et tune modo hypocrateiformē antheris duabus exsertis, vel infundibulifoyem antheris quatuor inclusis; corollae irregularis labiate formam et divisionem labiorum; antherarum locellorum situm diversiu, a connectivi forma et volumine pendente, eorundemque appendices varias; filamentorum sterilium in diandris accessum vel defectum; capsularum valvulas compressas vel navicularas, sessiles vel in ungüem contractas.

Et mihi quoque, post multas observationes, in plurimis utriusque hemisphaerae nostra plantis Acanthaceis diligenter institutas, istos characteres sola et vera generum stabilium fundamenta praebere persuasum est. In nonnullis tamen, quod ad dignitatem characterum, a clarissimi magistri sententia discedere coactus sum, cuius rei rationes hic brevi exponam. Quod ad retinacula attinet, fundamenta haec mihi sunt tribuum, primoque sane loco inter omnes reliquos characteres a estimata. Reliquorum autem characterum ordinem non minus gravem et fideliter observandum ad dispositionem familiae habuisse, si in pauca tantum genera commodi dissolvi posse Acanthacearum agmen cognovissem. Sed in hoc moliendo summis difficultatibus implexus eram, quas quomodo illaesis summi magistri mei praecipi superiorare, nusquam inventi. Nam ubicunque, ad singulos graviores quosdam characteres totus conversua, ampliora Acanthacearum genera construxeram, inter alias maxim& familiares nonnullas reprehendi species a me receptas, quae toto coelo differre et long*, ut ita dicam, dissitae regionis cives esse viderentur. Haec nūni cum iterum iterumque accidissent, in causam cecepit inquirere tantæ inter conjunctas discrepantiae. Quae certiora reperisse puto,

haec sunt. Nihil magis esse in se conveniens et congruum ista familia—unum tamen innatum esse omnibus ejus membris veluti vitium congenitum, cui omnia diversissimo modo obnoxia, a communij tramite in regularem quandam neque ineleg^ntem perturbationem atque luxuriem, niti cogantur. Hanc causam esse summa? multiplicisque diversitatis, sub specie summse congruentiae latentis, neque prius genera pura, i. e., quam primo intuitu distinguantur, circumscibi posse, quam discrepant* cans* pateant, et characterum generali vi et congruentft ^juasi emollite ex odio prisco in *ratiam reducantur. Igitur, cum duplex typus evolutionis in hac familiâ existat, alter concinnitatis symmetric*, alter concinnitatis asymmetriae, neuter autem horum per se solus vel dominetur vel serviat, sed potius uterque ex utroque procedat et in eundem locum revertatur, tot genera proponenda esse censebap, quot modi inventantur oppositorum in puncto quodam communij congruentium. Discrepanzia autem seu typus concinnitatis asymmetric*, ab altera parte « fructificatione patet, ab altera per biflorescentiam evolvitur, zdemque valet de altero typo, qui ducit ad communem symmetram. Quatenus igitur alienam a typo aliquo inflorescentiam, neque ex eodem recta vi derivandam, cum fructificatione in graJori L congrua conjunctam inveni, advocato in auxilium charge infe nons quidem not*, sed earundem ut ita dicam partiunt TT e con-

idemque feci, s;

Sequebatur ex characters, quos inter vacillantes posuit ill Brownius, imprimitis eis, qui a corollæ et antherarum structura penitiore pendent, cum quoque superiorum seorsim vel plures junctum compositis ad distinguenda genera advocatos esse, ipsumque numerum seminum, in una capsula contentorum, dignitatem in plerique hand spernendam recuperasse. Sic. v. c.

tractu

de ex

rita, ut

therarum locelli diversâ ratione a situ communi concinnoque aberrantes in ipso flore vel diverse in eodem tempore maturantur. a. p. Id autem probat notandum, non pari lege concinnitatem et inconcinnitatem partium conjungi, sed rationibus maxime diversis, que quidem vera et pricipia causa est generum multiplicitat* aemum luctus instrudorū et extructorum. Si v. c. artificios combinationibus uti placaret, triplex in universum posceretur conjunctio, scil. concinnitatis, inconcinnitatis, et utriusque cum altera conjugatio. Qui etmodi turn in singulis partibus per se, turn in plurimis pressi, genera artificialia prberen^naturalia Z^Z ~ * istimo, qua per se spectata, unum et interna tantum ex, omni parte congruum et W ~ n T S ~ * *** * ditavleletiali quipictur^line^excolere^r Communem, Qu*cuncta et tabula synoptica generum ad „tr at Ue per W claris apparet. Quicquid in plurimis transimus,

M synopHca Genera A C A N T H A C E A R U M ^ ORIENTALIS.
Tnbis I, THUNBERGIE^. Semina retin' I". acu. ... cu NM «Lcornea

1. f U g i i l k Corolla Vnfundibulifor. pilo. mflatis, limbo horizontali. Anthe stamin. "revissimo aunulo obliqui inferus bimucronatus, minor". loecUis aJcarata. bilabiatu-infundibuliforme—Plores ~ ***&& niutici. Stigma

2. Meyenia. Corolla infundibuliformis tubo brevissimo. Anthera ^{litorum} campa^{panulat} a Kmbo obrum starainum altero basi calcard. altero loecUis PM^WM; major utroque longissime calcarato. —R. ^{litorum} campa^{panulat} o minorum inflori. Cmi axillares et anninales inulin-

Tribus II. NKLSONIE^. facili "cua semina fe^ntia W fulcientia, 1. " " " " htndi " " enima parva, scrobiculata.

a. Diandrus.

4. *Elytraria* Vahl. Calyx quinquepartitus, inaequalis. Corolla bilabiata. Stamina duo absque rudimentis parvis alterius. Antherarum locelli paralleli. (Capsulae loculi a basi octospermi.)—Spicae in scapis radicalibus squamatis.

5. *Nelsonia* R. Br. Calyx quadripartitus, inaequalis, lacinia inferi bifida. Staminum duorum sterulum rudimenta. Antherarum locelli oblique divergentes. (Capsulae loculi a basi octospermi.)—Spicae bracteatae (tomentosae).

b. Didynamia.

6. *Adenosma* R. Br. Corolla ringens. Capsula polysperma.—Spica terminalis, foliaceo-bracteata.

7. *Ebermaiera*. Corolla infundibuliformis limbo quinquefido subaequali. Stigma bilamellatum, tricuspidatum. Capsula a basi polysperma.—Racemos vel spicæ terminalis, quandoque in capitulum contracta, foliaceo-bracteata.

8. *Erythracanthus*. Corolla infundibuliformis limbo quinquefido squall. Stigma bilamellatum, lamella superiori breviori truncata. Capsula basi asperma, in parte superiori polysperma.—Racemulus terminalis bracteis parvis floribusque subalternis.

Tribus III. ECHMATICANTH. Seraina retinaculis uncinatis suffulta.

Subtribus I. HYGROPHILE; E. Corolla ringens. Stamina vel quatuor didynama, vel duo, rudimenta alterius parvis adjectis. Antherae bilocellatae, basi sagittatae, locellis parallelis muticis. Capsula augusta, a basi polysperma. Retinacula brevia.

9. *Hemidaphis*. Stamina duo, filamentis basi dilatatis introrsum filamento sterili subulata connatis. Antherae post pollen emissum contortae.—Flores in spicam foliaceo-bracteata dispositi.

10. *Hygrophila* R. Br. Stamina quatuor didynama. Antherae rectae.—Flores verticillati.

Subtribus n. RUELLIEJE. Corollæ tubus ratione limbi brevis, fauces magis vel minus inflatae, limbus aequalis vel subbilabiatus, nunquam distinctè bilabiatus vel ringens. Stamina quatuor didynama, rarissimè duo tantum. Antherae bilocellatae, locellis in plurimi parallelis.

Dienotis generum Ruelliearum habitus, ab inflorescentia diversus evolutione pendet. —Ponas, flores æctiles inflorescunt case huius evolutionis gradum, quippe in qua jam prirqa rami jam evanescat solusque medius flos superest existat; sequitur jam gradus alter, ubi flores versus apicem caulis et ramorum bracteis propriis suffulti, bracteolisque ad basin oppositis praediti, stepè etiam glomerati vel fasciculati ad propriam inflorescentiae ramificationem nituntur; quo magis nisus ramifications invalescit, eo magis bracteis infirmantur atque decrescant, oriuntur spicae, et denique inflorescentiae racemosae, simplices vel divisae, bracteis bracteolisque parvis instructae, quibus patet, jam ipsas quas bracteas ob situm suum appellari operet, bracteolarum superiori loco demissim intrare. Haec autem in ista familia summa esse solet in universum evolutionis inflorescentiae. Quae magis ad libertatem tendit, rarissima est, p⁺incipitam dico, dichotomam, multifloram, foliolis et foliis intra paniculam decrescentibus interstinctam. Genera secundum hunc progressum sic disponenda: *Gradus prior*; flores axillares, in spicam tendentes: 11. *Dyschistis*. 12. *Dipteracanthus*. 13. *Petalidium*. —*Gradus secundus*; spicae, bracteis arctè inclusae, magis minusvè strobilaceæ: *U.Ruellia*. 15. *Phlebophyllum*. 16. *Buteraea*. 17. *Adenanthera*. 18. *Stenosiphonium*. 19. *Strobilanthes* (ubi bractearum in Sectione tertia defluxu jam ulterior preparatur in spicam nudam et denique in paniculam evolutio, haec verò magis etiam perficitur in generibus sequentibus). 20. *Acanthaea*. 21. *Goldfussia*. —*Gradus tertius*; spicae parvibracteatae, pleraque secundiflorae: 22. *Asystasia*. 23. *Echinacanthus*. —*Gradus quartus*; panicula laxa, microphylla. 24. *Leptacanthus*.

Sequitur jam generum ordo ad lectoris commodum methodo artificiali accommodatus:

a. Calyx quinquedivisus, regularis, vel lacinias subinaequalibus, sed non binis vel pluribus earum in unam conjunctis.

23. *Echinacanthus*. Capsula polysperma, teretiuscula, a basi se calcarata. —Cymæ secundiflora.

12. *Dipteracanthus*. Capsula 12-sperma, inferne compressa.—

14. *Ruellia*. Corolla 8-sperma, a basi seminifera, tetra-ora.

Corolla infundibuliformis tubo 8-maior in fauces dilatato. Antheræ routine. —Spiae breves, foliacea*.

20. <*elcmmera. Capsula 8-sperma, a basi seminifera, gona. Corolla infundibuliformis tubo sensim in fauces dilatato. Antheræ spicae capitate. —Capitula paniculatum distributa.

18. *Stenosiphonium*. Corolla 8-sperma, a basi seminifera, tetragona. Corolla tubo tenuissimo, limbo abruptè inflato-campanulato. Antheræ nutrice. Calyx primùm semiquinquefidus, deinde ad positionis distantibus distans. —Spiae floribus glomeratis aut simpliditer op-

19. *Strobilanthes*, Bl. Capsula in medio tetrangulari appennata ad basin bicollaris vel brevissimo tantum spatulata. Corolla infundibuliformis. Antheræ erectæ, locellis parallelis. Calyx quinquepartitus. —Spiae dense, bracteis lati.

21. *Goldfussia*. Capsula sexangularis juxta basin vel prope a basi tetrasperma. Corolla infundibuliformis. Antheræ nutantes, locellis brevibus in connectivo glanduloso obliquis. —Spiae in capitula contractae.

—*Asystasia* Bl. Capsula longo tractu a basi clausa, asperma, compressa, in superiori parte tetrasperma. Corolla infundibuliformis. Antheræ erectæ, locellis parallelis. Calyx quinquepartitus. —Spiae vel racemi, laxi, secundi, bracteis bracteolisque parvis.

13. *Petalidium*. Capsula brevi spatio a basi asperna commissurâ planâ, superiæ tetrasperma. Calyx quinquepartitus, bracteolis duabus magnis valvatis tectus. Corolla infundibuliformis. Antheræ fasciculati. —*basi aristati. —Flores axillares, solitarii vel

11. *Dyckarista*. Capsula * depresso-tetragona, rigida, juxta basin ferè tetrasperma. Calyx tubulosus, ad medium ferè rum locelli paralleli, basi mucronata. —Flores axillares, sessiles.

24. *Leptacanthus*. Capsula a basi tetrasperma. Calyx inaequalis, lacinia duabus superioribus longioribus, mediis brevioribus. Corolla infundibuliformis, lacinia duabus superioribus majoribus adscendentibus. Antherarum locelli paralleli, antrois & contigui. —Panícula trichotoma, foliolosa; bracteis bracteolisque proprie sic dicendis nullis.

b. Calyx irregularis, lacinia nonnullis in unam confluentibus. Corolla infundibuliformis in omnibus. —Spiae magis vel minus densae, bracteis lati vel latiusculis.

15. *Phlebophyllum*. Diandrum. Calyx quadripartitus lacinia superiore profunde bifida. (Capsula basi contigua, apice tetrasperma.)

17. *Adenanthera*. Calyx tripartite, lacinia superiore trifida. Capsula supra basin tetrasperma.

16. *Buteraea*. Calyx bipartitus, labio superiore breviore bifido, inferiore profunde bifido. Antherarum locelli paralleli. (Capsula supra basin tetrasperma.)

Subtribus III. BARLERIE; E. ;Corollæ tubus ratione limbi brevis, fauces inagis vel minus inflate, limbus inaequalis cum faucibus infundibuliformis, vel bilabiatus. Stamina quatuor didynama, tubo circa basin inserta, altero pare brevissimo. Antheræ bilocellatae. Calyx inaequalis, in aliis quadripartitus, lacinia superiore et inferiore majoribus, mediis interioribus minoribus, in aliis subbilabiatus, bi-vel quinque-partitus. Capsula omnium juxta basin tetra-, rariis di-sperma.

25. *Asteracantha*. Calyx quadripartitus (lacinia supera paucilobata, inferiore bidentata). Corolla profundè bilabiata. —Flores verticillati.

26. *Barleria* Linn. Calyx quadripartitus (lacinia supera et infera maximis). Corolla infundibuliformis lacinia superiore convergente quandoque inferiore breviore. —Flores axillares vel spicati. —*Lophotrichys* Pohl. Calyx quadripartitus (lacinia supera et infera

—nec lateralibus, ut habet cl. Pohlius—maximis). Corolla tubulosa, bilabiata.—Spies terminali-aggregata, coimpresca, secunda, bracteatis, bracteis bracteolische conformibus coloratis, dorsalibus anatthis.

27. *Aetheilema* R. Br. Calyx quinquepartitus lacinia superiore maxima bracteiformi. Corolla bilabiata vel ringens. Anthers locellis parallelis.—Spies vel racemuli axillares pauciflori, bracteis magnis, bracteolische nullis.

28. *Lepidagathis* Willd. Calyx quinquepartitus lacinia superiore maxima vel saltern majore reliquis. Corolla bilabiata, labio superiore bi-, inferiore trifido laciinis conformibus.—Spies axillares, plerisque inferne glomerato-compositis, dens, bracteatis, secunda. Bractearum paria in spiras arctas dissoluta.

29. *Neuracanthus*. Calyx bilabiatus labio superiore trifido, inferiore bifido. Corolla bilabiata. Anthers bilocellatae locellis basi divergentibus.—Spies axillares, tetragons, dens & Kracteate, bracteis nervosis rigidis.

Subtribus iv. ACANTHE/E. Corolla unilabiata, tubo basi subcartilagineo. Stamina quatuor subdidyma; anthers unilocellatae. Calyx quadripartitus insqualis, lacinia infera et supera latioribus. Capsula omnium circa basin tetrasperma.

30. *Blepharis* Juss. Staminum minorum locellus inconnectivo obtuso lateralis, sessilis vel substipitatus. Spies axillares uniflora, basi bracteis sterilibus (fimbriatis) dens & imbricata.

31. *Acanthus* Linn. Stamina minora apice inflexa; anthers locellus in filamente uno transversalis.—Spica terminalis. Flores tribracteati (bractea et bracteola latis), bractea setacea-ciliata.

32. *Dilivaria* Juss. Stamina majora et minora conforpiia, locellis adnatis.—Spica terminalis. Bractes et bracteols conformes, integrerrimas.

Subtribus v. JusTiciE^i. Corolla—paucis subinfundibuliformis limbo obliquu subregulari vel indeterminate bilabiato, tubo incurvo; —plerisque bilabiata Vel ringens, nonnullis hypocrateriformis limbo regulari vel bilabiato labio superiore angusto; omnibus autem orthotropa seu labio superiore cum staminibus sursum, vergente. Stamina duo tubi (varis longitudinis) terminis inserta; rarius quatuor, vel minoribus incompletis, vel didyma, turn vero anthers cunctorum vel alterius paris saltern unilocellata. Anthers plerisque bilocellatae locellis situ varis, parallelis vel obliquis & distantibus, muticis calcaratis. Calyx ratione corollis parvus, vel quadrifidus subquadrifidusve lacinia superiore minuta, vel (plerisque) quinquefidus, squalis aut subsqualis. Capsula dissepimentis adnatis in plerisque tetra-, paucis pleio-sperma.

Divisio 1. RUELLIOIDE/E. Calyx quinquefidui^7 Corolla tubo longo incurvo* vel recto stricto, limbo obliquu quinquefidu vel indeterminate bilabiato et turn verd brevi.* Stamina vel quatuor di-dyma antheris unilocellatis; vel duo perfecti in nonnullis filamentis sterilibus stipata. Antherarum locelli paralleli, quandoque ob septum retractum anthers ad speciem unilocellatis. Capsula tetra-pleiospenna. Flores in thyrsis racemis elongatis vel spicis terminalibus, vario modo bracteati.

33. *Crossandra* Salisb. Corolla limbis quinquefidis, a tergo ad tubum usque, fissus. Stamina quatuor, antheris unilocellatis. Capsula juxta basin tetrasperma.—Spica terminalis, dens & bracteata.

34. *Endopogon*. Corolla bilabiata inflata, labio superiore bifido latiore, intus in canali pilia cincto stylum recondente. Stamina sterilia nulla. Capsula prope a basi tetrasperma.—Spies bracteatis, floribus oppositis solitariis.

35. *Loxanthus*. Corolla limbis obliquis subregularis; tubus incurvus. Stamina sterilia duo. Capsula a basi polysperma. Thyrsus terminalis.

36. *Phlogacanthus*. Corolla bilabiata, labio superiore bifido latiore; tubus incurvus. Stamina sterilia nulla. Capsula basi asperma, superius octosperma.-^Racemus terminalis.

37. *Cryptophragnium*. Corolla bilabiata, labio superiore bifido brevior; tubus elongato-obconicus, strictus/ Stamina sterilia nulla. Anthers ob septum medium retractum unilocellatis. Capsula a basi

—Spica terminalis, glomerato-interrupta.

Divisio 2. GENDARUSSE/E. Calyx quadrifidus vel quinquefidus. Corolla ringens, in speciebus calyce quadrifido instructus tantum bilabiata. Stamina paucis didyma antheris omnium vel inferioris paris unilocellatis; plerisque duo absque sterili accessu. Antherarum locelli vel paralleli vel (apud plerasque) divergentes, mutici vel calcarati. Capsula tetrasperma, plerisque basi asperma compressa valvis contiguis.—Flores spicati, varife bracteati; ubi spica c floribus glomeratis constat, angustiores sunt bractes.

A. Calyx quadrifidus vel subquinquefidus laciniâ superâ minimâ.

38. *Rostellaria*. Stamina duo. Antherarum locellus inferior basi imperfectus in cornu obtusum contractus. Corolla bilabiata, labio superiore piano bidentato. Capsula proprie a basi tetrasperma.—Spies terminales, bracteis bracteolische subconformibus calycis laciinis consimilibus.

B. Calyx quinquefidus squalis.

39. *Hemichoriste*. Stamina quatuor. Anthers aristatis, minorum staminum unilocellatis.—Racemus terminalis.

40. *Graptophyllum*. Stamina duo. Anthers muticis, locellis parallelis. Labium superius rectum.—Racemi axillares.

41. *Beloperone*. Stamina duo. Anthers muticis vel basi calcaratis, tocellis connectivo semisagittato discretis. Labium superius rectum.—Spies axillares, secunda, bracteis bracteolische squalibus longis angustis patulis.

42. *Adhatoda*. Stamina duo. Antherarum locelli oblique alter super altero positi: inferior calcaratus. Labium superius fornicateui.—Spica bracteis bracteolische latis tecta.

43. *Gendarussa*. Stamina duo. Antherarum locelli oblique alter super altero positi: inferior calcaratus. Labium superius fornicateui.—Spica bracteolische parvis, bracteis vel parvis persistentibus vel latioribus decidui.

44. *Leptostachya*. Stamina duo. Antherarum locelli oblique alter super altero positi, mutici. Corolla ringens. Spica elongata, laxa. Bractes bracteolische parvs.

45. *Gymnostachyus*. . Stamina duo. Antherarum locelli parallelis, contigui, basi mucronati... Corolla bilabiata, labio superiore bifido minore. Calyx lacinia superior minor. Spica laxa, secunda. Bractes subalternis; bracteols nulls.

Divisio 3. ERANTHEMA. Calyx quinquefidus. Corolla tubo elongato, hypocrateriformis, limbo regulari, vel bilabiato labio superiore angusto. Stamina perfecta duo, fauci supers inserta, antheris bilocellatis; locelli paralleli vel alter super altero positi, squales, mutici vel basi mucronati; staminum sterili in nonnullis rudimenta. Capsula tetrasperma, basi longo tractu compresso-unguiculata asperna valvis contiguis. Flores spicati, varfe bracteati, vel glomerati, parvibracteati, spicis turn di-trichotomis.

46; *Eranthemum* R. Br. Corolla hypocrateriformis vel elongato-infundibuliformis^ limbo subsquali. Staminum sterili rudimenta.—Spica, bracteis in aliis latis in aliis parvis, bracteolische conformibus.

47. *Justicia*. Corolla bilabiata-hypocrateriformis^ labio superiore angusto reflexo.. Staiuia duo. Antherarum locelli paralleli Cm sula disperma... Spica bracteis latis herbaceis demum decidui's bracteolis parvis.

48. *Rhimcanthus*. Corolla bilabiata-hypocrateriformis labio superiore angusto. Stamina duo. Antherarum locelli alter super altero positi, mutici.—Spica,

Subtribus vi. DICLIPTERE/E. Calyx omnino n^o corolla parvus, tenuis. Corolla bilabiata ^ ? " " " " corolla parvus, tenuis. Corolla bilabiata ^ ? " " " " +11 * , 1 ir JT - P^{len}81^u 00 torsionem ve' tubus vel pedunculus resupinata labu, similibus vel disshnibus, subintegris vel ad breye spatium dm⁸¹, numero partitionem ^ Z emanu resupinat, e. supenorius veri binario. Stanina rar^e |Z tuor d.dynanja mclusa, plensque duo tuW, ^ longioru, terninis mserata, pronnula. Anthers vel bilocellat* locellis obliquis vel uno supra alterum positis muticis basi micrognathis, vel unilocellau. Capsula subtetragonu vel basi compresa, apice valde depresso tetra sperma vel octosperma. Dissepentuu. in aliis adnatun, eri o " in aliis maturo fructu ab imo sursum elastics, raffa. et capsula panetes vel s. ul attollcus, vel seorsini assurgens, retinacula unci-

nata sessilia basi affixa secum portans; in aliis denique totuin solubile secedensque a valvularum tergo. Spicae bracteatae, verticillis in spiram distractis, vel capitula bracteis saepc valvatim positis quasi involucrata, turn umbellatum simulque et flabellatum in caule ramis que disposita; ad extremum seriei, diminutis bracteis capitulisque dissolutis, paniculae prbdeunt di-trichotomae laxiflorae.—Plantae pleaeque herbaceae, caule magis minusv distinct[^] sexangulari vel sex-sulcato, foliis laxis, floribus teneris purpureis, roseis vel albis, in quibusdam speciosis, in multis parvis quidem sed et his elegantioribus.

A. Dissepimento solubili.

a. Stamiña quatuor, didynama.

Blechum Juss. Corolla infundibuliformis. Spicae quadrifariā imbricataē, bracteis omnibus fertilibus. Dissepimentum a valvis secedens.

b. Stamina duo.

49. *Rungia*. Corolla orthotropa, bilabiata. Locellus antherarum inferior basi appendiculatus. Spicae quadrifariā bracteatae, bracteis duorum ordinum superiorum sterilibus. (Dissepimentum cum parietibus lateralibus adscendens.)

50. *Didiptera*. Corolla resupinata, bilabiata, labio supino tridentato, resupinato integro vel bidentulo. Antherae muticae.—Capitula bracteis plurium ordinum, quarum exteriōres majores, cincta, in umbellas flabelliformes disposita. (Dissepimentum solum adscendens.)

B. Dissepimento adnato. Capsula ab inferiori parte in omnibus compresso-unguiculata asperma.

Amphiscopia. Corolla orthotropa, ringens. Antherae muticae, bilocellatae, locellis in connectivo linearī distantibus, altero infero retrorsum spectante.—Spicae secundae, bracteis sterilibus minimis.

51. *Peristrophe*. Corolla resupinata, bilabiata, labio supino tridentato, resupinato integro vel bidentulo. Antherae muticae, bilocellatae, locellis angustis uno obliqu[&] juxta alterum posito, post pollen emissum tortae. Capsula basi longe unguiculatim compressa. (Dissepimentum adnatum.)—Capitula involucro bracteali exteriori bivalvi inclusa, in umbellas flabelliformes magis minusv compositas disposita.

52. *Hypoistes* Soland. et R. Br. Corolla orthotropa, bilabiata, labio inferiore profund[&] tripartito. Antherae unilocellatae, muticae. Capsula breviter unguiculatim compressa. (Dissepimentum adnatum.)—Capitula, abortu saepc uniflora, involucro cruciato tetraphyllo, basi saepē gamophyllo inclusa, umbellatum flabellatimque disposita.

53. *Rhaphidospora*. Corolla resupinata, subringens, labio supino trifido, resupinato concavo. Antherae bilocellatae, locello uno supra alterum posito, inferiore basi calcarato. Capsula basi breviter unguiculatim compressa. (Dissepimentum adnatum.)—Paniculae di-trichotomae, floribus capitato-termis salitariis, bracteis bracteolisque parvis.

Genus superest incertum: *Justicia aristata* Wall.

Subtribus vn. ANDROGRAPHIDE[^]. Calyx quinquefidus. Corolla bilabiata vel ringens, orthotropa vel versione pedicelli resupinata, labiis dissimilibus, numero divisionum superioris in resupinatis ternario. Antherae unilocellatae vel bilocellatae, locellis obliquis vel parallelis, inferiore magis minusv barbato vel lanā tomentove oblitterato. Capsula a basi depresso, non unguiculata, ovalis, pleiosperma. Dissepimentum adnatum. Retinacula squamiformia, pedicello brevi, cui semen inhaeret, dissepimento conjuncta, facite secedentia. Semina teretiuscula vel subangulata. Racemi axillares terminalesque secundiflori, di-trichotomi. Bracteae parva?; bracteoia? ad basin pedicellorum bracteis similes vel nullae.

54. *Eriarthera*. Corolla bilabiata labio superiori integro. Antherarum locellus inferior, in lanam solutus.—Rores axillares, pedicellati, ebracteati.

55. *Haplanthus*. Corolla subbilabiata, quinquefida, tubo incurvo. Antherae unilocellatae, connectivo locelloque abortivo tomentosis.—Racemi axillari-terminales, subspicati. Bracteae bracteolaeque paryae.

56. *Andrographis* Wall. Corolla (ob situm ad speciem resupinata) bilabiata, labio inferiore (sensu proprio) trifido. Antherarum locelli gemini, subparallelis, basi barbati.—Racemi, perfecti vel spiciformes, axillares, di-trichotomi, secundi. Bracteae parvae; bracteolae nulla*.

ACANTHACE[^]E INDLE ORIENTALIS.

Tribus. THUNBERGIEJE.

1. THUNBERGIA Linn.

Calyx brevis cupuliformis, truncatus aut pluridentatus, dentibus tūrn pluribus quam decem. Bracteae duae ad basin calycis, calycē majores eumque ante anthesin valvatim tegentes. Corolla campanulato-infiindibuliformis, fauce inflata, limbo quinquefido patente subsequali. Stamina quatuor didynama. Antherae erectae, adnatse, bilocellatae locellis parallelis margine ciliato-barbatis, altero basi paulo breviore ibidemque in calcar aristiforme producto. Stigma infundibuliforme, transversē emarginatum subbilabiatum. Annulus nectarifer crassus, lobatus, ovarium cingens. Capsula ad basin globosa, bilocellata, di-tetrasperma; superiora versus rostrato-attenuata, deppressa, commissurā planā contigūa. Dissepimentum membranaceum, in centro cohaerens, a valvis solubile. Retinacula nulla; quorum loco annulus cartilagineus basin seminum cingens, qui ex anbitu funiculi umbilicalis oritur. Sēmina globosa, basi callosa perforata, funiculo umbilicali per foramen intrante. Cavum iaterius, a parte hili, convexum, post solutam partem callosam et ferreosseam, retinacula vices gerentem, semen extrinsecis marginatum. Embryo—Inflorescentia: Flores axillares pedunculati, solitarii vel in racemum dispositi.—Plantae scandentes. Corollae speciosae, luteae vel coeruleae, fauce plerumque saturatiore.

a. Calycis limbus truncatus.

1. *Thunbergia grandiflora* Roxb.: scandens, foliis cordatis angulatis acuminatis hispidis, calycis limbo truncato integerrimo.—*Tjiunbergia grandiflora* Spreng. S. V. n. p. 828. Link En. H. Reg. Berol. ii. p. 132. Bot. Reg. t. 493. Wall. Catal. n. 768 a. fol. 83 e, f, k.* Wight Herb, propr. n. 5. *Thunbergia* et *Flemingia grandiflora* et *Flemingia racemosa* Herb. Madr. Wall. Cat. n. 766 c.

[3 *racemosa*: racemo tenhinali.

**malvifolia*: foliis cordato-otthe'ulofis glōsse angulatō-lobatis, apice minus productu*, fiorib⁹ majoribus racemosi.

Thunbergia malvifolia Herb. Hamilt. Wall. Cat. fol. 83. n. 768 h.

***cuspidata*: foliis in acumen triangulare integerrimum productis basi angulatis, minus hirsutis, scaberrimis, floribus minoribus. *Thunbergia grandiflora* Wall, in schedis n. 2518, nullā additā literā, ex H. b. Calc.—2518 h. idem, (qui numerus, *Thunbergia malvifolia* Hamilt. respondens, a litera e fol. 83 progrediendo, in schedulis 2518 d. exprimitur). An Tk. *malvifolia* Hort. Calc? Wall, in lit.

y *pabnifolia*: foliis palmato-quinquelobis, laciniis acutissimis, floribus magnis solitariis axillaribus.—*Thunbergia grandiflora* Hamilt. Hb. Wall. Cat. fol. 83. n. 768 g. (in schedis 2518 c).

Patria Madras et Tranquebaria. In Sillet a. 1830 legit Gomez. In montibus Hindustāniae a. 1821 (Wallich).—Hb. Madr. Hb. Wight. —Var. [3 e Katchulpur et Gualpara, Hamilt.: e Kuvarikot, id.—j3** crescit in H. b. Calc.—Var. y in Dongtola, Hamilt.

Tota planta scabra. Flos vix l^e poll, altus, limbo 3 poll, lato, coeruleus.

b. Calycis limbus pluridentatus.

2. *Thunbergia lewis* Wall.: scandens, foliis hastato-scutatis subangulatis obtusis glabris, calyce 12-dentato.—*Thunbergia Icevis* Wall. Wight Herb, propr. n. 7.

In montibus provinciae Dindygul, altit. ped. 1000. Wight.

Folia glabra. Corolla f—f pollicis longa, lutea (?).

3. *Thunbergia fragrans* Rbx.: scandens, foliis oblongis acutis cordatis basi angulato-subhastatis pubescenti-scabris, calyce 12-fido. —*Thunbergia fragrans* Roxb. PL Corom. i. p. 4/. t. 67- Willd. Sp. PI. in. I. p. 388. Pers. Synops. n. p. 179. u. 3. Spr. S. V. II. p. 828. n. 2. Link En. H. Ber. II. p. 132. Wall. Cat. n. 767. Wight Hb. propr. n. 4.

a. foliis latioribus, basi utrinque acut& bidentatis vel etiani hastatid. *Thunbergia fragrans* Wall. Catal. fol. 83. n. 767 e. ex Herb. Ma&r. (2519 a, in schedula); 767 g. Herb. Hamilt. ex Hort. b. Calc.; 767 h (an k?) maximam partem : 267 k. ex H. b. Calc. (ad partem).

* In schedis 2518 a, d, e, f, g [c. errore], h [d. errore].

[3. foliis angustioribus obsolete repandis subhastatis. Wall. Cat. I. 767 a (2519 a, in schedis); 767 k. ex H. b. Calc. quoad partej. y. foliis cordato-lanceolatis oblongisve subintegerrimis. *Thunbergia fragrans* Wall. Cat. n. 767 et fol. 83. n. 767 c (in schedis, nee in Catal.) Ex H. b. Calc. in Hb. Hamilt.

I vestita: folios ut in var. a vel subintegerrimis cauleque dens& villoso-sericeis velutino-mollibus. *Thunbergia fragrans* Wall. Cat. fol. 83. n. 767 k (?), et H. b. Calc., ex parte.

Habitat in fruticetis adfluviorum ripas prope Samulcotta (Roxb.). Adripas fluviorum in nemorosis provincial CiVc^r, Tanjore, Madure, Madras, etc. frequens (Wight).—Var. a in H. b. Calc. In Travancore a. 1817 (Hb. Madr.).—(3 in Hindustanis Wall. 1. c. n. 767 a.

Tota scabra. Corolla pollicaris, pallid[^] lutea, fundo purpureo. Capsula disperma.

4. *Thunbergia alata* Hook.; volubilis, villoso-scricea, foliis cordato-sagittatis acutis alat& petiolatis, calyce 12-fido, bracteolis repandis.—*Thunbergia alata* Hook. Exot. Fl. t. 177- Spr. Cur. Post, ad S. Veg. p. 237. N. v. E. et Sinning Zierpse. t. 96. Wall. Cat. n. 7H1.

Patria Africa orientalis 5°—6° latit. austr. (Hooker.) Ex H. b. Calc.

Thunbergiae genuini generis esse videtur. Subherbacea. Corolla 1 poll, longa, tubo curvo, limbo campanulato, lutea, fundo purpureo. Capsula hirta, rostro longo angu&to tetragono.

5. *Thunbergia Roxburghia*: scandens, hirsuta, foliis cordato-hastatis basi angulatis, calyce ad medium 12—15-fido.—*Thunbergia fragrans* Wall. Cat. fol. 83. n. 761/. (in sched. 2519 f).—*Roxburghia rostrata* Herb. Russel/l. c.

Crescit in India orientali. Herb. Russell.

Similis, quoad hirsutiem et foliorum formam, *Thunbergia tomentosa*. Capsula glabra, rostro crasso pyramidali obtuso.

6. *Thunbergia tomentosa* Wall.: scandens, hirsuta, foliis cordato-triangulari-hastatis acutis, calyce multiseto.

Variat: «, foliis præf. cordato-bastatis. *Thunbergia tomentosa* W^{IL} Wight Hb. prop. n. 8.

(3. foliis triangulari-hastatis, basi subtruncatis, scutiformibus, saepè crenatis. *Thunbergia fragrans* Wall. Cat. fol. 83. n. 767 i, k (ad partem).

y. foliis ovatis integerrimis crenatisve. *Thunbergia fragrans* Wall. Cat. 1. c.

Var. a e Nilghiry (Wight). |3, y ex Herb. Roxburghiano (Wall.) et ex H. b. Calc.

Corollae (purpureae ?) tubus longus, limbus latus, diametro poll. 1[^]—i[^]. Antherae glabrae, nee, ut *Thunbergia alata*, basin versus long& ciliato-barbatae. Capsula pollicem longa, basi depresso-globosa, dens& pubescenti-tomentosa, rostro conico longo.

7* *Thunbergia angulata* Hook.: scandens, pubescenti-scabra, foliis cordato-sagittatis acuminatis long& petiolatis, calyce 12-partito brevi, laciñi linearibus.—*Thunbergia angulata* Hook. Exot. Fl. t. 166. Spr. Cur. Poster, in S. V. p. 237. Wall. Cat. n. 770.

Patria Madagascar. Culta in H. b. Calc, introd. a cl. Telfair.

Corolla pollicaris, lutea, fauce violaceâ, tubo brevissimo. Capsula globosa, cum rostro circiter f pollicis longa.

Adnot. An haec cum *Thunbergia tomentosa* (et *alata* ?) distincti generis ?

8. *Thunbergia angustifolia* Ham.: scandens, foliis cordato-lanceolatis sinuolatis antherisque glabris, calyce i2-Mo.[^]-*Thunbergia angustifolia* Herb. Hamilt. *Thunbergia fragrans* Wall. Cat. fol. 83 n. 767 h (in schedis 2510 d).

E Koroyivari. Vidi exempl. Hb. Hamilt.

.Corolla (lutea ?) pollicaris, tubo angusto semipollicari, fauce dilatata, liuibi laciñi 5 obovatis. Capsula basi depresso-globosa 4-sperma, rostro conico obtuso duplo longiore.

Adnot. Generis proprii typus essevidetur; ex una autem flore, quern dissecui, rem ad liquidum perducere nequivi.—Differentia a *Thunbergia*, cui convenit calyce, bracteis, fructuque, consistenter in corollae tubo longiore, antherisque per paria connatis glabris, locellis subconfluentibus margine undulatis, quea forma est fermè foliorum »n antheris repetita.

II. MEYENIA*.

Thunbergia spec. Wall. Wight, Herb. Madr.

Calyx parvus quinquelobus, bracteolis duabus magnis inclusus. Corolla infundibuliformis, fauce sensim ampliata, tubo brevissimo, intiis annulo piloso clauso; limbo subaequali. Stamina quatuor, di-dynama; antherae apice barbatæ, bilocellatae: superiorum locellis inaequalibus, altero magis supero divergente, latere tomentoso; inferiorum parallelis subaequalibus, basi muticis. Stigma membranaceo-dilatatum, bilabiatum, labii bilobis. Capsula e basi tumidula conico-attenuata, ad basin bilocularis tetrasperma, dissepimento persistente valvis adnato, ad axin lignoso dissolubili. Semina (immatura) strophiolæ cupuliformi solubili spongiosa suffulta.—Inflorescencia: Flores axillares, pedunculati.—Caulis scandens. Folia opposita, integrerrima.

Meyenia Hawtayneana.—*Thunbergia Hawtayneana* Wall. Tent. EL Nep. I. p. 49. PL As. Rar. n> p. 52. t. 164. Catal. n. 769 a, b. fol. 83 c (in schedis n. 2516, a, b, c). *Thunbergia cordifolia* Herb. Madr. Wall. Cat. fol. 83. n. 769 c. *Thunbergia erecta* Herb. Madrasp. (Wall, in PL As. Rar.) *Thunbergia ccerulea* Herb. Wight. (Wall 14 c).

In umbrosis jugi Nilghiry (Wight). Ex H. b. Calc. (Wall.) E. Nilghiry (Hawtayne). Herb. Madr.—Planta scandens; foliis subsessilibus cordatis acutis. Corolla pollicē pauld longior (coerulea?); Capsula pollicaris. Floret in Horto botanico Calcuttensi temporis frigido.

III. HEXACENTRIS f.

Calyx pateriformis, parvus, limbo inaequaliter dentato repando&. Bracteae duae, altero Jatere connatae, altero dehiscentes, valvatae calycem tegentes. Corolla infundibuliformi-campanulata, tubo brevissimo, limbo subaequali obliqu& quinquefido. Stamina tubi faucibus, annulo barbatd limbatis, inserta. Antherae erectae, bilocellatae, glabrae, locellis parallelis contiguis, superiorum staminum uno locello basi longissiuS culdato, altero hrevi-mucronulato, inferiorum utroque locello longissim& calcarato, calcaribus flexuosis. Stigma bifurcum, laciñi truncatis complicato-canaliculatis basi angustioribus. Capsula biloculcris, tetrasperma, rostrata. Semina cristata. Dissepimentum a valvis solubile, integrum, ad axin bipartibile.—Inflorescencia: Racemi axillares et terminales multiflori; bracteis communibus parvis; floribus oppositis solitariis aut fasciculatis; bracteolis caducis. Corolla purpurea.

1. *Hexacentris coednea*: foliis cordatis ovatis repando-dentatis, bracteolis ovatis.—*Thunbergia coednea* Hook. Exot. Fl. 1.195. Don Fl. Nep. p. 120. Spr. Cur. Post, in S. Veg. p. 237. Wall. Cat. n. 766 a, b. et fol. 83 c, d (in schedis n. 2517 a—e). *Flemingia coednea* Hamilt. MSS.

Crescit in Nepalia (Hamilt., Wallich 1821, Don). In Pundua (Matthew Robert Smith.). Ex H. b. Calc. Wall. Cat. p. 83. n. 766 d; e Nepalia illata.

Caulis tortus, nodosus, cum foliis glaber. Corolla coccinea bracteolis pauld longior; tubus vix linea longior. Stamina ccerulea; calcaria alba. Capsula rigida, pollicē longior, jrafra, striato-rimulosa.

2. *Hexacentris dentata*: foliis ovatis basi truncatis gross* dentatis, bracteolis oblongis.—*Thunbergia quinquenervis* Hamilt. Herb. *Thunbergia coednea* Wall. Cat. fol. as. n. 766 c.

E Siupur (Hamilton).

Differet a praecedente foliis (7-8 poll, long..., „, pr. laus-duplo majonbus qu'm ilUs) etc.; turn et rostro capsuhr l^{rr} triple, iongiore, quod illi vix duplo longius capsuli.

3. *Hexacentris acuminate*: foliis ovato-oblongis acuminatis mot6 dentatis. Wall. Cat. n. 7 HO. is rr-

* Franscus Julius Ferdinandus Meyen M^{dl} pluribus doctis, remherbariam illustrantib! ..., hierolm Llsls, >eribis 1830 edito, de botanice optim* vnJZ* ^T[^]Kbro de !%toioini, redux, hoc genere ejus nomine appellate 12 ^ " m t m m r i l l ^ t_{rn}e t EtynuaieetK[^]y calcar, ob cdJT!!?" in quoivis flore. — nun. simul sumpm sena

In montibus Sillet a. 1829, legit Guil. Gomez.

Folia (cum petiolo circ. pollicari 5—8 poll, longa, lf—2 p.-lata) vakfe reticulata et distinct[^] quinquenervia, longissimfc acuminata.

Tribus II. NELSONIEI.

IV. ELYTRARIA, Vahl.

Calyx quinquepartitus, laciniâ superS. latiore, binis inferioribus basi paulld altifics connexis. Corolla bilabiata vel j-ingens, labio inferiore trifido (laciniis bifidis). Stamina duo fertilia, duo sterilia, inclusa. Antheraram locelli paralleli. Capsulae loculi a basi pleiospermi (octospermi). Retinacula nulla.—Inflorescentia: spicæ radiæ. Scapi in spicam squamati. Bractæ opposite, unifloræ; bracteolæ due angustiores. Flores parvi.—Herbae acaules.

1. *Elytraria crenata* Yahl: acaulis, foliis obovato-oblongis crenatis subtus ad costas villosis.—*Elytraria crenata* Vahl En. i. p. 106. R. et Sch. S. V. i. p. 139. Mant. i. p. 126. Willd. Sp. PL ed. 2. i. p. 420. Wall. Cat. n. 2420. Wight Hb. propr. n. 43,44. *Elytraria indica* Pers. Syn. I. p. 23. n. 1. *Justida acaulis* linn. Suppl. p. 84. Vahl Symb. n. p. 3. Lam. Enc. M&h. i. p. 632. n. 36. Roxb. PL Corom. t. 127. FL Ind. ed. Car. et Wall. I. p. 139. n. f. Herb. Russel, Madr., RottL, Wight., Heyn. (Wall. Cat. n. 2420 a-c). *Plantaginis facie India orientalis* Nelta Carumbee Malabarorum Pluk. Amal. p. 175. Aim. t. 438. n. 1.

Crescit in Indiae orientalis pascuis, maxima sub umbra arborum, floret tempore pluvio frigidoque (Roxburgh). Frequens in collibus montium Circars, Madras, Gingee, Madura cet. (Wight). Squamae scapi lanceolatae ciliatae. Corolla alba, vix 2 lin. longa.

V. NELSONIA, R. Br.

Calyx quadripartitus, i ^ ualis, laciniâ superâ majore, inferâ bifida. Corolla bilabiata, vel subbilabiata, labio inferiore trifido. Stamina duo; sterilia nulla. Antherae duae, inclusæ. Connectivum apice oblique lanceolatum, locello altero super altero posito, inferiore mutico aequali. Stigma bifiu*^*i, laciniis ovatis. Capsulae loculi octospermi a basi seminiferi. Retinacula nulla.—Lgoffescentia: Spiæ terminalis. Flores solitarii, bractæ magnâ tecti; bracteis lateribus parvis aut riullis.

1. *Nelsonia tomentosa* Dietr.: herbacea, prostrata erexitcula, villosa, foliis ellipticis obtusis, inferioribus petiolatis, superioribus subsessilibus minoribus, spicis ovatis, bracteis elliptico-subrotundis mucronulatis.—*Nelsonia tomentosa* Willd. Sp. PL ed. 2. I. p. 419. *Justida tomentosa* Roxb. Fl. Ind. ed. Car. et Wall. I. p. 132. n. 25. Wall. Cat. n. 2370, a, b. Wight Hb. *Justida vestita* R. et Sch. S. Veg. Mant. i. p. 145. *Justida bengalensis* Spr. S. V. I. p. 82. n. 78. *Justida pentasticha* Hamilt. Hb. Wall. Cat. n. 2370 c. *Ruellia diata* Herb. Madr. Wall. Cat. n. 2392 b. (ad partem). *Justida tomentosa* Roxb. et *J. lamiiifolia* Koen. in Herb. Madr. Wall. Cat. n. 2370'e.

[3. caule quasi sarmentoso* *Justida tomentosa* Wall. Cat. n. 2370 c, d, e, f. *Justida lamiiifolia* Roxb. Fl. Ind. ed. Car. et Wall. i. jr. 136. n. 31. R. et Sch. S. V. Mant. f. p. 137. *Nelsonia lamiiifolia* Spr. S. V. I. p. 42. n. 7. Willd. Sp. PL ed. 2. I. p. 420. *Justida ajugoides* Herb. Hamilt. et Wall. Cat. n. 2370 c. (ex parte).

y *ajugoides*: caule flagellari, foliis radicalibus maximis superstitibus stipato. *Justida ajugoides* Herb. Hamilt., Wall. Cat. n. 8370 c. (ex parte). <

Crescit in pascuis humidis pinguibus; floret tempore pluvio. Roxb.—Ip nemorosis Paulgaut provinciae Coimbatore. Wight. Ad ripas Attran fluvii (Wallich). In montibus Courtandum (Herb. Madr.); Bangkok, in regno Siam (Hb. Madr.). Dimalae, die 16 Mart. 1809; Gorakhpur, d. 7 Aprilis a. 1814, Hamilt.—Var. j3. in Chappedong, d. 22 Febr. 1827; ad Kagun in ripis Saluen fluvii Martabaniae 1827; in Sillet, Fr. de Silva.—Var. y. Asormi d. 22 Martii a. 1811 legit cl. Hamilton.

Ajugam pyramidalem refert.—Corolla pallid^ purpurea. Capsula glandulosco-scabra, immatura per dissepmimenti laminas secedens, directione communi dehiscentiae contraria.

Adnot. *Justida lamiiifolia* Roxb. a *Justida tomentosa* seu *Nelsonia tomentosa* nostra vix v&rietatis gradu differt.

VI. ADENOSMA, R. Br.

Calyx quinquepartitus, aequalis vel superiore lacinia majorc. Corolla ringens. Stamina quatuor didynama, antheris bilocellatis, locellis parallelis. Capsula angusta, rostrata, polysperma. Djssepminta adnata. Retinacula nulla.—Inflorescentia: flores in axillis foliorum superiorum minorum ses?iles, singuli vel terni, oppositi, spicam foliosam formantes.

Adnot. Differt hoc genus ab EBERMAIERA corolla ringente.

1. *Adenosma biplicata*: herbacea, caule erecto ramosissimo foliisque oblongis subsessilibus denticulatis hirsutis, floribus axillaribus sessilibus solitarius, palato biplicato, calyce quinquepartito.—Wall. Cat. n. 7146.

In montibus juxta Prome, Burmanorum, 1826, cum florc fructuque.

Similis *Hygrophila ringenti* R. Br. Corolla fer& personata, violacea.

2. *Adenosma inflora*: caule adscendente foliisque ovatis crenato-serratis glandulos-pubescentibus, floribus' axillaribus subspicatis ternis, calyce aequali, corollæ laciniis omnibus retusis.—" *Ruellia triflora* H. b. Calc." Wall. Cat. n. 7147.

Ex Hort. b. Calcittensi.—Caulis pedalis. Corolla 5 lin. longa, purpurea (?), tubo brevi, fauce amplâ.

3. *Adenosma verticillata*: caule adscendente foliisque ovali-oblongis serrulato-crenatis hirsutis, floribus verticillatis, calycis aequalis laciniis Jineari-spathulatis obtusis:—*Ruellia verticillata*, Wall. Cat. n. 2409. *Blepharis verticillata* Herb. Heyn., Wall. 1. c.

Patria est India orientalis; locus natalis non accuratiis est indicatus.

Caulis spithameus. Corolla 4lineas longa, pubescens, purpurea.

4. *Adenosma Thymus*: caule repente ramosissimo, foliis bracteisque lanceolatis integerrimis dens^ lineolatis glabris, floribus axillaribus sessilibus oppositis.—*Ruellia cernua* Heyne Herb. Wall. Cat. n. 2380 b. (ex parte). * " " * .. , ^ . . , .. , ..

[^] Vidi exemplum Herbarii Heyneani.—Proxima haec *Adenosma uliginose*. Caulis (in nostro expl.) vix digitalis. Corolla 4 lin. longa, pubescens, purpurascens, tubo brevi, fauce amplâ.

5. *Adenosma uliginosa*, R. Br.: caule repente geniculato ramosissimo superne piloso, foliis ovalibus crenatis subsessilibus pubescenti-scabris, floribus axillaribus oppositis solitariis in spicam terminali tetragonam dispositis.—*Ruellia uliginosa* Linn. Suppl. p. 290. Willd. Sp. PL in. 1. p. 371. Roth. Nov. PL Sp. p. 306. observ. 'frail. Cat. n. 2378 a, et c. maximam partem. *Adenosma uliginosa* Rob. Br. ftodr. FL Nov. Holl. ed. N. ab E, 1. p. 398. Spr. S. V. 11. p. 828. n. 1.

Habitat in Tranquebar et prope AUamparuam in agris oryzaceis vulgatissima. 0 Linn. 1. c. Vidi exempla Herb. Madr.

Caules plures ex radice, trichotomy divisi. Corolla 3^ lin. loiga, pallida, glabra, fauce inflatâ.

Adnot. De hac planta egregite, 1. c, scripsit Rothius, neglecto tamen charactere generico, maxim&que ea spectans, quibus facilis a *Ruellia polysperma* seu *Hemadelphi polysperma* nostra distingui possit; quae quidem distinctio, solo fructu comparato, evidentissima est.

VII. EBEKMAIBRA.

Calyx quinquepartitus, laciniâ superâ latiore, mediis angustioribus. Corolla infundibuliformis, quinquefida, subregularis, lar niis brevibus. Stamina quatuor didynama, inclusa, inferiora saepè sterilia; antherarum locelli in connectivo lat^ triangulari obliqu^ transversales, divergentes. Stigma compressu*n* bilamellatum, tricuspidatum, scil. lamella-superoire truncatâ vel bifidâ ex utroque latere ad basin lamellæ inferioris prominente. Capsula bilocularis, bijalvis, a dorso depressa, polysperma. Retinacula seminum nulfa.—Inflorescentia: capitula racemoso-spiciformia, terminalia. Florcs alterni, in bractearum axillis solitarii bibractcolati; pedicellis basi nun bractea connatis.

Adnot. Ab ADENOSMA genere differt corolla fer& regulari et antherarum locellis transversim divergentibus.—Capsula est NELSON i. f.; flos fcr^ RuELLLX.

Ebermaierus physicua circuli Dusseldorpiensis, et medicus praticus, librum de plantis medicinalibus (Handbuch der medico-misch-pharmaceutischen Botanik) cum Friderico Neesio ab Esenbeck, Fronfessore Bonnensi, junctis studiis et opera edidit praestantissimum.

1. *Ebermaiera humilis*: floribus capitatis, foliis petiolatis oblongo-lanceolatis glabris. Wall. Cat. n. 7148.

Legit in raontibus Proms a. 1826.—Herba annua, i&r—4-pollicaris, erecta. Corolla calye longior, 5 lin. longa, pubescens, purpurea(?). Florum capitula subglobosa, magnitudine nucis mostchatae.

2. *Ebermaiera thyrsoides*: floribus racemosis, foliis petiolatis ovato-oblongis villosis, bracteis lanceolato-spathulatis calycisque lacinias linearibus longissim& pilosis glandulosisque. *Justida thyrsoides* Wall. Cat. n. 7149.

Crescit in Moalmyne: lecta a. 1827.—Herbacea, circiter digitalis, adscendens. Corolla longitudine calycis, pubescens, venosa, (carnea?). Racemus longitudine reliqui caulis, digitii minimi crassitie.

3. *Ebermaiera aocillaris*: racemis terminalibus ternis nutantibus hirsutissimis, bracteis ovatis, foliis oblongis basi cuneatis supra punctulato-asperis subtis pubescentibus.—*Ruellia? awillaris* Wall. Cat. n. 2414.

E Penang, a. 1822. Wallich.

Caulis crassus furcatum divisus, ramis apice 2—4-phyllis inter folia racemiferis. Folia 8—10 poll, longa, 2|—3 poll. lata. Racemii subcylindrici, 2—3 poll, longi. Corolla vix semipollitice longior, dens& pubescens, (ferrugineo-reticulata?).

Adnot. Proxima huic est Brasiliensis planta:

Ebermaiera Mandiocana: spicis axillares, terminalique composita glandulosis, bracteis spathulatis, foliis ovalibus utrinqu& aculis glabris, caule tereti-compresso pulverulento-scabro.

In Mandiocca ad margined sylvarum mense Augusti a. 1822, cum floribus fructue maturo legit Beyrichius. h.

Frutex 3—4-pedalis. Folia opposita, 4—5 poll, longa, 1£ poll, lata, in petiolum semipollitare desinentia. Spices axillares breves densae, pleraque ad rami apicem <sonfertae in spicam terminalem 4—6 pollices longam, basi compositam foliosam. Corollas 3 lin. longe, pallids, macula faucium infera violacea. Capsula 3 lin. longa, oblonga.

VIII. ERYTHRACANTHUS*.

Ruellia spec. Roxb.

Calyx profund& quinquepartitus, lacinias subsequalibus ovatis acuminati. CordiflT infundibuliformis, limbo aequali quinquefido obtuso. Stamina quatuor didynama; antherae bilocellatae, locellis in connectivo securiformi obliqu& divergentibus muticis. Stigma bilamellatum, lamellis parallelis angustis, superiore paullò breviore truncata. Ovarium basi annulo constrictum, superna biloculare, locellis multiovulatis, ovulis dens& seriatis horizontaliter patentibus obtusis. Retinacula nulla (?).—Inflorescentia: racemulus terminalia (coropositus); flores et bracteae subalternae. Bracteae et bracteolae exiguae, setaceae, subaequales, calye breviores.—Frutices. Folia subtilis rubicunda. Flores mediocres.

Erythracanthus racemosus.—*Ruellia racemosa* Roxb. Wall. Cat. n. 2336 a, b.—Fruticulus caule foliisque oblongo-lanceolatis pubescenti-scabris.

In Penang a. 1822 lectus est..

Folia opposita, cum petiolo f pollici 4^—5 pollices longa, 1 poll, lata. Pedunculus terminalis, plerumque solitafus, 4-pollicaris; ipsa spica pollitice vix longior. Flores cum bracteolis suis spicatum alterni (egregio exemplo). Corollae 5 lineas longae.

* Nomen ab f^—j ^ ^ ««rfj, quia tota folia subtis rubent.

Tribus III. ECHMATACANTHI.

Subtribus I. HYGROPHILE^E.

IX. HEMIADELPHIS*.

Calyx quinquefidus, lacinias aequalibus. Corolla ringens clausa, labio superiore bi-dentato, inferiore trilobo. Stamina duo. Filamenta basi dilatata, supra medium dente setaceo (rudimento filamenti abortivi) instructa. Antherae bilocellatae, locellis parallelis muticis, deum contortis. Capsula lanceolata, compressa, polysperma. Semina retinaculis subtensa.—Inflorescentia: spica, bracteis imbricata.

Hemadelphis polisperma.—*Justida polisperma* Roxb. Fl. Ind. ed. Car. et Wall. i. p. 120. n. 8. R. et Sch. S. V. Mant. I. p. 132. Willd. Sp. PL ed. 2. I. p. 375. n. 28. Spr. S. V. I. p. 79. n. 23. Wall. Cat. n. 2483 a—g. *Ruellia polisperma* Roth. Nov. PI. Sp. p. 305. n. 6. *Adenosma polisperma* Spr. S. V. n. p. 829. *Ruellia uliginosa* Wall. Cat. n. 2378 b, c, a ex parte.

In Bengalio locis incultis inter gramina appareat, tempore frigido (Roxb.). Lecta Nawabguny, Gualpare, d. 10 Dec. 1813, et Patnae d. 20 Mart. 1812 a cl. Hamiltonio; in Sillet a Fr. DeSilva, in Oude a. 1825* Promae alibi secus ripam Irawaddi fluvii a. 1826. Culta etiam adest ex H. b. Calc.

Herba repens, palraaris et paull longior, ramosissima, foliis elliptico-oblongis glabris, spicis in ramis ramulisque terminalibus brevibus, bracteis communibus obovatis hirtis. Corolla 2—3 lin. longa, pubescens, purpurascens (?).

Adnot. Similitudo *Adenosma uliginosa* ad universturn adspectum potius, quam ad veram plants structuram, interpretanda est.

X. HYGROPHILA, R. Br.

Calyx tubulosus, ad medium circiter quinquefidus. Corolla ringens, labio inferiore in medio convexo ruguloso, trifido. Stamina non exserta. Antherae bilocellatae, locellis parallelis basi divergenti-sagittatis muticis vel subinucronatis, violaceis. Stigma simplex, subulatum, incurvum. Capsula angusta, teretiuscula, sexstriata, ad basin usque bilocularis et seminifera, polysperma. Semina parva, orbiculata, $\frac{1}{2}$ impressa, laeviuscula. Retinacula brevia, obtusa.—Inflorescentia: flores axillares cymoso-glosterati, verticulos dimidiatos integrosive construentes. Calycis dentes hirti vel barbati. Corolka purpurea vel lutescentes.—Herbae, in humidis uliginosis et ad ripas fluminum degentes.

a. Verticillis florum completis.

1. *Hygrophila quadrivalvis*: herbacea (?), caule erecto, foliis longis repando-subdentatis dens& lineolatis suprà punctulatis, floribus verticillatis, verticillis completis, calycis lacinias apice labioque corollae inferiore barbatis.—*Ruellia quadrivalvis* Hamilt. Herb. Wall. Cat. n. 2374 a, b, c, d. *Ruellia salicifolia* Herb. Madr. (Wall. Cat. n. 2374 b.) *Ruellia barbata* Vahl Symb. in. p. 83. Willd. Sp. PI. in. 1. p. 373?

3. foliis caulinis omnibus lanceolatis.—*Ruellia salicifolia* Roxb. Herb. Wall. Cat. n. 2373 e.

In Dhomdhoa primus legit cl. Hamilton; in Tavoy Guil. Gomez a. 1827.

Folia 4—7 poll, longa, poll. 1^—If lata. Corolla circiter 9 lineas longa, purpurea.—Seminum retinacula uncinata, alba.

Adnot. Capsula non magis atque in aliis hujus generis quadrivalvis, nec nisi suturâ dissepimentali et valvari aequ& distinctis fingens ejusmodi dehiscentiam. Nomen itaque non dptim6 congruum.

2. *Hygrophila phlomoides*: herbacea, basi repens, caule quadran-gulo foliisque oblongo-ellipticis subcrenatis sessilibus hirsutis, floribus verticillatis, bracteis propriis calycibusque hirsutissimis. *Ruellia phlomoides* Wall. Cat. n. 2376 a, b. *Hygrophila undulata* Illuni, Bydr. p. 803. (excl. synon. Vahl.)

In Sillet legit Guil. Gomez.

Herba specie *Prunella vulgaris* vel *Marrubii cujnsdnn*. Caulis scimpedalis, crassus, ramosus, foliis 1^ pollirarihus, S lin. latis. Corolla ^-pollicaris, purpurea.

Ab herbas dimidiatis, et aequali, ob stamina sterilia cum fertilibus conjuncta.

b. *Verticillifloruin dimidiatis.*

1. *Hygrophila obovata*: herbacea, caule erecto, foliis caulinis oblongis, ramorum obovatis, obtusis in petiolum attenuatis integerimis, supi&, subtisque ad costas hirsutulis, floribus dimidiato-verticillatis, calycis quinquefidi laciniis apice labioque corollae inferiore barbatis.—*Ruellia obovata* H. b. Calc. Wall. Cat. n. 2375 a, b. Hornem. H. Hafn. Suppl. p. 144. n. 10.

Ex Horto b. Calc., exempla Herbb. Hamilt. et Wallich.—E Chittagong. Hornem. 1. c.

Ab *Hygrophila quadrivalvi* nostra imprimis differt verticillis non nisi dimidiatis, foliis minoribus, 2—2½ poll, longis, 7—8 lin. latis cet. Calyx atque corolla (lutea ?) quales in ilia.

Anot. *Ruellia barbata* Vahlii ab utraque diversa esse videtur: labio corollae superiore integro, et antheris basi biaristatis.

4. *Hygrophila dimidiata*: herbacea, caule erecto, foliis pennis obtusis repando-subcrenatis dense lincolatis supra punctulatis ad costas nervosque scabriusculis, floribus dimidiato-verticillatis, calycis quinquefidi laciniis apice labioque corollae inferiore barbatis.—Wall. Cat. n. 7150.

In Promae montibus a. 1826.

Simillima *Hygrophila quadrivalvi*. Differt foliis ovatis, 3 poll, (cum petiolo) longis, 1½ p. latis, verticillis dimidiatis, corollis duplo minoribus, 4—5 lin. longis, etc.

5. *Hygrophila radicans*: herbacea, caule procumbente repente foliisque oblongis utrinque acutis repando-subcrenatis lineolatis glabris, verticillis dimidiatis, calycis laciniis subulatis hirsutis.—*Ruellia radicans* Wall. Cat. n. 2410.

In Sillet legit F. D.

Ab *Hygrophila salicifolia* differt caule, foliis (brevioribus, ⅔ poll, longis, fr.-8 lin. latis etc.), capitulis angustioribus plerumque trifloris, floribus minoribus angustioribus, antheris basi muticis (quae in ilia basi brevissim& mucronatae). *Menthm arvensis*, angustiore folio, surculum baud mate refert haec planta.

6. *Hygrophila salicifolia*: herbacea, caule erecto foliisque lanceolatis utrinqu& acuminatis lineolatis circa costas scabriusculis, verticillis dimidiatis, calycis laciniis subulatis hirsutis.—*Ruellia salicifolia* Vahl Symb. HI. p. 87. Willd. Sp. PL in. 1. p. 374.. Spr. S. V. II. p. 822, n. 26. Wall. Cat. n. 2373 a, b, c, d, f. *Ruellia longifolia* Herb. Madr. (Wall. Cat. n. 2373 b.) Roth Nov. PI. Sp. p. 306. Spr. S. V: II. p. 825. n. 71.

Crescit in humidis et inundatis Indiae orientalis. In Gualpara. In Sillet legit F. de Silva. ◎

Variat magnitudine, palmari-pedali; foliis brevioribus vel longioribus, quorum infima minora. Corolla circiter 3 lin. longa, pallida, antheris violaceis. Capsula semipollucaris, angusta, compresso-tetragona, acuta. Semina in quoque loculo 7—8.

Anot. Plantain a cl. Rothio descripta. Leyneanam, quamvis verba de calye dicta repugnant, eandem i. i esse inclinavit ex plantis Heyneaneis earundem specierum, ad Schmeyer, pharinaeum Colonensem ab Heyneo missis, inter i^{as} haec *H. salicifolia* nostra «*Ruellia longifolia*» nomine inscripta.

Sllbtribus II. RuELLIOIDEiE.

XI. DYSCHORISTE*.

Ruellue et *Juslida*: spp., Linn., Burm., Heyn., Wall.

Calyx tubulosus, vix ill mediu quinquefidus, aequalis. Corolla infundibuliformis, limbo subaequali quinquefido. Stamina didynama, inclusa; antherae linearis-sagittatae, locellis parallelis aequalibus. Stigma bilamellatum, basi nodulosum. Capsula basi compressa asperma, apice parvum deppressa, octo-dodecasperma. Dissepimentum in medio membranaceum denique maximam partem evanescens. Retinacula uncinata, praemorsa. Semina orbiculata, compressa, margine tumido discreto cincta.—Inflorescentia: flores axillares, solitarii aut fasciculati, sessiles aut brevi-pedunculati. Bractae propriae duas foliaceae, petiolatae, subjectae calyci vel fasciculo.—Herbae repentes, vel erectae, molliusculae. Formae anomala: Capsula abortu tetra- vel di-spérma, ovulis tamen sterilibus adjectis semini.

1. *Dyschoriste depressa*: caule repente foliisque obovato-orbicu-

latis obtusis retusis cum mucrone integerrimis glabris, floribus cretis.—*Ruellia depressa* Herb. Madr. Wall. Cat. n. 2379. *Ruellia* setigera Wight Herb, prop. n. 22. *

[3. caule laxiore pubescente, foliis minoribus, ex obovato spathulatis.—*Ruellia cernua* Hb. Heyn. Wall. Cat. n. 2380 b. ex parte, (alterum exemplum est *Adenosma Thymz*).]

Crescit in provincia Tanjore: Wight. In Ceylona: Herb. Madr.—Var. (3 Herb. Heyneanum servat, loco natali non adscripto.

Suffrutex, palmaris et longior* Corolla purpurea, semipollucaris.

2. *Dyschoriste cernua*: caule procumbente diffuso scabro, foliis spathulatis integerrimis glaucis, floribus fructibusque reflexis.—*Ruellia cernua* Herb. Madr. Wall. Cat. n. 2380 a.

V. exemplum Hb. Madr., loco natali non adscripto.

Caulis illo praecedentis tenuior, trichotomo-ramosissimus. Corolla 4 lin. longa.

3. *Dyschoriste litoralis*: caule fruticoso diffuso, foliis cuiusforibus retusis apicem versus dentatis glabris.—*Ruellia litoralis* Linn. Suppl. PI. p. 289. Hoth Nov. PI. PL Sp. p. 300. n. 1. Spr. S. V. n. p. 821, n. 23. Wall. Cat. ft. 2381 a, b. Wight Hb. prop. n. 20.—*Justicia madurensis* Burm. Fl. Ind. p. 9. t: 4. f. 3. Vahl Symb. n. p. 17. Willd. Sp. PL i. 1. p. 98. *Adhatoda madurensis frutescens*, sampsanchi folio, caule argenteo Petiv. Gazoph t. 2. f. 8.

Crescit in Madura. Petiv. Burm.—Frequens in aridis apricis et petrosis: Madras, Chingpur, Negapatam cet. Wight. 1. c. Vidi etiam exempl. Hb. Madr. adscripto synonymo Bunnanniano.

Fruticulos parvus ramosissimus. Corolla G—8 lip. longa, purpurea.

Anot. Antherarum inuicroncs, a Linneo observatos, non adesse in ista specie cl. Rothius contendit. Revera tamen adsumt evidenter simi, neque oculos fugient, duin flores sanbs, eorumque alabstra nondum explicata observare liceat.

XII. DIPTERACANTHUS*.

Ruellia spp., Jacq., Roxb., Roth., Wall.

Calyx aequalis, profund[^] quinquefidus. Corolla infundibuliformis, limbo subaequali quinquefido. Stamina didynama, inclusa; antherae linearis-sagittatae, locellis parallelis aequalibus. Stigma bilamellatum, basi nodulosum. Capsula basi compressa asperma, apice parvum deppressa, octo-dodecasperma. Dissepimentum in medio membranaceum denique maximam partem evanescens. Retinacula uncinata, praemorsa. Semina orbiculata, compressa, margine tumido discreto cincta.—Inflorescentia: flores axillares, solitarii aut fasciculati, sessiles aut brevi-pedunculati. Bractae propriae duas foliaceae, petiolatae, subjectae calyci vel fasciculo.—Herbae repentes, vel erectae, molliusculae. Formae anomala: Capsula abortu tetra- vel di-spérma, ovulis tamen sterilibus adjectis semini.

1. *Dipteracanthus Sibua*: caulis e rhizomate repenti brevibus, apice dens& foliosis foliisque ellipticis obtusis integerrimisque hirsutis, floribus solitariis subsessilibus, bracteis oblongis calyce longioribus.—*Ruellia* Sibua Herb. Hamilt. Wall. Cat. n. 2384 f—? *Ruellia repens* Wall. Cat. 1. c.

In Sukanaghur legit cl. Hamiltonius.

Caules pollicares-spithamei, hirsutissimi. Corolla 1[^]-pollicaris, purpurea (?).

2. *Dipteracanthus ciliatus*: caule (herbaceo?), erecto scabrido-pubescente, foliis ovatis utrinque acutis repando-crenaris hirtis hirsutis, floribus subterminali-axillaribus sessilibus, capitatis pédunculafis, bracteis propriis spathulatis calyce brévoribus.—*Ruellia ciliata* Hornem. H. Havn. p. 585. Spr. S. V. II. p. 820. n. 4. *Ruellia* Wall. Cat. n. 7151 a, b.

In montibus prope Prome a. 1826. Guil. Gomez. In H. b. Calcutta, e regno Birinanico introducta.

Folia cum petiolo 5 poll, longa, 2½ p. lata. Corolla ferf bipollucaris, coerulea.

3. *Dipteracanthus prostratus*: caule procumbente foliisque ovatis obtusis pubescenti-hirtis canescitibus, floribus axillaribus solitariis

* A 8th difficile, et x«V»? separe, ob valvulas capsule tenaciis cohaerenles.

pedicellatis; bracteis ovalibus petiolatis.—*Ruellia prostrata* Poir. Enc. M&h>Suppl. Spr. S. V. u. p. 822. n. 25. *Ruellia repens* Herb. Madr. Wall. Cat. n. 2384 a. Herb. Wight(?). Wall. Cat. n. 2384 d. et Hb. Heyn. c. *Ruellia Wightiana* Wall. Cat. n. 2397. Wight Herb. prop. n. 21.

Crescit in pascuis et sepibus ad Negapatam. Wight 1. c.

Folia (Majoranae) ^—1 poll, longa, minora ex ovato-subrotunda. Corolla pollicaris.

4. *Dipteracanthus dejectus*: caule procumbente, foliis ovato-ellipticis petiolatis utrinque acutis hirsutis, floribus axillaribus sessilibus subsolitariis, bracteis spathulatis calyce longioribus.—*Ruellia repens* Wight Herb. prop. n. 32.

j3. floribus solitariis, geminis, rariisve ternis brevipedicellatis.—*Ruellia ringens* Hb. Roxb. Wall. Cat. n. 2403. Hb. Roxb. Wall. Cat. ti. 2384 b. *Ruellia Methia* Herb. Hamilt. Wall. Cat. n. 2384 e.

In provincia Tanjore, (Wight 1. c.) In Munghir d. 11 Maii a. 1811. (Hamilton). Var. /3 v. in Hb. Roxb.

Affinis *Dipteracantho prostrate*. Foliorum, fong& petiolatorum, lamina 2|—3 poll, longa, 1f—1f p. lata. Corolla circiter f pollicis longa, incurva, purpurea.

Adnot. In Herb. Roxburghiano hujus speciei exemplis ramulus udjectus est *Asystasia Coroniandeliana*.

5. *Dipteracanthus lanceolatus*: caule herbaceo repente foliisque (superioribus) lanceolatis petiolatis supra hirtis, floribus axillaribus solitariis brevissimis & pedicellatis, bracteis ovalibus petiolatis^ capsula pubescente subtetraspermā.—*Dipteracanthus lanceolatus* N. ab E. in Reliqu. Haenk. ined. *Ruellia repens* Linn. Mant. p. 89. Burm. Fl. Ind. p. 135. (excl. icon.) Blume Bydr. p. 294?

In Luzona insula legit Haenke.—In Java insula ? Blume. A precedente foliis multo angustioribus, bracteis ovalibus et capsula oligosperma pubescente evidenter differt. Folia ||—2 pollices longa, 4—6 lineas lata. Capsula clavata, 4 lin. longa, subtilissimā recumbenti-pubesces, a basi ad medium compressa, hinc ad basin cujusque locelli semine singulo binisve perfectis ovalisque 3—5 abortivis foeta, (igitur ad normani generis 12-oviflata.)

Ruelliam repente Linn, et ipsius Burmanni ad hanc speciem citavi, misso tamen nomine, ut debui in re tam incerta. Qui Burmanniana iconi soli fidei tribuunt, longè diversissimam sanè illam esse a nostro *Dipteracantho* judicent, necesse est. Burmannus autem, si hanc plantam, quam pictor in Tab. XLI. pinxit, in textu descriptis, cur, quoero, bracteas "petiolatas" eidem tribuit, quae quidem non minus ac ipsa folia "sessilia" exhibentur in icon? Porro, si pictorem forsitan in hoc peccasse aliquis objiciat altera statim graviorque ea exoritur quaestio de ipsis foliis, quae, ubi bracteae sunt petiolatae, cum bracteae folia sint superiora floribusque addita, eaque in his omnibus breviori petiolo ac folia inferiora gaudent, sessilia esse seu carere petiolo nequeunt. Aliam igitur plantam descriptisse Burmannum, aliam pictorem pinxisse puto, neque admodum improbabile videtur, pictorem nil nisi ramum quendam angustifolium *Ruellia erecta* Burm., ad latus positae, (quae quidem dubia adhucdum restat species) in figura 2. adumbrasse.

6. *Dipteracanthus Nagchana*: caule procumbente basi radicante foliisque oblongis obtusis basi cuneiformibus rcpando-crenatis scabris, pedunculis brevissimis trifloris, bracteis binis spathulatis, corolla calycis laciniis subulatis elongatis breviore, antheris basi bizaristatis.—*Ruellia Nagchana* Hb. Hamilt. Wall. Cat. n. 2396.

In Patna cl. Hamilton legit.

Pulegii habitu, caule spithameo, foliis pollicariibus, f poll, latis. <alyx 3 lineas longus.

7. *Dipteracanthus erectus*: caule erecto pubescenti-capo, foliis ovato-ellipticis obtusis basi^cutis subcrenulatis utrinque hirtis, floribus subternis corymboso-subsessilibus, corolla tubuloso-infundibulariformi.—*Ruellia erecta* /3 elongata Roth Nov. Pl. Sp. p. 308. n. 9. *Ruellia axillaris* Wall. MSS. *Ruevia strepens* Wight Hb. n. 31. ex Parte, cum *Ruellia crispa* j3 mixta.

Crescit in India or. Wight Herb. In Paghamew. et Yenongheun ~~25 Sept. a.~~ 1826.

Ruellia erecta ^ Roth. nobis est *Dipteracanthus patulus*; v. [3]

probabiliter distincta est species, nimis enim discrepat florum et pubescencie natura, quam qua? conjungi possit.

8. *Dipteracanthus patulus*: caule erecto foliisque ovatis utrimque obtusiscaeno-puberuUs^oribusfasciculato-ternisquinisve brevissime pedicellate, corolla inflato-infundibulariformi.-iJ^a *patula* Jacq. M, sc. n. p. 358. Icrar. i.t. II9. Willd. Sp. Pl. m. l. p. 364. Spr. S. V. n. p. 822. n. 36. Wall. Cat. n. 2385 ex parte. *Lltia erZa* Roth N. J. Pl. & p. 308. Spr. S. V. n. p. 823. n. 48.

β. tumilior, floribus solitariis.—*Ruellia aromatica* Roxb. in Herb. Madr. Wall. Cat. n. 2385 ex parte.

Creat in Tanjore ad oppidum Negapatam, (Wight). In India or. Jacq. Heyne. In Herb. Madr. a. et β.

9. ? *Dipteracanthus ur* ^{her} foliis oblongo-lanceolatis caudato-cusp. dat. errati, spicis axillaribn. oppositis, bracteis bracteolatisque fcfc* tatis petiolatis, corollae incurva, laciniis duabus superioribus brevioribus.—*Ruellia trophylla* Wall. Cat. n. 2344.

In Pundua. (P. D.)

Ha S rtē alienus n.

(cum 1/2 pollicis)
potons vel paullò longer, extis inti, sive pubescens. (Fructus deest.)

Adnot. Generis proprii esse videtur haec species, sed characteres certi non suppetunt. Sequentibus circumstribendum foret genus:

Clav gen. Calyx quinquepartitus b^ o lis foliaceis petiolatis instru. Corolla resupinata, campanulato-infundibulariformis, limbo inaequali, laciniis superis brevioribus (deorsum versis). Stamina quatuor didynama; antherae bilocellatae, locellis parallelis contiguis inutilis. Stylus apice incrassatus; stigma bifidum, laciniis filiformibus. Capsula basi brevi spatio compressa asperma, hinc in medio tetrasperma. Dissepimentum completum, adnatum, persistens. Semina retinaculis uncinatis suffulta, ovata, acuta, compressa, unmarginata—Infloracent: flores pedunculati, axillares, obovati, d. h. ali o fasci um axillarem exhibentes, W-teolis magnis valvatum contiguis, Barlerianum mentientibus.

Petalidium barleroides.—*Ruellia barleroides* Roth Nov. Pl. Sp. p. 310. n. 10. Spr. S. V. II. p. 821. n. 21. Wall. Cat. n. 2389 a, b. *Ruellia bracteata* Roxb. Herb. Wall. Cat. n. 2389 c.

In Sheikpure et Monghir d. 5 Aprilis 1811 primum inv. nit. cl. Hamilton; in montibus, valli Deyrae vicinis, a. 1826. Wallichius. (cum petiolo 1 polhei.) H poll. longis, 1/2 poll. 1 in. Corolla pollicis exula(?) tubo brevi, Umbo campanulato. Bracteae flavo-lirsntn. ova., aequante, in t e g e r concavae, penninervi-reticulatae, pallidae.

XIV. RUELLIA.

Ruellia spp., Linn., Roxb., Roth, Wall.

Calyx ad basin quinquepartitus, laciniis apice subdilatatis herbaceis, vesti equilibus suH^ bu s lincaribus fundibulariformis tubo in limbum angustè campanulatum quinquefidatum didynama, basi feudum inserta. Stamina quadrata, locellis parallelis contiguaenauiaK^ ^! ^! ^! ^! longa, bilocellata, Stigma subulatum, spirale, dorso s. " " " " Vd basi mucro nul. r denticulo auctum. Capsula an^sta S ! ? ! ! canaliculatum, L., angulata, ad basin ||% (nv).

* ~~www~~

bilocularis, a basi ultra medium sex-octospenna. Dissepimentum completum, adnatum. Semina retinaculis mediocribus suffulta.—Inflorescentia: spicae, plerumque in capitulum formam contracts, foliaceo-bracteatae ide6que rudes et parvum conspicuae. Bracteolea nulls vel angustae. Flores mediocres.—Pleraeque herbaceae sunt et hirsute.

a. Ebracteolatae, vel plerumque ebracteolatae.

1. *Ruellia latebrosa* Roth: foliis ovatis gross& serratis cauleque erecto adscendentive hirtis, spicis axillaribus solitariis gemiiis terminalibusque capituliformibus, bracteis communibus lanceolatis ciliatis calycem aequantibus, propriis nullis capsula hexasperma, antheris basi calcaratis.—*Ruellia latebrosa* Roth Nov. Sp. PL p. 307. Spr. S. V. H. p. 825. n. 68.—Hb. Wight.—*Ruellia diffusa* Wall. Cat. n. 2383' b. *Ruellia fasciculata* Wall. Cat. n. 2394 b. *Ruellia erecta* Hb. Hamilt. Wall. Cat. n. 2395 a. *Crossandra?* radicans Herb. Hamilt. Wall. Cat. n. 2395 a. (sub *Ruellia erecta*). *Ruellia* species, *latebrosa* Roxb. sched. Hb. Wallich.

Crescit in India or. Ad Islammaghur, et Giriak. (Hamilt.) In Hurdwar, a. 1825. (Wallich.)

Disinctissima, a Rothio 1. c. optim& descripta.

Adnot. Cum *Ruellia sarnientosa*, ob bracteolas nullas, anthers basi bizaratas, atque habitum, fortasse in genus novum conjungenda.

2. *Ruellia diffusa* Wall.: foliis oblongis petiolatis serratis cauleque tetragono procumbente ramoso hirsutis, ramis divaricatis geniculatis, spicis axillaribus pedunculatis capituliformibus, bracteis foliaceis lanceolatis spied longioribus, bracteolis propriis nullis, capsula octosperma, antheris basi mucronatis.—*Ruellia diffusa* Wall. Cat. n. 2383 a, b, c. *Crossandra diffusa* Hb. Hamilt. Wall. Cat. 1. c. a.

Crescit in montibus circa ripas Irawaddi fluminis juxta Prome et contra hoc oppidum. Legit a. 1826; in montibus Toong Dong; in Hurdwar a. 1825 Wallich; in Chunar d. 1 Maii a. 1813. cl. Hamilton.

Caulis brachiatu. Folia caulina inferiora cum petiolo 1^& poll. cari 4 pollices longa, superiora et ramea circiter pollicaria. Corolla purpurea.

Adnot. Simillima *Ruellia latebrosa* et fortass& hujus varietas. Differt caule diffuso, capsula majore rigidiore octosperma%ion hexasperma etc.

3. *Ruellia sarmentosa*: foliis ovatis petiolatis apicem versus crenato-serratis internodiis brevioribus cauleque repente hirsuto-canis, spicis axillaribus pedunculatis capituliformibus, bracteis communibus foliaceis oblongis, propriis nullis, capsula dodecasperma.—*Ruellia latebrosa* Wall. Cat. n. 2382 a, b. *Ruellia hirta?* Herb, Hamilt. Wall. Cat. n. 2382 e. ex parte [; alterans est *Mtheilenia reni*/orme Wall]

(*I urens*: foliis bracteisque magis rotundatis undatusque, his hirsutissimis.—*Ruellia urens* Roth Nov. Sp. PL p. 302. n. 3. Roxb. Hb. n. 18. *Ruellia diffusa* Wall. Cat. n. 2383 a. ex Herb. Roxb., adjecta schedula, nomine *R. urens* Roxburghii manu inscripta.

Ex Horto b. Calc.—In Sukanaghur et in Kuwarikot, d. 14 Apr. 1809. (Hamilt.) Vidi exemplum Herb. Roxb.—Var. 3. in Herb. Roxburghiano.

Caulis gracilis geniculatus, foliis (cum petiolo 1^—2-linearis) 8—9 lineas longis, 4 lin. latis. Corolla circiter 6 lin. longa. Capsula lanceolata, depresso-tetragona.

Adnot. 1. *Ruellia hirta* Vahl si demas "folia oblonga," nostram habebis plantain.

Adnot. 2. Certa haec quidem est *Ruellia latebrosa* Roxb., sed quoniam alia jam exstat ejusdem noiiiniis species, a d. Rothio dudimi proposita, et aliae ferè cum eadem confusae esse videntur, nomine prcelo adhucdum non evulgato nostram distinguere, quam synonyma scriptorum augere, malui.

4. *Ruellia quadrifaria* Wall., caule fruticoso dichotonio-divaricato scabro, foliis ovatis utrinque acutis serratis hirsuto-incanis, spicis axillaribus terminalibusque ovatis tetragonis, bracteis oblongis apice serrulatis*—*Ruellia quadrifaria* Wall. Cat. n. 7152.

Crescit in jugo montium Taon Dong dicto, lecta die 12 Novembris a. 1826.

Caulis fruticosus pedalis vel sesquipedalis, adscendens. Folia su-

periora majora, 3—3f poll. longa, 2 p. lata. Spica? in pedunculo f—1-pollicari sesquipollulares. Corolla § pollicis longa, violacea.

Observ. Efic loci commemoranda est species memorabilia Luzonre insulae:

Ruellia decipiens: caule fruticoso tetragono foliisque ovali-oblongis utrinque acuminatis repandis subtilis asperis, spicis terminalibus compositis elongatis, bracteis imbricatis ovalibus mucronatis ciliatis deciduis.—*Ruellia decipiens* N. ab E. in Reliqu. Hsenkean. ined.

Crescit in Luzon insula Philippina. (Haenke.)

Est planta *Juslida Ecbolii* aut *Gendarussa ventricosa* habitu, floribus oppositis inferioribus spicae ternis, superioribus singulis. Calyx 1^—linearis, paul5 ultra medium divisus (?).

b. Bracteolatae.

5. *Ruellia crispa* Linn.: foliis ovatis utrinqu? acutis undulato-crenatis lineolatis cauleque herbaceo basi repente hispidis, capitulis axillaribus oppositis bracteatis hirsutis, bracteis exterioribus obovatis apice crenatis.—*Ruellia crispa* Linn. Sp. PI. p. 886. Osb. it. p. 240. Mill. Diet. n. 4. Willd. Sp. PL in. 1. p. 368. Spr. S. V. p. 824. n. 61. Wight Herb, prop. n. 30.

6. capitulis subsessilibus.—*Ruellia strepens* Herb. Wight n. 31 ex parte.

Crescit in India or.—Vidi exempl. Hb. Wightiani, loco non indicato.

Exemplum nostrum maxima accedit *Ruellia urentis* Rothianti descriptioni, in nonnullis autem discrepat a *Ruellia crispa* Liun.—Folia cum petiolo pollicari 3 poll. longa, 1 p. lata. Corolla 4-linearis, purpurea (?) [flava: Linn.]—Fructus deest.

6. (?) *Ruellia attenuata* Wall.: foliis cordatis serratis caudato-acuminatis hirtis, petiolis alatis, pedunculis axillaribus terminalibusque trifidis hirsutis, spicis brevibus interruptis, bracteis bracteolatis lanceolato-linearibus obtusis, calycis laciniâ superâ longiore.—*Ruellia attenuata* Wall. Cat. n. 2345.

In Nepalia legit Wallichius.

Caulis herbaceus, quadrangularis. Folia inferiora cum petiolo 3—4 pollicum 7—8 poll. longa, 2^—2f p. lata, ovata, cordata; summa sessilia. Corolla pollicaris, limbo angustè campanulato.

XV. PHLEBOPHYLLUM *.

Ruellia sp., Wall.

Calyx profund^ quadripartitus, lacinia superior^ profund& bi6da. Corolla infundibuliformis, limbo quinquefido, lacinias emarginatis repandis. Stamina duo, non exserta. Antherae bilobate, locellis parallelis muticis. Stamina sterilia nulla. Stigma simplex, subulatum. Capsula basi compreaso-a ^erra, apicem versus bilocularis tetrasperma.—Inflorescentia: sp? a, bracteis communibus imbricatis latis, propriis geminis angustis. Color corollae luteus.—Folia serrata.

Phlebophyllum Kunthianum.—*Ruellia Kunthiana* Wall. Cat. n. 2367.—Wight Hb. prop. n. 39. (genus indeterminatum.)

E Nilghiry. E. Noton, (Wight.)

Fruticosum, caule humili quadrangular!, foliis ovalibus undato-serratis supr. lineolatis hirtis subtus venoso-reticulatis albo-tomentosis, 1—2 poll longis, f—1 p. latis. Spicae axillares, pedunculatae, alternae, ovate, pollicares et toltri. Calyx 6—8 lin. longus. Corolla 9—10 lin. longa purpurea (?) vel lutea (?), tubo brevi, fauce cum limbo elongato-campanulata.

XVI. BuTfiRiEA.

Ruellia sp., Wall.

Calyx bipartitus, labio superiore breviro trido, inferiore bifido vel bipartite Corolla infundibuliformis, limbo subaequali quinquefido, lacinias emarginatis. Stamina quatuor didyma, non exserta; antherae lineares, locellis parallelis squalibus muticis. Stigma acustum. Capsula tetragona, prop6 ^ basi tetrasperma; dissepimento completo a paxietibâ solubili. Semina subrotunda, compressa, retina-

* A <pXs^ vena, et ?u**o*, propter folia egregia venosa.

culis subtensa.—Inflorescentia: spes axillares imbricate, bracteis oppositis latis herbaceis venosis. Bracteolae parvae.—Frutex rufo-hirsutus, foliis dentato-crenatis. Floras mediocres.

Genus NEURACANTHO confine charactere, sed habitibus alieni; ab ADENACANTHO, cui habitu accedit, differt calycis labiis inaequalibus, inferiore ad basin partito, bracteolisque parvis.

Butera, Principi Siciliano, horticulture summo fautori, multisque terrarum remotissira ruin stirpibus Italiae coelo assuefactis amoenisimi terrae anguli amoenitates novis ornamentis excolenti, sacrum esse hoc genus jubeo.

Buterma ulmifolia.—*Ruellia ulmifolia* Wall. Cat. n. 2360.

Ex Horto Botanico Calcuttensi.

Frutex, ramis raraosis, noveliis spicisque rufo-hirsutis, bracteis rhombo-ovatis. Folia opposita, inaequalia, alterum 3 poll, longum, *H* latum, alterum *Nix* pollicare, ovalia, petiolata. Corolla semipolicaris pallid[^] violacea, tubo gracili incirvo, limbo ventricoso-campanulato. Capsula 3 lin. loriga, pubescenti-scabra, tetragona.

Adnot. *Ruellia rufescens* Roth Nov. PL Sp. p. 304. n. 5. et ea quidem ex Horto bot. Calcuttensi profecta, cert^d congenere est, nisi eadem planta. Reiverentia autem motus, metuque, ne, quod alteri fecerim, mihi fiat, in verbis auctoris nihil levⁱ pede transeo, et "bracteas lanceolatas margine setosas" si nostram plantain tractavisset, cl. Rothium cert^d sua non tributurum fuisse statuo. Quod praeter laciniias duas, bi- et trifidas, tertiam minimam ovalem plantae adscribit auctor, in hoc eum errasse dubium non est, cuin calyces sexfidum ex hisce componat.

XVII. ADENACANTHUS*.

Calyx tripartitus, laciniis superiore trifida. Corolla infundibuliformis, limbo subaequali quinquefido, laciniis obtusis. Stamina quatuor didyma; anthers bilobatae, magnse, locellis parallelis. Ovarium biloculare, supra basin quadriovulatum; ovula compressa, retinaculis nondum evoluti.—Inflorescentia: spica, bracteis floribusque oppositis. Bractese communes et bracteolae subconformes, herbaceae.

Adnot. Est BUTERJEA, calycis lacinia ihera ad basin usque discessâ.

Adenacanthus acuminatus.—WnW. Cat. n. 7153.

E regno Birmanico; sed locus incertus. Ann. 1826.

Genus et species distincta, sed exempla non sufficientia.—Caulis herbaceus, erectus, nodosus, ramosus, ramis oppositis gracilibus. Folia 4—5 pollices longa, 1J—1E poll, lata, opposito dimidio minore, oblongo-lanceolata, longe acuminata, brevi-petiolata, repando-dentata, penninervia, glabra, utrinque glanduloso-punctata. Spica terminalis, pollicaris. Corolla ^ poll, longae vel longiores. Filamenta staminum hirsuta; anthers ratione floris magna, ovate.

XVIII. STENOSIPHONIUM.

Ruelia spp., Wall.

Calyx quinquefido, laciniis aequalibus, primum ultra medium marginibus membranaceis conjunctis, post anthesin ad basin discedentibus. Corolla infundibuliformis, tubo gracillimo, limbo inflato-campanulato quinquefido, laciniis aequalibus obtusis. Stamina quatuor didyma; anther[®] angustae, locellis parallelis arcte configuis jequibus muticis. Stigma dorso membranaceo-cristatum, apice subulatum. Capsula tetragono-columnaris, ad basin usque bilocularis, a basi ultra medium octospermia. Dissepimentum compleatum, adnatum. Semina lenticularia, mucronata, laeviuscula.—Inflorescentia: spicae axillares et terminates. Flores discreti, oppositi, singuli vel aggregati. Bracteolatiusculae, appress?e.rigidulae. Bracteolae angustae, calyci consimiles. Flores in fauce maculati.—Frutices.

1. *Stenosiphonium subsericeum*: foliis ovatis dentatis, junioribus subtus ramisque hornotinis albo-tomentosis, bracteis rhombo-ovatis longe cuspidiatis calycis »quantibus.—*Ruellia subsericea* Wall Cat.

* Ab aly glandida, et *x*vtos, ob folia glanduloso-punctata.

t A mi? angustus, et <np>tvbus, ob tubum corollae ^{ratio} faustum angustum.

». 2416. *Ruellia sesamoides* Wall. Cat. n. 2408 a (ex parte), b (ex parte). *Jtuellia* Wall. Cat. Wight Herb, propr. n. 26.

In collibus apricis Madras et Chinglipul. (Wight 1. c.)-Exempla Wallichiana eadem sunt, a Wightio lecta. Vidi etiam exempla Herb. Madr. et Herb. Wight, in Herb. Wallich. (n. 2408 b, quo sub numero *Stenosiphonium subsericeum*, *Endopogon Amtmum* et *E. hypoleucus* promised occurunt). Subsericei nomen alteri, sesamoidis scil., prferendum putabam, cum maxime conveniens esset plante integumento variabili.

Folia long[^] petiolata. Corolla pallida videbatur, maculis ad faucom vvwaceis. Calyx pilis glandulosis dens[^] vestitus. Differt a sequente foliorum petiolis longioribus, dentibus grossiorib[^] et tomento paginae inferioris ramulorumque.

2. *Stmosiphonium Russellianum*: foliis ovatis dentatis subtis nudis bracteis rhomboideis tftbus cuspidatis calyces squantibus. *RueUiaRusseUiana* Wall. Cat. n. 2400. *Ruelliae spec. nova* Herb. Russman. *Ruellia arcuata* Wall. Cat. n. 2334 a, b. *RuetRa* Wall. Cat. Wight Herb, propr. n. 29.

In Dindygul legit cl. Wight.-Vidi etiam exemplum Herb. Madr.

Frutex, folia caulinis plerisque 5-6 poll, longis, 2 poll, latis, in petiolum fere If pollicarem decurrentibus, summis 1-3-pollicaribus acuminatis. Corolla speciosa, pollicaris, coerulea, ^{fauce saturati}; maculata.

Adnot. Affines sunt h* species ENDOPOGONIBUS, sed different

XIX. STROBILANTHKS, Blume.

RueUia sp., Linn., Wallich.

Calyx subaequalis ad basin usque quinquepartitus, laciniis herbaceis linearibus, apicem versus quandoque latioribus. Corolla infundibuliformis, tubo in limbum campanulatum non abrupte transiente; laciniis ^{equales}, vel subaequalis, rotundate vel emarginatae. Stamina quatuor didyma, faucom medio inserta, non prominentia. Antherae oblonge, muticæ, locellis parallelis contiguis aequalibus.

dorsu spongiosum ca- ferè ad basin biloca- tenue, sursù incom-

pletum, adnatum, a valvus quandoque solubile. Semina discoidea, angulata, in ambitu utrinque ola in J^{pta}, an lo juxta hilum magh prominulo, retinaculus uncinatis suffulta. spicæ, magis minus dens», axilares ^{suffulta} ^{terminalis} Tere T^{scientia}: vel foliaceo-membranaceæ, persis- tentes, el caduc floresque denudantes. *Bracteole parve*, quan- Flores e majoribus, teneri,

(I.) Strobilanthes prospire

a. *Sclerostrabilanthes*. Spica rigida, erectæ, bracteis per- sistentibus.

1. *Strobilanthes rosea*: fraticom>fomt laevo-latis subtis lanugi- nis, spicas terminalibus corymbosis glanduloso-hirtis! Wall.

Taong Dong, die 27 Novembbris.

Folia 3^—7 poll, longa, 8 lin. ad U nll u* * P [—] petiolata. Corolla pollicares, rosei (Wallich).

2. *Strobilanthes scabra*: fruticosa, culp. K₂ -A , ... ellipticis dentato-crenatis suprà lincolati, exasT⁴? foIUS₁. obovato- atishirtis subtis pallidis, spicas infraterminX² 86tullus<1ue *² * naalibus ternis, glandulosk Mratermina^ ns opponit, tenni-

a. foliis suprà setulis inspersis, inflorescplnt.' 1 scabrida Wall. Cat. n. 2393 c. aore8Centia ^ ugulosa. H,, my

^ foliis ad nervos scaberrimis, ^l n(, pubesceni-scabris, spicas inferne M»xTT ramificationibus JhdKimM WdL-cJ- 1 ? hirsutis glandu- Joins aspern.ms.-iJ^ tca^ Hb. Wicht w .. a. ^077.

in H. b. Cale. e montibus provincial Sillet introducta.—Var. y vidi in Herb. Wight.

Folia speciosa, 6 - 8 poll, longa, 3 poll, lata; in 0 paull6 mmora. Inflorescentia terminalis, 1£-2 poll, longa. Corolla purpurascens. Seminum retinacula maxima, conica, supra excavata.

3. *Strobilanthes glaucescens*: fruticosa, caule erecto teretiusculo scabro, foliis oblongis utrinque attenuatis crenulatis subtus ad costas scabris glaucescentibus, spicis terminalibus, bracteis ovatis obtusis cuspidatis hispidis.—*Ruellia glaucescens* Wall. Cat. n. 7155.

E montibus Promae; a. 1826.

Folia 3£—5 poU. longa, supri densi lineolata. Spicae 1+—1£ poll, longae, ovato-cylindricae. Corolla circiter f pollicis longa, purpurascens. Filamenta brevia, hirsutissima, minorum staminum ade6 contracta ut antheram obliqu6 basi majoris filamenti inhaerere arbitreras.

4. *Strobilanthes sessilis*: herbacea, hirsutissima, Caule erecto quadrangulari, foliis sessilibus ovatis acuminatis crenatis, spicis axillaribus oppositis terminalique, bracteis oyatis cuspidatis.—Wight Herb, prop. n. 38. (genus adhuc indeterminatum.)

Locus natalis accuratiis non indicatur a cl. Wightio.

Pknta herbacea. Rhizoma horizontalē, annulatum. Caulis pedalis circiter. Folia f pollicis longa, sessilia. Spic* pollicares, ovales. Corollae poUicares.

b. *Strobilanthes lupulina*. Spicae breves, dense, axillares, bracteis mollioribus persistentibus tectae, pedunculatae, saepē cernuae vel nutantes.

5. *Strobilanthes barbata*: caule fruticoso, foliis ellipticis utrinque acuminatis crenulatis glabris, spicis axillaribus oppositis" ovatis brevissime pedunculatis, bracteis orbiculatis linearis-cuspidatis, corollae bilabiate labio superiore barbato.—*Ruellia ciliata* Herb. Madraspat. Wall. Cat. n. 2392 (ex parte).

E montibus Courtallum.

Folia ferfc *Strobilanthis ciliata* (n. 12.), sed majota et latiora, gl*. berrima. Spicae petioli longitudine, erectae, ovales, vix semiuncia longiores, squarroso-imbricatae. Corollae ^—f pollicis longee.

Adnot. Species suspecta, quum neque (lores perfect neque fructus adsint, calyx verd minus profund& divans, ac in congeneribus.

6. *Strobilanthes fimbriata*: caule fruticoso, foliis oblongis utrinque acuminatis denticulatis glabris, spicis axillaribus alternis sessilibus hirsutis, bracteis ovatis cuspidatis inciso-serratis, duabus inferis truncatis, corolla regulari.—*Ruellia fimbriata* Wall. Cat. n. 2363.

In montium Sillet jugo legerunt Fr. De Silva et Guil. Gomez.

Persimilis *Strobilanthe barbatæ*, sed facili negotio distinguenda caule superna hirsuto, nodis geniculorum altero latere maxim& tumidulis, angulis inferis eorum non alatis, foliis oblongis, 4£ poll, longis, 1£ poll, latis, distinct^ et confertim denticulatis, spicis alternis rufo-ciliatis et ob bracteas inciso-serratas apice patulas subcrustatis, turn corollis wulb majoribus.—Folia suprà confertissim& lineolata. Corolla fer& sesquipollucaris.

7. *Strobilanthes echinata* : caule fruticoso foliisque oblongis utrinque acuminatis mucronato-serratis setuloso-scabris, spicis axillaribus alternis terminalique brevipedunculatis, bracteis ovalibus obtusis serratis hispidis, bracteolis calycibusque linearibus apice serratis.—*Ruellia echinata* Wall. Cat. n. 2356.

In montibus provincial Sillet legit F. D.

Modo crescendi habituque simillima *Strobilanthe fimbriata*, sed differt caule setis rigidis multiarticulatis incurvis hispidissimo setisque ejusmodi in omnibus partibus viridibus obviis, spicis dupl6 ferfe majoribus, pollicaribus in pedunculo 1 pollicis longo, ceniuis oblongis etc. (Corolla deest.)

8. *Strobilanthes lupulina*: caule herbaceo glabro, foliis ellipticis acutis in petiolum desinentibus crenatis glabris confertim lineolatis, spicis axillaribus fasciculatis ovata hirsutis, bracteis ovalibus ventricos emarginatis, infimis oblongis remotioribus patulis, calycis laciniis apice bidentatis.—*Ruellia lupulina* Wall. Cat. n. 2355 a. *Ruellia* spec. Herb. Madr. Wall. 1. c.

Prope Courtallum (Kuttallam h. 1. scriptum), ab amiciss. Dr. Mitchell.

VOL. HI.

Attinis est *Strobilanthe Heyneana*, differt caule glabro, nee stri-goso, foliis majoribus, 6—7 pollices longis, 2| poll, latis, basi apice que minus attenuatis cct. Spicae in pedunculis oppositis semipollucaribus ternae, ovatae, dupl6 majores quam in *Str. Heyneana*. Dis-segmentum completem. Retinacula valida.

9. *Strobilanthes involucrata* Blume: caule (suffruticoso ?) glabro, foliis oblongis utrinque attenuatis repandis serrato-dentatis, superioribus, ovatis brevibus, spicis axillaribus terminalibusque solitariis subrotundis glabris, bracteis ovalibus ventricosis venoso-reticulatis apice emarginatis, calycis laciniis obtusis.—*Strobilanthes involucrata* Blume Bydr. p. 799.

[3. foliis dpicem versus dentatis crenatis, supra margineque hispidulis. Blume 1. c.—*Ruellia lupulina* Herb. Wight. Wall. Cat. n. 2355 b.]

In Javae insulae montanis, Salak, Seribu (Blume).—Var. [3 in mon-tosis provinciae Tjanjor Javae (Blume). Vidi exempl. Javanicum et Herb. Wight.

Diffr a *Strobilanthe lupulina*, cuius probabilit est varietas caule humilioe divaricante ramosissimo nodoso-geniculato, foliis minoribus, 3—3£ pollices (cum petiolo ferè 1°-pollici) longis, 9—10 lin. lati, setulis raris suprà inspersis, pedunculis brevioribus, spicis minoribus, bracteis pro longitudine latioribus evidentii venoso-reticulatis, calycis vix bilinearis laciniis apice integris obtusis. (Flores et fructus deest.)

10. *Strobilanthes Heyneana*: caule herbaceo strigoso, foliis ellipticis cuspidatis in petiolum longum decurrentibus crenato-serratis hirsutis, spicis axillaribus compositis folio brevioribus glabris subglobosis, bracteis orbiculatis ventricosis, inferioribus remotioribus ramuligeris reflexis.—*Ruellia involucrata* Hrb. Heyn. Wall. Cat. n. 2357.

Ex Herbario Heyneano.

Memorabilis ob summam affinitatem *Strobilanthis callosa* in tanta universi adspectū discrepantia. Est planta, uti videtur, humilior, herbacea. Caulis quadrisulcus, ad genicula compressus. Folia 4—5 poll, longa, 1£ poll, lata, petiolo pollicari. Pedunculi poUicares, oppositi. Terminalis spica est globosa. Corollae semipollucares, rubi-cundae(?). (Fructus deest.)

11. *Strobilanthes callosa*: caule fruticoso verrucoso, foliis ellipticis cuspidatis in petiolum longum decurrentibus calloso-denticulatis margine scabris, spicis axillatibus compositis folio brevioribus, bracteis orbiculatis ventricosis inferiōrika remotioribus sterilibus.—*Ruellia callosa* Wall. Cat. n. 2359.

Ex H. b. Calc. Introducta a. 1826 e Nagpur, provīcia inūze oecasum spectante, a cl. Barstow, subcenturione; floruitque post aliquot annos, postquam Wallichius jam ex India profectus erat.

Planta speciosa. Folia conformia, 7—10 pollices (cum petiolo 2—3-pollicari) longa, 2|—3£ poll. lata. Spicae oppositae, 2—2| poll, longae, digitri crassitie; pedunculo 2—3 lineas longo. Corollae fei£ sesquipollucares, coeruleae, tenerae. (Fructus deest.)

12. *Strobilanthes ciliata*: caule fruticoso verrucoso, foliis oblongis acuminatis in petiolum longum attenuatis mucronato-serrulatis glabris, spicis axillaribus oppositis in pedunculo refractis, bracteis orbiculatis basi cucullato-conniventibus contiguis, (raniis supra genicula fibroso-fimbriatis.)—*Ruellia ciliata* Herb. Wight. Wall. Cat. n. 2415.

E montibus prope Courtallum. (Wight.)

Ad typum accedit *Strobilanthis callosa*, sed multis differt.—Folia 5—6 pollices longa, 1£ poll. lata. Spicae subgylindricae, semipollucares, densi quadrifariam imbricatae; pedunculi 1£ poll, longi. Bractae vix 3 lineas longae. Flores longitudine bracteae; corolla lutea (?), calyx pault longior. (Fructus deest.)

Adnot. Nomen impropprium, ad fimbrias internodiorum alludens, quae quidem pluribus sanisque ramulorum fragmentis plan& deunt. Istan vix regulares et speciei proprias, sed morbdam pottisi existimo libri, a cortice denudati, efflorescentiam et dissolutionem, quod magis etiam micro\$copii compositi adminiculo probatur.

13. *Strobilanthes glabrata* : fruticosa, glabra, caulis geniculis apophysatis, foliis oblongis utrinque attenuatis denticulatis, capitulis oblongis pedunculatis axillaribus oppositis, terminalibus quaternis

multibus, bracteis oblongis imbricatis, corolls subsqualis laciniis
emarginat*k*-if c*? gU**> WaU, Cat. n. 2m

E monibus provincis Sillet?

Frutex alieni habitūs, generis tamen hujuscē typum referens. Folia 3-4 pollices longa, 1 poll. lata. Pedunculi f-1* poll, longi. Spies capituliformes, 1-1 poll, longs. Bractes 1 p. longs. Corolls pollicares, coeruleos (?). (Fructus deest.)

14. *Strobilanthes mbikata*: caule herbaceo erecto, scabro, foliis oblongis utrinque acuminatis crenatis hirtis, spicis axillaribus terminalibusque fasciculatis brevibus, bracteis obovato-cunatatis apice paleaceo-hirsutis. Wall. Cat. n. 7156.-S* o </> ^ htria var. 3 ere-nulata Blume Bydr: p. 797. s9f.

In montium jugo Taong Dong dicto d. 13 Novembn^, a. 1826,
« Pingeneear the Rock Images,» d. 10 Jan. 1827- Absque flonbus.
la montosis provincis Tjanor Javs insuls. Blume 1 c.

SimiUs *Strobiamhi mmadelph** (sp. 26.); ut priuō intuitu yanetes haber̄ posset; differt ver̄ caule profunde quadnsuleo (qni. m. d. b obtuse quadrangulus), foliis dense crenatis utnq̄ tett. ~~Hirsute~~
spicis, brevioribus, 2-3nis in fascicul., flore minore, ~~retinacula~~. Corolla 3 lineas longa, violacea. Ovula ^ " ^ .
ctassa adunca. Ovarium oblongum, basi ahnulo nectanfero lato cinctum.

c. *Str. odilanthes* ~~s. morro~~ Spies magls elongate; bractes, « subrotundo-spathulat., apice squarross, persistentes; folia in plerisque anplexicaulia.

15. *StrobUanthes Satimana*: herbacea, foliis otatis acuminatis in petiolum attenuatis repando-subcrenatis glabris, opposite minore, summis cordatis amplexicaulibus, spicis axillaribus terminabibusque laxiusculis viscido-pubescentibus, bracteis orbiculatis ba, eaneiformibus.-Jtoe//<> *Sabiniana* Wall. Cat. n. 2338. *RueUta macrocarva* Wall. Cat. n. 2348 ex j>art.

J argentea: spicis minoribus maxime pubescent, bas visadisque, foliis minoribus.—*RueOia argentea* Wall. Cat. n. 2839.

In Pundua legit F. D. et in Hortnm botanicum Calcuttensem transtu Ut.-Var. « et (3 in Napalia a. 1821 legit WaUiebius.

Affinitas suinna patet *Strobilanthis plunwlos**, *auricula** ~~et~~ *amplectensis*, sed distinguenda est *Str. Sabiniiana* jam primo intuita e glabritate, foliis latioribus, spicisque laxioribus. Caulis basi bengnescens, apicem versus, ut videtur, herbaceus. Folia infenora 8-9 poll, longa, 3-3* poll, lata, nervis costalibus septoms octomvs. Spic^ Opposite, insquales, altera 4-5, altera 3-3 i pollices longs; in ^ pau^ xniores, magls viscids. Corolls (in var. p.) sesquipollice paulli longiores, coeruleos (?).

16. *Strobiknthesplumulosa*: herbacea, foliis ovato-eupticis acutis basi cuneiforme uttenuatā auriculato-amplectentibus inaequabter serratis suprā hirtis, spicis axillaribus terminalibusque sessilibus, bracteis cuneiformibus obtusis longe d' U a t i s . - ^ // <> Wall. Cat. n. 7157-

In Proms montibus a. 1826.

A *StrobUanthe ampUctente* differre videtur caule acutangulo, lateribus profunde canaliculatis, foliis subto extra margines glabris, et bracteis cuneiformibus longe ciliatis, nee verd tomentosis.

17. *Strobilanthes auriculata* Nees ab Esenb. (vid. supra,)-i,-i?* <> *auriculata* Wall. Cat. n. 2341 a, b. *Omsandra?* *spicata*, Herb. Hamilt. in Wall. Cat. sub n. 2341 b.

In Belem, die 16 Decembris a. 1811 legit Hamiltonis.-Ex Horto b. Calc, ubi introducta e Nepaliā a. 1821.

Frutex. Folia infenora 6-7 polices longa, 1^—1| P- lata, *uperiora f-2 polj. longa. Spies 1-3 poll, longs, tetragons. Corolls specios; 9 tin. longs, dilute carries. (Fructus deest.) Ovulum oblongum.

18. *Strobilanthes amplexens*: herbacea, foliis elliptico^oblongis utrinque attenuatis dentatis hirtis basi auriculata amplectentibus, spicis axillaribus terminalibusque tomentosis, bracteis spathulatis acutis squarrioris longe diliatis.—*Ruellia amplexens* Ejusd. MSS. Wall. Cat. n. 7158^

Taong Dong, die 27 Novembri a. 1826.

to ^minima, nisi cadem.

Differo videtur

caule herbaceo quadrangulari lateribus excavatis, glabro, foliis amplioribus, 10-12 poll, longis, 2|-» p. latis, grossius dentatis, bracteis magis cuspidulatis longiisque ciliatis, filamentis basi tantummod6 hirsutis, etc.'

d. *Strobilanthes denudata*: Spicae primò densae et breves, progradienti evolutione autem saepè elongatae, bracteisque defluentibus denudatae; in una specie capituliformes. Bractae ampliae: inferiores foliaceae; superiores tenuiores.

19. *Strobilanthes Wightianai* hirsutissima, caule erecto tetragono, foliis ovatis petiolatis undulato-crenatis rugosis, spicis axillaribus oppositis terminalique bracteisque foliaceis ovatis, corolls bracteae paulò longioris laciniis emarginatis.—Wight Herb, prop. n. 37.

ENilghiry.

Caulis herbaceus, pedalis et altior, crassiusculus. Folia 2 poll, longa petiolo | pollicis longo addito, 1 poll, ferit lata; Tamea minor, subrotunda. Spicae magnitudine cerasi mediocris. Corolla 8-9 lin. longae, igneo-aurantiacae, tubo brevissimo.

Adnot. Vix dubium restat, quin sit proprii generis typus, sed non sufficiunt notae leviores, quas prodit inflorescentia etc., ad characterem cibificiendum. Plura deinceps fructus (qui exemplis nostris deest) docebit.

20. *Strobilanthes Mysurensis*: caule erecto profund & quadrangulari, foliis ovatis crenulatis supr̄ hirsutis, spicis terminali, bracteis oblongo-lanceolatis acuminatis villosis dense ciliatis deciduis.—*Ruellia mysurensis* Roth Nov. PL Sp. p. 303. n. 4, Spr. S. V. n. p. 825. n. 70. Wall. Cat. n. 2402. ex Herb. Heyn.—Wight Herb. n. 33.

Crescit in India oriental*. (Heyne.) Vidi exemplum Herb. Madrasp.

Calyx regularis, laciniis linearibus glandulosis saepè adhaerentibus, basi stipitur bracteolis duabus lanceolatis acuminatis membranaceis calyce dupl longioribus, quarum alteram fortasse pro calycis lacinia sumsit Rothius.—Capsula clavata, basi compressa, apice depressa et biventricosa, acuminata, glabra, tetrasperma. Retinacula valida. Bracteae flore longiores.

Adno. Inlierb. Madrasp. schedula addita est his verbis: « *Ruellia guttata* d. 28. Julii. 1811, quibus aliamanuhaec adjectasunt: "cum descr. Vahlii non quadrat, potius species nova, Maysorensis nob."

21. *Strobilanthes glutinosa*: hirsutissima, caule fruticoso teretisculo, foliis ovalibus utrinque acuminatis serratis, spicis axillaribus oppositis terminalibusque ovatis hirsutis glandulosisque, corollae bracteis multe longioris laciniis retusis.—*Ruellia glutinosa* Will. Cat. n. 2350.

In Napalia. Wallichius a. 1821.

Similis in universum *Strobilanthes Wightianai*, differt: caule fruticoso; nee herbaceo medalteque succulent^ farcto, feri tereti nodis incrassatis apice setoso-glanduloso. Folia, cum petiolo pollicii, ferit 4 poll, longa, 2 p. lata, non rugosa. Pedunculi axillares pollicares, plenè trifidi. Spica erect, miniis dens^. Bractea ovalis oblongae^epand^multiglandulosa^. Calyx semipollicaris Corolla sesquipollucaris, cerulea. Fructus deest, sed . . . I . . . ris.

22. *Strobilanthes collina*: caule erecto

oblongis basi apiceque acuminatis utrinque lincolati, » k . inque terminaH trichotoma casu bractearum qm d ^ " ^ spic^ pubesc^nte, bracteis lanceolatis ceducis.—*Ruellia collina* Wall. Cat. n. 2343.

In Penang legit G. Porter.

Caulis aliquot pedes altus videtur, herbaceus, nodosus, quatuor angulatus angulis obtusis; nodi incrassati. Folia speciosa 7-8 pollices longa, 2 p. lata, petiolo pollicari. Corolla pollicares, purpuree (?) .

AdnoL An cum Strobilanthes, quaram bractea> r ioo radunt distincti generis?

23. *Strobilanthes atropurpurea*: rml. herbaceo basi repente, foliis ovatis in petiolum anguste conicum contractis acutis serratis supra hirtis, capituhs axillanbus pedunculatis foliaceis, bracteolis oblongis obtusis. calyce multe brevioribus, corolls incurva laciniis duabus infens m, nor, bus. ^ w/i a atropurpur, Wall. Cat. n. 2398.

In Napalia a. 1321 legit Wallichius.

Caulis f—1 pedem longus, quandōque diffusus. Folia inferiora subtundata; superiora ovata, 2 poll, longa, 1| lata. Capitulum 3—5-florum et ultra. Calyx 6—8 lin. longus. Corolla 1 J-pollicaris, atropurpurea. (Fructus deest.)

(II.) Subgenus: PTERACANTHUS. Capsula ad basin spatio brevi clausa. Spicae laxae, foliosae.

PTERACANTHI, qui STROBILANTHIS subgenus, characterem fusiorum habes:

Calyx profund& quinqjepartitus, subaequalis. Corolla infundibuliformis, limbo aequali quinquefido. Stamina quatuor didynama. Antherae bilocellatae, locellis parallelis-aequalibus muticis. Stigma bifidum. Capsula columnaris, in medio tetrasperma, basi brevi spatio clausa nec contracta. Semina ovata, retinaculis suffulta.—Inflorescentia: spicae axillares, fof osae, floribus in axillis foliorum floralium oppositis bibracteolatis, bracteolis parvis. Planta annua.

Adnot. Spicae STROBILANTHIS in hoc subgenere ad simplicissimam rami figuram distractis in conspectum veniunt.

24. *Strobilanthes (Pteracanthus) WaUiclm*: caule alato, foliis ovali-oblongis utrinque acuminatis serrat⁹ supn⁹ hirtis, spicis axillaribus flexuosis foliosis. *Ruellia alata* Wall. PI. As. Rar. i. p. 26. t. 81. Cat. n. 2371 a, b.

In xronte Sheapore Napaliae, alt. 10,000', a. 1821, legit Wallichius; etiam e regionibus magis adhuc elevatis versus Gossain Than Himalaya addata est. Floret Julio, maturos fructus fert Octobri.—In Kamoon, R. Blinkworth.

Caulis basi sublignosus, teretiusculus, superius herbaceus tetragonus, ramosissimus, dichotomus, ramis fastigiatis herbaceis. Folia inferiora 5 poll, longa, 1—1| poll, lata; petiolo longo angust& alato. Floralia folia opposita, ovato-acuminata, patentia, subsessilia vel sessilia, serrata. Bracteolae, calye semipollucari quadrupl breviores. Corolla f poll, longa, purpurea, extus alba, tubo brevi. Capsula (in var. 3) semiuncialis, tetragona. Retinacula e basi crass⁹ subulata.

Adnot. *Ruellia alata* cognomen inter *Strobilanthes* mutandum erat, cum alia ejusdem nominis jam exstet species, a cl. Blumio proposita,

(III.) Subgen. SYMPAGIS. Stamina basi in membranam conflata. Antherae breves, emissi polline subquadratae, dipterae. Spicae quales in STROBILANTHIBUS SGLUAROSIS.

25. *Strobilanthes (Sympagis) Brunoniana*: fruticosa, foliis lanceolatis in petiolum attenuatis repandis glabris, spicis axillaribus terminalique compositis secundis laxiusculis hirtis, bracteis oblongis, staminibus monadelphis. *Ruellia Brunoniana* Wall. Cat. n. 2368.

In montibus provinciae Sillet legerunt Franc, de Silva et Guil. Gomez a. 1829.

Caulis fruticulosus, ramosus, ramis gracilibus glabris. Folia 3 cinciter pollices longa, 4 lineas lata. Spicae cum pedunculo basi microphylo 3—4 poll, longae, alternae vel oppositae, ipsae pollulares aut sesquipollulares. Corolla 7—8 pollices longa, pubescens, cerulea (?) tubo gracili. Capsula 3 lin. longa, oblonga, tetragona. Btentacula acuta, bidentula.

26. *Strobilanthes (Sympagis) monadelpha*: fruticosa, foliis ovalibus utrumque acuminatis serratis supri hirtis, spicis axillaribus terminalibusque bifidis subsecundis hirsutis, bracteis ovatis, staminibus monadelphis.—Wall. Cat. n. 7159.

In montibus Silhet legit <3 mil. Gomez a. 1813.

Caulis purpureus, obtus* quadrangulus. Folia longe petiolata 3-pollicana. Rami axillares spicigeri, spic& alter& longiore 2-pollii cari, alters vix pollucari. Omnes spicarum partes setis flavis hirsutissimae. Corolla cinciter pollicaris, pubescens, purpurea. Ovarium oblongum, annulo nectarifero cinctum. (Fructum non vidi.)

Antherae fer[^] GOLDFUSSIÆ.

XX. ECHMANTHERA.

Ruellia spp., Wall.

Calyx quinquepartitus, aequalis. Corolla infundibuliformis, limbo

regulari quinquefido. Stamina quatuor didynama, inclusa; anthera? bilocellatae, apice mucronatae, locellis aequalibus parallelis basi muticis. Stigma simplex, dorso carinatum. Capsula tetragona, a basi ad medium octosperma. Semina lenticularia, laevia, basi subtruncata, retinaculis acutis subteusa.—Inflorescentia: capitula, bracteis braetcolis subaequalibus cincta, paniculato- vel corymboso-terminalia.

1. *Echmanthera tomentosa*: lanuginosa, foliis ellipticis denticulatis, corymbo terminali supradecomposito.—*Ruellia tomentosa* Wall. Cat. n. 2333 a, b.

/3 huinilis, caule humiliore, floribus subglomeratis.

In Napalia legit cl. Wallich; in Kamoon Blinkworth. Var. /3 cum reliquis promiscua occurrit.

Erizomate crasso sublignoso caules assurgunt 1—2 pedes alti et altiores, obtus& tetragon. Folia inferiora cum petiolo 2—2½ poll, longo 1—1 pedem longa, poll. 2f lata; superiora versus decrescunt. Capitula piso dupld triplöve majora, 3—7-flora, hirta. Corollas pollares, violaceae. Capsula calyce, ut bracteae 3 lineas longae, vix longior. Retinacula subulata.

2. *Echmanthera gossypina*: caule foliisque novellis gossypinotomentosis niveis, foliis cordatis crenato-dentatis, cymis axillaribus brevibus in paniculam terminalem coeuntibus.—*Ruellia gossypina* Wall. PL As. Rar. 1. p. 38. t. 42.. Cat. n. 2332 a, b, c.

In Napalia inferiori juxta ripam fluminis Rapti a. 1821 primus invenit Wallichius; turn prope vallem De[^]ra; iti monte Charculi.—In Pingee, in vicinia imaginum rupibus insculptarum, die 10 Jan. 1827- Floret fine pluviarum.

Propter magnam *Echmanthera tomentosa* similitudinem hue re-tuli plantam hanc pulcherrimam[^] cuius quidem ipse neque flores, nisi ex icone laudata, nec fructus omnino vidi.—Caulis inferne digitis minimi fer[^] crassitie, lignosus, medullā ampla (ut in praecedent specie) farctus, erectus, tetragonus, tomento candido mollissimo densissimo, gossypium omnimod[^] referente, vestitus. Folia caulina inferiora 7—9 poll, cum petiolo longa, poll. 3—3½ lata, ovalia, acuta, basi (nonnihil angustata) cordata- et inaequalia, confertim penninervia, supra confertim lineolata setisque hirsuta, subtis dens[^] pubescentia, incana; petiolo 1 ^-pollicari. Folia ramorum minora, 3—4 poll, longa, basi rotundata, supr² dens& lanuginosa, subtis candido-tomentosa et rugosa. Flores in pedunculis axillaribus pollicaribus trifloris. Corolla cerulea. Antherarum mucrones in ipone noq apparent.

XXI. GOLDFUSSIA.

Ruellia spp., Wall., Roxb., Hooker.

Calyx quinquepartitus, subaequalis. Corolla infundibuliformis, limbo quinquefido obtuso aequali. Stamina inclusa, didynama, humiliora saep[^] brevissima reflexa. Antherae nutantes; locelli in connective* uncinato glanduloso obliqui, ovati, membranacei. Stigma simplex, subulatum, altero latere crenatum. Capsula sexangularis, bivalvis, a dissepimento solubilis, loculis inferius dispermis. Semina discoidea, retinaculis subtensa.—Inflorescentia: flores pauci in capitulo, bibracteolati, bracteis deciduis; rariis spicatis, spica post de-lapsas bracteas magis elongat². Capitula pedunculata, pedunculo simplici vel diviso.—Frutices, foliis penninerviis curvinerviis, nervis omnibus apicem patentibus, nee ver² attингentibus.

Adnot. Stamina fundo faucis inserta, in costam decurrentia, ad basin divisa, altero ramo seu filamento antherae vix longitudine, recurvo; altero multo longiore. Connectivum incrassato-securiforme seu ovato-triangulare, fuscum, ad angulum rectum inflexum; ex ejus supero infero que margine nascuntur locelli membranacei, albi, ovati, tumidi, post pollen emissum valde corrugati. Capsula profunde sexangularis. Disscimenti laminae facile disceduit, ad dorsum valvulae crassae, medio tenues. Retinacula lata, extrorsim quasi alata. Semen (immaturum) ovatum, acutum, hilo retusum, ruguloso, vald compressum.

GOLDFUSSIO, amico, Historiae naturalis in Universitate litterarum Rhenana Bonensi Professori, Academiae Caesareae Leopoldino-Carolinae Nature Curiosorum Secretario generali et Bibliothecario, viro summi inter rerum naturalium investigatores loci et gloria?* genus hoc memorabile despondeo.

* Ab aixw cuspis, et ariegae, ob antheras apice mucronatas.

1. *Goldfussia lamiifolia*: foliis subrotundis cuspidatis aequalibus crenatis decuplinerviis, spicis terminalibus ovalibus casu bractearum mdx denudatis elongatisque, caule fruticoso repente.—*Ruellia lavii* Wall. Cat. n. 2347.

Lecta in Napalia, a. 1821, a Wallichio.

Caulis 1—2 pedes longus, geniculatus. Folia circiter 2¹ pollices cum petiolo longa, 2 poll. lata. Bractae longitudine fer⁶ spicae juvenilis, dense imbricatae, quadrifariae. Corollae speciosae, sesquipollares, formae florum *Digitalis purpurea*, purpurascentes.—Retinacula magna, uncinata, basi obliqua.—Spicae ante anthesin ± poll, longae, oblongse, dein nudea 1—2-pollicares.

2?. *Goldfussia extensa*: foliis sessilibus ovato-acuminatis inaequalib[us] in tri<Mlo Monatia n<*ptiplm<*rvn lir<utiN, Hptris Ic?rinifiili>iN <Mi hractcarum mos denudatis elongatisque, caule fruticoso ramis elongatis.—Wall. Cat. n. 7160.

In montibus provinciae Sillet legit Guil. Gomez, a. 1830.

Tametsi nec flores corollati, nec fructus, in nostro exemplo inveniebantur, ob summam tamen cum *Goldfussia lamiifolia* affinitatem hue referre non dubitabam.—Caulis sesquipedalis, lignosus. Calyces semipollares.—Capsulae fragmentum adjectum separatum istam semipollarem, tetraspermam esse offendebat. Retinacula basi obliquu dilatata, concava.

3. *Goldfussia biceps*: foliis ellipticis cuspidatis basi cuneatis crenatis glabris inaequalibus multiplinerviis, spicis axillaribus terminalibusque geminis ovatis, bracteis oblongo-lanceolatis spicam aequantibus bracteolatisque hirtis, caule fruticoso. Wall. Cat. n. 7161.—*Ruellia glomerata* Ejusd. MSS.

Taong Dong, d. 27 Nov. 1826. (Exempl. incompl.).

Rami lignosi, divaricato-dichotomi. Folia 3¹—8 poll, longa; 1¹—3 pollices lata, longe & petiolata. Bractae imbricatae, 6—8 lin. longae. Calyx 6—7 lineas longus. Corolla pollicaris. Capsula longitudine calycis. Retinacula uncinata.—Differt a sequente glabritate, foliis utrinque acutis crenulatis, spicis paucioribus oppositis, bracteis interioribus non fastigiatis prominentibus bracteolatisque setis purpureis hirtis.

4. *Goldfussia glomerata*: foliis ovato-subrotundis cuspidatis basi obtusis inaequalibus gross& dentato-crenatis multiplinerviis spicisque axillaribus oppositis solitariis globosis brevissim& pedunculatis hirsutis, bracteis lanceolatis integerrimis, interioribus rapitulum superantibus, caule fruticoso hirsuto.—*Ruellia glomerata* Wall. Cat. n. 2361.

In montibus Sillet legit Fr. de Silva.

A *Goldfussia capitata* differt: caule (omnium maximè geniculato nodoso atque distorto) setis rigidis longis hirsutissimo, nee mollioribus pilis vestito, foliis latioribus suprà lineolatis nee tuberculatis, capitulis brevissim& pedunculatis, inferioribus omnino sessilibus, in summitate ramorum postquam folia defluxire, quasi spicam glomeratam interruptam constituentibus etc.;—a *G. bidrite*, cui san^f quoad inflorescentiam magis est similis, hirsutie, foliis basi obtusis, ramis florigeris magis elongatis, cet.

5. *Goldfussia capitata*: foliis ellipticis acuminatis basi acutis inaequalibus subduplicato-dentatis multiplinerviis spicisque axillaribus terminalibusque fasciculatis globosis hirtis, bracteis ovalibus apice dentatis spicam aequantibus, caule fruticoso hirsuto.—*Ruellia capitata* Wall. Cat. n. 2351.

In Napalia a. 1821 legit Wallichius.

Caulis foliaque breviahirsutula, haec suprà papillulis exiguis aspera, minurim, nee confertim, lineolata; bractae majores quam praecedentis, obtusae; bracteole oblongae, obtusae.

Adnot. Species haec atque *Goldfussia biceps*, *glomerata* et *capitata* inulta san^f ostendunt, quibus varietates esse ejusdem speciei tibi persuadeas. Nefas autem duxi, ex arbitrio eas conjungere.

6. *Goldfussia bracteata*: foliis ellipticis cuspidatis basicuneiformi sessilibus aequalibus serratis multiplinerviis pubescenti-scabris, capitulis axillaribus aggregatis terminalibusque umbellatis, caule erecto quadrialato hirsuto, ~? w/¹ bracteata Herb. Heyn. Wall. Cat. n. 2357.

Ex Herb. Heyneano.

Caulis herbaceus, bipinnatis et altior, erectus. Folia 9 poll, longa,

H p. latai costis subth. denis et ternis. Capitula, rectissime spicae nucis moschatae magnitudine, ovatae, subsquarrosoae. Corolla * pollicis longa. (Fructus deest.)

7. *Goldfussia nutans*: foliis ovalibus basi apiceque acutis inaequalibus serratis multiplinerviis hirsutis, spicis axillaribus terminalibusque oblongis glabris nutantibus, caule fruticoso basi repente.—*Ruellia glomerata* Wall. Cat. n. 2361 ex parte.

In montibus provinciae Sillet legit F. D.

Fruticosus 1—2 pedes altus, a basi trichotomo-ramosus, teretiusculus. Folia superiora majora, 4—5 poll, longa, 1¹—2 poll, lata, suprà lineolata, nervis costalibus 6—9. Calyx 2¹ lin. longus, glaber. Corolla pollicaris, lutea (?).

Adnot. Itwlir, si><invrai> Roxb. nomine numeroque herburii in /T>t* ^ CXf Dt SPedeS 10ng^ & TM**> g/Tmerat< nomen subm alten, qm apt^ convenit; isti autem, in cujus inflorescentia nihil glomerati invenies, aliud imposui.

8. *Goldfussia stentosa*: foliis elliptico-oblongis utrinque attenuatae et ^Se_ri₁₈ multiplinervi^A capitulis terminalibus, caule repente.—*Ruellia flexuosa* Wall. Cat. n. 2412.

Ex Herb. Wightiano; loco natali accurate non notato.

F^Acul^{us} 1¹—2-pedalis et fort* major, a basi divisus. Folia opposite, alter libus ramis 5—6. Bractae et acteole (ut et calyx) 3 lin. longe, subrotundae, ventricoso-cucullatae. Corolla, ut videbatur, calyce paullò major, lutea (?).

9. *Goldfussia pentastemonoides*: foliis attenuatis inaequalibus serratis multiplex-mervins, spicis terminalibus elongatis demudatisque, caule erecto stricto

SSSSSTR Wall. Cat. n. 2340. *Ruellia* eunte florescentia, ubi spes

ou. v^{at} n. 2352 (planta in adhuc clausae atque globosa).

In Napalia legit Wallichii, a. 1821. alternatim rosu Simplici precedenti, sed differe cari, capto a^s in caule ramis geminis ternis longi₁₈ pedunculatis subcorymbosis; bracteis trapezoides mucronatis. Corolla polli

10. *Goldfussia Cusia*: foliis 1 S S S r r ^ A T f multaplnervis, capitulis racemosis. ^ J ^ ? 1 dentatis Wall. Cat. n. 2386.

Ad Gongachora d. 29 Maji a. 1809 legit d H. n. s. on.

Frutex caule crasso, raxis glabris L^A n t p. v. cum petiolo pollicari 6—7 poll, longa, 2i¹ 2¹ 2¹ p. dñ. lat¹. Inflorescens folia decrescens, bractea poUcali¹ in cemulosi-1 poll, longos spidiformes constn¹ T^A triflorarum longus. Corolla 11 poll p. o. u. ^ , , ^ ; ^ 8 ^ . Calyx 5 Un.

11. *Goldfussia anisophylla*: foliis oblongis eau, w. opposite minimo..R</>, a anisophylla HL ^ A A A nunatis, Exot. Fl. t. ^ 1. Sp, Cur. post ^ 7 v T ^ A A ' * <** n. 2349 a, b. Wall. Cat.

In Sillet legit F. D. et in hortum b. Calcuttensis t¹ transtulit. Vidi

Rami graciles, virgati. Folia opposite. altp. um 4 I poll, latum, septuplinerve, alteru_m vix doU¹ kar culi ex axilla folii minoris simplices, 4—5, po. ? CuTeVe, p. dñ. superiore caulis parte oppositi sunt pedunculi V*₁, ^ ^ <Uibus in (inferne oppositi illis sunt ramuli). Canit u¹ u¹ plalon S¹ orae 8; spica contracta orta, sexflora. Calyx 4 nri¹ 11180 Pau U6 maJ' ora, e pollicaris, coerulea. Nectarium hy¹ Craterif *** Corolla a ^ re tubodgens, limbo angusto membranaceo TT* ^ ^ Ovarili¹ Pate¹ te. Capsula longitudine calycis, lanceolata.

12. *Goldfussia isophylla*: to U¹ anceolat! rulatis septuplinerviis—Wall. Cat. n. 7162

Ex Horto botanico Calcuttensi, e montibus Sillet introducta. S Mi, precedent, sed ramis foliisque gracilioribus differt. Folia sibi, plerūc¹ trifida. Capitula 2—3-flora. Calyx H Un. longi. Corolla poUice ..B¹ oire, coerulea, tubo graciliore.

13. *Goldfussia divaricata*: foliis oblongis acuminatis ina&qualibus
III—^{III} r. Jinprii. Dedunculis axillaribus trifidis, floribus
subsessuus ~~multo~~ ^{multo} spicatis, fructibus reflexis.—*Ruellia divaricata* Wall. Cat.
dissidit spicatis, fructibus reflexis.—*Ruellia divaricata* Wall. Cat.
n. 2372.

E Napalia summa, Emodum versans, retulerunt Wallichii collec-
tores plantarum.

Fruticulus, ramis tortuosis flexuosis tetragonis glabris, ad articu-
los nodosis. Folia opposita, cuneatim sessilia, alterum 3—4 poll,
longum, 1 poll, latum, alterum plts diapl6 minus. Pedunculi "ex
omnium ferfe foliorum axillis, horum longitudine. Flores in ramis
pedunculi plerumque quini. Corolla f poll, longa. Capsula 4 lin.
longa, lanceolata.

14. *Gomfutwia colorata*; foliis ovato-oblongis acuminatis callosos-
serratis, opposite minore, capitulis paniculatis.—*Inclia colorata*
Herb. Hamilt. Wall. Cat. n. 2388.

In Borjora d. 29 Nov. a. 1808 legit cl. Hamilton.

Pulcherrima fr& generis. Tota glabra, laevis. Caulis herbaceus,
erectus, simplex, quadrangulus. Folia inferiora 7—8 poll longa,
2| p. lata; sursim decrescent folia; oppositum quodvis dimidi minus.
Capitula 2—3-flora in pedunculis i—f poll, longis. Corolla pollice longior, coerulea (?), infundibuliformis. Retinacula
tincinata.

XXII. ASYSTASIA BL

Calyx quinquepartitus, aequalis. Corolla subinfundibuliformis,
limbo quinquefido subaequali, laciniis superb concaviuscula. Sta-
mina quatuor didynama, inclusa, per paria basi connata. Anthers
bilocellatae, locellis angustis parallels basi callosis vel appendiculatis.
Stigma capitatum, bilobum vel bidentatum. Capsula basi compresso-
attenuata asperma; superiis depresso-tetragona bilocularis teta-
sperma. Semina retinaculis sustensa, discoidea, lobata, basi angulo
prominente.—Inflorescentia: racemus spiciformis, secundus, axillaris
vel terminalis. Bractea communis et propriae exiguae, aequales.—
Plantae herbaceae, (vel fruticosae,) infirme. Flores coerulei, vel
luteo cceruleoque varii.

1. *Asystasia Kunthiana*: caule fruticuloso tereti foliisque ob-
longis subtilis & lineolato-scabriusculis, Aoribua axillaribus fa&d-
culatis suboppositis, calycibus pubescenti-scabris.—*Ruellia Kunthi-
ana* Wall. Cat. n. 2419.

In Penang a. 1822 legit Wallichius.

Exemplum flore perfecto caret; convenit cum rdiquis bracteolis
exiguis et fructu, differt inflorescentia et habitu.—Fruticulus 1—2-
pedalis, radice ampla ramosissima. Caulis a basi dichotomus, foliis
oppositis 3—3| poll, longis, 1 poll, latis, dissit& penninervibus supri-
confertissim& punctulato-lineolatis opposito quovis minore. Fasci-
culi 2—3-fldrvrevipedunculati. Calyx 2J lin. longus. Capsula
omnino generis.

2. *Asystasia macrocarpa*: caule obtuso tetragonio procumbente
clongato geniculato, foliis oblongo-lanceolatis acuminatis subrepan-
dis utrinque hirtis, spicis terminalibus solitariis geminis ternis,
floribus inferioribus oppositis superioribus secundis, corollae laciniis
integris.—*Ruellia macrocarpa* Wall. Cat. n. 2348, ex parte.

In Napalia, a. 1821. (Wallich.)

Caulis infers lignescens teretiusculus, superb magis herbaceus
obtuse tetragonous, ramosissimus. Folia ratione caulis parva, 31—4
poll, longa, 4 poll lata. Corolla 6—8 lin. longa, pu^umscens. Cap-
sula poloicans et longior, clavata, acuta, ^minibus discoideis.

Adnot. Qued ad antheras proxima Asystasia, *Coromandeliana*.

3. *Asystasia plumbaginea*; caule obtus* tetragono foliisque tra-
pezoideis repandis acutis supri punctato-asperis glabris, spicis termi-
nalibus ternis, floribus inferioribus oppositis superioribus secundis,
corollae angustae laciniis integris.—^{icw} *plumbaginea* Wall. Cat.
ri. 2487.

In Herbario Madraspatano, ex horto Gubernatoris Madraspatani.

Affinis *Asystasia macrocarpa* sed multe minor, tenerior, foliis
brevioribus et latioribus, suprl non hirtis, corollis angustioribus
(6—7 lin. longis violaceis).

4. *Asystasia JVeesiana*: caule quadrangulari erecto foliisque amplis
ovato-oblongis acutis in brevem petiolum acute desinentibus inte-

germis glabris, racemis terminalibus solitariis ad basin biadia, flori-
bus alternis secundis glandulos-pubescentibus, corollae laciniis in-
tegris.—*Ruellia Neesiana* Wall. Plant. As. Rar. i. p. 73. t. 83. Cat.
n. 2342.

In montibus provinciae Sillet. (F. D.)

Eminent inter congeneres spriorum amplitudine, (juoru inferiora
pedalia sunt, 4 poll, lafa; superiora versus parum diminuentia. Co-
rollae pollicares bipollicares, roseae, in racemis subspicatis ramos
terminantibus, cum pedunculo communi longo saep^ fr& pedalibus,
ipsa parte florente 3—4-pollicari.

5. *Asystasia denticulata*: caule quadrisulcato flexuoso pubescenti-
scabro, foliis oblongis denticulato-crenatis cuspidatis basi cunci-
formibus glabris, spicis axillaribus oppositis trifidis, floribus oppo-
sititis, rorlic laciniis emarginatis, filamentis hirsutissimis.—*Ruellia
denticulata* Wall. Cat. n. 2418.

In Pundua legit F.D.

Caulis herbaceus, aliquot pedum. Folia opposita, 6—8 poll, longa,
1|—If poll, lata, penninervia, supra dens& lineolata, petiolo 1^pol-
licari. Spicas petiolo paull6 longiores. Corolla semipollicaris, ext&
densissim^ pubescenti-tomentosa, flavescens (?); intus glabra vio-
lacea.

6. *Asystasia chelonoides*: caule dichotomo subpilosu, foliis ellip-
tico-oblongis acuminatis basi acutis repando-crenatis supra margine-
que pilosulis, racemis axillaribus terminalique secundis, calycibus
glandulos-scabris.—*Ruellia* Hb. Wight n. 24. *Ruellia Cwoman-
deliana* Wall. Cat. n. 2399 e. ex Herb. Wightiano; f, ex parte, ex
Herb. Heyneano.

3. foliis minoribus, basi cuneatim attenuatis.—*Ruellia chelonoides*
Wall. Cat. n. 2335 a, b. *Ruellia* sp. Herb. Wight. Wall. Cat.
(n. 2335 b)

Crescit... Vidi exempla Herbb. Wightiani et Heyneani.—Var. |S
in Nilghiry legit; E. Noton.

Caulis quadrangulus, lateribus profundis. Folia (in a) 6—7 poll,
longa, 2—r2 poll. lata. Racemus in nostra ex dichotomia termi-
nalis 6—7 poll, longus, floribus alternatim secundis. Corolla 1|
poll, longae, purpureae, pubescentes. Capsula 12—14 lin. longa. Re-
tinacula aculeiformia.

7. *Asystasia Coromandeliana*: caule ramoso, ramis difusis, foliis
cordato-ovatis supra lineolato-asperis, racemis axillaribus elongatis
secundis strictis, calycibus acuminatis:

a. caule foliisque glabriusculis vel totis glabris, foliis subcordato-
orbiculatis cuspidatis, calycibus glandulos hirtulisque pubescentia
brevi.—*Ruellia Coromandeliana* Herb. Madrasp. Wall. Cat. n. 2399
a, ex parte. *Ruellia becunda* et *filiformis* Herb. Heyn. Wall. Cat.
n. 2401 a, b, ex parte.—Herbb. Hamilt. et Wight.; Hb. Wight
propri. ft. 25.—*Justicia gangetica* Linn. Ainoen. Ac. iv. p. 290. excl.
omn. synon. ?

(3. caule pubescenti-scabro, vel subviloso, articulis elongatis, foliis
minoribus magis ovatis, inferioribus praecipu^ basi acutis, calyce
hrito, basi tantiu glanduloso.—*Ruellia secunda* Wall. Cat. n. 2401
d. (ex Horto b. Calc.); a, ex parte. *Ruellia intrusa* Vahl. Symb. i.
p. 45. Willd. Sp. PL HI. 1. p! 367. Lam. Enc. M&h. vi. p. 343.
n. 20. Forsk. Descr. p. 113. ?

y. caule, prsesertim apicem versus petiolis calycibusque hirsutis,
foliis cordato-orbiculatis saepe obliquis aliis obtusis aliis breviter
obtuse cuspidatis.—*Ruellia secunda* Vahl. Symb. in. p. 84. Eam.
Enc. Mfrh. vi. p. 346. ri. 3?. Willd. Sp. PL in. 1. p. 372. Spr.
S. V. ii. p. 824. n. 52. *Ruellia obtusa* Herb. Wight. Wall. Cat.
n. 2399 d. *Ruellia coromandeliana* Wall. 1. c.

Crescit in Indiae or. sepius frequentissima. Vidi exempla Ham-
ilton. et Wallich. ex H. b. Calc. Herbb. Madr., Wight., Heyn.

Caulis (in a) tetragonous, nodosus, ramis subsecundis patentissimis
recurvis. Folia 2—3 poll, longa, 1^—lata. Raceini axillares et
terminales, pedunculati, 2—3 poll, longi, secundi, laxi. Corolla pol-
lice longior, basi lutea, limbo cceruleo. Capsula pollicaris, clavata,
acuminata. Retinacula valida.—In var. 0 rami longi, simplices, pro-
cumbentes, articulis 3-pollicaribus; folia H-pollicaria, petiolo +pol-
licari; corolla 8—9 lin. longa, viscid-pubescentis.—Var. y differt et

habitu paullo laxiore, pedunculis longioribus atque corolla nonnihil majore.

Adnot. 1. *Ruellia intrusa* Forsk. hujus loci eōse videtur.—*Asystasia intrusa* Blume Bydr. p. 796. "foliis ovato-oblongis acuminate" alia est specie; *A. nemorum* nobis, quam vide.

Adnot. 2. Nomen *Ruellia secunda*, cīm varietatem designet omnibusque communem Asystasiis sistat clāracterem, dclendū erat. Elegi idē antiquius Herbarii Madrasp., a cl. Wallichio in Catalogo suo receptum.

8. *Asystasia nemorum*: caule erecto dichotomo, foliis elliptico-oblongis acuminate obsolete crenatis supri pilosulis, racemis axillaribus terminaliue secundis subspicatis, calycibus hispidulis.—*Ruellia nemorum* Herb. Russell. Wall. Cat. n. 2399 c, *Ruellia umbrosa* Herb. Madr. Wall. Cat. n. 2399 b. *Ruellia secunda* var. Herb. Heyn. Wall. Cat. n. 2399 f, ex parte. *Ruellia coronandelliana* Wall. Cat. n. 2399 b. c, f. *Asystasia intrusa* Blume Bydr. p. 796.

Patria India orientalis. Vidi exempla Herbariorum Russelliani, Madrasp., et Heyn.—In Javae umbroris humidis, circa Buitenzorg; floret omni ferē tempore. (Blume.)

Simillima *Asystasia cheplnoidi*, sed differt caule laxiore, plerumque ex toto glabro, pédicellis spires brevioribus, bracteas aequantibus, nee iā duplo vel ultra longioribus, floribus capsulisque duplē minoribus, cet. An varietas?

9. *Asystasia pauciflora*: radice cauleque infern& repentebus, ramis diffusis, foliis oblongis utrinque acutis subrepandis glabriusculis, carpodeca, calycibus glanduloso-ecarinatis. — *Ruellia pauciflora* carpodeca, calycibus glanduloso-ecarinatis, floribus distantibus secundis Wall. Cat. n. 2369.

In provincia Siliet vicinisque montibus legit P. D.

Inter reliquas generis teneritate et parvitate florū insignis, heracea, pedalis et paullo longior. Folia opposita, patentia, 3—3¹/2 poll., longa, 1 poll, fei² lata. Racemus in apice ramorum solitarius, gracilimus, laxus, 3—4 poll, longus turn pedunculo, aphyllus. Corollae 4 lin. longs, violaceae.

10. *Asystasia Panichanga*: caule trichotomo foliisque ovalibus acuminatis serratis subtus ferrugineo-subtomentosis, paniculis axillaribus trichotomis, floribus sessilibus secundis, corollae laciniis luctuatis.—*Ruellia Panichanga* Herb. Hamilt. Wall. Catal. n. 2387 a, b.

In Siliet legerum Hamiltoni et F. D.

Caulis fruticosus? Folia 5—7 poll longa, 2J poll. lata. Paniculae axillares, opposite, folia subaequantes, floribus distantibus. Corollae poll. 1) longae, densc pubescentes, coeruleae(r).

11. *Asystasia calycina*: glabra, foliis oblongis serratis, spicis axillaribus terminalibusque flexosis, calycibus magnis subulato-cuspidatis bibracteatis, bracteolis nullis.—*Ruellia calycina* Wall. Cat. n. 2417.

In montibus provinciae Siliet legit F. D.

Planta *Asystasia* generali habitu, sed tamen peculiari modo deformato, ut fei² proprii generis judicares. Caulis herbaceus. Folia opposita, cum petiolo pollici 3¹/2—4 poll, longa, 1 poll. lata. Spicæ altemae simplices vel bifidæ, terminales geminae ternæ, folio paullo brevioris, glabrae, flexuosa. Rhachis ad genicula compressa bibracteisque binis oppositis linearibus sursum recurvis in singulo geniculo praedita, ex altera parte in glnuflexa continuatur, ex altera autem florem profert aessilem, bractea opposita suffultum, in quern bractea alterius oppositique lateris descendendo recumbit, ut itaque singulus flos bracteis binis fulciri simulque ad latus a rhachi prolifica tegi videatur. Bracteolea omnino desunt propriae quae dicuntur. Calyx 8 lin. longus. (Corolla non nisi clausa adhuc adest, calyce duplē brevior.)

XXIII. ECHINACANTHUS*

Calyx profund¹ quinquefidus² subaequalis. Corolla infundibuliformis, limbo aequali. Stamina quatuor didyma, inclusa, per paria basi connata. Antheræ sagittatae, oblonge, hirtæ, locellis parallelis basi calcaratis. Stigma simplex. Capsula teretiuscula, bilocularis, a basi polysperma. Dissepimentum completum, adnatum. Semina

cordato-subtunda, compressa, retinaculis sustensa.—Inflorescentia: cymæ bifidae cum intermedio flore, ramis sursum secundifloris, in paniculam terminalem dispositæ. Bracteæ angustæ. Bracteola^{*} nulla.

Differt a *RUELLIA* antheris "basi aristatis et inflorescentia; ab ASYSTASIA et reliquis capsula pleiosperma, inflorescentia, antheris calcaratis.

Echinacanthus attenuatus.—Wall Cat. n. 2345 bis, sub *Ruellia attenuata*.

Lectus in Napalia a Wallichio.

Planta herbacea, |-1-pedalis, erecta, simplex, pyramidalis; foliis basi cuneifonnibus subdentatis; infimis, maximis, pro mole plantæ 3—8 poll, longis, If—2 poll, lati; superioribus, floralibus denique decrescendo brevioribus; paniculâ plurimam plantæ partem occupante, glandulos-pubescente. Calyx 7—8 lin. longus; corolla police nonnihil brevior. Capsula 6—7 lfoes longa, e tereti subtetra-queta, cum dissepimento duriuscula. Retinacula subulata.

XXIV. LEPTACANTHUS*

Calyx profund¹ quinquepartitus, laciniis angustis, superā longiore, mediis brevioribus. Bracteolæ et bracte^{*} diversæ formæ nullæ. Corolla infundibuliformis, limbo quinquelobo inaequali, kwiniis duabus superioribus majoribus adscendentibus. Stamina quatuor didyma, non exserta. Antheræ primi cordatae, deminū semiovales, locellis antrorum parallel contiguis. Stigma subulatum, basi superē retrorsum hamata. Capsula . . . Ovarium a basi ad medium quadriovulatum; ovula orbiculata, retinaculis crassis subtensa.—Inflorescentia: flores in paniculam terminalem, foliis parvis interstictam, trichotomam dispositi, secundi, opposito ramulo paniculae. Pedicelli graciles ex axillis foliolorum floralium. Bracteote null^{*} Corolla speciosa, coerulea. Planta herbacea.

Genus ASYSTASIE propinquum.

Leptacanthus rubicundus.—*Ruellia rubicunda* Herb. Wight. Wall. Cat. n. 2337.

Locus natalis non indicatus.

Planta elegimissimā specie. Cauus erectus, herbaceus, subteres, simplex ut entia tiolata, 7—* poU longa, 2 - ^ poU. lata, canina oblonga; floX ovato-acuminata. mm.ma. Panicula i-1-pedalis, pilosa et glutinosa, " ^ p ^ trichotomo-decomposita. Cord alpollicar C purp

Subtribus III. BAKERIAE.

XXV. ASTERACANTHAE.

Calyx ad basin quadripartitus, laciniæ superā paullo majore iridens bidentati. Corolla profunde bilabiata, labio *mpaiOKH..J* riore trifido, ad originem laciniarum bicallosa. Stamina didyma, per paria basi connata. Antheræ bilocellatae æq[ue] 77 cellis valleis glabri nudis. Stigma simplex acuminatum. Capsula bilocularis, compressa, a basi octosperma; dissepimentum ad natum. parvus austulta, ovata, compressa, basi truncata, levia.—Inflorescentia, paniculæ floribus axillaribus secundis bracteis bracteolatisque, spinis rigidis in ambitu cincti.—Herba annua, angustifolia, magis minime hirsuta.

Asteracantha longistylis — R. —

p. 320. Willd. Sp. Rm., I. p. 375. Snr. v m W n > A c d V Lam Enc. Meth. i. p. 379. nfl Wall Tl I P > 827< * * lieriaton¹tosa Wight Herb, pp, J i f J " " ^ ^ * > verticilis longis acakis armatiss. Pluk. Aim. 30. t. 123. f. 4.

Crescit in India or. (Linn.) Ad Prome a. 1826. Vidi exempla ex H. b. Calc, ex Herb. Madr.—e collibus ad Bindygn, e Madure, CourtaUum etc. (Wight); e Napalia a. 1821 allata; ex Oude .. 1825 (Wallich). l.c.g,h; e M o n g h i; (Hanilton).

Herbacea, radice annua, spinis verticilloru m scnis, foliis lanceolatis serrato-ciliatis, 4—6 poll, longia, 4 lin. lati. Spinae terne

* Ab exs. echin. usi et exs. ab antheris hispidas.

1 Ab exs. stellis, et exs. spina, ob spinae subverticillatae.

simplificcs subulatae inter par foliorum utrinque prominentes. Corollae pollicares. Capsula semipollicaris, brunnea, duriuscula.

De spinarutn lateralium natura mecum dubito. An folia verticillata moliuntur, neque ad perfectionem pervenient?

XXVI. BARLERIA, Linn.

Calyx quadripartitus, laciniis cruciatim oppositis, superâ et inferâ multd latioribus, plerumque ctiam longioribus inaglsque exterioribus, integris vel inferiore emarginatâ; mediis sive lateralibus angustioribus. Corolla infundibuliformis, tubo ratione limbi vel brevi vel longissimo, limbo cum faucibus conico-dilatatis; laciniae limbi quinque, profund& divisae: superior brevior. Stamina quatuor didynamia, circa basin tubi inserta: par majus longum, corollam subaequans; minus brevissimum, in paucis speciebus anantherum. Antherae lineares, bilocellatae, locellis parallelis muticis, minorum staminum breviores vel imperfects. Stigma compresso-infundibuliforme, truncatum, limbo integro. Capsula conico-acuminata, rigida, circa basin fer6 bilocularis, ibidemque tetra- vel abortu di-sperma; disaepimentum integrum, adnatum. Semina pelliculS. demium floecosa induita. Retinacula crassa, concava.—Inflorescentia in aliis axillaris, in aliis spicata; bracteis in spicatis latioribus aut angustioribus. Bracteolae duæ angustae, quanddque, ut bracteae, ciliatae vel spinosae. Corolla speciosa, coerulea, magis inimiisque venosa, vel alba, lutescensve.—Plantae herbaceae vel fruticosae, habitu dissimili, sed typo omnin6 constante.

Sect. I. BARLEROE PROPRI^B. Tubus corollae sensu proprio, brevis. Corolla ampla, coerulea. Flores sessiles e spicatis axillares.—Plantæ elatiore, inermes,

a. Staminibus quatuor perfectis.

1.) Floribus spicatis, axillaribus et terminalibus subcapitatis; spicis secundis, bracteis floribusque spiratim distractis.

1. *Barleria nitida*: caule fruticoso strigoso, foliis ovatis ellipticis petiolatis, junioribus suprâ dissit& setulosis lineolatisque, floribus spicatis, bracteis ovato-ellipticis acutis denticulatis ciliatis nitentibus, calycis laciniis majoribus inaequalibus rhombeo-ovatis acutiusculis ciliatis strigosisque (corollæ laciniâ inferiore breviore).—*Barleria coBTulea* Wall. Cat. n. 2509 h, i. *Barleria wist at a?* Herb. Wight (Wall. 1. c. h.) *Barleria pungens* Herb, fleyn. (Wall. 1. c. i.)—Wight Herb, prpr. n. 14.

In collibus nemoris provinciarum Dindygul, Madura, etc. (Wight.)

Caulis obtus& tetragonous. Folia 3 poll. Tonga, lf p. lata. Spicae vix 2-pollicares. Corolla speciosa, 2—2½ poll, longa, pubescens, coerulea. (Fructus deest.)

2. *Barleria hirsuta*: fruticosa, hirsuta, foliis oblongo-cuneiformibus in petiolum attenuatis supr& asperis, bracteis denticulatis mucronulatis (calycis laciniâ inferiore integrâ).—Wall. Cat. Suppl. n. 130.

In montosis juxta Prome; etiam in montibus Taong Dong dictis, prope Avam, fine a. 1826.

Caulis subteres, foliis oppositis 6—7 poll, longis. Spicae axillares, solitariae, ovatae, folio suo tripld breviores. Corolla ferf' bipollicaris, coerulea, pubescens, venoso-reticulata.

Adnot. Laciniae sic diet* exteriore calycis bracteae esse videntur, volumine suo calycis veras lacinias, sibi proximas, vel bprimentes vel in unum corpus cum iisdem coalescentes, quo sequitur, calyces floris hoc in genere bi- vel tri-fidum aptiis quikfti quadrifidum, ap-pellari.

3. *Barleria polytricha* Wall.: fruticosa (?), hispida, foliis obovato-vel oblongo-cuneiformibus in petiolum attenuatis suprit lineolatis, bracteis obtusis (calycis laciniid inferiore bidenticulatS.).—Wall. Cat. n. 7143 (cum *Barleria glabriuscula*).

In ripa Irawaddi fluminis ad Meaong, a. 1826; in Tavoy (Gul. Gomez).

Accedit plurimis *Barleria hirsute*; differt caulehumiliore 1—1½-pedali, paucifolio, foliis saefc latioribus neque in pagina superiori tuberculatis, loco tuberculorum lineolatis, bracteis magis obtusis maxim^que, laciniâ calycis inferiore bidentata.

4. *Barleria ccerulea* Roxb.: fruticosa (?), caule appresso-strigoso, foliis elliptico-oblongis in petiolum decurrentibus suprik lineolatis glabris, bracteis ellipticis apice subattenuatis mucronulatis ciliatis (calycis laciniâ superiore emarginatâ).—*Barleria ccerulea* Wall. Cat. n. 2509 a, d, e, f, g, k. *Barleria fasciculata* Hb. Russell. Wall. Cat. n. 2509 b.

a. spontanea planta, calycis laciniis obtusis.—*Barleria unilateral*[^] Herb. Hamilt. Wall. Cat. n. 2509 f.

|3. culta, calycis laciniis acutis.—Wall. Cat. n. 2509 g.

y. spicis subcapitatis.—Wall.

In Swapur, d. 7 Febr. a. 1814, (Hamilton.) In ripa Irawaddi ad Meaong, a. 1826. E Napalia inferiore, (Wallich.)—\$ et y in H. b. Calcutt.

A *Barleria hirsuta* differt caule firmiore, strigis maxim& appressis quasi lineolato et iis detersis glabriuscule purpureo; foliis basi non adeo cuneatim attenuatis, calycibus minoribus, laciniis superâ et inferâ apicem versus magis attenuatis, nonnisi ad nervos et margines ciliatis etc.—Varr. |3 et y, in Horto Calc. ortae, differunt amplitudine foliorum, matim^que calycis laciniis amplioribus acutis, inferâ acut^ bidentata.

Adnot. 1. *Barleria strigosa* Willd. Sp. PL in. 1. p. 379. n. 11. an eadem planta?

Adnot. 2. Exemplum a Gomezio in Sillet lectum, foliis brevius petiolatis magis oblongis cauleque omni strigarum vestimento exuto, an propria species?

5. *Barleria dichotoma* Roxb.: herbacea, appresso-strigosa, caule brachiato, foliis ellipticis oblongis utrinque attenuatis petiolatis, spicis axillaribus terminalibusque subcapitatis, bracteis linear-lanceolatis pectinato-ciliatis calycis laciniis majoribus ovatis subulato-serratis brevioribus.—*Barleria dichotoma* Wall. Cat. n. 2508 a et b, ex parte, c, f, g, h. *Barleria cristata* var. Herb. Madr. (Wall. Cat.

L e g .) ; ; , |3. strigositate densiore, bracteis parc[^] ciliatis integrisque.—Wall. Cat. Suppl. n. 118.

In ripa Irawaddi; in Promae montibus, ad Pingee prope Mcloon et Segae, et in monte Taong Dong a. 1826; in Penang (G. Porter); c Natchpur, Gongachora et Patna, in Herb. Hamilt.—H. b. Calc. ex parte.—Vidi exempl. Herb. Roxburgh.—Var. |3 ad Pingee, d. 10 Jan.; Segae in ripa Irawaddi, d. 7 Nov. a. 1826.

Differt a *Barleria laciniata*, cui similis, caule herbaceo, foliis minoribus in petiolum graciliorem decurrentibus, calycis laciniis majoribus bracteas longitudine et latitudine mult6 superantibus, etc. Caulis valid& ramosus, ramis oppositis. Spicae, seu racemuli, pauci-flori, densi, folio breviores. Corolla pollicaris, coerulea venis obscurioribus. Capsula calyce brevior, brunnea, quod, ut reliqua in *Barleria laciniata*.—In |3 calycis laciniae maiores pallid[^] purpascentes.

Adnot. *Barleria strigosa* Willd. abund& differt bracteis obtusis.

6. *Barleria Napalensis*: fruticosa, strigoso-hirsuta, caule corymbo-ramoso, foliis elliptico-oblongis utrinque acutis petiolatis, ramlorum obovatis minoribus, spicis axillaribus terminalibusque capi-tatis, bracteis linearibus patentibus ciliatis calycis laciniis inajoribus oblongo-lanceolatis longissim[^] acuminatis serrato-ciliatis brevioribus.—*Barleria dichotoma* Wall. Cat. n. 2508 e et b, ex parte.

In Napalia a. 1821 legit Wallichius: in Horto botanico Calcuttensi sata (n. 2508 b.) perstitit.

Similis *Barleria dichotoma* et *B. laciniata*, sed differt caule gracioliore, fastigiati ranioso, inulfifloro; foliis minoribus, 3-pollicaribus, spicis apicalibus in capitula inajora denciora congestis saepque magis divisis, bracteis deorsum pectinatim divergentibus linearibus integerrimis simpliciter ciliatis, calycis laciniis majoribus, multd angustioribus, etc. Corollae minores, amoen& coeruleae.

7. *Barleria laciniata*: fruticulosa, hirsuto-flavescens, foliis ovato-oblongis in petiolum brevissimum desinentibus, floribus terminalibus subcapitatis, bracteis erectis linear-lanceolatis rigidis calycisque laciniis majoribus oblongo-lanceolatis pectinato-ciliatis.—*Lepidagathis laciniata* Wall. Cat. n. 7144,

a. foliis majoribus acuminatis, bracteis angustioribus remote pin-natifido-pectinatis laciniis setiformibus;

(3. foliis minoribus, oblongis obovatove-oblongis, obtusis vel acutis, aculeatis, bracteis latioribus lanceolatis, densitate pectinato-ciliatis.

In Taong Dong montibus d. 25 Nov. a. 1826, cum fructu flore-
que uno imperfecto, var. *a* et β , uti videtur, promised. Etiam
ad Segaein in ripa Irawaddi die 7 Novembris a. 1826.

Caulis erectus; in a simplex. Folia 3£—4 poll, longa, 1£ lata. Corolla violacea, reticulata. Capsula depresso-tetragona. In 8 caulis ramosus, foliis pollice paullò longioribus.

2.) Floribus axillaribus et terminalibus subsessilibus fasciculate m
gloineratis vel solitariis.

8. Barleria nuda: herbacea, sparsè strigosa, ramis elongatis, foliis oblongo-ellipticis in petiolum decurrentibus acutis supra & sparse stri-gosis, pedunculis axillaribus trifloris brevissimis terminalibusque cupitatis, bracteis linearibus ciliatis patentibus calycis lacinii majori-bus vakte inaequalibus rhomboeoblongis subintegerriis brevioribus.

—Barleria dichotoma Wall. Cat. n. 2508 d. **Barleria cristata** Herb. Roxb. Wall. Cat. n. 2508 a.

In Sillet legit Fr. de Silva.—Vidi etiam exemplum Herb. Roxburghianæ.

Diffrat a Barleria dichotoma, B. Napalensi et confinibus, maxim&que a Barleria cristata, calycis lacinias margine fer6 nudis nee ciliatis, multdque magis inaequalibus. Corolla lf-pollicaris, coerulea. Capsula oblonga, compressa, ^-pollicaris.—Caulis trichotomus, ramis crectis. Folia 6—8 pollices longa, ||—2 lata. Inflorescentia Barleria B cristate.

9. Barleria ciliata: hrbacea, appresso-strigosa, foliis lanceolatis acutis brvcpetiolatis, floribus axillaribus solitariis geminisve rariis ternis subsessilibus, bracteis linearibus strictis dentato-ciliatis, calyx laciniis majoribus aequalibus ovato-oblongis conferthm ciliato-dentatis.—*Barleria ciliata* Wall. Cat. n. 2507 a et c. *Ruellia ciliata* Wall. ***Barleria cristata* var. *ft. foliis linearibus*** Roth Nov. PI. Sp. p. 315. *Barleria cristata*? Herb. Wight. Wall. Cat. n. 2506 g.

[3. foliis brevioribus oblongis.—*Barleria cristata* Herb. Hamilt. Wall. Cat. n. 2508 b., ibid. n. 2506 h (*Barleria cristata* Hb. Heyn.). *Barleria cristata* Herb. Madr. Wall. Cat. n. 2506 e. *Barleria venulosa*, "anpilosa" Wall." Wight Herb. propr. n. 19.

y. foliis linearisubfalcatis, bracteis lanceolatis calycem aequantiibus.—*Barleria strigosa* Hérb. Madr. Wall. Cat. n. 2506 f. (sub *Barleria cristata*.)

Habitat in India or. (Heyne apud Roth).—Ex H. b. Calc.—Patria incerta, "proto Travancore" (Wight).

Diffrerentissimum& a *Barleria cristata* caule graciliore humiliore ramuloso fruticuloso, foliis minoribus angustioribus, 3f—4 poll, longis, 4—5 lin. latis, inflorescentia e floribus axillaribus sessilibus vel subsessilibus solitariis rariis geminis ternisve, calycis laciniis majoribus aequalibus ex ovato-oblongis attenuato-acutis mucronatis dentibus setaceis patulis conferunt ciliatis strigosis hirtis nee glandulosis nee coloratis etc., corollas longioris tubo graciliore. Tota undique confertim lineolata et strigosa. Corolla pulchre cerasulco-venosa.—In var. y, habitus singularis, folia falcato-linearia, bractae lanceolatae calycis longitudine, validiis dentatociliatae etc. An species distincta? Adest verd specimen, foliis bracteisque ad 3 accedens, quo intrante varietates haec cibniungi videntur.

10. *Barleria cristata* Linn.: herbacea, appresso-strigosa, foliis ellipticis utrinque attenuatis petiolatis, pedunculis axillaribus brevissimis paucifloris, bracteis lincari-subulatis ciliatis, calycis lacinii majoribus inaequalibus elliptico-oblongis parc[^] ciliato-serratis.—*Barleria cristata* Linn. Sp. PI. p. 887. Willd. Sp. PI. HI. 1. p. 378. Spr. S. V. ii. p. 827 n. 10. Osb. It. p. 225. t. 8. Roth Nov. PL Sp. p. 315. Don Fl. Nep. p. 119. Wall. Cat. n. 2506 b, c. Wight Herb, propr. n. 18. *Barleria dichotoma* Herb. Hamilt, Wall. Cat. n. 2508 c. *Melampyro cognata Maderaspatensis*, quam ipse habuit, Moris. Hist. m. p. 429. sect. 11.1. 23. f. 7.

Habitat in India or. Vidi exempl. H. b. Calc. In sepibus et nemorosis frequens, Negapatam etc. (Wight). Natchpur, d. 14 Octobris 1821. (Hamilt.)—Marlea in Turraya Napalensi a. 1820. (Wailich.).

Habitus *Barleri*** *dichotoma!* Roxb.

Caulis quadrangularis*. Folia supra et subtus ad costas subhirsuta. Corolla pollicem longa, cerulea, a Linneo optima descripta.

b. *Staminibus per/ectis duobus. Mores awillares vel spicati.*

U. Barleria conspicua: diandra, staminibus brevioribus antheris uncinatis, caule foliisque oblongo-cuneiformibus cuspidatis lineolato-stagosis, spica terminali elongata, bracteis bracteolis calycisque laciniosis. — *Justicia conspicua* Wall.

In Penang 1822 lecta est.

Shis herboceus, aliquot pedum distantia, simplex (?).
F. Opponens cum petiolo ferè 2-pollicari 10—12 poll.
 longa, 2—2½ p. lata, superiora non multò breviora, sed angustiora.
 Spica terminalis semipedalia et longior. Corolla $\frac{1}{4}$ poll. longa,
 corulea (?). (Fructus deest.)

Barleria montana Herb. Madr.; diandra, staminibus brevioribus anantheris squamiformibus, tota glaberrima, folii, oblongo-ellipticis in petiolum attenuatis margine ciliolato-scab axillaribus oppositis sessilibus, bracteolis linearibus, calycin laciniis majoribus & equalibus ellipticis herbaceis, superiore obtuso.—*Barleria montana* (et *montana* Wall. C Herbar. Madraspat. * *)

E montibn, TV.TMncom. (Herb. Madr.)

Soli *luteocervata* affinis, sed differt ab hac omnibusque reliquis brevioribus penitus evanidis, quorum loco aquamula parva triang. Elio. poens.

roll, fert. 2-poffiajs ^, ^ P-¹¹"^'. gl»Wr. Co-

calycis. lacinia. neocotylis integerrimis,
sericeis, inferiore subbifida.—*Barleria involucrata* R. & W. Wight
Herb. propr. n. 17. *Barleria caerulea* Wall. Cat. n. 2509 c. (Herb.
Heyn.): *Barleria diandra* Herb. Heyn. Wall. l. c.
E Nilgherry (Wight).

Est e speciosissimus generis. Canis erectus obtusè tetragonum. Folia 7—8 poll. longa, 2½—3 p. lata; petiolo 1—1½ pollicari. Calyx laciniae majores pollicares, nervoso-venosæ, violaceæ. Corolla cœrulea, 2—2½ poll. longa, pubescens. Capula pollicaris, oblonga,

Sect. II. LONGIFLORE. Tubus corollæ ratione limbi magis unius protensus, in nonnullis longissimus. Flores in pedunculis brevibus angustè bracteatis axillares, solitarii vel terni, circa apices ramorum quandoque subspicati, coerulei vel albi.
—Fruticuli valde ramosi, villosi vel tomentosi, inermes.

14. *Barleria paniculata* Hb. Madr.: *fruticosa*, *HWUla* glandulo-
saque, foliis elliptic-^{oblongis} longissime ac- pedunculata.

Madrasp. Wall. Cat. n. 2407. ^ 7 " * . * * * * Herb.
E. Travancore (Hb. Madrasp.) ^ ^ ^ w <<-1 f.

culatus hirsuto, glandulus quidem, ^ n ^ ~~stria~~, non fasci-
majonbus, magh oblongis in acum^ I Ulmi Xti 8 viscidio foliis
tenuat,s,4-5 poU. longis, l_ip. lati c¹I<sup>6188 fm Unin "g^ mnquc at-
etc Reliquaplura, ^ J l C ^ ^ ^ lin. longo</sup>

ex parte. *Barleria hirsuta* Hb. Madr. Wall. Cat. n. 2503 b ex parte. *Barleria noctiflora* Wight Herb, propr. n. 11.

Frequens in aridis apricis versus maris litora provinciae Tanjore apud Negapatam. Wight.—Herb. Madr.

Similis *Barleria longiflora*, qua admixta in Herb. Madr. occurrerat; differt foliis; tomento haud molli; pedunculis longitudine petioli vel longioribus tri-rarius bifloris etc.; calyce; corolla minore (ceruleo-reticulata). Capsula fusca, qualis in ilia.

Adnot. Descriptio Rothiana, 1. c, ad exemplum non benfc conservatum facta esse videtur, caule vetustiore integumento jam exuto*.

16. *Barleria acuminata* Wight: fruticosa, tomentosa, foliis ovatis cordatis acutis basi obtusis subtus incanis, pedunculis axillaris cymoso-bi-trifidis subtrifloris, bracteolis lanceolato-linearibus reflexis, calycis laciniis majoribus oblongis interioribusque brevioribus lanceolatis acutis reticulatis:

a. foliis ovatis.—*Barleria acuminata* Wight Herb. Wall. Cat. n. 2503 c. *Barleria tomentosa* Herb. Madr. Wall. Cat. n. 2503 a ex parte. *Barleria buxifolia* H. b. Calc. Wall. Cat. n. 2504 d ex parte (cum *Barleria bispinosa*).

j3. foliis cordatis vel subcordatis.—*Barleria racemosa* Herb. Madr. Wall. Cat. sub n. 2503 b.

Crescit a in collibus ad Maduram (Wight). Var. j3 in Travancore (Hb. Madr.); et in H. b. Calc. (nomine *B. buxifolia*).

Species ben& distincta, ab altera parte *Barleria longiflora*, ab altera *B. tomentosa* conjunction—Caulis brachiatim ramosus, incanus. Folia majora (cum petiolo) 3 poll, longa, 1\$ p. lata. Calycis laciniæ reticulatae, majores 4£ et 5 lin. longs. Corolla poll. !—If longa, pubescens, coerulea, venosa.—Occurrunt calyces laciniis majoribus oblongo-linearibus, apice retusis.

17- *Barleriapilosa* Hb. Madr.: fruticosa; ramis junioribus foliis que ovatis ba& obtusis patenti-pilosis, pedunculis axillaribus brevibus unifloris, bracteolis linearibus reflexis, calycis laciniis majoribus subaequalibus ovato-orbiculatis obtusis dentatis ciliatis, interioribus linear-lanceolatis acutis dupl6 brevioribus.—*Barleria pilosa* Herb. Madrasp. et Herb. Heyn. Wall. Cat. n. 2502 a, b.

Crescit in Courtallum. (Herb. Madr. et Hb. Heyn.)

Fruticulus parvus, ramosus, foliis cum petiolo 3-lineari 1^ poll, longis, 1 poll, latis. Calyx semipollucaris, pilosus, ciliatus. Corolla vix pollucaris, coerulea.

Habitu *Barleria acuminata* confinis, nee vero charactere.

18. *Barleria longiflora* Linn.: fruticosa, mollissim& tomentosa, incana, foliis ovatis basi obtusis, pedunculis axillaribus brevissimis unifloris, bracteolis linearibus reflexis, calycis laciniis majoribus aequalibus ovatis obtusis reticulatis, interioribus minimis ovatis setaceo-mucronatis.—*Barleria longiflora* Linn. Suppl. p. 290. Vahl Symb. 1. p. 46. t. 16. Willd. Sp. PL 111. 1. p. 379. Spr. S. V. 11. p. 828. n. 13. Lam. Enc. M&h. 1. p. 380. n. 7. Wall. Cat. n. 2501 a, b, c. Wight Herb, propr. n. 15.

Habitat ad montem St. Thomae Malabariae (Linn.). Frequens in collibus apud Vellore, Chingliput, TW Circars, etc. (Wight)—In Promæ montibus, a. 1826.—In Travancore. (Hb. Madr.)

Folia mollissim& tomentosa, (nee quidem sericea, ut Vahlii planta) cum petiolo semipollucarf 1*—If poll. longa, | p. kta; flores axillares (non termmiales). Corolla (*mirabUis*), bipollucaris, tubo pubescens-tomentoso. Capsula semipollucaris, dissepiment? completo.

Sect. III. PRIONITES. Bracteae vario modo spinescentes, in multis abortivæ meras spinas exhibentes; calyces etiam apice spinosi, laciniis amplitudine minus ac in reliquis diversis. Flores mintia conspicui, axillares, subsessiles, subverticillati vel solitarii. Pleraque species fruticosæ. Capsulae in multis dispermae.

19. *Barleria Prionitis* Linn.: fruticosa, bracteis bracteolisque sterilibus spinosis extrarameis in fasciculo quadrifido, bracteolis fertilibus subulato-spinescentibus, foliis elliptico-oblongis utrinque attenuatis glabris subtus lineolatis margineque substrigilosus, floribus axillaribus verticillatis sessilibus, tenninalibus spicatis, calycis laciniis

majoribus ovatis spinoso-cuspidatis integerrimis glabris.—*Barleria Prionitis* Linn. Spi PL p. 887. ed. Willd. 111. 1. p. 376. Spr. S. V. n. p. 827. n. 5. Mill. Diet. n. 2. Lam. Enc. Méth. 1. p. 379. n. 4. Vahl Symb. 1. p. 46. Burn. Fl. Ind. p. 135. Blume Bydr. p. 805. Wall-Cat. n. 2510 a, c, d, e, f, g, h, i, k, 1. Wight Herb, propr. n. 13. *Justicia appressa* Forsk. Descr. p. 6. *Barleria, foliis integerrimis, spinis lateralibus* Linn. Fl. Zeyl. p. 231. Roy. Lugdb. p. 291. n. 1. *Prionitis* Linn. H. Cliff, n. 486. *Adhatoda ad alas spinosa et florifera* Burn. Thes. Zeyl. p. 8. *Adhatoda malabarica tetracantha* Petiv. in Act. Soc. Reg. Lond. xx. 11. 244. *Eryngium Zeylanicum luteum febrifugum* Mus. Zeyl. p. 43. *Planta indica spinosa amara antifebrilis* Mus. Zeyl. p. 62. *Lycium indicum, spinis quaternis ad foliorum singulorum exortum* Seba Thes. 1. p. 21..t. 13. f. 1. Par. Bat. Prodr. p. 349.—*Coletta Veedla* Rheed. H. Mai. ix. p. 77- t. 41. —*Kathukarahiti* Zeylonensisbus, *Tsje-Afulli*, et *Semul* Malabaricus (Burm. Zeyl.).

Crescit frequens in nemorosis provinciarum Madras, Negapatam, Circars etc. (Wight 1. c.)—Ad ripam Irawaddi ad Henczada, a. 1826. In Tavoy, d. 26 Sept. a. 1827. (Guil. Gomez.) In Courtallum (Hb. Madr. Wall. Cat. n. 2510 a.); ad Dindygul (Hb. Wight, Wall. c. d.); e Gongachara (Hb. Harailt. Wall. 1. c. t.) & Hurdwar a. 1825 (Wall. 1. c. g.); Sillet (F. D., Wall. 1. c. h.); H. b. Calc. (Wall. 1. c. i.)—, Vidi et in Herb. Heyn. et Wight. In paludibus Bataviae, præcipu& in hortis frequentissima (Blume).

Caulis teres, ramis oppositis. Folia 4—5£ poll, longa, 1^—% p. lata, longe petiolata. Calyx 6—7 lin. longus. Corolla pubescens, lutea, || poll, longa, resupinata, bilabiata. Nectarium cupuliforme, patulum, 5-lobum. Capsula ad basin di-(tetra-)sperma.

20. *Barleria Hystrix* Linn.: fruticosa, bracteolis sterilibus extra-rameis geminis rariu& quaternis spinosis divaricatis, foliis ellipticis elliptico-oblongis spinuloso-mucronatis ad costas strigosis hirsutis, floribus axillaribus sessilibus ternis superioribus spicatis, bracteolis propriis subulato-spinescentibus calycisque laciniis majoribus oblongo-lanceolatis acuminato-spinescentibus strigoso-hirtis. —*Barleria Hystrix* Linn. Mant. p. 89. Willd. Sp. PL HI. 1. p. 376. Spr. S. V. 11. p. 827. Lam. Enc. Méth. 1. p. 379. n. 3. *Hystrix frutex* Rumph. Amb. vn. p. 22. t. 13. *Meldmpyro cognata maderaspatana spinis horrida* Pluk. Aim. p. 243. t. 119. f. 5.

a. rotundifolia, foliis magis glabris elliptico-subrotundis, floribus 1 plerisque-axillaribus.

j3. oblongifolia, foliis angustioribus magis hirsutis, floribus summis in spicam tenninalem dispositis.—*Barleria Prionitis* Herb. Russell. Wall. Cat. n. 2510 b.—*Barleria*. Wall. Cat.: var. a et j3.

In collibus Segaeisibus alibique secus flumen Irawaddi in Promu* montibus, a. 1826.—Var. j3 vidi in Herb. Roxburgh.

Frutex incomitus, ramis flexuosis rigidis tetragonis. Folia 2.poll, longa, in cc 1 poll lata; in j3 | poll, longa. Axillaris inflorescentia spinosa, terminalis spica (var. (3) inermis. Calyx rigidus. Corolla f poll, longa, purpurascens (?). Capsula basi ventricosa, disperma. Retinacula uncinata, gracilia.

21. *Barleria cuspidata* Hb. Madr.: fruticosa, bracteis bracteolisque spinosis fasciculatis, foliis lanceolatis oblongo-lanceolatis spinoso-mucronatis substrigilosis, floribus axillaribus subsolitariis, calycis laciniis integerrimis spinoso-acuminatis.—*Barleria cuspidata* Herb. Madr., Herb. Heyn. et Herb. Wight. Wall. Cat. n. 2499 a, b, c. *Barleria mucronata* Wight. Herb, propr. n. 16. *Barleria noctiflora* Hb. Heyn. ex parte. Wall. Cat. n. 2496 c.

Crescit in aridis Indiae or., prope Tanschaur (Tanjore). (Linn.)—In collibus provinciae Madura?, Dindygul etc.. (Wight.)

Fruticulus spinis scep& quam maxim& horrens, incomitus, ramis tetragonis. Folia poll. 15—H longa, 3£—4£ lin. lata. Calyx coriaceo-chartaceus, 5 lin. longus, albidus. Corolla sesquipollucaris, pallid^ coerulea. Capsula disperma.

Adnot. A *Barleria Hystrice* haud facilis distinctu; sed constat bracteolarum spinescentium conformitate et foliorum formâ.

22. *Barleria noctiflora* Linn.: fruticosa, bracteolis spinosis rainosis axillaribus geminis, foliis obovato-oblongis spinoso-mucronatis strigoso-hirtis, floribus axillaribus sessilibus solitariis, calycis laciniis

majoribus ovatis reticulatis amplis inaequalibus, superiore maxima spino-ciliata amplectente inferiore integrant denticulatam ciliatum!—*Barleria noctiflora* Linn. Suppl. p. 290. Vahl. Symb. i. p. 46. Willd. Sp. PI. in. 1. p. 377. Wall. Cat. n. 2496 b, (Hb. Madr.) c, (Hb. Heyn. ex parte) d, (ex Hb. Wight.). *Barleria myurensh* Roth Nov. PI. Sp. p. 313. *Justicia lanceata* Forsk. Descr. p. 6? *Barleria bispinosa* Vahl? Wight Herb. ppr. n. 10. *Barleria cristata* Lam. Enc. Méth. i. p. 380. n. 6, excl. synon.

Habitatio ignota (Wight). E Véndavor, (Wight in Wall. Cat. 1.c); e Courtallum et Zeylona (Hb. Madr.)

Frutex, a Rothio 1. c, pro more, benè descriptus. Spins in hac specie bracteolae sunt floris singuli axillaris, cui folium subiectum bracteae loco inservit.—Quas bracteas Rothius appellat, calycis lacinias majores esse persuasum est illis *Barlerice cristatae* affiniumque oinii numero similes.—Folia in nostro exemplo 9 lin., cum petiolo, longa et proximè ab apice 3 lin. lata.

Adnot. Vahlius, ut a *Barleria buxifolia* distingueret *B. noctiflora*, bracteas "glabras" dixit, "nee hirsutas," neque in hoc a vero aberravit, cum strigositatem calycis valde scariosi pubescentiae evidenteri calycis *Barleria buxifolia* B opponeret. Rothius autem, hac in re justo scrupulosior, novo jam nomine eandem reddidit specie m.

23. *Barleria buxifolia* Linn.: fmitcosa, patenti-hirsuta, bracteolis axillaribus geminis spinosis oppositis divaricatis alternis unifloris; alternis sterilibus, foliis ellipticis basi acutis, spinoso-mucronatis, calycis spinis, breviroris laciiniis subconformibus strigosis, inferiore obtusif emarginatve.—*Barleria buxifolia* Linn. Sp. PI. p. 887. Willd. Sp. PL HI. 1. p. 377. Spr. S. V. II. p. 537. n. 1. Burm. PI. Ind. p. 136? Roth Nov. PL Sp. p. 313. n. 1! Wall. Cat. n. 2504 a ex parte, b, c, d ex parte. Wight Herb, prop. n. 9 ex parte.

Crescit in India orientali. (Linn., Roth.)—In montibus Courtallum. (Wight 1. c.)—Vidi exempl. Herb. Heyn. (Wall. Cat. n. 2504 b.) Herb. Madr., H. b. Calc.

Fruticulus ramosus, teres. Folia caulina majora pollicaria, 5 lin. lata, ramea 4—5 lin. longa. Bracteolae inferiores omnes steriles, spinosae, 1 poll. longae. Calyx 3 lin. longus. Corolla pollicaris, pubescens, coerulea.

Adnot. 1. Synonyma Linneana et discipulorum Linnei omnium dubia sunt ob spinas oppositas "solitarias" dictas, quae in nostra axillares geminse. Subesse autem errorum in his adnotationibus eo magis probable, cum non softi spinas axillares "solitarias" quas tū bractearum vices gerere supponendum esset, generis typo contrarias forent, sed etiam facilè fieri potuerit, ut spinae ex ejusdem folii angulo horizontaliter divergentes, opposite dicerentur, praesertim ubi fors alterum par oppositarum deficeret.

Adnot. 2. Quod ad calycis structuram species base cum *Barleris Prionite*, *Hystrice*, maximè cum *noctiflora* convenit, longiusque hac ex parte distat a *B. bispinosa*, cui habitu universo non absimilis videtur.

24. *Barleria bispinosa* Vahl: fruticosa, bracteolis spinosis axillaribus geminis divaricatis simplicibus unifloris, foliis obovatis spinoso-mucronatis strigoso-hirtis, floribus axillaribus sessilibus solitariis, calycis spinas aequantis laciiniis majoribus aequalibus ellipticis rau-cronulatis ciliatis strigoso-hirtissimis.—*Barleria bispinosa* Vahl. Symb. i. p. 46. Poir. Enc. Méth. Supp. i. p. 588. n. 11. Willd. Sp. PI. in. 1. p. 377. Spr. S. V. II. p. 827. n. 6. *Barleria buxifolia* Lam. Enc. Reth. i. p. 380. p. 5, (excl. syn. Linn.) Wight Hrb. prop. n. 9 ex parte; Wall. Cat. n. 2504 a (Herb. Madr.) ex parte, et 2504 d (H. b. Calc.) ex parte. *Justicia bispinosa* Forsk. Descr. p. 6. Lam. Enc. Méth. i. p. 633. *Cara Schulli* Rheed. Hort. Mai. II. p. 01. t. 47.—"Lingui Bramana *Rana Gondii*" Rheed. I. c.

In montibus Courtallum. (Wight 1. c.) Vidi in Herb. Madr. et ex N. b. Calc, nomine *B. buxifolia* cum *Barleria acuminata* promiscua.

Calycis foliola interiora exigua, triangulari-acuminata. Corolla coBrulea. Capsula ovali-oblonga, compresso-tetragona, acutiuscula, a basi ad medium tetrasperma.

Additam. Inserimus hie, ob affinitatem, extraneum genus ex recentioribus :

LOPHOSTACHYS, Pohl

Calyx profundus quadripartitus, laciiniis superfl et inferet latioribus, hac sparsè bifida, lateralibus angustioribus (brevioribusque). Corolla tubulosa, bilabiata, labio superiore obtuso retusoque, inferiore trifido. Stamina quatuor didyma, exserta. Antherae oblongae, basi sagittate, bilocellatae, loculis parallelis @qualibus muticis. Stigma oblique, ovatum, transversim emarginatum (bifidum?). Capsula ad basin usque bilocularis, ad inferiora tetrasperma, semina retinaculis subtensa.—Inflorescentia: spicæ, circa apices caulinum aggregate secundae, compressæ; bracteis dorsalibus distiche incumbentibus sterilibus paullè latioribus; bracteis florigeris bracteolisque coloratis conformibus subaequalibus calyce colorato pallidiore brevioribus; corollis puberulus.

Adnot. Genus plantarum Brasilicarum, a cl. Pohlio (Plant. Brasil. II.) optime expositum, et tribus speciebus enumeratis illustratum, cujus quartam satisque distinctam speciem hie adjiciam.

Lophostachys laxifolia N. ab E.: foliis longis petiolatis oblongis utrinque attenuatis cauleque glabris, bracteis lanceolatis acuminatis pilosis ciliatisque, calycis laciiniis majoribus oblongis aequalibus.

In sylvis umbrosis Seme dos Orgaos, prope Semidorio legit Beyrich.

Lophostachyi fioribundce (Pohl 1. c. II. p. 95. 1.162) propinquus, differt: foliis confertis longioribus angustioribus in petiolum ferre pollicare cuneatim attenuatis pendulis acuminatis, bracteis calycis laciiniis majoribus plus duplo (nee tantum) brevioribus, extus hirtis (nee glabris) etc.; corolla violacei, nee coccinei—Ilia igitur definienda:

Lophostachys floribunda Pohl: foliis brevipetiolatis oblongis utrinque acutis subtus pilosulis, bracteis oblongis acutis glabris ciliatis, calycis laciiniis majoribus ovatis inaequalibus.

XVII. AETHEILEMA JR. Br.

Calyx quinquepartitus, laciiniæ superiore maxima, bracteiformi. Corolla bilabiata, labio superiore bifido, inferiore trifido;—vel subringens, labio superiore integro vel minute bidentato. Stamina quatuor didyma, inclusa, perparia consociata; antheras bilocellatae, loculis parallelis contiguis. Capsula bilocularis, bivalvis, ad basin tetrasperma; lateribus membranaceis; dissepiamento sponte in lamellas duas spermophoras secedente. Semina compressa. Inflorescentia: spicæ vel racemuli axillares, foliosi. Bracteæ (pedunculos rectius dices) in axillis foliorum alternas, ideoque secundae 2—5-florse, venosae. Bracteolæ propriæ nullæ.

1. *Aetheilema jeniforme*: caule herbaceo foliisque ovatis basi inaequalibus repandis pubescentibus, altero folio minore, bracteis reniformibus calycisque laciinia superfi ovata membranaceis ciliatis.—*Ruellia reniformis* et *R. justicoides* Wall. MSS. Burman. *Ruellia imbricaria* Vahl Symb. n. p. 73 (excl. syn. Porsk.) Willd. Sp. PL HI. 1. p. 366. Wall. Cat. n. 2353 a-h. *Ruellia dorsiflora* Retz: Obs. vi. p. 31. *Ruellia imbricata* et *glomerata* Herb. Madr

In montibus Proimea. 1826; in jugo Taong Dong, d. 25 Novbr a. 1826. (inflorescentia juvenil ante anthesin);—in Sillet Pr de Silva; in Phuranbari cl. Hamilton, d. 8 Pebr. a. 1809—Vidi ex empla Herbb. Madr., Hamilt., Heyn., Hort. b. Calc., Gomeziana e Sillet, etc.

^listenere, tetragonus' erectus, nodosus, foliis opposite altero 5-5J poll, (cum petiolo) longo, altero vix 2-pollicari Bractea floribus amplior, reniformi-orbiculata, 4 lineas longa Si lin lata Corolla vix calyce longior, pallida, glabra.~Memorabilis erthuius spedei inflorescentia. Scilicet flos unus cum binis bracteolis solitis ternos indicat flores; quorum duo laterales sunt abortivi. Bractea .gitur communis revera semper est triflora. In fa tres perficiuntur flores, bracteote autem desunt, quarum vices subeunt laciinit calycinum superiores ampliBcate. Horum autem florum duo illi, bracteoli, respondentes, (bracteolares quos dices,) etiam bracteas colarent communis; terminalis autem flag, per ,e quidem liber, , bractes biflorae iuxta axin <>>J<>> ex axilla florum numerus seps acredentibus aliis duobus floribus augetur.

Adnot. *Aetheilma imbricatum* (*Ruellia*—*Forsk.*) bracteis obliquis subrotundis, nee dilatatis, differt.

XXVIII. LEPIDAGATHIS, Willd.

Calyx quinquepartitus, laciniis superiori maximâ, inferioribus duabus altius conjunctis, in nonnullis fer& in unam coalescentibus, (hinc etiam quadripartitus dicendus, lacinis* inferiori vario gradu bifid*). Corolla bilabiata, labio superiore vel integro, vel bidentato, vel bifido, laciniis illis labii inferioris trifidi conformibus. Stamina quatuor didyma, inclusa, per paria consociata; anthera bilocellata loculis parallelis contiguis. Capsula bilocularis, bivalvis, juxta basin tetrasperma; parietibus membranaceis; dissepimento rigidulo, adnato. Semina compressa. Inflorescentia: spica in ramulo brevi lateralis, per se brevis, simplex, vql glomerato-composita, secunda. Bractae communes, singulari sâne exemplo, in spiram simplicem posita, e binis paribus ad solutis, alternis foliolis inaequalibus, spirâ autem inversâ. Flores sub singula bractea singuli, bibracteolati. Calycis lacinia superior maxima, turn duo inferiores minores, media* denique minima. Bracteae et calycis lacini® majores nervosae. Corollae parvse.

A. Bractea* magis mintisve scariosae, coloratae, aristulatae, nee verd nervoso-striata vel apice spinosae.

* Spicas terminales, vel axillares terminalesque.

1. *Lepidagathis fasciculata*: caule procumbente fflosoglandulosoque, foliis oblongo-ovalibus utrinque acuminatis medio dentatis hirsutulis, spicis capituliformibus racemosis axillaribus, bracteis dorsibus ellipticis acutis trinerviis glanduloso-pubescentibus.

a. foliis grossis dentatis.—*Ruellia fasciculata* Vahl Symb. in. p. 82. Willd. Sp. PL in. 1. p. 369. Pers. Synops. n. p. 177. n. 39. Retz. Obs. iv. p. 28. Lam. Enc. Méth. vi. p. 344. n. 25. Wall. Cat. n. 2394 a. et 2406.

fl. foliorum dentibus minoribus.—*Ruellia viscosa* Wall. MSS. Ejusd. Cat. 2394 c.

Habitat a in nemorosis prope Thermae Tranqumallenses Zeylonae. In Herb. Madras.—13 ad ripas Attran et Saluen fluviorum a. 1827. Vidi etiam exemplum Herb. Roxburgh.

Caulis herbaceus, tetragonus, diffusus, ramis oppositis. Folia tenera, 3 poll, longa, f poll. lata. Corolla 2f lineas longa, purpureo-reticulata, pubescens. Capsula calycis longitudine, pyramidalis, dissepimento crasso.

2. *Lepidagathis mucronata*: caule herbaceo repente, foliis triangulari-ovatis acutiusculis basi subcuneatis repando-crenulatis glabriusculis, spicis ovatis axillaribus terminalibusque aggregatis, bracteis fertilibus bracteolisque subaequalibus calycibusque villosi-ciliatis, calycis lacinia inferiore profundis bifida.—*Ruellia mucronata* Herb. Heyn. Wall. Cat. n. 2366 a.

Crescit in India or. (Heyne).—Inter *Rungim* (*Justicie* L.) *repentis* exempla dedit cl. Wight.

Simillima *Lepidagathis parviflora* Blum. By dr., a qua imprimis differt pubescens glandulosâ bracteas calycesque vestiente aut deficiente omnino aut rarissima, et formâ foliorum.—Caulis pubescens et subtomentosus. Folia parva, cum petiolo 1 J-pollicaria. Spicse dense imbricatae, 3—4 lin. longe, ovatae, circa caulis apicem capitulo-conferatae. Corollas bilineares, pallide purpuree.

Hic loci inserenda:

Lepidagathis parviflora Blum.: caule herbaceo basi repente foliis triangulari-ovatis productis, subterminaliatis, glabris, spicis axillaribus (?) terminalibusque geminis oblongis, bracteis sterilibus bracteolisque subaequalibus calycibusque villosi-ciliatis glandulosisque, calycis lacinia inferiore profundis bifida.—*Lepidagathis parviflora* Blume Bydr. p. 801.

Crescit in calcareis Kuripan, et circa Bataviam et Tjikao (Blume); in Sarzagona (Haenke). Vidi exempl. Herb. Haenkeana.

Est tenera, gracilis, similis quidem *Lepidagathis mucronata*, sed ex alienohabitu, nitore, foliis figura propria, bractearum ad bracteolas inversâ proportione, glandulis spicæ facile dignoscenda. Caulis semipedalis, pedalis. Folia inferiora et superiora angustiora, 1f

poll, longa, 5—7 & lin. ad bapin lata; media 10—11 lin. lata, neque longiora. Spicae terminales in nostris duae, 3 et 4—5 poll, longae. Corolla calyce paulo longior, pallida, venulosa, glabra. Capsula 2-linearis, pyramidata.

3. *Lepidagathis scariosa*: caule fruticoso foliisque ovatis repandis subtus pulvlerento-tomentosis, spicis terminalibus capitatis involucratis, bracteis omnibus membranaceis calycisque quadripartiti laciniis brevirastatis, harum inferiore profundis bifida acuminate. *Lepidagathis lanata* Wall. Wight Herb, propr. n. 41. *Ruellia scariosa* Wall. Cat. n. 2354 a, b. *RueUim* sp. Herb. Madr. Wall. 1. c. sub n. 2354 a.

In Travancore. Hb. Madr.—Vidi exempla Hb. Wight, et Hb. Madr.—In conyallibus nemorosis provinciarum Madurae et Dindygul. (Wight.)

Tomentum setularum fasciculatarum detersibilium primum albicans, in exemplis diutids asservatis ferrugineum.—Rami trichotomi, erecti. Folia opposita, cum petiolo f-pollicari 1—If poll, longa, 1—f p. lata. Spicae 4—5, terminales, capitulum hemisphaericum magnitudine nucis juglandis construunt, involucratum. Corollæ semipollicares, pallidae, villosae.

Adnot. Inter reliquias plurimum accedit *Lepidagathidi dulci*, sed differt haec integumento, spicis axillaribus etc.—Habitus nostræ Clinopodii vel Origani.

4. *Lepidagathis hyalina*: caule suffruticoso, foliis ovato-ellipticis oblongis utrinque attenuatis repandis ad costas subtilis scabris, spicis ovatis axillaribus terminalibusque aggregatis, bracteis ovato-oblongis bracteolisque lanceolatis calyceque aristatis villoso-ciliatis basi hyalinis, calyce quadripartito, lacinia inferiore profundis bifida:

a. caule recto glabriusculo.—*Ruellia? disticha* a et j3. Herb. Hamilt. Wall. Cat. n. 2365 c, h, i. (sub *Ruellia dependente*).

(3. *dependens*: caule prostrate, ad genicula seriatim radiculoso, pubescente, foliis supra magis minusv^ hirsutis.—*Ruellia dependens* Wall. Cat. n. 2365 b, d, e, f.

In Promæ montibus a. 1826. Inter Chappedong et Amherst a. 1827. In Goalpara d. 31 Octobris a. 1800. et Dimiae d. 16 Mart. 1809. cl. Hamilton.

Amcena, *Lepidagathidis mncronatte* similitudine, sed major. Caulis (in a) erectus, quadrangulus (in 3, casu forte, ad terrain dejectus maximis geniculatus). Folia caulina 6—7 poll, longa, 3 poll. lata. Spicae fer& ut in *L. mucronata*, sed majores. Calyx basi hyalinus, 3 lin. longus. Corolla vix 3 lin. longa, glabra, pallida.

5. *Lepidagathis ustulata*: caule suffruticoso (humili) basi repente, foliis ovalibus oblongis scabris, infimis minoribus spathulatis, spicis ovatis terminalibus subagglomeratis, bracteis bracteolis calycisque subquinquepartiti laciniis majoribus lanceolatis acuminato-aristatis subaequalibus, alternis hyalinis coloratisque.—*Ruellia? ustulata* Herb. Hamilt. Wall. Cat. n. 2366 b. (sub *Ruellia mucronata*). *Ruellia mucronata* Wall. Cat. n. 2366 b, e.

In Gurrupur, die 13 Apr. 1814, et in Sukanaghur legit cl. Hamilton. In Hindustania (Wall.).

Forma minor *Lepidagathidis hyalina* videri posset, sed differt constanter: caule humili digitali vel spithameo, foliis parvis, infimis minimis 2—3 lin. longis spathulatis, spicis terminalibus, calycis laciniis latioribus, longius (quemadmodum et bracteis) acuminatis infimisque profunditis discretis etc.—Variat ramis humilioribus confertis magisque elongatis.

6. *Lepidagathis aristata*: caule suffruticoso (?) erecto, foliis ovato-oblongis utrinque attenuatis repandis subtilis pubescenti-sc&bris, spicis conicis, axillaribus oppositis, terminalibus capitatis, bracteis dorsibus ciliatis lanceolatis bracteolisque ellipticis hyalinis longi aristatis, calycis ciliati laciniâ infimâ profundis bipartitâ.—Wall. Cat. 7163.

In ripa Attran fluminis, a. 1826.

Quoad caulem et folia accedit *L. hyalina*, diversa verd foliis subtili totâ paginâ pubescenti-scabris et inflorescenti. Terminalis spicae 8—10 in capitulum grande congesti, majores 1—lj-pollicares, conicæ, secundse, alio dimidid minores, purpureæ. Bracteae dorsales sterilesque 5 lin. longi, acuminæ aristiformi, inferior fertilis brevius acuminata, membranacea. Bracteole 4—5 lin. longae. Calyx 4

lin. longus. Corolla 2 linearum, ut et calyx, qui compresso-tetragonus.

7. *Lepidagathis semiherbacea*; caule suffruticoso foliisque lanceolatis repandis basi longe attenuatis glabris, spicis axillaribus oppositis terminalibus ternis ovatis, bracteis bracteolisque subaequalibus oblongo-lanceolatis ciliatis membranaceis, bracteolarum exteriore herbacea, calycis ciliati lacinia inferiore lato-lineari bifida:

a. caule erecto, calycis lacinia inferiore apice bifida. Wall. Cat. n. 7164.

b. caule jfrostrato radicante, foliis longioribus (5—7 pollicum) lanceolato-linearibus, calycis lacinia inferiore bipartite—*Ruellia dependens var. angustifolia, an distincta species P Wall. Cat. n. 2365*

In Chappedong et in ripa Attran fluvii, a. 1827.—3 in Napalia inferiore, ad Hetaundam lecta d. 13 Decembr. a. 1820.

Caulis gracilis, ramosus, glaber nee lineolatus, a projecturis subquadrangulus. Folia 5—6 poll, longa, |—1 poll. lata. Spicae variae longitudinis, 2 lin.—1¹ pollicum. Bracteae et calyx 4 linearum; corolla 3£ lin., pallida. Capsula calyce brevior.

Adnot. Var. @ calye, foliis, caule, accedit ad *Lepidagathidem Hamiltonianam*; at specimen est incompletum, floribus nondum evolutis.

8. *Lepidagathis trinervis*: caule suffruticoso diffuso foliisque lanceolato-linearibus trinervibus glabris, spicis capitato-congestis axillaribus ciliatis, bracteis conformibus ovatis bracteolisque interioribus lanceolato-cuneiformibus membranaceis calycisque quinquepartiti lacinias aristatis.—*Barleria ? trinervis* Wall. Cat. n. 2500 a, b. *Ruellia ? trinervis* Herb. Hamilt. (Wall. 1. c. a.)

In Saseram, d. 6 Jan. 1813, legit cl. Hamilton; in Lohargong (J. F. Royle.)

Parva, diffusa, ramis gracilibus ramosis, foliis 1—1¹-pollicibus sessilibus. Spicae sessiles, rard simplices, J—| poll. longae, ovato-conicae. Corolla 3 lin. longa, alba, pubescens. Capsula 2-linearis, ovato-pyramidalis, compressa.

* * Spicse axillares et subradicale.

9. *Lepidagathis Hamiltoniana*; caule suffruticoso diffuso, foliis linearibus elongatis glabris margine scabris, spicis circa radicem conglomeratis, bracteis ex ovato-oblongis bracteolisque lanceolatis subulato-acuminatis longe ciliatis, calycis quadripartiti lacinias acuminatis, inferiore latiore bifida.—*Lepidagathis Hamiltoniana* Wall. Cat. n. 2422. *Ruellia ? radicals* Herb. Hamilt.

In Nuni, die 27 Novembr. a. 1810, cl. Hamiltonius legit.

Proximo affinis *Lepidagathidi cristate*, sed sānd distincta species, differt: caule elongate flagellari, infemfe aphylo, superne folios, foliis 5—6 poll, longis, 2 lineas latis, subfalcatis; spicis juxta basin pluribus in spicam ovatam ovi magnitudine compactis, caulinis nullis; maxim&que bractearum florumque magnitudine ferh dupla diversaque structura. Bracteae 5—6 lin. longae. Corolla 3-linearis, pallida intus fulvo-maculata. (Fructus deest.)

B. Bracteae magis minūsve herbaceae, nervoso-striatae, in multis apice spinescentes.

* Spicæ axillares et radicale.

10. *Lepidagathis nipestris* Wight: caule suffruticoso diffuso foliisque oblongis pubescenti-scabris, spicis capitato-congestis circa radicem conglomeratis lanatis, bracteis bracteolisque subconfonnibus ovato-orbiculatis ellipticisque submucronatis, calycis quadripartiti lacinias submucronatis, inferiore ad medium bifida.—*Lepidagathis rupestris* Wight Herb. prop. n. 40 b.

Inter rupes in collibus apud Ongole rariūs. (Wight 1. c.)

Species pulchra, *L. cristata* similitudine. Folia | poll, longa, ³ Un. lata. Corolla omnino ut in *Lepidagathide cristata*, albida, extus densissimis pubescens.

11. *Lepidagathis cristata* Willd.: caule suffruticoso diffuso foliisque hneari-lanceolatis glabris, spicis capitato-congestis circa radicem conglomeratis, in ramis axillaribus lanuginosis, bracteis bracteolisque conformibus oblongis mucroliatis, calycis quadripartiti lacinias mucronato-aristulatis inferiore bifida.—*Lepidagathis cristata* Willd. Sp.

PL in. 1. p. 400. Poir. Enc. M&H. Siippl HI. p. 333. Spr. S. V. ii. p. 827. Wall. Cat. n. 2421 a ex parte.

0. spicis omnibus circa radices congestis.—Wight Herb, prop. n. 40 a. Wall. Cat. n. 2421 b. *Selago acaulis* Hb. Russell. Wall. Cat. n. 2421 c.

In apricis glareosis provinciae Madras etc. frequens (Wight). Vidi exempla Hb. Madr., cuin *Dicliptera bupleuroide* mixta.

Helianthi vulgaris facie. Rami projecturis angulati. Folia f.¹—1 poll, longa, 2 lin. lata. Spicae 2—3 in capitulum magnitudine nucis avellanæ subglobosum compactæ, sed pleneque circa basin ramorum radicalium in globum ovi gallinacei, immo pugni, magnitudinis coacervatae. Calyx 3£ lin. longus. Corolla 4 lin. longa, pubescens, alba.

* Spicæ axillares.

12. *Lepidagathis striata*: caule herbaceo foliisque oblongis utrinque acuminatis subrepandis glabris, spicis in ramulo axillari brevi aggregatis capituliformibus, bracteis dorsalibus ellipticis quinque-septemneribus bracteolisque cum calycibus quinquepartiti nervosis glanduloso-hirtis.—Wall. Cat. n. 7165.

In montibus Promæ a. 1826.

Caulis procumbens, adscendens, projecturis acutis quadrangulus, flexuosus. Folia 5—6 poll, longa, | poll. 1£ lata, in pare aequalia. Spicae in ramulis 2—3 lin. longis duæ vel tres, J-pollicares, aggregatae. Calyx inaequalis. Corolla 4 lin. longa, pubescentiis, pallida, immaculata.

Adnot. *Lepidagathis Javanica* Bluuze Bydr. p. 801. similis esse videtur, nisi Qadem; sed 1. c. neque nervorapa bractealium neque proportionis partium mentio facta.

13. *Lepidagathis purpuricaulis*: caule herbaceo foliisque lanceolatis longissime acuminatis remote crenatis, glabris, spicis conicis simpli-cibus subcompositis axillaribus, bracteis nervosis calycibusque hirsutissimis, calycis quinquepartiti lacinias inferis trinervibus.—*Ruellia purpuricaulis* Wall. MSS. Burm. Ej. Cat. n. 2366 g. *Ruellia ? Nilbutia* Herb. Hamilt. Wall. Cat. n. 2366 d. (sub *Ruellia mucronata*). *Ruellia tenuis* Herb. Hamilt. Wall. Cat. n. 2366 c. (sub *Ruellia mucronata*). *Ruellia mucronata* Wall. Cat. n. 2366 c, d, f.

In montium jugo Taong Dong dicto d. 26 Nov. a. 1826;—in Burlī Simar d. 8 Mart. 1811, et in Sivapure d. 7 Feb. 1814, legit cl. Hamilton; in Hurdwāra. 1825 (Wallachius).

Ramus virgatus flexuosus, projecturis subquadrangulus, purpureus. Folia 4 poll, longa, 8—10 lin. lata. Spicae |—| poll. long|. Rhachis saturate purpurea. Bracteae circiter 3 lin. longe. Corolla 5 Un. longa, glabra.

14. *Lepidagathis fakata*: caule fruticoso foliisque ovatis obtusis glabris, spicis axillaribus falcato-recurvatis; bracteis sterilibus fertili-busque secundis scariosis nervosis oblongo-acuminatis subaequalibus, calycis quadrifido, lacinia super* infer&que oblongis sequaUbus, infera apice bifid—Ette/Zia scariosa Wall. MSS. Ejudd. Cat. a. 7166.

In Taong Dong a. 1826.

Memorabilis propter calycem BABLBRiiE, inflorescenti® LEPIDA-GATHIDisconjunction. Corolla deest. Ad habitum ide6 huic keneri adscripti.—Lignum album. Folia 2¹ poll, longa, 1 i - U poⁿ k₁ a petiolo alato. Spica solitari_w circiter 2-pollicares, sessiles. Bracte¹ i-pollicares, spiratim posite. Bracteote linearUailceolate 4 lin longE. Calyx semipollicaris. Capsula 3 li_n. i_{long} a, lanceolata; compressa, acuminata, straminea, basi brevissimo spatio claus* hinc bilocularis, dissepmamento adnatō persistente in laminas non secedente. Retinacula compresso-carinata, subulata.

Adnot. Evidētissimus est transitus h_{ujus} specie! ad *Lepidagathidi dulcem* calycis structura.

15. *Lepidagathis dulcis*: caule herbaceo udescendente, foliis ovato-ellipticis in petiolum cuneiforme attenuatis supr¹ hirtulis subtiliis ad costas scabris, spicis axillaribus oppositis sessibus, bracteis dorsalibus herbaceis falcatis, fertilibus propriisque membranaceis, quinquepartiti lacinias duabus inferis d_i k U₁ l i_i . calycis dulcis WaU. MSS. Ejusd. Cat. n. 7IG7.

In montibus Promæ a. 1826.

Caulis pedalis, teres. Folia cum petiolo pollicari 5—6 poll, ionga, 1—2 poll. lata. Spicse oppositae inaequales, altera 1£, altera vix 1—£ poll, longa, superiores subglobosse, crassae, speciosae, conicae, a dorso visae pectinatae. Bracteae inferse fertiles 4 lin. longae; bracteolae ferfc collaterales, SJinéares. Calyx £-pollicaris. Corolla $\frac{1}{2}$ -pollicaris.

16. *Lepidagathis cuspidata*: caule fruticoso-foliisque ovato-ellipticis utrinque attenuatis pubescens, spicis terminalibus basi compositis densis glanduloso-pubescentibus, bracteis trinervibus bracteolis calycibusque spinoso-mucronatis, bracteis sterilibus angustioribus, calycis quinquepartiti laciniâ dorsali ovata inferioribus que ovalibus trinervibus.—*Ruellia cuspidata* Herb. Heyn. Wall. Cat. n. 2405 a, b.

In Hurdwar legit a. 1825 Wallich.

Ramus, epidermide Candidâ, mollissimfe pubescens, dichotomy ramosus. Folia ramulorum %—£ poll, longa, in spinam acuminata; sursu sensim conferta latioraque in spicam terminalem 2—3-pollarem oblongo-lanceolatam confluunt. Bracteae herbaceae, imbricatæ, 4 lin. longae. Corollæ 4-lineares. Capsula compresso-pyramidalis.

17. *Lepidagathis spinosa* Wight: caule fruticoso ramosissimo, foliis (parvis) sessilibus obovato-cuneiformibus integerrimis spinoso-mucronatis glabris, spicis subsolitariis axillaribus, bracteis bracteolis calycisque quinquepartiti laciniis majoribus conformibus subaequalibus acuminato-spinosis rigidulis subciliatis.—*Lepidagathis spinosa* Wight Herb. *Barleria ? spinosa* Wall. Cat. n. 2497.

Habitatio incerta.

Fruticulus spithameus, densissimfe ramosus, rigidus, ligno duro albido, trunco teretiusculo cinereo. Folia approximata, 3—3£ lin. longa. Spicae circiter semipollicares; bracteis etc. 5J—6 lin. longis. (Corolla deest.) Capsula 2J lin. longa, pyramidalis, compressa.

18. *Lepidagathis pungens*: caule fruticoso ramosissimo, foliis (parvis) sessilibus spinoso-dentatis, spicis binis ternis capitato-congestis axillaribus villosis, bracteis dorsalibus ovatis, fertilibusque bracteolique oblongo-lanceolatis rigidis apice spinosis, calycis quadripartiti laciniis mucronato-spinulosis, inferiori apice bifida. *Barleria ? pungens* Wall. Cat. n. 2498 a, b. *Acanthus pungens* Herb. Madr. Wall. Cat. 1. c. b.

j8. foliis tomentosis aristisque spicarum brevioribus.—*Lepidagathis axillaris*. Wight Herb, prop. n. 42.

In apricis campestribus provinciae Tenevilly versus promontorium Comorin dictum. (Wight.)—Exempli Hb. Madr. locus natalis non indicatus.

Frutex spithameus—pedalis, a basi fer& dichotomQ-ramosissimus, rigidus, tomento canescens. Folia 4—9 lin. longa. Bracteae arcte imbricatae, chartaceae, griseae apiceve purpurascentes, lanatae; omnes ut calyces 4—5 lin. longae. Corolla 4 lin. longa, limbo albo, fuscopunctato. Ovarium ovatum.

XXIX. NEURACANTHUS *.

Calyx bipartitus, labio superiore trifido, inferiore bifido. Corolla bilabiata, subringens, labio superiore bidentato, inferiore profnute trifido. Stamina perfecta quatuor didynamia, in tubo recondita, filamentabrevissima; antherae parvae, bilocellate, locellis obliquis ab apice filamenti penduli deorsum divergentibus, superiore cristato-piloso. Antherarum breviorum staminum locellus inferior minor, incompletus. Stigma laterale, oblongum. Capsula compresso-tetragona, a basi tetrasperma. Dissepimentum completum, adnatum. Semina ovato-subrotunda, compressa, laevia, retinaculis subtensa.—Inflorescentia: spicae axillares, bracteis nervosis quadrifariis. Flores solitarii, parvi. Calyces ciliato-plumulosi.

Neuracanthus tetragonostachys.—*Ruellia tetragonostachya* > Wall. MSS. Ejusd. Cat. n. 7168.

In Promse montibus et in jito Taong Dong a. 1826.

Caulis fruticosus, teres, bifari&m scaber, ramosus, foliis oppositis uequalibus, 5—5 $\frac{1}{2}$ poll. longis, If poll, latis, elliptico-oblongis cuspi-

dato-acuminatis in ptilolum attenuatis venoso-reticulatis. Spicw axillares, sessiles, opposite, inaequales, altera 1—1 $\frac{1}{2}$ -pollicaris, altera dimid, saepè dupl brevior, tetragonae. Bracteæ 3—3£ lin. longe, latè ovatae, crassd quinquenerves. Bracteoleæ calyce (3-linearis) dupl breviores, ciliatae. Corolla circiter 3 lin. longa, pallida, pubescens. Capsula calycis persistentjs longitudine, acuta. Retinacula uncinata.

Subtribus IV. ACANTHEJE.

XXX. BLEPHARIS JUSS.

Calyx quadripartitus, inaequalis, laciniâ inferâ et superâ latioribus, inferâ bidentatâ, basi bracteatus. Corolla unilabiata, labio trifido, fauce cartilagineâ; margine supero tridenticulato. Stamina quatuor subdidyma. Antherae superae unilocellatae, locello margine ciliato barbato; inferse oblique bilocellatae, septo communi inter labia, dum clausa, latente; superiorum staminum anthera filamento adnata, inferiorum in filamento obtuso lateralis, substipitata vel sessilis. Capsula bilocularis, ad basin di-(tetra-)sperma. Dissepimentum adnatum. Semina retinaculis subtensa.—Inflorescentia: spica bracteata, imbricata; bracteis inferioribus vacuis saepè aristato-ciliatis. Flos terminalis bibracteolatus, bracteolis bracteis conformibus vel difibribus.—Herbae repentes, hispidae, foliis verticillatis inaequalibus.

1. *Blepharis molluginifolia* Juss.: bracteolis cymbiformibus setaceo-acuminatis.—*Blepharis molluginifolia* Juss. Pers. Syn. u. p. 180. n. 8. Spr. S. V. n. p. 820. n. 8. Wall. Cat. n. 2514 a, b, c, d. Wight Herb. ppr. n. 2. et Wall. Cat. n. 2514 b. ex Herb. Hamilt.—*Acanthus molluginifolius* Juss. Poir. Enc. Méth. Suppl. i. p. 90. n. 18. *Blepharis repens* Roth Nov. Pl. Sp. p. 321. *Acanthus repens* Vahl Symb. n. p. 76. Willd. Sp. PL HI. 1. p. 399. Herb. Madr. (Wall. Cat. n. 2514 d.) Herb. Heyn. Wall. 1. c. n. 2514 c.

Habitat in India orientali. (Vahl.) Vidi exempla Heyneana. In aridis nemorosis, apud Madras, et in dreas. (Wight.) In Monghir (Herb. Hamilt.).

Descriptio Rothiana, paeclaræ. Setoso-hispida, repens. Folia majora semipollicaria omnia ex oblongo sublinearia in margine densissimâ serrulato-scabra, opposita dimidio minora. Spicae axillares, alternae, sessiles, grani triticei magnitudine, lanceolatae. Cylindrica ad labii apicem 4 $\frac{1}{2}$ lin. longa, alba, tubo brevi ovato-cylindrica 10-nervi.

2. *Blepharis boerhaaviafolia* Juss.: bracteolis cuneiformibns planis apice setaceo-ciliatis.

a. *ciliaris*.—*Acanthus cilidm* Garcin. Burm. Fl. Ind. p. 139. t. 42. f. 2. (excl¹Synon. Plukenet.) *Blepharis Boerhaaviafolia* Juss. Pers. Synops. PI. II. p. 180. (excl. synon. *Acanthij Maderaspatensis* Lint. et Pluck., ad 0. citando.) Wall. Cat. n. 2513 b. (Hb. Hamilt. et Heyn.) c. (Hb. Wight.) e regno Burmanno. Wight. Herb, prop. n. 3. *Blepharis maderaspatensis* var. p. Roth Nov. Pl. Sp. p. 320. *Blepharis procumbens* Heyne apud Roth.

3. *Maderaspatensis*: foliis oblongis, dentibus paull6 crebrioribus evidentiis mucronatis, in aliis integerrimis.—*Acanthus maderaspatensis* Linn. S. V. p. 485. Willd. Sp. PL in. 1. p. 400. Poir. Enc. Méth. Suppl. p. 89. n. 15. *Blepharis maderaspatensis* var. a. Roth Nov. Pl. Sp. p. 320. *Blepharis boerhaaviafolia* Hb. Hamilt. ex H. b. Calc. *Melampyro affinis tetraphylla gangetica*, floribus inter folia spar sis, Pluck. Aim. t. 99. f. 3. *Adhatoda maderaspatensis*, calyce barbato, foliis subt&s villoris; Pet. Mus. p. 48

Crescit in Zeylona insula (Burmann). In India or. (Juss. Pero.). In 6epibus et nemorosis provinciarum Tanjore, Madras et Chingliput frequens (Wight). In AvaetSegaen d. 13 Octobr. 1826; in Promje montibus, ad Irawaddi fluvji-ripas, d. 22 Sept. a. 1826.—Var. /3 ex H. b. Calc. vidi in Herbb. Hamilt. et Wallich.

Pubescens, vel pufcescenti-scabra. Caulis repens. Folio, quatema, ovato-rhombea oblongave, repando-subdentata dentibus muticis vel subtilissim¹ mucronulatis, folia 1 $\frac{1}{2}$ -pollicaria, brevipetiolata opposita minora. Spicaj uniflorae, 1 poll, longae, illis praecedentis plus dunl maiores, sessiles vei pedunculata. Corolla 1 poll, longa, purpurascens, macula labii inferioris oblonga sulphurea. Capsula 2 lin. longa, ovata, compfessa, dissepimentis ramentaceo-sponcijs.

* A bracteis nervosis nomen deduxi.

bricatae latiusculae, proprie angustae. Corollae speciosse (an lutescent es?).

1. *Endopogon Amomum*: bracteis oblongo-lanceolatis setaceo-cuspidatis imbricatis glandulos-pubescentibus, foliis lat& ovatis utrinque acutissimis glabris dentatis.—*Ruellia sesamoides* Wall. Cat. n. 2408 c, et b ad partem minimam. *Ruellia*, Wight Herb, prop. n. 28 bis. *Justida venosa* Hb. Wight, in Wall. Cat. 1. c.

Locus natalis non notatus est.

Caulis herbaceus, 2—3-pedalis, erectus, profundi quadrangulus, foliis speciosis, 5 poll, longis, 2—3 poll, latis. Spicæ 1—3 p. longae, axillares simplices, terminalis decomposita. Corolla speciosa, f poll, longa, fulva (an coerulea?), tubo subincurvo.

2. *Endopogon hypoleucus*: bracteis setaceo-cuspidatis pubescenti-glandulosis, foliis late ovatis crenatis subtis cano-tomentosis:

«, foliis supra glabris.—*Ruellia sesamoides* WM. Cat n. 2408 b (ex parte).

[3. foliis supra hirsutis, tomentulo subtis magis fugace, bracteis calycibusque glabriusculis.—*Justida sesamoides* Herb. Madr. Wall. Cat. n. 2408 a (ex parte). *Ruellia sesamoides*, Wall Cat. n. 2408 a ex parte.

Ex Herb. Wightiano.—Var. [3] vidi in Herb. Madr.

Ab *Endopogone Amomo*, cuius fortasse varietas, differt foliorum tomento, nunquam penitus evanescente, costis foliorum paucioribus, 5—6, que in illo 7—9. Var. (3) integumento quidem distincta, sed in uno eodemque ramulo utriusque modi integumenti (« et /3) vestigia inveni.

Adnot. Non nisi sub primo intuitu propinquia videtur *Stenosiphonio subsericeo*, cui folia quidem persimilia sunt, sed cito glabrescentia, sed floris structura alia omnino, corolla regularis fere, in alabastro obtusa, etc*

3. *Endopogon consanguineus*: bracteis ovato-ellipticis acutia hirsuto-glandulosi, foliis ovato-ellipticis utrinque attenuatis glabris.—*Ruellia secunda* Wight Herb, prop. n. 27.

in montibus Dindygul, Courtallum. (Wight 1. c.)

Differt a praecedente caule laxiore, foliis angustioribus acumine obtuso, spicarum hirsutie glandulosi, bracteis multo minus acuminatis, floribus minoribus. Spicæ inferiores solitaris, mediae bifidae, supræmæ geminæ; terminates nullæ in nostris. Capsula longitudine calycis, cuneiformis; dissepsimentum superne incompletum angustius.

XXXV. LOXANTHUS*.

Calyx quinquepartitus, squalis, brevis. Corolla tubulosa, incurva, coriacea, limbo obliquè quinquelobo, laciniæ inferiore paulo profundius divisa. Stamina fertilia duo; anthers bilocellatæ locellis parallelis; stamina sterilia parva ad basin fertilium, subulata. Capsula a basi polysperma. Semina retinaculis suffulta.—Inflorescentia: thyrsus terminalis, pedunculis bifidis minute bracteolatis ut in PHLOG&CANTHO.

Loxanthus Gomezii.—Wall. Cat. n. 7170.

In montibus provinciæ Sillet legit Guil. Gomez, a. 1829.

Frutex speciosus, ramis tetragonis, foliis oblongo-cuneiformibus integerrimis glabris, 10 poll, et ultra longis, 3 p. latis, petiolis pollicariibus, thyrsi terminali denso tomentoso 3—4-pollicari. Corolæ 1 poll, longis, densis tomentosis luteis (?). Ovarium oblongum & compressiusculum.

Adnot. ERANTHEMI esset generis, quod ad characters in universum alijmet, sed corolæ forma, et denitig omnino ^ ugna t m conjunctioni^ neque alia congruiunt. A PHLOGACANTHO differt corollas forro et filamentis accessoriis sterilibus.

XXXVI. PHLOGACANTHUS.

Justida spp., Roxb., Ham., Wall.

Calyx quinquepartitus, ajqualis. Corolla obliquè bilabiata, labio superiore latiore et longiore bifido, inferiore trifido; tubo trigono. Stamina duo. Antheræ bilocellatæ, locellis parallelis contiguis,

demù hastato-divergentibus muticis. Staminum duorum steriliū rudimenta exilia in quibusdam observantur. Stigma simplex, acutum. Capsula compressa, bilocularis, loculis superiis tetraspermis. Retinacula seminibus subjecta.—Inflorescentia: racemos terminalis vel lateralis simplex vel triplex, spiciformis, floribus verticillato-quaternis, bracteâ bracteolisque binis conformibus angustis elongatis. Corolla speciosa, lutea aut fulva.—Folia suprà minutè papulosa.

1. *Phlogacanthus curviflorus*: caule erecto quadrangulari striuloso-tomentoso, foliis amplis ellipticis utrinque acutis repando-dentatis glabris, corollæ elongatæ.—*Justida curviflora* Wall, PL As. Rar. ii. p. 9. t. 112. Cat. n. 2429 a, b.

Lectus in montibus Sillet a Wallichio,—et a G. Gomez, a. 1829, maximam partem defloratus. In Hortum botanicum Calcuttensem a Pr. DeSilva translatus est. Floret versus finem anni. Vidi exempla culta et spontanea.

Speciosi generis planta speciosissima. Caulis crassus. Folia ad 1^-pedalia, 6 poll. lata, petiolo longo. Thyrsi in caule et ramis terminates e dichotomia, 4—8 poll, longi, in vegetoribus pedales. Corolla 2-pollicaris, pubescenti-tomentosa, e luteo rubicunda, erasiuscula.

2. *Phlogacanthus tubiflorus*: caule erecto tetragono superne pubescenti-scabro, foliis amplis ellipticis utrinque acutis subrepandis subtus pubescentibus, racemo thyrsideo, corolla brevi.—*Justida tubiflora* Hamilt. Herb., Wall. Cat. n. 8428.

In montibus Camrupæ ad Goalparam (i. e. Goyalpara in Rungpur) d. 12 Novembris a. 1808 legit cl. Hamilton.

Partibus inferioribus similis praecedenti differt caule non strigiloso, sed inferne glabriuscule superiore versus bifariam pubescenti-hirtulo, foliis ratione longitudinis latioribus, (ubi pedalia cum petiolo, 4—5 poll, latis,) floribus parvis, 4—5 lin. longis, in thyrum terminali densum (4-pollicarem) confertis. Omnes inflorescentie partes pubescenti-tomentosæ, glandulosas.

3. *Phlogacanthus thrysiflorus*: caule erecto, novello quadriquetro, foliis oblongo-cuneiformibus integerrimis glabris, racemo elongate.—*Justida thrysiflora* Roxb. Fl. Ind. ed. Car. et Wall. i. p. 116. R. et Sch. Mant. i. p. 131. Willd. Sp. PL ed. 2. i. p. 370. Spr. S. V. i. p. 73. Wall. Cat. n. 2430 a—g.

Crescit in Bengalia interiore, unde a cl. Careyo in Hortum b. Calcuttensem illatus est; floret Januario et Februario mensibus, fructumque maturat Martio et Aprili. In sylvis Mithilæ et Magadhas (veterum regnum in Bengalia: Tirhut etc.),—Malung d. 18 Jan. a. 1809 legit Hamilton; in montibus provinciali Sillet F. D. In Sillet a. 1829 legit G. Gomez; in montibus Napalæ a. 1820 Wallichius; in Oude a. 1825 idem. Vidi exempla culta ex H. b. Calc. et spontanea e Sillet, e Malung, ex Oude allata.

4. *Phlogacanthus guttatus*: caule basi inclinato dein erecto quadrangulari, foliis oblongis repande-crenatis glabris, racemo abbreviato.—*Justicia guttata* Wall. PI. As. Rar. i. p. 24. t. 28. Cat. n. 2431. (2430 errore calamis).

Incolit montes Pundua, Bengals orientali confines, florens initio anni. In horto botanico Calcuttensi floret mensibus Decembri et Januario. (Wallich.) . In montibus provinciæ Sillet legit F. D.

Fruticulus humilis, pedalis et bipedalis, lignosus. Folia opposita, 5—6 poll, longa, || p. lata, subcoriacea. Racemulus terminalis, 1—3 poll, longus. Corolla 4—6 lin. longa, subcoriacea, dense glandulos-pubescentis, alba, purpureo-maculata. Stamina duo sterilia inter labia inserta.

5. *Phlogacanthus asperulus*: caule novello quadriquetro angulis denticulato-exasperatis, foliis elliptico-oblongis longe acuminatis gabri*.-^*Justicia asperula* Wall. MSS. Ejusd. Cat. n. 7171. *Justida hedyotidifolia* Wall., Herb. Heyn. Wall. Cat. n. 2450 ex parte*).

Ex Herbario Heyneano et ex H. b. Calc e Sillet.

A *Phi. thrysiflora* et *curviflora* differt: caule ad angulos asperimo, foliis minoribus, S), poll. longis, 1 p- latis, acuminatis, basi acutis sed ruminis cuneiformibus, spicæ terminali pollicari vel ses-

* *Aofij obliquis*, et »y^Jhs, ob corollæ lñbñm obliquum,

+ *A \$u\$flamma%* et *KVJ* proper florum luteorum spicam longam.

Altera hujus nominis et humeri planta est *Rostellaria hedyotidifolia*.

—*Justicia procumbens* Herb. Roxb. exempla *J. procumbens* et diffuse promiscua ostendit.

4. *Rostellaria procumbens*: caule procumbente adscendentevne folisque ex ovato-lanceolatis ciliatis hirtis, spicis subtetragonis, calycibus quadri-quinquepartitis bracteisque lanceolato-linearibus sequalibus hirsuto-ciliatis.

a. caule procumbente, sp saepe brevioribus, foliis oblongo-lanceolatis oblongis.—*Justicia procumbens* Limn. Fl. Zeyl. p. 19. Lam. Enc. Méth. i. p. 62' n. 21. Ill. Gen. n. 125. Poir. Enc. Meth. Suppl. ii. p. 100. n. 46. ViJld. Sp. PL ed. 2. i. p. 393. R. et Sch. S. V. i. p. 154. excl. var. S.; Mant. i. p. 136. Roxb. Fl. Ind. ed. Car. et Wall. i. p. 133. Roth. N. PI. Sp. p. 16. observ. 788. Wall. Cat. n. 2441 d, h. *Justicia hirtella* Wall. Cat. n. 2448. (ex Herb. Wight.) Suppl. n. 159. Wight. Herb, propr. n. 65 et 66;—n. 70. nomine *Justicia paniculate*.

a*, caule erecto; reliquis ut in a.—*Justicia quinquangularis* Wall. Cat. n. 2444 d. *Bungum mas* Rumph. Herb. Amb. vi. p. 52. t.22-f.2?

|3. caule ut in a; foliis ovatis vel subrotundis.—*Justicia procumbens* Wall. Gat. n. 2441 e ex parte. (J. procumbens Herb. Roxb.) Herb, propr. n. 61 a, |3, y; n. 62 (J. procumbens) et 64 (J. diffusa).

y: Variat etiam, cum forma foliorum ut in |3, spicis elongatis angustioribus bracteisque calyce dimidiis brevioribus; quse exempla fer& media sunt inter *Rostellaria procumbentem* et *diffusam*. Hujus loci exempla e Prome allata, n. 2444 e.

I angustifolia: foliis linear-lanceolatis ex parte.—*Justicia procumbens* Blume Bydr. p. 788.

\$. bracteis calycibusque parium ciliatis.—Wight. Herb, propr. ex parte.

e. caule simplici erecto.—*Justicia simplex* Don Fl. Nep. p. 118. Willd. Sp. PL ed. 2. i. p. 376.

Crescit var. a frequentissima in pascuis Costs Coromandeliana floreteque omni tempore, (Roxburgh, Wight). Tavoy, a. 1827, (Guil. Gomez). In Promae montibus, a. 1821. Var. j8 in oryzetis, (Roxburgh); in pascuis locisque humidis circa lacus et oryzeta, (Wight); Var. I. in Promae montibus, 0.

Differentia essentialis consistit* in omnium partium, maxim&que calycis et bractearum pube rigidula setiformi articulatae in caule sep& retrospectante; turn calycis lacinii linear-lanceolatis acuminatis rigidis, basi magis minusve membranaceis etc. Spica |—1 * poll, longa. Corolla rosea.—Varietates a et |3 vix limites ostendunt, tametsi fines extremi maximfe dissimiles videantur.

5. *Rostellaria crinita*: caule procumbente adscendentem trichotomo pubescenti-cano, foliis ellipticis obtusis brevipedatis.—*Justicia micrantha* Wall. Cat. n. 2449 ex parte. *Justicia micrantha* et *hispida* var. Herb. Heyn. Wall. Cat. 1. c. ex parte.

Vidi exemplum Herb. Heyn., inter alia complura *Rostellarias* mot-Ussinub.

A *Rostellaria procumbente*, cui setis bractearum et calycum accedit, differt foliis multo minus lineolatis, amplioribus; bracteis long& diversis, e basi parium dilatata setaceis longioribus setis articulatis patentissimis flexuosis hirsutissimis*. corolla |—1 poll, longiore apertoria, longo, inferiore compuncta, obtusa (raraea scil.). Spicae in a | poll, longae oblong®, in |3 breviores ovatae, denseae. Corolla 2—2½ lin. longa, pallide purpurea. Capsula ferè 2-linearis, ovalis.

Adnot. Nomen *micranthus* imrnaturae ausus sum: 1° quid flores hujus speciei hoc in genere non minores qu'm flares aliaruin; turn quia dubius eram, quamnam speciem *micrantham*, quam *hispida* varietatem b. Heynius appellaverit.

6. *Rostellaria mollissima*: caule procumbente repente foliisque ex ovato-lanceolatis hirsutis, spicis tetragonis, calycibus bracteolis lanceolatis, bracteisque rhomboeovatis acuminatis aequalibus mem-

branaceo-marginatis ciliatis flavicantibus. *Justicia mollissima* Wall. Cat. n. 2445 (ad majorem partem). *Justicia micrantha* et *hispida* var. Herb. Heyn. Wall. Cat. n. 2447 ex parte. *Justicia*. Wight. Herb, propr. n. 70.

|3. caule elongato flaccido subsimplice.

Crescunt varr. a et |3 promised in Napalia. (lyallich.)—Var. a ctiam vidi in Herb. Wightiano, absque nomine locive natalis indicio.

Foliis spicarumque figur'a *Rostellariaprommbenti* a similis; differt caule magis adhuc elongato, dens& flavicanti-hirsutulo, pube minùs rigidà; foliis l'reviis petiolatis vald& arcuatim lineolatis utrinque subappresso-hirsutis; spicis semper densis; bracteis; corollâ maijore ampliore, albâ (3 lin. longâ). Capsula ovalis compressa. Retinacula formâ auriscalpii.—(3 est macra, debilis, umbrâ solique sternilitate extenuata, foliis minoribus, spicâ brevi.

7. *Rostellaria adenostachya*: caule procumbente diffuso, foliis oblongo-lanceolatis lineolatis glabris, spicis pedunculo brevioribus, calycis lacinii bracteis bracteolisque linearibus obtusis glandulosopilosis margine angusto membranaceo.—*Justicia procumbens* Wall. Cat. n. 2441 a ex parte. *Justicia diffusa* Herb. Madr. (nescio an omnia exempla.) Wall. I. c.

In Travancore. Herb. Madr.

Adnot. Est species, in posterum denique solertiùs observanda.—Differt a *R. procumbente* foliis longius petiolatis glabris, nee nisi margine petiolisque scabris; spicis & pollicis longioribus pedunculo brevioribus, pilu capitatis glandulosis etc.—Corollas albae labium inferius purpureum.

8. *Rostellaria peploides*: caule erecto ramis divaricatis diffusis repentibus foliisque subovatis obtusis punctulatis glabris, spicis densis basi foliosis, calycis lacinii bracteis bracteolisque conformibus aequalibus ex oblongo linearibus obtusis membranaceo-marginatis apic exasperatis serrulato-ciliolatis:

a. foliis caulinis ovatis, summis rameisque ex oblongo-cuneiformibus.—*Justicia procumbens* Wall. Cat. n. 2441 b. et c y. *Justicia procumbens* var. y. Wall. I. c.

|3. foliis omnibus ex oblongo vel lanceolato cuneiformibus, caule humiliore infirmiore, ramis magis diffusis.—*Justicia procumbens* n. 2441 c|3. Wall. I.e. *Justicia procumbens* var. fi. Herb. Hamilt. Wall. I.e.

Locus natalis non notatus est.

Differt a reliquis glaucidine et glabritie, spicis basi foliosis, floris partibus obtusis patulis apice tuberculis setuligeris exasperatis marginque serrulato-ciliolatis. Herba annua, palmaris—pedalis, caule tetragono, ramis divaricatis elongatis. Folia 1£—1 poll, longa, brevipetiolata. Corolla 2-linearis, glabra, pallida, labii inferioris maculis purpureis.

9. *Rostellaria quinquangularis*: caule erecto procumbente fo liisque linear-lanceolatis acutis lanceolatisque elongatis ad tactum scabris, calyce, bracteolis bracteisque sub anthesi aequalibus lanceolatis obtusis margine &ngst& membranaceis laevibus marginave scabris; antheris glabris, labio subtus in medio scabro: . . .

a major, caule foliisque elongatis, his acutis, bracteis calycibusque patulis, sub anthesi margine scabris.—*Justicia quinqueangularis* Kōn. Roxb. Fl. Ind. ed. Car. et Wall. i. p. 134. R. et Sch. S. V. Mant. i. p. 136. Willd. Sp. PL ed. 2. i. p. 393. Spr. S. V. i. p. 81. n. 60. Wall. Cat. n. 2443 c, e, f.

|3 minor, foliis obtusis, bracteis calycibusque adpressis margine laevibus.—*Justicia diffusa* Herb. Hamilt. Wall. Cat. n. 2443 d. *Justicia Quinqueangularis* Wnll. Cat. 1. c.

Ad margine & ijz^ : <0^|uirobu,,isi!» (iWMtburgh).—Var. a in ripa Ganetis flumipis ad Rajmahal a. 1820 (Wallich); in rfpalâ inferiore, a. 1820 (idem); in Sillet (F.D.).—Var. /3 in Nimtabad legit cl. Hamilton.

Caules aliquot pedum; in 0 semipedales. Folia 2|—3 poll, longa, 2 p. Iata. Spies terminates plerumque terns, juniores |, deinde 6 (—8) poll, longs, ob bracteas calycesque patulos quasi squarroso. Corolla 2|—2½ lin. longa, alba, labio inferiore roseo. Capsula 2\$ lin. longa, oblonga, quadrangularis. Caulis supern& et rami hexagoni, lateribus 4 planis angulo obtuso cbnjunctis, duobus concavis, ideque, ubi duo planiorum confluent, ad speciem pentagoni.

ovato-ellipticis utrinque acuminatis supra pilis inspersis non lineo-latis.—*Justicia argystachya* Wall. MSS. Ej. Cat. n. 712.

In montibus Promae a. 1826.

Herba speciosa, erecta. Folia cum petiolis 7—8 poll, longa, 3—3¹/₂ p. lata. Spies solitariae, digitales et paullē longiores, opposite. Bractae quadrifariae, imbricate, villosae et ciliatae. Corolla vix 6 lin. longa, ochroleuca, labio inferiore purpura lineato. Capsula vix 4 lin. longa, superiis depresso-tetragona.

Adnot. *Justicia polystachya* Vahl, jam filamentis bifurcis ab hac ab ludens, etiam foliis discrepat brevipediolatis supri glabris, totoque habitu.

2. *Adhatoda Betonica*: spica terminali secunda, bracteis generalibus partialibusque ovato-ellipticis ciliatis venoso-reticulatis, antherarum locello infero calcarato, foliis ovatis utrinque acutis supra lineolatis subpubescens repandis dentatis.—*Justicia Betonica* Linn. Fl. Zeyl. p. 18. Sp. Pl. i. p. 24, Vahl En. i. p. 156. Willd. Sp. PL ed. 2. i. p. 367. R. et Schilt. S. V. I. p. 160. Mant. i. p. 142. Spr. S. V. i. p. 78—n. 5. Lam. Enc. Meth. I. p. 626. n. 4. (sub *Carmantine*) Ill. Gen. n. 104. Poir. Enc. M&H. Suppl. n. p. 109. n. 107. Roxb. Fl. Ind. ed. Car. et Wall. i. p. 129. Burm. Fl. Ind. p. 8. Wall. Cat. n. 243* a e* parte, b^—h. (Herb. Hamilt.) Wight Her]. prop. n. 79.—*Justicia Pseudo-Betonica* Roth Nov. PL Sp. p. 17. R. et Sch. S. V. i. p. 160. Mant. i. p. 142. Spr. S. V. i. p. 80. h. 51. Willd. Sp. PL ed. 2. i. p. 389. *Justicia ochroleuca* Blume Bydr. p. 786.—*Betonica Hormini* sativi coma, *Amaranthi* foliis, Burm. Thes. Zeyl. p. 47. *Betonica Jutescens* Bont. Jav. p. 146. (*Bem-curin*), Rheed. H. Mai. 11. p. 33. t. 21.

(3. foliis inaequaliter dentatis, bracteis candidis laxius reticulatis.—*Justicia Betonica* Wall. Cat. n. 2433 b et d.

Crescit in Coromandel; floret maximè tempore siccō; culta autem omni anni tempore (Roxburgh).—In Prome, a. 1826.—In sepibus et nemorosis frequens (Wight). In collibus Mōngir d. 30 Aprilis a. 1811 (Hamilton).—Vidi exempla Herb. Heyn. Mādrasp., Wight. —Var. j3 in Horto bot. Calcutten̄i colitur. Vidi etiam iii Herb. Roxburgh.

Justicia Pseud-Betonica Rothii est ipsissima *J. Betonica* Linn, et scriptorum Florae Indise Orientalis. *Igitur J. Betonica* Roth Nov. PL Sp. p. 17. P-S^uOn stflmif & ve^—i.e. locellis anthers parallelis instructa declaretur, alius etiam gene&L' timanda. Exempla eactertia Herb. Heyneani illius nomine; p* visa, nostre sunt specie, et cl. Rothius nulla nisi Heyneanair^ mina habuit, cīm *Justidam Pseudo-Betonicam* describeret.

Adnot. Sub n. 2433 a. Cat. Wall. Istecce ac sequens junct¹ II species, ab Hamiltonio in schedis jam distincte.

3. *Adhatoda ramosissima*: spicas axillaris terminalibus¹ cundis, bracteis bracteolisque ovato-lanceolatis acuminatis J. r. albis venoso-trinerviis, reticulatisque, locello infero calcarati, venu¹ fere bi-rtia¹ vatis acuminatis glabris supra obsoletae lineolatis¹ subtribus Sch. S. V. Mant. I. p. 142. Willd. Sp. Fl. ed. 2.1. p. 389. Hamilt. Wall. Cat. n. 2433 a. *Justida Betonica* n. 2433 a est glabris¹

E Coromandel. Floret in H̄b., Calcutt. tempore frigido. Vidi exempla ex H̄b. Ti. Calcutt. et ex Herb. Hamilt. (Johannam) exempla ex horto.

Descriptio Roxburghiana elegantissima.—Affinis species ¹i po y *Betonica*, sed diversa videtur. Caulis subnulius, rami diffisi¹ po — 3—4 poll, cum petiolo longa, J—2 p. lata. Spicae 2—1-p recurvae, pedunculo pollicari. Corolla 4 lin. longa, sort. ¹visimo Capsula §-pollicaris, pubescens, ovalis.—An *Adhatoda* ¹giant varietas, cultur orta?

J*¹ ts ovatis 4. *Adhatoda nilgherrensis*: spica terminali tetragon¹, brj antlerig neralibus terminalibusque ovato-acuminatis venoso-trinervi. ¹ROX. antherarum locello infero calcarato, foliis lanceolatis sessilis Heyn' bris laevibus.—*Justida nilgherrensis* Wall. Cat. n. 2435 a¹ 2496 c¹ tida pectinata Wight Herb. prop. n. 47.

In inundatis ad Trevacore provincial Tanjore, Wight, wight. J. pectinate). In montibus Nilgherry dictis¹ cl. Noton. Wa

Caulis ramosus fruticosus. Folia sefice sessilia. Spicae fodetur.—

todm *Bitomica*, 1—3 poll, longae, bracteis speciosis albidis. Corolla bracteas parum superans, intus et extus pubescens, plbida, purpureo-striata. Capsula fer¹ f. pollicis longa, fasca, tomentoso-sericea. Retinacula crassa, uncinata.

5. *Adhatoda trinervia*: snifruccosa, caule procumbente, spicis terminalibus secundis, bracteis bracteolisque aequalibus oblongo-lanceolatis acuminatis venoso-reticulatis, antherarum locello infero calcarato, foliis lanceolatis ovalibusve obtusis sessilibus glabris.

a. foliis lanceolatis plerumque integerrimis.—*Justicia trinervia* Vahl En. 1. p. 156. *Dicliptera trinervia* Juss. Ann. du Mus. ix. p. 169. R. et Sch. S. V. 1. p. 171. Willd. Sp. PL ed. 2.1. p. 428. Wall. Cat. n. 2446 a ex parte. *Carritante à trois nervure* Poir. Eac. M¹th. Suppl. 11. p. 109. n. 108.

/3. foliis ovalibus vel oblongis obtusis subcrenatis.—*Justida tri-nervia* Herb. Heyn. Wall. Cat. n. 2446 a (pars altera), ct ?b.

Crescit in India orientali (Vahl). Vidi exempla utriusque varietatis in Herb. Heyn. et Wight, loco speciatim non adnotato.

Intermedia quasi inter *Adhatodam nilgherrensem* et *Adh. arenarium*, differt ab illa statu minore, foliis, bracteis, quae angustiores neque tam evidenter venoso-pictae; ab hac differt foliis nunquam emarginatis, bracteis acuminatis bracteolisque in majoribus apicem versus obsolete venoso-trinervibus, nee totis herbaceis, turn corolla labio superiore immaculato.

6. *Adhatoda arenaria*: suffruticosa, caule procumbente diffuso, spicis terminalibus secundis, bracteis bracteolisque oblongis herbaceis, locello infero calcarato, foliis linearibus obtusis emarginatis glabris sessilibus.—*Justida* spec. Herb. Madr. Wall. Cat. n. 2446 c. *Justicia trinervia* Wall. Cát. 1. c. *Justicia*... n. 48. Herb. Wight.

Crescit in arenosis humidig. Vellingany, Negapatam, Jangore. (Wight.) " "

Inter congeneres ben& distincta, *Helianthemi similitudin*¹. Radix validissima, crassifibrosa. Cajilescirciter palmare. Foljaunguiculafia, 1¹lin. lata, linearis-cuneiformia, caraosula. Spica pollicaris. Corolla 4 lin. longa, c. § pubestens, albida, maculi purpurei trifida ad staminum insertionem. Capsula clavata, crassa¹ pubescens. Retinacula, oblonga, lamelliformia.

Ab *Adhatoda trinervia* differt foliis retusis, bracteis bracteolisque minoribus herbaceis minus acuminatis.

lon - licw-*i1 r-/w- v^ris avillar'Ja ojipositis ovatis longe pego¹ kns* bracteis herbaceis glabris ovatis, bracteolis IS¹ mino- vel i u le¹ obliqua paraue¹ infero basi mucronato, folia elliptico-

7. *Justida* utrinque attenuatis glabris supri minime papillatis.—*Justus* busque¹. S. V. i. p. 159. Mant. 1. p. 141. Bunn. FL I¹ q. p. 7. ribus sp. L. A. Cd. Car. Ct. Wall J. ? 127. Blume By*. P. 785. locello lat. n. 2 f. 4 *~k. W. A. t. Herb. prop. It.-Carmantine caule pi. Lam. EnC. M A. K P. 626. n. L. 111. <***. n. 98. *dha- Ind. ¹ denium Her. H. Lugdb. p. 642 c. ic. in 643. Pluken. Ps. ^ 5. p. 9. t. 173. f. 3. Burm. Thes. Zeyl. p. 6. -Icon.: Bot.

yueoane¹ yujatio, m omnibus Indiae partibus, floret tempore tern* R. et SRoxb#). In Napapij ar 1Mij ag Wallichius; in Sillet barienstl Rangpur Hamilton; in Sirmore Gerard; in Segae n. 56. (y 1826; et ad Neduna ripae fl. Attran, 1827. Ad sepes ex

Rott. V. winciae Cheribon in seibus vivis, floret omni ferfe tempore R. 185. Madr. t. ** Z. Y. Tona et Java undi sap¹s inissa, in hortis vulgaris et barientse

Li. axilla, supra folia tumcentia, peduaculos proferunt supraaxilis que iras speciosus; corolla pallida, purpura lincata et maculis p. n. 3 inpersa.

Vulgai floret teij XLIL GENDARUSSA Humph.

clatioribu Justida spp., Linn, Roxb., Wall.

(idem); 'eguiafr¹ quinquepartitus, basi bracteis parvis instructus. in Herb. ¹abata, labio superiore fornicate, "tubo brevi. Stamina

Folia 1 fauces inserta. Connectivum rhomboe-lanceolatum; ob-

siles in a

liquum; antherarum locoUi alter super alterum obhquè positivavu-
Its semiovatis, inferiore calcarato. Capsuk infernè stenhs parilm.-
gustata, iuperne tetrasperma-Inflorescentia splcata vel verticUate.
BLtespaUveLsimajore^decWus^velbractesetbracteolsub-
squales, calyce longiores: in spec. Americanis). Flores oppositi.

a. Spicato-thyrsoïdes, bracteis bracteolisque conformatibus.

1. *Gendarussa vulgaris*: fruticosa, spids terminalibus subverticillatis floribus basi foliosis, bracteis parvis, foliis knceolatis gkbnis—*Justicia Gendarussa* Linn. Suppl. p. 85. Wflld. Sp. R ed. 2. i. p.387. R.etSch.S.V.i.p.152. Burn.Fl.Ind.p.10. Roxb.Fl.Ind. ed. Car. et Wall. i. p. 129. WaU. Cat. n. 2442 * - k. Wight Herb, n. 74. *Carmantne saliciforme* Lam. Enc. MeU. i. p. 627- n. 7-*Justicia Gendarussa* Schult. Mant. i. p. 135. Blume Bydr. p. 785. *Gendarussa sofa* Rumph. Herb. Amb. iv. p. 70. t. 28 et 29. *Vada Kodi* Rheede H. Mai. ix. p. 79. t. 42. *Ranunculus galeatus*, *salicis glabro folio*, *bisnagarim*; *fioribus aurantiis*. Pluk. Aim. p. 316. Araalb. t. 55. f. 3. *Adhatoda maderaspatensis*, *hjdrojnpcns folio*, Petiv. in Act. Angl. n. 244. p. 319.-Icon: Jacq. Ed. t. II.

0 Dohona, foliis apicem versus repando-crenatis—*Justicia* Dohona, Wall. Cat. n. 2442 f.

Indigena in vallis provincis Madurs (Wight Herb.). Rangoon et Taong Dong (Wallich, 1826.). In montibus Sillet (a. 1829, GtL Gomez). Patna (d. 25 Mart. 1812, Hamilton)—"Frutex elegans, quern nunquam sponte crescentem vidi. Frequens autem occurrit in bortis, tradudbus propagulisque facile propagandus. Floret ternopore pluvio. In insulis Makids sylvestrem esse narrant." Roxburgh—"Crescit in sepibus vivis, sed fortassis ex insulis Philippinis introducta; floret per totum annum." Blume—Var. 0 Dhupari d. 7 Aprilis a. 1808, et Nageswari, legit cl. Hamilton—In caldariis Europensis vulgaris stirps. Vidi exempla spont. et culta Hort. Calc et Europorum.—Corolla miniatopurpurea.

2. *Gendarussa vasculosa*: fruticulosa, caule inferne tereti repente, apice adscendente, spicis terminalibus compositis ramis secundis, floribus oppositis, bracteis bracteolisque calyce paullè brevioribus ovato-knœcktis, antheris calcaratis, foliis oblongo-eUiptids utrinque attenuatis suprà lineolatis.—*Justicia vasculosa* WaU. Cat. n. 2469 a, b. *Ruellia rivinifolia* Wall. Cat. n. 2413 (exempla flore imperfectio).

In montibus provincis Sillet lecit F n .^{..};* ^ I ^ ^apla
cultu ex H. b^{fie}* WT. una-
iiflinis est *Gendarussa bifarue*, sed longe diversa spicjsW una-
libus compositis, calybus mult* minoribus campanulaisfo^u t ^a
gustioribus-Fxuticulus Mi fa* **** «^af S¹a\y ~
Calc. hirtulo), pedali, bipedali. Folk 3-r3* poll, longa, fer* i Koll.
lata, longe petiokta. Spies 1 - H poll, longa, pubescenti-s^abra.
Corolla 4 - 5 lin. longa, pubescens, alba, maculis sanguineis, ,venu-
lis labii superioris purpureis. fruticosa, caule infem^e tereti super
fariambrisuto, racemulis axillaribus spidformibus scabnis, fl^a toribus
solitaires oppositis, bracteis generalibus partialibusque linearj^a-
latis calyce brevioribus, foliis eUipticis utrinque acuminatis glabri
lineolatisrepando-denticulatis.—Wall. Cat. n. 7173.

In rupibus prope Pingee, ad ripam Irawaddi, a. 1826. Vid^e exemplum unum cum fructu, absque floribus.

Folia 4J-7 poll, longa, in petiolo 1-lf-pollicari, lfH_y3| poll,
lata. Racemulus axillaris, 2-2ipoll. longus. Capsula fffe polli-
caris, glabra, structure; generis.

4. Geitdarussa Wynaadensis: fruticosa, caule tereti lajevissimo lineato, spicis axilkribus patentibus nutantibus basi'diphyhiis gkn-duloso-pubescentibus, floribus solitariis oppositis, bractejis ovatis dedduis bracteolisque linearisubuktis calye brevirborus/, antheris basi calcaratris, foUis oblongis utrinque attenuatis supra sukstrigois, infetioribus crenato-dentatis.—*Justicia Wynaadensis* H e - Heyn-WalU. Cat. n. 2474—et Herb. Wight ex parte. Wall. Cat. i. , 2496 c.e.

Justicia Imeata WaU, Cat. n. 2486 c.

Vidi exempla Herb. Heyneani in Herbb. Wallichiano, et Wight-
lanh.

Multis convenit cum praecedente, satis tamen distinctus videtur.

Folia 4—5 poll. longa, || poll. lata, petiolo brevi. Spies 1—2 poll. .
longs. Corolla 4 lin. longa, pubescens, purpureo-venosa, quasi
angustè campanulata.

5. *Gendarussa decussata*: fruticosa, caule tetragonio pubescenti-hirto decussatim ramoso, spicis terminalibus elongatis interrupts densè pubescentibus, floribus glomerulato-vertidillatis, bracteis parvis spathulatis, bracteolis linear-lanceolatis, corollas ringentis labio inferiore convexo, antherarum locello utroque calcarato, foliis ovatis in petiolum attenuatis glabriusculis suprà lineolatis.—*Justicia decussata* Roxb. Pl. Ind. ed. Car. et Wall. 1. p. 128. R. et Sch. S. V. Mant. 1. p. 141. Willd. Sp. PL ed. 2. i.p. 402. Wall. Cat. n. 2476 a—d.

Spontè crescit in regione supra, Rangoon sita et inde in H. b. Calcuttensem introducta est, ubi Februario et Martio mensibus floret (Roxb.). EProme 1826 (Wall.). AdAmherst et in ripa Attrani fluvii, d. 15 Feb.' 1827. Vidi etiam exempla ex Horto b. Calcuttensi.

Similis *Leptostachya virgata*, sed differt, prater generis notas: caule-ramisque distinctè, licet obtusè, tetragonis, rhachibus spicarum densius molliterque villosulis, petiolo brevi, nee longo etc., bracteis semper latioribus. Calyces et bracteolese dense pubescentes. Corolla carnea, pubescens, ditnidid major, quam in ilia.

b. Spicatse, bracteis foliaceis majoribus, demum deciduis.

6. *Gendarussa ventricosa*: fruticosa, articulata, spicis in caule ramisque terminalibus subverticillifloria, bracteis universalibus decusantibus ovalibus orbiculatisve acutis ciliatis, propriis subulatis parvis, labio superiore piano, antherarum locello inferiore calcarato, foliis oblongis glabris.

a. bracteis eUipticis,foliis oblongis.—*Justicia fragilis* WaJL. MSS.
Ejusd. Cat. n. 7174.

f. bracteis orbicularibus, foliis cuneiformibus.—*Justicia ventricosa* Wall. PL As. Rar. 1. p. 80. t. 93. Hook. Bot. Mag. n. 2766. Spr. Fil. Suppl. p. 1. Willd. Sp. PI. ed. 2.1. p. 366, (inter species locellis parallels)? Wu. Cat. n. 2436 a_c.

Cresdt in montibus Sillet (Wallich). In Amherst, lectacum floribus d. 3 Feb. 1827—Var. 0 in ripa fluminis Attrahone Martabaniae; Kogun, (?) idem d. 11 Mart. 1827—In Hort. bot. Calc. e China introducta a. 1820 a J. Reeves. Floret mensibus Decembre et Februario. (WaUich.)

Frutex staturaे (?)***. — " ^ * ' • + 1 t_Mt_i foliis 4—h nnīl. longis, orcovallō nv¹¹. a¹¹.* < u < garis, < nx_M a x S ^ ^ ^ ^ - gon 82, ly¹! P¹¹. latīs » Petiolo brevi- spicae 2—3 poll, longs, tetravel luteo-Jasi bifoliolate. Corolla 4—5 lin. longa, pubescens, albida

7. *G*⁰* purpureo-reticulata*.—Fructus deest.

rfendarussa *Orixermis*: herbacea, spicis terminalibus axillari-
ribus, 3 subsecundis, bracteis orbiculato-spathulatis dliatis, superio-
-l ~~old~~ ^{old} ~~ol~~ ^{ol} terilibus, bracteolis oppositis linearisubuktis, antherarum
caule pt^h inferiore calcarata, foliis ovatis densē lineolatis glabriusculis,
Ind. ed1^{ibescens} 8 Cabro. — ^ «^ «^ «^ orixensis Kon. MS. in Roxb. PL
p. 145. ex Car. et WaU. 1. p. 133. n. 26. R. et Sch. S. V. Mant. 1.
Herb. Bo Willd. Sp. PL ed. 2.1. p. 399. Wall. Cat. n. 2424 d—
yacAariussell. Wall. 1. c. a. Wight. Herb. n. 97—*Justicia iron-*
R. et Sp^h «^ R^o ». FL Ind. 1. c. p. 131. n. 23 (excl. synon. Linn.).
barimsi ch. Mant. 1. p. 144. (nee ver6 S. Veg. qu^h vera J. *tranque-*
n. 56. (. * Linn.) Wall. Cat. n. 2424 a ex parte; d: Wight Herb.
£ *gla* *Iglabra*). —

Rottl. *Vg. grec.*, caule foliisque strob. densius puberulis.—*Justicia glauca* p. 165. 1TM. in Act. n. Scr. Ber. iv. p. 2 «. R. et Sch. S. Veg. i. Madr. et_{3r} Spr. 1 * . * + * . Willd. Sp. PI. ed. 2., p. 405. Hérb. ionniwwacHerb.Heyn. Wall. Cat. n. 2424 b. c. *J. verna* ir., n., n., -
" *axilla*" Wall. Cat. n. 2424 b. (ex parte).

lisque n j ^ . floribus plerisque axillaribus, calyds kdnis bructo-
proper.ri.^gajoribus, caule foliisque gkbris.-V**r;**. Hb. Wi-l.t
Vulgaria^g 6. (cum var. <).

floret e, ^ inter virgulta, solo secco rt sterili ora. Coromandiana-
ektioribus, ppote pluvio fngidoque. (R_{oxb.}) Solo secco glarcoso locis
(idem); pi' in vicinia Samulcotaie urbis (Wight). In aridis glarcosis
in Herbb.-n montibus Ventaloor: Wight (Wall. I. -). V.^{er}

Folk | **i** ^{Madras} **P.** at Hayn : var. v.i. Hb. Wiglu

Folk [] — P- et Heyn.; var. y ⁱⁿ Hb. Wigiu.
siles in ^a ^oUicaria* (Origani) petiolo acmipoUicari. Flores ^{suberos.}
xill* ^{iohotTM} inferiorm, alterni, ranu.lo axill* ^{alter.}

opposite, in summitate diminutis foliis spicae similitudo comparatur.
—Semina muricata.

Adnot. *Justicia orixensis* Roxb., ad exemplum Koenigianum inducta a b. Roxburghio, eadem omnino est planta, ac *J. tranquebariensis* FL Ind. Differt autem haec a *J. tranquebariensis* Linn, foliis ovatis, nee obovatis, alia ut taceam. Communes sunt utrius spicae tetragonae unilaterales, laxiusculae, scil. bractearum superiorum seriebus binis sterilibus.—Florep circiter 3 lin. longi in nostra, e luteo pallidissimo rubroque mixti (Roxb.).—In var. 0 bractae quandoque acutiusculae, vel mucronato-cuspidulatae.—Var. y, habitu et inflorescentia quidem distincta, multis gravissimisque notis connectitur caeteris.

8. *Gendarussa Tranquebariensis*: fruticosa, canescens-pubescent, floribus axillaribus solitariis in spicam terminalem adscendentibus, bracteis orbiculatis retusis, bracteolis calycem aequantibus linearibus, locellis antherarum inferioribus calcaratis, foliis subtrotundis parvis: *Justicia tranquebariensis* Linn. Suppl. p. 85. Vahl Symb. n. p. 17-En. i. p. 163. R. et Sch. S. V. i. p. 165. MTild. Sp. PI. ed. 2. i. p. 405. Spr. S. V. i. p. 144. Wall. Cat. n. 2424 a ex parte, b ex parte, d ex parte, et 2462.—Wight Herb, propr. n. 58.—*Justicia parvifolia* Lam. Enc. M&h. i. p. 627- n. 10. Poir. Enc. M&h. Suppl. ii. p. 113. n. 125.

Frequens in aridis nemorosis provinciae Madras, etc. (Wight 1. c.)—In Tranquebaria (Linn.).

Praecedent similis quidem, minime vero commutanda. Differt radice crassâ, lignosâ, tortâ; caule ad basin ramosissimo lignoso intricato trichotomo, cortice albo glabriusculo; ramis elongatis, alternatim ramulosis mollissimis incano-puberulis; foliis minoribus, articulis raraeum principalium multo brevioribus, ad summum pollicaribus saepius 3—4 lineârum diametro, subtrotundis; floribus jam ab inferiore caulis parte ver & axillaribus sessilibus ramulo vel ramuli gemmulae oppositis, denique in summitate ramulorum contractis sensim sensim articulis foliisque floralibus ex subtrotundis obtusisque retusis factis, spicam construentibus, minimi autem drepente in spicam abeuntibus et paucis inferis nullisve omnino axillaribus.—Corolla lutea, purpureo-punctata et lineata.—Corollae et capsulae structura eadem in utraque specie.

Adnot. *Justicia Orixensis* Herb. Russell est ilia species, quam ipse *Orixensem appello. Justicia tranquebariensis nomine inscripta* duo in eodem hujus herbarii folio existant specimen, quorum alterum validus imperfectum et vix determinabile, fortassis *Gendarussa Orixensis* var. *glaucia* est, alterum autem *Adenosne uliginosae*.

c. Axilliflorae, verticillatae vel floribus solitariis.

9. *Gendarussa Neesiana*: fruticosa, floribus axillaribus geminis subverticillatis, bractea utrinque parva spathulata, labio superiore angusto concavo, staminibus reflexis, locello antherarum infero calcarato, foliis linear-lanceolatis glabris.—*Justicia Neesiana* Wall. Cat. n. 7175.

In montibus provinciae Sillet legit Guil. Gomez, a. 1830.

Habitus accedit zd. Justidam (Gendarussam) Hthospermi/biam Jacci et confines. Fruticulus elegans, 1-1 pedem altus, lignosus, erectus, infernus* aphyllus, supere* dens* foliosus, simplex vel ramosus, foliis I f. I f poll. longis, 2-2* lin. lati, petiolo brevi. Bracte* communis loco ipsum foliomm. Corolla 4 lin. longa, pubescens, lutea(x). Capsula 3J hn. longa, lanceolata, glabra, lutescens, tetragona, bisulca. Semina cordato-subrotunda, plana, tuberculata, brunnea

10. *Gendarussa quadrifaria*: herbacea, floribus verticillatis, bracteis obcordato-spathulatis, antherarum locello infero ^alcarato foliis oblongo-lanceolatis utrinque V*berbis.-*Justicia quadrifaria* Wall. Cat. n. 2479 a.

/3 culta: foliis latioribus ovalibus supri glabris. Wall. 1. c. n. 2479 b

In montosis provinciae Sillet legit F. D. Vidi spontaneam, et cultam (?) ex H. b. Calc.

Caulis pedalis et ultra, erectus, strictus, obtusus tetragonus. Folia decussata, erecta, H poll. 1⁰ g^a. Flores 3ni (—5ni), sessiles. Calyx 3-linearis; corolla illo paullo longior, pubescens, pallida. Semina cordata.

U. *Gendarussa Turcua* ^{fruticosus} floribus axillaribus solitariis VOL. III.

aggregatis, terminalibus subterhis, bracteola utrinque parva linearilanceolata, labio superiore bifido, inferiore lato convexo trilobo, locelli inferi calcare bifido cristatoque, foliis oblongis utrinque attenuatis pubescentibus.—*Justicia furcata* Jacq. H. Schenbr. 1. t. 3. Willd. Sp. PI. ed. 2. 1. p. 406. (c. synon.): • *Justicia peruviana* Cavan. Icon. 1. p. 17-

?/3. foliis lanceolato-oblongis, calyce tripartito! (in flore unico quern vidi observato.)—*Justicia peruviana* in Hort. bot. Calc. Wai. Cat. n. 7176.*

Ex Horto bot. Calc.

Exemplum nimis est imperfectum, quem quo sententiae fides conciliari possit. Differt a communis forma: foliis angustioribus, pubescentibus molli; calyce, in axilla solitario, tripartito, laciniis lanceolatis, nee quinquepartito; corolla paullò minore.

Adnot. Ejusmodi formas, calyce longissimo, tripartito, laciniis binis bipartitis, vidi in Herb. Haenkeano; his flores omnes in apicibus ramulorum collecti!. Capsula sursùm ventricosa, ovata, nee compressa. Has formas sub varietatis y signo comprehendam.

XLIV. LEPTOSTACHYAE

Justicia spp., Wall., Jacq., H. et K.

Calyx quinquepartitus, aequalis, bracteis bracteolisque parvis subulatis suffultus. Corolla ringens, tubo brevi, labio superiore lat & fornicate, inferiore convexo trifido. Stamina duo, faicum inflaturum basi inserta. Anthers bilobatae muticae; locelli alter obliquus super alterum positi, contigui, paralleli, emissis polline undulati. Stigma bifidum. Capsula basi compressa asperma, valvularum commissurâ planâ; apice depressa, tetrasperma. Dissepimentum adnatum. Semina muricata, retinaculis apice bifidis suffulta.—Inflorescentia: spicae gracillimae, e floribus distantibus oppositis globose vel solitariis parvis, superioribus in aliis secundis. Bracteae bracteolae conformes. Capsula ratione floris magna.

Adnot. Inter exoticas hujus loci sunt: *Justicia (Leptostachya) pectoralis* Jacq., *J. nitida* Jacq., et *J. polygonoides* H. et K.

1. *Leptostachya virgata*: foliis deltoideis supra lineolatis, spicis tomentoso-scabris.—*Justicia virgata* Wall. MSS. Ejusd. Cat. n. 7177-

Lecta in Taong Dong d. 26 Novembris a. 1826, florere incipientis.

Ramus adest teres, lignescens; ijlf. dliaculatus; T5fern6 glaber. Fofia inferiora 6-7 poll. longa, 3 J poll. lata, acuta, glabra, petiolo ejusdem longitudinis, tetragono; summa duplo minor. Spica terminalis, pedalis, gracilis, trichotoma ramis alternis longis patulis. Flores sessiles plerumque terni. Calyx vix linearis. Corolla 3-4 lin. longa, pubescens, pallid^ purpurea (?).

2. *Leptostachya TFallichii*: foliis oblongis supri punctulato-asperis, spicis ghmdnlosis^RueUia leptostachya Wall. Cat. n. 2411.

Ex Herbario Wightiano.

Similis est *Gendarussa virgata*, sed, prater generis notas, differt abunde foliorum formâ et floribus minoribus.—Caulis obsolete tetragonus, infernus glaber, lineolatus. Folia tenera, amoenâ viridia, cum petiolo pollicari 8 poll. longa, 2 poll. lata, acuminata: Spica trichotoma, patula, i pedem longa, caule terminat. Calyx vix 1 lin. longus. Corolla bilinearis, pubescens; viscidula, purpurascens. Capsula 8 lin. longa et longior, clavata, mucronata, dens^ pubescens. Semina orbiculata.

Addimus novam hujus generis speciem:

? *Leptostachya poUta*: foliis oblongis utrinque attenuatis glabris, spicis axillaribus terminalibusque umbellatis dissitifloris, floribus al* ternis secundis, caule tetragono leevi.

Ad rivulos in Serra de Estrella. (Beyrich.)

Accedit *Leptostachya nitida*, qua? differt floribus racemosis, cfcrte nostraræ flores sunt spicati; turn distinctissima in nostra spicârum dispositio ex trichotomia umbellaris. Folia inferiora pabnaria, nitidula, firma.

* Vix nan aliena in India Orientali planta.—N. W.

t A *Xerros tennis*, et erra;^ spica.

XLV. GYMNSTACHYUM *.

Calyx quinquepartitus, laciniā superiore breviore. Corolla bilabiata: labio superiore angustior bidentato, inferiore trifido. Stamina duo, tubo infra medium inscrita, inclusa; sterilium rudimentum nulla. Antera bilocellata, locellis aequalibus parallelis contiguis basi mucronatis. Stigma bifidum, laciniis compressis. Fructus incognitus.—Inflorescentia: (in unica specie) racemus spiciformis, gracilis, subsecudus, e floribus distantibus brevissimè pedicellatis. Bractae exiguae, subulatae, suboppositae; alterā sterili paullè inferiore. Bracteolae nullae.—Habitus ERANTHEMI. Caulis humilis. Spica terminalis, bi-trifida, longa, sed pauciflora.

Gymnostachy wholestachy whole.—Wall. Cat. n. 7173*

Tavoy, d. 8 Septembris a. 1827, floribus nondum explicatis, legit Fr. Gomez. Vidi exempla duo.

Herbaceum est, caule semipedali basi radicante, subtetragono hispido. Folia oblonga, utrinque attenuata, costata, suprā pilosa: inferiora 4—5 poll, longa, longè petiolata; obtusa sunt infima; iuperiora acuminata, minora, ramea 2—4. Spicae duas, terminates, 3—5 poll, longae, filiformes, floribus solitariis distantibus subsecundis omnino sessilibus. Bractae sub singulo florē singulari, subulatae, pubescentes, calyx duplè breviores. Bracteolarum nulla vestigia vidi. Calyx glanduloso-pubescent, laciniis angustis. Corollae alabastrum (in nostris) 4 lin. longum; calyx pliis duplè longius, clavatum, pubescenti-viscidum, purpurascens; limbus corollae bilabiatus, labio inferiore superiis amplectente. Antherae basi bicalcaratae sive recurvo-aristatae, inclusae. Ovarium oblongum; stylus longus; stigma bifidum (?).—Fructus latet.

(Subtrib. V.), Divis. 3. ERANTHEMA.

XLVI. ERANTHEMUM R. Br.

Justida specie, Linh., Vahl, Willd., Roxb. cet. *Buellia* spec, Vent.

Calyx quinquefidus, aequalis. Corolla hypocrateriformis, vel elongato-infundibuliformis, tubo longo gracili, limbo subaequali. Stamina: duo fertilia circa os tubi adnata, longe decurrentia; duo sterilia brevissima, filamentis longiorum basi connexa; in speciebus nonnullis anomalis haec rudimenta omnino desunt. Antherae exsertae, bilocellatae, muticae, locellis parallelis contiguis, texturea densioris. Capsula infernū compressa, valvulis contiguis/asperma; superiis bilocularia tetraspennia. Dissepimentum adnatum. Semina discoidea, retinaculis suffulta. —Inflorescentia: spica, bracteis communibus majoribus aut minoribus, bracteolis omnium parvis oppositis.

a. Grandibracteata.

1. *Eranthemum nervosum* R.Br.: caule quadranguli lateribus excavatis, foliis ovatis ellipticis utrinque acuminatis subcrenatis integerrimis lineolatis glabris, spicis axillaribus oppositis imbricatis, bracteis ellipticis longe cuspidiatis venoso-reticulatis.—*Eranthemum nervosum* R. Br. Prodr. Fl. Nov. Holl. ed. N. ab E. i. p. 333. R. et Sch. S. V. i. p. 174. Mant. i. p. 151. Spr. S. V. I. p. 89: Link En. H. Ber. i. p. 28. Wall. Cat. n. 2493 b, d, e, f, h, i, k. *Eranthemum pulchellum* Andr. Rep. t. 88. Willd. En. H. Ber. Suppl. p. 2. Roxb. Fl. Ind. ed. Car. et Wall. i. p. 111. Herb. Madr. Herb. Wight. *Justida nervosa* Vahl. En. i. p. 164. Poir. Enc. M&h. Suppl. i. p. 113. n. 129. Ait. H. Kew. i. p. 42. Bot. Mag. n. 1358. Bot. Cat. n. 146. *Jwiticapukhella* Roxb. Pl. Corom. n. p. 41. t. 177. Ker Rec. Pl. Repos. p. 41. Herb. Heyn. (Wall. Cat. n. 2493 i.) *Ruellia varians* Vent. Hort. Cels. t. 46. Willd. En. H. Ber. p. 657.

3 scabrum: foliis minoribus crenatis, haud lineolatis, suprā cosaque scabris, spicis brevioribus.—*Eranthemum nervosum* Wall. Cat. n. 2493 g.

Præcitat locia siccis umbrosis in cultis in variis Indiae orientalis tractibus, floribus tempore frigido summaque florum pulchritudine juperbiens mense Februario. Roxburgh.—In Sillet. (F. D.—Wall. Cat. n. 2493 d.); i. Napalia, a. 1820 (2493 e.); in Hurdwar, a. 1825 (2493 f.)—E. Madras, cultum (Herb. Wight.). Ex H. b. Calc. (Wall. U. 2493 b Q—Var. ^e Srinagar, Rungpur (Wall. 1. c.).

* A ^e nudas, et *Tigpe *Pica* Propter spicas bracteis exiguis praedita
ideoque primarialectu quasi nudas, bracteolis autem omnino destitutas.

Species in bortis vulgarissima, coroUis pulchrè coeruleis insignis.

Var./3, quaefortasse propria species habenda, differt: caule ad angulos scabre; foliis ad summum 5 poll, longis, toto ambitu confertim undato-crenatis, costis approximatis subtiis valde prominentibus venulisque rugosis, iisque subtus pubescenti-scabris, supra minime lineolatis sed setulis sparsis rigidis incumbentibus scabris; spicis brevioribus,—qu* quidem in nostro nimis imperfectae, nondum floridae.

2. *Ermithmum macrophyllum** SL.x foliis eUiptico-cuneiformibus acutis infra apicem dentatis margine scabris, spicis axillaribus basinfractabibracteatis, bracteis elliptic!* mucronulatis reticulatis. *Eranthemum macrophyllum*? WaU. Cat. n. 7179.

In jugo Taong Dong, d. 26 Nov. * 1826; et in montibus Prom* et rupibus ad Penge in ripa Irawaddi fluminis.

Caulis herbaceus, quadrangularis, erectus, cum ramis pubescenti-scaber. Folia inferiora 1-li-pedalia, 5 - 6 poll, lata, petiolo longo. Spicae axillares s. potius in ramis axillaribus fottorum superior^m terminales* cum pedunculo s. ramo folium vix superantes, 2-5-polhecaries. Bracte* imbricate, nec admodum confertee, decussatim opposite* nnguicularies. Flores sessiks, solitarii. Calyx -2* lin. ——— pou. longa, pubescens, coccinea, tubo longo. —Fructus deest:

3. *Eranthemum tetragonum* Wall.; caule fruticoso glabro spicis que axillaribus tetragonis, foliis ovato-oblongis acuminatis lineolatis glabris, bracteis imbricatis elliptico-oblongis hirtis corollae laciniis subr. ado-ovatis.—*Eranthemum tetragonum* Wall. MSS. Ejusd. Cat. II 7180.

In Trogla ripa Saluen fluminis, d. 12 Mart. a. 1827.

Frutex, foliis pollicaris. 14 novit i.

ipetiolatis repando-
am terminales, soli-
es, peninservi-venu-
vices. Calycis illis bre-
sequans longitudine. Semina compressa, orbiculata, levigata.

Adnot. Capsula hujus speciei STROBILANTHIS potius esse video-
tur, quam ERANTHEMI, et inflorescentia quoque STROBILANTHIM
indicat; sed corolla et staminum constructio ERANTHEMI qexum
utnusque generis aspè ac terminos demonstrat.

*> *Eranthemum purpurascens*; caule quadriauetum fal" ovatis acuminatis repando^natis. A. Superioribus latè brevissime petiolatis, spicis axillaribus oppositis longè pedunculatis imbricatis, bracteis ovato-rhombeis longissime attenuatis ciliatis.—*Eranthemum mttamm* Wall. Cat. n. 9409. *rite */3* w-
cans Herb. HamUt. WaU. 1. c.

3. spic
latin.—W
rosis, inferioribus longissimè peduncu-
latis. 82.

rn Monghir. et Munihari, d. 9 Octobrisa, 1811. (Hamilton.)—
Var. 2 in monib. Dindygul et C. o J i (right.)

Folia infernā 5-7 poll, longa, a*-4 D Z
longa, 2^1\$ p. ^ petiolatis x ff. ***> "periora 4-2
culataomnia; ramulom plicaria nm* et ^noso-reti-
dndi axillae, ^ ^ i S ^ J ^ ^ * ^ Pe-
heares. Bracteal laxè imbricata; rn S .., 5-7 pol-
c ^ m IS-2-pollicares, ^ l ^ ^ ^ ^ Spic;
supremae ellipticae, basi subcuneatae. Bracteas ^ Ovato atten^at'e,
Corolla pollicaris, pubescens, purpurea i., i, ^ ^ lon 6 ^ ine.

Adnot. Species est interc. Ternaria S. T
tem. > Regans, nitida atque

5. *JSmtAeuau strictum* Colebr. • «.».!
elliptico-oblongis utrinque acuminatis s u L CoSo foliis Uc
spicis in caule ramisque tenuinalibus elongatis pubes»ti-scabris,
patulis oblongis ciliatis, antheris inclusi. Colebrooke,
WaU. in Roxb. R. i nd ^ ^ f m,, ^ .
et Sch. S. V. Mant. r. p. ,52. ^ J " * ^ f Wall., p. , H. R.
Cat. n. 2494 b. Erantke ^ *, £ * * * * * * Wall,
parte, Justida mnUana Herb. Heyn.Z WaU. % m a *
In montibus, Sillet conterminis |L|..... 2492a.)

Cultus tam, floret £ £ \$ £ £ \$ J J L
men-

sibus. (Wallich.)—Vidi exempluin' cultum ex H.b. Calc, et Herb. Heyn.

gpj,js i*ie* pedem longis, *Lythri Salicariae* fere similitudine, bracteis oblongo-lanceolatis ciliatis, approximatis nee yer6 imbricatis, veluti-foliaceis, ben& diatinctum est. Corolla pollice longior, saturate coerula, tubo angusto incurvo pubescente longo.

6. *Eranthemum montanum* Roxb.: caule teretiusculo foliisque oblongis utrinque attenuatis repando-crenatis glabris, pedunculis terminalibus trichotomis spicisque pubescenti-viscidis, bracteis lanceolato-attenuatis ciliatis.

Stirps maxima variabilis. Variat

a. spicis laxioribus, bracteis distantibus, e basi oblongo-lanceolata longissim[^] atten*isti&*--*Eranthemum montanum* Roxb. EL Ind. ed. Car. et Wall. i. p. 110. R. et Sch. S. V. Mant. i. p. 150. Willd. Sp. PL ed. 2. i. p. 446. Wall. Cat. n. 2492 b. *Ruellia varians* Herb. Heyn. Wall 1. c.

B *parabolicum*; spicis laxioribus, bracteis distantibus mmonibus, inferioribus e basi elliptica in breve obtusumque acumen productis, foliorum quoque acumine obtusiore, inflorescentia villosa et glandulosa &L—*Eranthemum montanum* Wall. Cat. n. 2492 a ex parte. Heyne Herb. 1. c.

y. spicis brevibus lanceolatis, bracteis imbricatis, e basi oblongo-lanceolata vel oblonga longe attenuatis, Tirsutis et vald6 glandulosis.—*Eranthemum montanum* Wall. Cat. n. 2492 d. *Eranthemum Wightianum* Wall. Cat. n. 2495 b. *Eranthemum* sp. Wight Herb, prop. n. 81. *Justicia pulchella* Herb. Wight. Wall. 1. c. *Justicia divaricata* Herb. Madr. Wall. n. 2492 d.

& spicis brevioribus, bracteis majoribus latioribus patulo-imbricatis oblongo-acuminatis ciliatis, glandulis magis dispersis, foliis brevioribus ellipticis caulisque angulis scabris.—*Eranthemum montanum* Wall. Cat. n. 2492 c. *Justicia mmtana* Rötl. Wall. 1. c.

Crescit in montibus tractuum *Circars* dictorum, floretque tempore frigido. (Roxb.)—Vidi exempla var. a ex Herb. Heyn.;—var. j3 in eodem Herb, cum *Eranthemum crenulatum* et stricti specimibus mixtam;—var. y in Herb. Wight, prop. et Wall., e montibus Dindygul et Courtalluin, et in Herb. Madr.;—var. & exempl. Röttler, in Herb. Wall. n. 2492 c.

Caulis herbaceus, erectus, leviter tetragonus, ad speciem teres, trichotomus. Folia 6—4 poll, longa, 2—1[^] p. lata, petiolo longo, nitida. Inflorescentia trifida, ramis trifidis folio brevioribus vel id aequantibus, medro duplō longiore, tetragonis. Bractae 1—1 poll, longs, herbaceae, glanduloso-pubescentes et ciliatae. Spies laterales pleraeque in capitula oblonga triflora contracts; media oblongolanceolata, pollicaris, pauciflora. Calyx 3 lin. longus. Corolla 1—2 uncialis, ccerulea (?), glabra vel parcis puberula, tubo gracili, limbo patente. Fructus

Adnot. Singularis in hac specie, quod inflorescentia sola abrupte glandulosa vestiatur, et corolla, qua; in aliis Eranthemis ramiū glabra reperitur, in hac ssepe glabrescat.

7. *Eranthemum Wightianum* Wall.: fruticosum, caule tetragono pubescenti-tomentoso, foliis ovatis, utrinque acutis glabris, floralibus subtundis; spicis terminalibus corymbosis, bracteis linear-lanceolatis acutis strictis pubescenti-scabris.—*Eranthemum Wightianum* Wall. Cat. n. 2495 a. *Eranthemum montanum* Herb. Russell.—Wight Herb, prop. n. 83, absque nomine.

E montibus Dindygul et Courtallum. Wight, Hb. Russell.

Frutex. Folia ramorum speciosa, ampla[^] inferiora elliptica, C poll, longa, 2[^] p. lata, petiolo sesquipolliaci; sequuntur magis ovata; 8-pollicaria; 3J p. lata, breviori petiolo; supra ovato-subrotunda, 4 p. longa; ramulorum folia f poll, longa et lata. Spicae in ramulis compositae, circa caulis et ramorum apices in corymbum densum polystachy whole cotigetae: inferiores circiter pollicares, lanceolate; superiores extenuatae, 2—3-pollicares, lanceolata. Bractae ^-pollicares; bracteole calyce (membranaceo) longiores, opposite. Corolle alabastrom vidi semipolliacare, pubescentia inspersum, tubo longo gracili. Capsula omnino generis. Semina orbiculata, mucronata, utrinque plana, rugulosa, rimulosa, fusca.

Species Indica hujus subdivisionis, a me ad naturam non examinata,—est:

8. *Eranthemum suffruticosum* Roxb.: fruticosum erectum, foliis ovato-oblongis glabris, spicis terminalibus, bracteis cuneiformibus nudis, staminibus duobus inclusis. Roxb. Fl. Ind. ed. Car. et Wall. 1. p. 112: R. et Sch. Mant. 1. p. 151. Willd. Sp. Pl. ed. 2.1. p. 446. n. 22.

Habitat in insulis Andaman. (Roxb.) ^.

b. Parvibracteata.

9. *Eranthemum crenulatum* Wall.: suffruticosum, erectum; caule infemc foliisque oblongis utrinque acuminate repando-crenatis glaberrimis, racemo terminali simplici pluribusve axillari-aggregatis simplicibus, floribus fasciculato-congestis subverticillatis secundisve, bracteis bracteolisque subulatis brevibus calycibusque glandulososabris, corollas laciniis ovatis obtusis aequalibus.

os caule ad inflorescentiam usque glabro, racemis verticillatin erectis.—*Eranthemum crenulatum* Wall, in Bot. Reg. t. 876. Spr. Cur. Post, in Syst. V/p. 19. Willd. Sp. PL ed. 2.1. p. 448. Wall. Cat. n. 2491 a, b, c, d, e.—et 2492 a ad partem.—*Justicia honamoris* Herb. Madr. Wall. Cat. n. 2491 a.

[3 *glandulosum*: racemo terminali bi-trifido recurvato-patente, floribus surshm secundis; caule saepf ad inferiores articulos usque glanduloso-scabro, humiliore.—*Eranthemum glandulosum* Wall. Cat. *Justicia rubicunda* Herb. Hamilt. Wall. Cat. n. 2480.

Crescit in "Sillet," in Penang (G. Porter).—Var. |8 ad ripas Attran fluvii supra Ussame, d. 29 Martii a. 1827, ad Amherst, et inter Amherst et Chappedong; in Mateabo d. 15 Apr. 1828, cl. Hamilton.—Vidi exempla ex H. b. Calc, ubi e Penang illatum est (n. 2491 e); c Penang (2491 d); ex Herbb. Wight. (2491 c.) et Heyneano (2491 b.); ex Herb. Madr.

Species est variabilis, sed distincta cortice laxe brunneo ramorum adultiorum (prasertra in siccis), et racemo (vel spicā) glandulosopubescente, ob fasciculos florum oppositos subverticillato, corolles limbo regulari, ratione tubi parvo. Corolla pallid[^] lilacina.

Variat: 1°. Magnitudine.. Exempia Herb. Madr. caeteris minor, vix pedalia, foliis minoribus rigidulis.

2[^]: "ufscientia glandulosa inflorescentiae magis minusve ad inferiores articulo T de ^{andante} proximis circa radicem tamen semper cortice illo kevi et quasi ^{SSSSTIR} "pUdfie brunneo *vestitis. In exemplo, quod *Justicia rubicunda* RICRIUC vdB nūMne TISJ, caulis glabrescens; sed similia quoque Gomezius attulit exempla.

3°. Fasciculis florum, ubi rami racemi terminals patent et recurvantur, sursū adscendentibus.

10. *Eranthemum gradilorum*: herbaceum (?) erectum, caule punctatis exasperate, foliis ovalibus cuspidatis in petiolum longuui de[^]mentibus repando-subcrenatis subtus ad costas scabris, racemo terminali simplici ternis spiciformibus riacchi multisulcata, floribus spiratiū subverticillatis confertis, bracteis bracteolisque subulatis brevibus calycibusque scabris, corollā subbiabiata laciniis ovatis obtusis.—*Justicia gratiliftota* Wall, Cat. n. 2427.

In montibus provinciae Penang, ad fluvium Kosea legit G. Porter.

Primo sub intuitu *Eranthemum crenulatum* refert, situ loci et inflows cent ia ad xmonstrositatem fasciatam tendente difforme; sed plura sunt, q'a? speciem propriani esse probare videantur.—Caulis, secundum schedulas Pbrteri, humilis, herbaceus, erectus, subsimplex, tetragonous. Folia ampla, inferiora cum petiolo 3-pollicari 9—10 poll, longa, 3 poll, lata, superiora parium decrecentia. Racemus terminalis foliis brevior, 4 poll, longus, adjecto uno binisve brevioribus. Corolla, plurimae spiratiū simul florentes, sesquipolliacares, glabriusculae, pallidē purpuree (?), tubo aequali filiformi.

Adnot. *Eranthemum racemosum* Roxb. Fl. Ind. edt Car. et Wall. 1. p. 113. n. 5. multa cbmniunia habere, sed ex omni parte minus esse. videtur.

Species Indies hujus subdivisionis, a me non examinatae, sunt:

11. *Eranthemum raceinosum* Roxb.: suffruticosum, foliis oblongis ventricosis, corolla subbiabiata, labio ufrroque partito.—Roxb. Fl. Ind. ed. Car. et Wall. 1. p.v13- » et Sch. Mant. 1. p. 152. Willd. Sp. Pl. ed. 2. 1. p. 447. n. 24.

Habitat in Moluccis. (Roxburgh 1. c.) *i.

12. *Eranthemum cinnabarinum* Wall: foliis oblongo-ellipticis attenuatis longissimis acuminatis glabriusculis, racemis terminalibus recurvato-patentibus paniculatis, bracteis setiformibus, floribus subsessilibus secundis, corollae laciniis ovatis.—Wall. PL As. Rar.i. p. 20. Willd. Sp. PL ed. 2. I. p. 449. n. 28.

Habitat ad Trogla in provincia Martabania, miliari spatio a Saluen fluvio. h. (Wallich.) Corolla tete rubra ab *Eranthemum crenulatum* var. (3 jam primi intuitu distinguuntur).

?13. *Eranthemum diantherum* Roxb., suffruticosum erectum, foliis latif. lanceolatis utrinque attenuatis glabris, racemis terminalibus ex umbellulis pedunculatis, corolla subbilabiata, antheris ditrys.—Roxb. FL Ind. ed. Car. et Wall. i. p. 112. R. et Sch. Mant. i. p. 151. Willd. Sp. PL ed. 2. i. p. 447- n. 23.

Habitat in Moluccis. (Roxburgh.) f?.

?14. *Eranthemum palatiferum*: fruticosum, erectum, foliis oblongis acuminatis subintegerrimis brevipetiolatis glabris, racemis terminalibus subternis spiciformibus recurvis, floribus erecto-secundis, bracteis bracteolatis subulatis brevibus, corolla bilabial, staminibus binis(?).—*Justicia palatifera* Wall. PL As. Rar, i, p. 80. t. 92.

Habitat in montibus prope Sillet, ubi detexit Fr. de Silva, indeque in Hortum botanicum Calcuttensem a. 1825 introduxit. Floret Martio et Aprili. Fructus maturescunt Majo.

Ipse non vidi; sed sufficit icon citata elegantissima. Flores *Eranthemum picti* ad modum in lacinia media labii inferioris macula notati. Stamina duo tantum observata sunt.

XLVII. JUSTICIA.

Justicia Linn, ex parte minima.

Calyx ad basin fer& quinquepartitus, parvus, laciniis aequalibus. Corolla bilabiata-hypocrateriformis, tubo longo, labio superiore angusto reflexo, inferiore trifido laciniis aequalibus. Stamina duo; antherae bilocellatae, locellis parallelis basi subinaequalibus muticis. Capsula basi compressa asperma, apice dilatata depressa ovata cuspidata bilocularis *disperma*. Semina profundè cordata, margine elevata cincta, compressa, tuberculata, retinaculis suffulta. Retinacula uncinata, valida.—Inflorescentia: spica teraii Balis, bracteis herbaeis deminim deciduis latis, floribus, oppnisiibꝫ solitariis, bracteolis parvis subulatis.

1. *Justicia Ecbolium* Linn.: spic& terminal! tetragon*, bracteis ovalibus integerrimis ciliatis mucronatis fructum aequalibus, foliis elliptico-oblongis utrinque attenuatis pubescensibus, labio superiore linearireflexo.-Linn.FL Zeyl.p.17. Sp.PLi.p.85. Fabr.Helmst. p. 217. Mill. Diet. n. 8. Willd. Sp. PL i. p. 85; ed. 2.1. p. 365. n. 1. excl. synon. Rheed. et Plucken. R. et Sch. & V. i. p. 144. Vahl Symb. i. p. 2. n. p. 14. Ait. H. Kew. ed. 1.1. p. 26. Willd. En.FL Ber. i. p. H7. Link En. I. p. 29. n. 224. Bot.Mag.n.1847. Burm. FL Ind. p. 7. Wall. Catn. 2432 i, k. (Herb. Madr. et Heyn.) *Carmantine à croche* Lam. Enc. M&h- i. p. 626. n. 2. *Adhatoda spica longissima*, flore reflexo, Burm.Thes. Zeyl. p.7-1.4. f. 1. *Arbor Zeylanicajoribus cceruleis in spica dispositis*, Herm. Mus. Zeyl. p.33' *Adhatoda Zeylanica, plantaginisfolio*, Herb. Garein.

Crescit in Zeylona insula, Biirmann. An etiam in Indiae orientalis continente? In Indiae memoribus, Roxburgh, fide herbarii; sed reliquorum collectionum exempla omnia ad *Justiciam dentatam* n. 3. spectant.

Hæc vera est *Justicia Ecbolium* Linn., cui bracteae sunt evidenter ciliata et integerrima. Pubescens caulis et foliorum subtilissima quidem, sed satis densa, oculos facile effugere potuit.—Folia 3—3J poll, longa, poll. 1—1f lata, attenuata quidem, sed ottusa. Bracteae unguiculares, obtusae, mucronatae. Tubus corollae bractea dupl6 longior; limbus tubum dimidium aequans. Capsula vix semipollucaris.

2. *Justicia rotundifolia*: spica terminali tetragona, bracteis subrotundis subdenticulatis mucronatis fructu duplo brevirioribus foliisque elliptico-ovatis obtusis glabris, labio superiore linearie reflexo.—*Justicia Ecbolium* Herb. Wight. Wall. Cat. n.2432L Wight Herb, propr.n. 77 ex parte.

Crescit in humidis provinciae Tanjore prope Negapatam, frequen-tissim^*. (Wight.)—Floret per totum annum.

Species est, a *Justicia Ecbolio* benf distincta: caule humiliore, foliis parvis, 1^—2 poll, longis, sessilibus obtusis elliptico-subrotundis; bracteis subrotundis apice rotundatis basi nonnihil attenuatis, inaequaliter argutis denticulatis, brevi mucronulo praeditis, capsule semper brevioribus; corolla minore, labii inferioris laciniis obovatis, superiore labio subulato. (*J. Ecbolii* labii inferioris laciniis ovalis, superius labium lineare bidentatius;)

Hæc fortass^, cum *Justicia Ecbolio* confusa, definitionem Linne-anum obscuram reddidit.

3. *Justicia dentata* Klein.: spic& terminali tetragon*, bracteis ovatis longè cuspidatis erosio-dentatis pubescentibus capsulam aequantibus, foliis elliptico-oblongis utrinque attenuatis glabris, labio superiore linearie reflexo.

a. bracteis obiter dentatis.—*Justicia livida* Herb. Hamilt. Wall. Cat. n. 2432 e. *Justicia fasculata* Herb. Russell. Wall. Cat. n. 2432 h.

j3. bracteis evidenter et profundè dentatis.—*Justicia dentata* Klein in Herb, Willd. Link Jahrb. d. Gewächsk. i. 3. p.49. Schult. Mant. I. p. 130. n. 8 a. Willd. Sp. PL ed. 2. i. p. 366. *Justicia Ecbolium* Wall. Cat. n. 2432 b, c. 'Herb. Wight, n. 77 ex parte.

Crescit in nemoribus Indiae. In Segae ripae Irawaddi, a. 1826; in ripa Gangetis ad Paturgatta, a. 1820. (Wall.)—In H. b. Calc.

Folia basi cuneiformia, apicem versus attenuata; bracteae long& cuspidatae, inaequaliter erosio-dentatae, puberulae. Corollae tubus longissimus, laciniis ovalibus, labio superiore linearie. Capsula bracteam aequans vel parumper tantum excedens.

4. j *Justicia ptychostoma* Wall.: spicis in caule ramisque terminalibus angustis basi diphyllis, bracteis orbiculatis petiolatis venoso-reticulatis ciliatis mucronatis deciduis, foliis ovali oblongis obtusè cuspidatis glabris, corolla.—*Justicia ptychostoma* Wall. Cat. n. 2478.

In Penang legit GJ Porter.

Exemplum incompletum hujus esse generis, ex sola inflorescentia et residua capsularum nonnuUarum parte infera asperma commis-suraque plana instructa, conjicio.

Frutex, ramis gracilibus longis, supernè acutius tetragonis, articulis longis. Folia opposita, inaequalia: alterum 6—8 poll, longum, 2^ latum, alterum 3—4f p. longum; caeterbm conformia; petiole pollicari. Rami axillares oppositi vel alterni, terminales quini, spicigeri, aliquot pollicum, basi longe aphylli, apice diphylli foliis inaequalibus 3- et 1 ^-pollicaribus: terminalium ramorum intermedius brevior aphyllus, exteriores 2 longiores, turn 2 longissimi, mono-stachyi iterumve divisi. Spicae 1—2-pollicares, dum bracteis tectae tetragonae. Bracteae 2—2J lin; longae. Bracteolae calyce, vix 1 £—1 x lin. longo, dimidi6 breviores, trianguli-lanceolatae. E corolke de-structae vestigis semipollucarem earn fuisse augur; nomen autem labium plicatum prodere videtur. Germen glabrum, annulo glabro cinctum, quadriovulatum. Capsulae residua a basi asperma, valvulis plano-contiguis.

XLVIII. RHINACANTHUS*.

Justicia spp., Linn., Wall.

Calyx regulariter quinquepartitus, bracteis bracteolatis parvis subulatis. Corolla hypocrateriformi-bilabiata, tabo longo gracili, labio superiore angusto, infero trifido laciniis aqualibus. Stamina duo, fauibus inserta; antherae bilocellatae muticæ, locello altero supra alterum serie ferfe linearie positio. Capsula clavata, basi longo tructu compressa, commissuræ valvularum contigua, aspermu; in parte superiore quadriovulata, tetrasperma vel abortu disperma. Dissepimentum completem, adnatum. Semina ovata, biconvexa, retinaculis suffulta. Retinacula concava, obtusa.—Inflorescentia: paniculae axillares in terminalem transeuntes, trichotoinae, rainis bifidis. Flores drca apices ramulorum arclnmrr.iti v>1 brevispicati, albi.—Frutices.

* "Acanthus flore nasuto," a ~~sp~~ et ~~sp~~.

1. *Rhinacanthus communis*: paniculis axillaribus terminaliisque trichotomis, labio superiore linearis recto, foliis ovato-oblongis.

a. glabra vel pubescens, foliis oblongis utrinque aqu& attenuatis cauleque glabriusculis, paniculis lateralibus saep6 dichotomis.—*Jussia nasuta* Linn. Sp. PL p. 63. Willd. Sp. PL ed. 2. i. p. 383. R. et Sell. S. V. i. p. 156; Mant. i. p. 139. Roxb. EL Ind. ed. Car. et Wall. i. p. 121. Blume Bydr. p. 785. Wall. Cat. n. 2440 a—d, f, g; etn. 2498 b. (ex parte, casu admixta.) Wight Herb. *Carmantine tubuleuse* Lam. Enc. M&h. i. p. 601. n. 31. (excl. var. (3).)—*Pulcolli Rheed.* Hort. Mai. ix. p. 135. t. 69.

j8. magis minitiva villosa, foliis ovato-oblongis, basi minus angustatis, ratione longitudinis latioribus, paniculis lateralibus trichotomo-dichotomis^ramis scandentibus ()).—*Justicias scandens* Vahl Symb. n. p. 7. Ennūm. i. p. 131. Willd. Sp. PL ed. 2. i. p. 383. R. et Sch. S. Veg. i. p. 150. Poir. Enc. Méth. Suppl. II. p. 103. n. 66; Wall. Cat. n. 2440 e.

Crescit var. a in Madras et Negapatam, culta verò et vix indigena iis locis. Wight in litt.—"Non nisi in hortis inveni, neque scio unde sit introducta. Floret per totum annum, sed nunquam maturat fructus." Roxburgh.—"Ad sepes. Floret omni tempore." Blume.—Nomen Sanscr. *Yoothica-párnee*. Bengal. *J6oi-pana*. Teling. et Tamul. *Nagamulli* (i. e. *Jasminum Cobra de capella*). Roxb.—Javan.: *Trebe Japan*, *Kalawara Damon Sarong Burning*. Blume.—Vidi exempl. H. b. Calc.; turn e collibus Deyra vicinis exempla, *Petalidio*, *barlerioidi* (Wall. Cat. n. 2498 b.) admixta. In Govindgunga et Daudnaghur: Hamilt. In Madras: Wight.—Var. [3] spontanea in angustiis nemorosis montium Paulgāt churý chita (Wight). In montibus Proms 1826. Et in-Herb. Madr.

Var. (8 pubescētā magis minusve conspicuā in caule paniculis que villosula, et foliis magis ovatis, sed nullā alia re differre videt. Capsulae, in hac var. obviae, clavatae, apice compressiusculae, of- Co., mucronatae, pubescentes, tetraspermae, abortu dispermae; (post obovata, utrinque convexa, basi inaequali angusta emarginata Ptherae

2. Rhinacanthus R&ttlerianus: caule scaberrimo, panic^{ast} jilibus, nali coryniuc?^a trifida, labio superior[^] linearis recto, & Cibpsilia cuneiformibus obtusis.—*Justicia Roettleriana* [Valr.] ff. 24771

Ex Herbario Madraspatano.

Difffert a. *Rhinacantho communi*, cui admodum similis est: ramis gracilioribus, lineolis confertissimis elevatis setulisque incurvis seberrimo, ramis florentibus axillaribus paucis aut nullis, sed termis terminalibus longioribus gracilioribus dichotomis fastigiatis, paniculam corymbosam constituentibus; foliis (medis salt&m) brevissimis petiolatis, ex oblongo ovalibus basi cuneatim attenuatis, apice vel obtusis vel brevissimis acutis, confertim lineolatis, caeterum glabris, superioribus lanceolato- vel oblongo-cuneiformibus sessilibus; limbo corollse, ratione tubi, paull6 breviore. , Calycis, bractearum, corollae, staminum reliqua structura non differt.

3. Rhinacanthus calcaratus: panicula terminali trichotomâ, labio superiore linear-attenuato incurvo apice angustissimâ bifido, foliis ovali-oblongis.—^Mjricaca/cara/«Wal PL As. Rar. n. p. Q. 113. Cat. n. 2426 a. b.

In montibus provinciae Sillet legit Fr. de Silva. Floret mense Martii.

Proximo affinis *Rhinacantho emmuni*, sed speciosior. Caulis (ramus) stnetus, simplex, tetragonous, glaber, medulla farctus. Folia 7 - 8 poll, longa, 2X_2ipoll. lata, bai in petiolum brevem crass tngonum desinentia, nitida, penninervia. Panicula (semipedalis) sum in 1072 JTM 77 (10) Pat e shi hissum, la^loso-pubesca. a < | i hn longitudine in bracteolas decrescentes. Calyx .tmm, tubo squah fibiformi. Ovarium pubescens, annulo nectarife^, crasso cupulan margine glabro integroque cinctum.

Subtribus VI. DICLIPTEREE.

BLECHUM JUSS.

Ruellia B specc, Linn.

Calyx profundus quinquefidus regularis. Corolla infundibuliformis;
Vol. III.

tubo longo subaequali, limbo brevi regulari quinquefido patulo rotundato. Stamina quatuor inclusa, tetradynama tubo fer[^] medio inserta. Antherae bilocellatae, ovales, muticae, locellis parallelis subaequalibus. Capsula ovata, subventricosa, utrinque convexa, a basi seminifera, bilocularis, juxta basin octo-pleiosperma. Dissepimentum completum, a dorso valvulae demium solubile, corniforme un[^] cum retinaculis validis delabens, a basi capsulae clausa articularim discretum. Scmina suborbiculata, compressa, pellicula mucilaginosa vestita.—Forma anomala: Capsula longiori spatio a basi compresso-clausa, tetrasperma. Dissepimentum basi discretum, sursum adhaerens, (tamen separabile); demium elastic[^] assurgens, retinaculis in parte libera persistentibus terminalibus.—Inflorescentia: spicae, rari^us axillares, plerisque terminates, crassiusciliæ vel crassæ. Bracteæ latae, herbaceæ, quadrifariae, plerisque ciliatae, fasciculum glbmeralem florum (ternorum vel binorum) tegentes, cui utrinque bractea ungustior opposita. Bracteoleæ ad basin florum lateralium singuli fasciculi subpedicellatorum binae, parvæ, calycis laciniis subsimiles. Herbae pleræque Americae tropics; una species Insulae Luzon indigena.

Adnot. 1. Genus hoc in continente Indiae orientalis, uti videtur, non obvium, haud omnino tamen ex orbe vetere exulat; cuius rei testem habeo Herbarium Hoenkeanum, speciem hujus generis, iV *Luzona* insula lectam, eamque Americanis ejusdem generis speciebus valde similem ostendens.

Adnot. 2. Inflorescentia Blechi, a Rungiae inflorescentia (quam vide infra expositam) non adeò discrepat, ac primò quis intuitu existimaret. Etenim si cautè explicaveris unam bracteam cum flororum apparatu, quern tegit, hacc invenies: 1°, bracteam majorem, ramuli rudimentum foventem; 2°, bracteas dicas minores angustiores, sej*izv!L^Eirdni&, rami dichotomise ita subjectas, ut florem medium, seu carneam. Capsulā 2^a r^m, seriùs explicatum, sensu opposito amplexicili gemini vel solitarii resi.^ioris bractae positum, multò prius ex-

4. *Dicliptere cardiocypria* ^ A^ H bracteolis angustis; 4° „R!3V>
glabris, pedunculis. £ ^ V^%; ^ hi^rnusi? vy*- " „lt%ra jma*
td^subbifl(# ^ ^ %. % T^ svxko £^Tu
cuneifora Vobiu& * \ i " V^" " ^

1- *Justicia chinensis* va. ¹ H. Wamfl. ^b V. x^a
spicis terming... ^{rⁿ} Wlamcotta
tis ciliatis bifloris.—N. ab E. flton.

In Luzona insula legit b. Heenke. Vr^h; exempl. Herb. Haeuk. in Museo Pragensi.

Proximum in serie specierum *Blechum Linncci* mihi: foliis ovalibus lineolatis serrulato-ciliatis subintegerrimis, spicis axillaribus terminalibusque tetragonis, bracteis ovatis long& ciliatis bi-trifloris, corollis bracteas superantibus, 1. c. ined. Lin. Amoen. Acad. v. p. 400, a *Blecho Brownei* Juss. satis sup&rque ep differente, praeter characteres, supra adnotatos, etiam sequentibus: foliis longius petiolatis ovatis bracteisque latioribus setis distansibus adspersis; a reliquis autem, (scil. *Blecho Brownei* Juss., *Hcmkei* N. ab E., *blechioide*,) non solum foliorum latitudine, sed etiam marginibus istorum ferintegerrimis. Reliqua 1. c. pluribus exposita inveneris.

XI IX RUNGJA

Justicia spp. Linn. Wall. *Diclintera* spec. (subdiv. 3); Juss.

Justicia spp., Linn., Wan. *Dicliptera* spec. (subdiv. 3.) Juss.
 Calyx ((un)quepartitus, regularis. Corolla bilabiata, labio superiore bidentato, inferiore trilobo palato biplicato. StamiAa duo. Antertherum locelli obliqu[^] alter super altero positi: inferior appendice orbiculata lacinellari instructa. Capsula bivalvis, bilocularis, tetrasperma, a basi se.minifera; dissepimentum membranaceo unq cum parietibus capsulae lateralibus a dorso valvarum dehiscentium secidente. Semina concentric[^] rugosa, compressa, retinaculis suffulta, quorum inferius a basi dissepimenti reflectitur.—[^]Inflorescentia: spica quadriglari^m bracteata, bracteis margine meznbranaceis, ordinum duorum superiorum vacuis, inferiorum unifloris. Bractae prospice duas, opposite, lineares, calye vix longiores. Calycis lacinia lineares, ciliatae, membranaceae.

Ferdinandus Runge, Philos. Dr. et Professor Vratislaviensis,
2 F

Phytocleianum multis experimentis uiuguu iugenii acumine conceptis summ&quic dexteritate institutis novâ luce illustravit, et doctis operibus suid amplificavit. Quorum meritorum memoriam hoc genere celebrandam suscepit.

Adnot. Genus a DICLIPTERA distinctum non mod6 habitu generali et floribus ringentibus spicatis, sed antheris etiam basi lobulo candido' orbiculari loco calcaris appendiculatis, et capsula, in dehiscendo a carina dorsali cui dissepimentum adnexum erat, un& cum hoc infern& secedehe.

1. *Rungia linifolia*: bracteis fertilibus sterilibusque subaequalibus conformibus ovalibus cuspidato-mucronatis aveniis subflissimfc ciliatis margine membranaceis, bracteolis linearis-subulatis, caule foliisque lanceolatis obtusis scarbris, spicis terminalibus pedunculatis |ncvLTviz.-*Justicia linifolia* Herb. Heyn. Wall. Cat. n. 2447-

Vidi exemplum Herb. Heyneani.

Planta tenera, gracilis. Caulis ligneae quidem texturæ, palmaris, semipedalis, teretiusculus. Folia (rami) 8—9 lin. longa, 2J lin. lata, sessilia j. ramulorum pauca, dupl. minora. Spicae solitariae, 1 poll, longse, secundae. Bracteæ, more generis, spiratim posite, 1 lin. longae. Corolla 2 lin. longa, glabra, pallid^ purpurea (nee alba?), tubo cylindrico. Capsula 1 lin. Tonga, ovalis, depresso-tetragona, pubescens.

2. *Rungia parviflora*: bracteis fertilibus suborbiculatis cuspidatis nervoso-venosis ciliatis margine membranaceo, sterilibus ovalibus oblongis, bracteolis membranaceo-marginatis, emarginatis mucronatis, foliis lanceolatis obtusiusculis, caule diffuso repenteve, labio superiore acuto.

«. bracteis sterilibus ovali-acuminatis, acumine rigido.—*Justicia parviflora* Retz. Obs. v. p. 9. Willd. Sp. PL t. p. 101. *Justicia pectinata* Roxb. PL Corom. II. p. 29. t. 153. Fl. Ind. e\$>G*^ ^ Wall. i. p. 134. n. 30. Lam. Enc. M^th. p.630'. «fnis aequalibus. n- 2458 a, b, c (ex parte), e (ex parte), ^6 longo, labio superiore angusto *Dicliptera ccerulea* BlumaJBmiis aequalibus. Stamina duo; antherae bilocelide^; 'ioa?ms parallelis basi subinaequalibus muticis. Capsula basi compressa asperma, apice dilatata depressa pusta cuspidata bilocularis *disperma*. Semina profund^ cordata, margine elevata cincta, compressa, tuberculata, retinaculis suffulta. *Ketiya* ^ uncinata, valida.—Inflorescentia: spica temiiRalis, br->

at. n. 2458k.

y submutica: glabra, bracteis subtrinervibus oblongo-lanceolatis subimmarginatfr. yix mucronatis,, fertilibus, obovatis.—r*Justicia pectinata* Herb. Madrasp. Wall. Cat. n. 2458e (ex parte). *Dicliptera curulea* var. b. Bluroe Bydr. p. 791.

Crescit a in pascuis humidis (Wight). In Mpnguir et Nihinaghur (Hamilton); in Napalia inferiore et Turraya, Napaliam versus (a. 1820, Wallich). In Moalmyne, a. 1827.—Var. 8 in montibus Sillet (p. D.; et a. 1829. G. Gomez); Mahuyadabur (Hamilton). Vidi etiam in Herb. Heyn.—{3* in montibus Promae oppositis (a. 1826).—Var. y in Herb. Madrasp. vidi.^ Ad pedem montia Tjerimai Javae insiuli (Blume).

Species elegans, tota gross^ lineolata. Bracteæ inferiores latius marginatae, Aombeo-orbicularares. Bracteolæ calycis majores, obcordate, parte viridi quidem ovata. Calyx ciliatus, membranaceus. Corolla et capsula dupl. minores, qukm in *Rungia repente*. Corolla tete ccerulea, labio superiore ovato in acumen contracto, reliquis norisnictusque partibus ut in ilia.—Invar. /3 spicae paull6 breviores, pleraque ternae axillari-aggregatae. Var. 0* recedit a /3 foliis ellipticis majoribus cauleque erecto (?), qui repens in ilia.—Var. y margine b. pactearum dorsalium (yix acutiuscularum) fer6 nullo longius quidem istare videtur, sed reliqua, imprimis bracteole et corolla, eadem, ae in JUB**I*wne bractese quandoque acutatae. Folia long^ petiolata.

Adnot. *Dicliptera pectinata* Vahlii certd ab hac eBfe/distincta, fort desse etiam Linneana ejusdem nominis *Justicia*.

3. *Rungia polygonoides*: bracteis communibus suborbiculatis mu cronulatis trinerviis propriisque navicularibus margine lato membranaceo cijictis fciliat, foliis infequalibus dbtusis, inferioribus ovatus inioribus, superioribus lanceolatis, spicis axillaris glomerulibus, caule baai repente.-Wall. Cat. n. 7181.

In Tavoy d. 8 Nov. a. 1827 legit GuiL Gomez, sine floribus.

Planta herbacea, forms *Polygoni avicularis*. Folia inferiora unguicularia, superiora pollicaria; alterum singuli paris' minus et sspf diffbrme; oninia integerrima, ad costam et petiolos scabra. Spicae pisi magnitudine sessiles, subglobosae. Bracteæ omnes fertiles (?), subrotundae. Bracteolæ ut praecedentis. Calyx membranaceus, quinquefidus, laciinis ciliatis.

4. *Rungia origanoides*: bracteis communibus orbiculatis muticis villosis margine lato membranaceo cinctis, propriis duplicitibus, interioribus linearibus, exterioribus navicularibus obtusis subtomentosis, spicis axillaribus sessilibus secundis brevibus, foliis lanceolatis obtusis glabriusculis.—*Justicia pectinata* Blume Bydr. p. 790. Wall. Cat. n. 7182 a, b.

Crescit locis umbrosis Indiae or., floret tempore frigido. Roxburgh.—In ripis fluvii Attran ad Nidauni et fluvii Saluen ad Meaung a. 1827. Circa Linga Jattie provinciae Cheribon Javae, floret Septembri etc. Blume.—^Nomen Javanicum *Katumpan lanang*. Bl.

A confinibus diiFert: spicis, plerumque solitariis, rariis geminis, oppositis axillaribus, circiter unguicularibus sessilibus hirto-incandescentibus; bracteis obovato-orbiculatis margine integrō ad apicem latissimo, cuspidate partis viridis non vel rarissim^ tantiū penetrante; calyce quadribracteolato scil. intra bracteolas exterioreas naviculares obtusas villosa-toinentosas marginatasque adjectis ad ipsam basin calycis aliis duabus bracteolis linearibus laciniisque calycis persimilibus, que magis ad latus exterius spectantes, alterius floris rudimentum produnt. Calyx, ut in reliquis, vald^ villosus. Corolla vix 2 lin. longa, ket& coerulea (Roxb.). Capsula lineam longa, alba, glabra.

5. *Rungia repens*: bracteis ovatis cuspidatis enervibus margine lato anrente subciliato, bracteolis lanceolatis, foliis oblongo-lanceo-ns acutis, caule repente.—*Justicia repens* Linn. Fl. Zeyl. p. 20. ret^. FL Ind. p. 8. Roxb.'Fl. Ind. ed. Car. et Wall. i. p. 133. cuspidat. n> 2459 a-g. Wight Herb. n. 45. *Dicliptera retusa* n. 24?; Ann. du Mus. ix. p. 269. *Dicliptera repens* R. et Sch. I pp 171. Mant. i. p. 148. Willd. Sp. PL ed- 2. i. p. 427. Ex*^ ^ . pi. N. HoUed. N. abf. r. ^ 332. ^rmantinc et regulae L. 2. Tiffc^M^th. i. p. 629. ii. 22. III. Gen. n. 126. Poir. Suppl. II. p. 109. n. 102. *Adhatoda spicataflosculos exfoliolis membranaceis producens* Burin. Thes. Zeyl. p: 7. t. 3:f. 2.

(irritosa.—*Justicia repens* var. Herb. Madr. Wall. Cat. n. 2459 b ex parte.

Crescit in pascuis Indiae orientalis; floret tempore pluvio frigidoque (Roxburgh). In pascuis humidis Cannanora frequens (Wight Herb.); in Chittledroog (Heyne); Rajmahal (Wallich); in Munghir, d. 26 Sept. a. 1811, et in Balahat (Hamilton). In Zeylona insula (Burmann).—Var. 8 in Herb. Madrasp. vidi.

Flores pallid^ rosei/parvi.—Var. 3 differt mod6 caule cum foliis bracteisque villosis, foliis nonnihil latioribus.

6. *Rungia Wightiana*: bracteis venosis margine apicem versus hyalinis subflissimfc ciliatis, sterilibus oblongis acutiusculis, fertilibus rhomboe-cuneiformibus obtusis, bracteolis membranaceis ovalibus mucronulatis, foliis ovato-oblongis apice vald^ atteuiuatis, spicis laxis terminalibus, caule herbaceo.—*Justicia Wightiana* SfiaR.; Cat. n. 2472.

Vidi exemplum Herb. Wightiani.

Soli *Rungia Punduarue* est affinis. Tota ferre glabra, foliis supri setis crassis rarb incumbentibus hispidulis, inflorcscentia tenuissimfe puberulâ. Caulis erectus. Folia media cum petiolo 2-pollicari, 6 poll, longa, || poll, lata, acumine longo obtuso, nervis costaibus quinis. Spica terminalis 1—3 poll, longa, basi ramosa. Bracteæ patute, parium obliquitate spirales, 2£—2£ lineas longa; sterilcs paull6 minores. Bracteote lineam long*. Corolla 3 lin. longa, tubo (an tota?) rosea. Capsula 3 lin. longa, ex ovali oblonga, baii angustior, glabra.

7. *Rungia Punduana*: bracteis rhomboe-spathulatis acutis venosis, steriliu marginali exteriore, fertilium terminalibus membranaccis ciliatisque, bracteolis lanceolatis, foliis oblongis utrinque attenuatis, spicis axillaribus laxiusculis, caule froticoso.^ WA7, «a *punduana* Wall. Cat. n. 2453.

In Pundua legit Fr.de Silya.

Folia opposita, patentissima, 5—0 poll, longa, 1j—U poll, lata,

integerrima, glabra, utrinque punctulata. Spices pollicares vel paulli longiores, opposite, solitarii vel geminae, pedunculo brevi. Braeteae disticho-alternae, approximate, 3—3[^] lin. longs. Flores sessiles. Bracteolae calyce paulli longiores, 3-lineares. (Corolla deest.) Germen ovatum. Capsula 2 lin. longa, oblonga, compressa, pubescens, disperma. Retinacula parva, obtusa, emarginata.

Adnot. Etiam si flores perfecti deficiunt, dubium tamen non est, quin sit hujus generis, et ejus quidem eximia atque distinctissima species.

Adjicere liceat novam ejusdem generis speciem Americanam:

Rungia ciliata: bracteis fertilibus orbiculatis in petiolum attenuatis ciliatis immarginatis, sterilibus bracteolatis lineari-spathulatis, foliis oblongo-lanceolatis utrinque acuminatis, spicis axillaribus terminalibusque partialibus umbellalim compositis, caule fruticoso.

In nemoribus humidis Seme dos OrgSos, Januario. (Beyrich.)

Caulis fruticosus, 1[^]—2 pedes altus, ad genicula infractus. Folia 4—5 poll, longa, 1 poll, lata, margine scabra, subcrenulata, supra punctulata, glabra, Spicae partiales in axillis foliorum superiorum inchoates denique in spicam terminalem oblongam 2—3-pollicarem aphyllam confertae, ipsae breves umbellatim geminae vel ternae subcundiflorae. Braeteae fertiles 3-lineares, oppositis sterilibus brevioribus et multo angustioribus. Corolla semipollucaris, angusta, puberula, purpurea. (Frustus deest.)

Adnot. A *Rungia* (*Justicia* L.) repente differt bracteis evidenter ciliatis, foliis angustioribus, corollis minoribus; a R: *Brasiliensi* (*Dicliptera* br. Spr.) caule, praeter lineas setulosas, glabro, spica terminali, bracteis venosis, neque nervosis, ciliatis, corollae labio inferiore latiore trifido.

L. DICLIPTERA, JUSS.

Justicia specie, Linn, et Auctt.

Calyx quinquepartitus, aequalis, in capitulo bracteato sessilis. Corolla resupinata, bilabiata, labii planis vel concavis, superiore (post conversionem) tridentato, inferiore integro vel bidentato. Antherae bilocellatae, loculis juctis porae? Uerum positis muticis semiovalibus, post pollen ejectuni membranaceis mndblati* (nee contorti^r/Cupsula bivalvis, bilocularis, basi brevi spatio compressa unguiculata asperma, commissura v^vularum plana; apicem versus deppressa, dorso valvulanim, <isto piano, tetrasperma;—vel sessilis juxta basin tetrasperma. Dissepimentum maturo fructu a dorso valvularum parietibusque discedens arcuque adscendens, retinacula ad apicem elevans. Semina retinaculis suffulta, discoidea. Retinacula uncinata.—Inflorescentia: capitula, bracteis involucralibus plurimum ordinum, exterioribus binis oppositis majoribus, inclusa, in umbellulas axillares et denique terminates flabellatim disposita.—Caulis plerarumque sexangularis. Flores quales in PERISTROPHE, sed minores.

1. *Dicliptera parvibracteata*: foliis ovatis acuminatis bay acutis supr lineolatis setulis adspersis, pedunculis axillaribus subgeminis umbelliferis, radiis simplicibus trifidis, floribus capitatis terbis, involucri diphyllo foiliolis lanceolatis calyces vix aequantibus.—*Justicia umbellata* Wight Herb, prop. n. 51.

In terris drears dictis, ad Rajahmundry. (Wight 1. c.)

Folia (superioris caulis partis) cum petiolo f pollicis 3 poll, longa. Bractae primae divisionis unguiculares oblongae, petiolatae; secundae, s. umbellulae, lineari-subulatae, scabrae. Capitula seminis Cannabis mole, bi-triflora; bracteae involucrales tot, quot flores, oblongo-lanceolatae, calyce (lf-lineari) breviores; bracteolae duae lineares ad basin calycis. Corolla circiter 4 lin. longa; palKda, glandulosopuberula. Calyx glandulis scaber.—Fructus . . .

Species distincta, sed ad exempla nostra non rit^e explicanda.

2. *Dicliptera cuneata*: foliis ovatis basi acutis cauleque minute lineolatis glabris, pedunculis axillaribus petiolo longioribus tri-quinquefidis, capitulis subbifloris, bracteis cuneiformibus mucronatis irinervibus pubescenti-scabris margine nudis.—*Justicia umbellata* Wall. Cat. n. 2467 a, c, d. Herb. Wight, prop. n. 50. *Justicia chinensis* var. /3. Herb. Hamilt. Wall. Cat. n. 2466 b ex parte. *Justicia laterbrosa* Herb. Wight. Wall. Cat. n. 2467 d.

Crescit in Travancore (Herb. Madr.); in Courtallum (Wight; 1. c.); in Mumiari (Hamilton).

Similis *Dicliptera parvibracteata* et *D. bupleuroides*; differt a priore radice annua et bracteis mucronatis pubescenti rainutâ subglandulosâ scabris, nee aristatis atque ciliatis; a posteriore bracteis non ciliatis, basi magis attenuatis, bracteolis calycibusque minus acuminate, neque adeo fer^r capillaceis. Bracteolae duae setaceae cingunt calycem. Corolla 4—5 lin. longa, pubescens, purpurea, labiis subaequalibus oblongis obtusis integris?). Capsula pubescens, unguiculata, sursum elliptica. Retinacula falcata.—Caulis a basi ramosissimus.

3; *Dicliptera bupleuroides*: foliis ovatis acuminatis basi acutis supra lineolatis glabris, pedunculis axillaribus simpliciter composite umbelliferis, floribus capitatis geminis, involuci diphyllo foiliolis inaequalibus oblongo-lanceolatis mucronatis, bracteolis acuminato-crinitis.—? *Justicia chinensis* Wall. Cat. n. 2466 d. *Justicia canescens* Wall. Cat. n. 2423. *Justicia rotundifolia* 1. c. n. 2489 ex parte (incomplet.). *Lepidagathis cristata* Wall. Cat. u. 2421 a ex parte.

j8. foliis angustioribus ex elliptico oblongis, pedunculis brevioribus flores quasi verticillatos exhibentibus.—*Justicia chinensis* var. prior Roxb. Fl. Ind. p. 126. Observ. Wall. Cat. n. 2466 b tet f. *Justicia chinensis*, var. y. Herb. Hamilt. Wall. 1. c. b y.

In Sillet legit F. D. et al. 1827 Guil. Gomez; in Napalia a. 1821 (Wallich.). In Herb. Madr. cum *Lepidagathis cristata* promiscua. Wall. Cat. 1. c.—Var. /3 in Goalpara (Hamilton); ki Sirmore (Gerard).

Caulis obsolete hexagonus, glaber, herbaceus. Folia 3[^]—4[^] poll, longa, 1—li poll, lata; petiolo 1[^]-pollicari. Pedunculi inferiores longiores, superiores denique geminati et breviores, apice flabellatim quinquefidi; proprii |—1[^]-pollicares, alii capitulo simplice, alii 3—5 brevipedicellatis. Involuci foliola 6 et 4 lin. longa. Capitulum 2-florura, bracteolis 3-linearibus. Corolla §-pollicaris, pubescens, carnea. Capsula 2% lin. longa; semina muricata.—In iar. /3 pedunculi gemini vel solitarii rest^r, rarissim^r terni.

4. *Dicliptera cardiocarpa*: foliis ovatis basi acutis supra lineolatis glabris, p

subbifloris, cuneiformi obliquis, i, : nubes g, sura.—*Justicia chinensis* var. fi. Her. Hamilt. ex parte.

alamcotta

In Nihinaghur legit cl. Hamilton.

Differ a *Dicliptera riparia*: umbellulis pedunculo (brevi quidem) in strictis, nec sessilibus, internodiis floralibus minus hirsutis, neque bracteis etiam undique hirsutis sed ad margines tantum ciliatis, capsula perfecta obcordata hirsutâ, neque (praeter basin angustum) ellipticâ pubescenti-scabrá;—a D. *Roxburghiana* bracteis majoribus ex obovato cuneatis juxta apicem latioribus, neque ad apicem leniter rotundatis, per sé quidem angustioribus a iasi ad apicem longe moliterque ciliatis, saepè retusis, ab altera opposita oblonga mucronulataque latitudine et longitudine multo magis discrepantibus; capsula obcordata, nec elliptico-orbiculari cum mucrone;—a I), *cuneata* jam e ciliis bractealibus, quibus ista caret, multisque aliis facile distinguatur,—faciliusque a D. *Burmanni* et D. *bupleuroides*, quibus bractae longius sunt mucronatae, ciliis paucioribus rigidioribusque instructe, et capsulae multum diversas.

Articuli florales pubescenti-scabri. Capsula 2§ lin. longa, cordata, basi cuneiformi, dens^r pubescens.

5. *Dicliptera Roxburghiana*: foliis ovatis subcordatis utrinque acutis supra substrigosis, umbellis axillaribus quaternis quinise seriatis tri-quinquefidis, involuci diphyllo foiliolis inaequalibus obovatis mucronulatis ciliatis venoso-trinervibus, capsula ovali-subrotunda compressâ unguiculatâ hirsutâ.—*Justicia chinensis* Roxb. Fl. Ind. ed. Car. et Wall. i. p. 125. R. et Sch. S. V. Mant i. p. 146. (locus Fl. Roxburgh.)—Wall. Cat. h. 24CG a.

Vidi exemplum cultum ex Horto bot. Calc. in Herb. Hamilt., Novembri cum floribus capsulisque maturis decerpsum.

Roxburghii verba hanc plantam iherific^r adumbrant.—Similis *Dicliptera jBurmanni*, sed differt: caule lineatim pubescente, foliis majoribus longioribus petiolatis (2—2[^] poll, longis ovatis), supra parciis strigosis^r umbellis majoribus longius pedunculatis (decrecente

exteriori aversu 8 longitudine); bracteis majoribus latioribus (5-5lin. loneis, 2| lin. latis,) obovato-ellipticis, basi multo minis angustatis, nee membranaceis, obtusiusculis cuin mucronulo, trinervibus, a medio ad basin ciliis aroloth tenerioribus praditis, (scabris, altera & minore) capsuhe ungue | omnis longitudinis explente, reliqua parte minus compressa ovali-subrotundat mucronata, pube patula vestita, te ra-sperina.-Corolla ad apicem labii supini lato-linearis 3-denticulati 4 lin. longi puberula, dentibus-apice barbulatis; resupinum labium latius, ovali-subrotundum.-Semina subrotunda, fusca, munculata. ^

6. *Dicliptera Burmanni*: foliis ovalibus utrinque acutis supra substrigosis, umbellis axillaribus simpliciter dupliciterve, quaternis quinvis seriatis trifidis brevissimè pedunculatis, involuen diphyllofoliolis inaequalibus spathulatis mucronato-cuspidatis, cihiatis basi membranaceis, capsula orbiculari compressa tomentosa brevissime unguiculata (*Aispem S.*).—*Justicia chinensis* Burm. Fl. Ind. p. 8 t. 4. f. 1.1. Lam. Enc. M'th.i. p. 630; n. 24;-Linn. Sp. PL p. 22. Wall. Cat. n. 2466 e.

Vidi exemplum unum Herb. Wight, ex herbario Rottlenano, teste schedula addita, profectum.

Dicliptera micrantha confinis, sed longe distat. Caulis tetragonus, scabriusculus. Folia (superiora) ^—1§ P'H- J'nga, 6 - 7 lin. lata. Umelte axillares verticillatis densos exhibent; pedunculi linearum longi. Capitula basi ebracteata, tri-, abortu um-flora. Bractes involucrale* due, 4£ et 2£ lin. long*. Corolla 4 lin. longa, pubescens, rosea (?). Capsula 1 lin. longa. Semina eculnulata, pallida.

Adnot. Capsula fere orbiculari- ab omnibus cognatis, maximeque a *Dicliptera micrantha* difert.

7. *Dicliptera riparia*: foliis ovatis basi acutis cauleque minute lineolatis glabris, floribus verticillatis subcapitatoe-axillaribus, involuci foliolis obovato-cuneiformibus retusis mucronulatis hirsutis, capsula unguiculata ovali pubescenti-*cabra mucronata—*Justicia* -Wall. Cat nj 7183 a, b.
antherae Dnotjur^ion \ll in m \ll aHeli baomae, et in ripa Attran fluy, Capsula basi compressa ^perma, apice din Martabania, d. 6 Mar* i pidata bilocularis *disperma*. Semina profi , mar \ll vato cincta, compressa, tuberculata¹ tma \ll t_{er}c_{ti}-sexangularis. In

fl c \ll nstituunt. Bracte* involucrales du*, (abortu) uniflorae² teofe ad basin calycis et rudimenti du \ll , linearis-acuminate. Corolla semipolliearis, pleruinqueresupinata, pubescens, purpurea; faucibus inflatis. Capsula pubescens, ovalis, obtusa, basi brevemnguiculata ideoque ad speciem obovato-clavata, apice depresso-tetragona, tetrasperma.

8. *Dicliptera micranthes*: foliis ovatis acuminatis, umbellis axillaribus subsessilibus tri-quinfidis subseriatis, floribus capitatis temis, involuci diphyllo foliolis insequalibus sessilibus oblongis partialibusque (quaternis) lanceolatis mucronato-cuspidatis basi utrinque membranaceis ciliatis, capsula sessili oblongo-tetragona. *Justicia chinensis* Vahl Symb. n. p. 13. Wall. Cat. n. 2466.

/3 laxior: infloreatentia depauperata, pedunculis umbellarum nonnullis magis elongatis.—M \ll *cifl *orbiculata* Wall. Cat. n. 2489 ex parte (probabiliter casu admixta).

Vidi exemplum utriusque varietatis in Herbario Wightiano.

Dicliptera parvijbra et reliquis cognatis stafim distinguuntur floribus feri verticillatis a basi caulis frequentibus, verticillis villosulis, corolla exigua vix bracteas excedente, et capsute sessili ovali-tetragon&, neque omnino basi unguiculata.—Planta annua est, radice recta descendente tortuosa. Caulis a basi ramosus, ramis patentissimis divaricatisque. Folia caulina media, cum petiolo pollicari, 3—4 pollices longa, 1—1£ poll: lata; infima minora obtusaque, reliqua acuminata. Post anthesin caulis foliis ferfe orbus, foliorum verticillis solis residuis vestitur. Umbellulse breves, in caule primario extra et intra ramos glomeratae, in ramis, ad typum communem, teruae vel quaternae in basi petiolari compressa brevissimaque seriatae, pedunculo vix lineam longo compresso suffult \ll . Bractes rigidulas, non nisi ad basin utrinque membranaceise, rigido-mucronataB. Corolla 1^ lineam vix longa, angusta, pubescens, pallida; labia ovata: supium

pauli6 brevius, trilobum, resupinatum obsoletè emarginatum obtusum. Capsula sessilis; lincā pauli6 longior, pallida, apice pubescens.

In juventute (qualis sub var. 3 refertur) fallaci specie oculos decipit, praesertim propter umbellas eo tempore adhuc in spicularum formam compactas, bracteolisque suis setaceis stipatas; quae spicae, cum pauli6 longiori pedunculo praeditae sint, spicam graminis cuiusdam examussim referunt.

Adnot. 1. Ab hac posteriori specie transitus incipit in illam formarum seriem, quam species quedam Novi Orbis exhibent, maximè *Dicliptera flabelliflora* N. ab E. in Reliq. Haen. ined. et *D. ocyoides* Juss.; harum namque capitula jam pur& uniflora, in apice communis brevisque pedunculi capitulum commune flabelliforme, utrinque bractearum (altera majorum altera minorum) serie, quae propriae sunt capitolorum bracteae, ad utrumque finem autem unum majorique bracteæ communi tectum struunt.

Adnot. 2. *Justicia chinensis* tres saltern diversas species comprehend \ll et inter eas forsitan unam alieni omnino loci, ad quam verba "bracteis ovatis obtusis" spectant.

Hie inserendum novum genus *Brasilicum*

AMPHISCOPIA*.

Calyx profundè quinquepartitus, aequalis (parvus). Corolla ringens, labio inferiore trifido. Stamina duo; antherae bilocellatae, muticæ, locellis in connectivi elongati finibus altero sursù altero retrorsù spectante. Stigma simplex. Capsula sessilis, ad medium usque asperma valvulis plano-contiguis, in superiori parte bilocularis et inferius tetrasperma. Semina compressa, retinaculis suffulta.—Inflorescentia: spicae compositae, terminates, secundae, bracteatae, ramulis secundifloris. Bracteæ florales latae, basi pedicello brevissimo connate, opposita exigua. Bracteolæ parvae.

Amphiscopia Beyrichii: in rupibus umbrosis sylvarum in *Serra d'Estrella*, Augusta mense, legit Beyrich.

Fruticulus 2—3-pedalis, basi repens, dein ascendens. Folia oblonga, utrinque acuminata, glabra, fin \ll rP. poll, longa, 1—1£ p. lata, \ll SSli, \ll etio10 l'ngo.. Spi \ll &fminialis, 1—4 pbi \ll longa, e spiculis brevibus, iiiiñefySra? tfjppositis foliis parvis suffultiq; reliquis alternatiñ secundis, erectis. Rhaches tomentosae. Bractet \ll 3 lin. longse, subrotund \ll , retusae, ciliatae, herbaceo-membranaceae, Veprjo-fet\w-latae, coloratae; bractea altera, non omnino opposita, exilissima sublata. Bracteolæ binæ; Calyx lineâ pauli6 longior, membranaceus. Corolla 4 lin. longa, purpurea, tubo pallidore, labiis pulchr& venosis. Capsula vix 3-linearis, oblonga. Retinacula lata, truncata.

LI. PERISTROPHE.

Justicia spp., Vahl, Rbx., Wall.

Calyx aequalis, quinquefidus vel quinquepartitus, in capitulo bracteo-bivalvi sessilis. Corolla resupinata, bilabiata, labiis planis superiore (post conversionem) tridentato, inferiore integr(Wel bidentato. Stamina duo. Antheræ angustæ, bilocellatae, locellis oblique altero pone alterum positis directione parallelâ, demum contortis, muticis. Capsula bivalvis, bilocellata, basi elongata sterilis compressa commissurS. valvularum plana, sursù a latere dissepimentali compressa, loculis dispermis. Dissepimentum adnatum, persistens. Semina discoidea. Retinacula uncinata.—Ipflorescentia: capitula florum, involucro bivalvi inclusa, in umbellas axillares et denique terminalis, simplices vel compositas disponuntur; denique (in una specie) capitula in typum primitivum dichotomiae cum intermedio flore soluta et quasi disjecta in paniculam trichotomam vel potius dichotomam cum solitariis floribus intermediis abeunt.—Caulis plerarumque sexangularis, ad nodos carnosus. Flores tubo longo instructi, purpurei.

A. Flores capitati.

a. Bractea involucrales calycibus multo latiores et longiores, foliis bracteisque ramificationi dissimiles.

* Ab afips in duas oppositas partes, et <x> speculator, video, ob diversum locellorum antheræ situm.

t- A Tregi etiopis, quod conversionem est, propter corollam tornion resupinatam. Terminatio arbitrii facta.

1. *Peristrophe montana*: foliis oblongis utrinque attenuatis lineolatis cauleque glabris, umbellis axillaribus terminalibusque quinquefidis, capitulis tri-quinquefloris, involucri diphyllo foliolis aequalibus ovato-ellipticis obtusis mucronulatis glabris.—*Justicia purpurea* Hev. Wight, n. 49.. .

[3] *sylvestris*: foliis oblongis (longissimè) acuminatis basi acutis, umbellis terminalibus singulis ternisvetri-quinquefidis, radiis trifidis, capitulis bi-trifloris, involucri diphyllo foliolis' sequalibus oblongis obtusis mucronulatis calyce multò longioribus.—*Justicia sylvestris* Herb. Madrasp. Wall. Cat. n. 2468 a, b, c. *Justicia rubra* Herb. Wight Wall. Cat. n. 2468 b. *Justicia longiflora* Herb. Heyn. Wall. Cat. n. 2468c. *Justicia Wynnaadensis* Herb. Wight. Wall. Cat. n. 2486c. sub *Justicia lineata*. *Ruellia? montana* Wall. Cat. n. 2391. *Barkria montana* et *Barkria dianthera* Herb. Madrasp. Wall. 1. c.

Crescit (a et (3) in umbrosis montium Courtalluro, ubi legit cl. Wight.) et in Travancore (Herb. Madrasp.).

Species excellens. Caulis glaber, obiter 6-angularis. Folia cum petiolis 2-pollicaribus subciliatis 6—7 poll, longa, integerrima. In nodo incrassato compresso post folium sequitur ramulus, idem pedunculus petiolo brevior, apice nodulosus diphyllo, e nodo oriundis pedunculis 5, quorum 2 saepè nonnisi cicatrice indicantur; pedunculi iterum divisi, vel uniflori. Bracteae seu involucri foliis duo, 6—7 lin. longa, ovato-oblonga mucronulata, glabra, venoso-reticulata, aequalia; in JS longiora, angustiora. Flores in capitulo omnino sessiles. Calyx brevis. Bracteoleae (propriae) subulatae. Corolla sesquipollucaris, in 8 2-pollicaris, purpurea, tubo gracili hirsute. Capsula clavata, pubescens, mucronata. Semina tuberculata. Re*tinacula subulata, longa.—Var. [3], in nostro saltern specimine, planta est raoriosa; folia non tamen dense lineolata. Capsula 6 lin. longa fusca. Retinacula linearia, uncinata, obtusa.

2. *Peristrophe fragilis*: caule scabro, foliis oblongis apice longe attenuatis, umbellis axillaribus quinquefidis pedunculis ancipitibus, bracteis generalibus (s. involucri foliolis) subulatis, propriis aequalibus venosis calyce du*lo VungWh/uL—Wall. Cat. n. 7184.

Lecta in Tavoy a Gomezio d. 22 OctoJoin <CTP.J. incompl.

Caulis sexangularis, dense lineolatus. Folia mollia, tenera, 4—5 poll, longa, 1—1½ p. lata, glabra, lineolata; petiolis ½-pollicaribus. Pedunculi s. ramuli axillares |—1 poll, longi apice bifolii, foliis oblongis vel lanceolatis, quinquefidi—trifidi. Pedunculi proprii flabellati, 2—3—5-fidi, valde compressi, ancipites, ad divisuras bracteolae parvis subulatis dentiformibus. Involucella bi-triflora, diphyllo, ciliata. Flores subsessiles; unus vel alter rudimentarii. Bracteoleae e-basi latiore subulatae, calyce duplo breviores, ut calyx scaberrimæ. (Corolla perfecta deest) Capsula glabra, superna & bilobata, disperma, dissepsitudo adnata! Retinacula valida, uncinata. Semina cordato-orbiculata, plana, aspera, fusca.

Differt a *P. montana* involucris multò minoribus, ad summura 44 lin. longis, nee coloratis.

3. *Peristrophe tinctoria*: foliis ovatis obtusis lineolatis subtus caule pubescenti-scabris, umbellis axillaribus terminalibusque quinquefidis, radiis compositis decompositisque, involucri diphyllo foliolis inaequalibus subcordato-ovatis acutiusculis pubescenti-ciliatis.—*Justicia tinctoria* Roxb. Fl. Ind. ed. Car. et Wall. i. p. 124. n. 13. Wall. Cat. n. 2465 a—e. *Justicia Roxburghiana* R. et Sch. S. V. Mantr. p. 140. WHld. Sp. Pl. ed. 2. r. p. 415. *Justicia baphica*—S. V. r. p. 85. n. 124. *Justicia involucrata* Roxb. Herb. Wall. Cat. n. 2465 a. *Folium tinctorium* Rumph. Herb. Amb. vi. p. 51. t. 22. f. 1?.

Ad Rungpur, d. 1 Mart a. 1809, legit cl. Hamilton. Ad Taong Dong, 25 Nov. a. 1826, floribus nondum evolutis. Vidi etiam exempl. H. b. Calc.

Proxima *Peristr. montane*, differt pube tomentosulc in foliis (quae obtusabreviora et latiora) subtis rigidula; inflorescentia* magis composita, in nostro exemplo terminali tipo 5-7-fido, radiis alternis minoribus et miniis compositis; involucri foliolis inaequalibus

ovatis basi saepè subcordatis.—Bracteae ramificationum inferiorum ellipticae, turn spatulatae, superiorum lanceolatae, denique subulatae. Bracteae involucrales 9—7 lin. longae, 4—5 ad basin late, purpureas, ex ovato subcordate. Capitala 3(5)?flora. Bracteoleae geminae, carinatae, subulatae.—Siccata planta nigrescit cum purpurea tintura.

Adnot. 1. Descriptio Justicia tinctoria Roxb. obscurissima, vel post correctionem Fl. Ind. p. 473 admexam. Magis ideò herbaria et horti quam verba auctoris consulenda erant

Adnot. 2. In describendb Justicia tinctoria Roxburghium Justiciam suam speciosam commisusse haud improbabile, cum posteriorem hanc *Justicia tinctoria* titulo ex Horto bot. Calcuttensi nuperim & sibi transmissam dederit Wallichius.

Adnot 3. Quid Hypoëstes involucrata Spr. in R. et Sch. S. V. i. p. 141. et Spr. S. V. r. p. 88. n. 9, ad quam *Justiciam involucratam* Roxb., ex ipsius Roxburghii litteris cl. Sprengelius citat? . Long & diversissiman esse plantam ab ea, de qua nobis sermo, docet descriptio. *Hypoëstem* esse dubium non relinquitur, ideò, ut dubiam saltern, ad *Hypoësteni Wallichii* citavimus.

b. *BracteaD* involucrales calycibus longiores, neque multò latiores, bracteis ramificationum vel dissimiles illisque angustiores, vel consimiles et sub capitulis denique maiores.

4. *Peristrophe speciosa*: fruticosa, foliis ovatis basi acutis supra lineolatis cauleque obtus & hexagono glabris, pedunculis axillaribus trifidis trichotomis, floribus umbellato-capitatis involucratis, bracteis exterioribus cuneiformi-linearibus obtusis, propriis lanceolatis acutis.—*Justicia speciosa* Roxb. Fl. Ind. ed. Car. et Wall. r. p. 123. R. et Sch. S. V. Mant. i. p. 139. Willd. Sp. Pl. ed. 2. i. p. 415. Syn. S. V. i. p. 85. Bot. Mag. 1722. Wall. Cat. n. 2464 a—e. *Justicia tinctoria* H. b. Calc.

Crescit in interioribus Bengalis tractibus, florensque tempore frigido suram est sylvarum hoc tempore decus. (Roxburgh.)

In Nepalia a. 1821 legit V*Vlñus. In Sillet F. D.

Frutex sp. h. l. n. 1. *purpureus, nodosus, ramosus,* *rotundifolius, vernalis, vernalis*, *bittere* X. solvitur denique capitulis vel 'binis' fvAdifferb. *ris*, altero oppositorum evanescente, altero missigrlfaL In Hlamicotta nem ad latus declinantem claudente. Capitulum singulum constat *binis* ternis .capitulis subsessilibus in axilla bracteae spatulatæ petiolatae sitis. Bracteoleae ciliolatae, 4 lin. longa?, linear-lanceolatae. Corolla pollicaris, purpurea. Capsula 8 lin. longa, pallida. *Dissemination adnatum, nunquam dehiscei.*

5. *Peristrophe acuminata*: foliis oblongo-lanceolatis longissime acuminatis lineolis exasperatis ad nervos scabris, pedunculis axillaribus subgeminis umbellatis, floribus capitatis subternis, involucri diphyllo foliolis lanceolatis acuminatis, calycibus scaberrimis.—*Justicia* Wall. Cat. n. 2425 b.

[3]. ramis floribus brevioribus, bracteis capitulorum superiorum cum fructu auctis oblongo-lanceolatis duplo majoribus.—*Justicia acuminata* Wall. Cat. n. 2425 a.

Var. a in Tavoy d. 8 Sept 1827, cum floribus, absque fructu, legit Guil. Gomez; var. (Z in montibus provinciae Sillet F. D.

Caulis herbaceus, glaber, trichotomus. Folia 5 poll, longa, Jf (superiora 1) poll, lata; summa pendula. Pedunculi axillares gemini vel solitarii, folii longitudine, apice umbellati, 3—4-fidi. Bracteae duas subulatae parvae ad umbellulae articulum. Flores in apice peduncularum tres, quandoque plures, sessiles. Involucrum commune calycibus longius. Bracteae duas subulate, scaberrimæ, ad basin floris singuli, longitudine calycis. Corolla 1 poll, longa, pubescens, tubo gracili incurvo. Capsula pubescens, mucronata. Retinacula valida.

6. *Peristrophe bicalyculata*: caule hexagono hirto, foliis ovatis acuminatis lineolatis glabris, pedunculis axillaribus bi-trifidis, ramis dichotomis, capitulis unifloriscum rudimento, involucro communi monophyllo linearis capitulo duplo longiore, proprio pentaphyllo basi subconnato, calyce parvo membranaceo.—*Justicia bicalyculata* Vahl Symb. IT. p. 13. En. i. p. U3. Willd. Sp. Pl. ed. 2. r. p. 410. R. 2 G

* An potius ad *Peristrophe montana* referenda est hsc figure Europhiana

et Sch. S. V. i. p. 143. Mant. i. p. 13 Q. Spr. S. V. r. p. 84. Willd. En H. Ber. *p. 24. Link En. r. p. 29. Roxb. Fl. Ind. ed. Car. et Wall. i. p. 127. Blume Bydr. p. 783. Wall. Cat. n. 2457 a-i. Wight Herb. prop. n. 53. *Justicia ligulata* Lam. III. Gen. 1.12. f.2. Enc. MM. i. p. 632. n. 37. Cavan. Ic. i. p. 52. t. 71. *Justicia malabarica* Ait. H. Kew. i. p. 27. *Dianthera bicalyculata* Rete. Act. Holm. a. 1775. p. 297. t. 9. Obs. Bot. i. p. 10. *Dianthera pamcu-*
/afa Forsk. Descr. i. n. 9?

|3 depauperata: pedunculis axillaribus bi-trifloris.-*Jiwfcw bicalyculata* Herb. Wight. Wall. Cat. n. 2457 d.

Planta inamoena, communis in ruderatis; ad margines viartum et sepes; floret tempore pluvio frigidoque (Roxb.).--Frequentissima in ruderatis (Wight.). In Patna, Pirygury (Hamilton. Wall. Cat. n. 2457 b.). In Ghazipur, a. 1820. Wall. Cat. n. 2457 e. In Promontibus, ad Paghamew d. 22 Dec. a. 1826, et ad Segain d. 11 Nov. In H. b. Calc. Vidi etiam exempla Herb. Madr.-Var. 3 in Madras, Wight. Wall. Le. Ingraminos provincias Tjanjor Javaj. Blume, O:

Qua* bracteae "exteriores semipollulares oblongae" dicuntur in Spec. PL i.e., has bracteas esse divisions inflorescentiae intellegas. Capituli involucrum commune ex urio folio constat, 5 hn. longo, linearis, erecto; foliola 4 - 5 involucri proprii, dupl breviora, llinear-lanceolata, aristato-acuminata, membranaceo-marginata, bmos flores produnt, quorum alter abortu fere evanescit. Calyx hoc involucro brevior, albido-membranaceus. Corolla 5 hn. longa, angusta, rosea, pubescens.

7. *Peristrophe Lanceolaria*: foliis oblongo-lanceolatis utrinque acuminatis lineolatis scabriusculis, panicula terminalis trichotoma viscidohirta, floribus capitato-ternis, involuci foliolis ternis lanceolatis acuminatis viscidohirtis.—*Justicia Lanceolaria* Roxb. Fl. Ind. ed. Car. et Wall. r. p. 122. R. et Sch. S. V. Mant. i. p. 139. Willd. Sp. PL ed. 2. i. p. 415. n. 142. Spr. S. V. i. p. 85. n. 122. Wall. Cat. n. 2463 a, b.

Crescit in montibus provinciae Sift's ibi pridem, denudique a. 1829 anthera? JAUCISHNEZ-V. exemkellelis hactum, fructu carens. Capsula basi compressa > serma, apice triseus, scaber. Folia 3-5 pidata bilocularis disperma. Semina prolate * V W T M opprato cincta, compressa, tuberculata. r^jjK^ila, subsessiles. Bractea uncinata, valid, foliis 3-5, et bimelli exigu basini, 6-8 lin. ceia demixilla coriacea, et bimelli exigu basini, 6-8 lin. Moigab, linearis-lanceolatae, foliis 3-5, >*&*—> calyx longiora. Corolla

I-follicularis, torsione tubi resupinata, pubescens, rosea, fauce subventrica. Capsula *-pollicaris; glandulosus-exasperata.

B. Flores dichotomo-paniculati.

8. *Peristrophe pubigera*: fruticosa, pubescens, foliis rhombo-oblongis repandis, paniculis axillaribus oppositis terminali que dichotomis, bracteis parvis subulatis, corolla labio superiore fornicate. —*Justicia pubigera* Wall. Cat. n. 2490.

In Bhuddrinath, Kamroop. Wallieñc.

Raroipedales, subteretes, 6-*triati, pubescenti-birtuli. tollia & poll, longa, 2 p. lata, petiolo * pollicis. Pedunculi axillares, oppositi in paniculam terminali adscendentibus, aquales, 2-pollicares circiter, bis terve dichotonw-cymosi. Bracte* primari* et foliis sensim decrescentibus, summis vix frpollicaribus, petiolatis enate; raraorum omnium divisionum minimse, subulataB, pubescentes. Fedicelli vix i lin^ calyces 3 ferre lineas longi, pubescentes* subviscidi. Corollacriter pollicaris atropurpurea. Capsula poll. longa, pubescens. Retinacula obtusa, suprà excavata.

Adnot. Hac in specie inflorescentia capitellata generis penitus in dichotomiam dissolvitur.

LIL HYPOESTES U. Br.

Justicia app., Linn., Willd., et al.

Calyx quinquefidus vel quinquepartitus, aequalis, (in capitulo sub-unifloro involucro tetraphyllo ad basin discrete, vel basin versus monophyllo seu coalite inclusus). Corolla bilabiata, labio inferiore profundis trifido. Stamina duo. Antherae unilocellatse, ante evolutionem cohtrentes; locellus in connectivo angusto lateralis. Stigma bifidum. Capsula ab inferiore parte compressa, valvularum commissurâ plano-contigua, asperra; apicem versus bilocularis tetra-

sperma. Dissepimentum adnatum, completum. Semina retinacula suffulta, ovato-subtunda, biconvexo-compressa, tuberculata. Retinacula subulata.—Inflorescentia: capitula, abortu plerumque merb uniflora vel rudimentis accedentibus subuniflora; involucro tetraphyllo cruciate basi indurecente et vel ad originem diviso, vel foliolis connatis gamosepalo quadrifido inclusa, in umbellulas simplices vel ramo centrali composite, flab el lares disposita.

Adnot. Inflorescentia est DICLIPTERJK, ad minorem numerum partitura capitulorum eamque ob causam magis regularem et constantem redacta. Involuci foliola duo exteriora, eaque majora et inter se ssp& inaequalia, bracteae steriles sunt; duo interiora, distantiâ J cum praecedentibus posita, basi rhacheos communis brevi callo inserta, rudimentum ssep^ gerunt flosculi; ubi bracteae basi concrescunt obscurior evadit partium nexus atque origo; in vertice rhacheos aliquantum sublatu flo9 znedius pedicello brevissimo insertus bracteolarum bases saltern formâ lineae transversalis prominulae, involuci majoris foliolis oppositae, ostendit. Si flosculus unus vel alter medio flori ad latus positus interit, locus ejus-bracteolis duabus angustis membranaceis, laciniis calycis similibus, indicatur.

1. *Hypoestes Wallkii*: foliis ovatis repando-crénatâ suprà strioso-hirtis, thyrsis (umbellis) axillaribus geminis terminalibusque mediis in medio proliferis, foliis floralibus ovatis obtusis, involuci tetraphylli discreti uniflori foliolis exterioribus cuneiformibus obtusis unifloris.—? *Justicia chinensis* Wall. Cat. n. 2466 e. *Hypoestes involucrata* Spr. in R. et Sch. S. V. i. p. 141. Spr. S. V. i. p. 88. n. 9. Willd. Sp. PL ed. 2, i. p. 439.

In Napalia a. 1820 legit Wallichius. Et, cl. Sprengelio teste, circa Calcuttam.

Caulis herbaceus, 1^-pedalis, 2-pedalis et altior, obtus& sexangularis, ramostis, diffusus, procumbens, adscendens, ramis oppositis longis. Folia opposita inaequalia, superiora caulis atque ramorum cum petiolo pollicari 3|-4 poll, longa, 1|| p. lata; ramulorum florentia a pollicaribus in ^-poll. decrecentia, altero saep^ dupl minore. Inflorescentia typus capi; glfgtiiit-3^, 5-flora axillaria, gen. S ^ ^ T ^ ^ * tm? 2? ophyXS?"^-pollicaribus plerumque geminathi basi JSmjSFS. Involuci foliola 2 exteriora majora, 5 et 4 lin. longa, pubescens, ciliolata; interiora 3^ 1. longa, lanceolata, acuta, membranaceo-chartacea, ciliata. Bracteolea, si adsunt a latere floris medii oppositae, subulatae, membranaceae, lineâ paulb longiores. Calyx albus, membranaceus, pubescens et ciliatus. Corolla 5 lin. longa, angusta, pubescens, tenera, alba. Capsula 3^ lin. longa, pallida, acuminata, pubescens. Retinacula uncinata, obtusiuscula.—Partes inflorescentiae centrales prits florent, sed rami inferiorum internodiprum praecedunt superiores.

Adnot. Ab *Hypoëste Forskolei* Blume (nescio an Arabica illa,) differt involucro, (exteriore saltern ejus folio,) cuneiformi obtusoque, nee subulate, cauleque herbaceo. *Hypoestes verticillaris* et *H. triflora* distinguunt foliis integrerrimis, turn ilia inflorescentia, haec foliis floralibus involucroque angustioribus.

2. *Hypoestes purpurea* R. Br.: foliis ovalibus utrinque acuminatis integrerrimis subtilis ramisque pubescenti-scabris, thyrsis axillaribus terminali que spiciformibus, foliis floralibus ovatis laciniisque involuci tubulosi mucronatis.—*Hypoestes purpurea* R. Br. PRODF. FL N. Holl. i. p. 474. ed. N. ab E. p. 330. R. et Sch. S. Veg i p. HO. Willd. Sp. PL ed. 2, i. p. 437. Spr. S. V.,, p. 87< n. 3. J. Jmtkia purpurea Vahl Symb. n. p. 13. (nee Linn.) Willd. Sp. PL i. p. 80. (quod ad definitionem).—Wall. Cat. n. 2473.

Colitur in Horto bot. Calcuttensi, introducta e China a Dom. Reeves. Descriptio Vahliana bona. Caulis pubescenti-scaber, canescens! Folia subtiliter lineolata. Ramuli axillares foliis plerique breviores a medio ferre involucra ferunt axillaria foliorum floralium, solitaria alteraafim subsecunda approximata, etspicam brevem referunt, foliis floralibus ovatis petiolatis mucronatis a f ad | pollicis decrescentibus interstinctam. Involucra 3 lin. longa. Calyx membranaceus pubescens. Corolla semipollicularis et paulo longior, angusta, pubescens, purpurea. Capsula involucro paulo longior, oblonga, acuta Semina tuberculato-aspera.

Advers. Quisquis descriptionem Lhrniuam *Justicia purpurea* be-nd

comparaverit, videbit, longe aliam eum ante oculos habuisse plantam; quid enim, quoquo, sibi vellent bractae *angusta* lauceolatae longitudine capsularum, quid labium alterum (superius certe) *angustissimum*, alterum *latum trilobum*, si hanc *Hypoistem* scriptor pingere voluisset?—*Beloperonem* potius *Amherstia*, quara diximus, intellexisse ilium puto, quam *Hypoistem nostram purpuream*.

LIII. RHAPHIDOSPORA*.

Justicia sp., Kōn.

Calyx parvus, quinquefidus. Corolla resupinata tubo recurvo, labio superiore (jam infero) concavo, superiore latoe trifido. Stamina duo, exserta; antherarum locelli alter supra alterum positus superior brevior, inferior basi calcaratus. Capsula basi compressa asperma angustior, apice tetrasperma; dissepimentum completum. Semina retinaculis uncinatis sustensa, discoidea, echinato-hispida.—Inflorescentia: paniculae axillares trichotomae. Flores capitato-terni, ob abortientes flores laterales plerumque solitarii, ad speciem octo vel novem bracteis cincti, nempe duabus tribusve bracteis paulo majoribus et geminis bracteolis floris singuli, quarum nonnullae saep obligantur; bracte* et bracteolae exiguae, setaceae. Corolla parva.

Observ. Contractione ejusmodi paniculae, vel racemi, vel spic® composite, omnino spicarum forma, qualis est in *Gendarussa vuU gari*, oritur. Resupinatio florum ab evolutione ramificationis pendere videtur.

Raphidospora glabra.—Duae sunt plantae hujus formae:

a. paniculis glabriusculis.—*Justicia glabra* KSnig. Roxb. Fl. Ind. ed. Car. et Wall. i. p. 132. R. et Sch. Mant. i. p. 144. Willd. Sp.

PL *i & *. V ** ! ^pr. H^TT. fBL TWLOat n. 2455 a-d. *Justicia cymosa*, *J umbellata* et *J. dichotoma* Herb. flfad. ^ILffltf. n. 2455 b. *Justicia glabrata* Herb. Röttler. Wall. Cat. n. 2455 c.

[3. paniculis dens&glandulosis, paull& rigidioribus.—*Justicia glabra* var. Wight Herb, prop. n. 52. Wall. Cat. n. 2455 e.—*Justicia glabrata* N. ab Ē. Herb, ad exempl. Heyneanum. *Justicia Careyana* H. b. Calc. Wall. Cat. n. 2456 b, c. et H. b. Calc. et *J Careyana* Herb. Hamilt. et H. b. Calc. (Wall. 1. c. n. 2456 c.)

Crescit inter frutices, solo sicco et sterili orae Coromandelianae, floret tempore pluvio frigido. (Roxb.) In Chellunbrun. (Wight.) Etiam in Horto botanico Calcuttensi. 0.

Est herbacea, glabra, laxa, foliis pennis acumine longo obtuso, petiolatis, minutim lineolatis, quandoque ovato-subrotundis. Paniculae laterales di-trichotomae, glabriuscule vel glanduloso-scabrae, inferiores folio suo breviores, superiores folium aequantes; bracteola exigua setacea patula sub quovis ramulo, binæ sub calycibus (parvis); pedicelli vix lineares. Corolla 3 lin. longa, roseo, luteo viridiue (Roxb.) varia; labio superiore concavo; calcare locelli antheræ inferioris bidentato.—Var. /3 pra&ter glandulae panicul® crebriores minimi differt ab a.

Adnot. *Justicia retorta* Vahl. eadem planta esse videtur, ad exemplum minus completum exposita.

Generis incerti, an novi?, DICLIPTERARUM quidem subtribus, est (*Justicia*) *aristata* Wall. (Wall. Cat. n. 2481), spicis axillaribus bifidis secundis, bracteis bracteolis calycibusque setaceo-acuminatis, capsula basi compressa, apice tetraspermâ.

Est ex Herbario Heyneano, loco natali non notato.

Planta singularis (sed propter florem déficientem non rit® collaudata). Ramuli graciles, dichotomi, teretiusculi, ad genicula infraeti et subincrassati, lignosi, densè pubescenti-scabri. Folia opposita, cum petiolo longo (pollicari) tenui pubescente 2—3| poll, longa, —f p. lata, oblonga, acuta utrinque, patentissima vel pendula, suprà lineolata, utrinque ad costas pubescenti-strigulosa. Spic® cum pedunculo aequali longo pollicares, terminales adveniente innovatione caulem continuante, hinc deinde laterales, vel terminales geminae, bifidae, ramo altero breviore. Rhachis pubescenti-scabra, inspersis glandulis. Pedunculus in medio bracteolis 2 setaceis. Spicæ

scunctiae, basi composita densa, ob bracteas calycesque setaceo-aristatos Graminis raagis quām Acanthaceae speciem exhibentes. Bracteae et bracteolae aequales, e basi latiore setaceo-attenuatae, tenuissimae, scabrae, 3 lin. longae, strictae; bracteae superiores steriles. Ex axilla bracteolae alterius plerumque rudimentum nascitur alterius flosculi angustum, bi-trisetum. Calyx 3-linearis, ad 4 quinque-partitus, scaber, laciinis setaceis 'bracteolis simillimus uninervibus basi trinervibus. Capsula calyce brevior, 2£ 1. longa, lanceolata, acutiuscula, pall id a, sparsim puberula, a basi ad £ vel £ compressa, commissurâ planâ, asperma; abhinc tumidula, pardùm depressa, subsex-sulcata, bilocularis, dissepimento complete adnatoque, tetrasperma. Retinacula obtusa. Semina orbiculata, plano-convexa, scrobiculata, pallida.

Adnot. Capsula est Gendarusse ejusque similius; sed habitus plantae alienus diversum genus indicat, fortass^ Lepidagathidibus proprius consociandum.

Subtribus VII. ANDROGRAPHIDE^K.

LIV. ERIANTHEKA*.

Justida et *Andrographis* spp., Röttl., Wall.

Calyx quinquepartitus, laciinis aequalibus. Corolla bilabiata, labio superiore latoe integro, inferiore bifido. Stamina duo, exserta. Antheræ abortu unilocellatae, locello supero pollinifero, infero in barbam lanatam soluto. Stigma parvum capitatum. Capsula oblonga, deppressa, bilocularis, a basi ad medium hexa-pleiosperma. Dissepimentum adnatum, breve. Semina retinaculis brevibus pedicellata.—Inflorescentia: flores axillares ebracteolati; -pedunculis uni-bifloris.—Suffrutices humiles.

1. *Erianthera serpyllifolia*: caule procumbente, foliis suborbiculatis subsessilibus, floribus axillaribus, pedicellis uni-bifloris.—*Justicia serpJMJVH* Krt, Vahl En. 1. p. 169. R. et Sch. S. V. 1. p. 165. Willd. Sp. PL ed. 2.1. y ^ J^ Spr. S. V. 1. p. 85. n. 120. *Justicia nummularifoUan* :v^y g/ * ^nwmhis humifusa, an orbiculata Wall, vv x_ . . ^ Q

R. ramis caulisque apice attenuauo.

secundos fingentibus.—Wall. 1. c. b. ex Herb. 1. y

Crescit in umbrosis provincial Mysore (Wight). In talamcotta (Herb. Roxburgh.).

Radix (rhizoma) pro magnitudine plantae crassa. Caulis digitalis et palmaris, prostratus, villosus. Folia 4—6—7 lin. longa et lata, punctulato-scabriuscula, rariùs hirsutula, ciliata. Pedunculi e plurimis axillis, glanduloso-pilosuli, lineares Calyx 3| lin. longus, glanduloso-pubescentis. Corolla 4 lin. longa, infundibuliformis, pubescens, praeter lineas purpureas alba. Capsula 5 lin. longa, acuta, chartacea, apicem versus hirsuta.

2. *Erianthera lobelioides*: caule suffruticoso diffuso, foliis orbiculatis petiolatis, floribus terminalibus racemosis.—*Justida lobelioides* Wall. Cat. n. 2484 (ex Herb. Ueyn.).—*Andrographis?* Wight Herb, prop. n. 54.

In pascuis jugi Nilgherry dicti. Wight.

Fruticulus praecedentis formâ, sed abundè distinctus. Truncus crassus a basi ramosus diffusus, pollicaris—semipedalis. Folia cum petiolo 2-lineari 7 lin. longa et lata, mucronulata, punctulato-asperula. Rami terminantur racemo florum 1—2—3-pollicari, glanduloso-pubescentis, floribus plerumque distantibus. Bracteae communes oppositae, subulatae, 1 lin. longe; proprie vix illae. Pedicelli 1—5-lineares, erecti. Calyx, corolla et stamina ut in praecedente, sed calyx ratione corollæ minor et corolla major, hsec tota purpurea, et labium superius fer^ orbiculatum. Fructus . . .

LV. HAPLANTHUS.

Justicia sp., Wall.

Calyx quinquepartitus, aequalis. Corolla subinfundibuliformis; tubo incurvo, limbo quinquefido subbilabiato. Stamina duo, in-

* Etym. ab egio lana, et ante*, ob antheras laoatas.

t Nomen ab d'koos simplex, et trio*, propter antheras unilocellulas et omnis inflorescentie simplicitatem.

clusa; anthers unilocellatae, connectivo loculo altero abortivo tomentosius; filamenta basi introrsum dilatata. Capsula linearis, de-pressa, a basi poly-(16-)sperma, seminibus parvis angulatis.—Inflo-re-scentia: racemulus subspicatus terminalis partitus, bracteis parti-alibus propriisque parvis subulatis.

Haplanthus tener.—Variat

a *hwnilis*: racemo terminali trifido.—Wall. Cat. 7185 a.

(3) *elongatus*: racemis axillaribus terminalibusque quaternis.—*Justicia tenuiflora* Wall. MSS. Ejusd. Cat. 7185 b, c.

Crescit var. » in Tavoy, lecta d. 2 Octobris a; 1827 a Guil. Gomez, cum floribus, absque fructu. V. exempla duo.—Var. 0 iisdem in terris d. 16 Sept. 1827, et in Taong Dong d. 24 Nov. 1826.

Herba facie *Rhapidospora glabra*, caule (in a) spithameo, graciili, erecto vel basi procumbente et ad genicula repente, quadrangulari subhirsuto ramoso vel simplice. Folia priraordialia subrotundo-spathulata, parva; reliqua, circ. 4 parium, 2—2½ poll, longa, ovata utrinque acuta vel angustata, penninervia, supra pilosa. Racemus terminalis triplex, pauciflorus, ramis glabris. Flores circa apices 3—6, alterni subsecundi, pedicellis 1—jʌ lin. longis glandulosopuberulis, bracteis binis subulatis pedicello brevioribus ad hujus originem, binse minores in ipso ad basin. Corolla 4-linearis, pubescens, purpurea.—Var. /3 differt caule pedali et altiore, ramoso dichotomo; foliis ferè glabris; superioribus (ovato-)lanceolatis sub-sessilibus.—Capsula 5 lin. longa, tenuis, acuta, compressa, glanduloso-pubescentis. Semina in singulo loculo octo, rufa, rugulosa; retinacula stipitata, lanceolata.

LVI. ANDROOBAPHIS* Wall.

Justicia spp., Linn., Autt.

Calyx profundè quinquepartitus, sequalis, laciini angustis. Corolla bilabiata, labio superiore integro vel bifidu*V* > ^{Uu*} - - v***! ad speciem sensu contrario divisa. Stamina ^A ^{U0}; anthera^B bilocellatae, locellis parallel -Kr⁻V*, batis, r***-i^{ula} ovalis ^A lanceolate d* P-iua basi compressa joculaⁱ⁸ tetra-Poly^yPeraa. Dissepimentum pidata bilocularis disperm~ ^A us a > teretiuscula[»] basi oblique truncata, »»»»»; nct^A rrt^A. —a, hilo pWundq. Retinacula pedicellata, dilata-squamiformia, decidua.—Inflorescentia: racemi axillares, graciiles, simplices vel dichotomi trichotoinive, sect&di. Bractae duae opposite, calyce breviores; bracteole nulla. Calycis laciniae filiformes.—Plante plerasque annuae, rariū suffruticosae.

1. *Andrographis paniculata* Wall.: herbacea, caule foliisque lan-ceolatis in petiolum attenuatis glabris, racemis axillaribus bifidis dichotomis, capsulis polyspermis.—*Andrographis (paniculata)* Wall. Cat. n. 2454. *Justicia paniculata* Burra. Fl. Ind. p. 9. Vahl Symb. n. p. 5. Enum. i. p. 130. Willd. En. H. Ber. i. p. 26. Sp. PI. ed. 2. i. P-383. R. et Sch. S. V. i. p. 150. Mant. i. p. 134. Spr. S. V. i. P- 80. n. 38. Poir. Enc. Méth. Suppl. n. p. 106. n. 83. Blume Bydr. p. 788. Rob. Br. Prodr. Fl. N. Holl. ed. N. ab E. i. p. 331. Wall. Cat. n. 2454 a—g. Wight Herb, prop. n. 68.—Roxb. FJ. Ind. ed. Car. et Wall. i. p. H9. n. 61—*Justicia latebrosa* Herbb. Russell, Hamilt, et Wighj. Wall. Cat. I.e. d, e, i.—*Caraniram* Rheed. H. Mai. ix. p. 109.156. *Adhatoda similisplanta* Herb. Garcin. ap. Burm. Crescit in Indiae orientalis locis siccis sub umbra arborum et fruticum; floret maturatque fructum tempore pluvio et frigido. Roxb. —In provincia Circars dicta, in Courtallum etc. locis nemorosis. ^wght. In Travancore (Herb. Madr., Wall. Cat. n. 2454 a); in Sibgunj et Habora (Hamilt., Wall. Cat. n. 2454 e). In H. b. Calc. In Malabarica et Zeylona (Burmannus). Circa Bataviam, locis "ccis (Blume).—Vidi exempla culta plura.—Nomen Bengalese *Kala-megh*, *Kalup-nati*, ve *Muha-tUa*, quod posterius Regem amarorum significat. In lingua Telengana *Nella-vemoso*.

pedicelli 1\$—3-lineares, pubescentes; calyces lf—2 lin. longi, g^6.06**68 imm⁶⁸ tis glandulis pedicellatis. Corolla rosea (?). Cap-jocell¹ lance²ata³ a basi compressa, seminibus 12—16. Antherarum ocelli⁴ omnib ut in sequente, qua? fortassè hujus varietas.

*Ad*_{sol} ^Roxburghii planta dubia, ob verba: "Bractes, a large

Ab *'>*rt YP»*H, propter antheras penicellatas.—V. W.

exterior opposite pair"; in nostra enim bracteae exteriores s. communes vix lineam -longae, lanceolato-subulatae, interioribus setaceis partim longiores et duplū ad summum latiores.

2. *Andrographis lineata*: herbacea^A caule foliisque ovato-oblongis sessilibus glabris, racemis di-trichotomis axillaribus glandulosopubescentibus, laciini calycis subulatis, capsula polyspermā.—*Justicia lineata* Wall. Cat. n. 2486 a ex parte.—*Justicia*, species nova, *J.glandulosa* proxiraa; caule quadrangulari; foliis oblongis subtus venoso-lineatis nudis; racemis terminalibus oppositis secundis piloso-glaudulōsi; floribus subsessilibus bracteatis. Wight Herb, in sche-dis.—*Justicia spec.* Wight Herb, prop. n. 67.

Patria non indicata. Vidi exempla Herbb. Wightiani et Heyneani.

Rami lignosi quadriquetri; folia penninervia. Racemi ex axillis superioribus trichotomi, dichotomive, 2-pollicares, patuli, in inflorescentiam terminalem abeuntes. Bractea parvæ linearis-subulatæ; ad basin florum opposite vix ^-lineares. Calyx ferè 2 lin. longus! Corolla, pedicelli torsione resupinata, 5-linearis, pubescens, alba, labio inferiore (sursū verso) trifido purpureo-punctato.

3. *Andrographis affinis*: herbacea, caule glabro, foliis ovalis oblongis petiolatis supra strigosis subtus pubescentibus, racemis axillaribus dimidiato-cymosis glandulosopubescentibus, laciini calycis lanceolatis, capsula polyspermā(?)—*Justicia lineata* Herb. Wight. Wall. Cat n. 2486 a ex parte.

Vidi in Herb. Wightiano.

Praecedenti similis, differt foliis (2 poll, longis, f poll, latis,) in medio nee versus basin latoribus, nee glabris, petiolo 3-linearis canaliculate; racemulus, ob pedicellorum brevitem fere spicis dicendis ex superioribus axillis ^fe^vi¹¹⁰ ^ _i¹i; «Uo,i,,u,c,,i,j;.. apice anc «c*w_e\, -ummis nudis, omnibus reverè bifidis cuim'flore inter-medio, sed propter ramum internum plerumque abortivum et florem medium longius pedunculatum dimidiato-cymulosis; calycis laeing brevioribus etiacionibus; bracteis bracteolisque pau!16 l t i b ^{us.}—

g g q u a d r i q u e t ^ p L s L o r e glen-dulosa, atque corolla (5 lin. long^{*} pubescentis pallid. purpurā lineata) figura et proposito.

4. *Andrographis viscosa*: fruticosa, caule foliisque oblono-lan-CEOatis in petiolum attenuatis glabris, racemo termLi trifidS gZ dulosopubescenti, floribus secundis, capsula ovali octospermi *Justicia lineata* Wall. Cat. n. 2486 b. octosperma—

Ex Herbario Heyneano.

Fruticulū facie Myrtilli. Rami lignosi, ramosi, dichotomi, tricho-proximata, 1—li poll. ^plong⁺, 5 lin. lata, integrerrima, supra minutè cori^A pub. rigid. cpUa* omnium partium vestita composita scentium axillaribus, 2—3 parium, 2—1 pollicem longia. Bractea IT* 2 - 2 lin. longus. Corolla 5 lin. longa, subcylindrica, albida, vulo utrinque in ^ re lacinia labii inferioris et superioris picta. Capsula i pollice longior, Zu lamellā ovali obtusaseLnSttL. Retinacula stipitata,

5. *Andrographis glandulosa*: fruticosa, caule, foliis ^fol-atis racemis axillaribus bifidis sub-cymosis glandulosopubescentibus p. 13. R. et Sch. S. V.!. p. IV. TJ tanautosa ^ * R SP¹ ed.2.p.385. Sp.S.V.!.p.80. n. f ^ ! *' ^ ' Willd. Sp. P., calyx simplex, corolla bilabiata labiis r. *' ^ *' ^ o w < / « ^ nobis: quadrangulari; foliis breviter petiolatis ^{!'} ^ ' ^ monanthera. Caule gerrimis pilosis; floribus paniculatis ^ T 11 *** obtusis ¹te. Pih omnes glanduliferi.-Ab Heynjo. "o f enbui: calycibus pilosis, scripta Herbarii Wightiani.-Wall. Cat. 2485.

In Mysore, d. 25 Apr. a. 180¹ ligit b. Heynius.

Exempla Herbarii Wightiani in ^{u..}

sunt note, sed apprime congruunt Z'''7' ^ ^ <<n bo_n58 excipias, in quo, cumipsissima ^ ^ T ^ . ^ ^ ^ <<"> ri omnia correcta invenerim, erra ^ ^ T P ^ " T & " - ^

scil. capsulam cum "linearem, angulosam" verbis ad umbraret, quae in nostra simillima *Andrographidis eckoidis* capsule p, ovalis, depresso, tetrasperma.

Cetenim caule lignoso, pube molli longâ apice capi lata patente, immixti breviore, foliis minoribus, 1—lj-pollicaribus, Jobtus longusculi petiolatis, paniculis seu racemulis paucifloris i axis, calyce ratione corollse amplio et latiusculo, hoc in genere sat s distincta species.

6. *Andrographis echooides*: herbacea, hirsuta, foliis obvngis sub-sessilibus subcrenatis, racemis reflexis, capsulis tetraspermijs.—Genus probabilitate novum. Rob. Brown, Prodr. Fl. Nov. Holl. ed. N. ab E. i. p. 331.

a. racemis subsimplicibus.—*Justicia ciliaris* Lam. Enc. JMéth. i. p. 630. n. 26. (excl. syn. Linn.)

fl. racemis dichotomo-paniculatis.—*Justicia echooideshmn*. JFZeyl. p. 21. Vahl Symb. n. p. 14. En. i. p. 123. Lam. Enc. Méth. i. p. 630. n. 25. Willd. Sp. PI. ed. 2. I. p. 379. R. et Sch. SS. V. i. p. 119. Mant. i. p. 182. Spr. S. V. i. p. 79. Roxb. Fl. Irjd. ed. Car. et Wai?, i. p. 119. Burn. Fl. fad. p. 9. Wall. Cat. n. 243\$ a—h. Wight Herb, prop.—*Digitali similis* planta, bicapsularis, fore tuberkosö, galb trifida et labio integro obtuso constante> Burm. Thes. Zeyl. p. %8.—*Euphrasia affinis indica echooides*, Herm. H. Lugdb. p. 668,

i. c. in 669. Commel. Fl. Mai. p. 28.—*Gratiolce affinis echooides Zeylanica major* Breyn. Prodr. n. p. 54. Petiv. Act. Lond. n. 244. t. 36.—*Buglossum echooides Zeylanicum*, foliis Convolvuli indicis minoris ccsrulei, Breyn. Eph. Ac. Nat. Cur. Ann. iv. et v. Obs. 159. Ray. Hist. i. p. 498.—*Asperifolia indica*, foliis ex adverso binis, Ray. Hist. in. p. 660?—Pee Tumba Rheed. H. Mai. ix. p. 87. t. 46. *Kamatuwaet Kawatumba* Mus. ZeyL p. 13.

Habitat in Coromandeliae ruderatis frequens; floret per totum annum. Roxb. Wight.—In Malabariae et Zeylaniae locis incultis, humidis et sordidis. Burm. Zeyl.—Ad Segan, et Melloon in ripa Irrawaddi fluminis, d. 20 Sept. a. 1826;—in Amati, Hamilt.—Vidi exempla Herbb. Madrasp., Hamilt., Wight., Zeylanica Herb. Burm. etc.

Annuus. Caulis erectus, strictus. Racemi spiciformes floribus dissitis, folio in var. a breviores, deflexi; in /3 saep^ longiores, dichotomi, patuli. Bractae parvae, altera opposita vacua patula, altera calyci appressa equo multò brevior. Calycis laciniae filiformes, pubescentes, hirtae. Corollae labium superius ovatum, integrum, album; inferius trifidum, apice purpureum striatum, lacinis ovatis obtusis, lateralibus angustioribus. Antherarum locellus inferior praec-

THE END.

RICHARD TAYLOR,
JWKH TO THB mirinstT or LOHDON,
REO LION COURT, PLEET STKEET.

M DCCC XXXII.

ALEKE Y FLAMM(U.



Pinus strobus

Printed by Authority of the Collector 1820



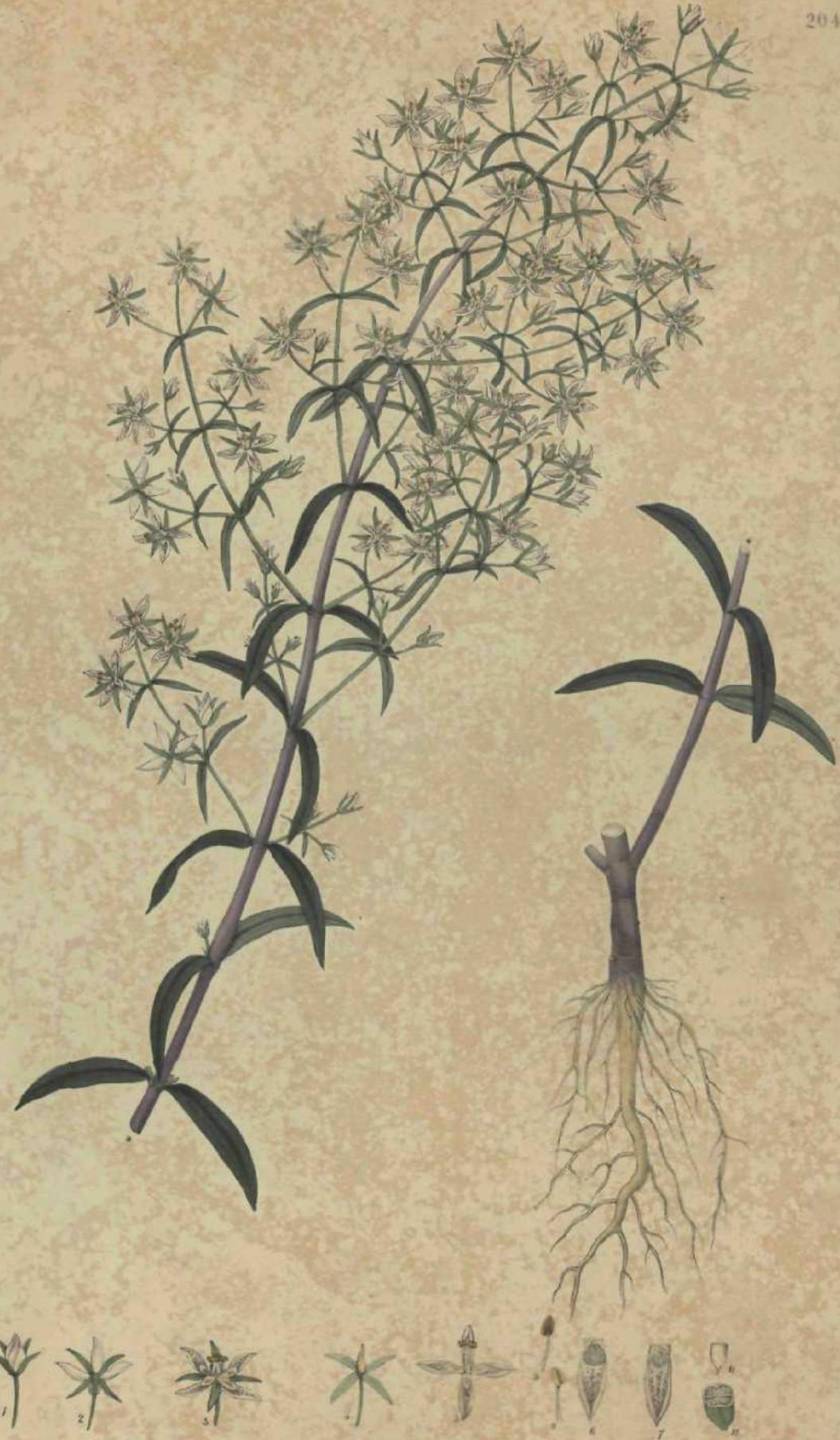
Alsema longifolia

Based on *Impatiens* var. *longifolia*



Spathoglottis pubescens.

Printed by Chapman and Grimes & Co.



Published 1822

Juncus angustifolius

Printed by Engleman & Co. London & Co.



Inwestia paniculata

Printed by Chapman and Hall, London.



*I., I., ssp. *salmantica**

printed by Engelmann and Co.

drawn and
colored by
J. C. W.

Engl. 206



Pawson & Co.

Printed by Engelman, Eng. Compt. & Co.

Rhododendron formosum



Engelhardtia sellowiana

printed by Engelmann and Sonder & Co.

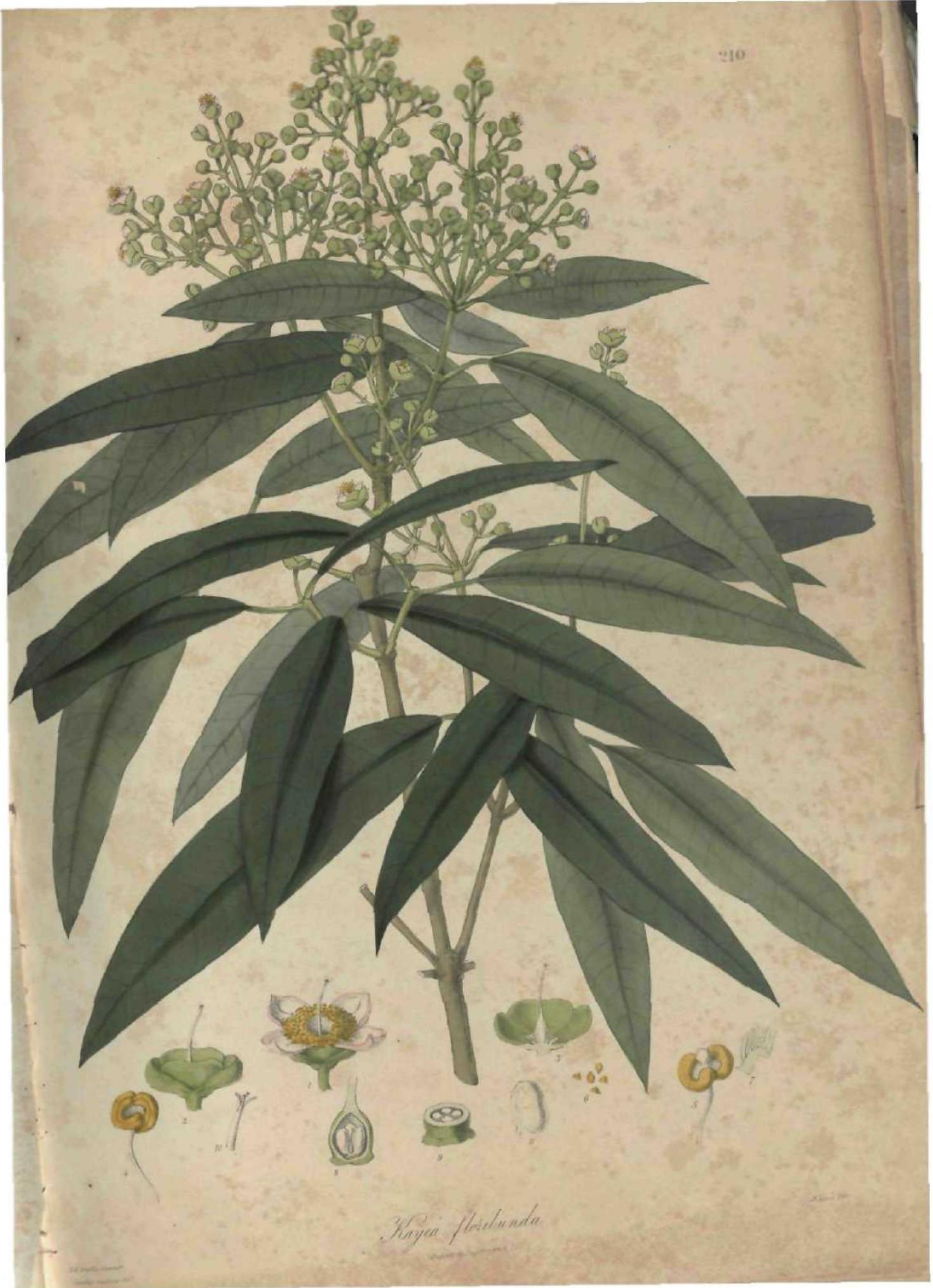
N. Bauer lith.



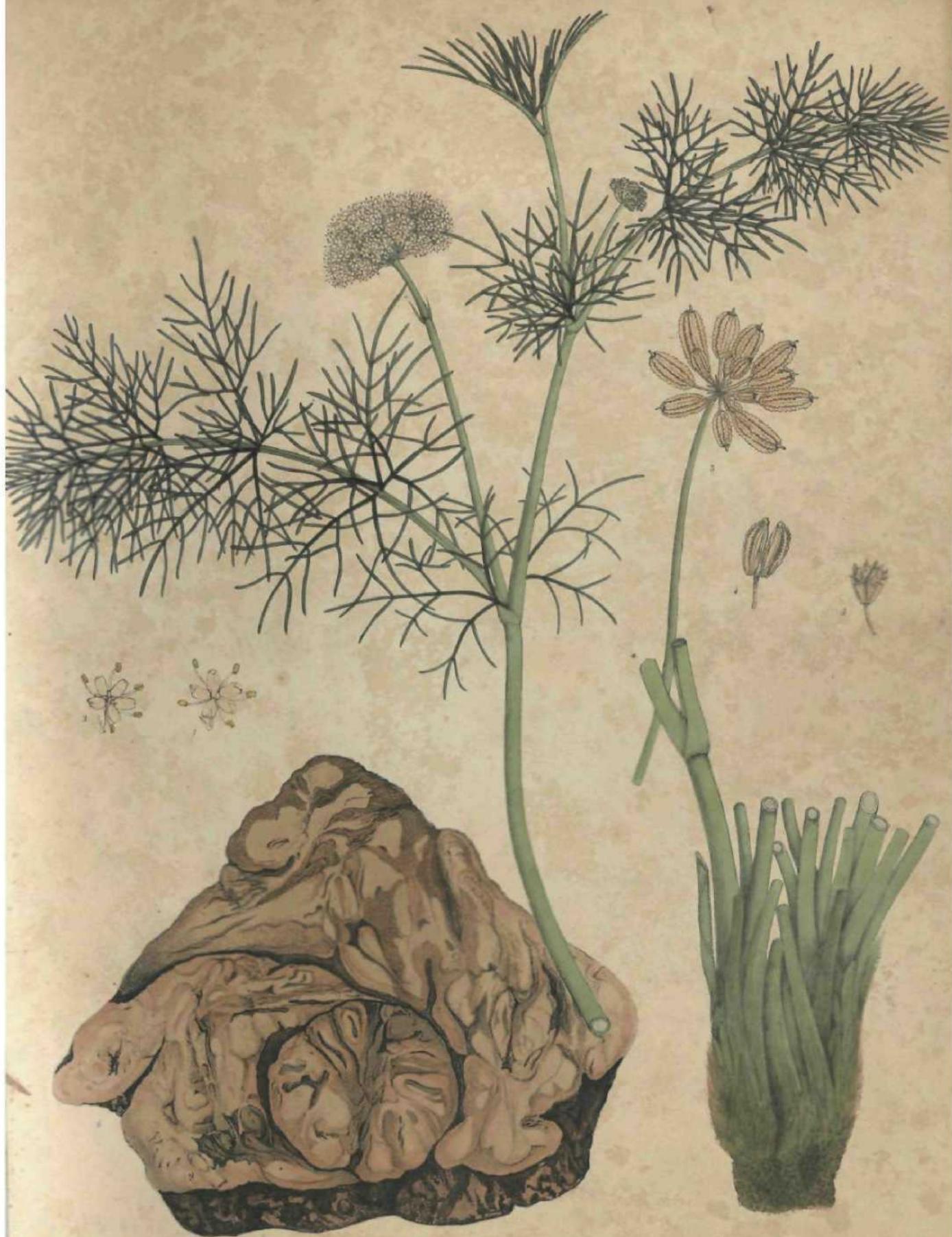
Geranium Guillemanum.

Scandens in Tropico America et Lombokia.

A. Bruns del.



Kayea floribunda



Paeonia bulbifera

Journal of Botany and Horticulture Vol. 20 No. 1



Hydrangea cyannea

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t



Cinnamomum capitatum

Pl. 214. t.



Cleidodendron difforme



Phytolacca gigantea

Printed by Chapman & Co.



Clematis montana

Journal of Botany, 1850

20. March. 1850.



Caelogyne clara.



ftfin ?// A, auwt calata

Botanical Art

H. J. T. M. Engelman, Capt. G. C. L. Co.

N. S. 1888.



Hypericum biplacatum.

Printed by Chapman and Hall, 1860.

1860





Hypericum biarticulatum

Printed by F. & G. C. Sowerby, 1830.

220

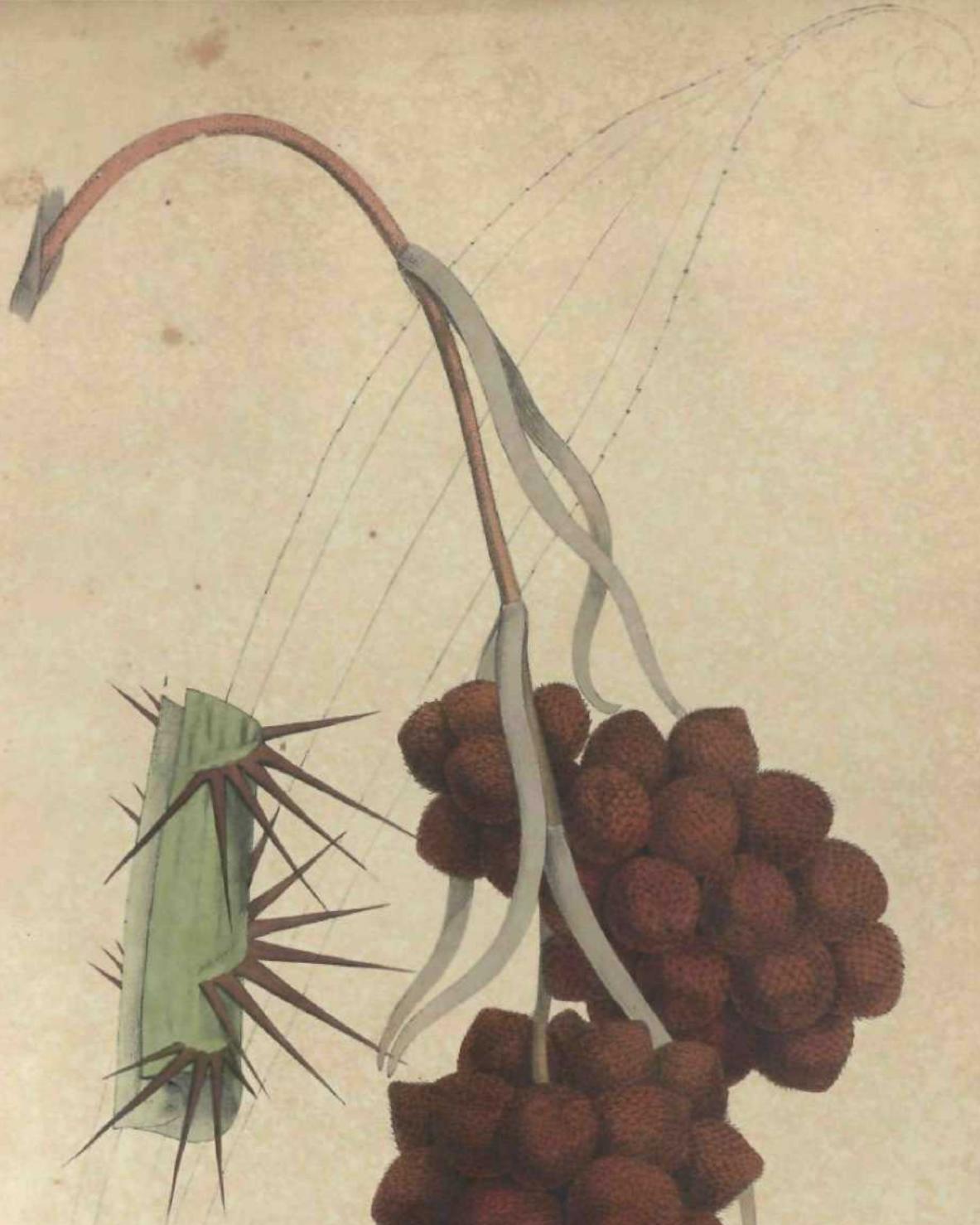


Henslowia palauensis





Jolaca Rumpfia



Litchi Chinensis

Printed in England, 1812, under 21s.

21s.



Leianthus pentapetalus.

H. C. Moore del.

Printed by Chapman & Hall.



Vitex heterophylla

Serrulatae 107

Pl. 226. No. 226.

Albany 226.



Hymenopoge parvula



Potentilla viburnoides

Illustration

228

Printed by Chapman & Son



Fagaria aciculata

Journal of Botany &c.



Licanthes costata

Drawn by J. C. Nees

Pl. 230



Gardenia evata

Printed by Chapman & Hall.



Xanthoxylon floribundum



Hamelia • *Burseria*



Rubus Hamiltonianus.





Hucuna anguina

Peruv. & Espan. Ind.



Pongamia elliptica



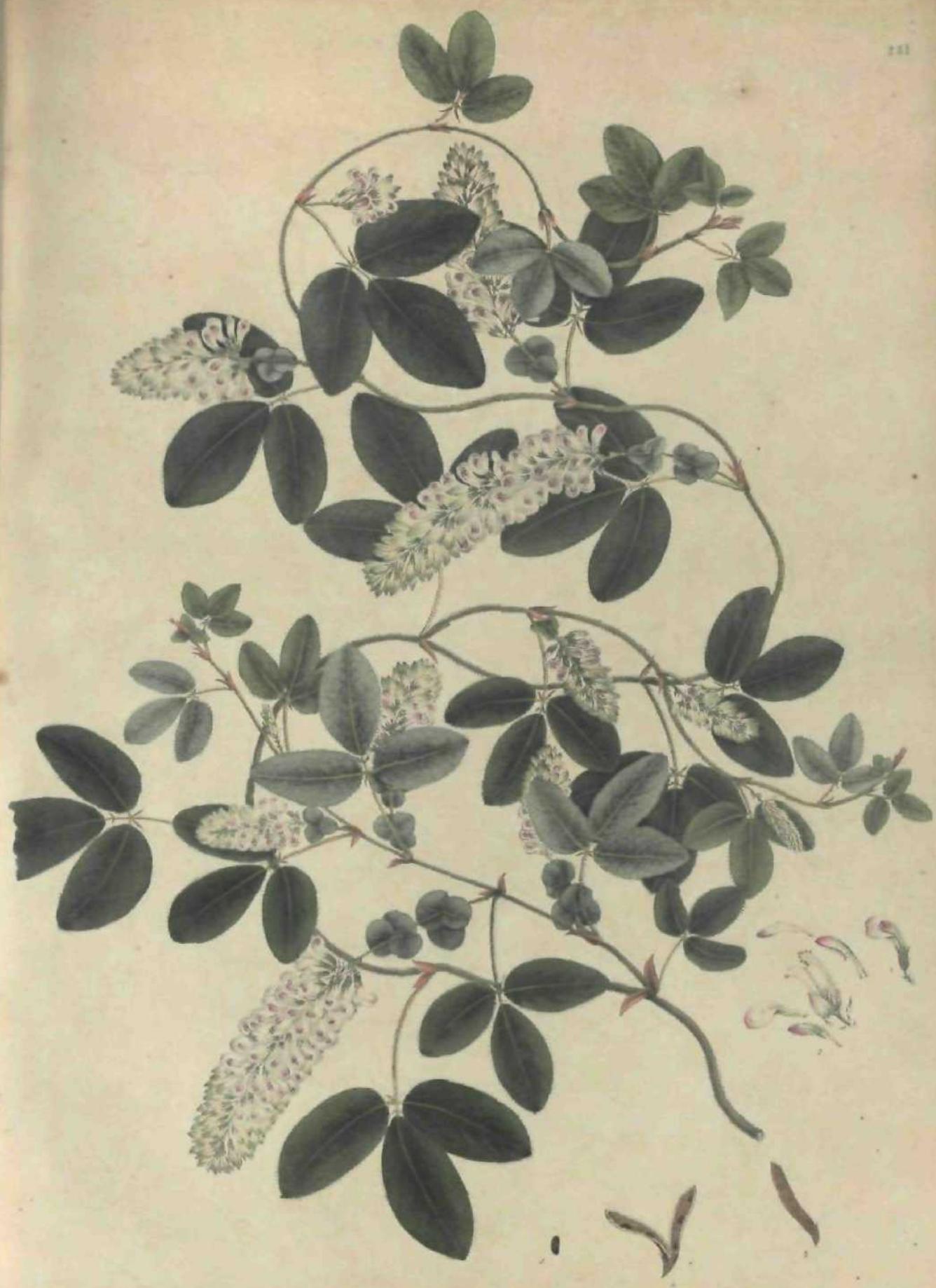
Ipelodes stipatae

Painted by F. C. Moore



Pholidota tubra.

250



Glycine microstachys



Osteospermum ternifolium

Painted by T. G. Johnson & Co.



Rescoea procera — L. subsp. *longistylis*

Printed by Chapman & Hall



Berberis Wallichiana

Printed in Great Britain



Hypericum oblongifolium

Illustration 244

Botany. J. D. Hooker & C. A. Nees von Esenbeck

Volume 18



Limonia Lanigera

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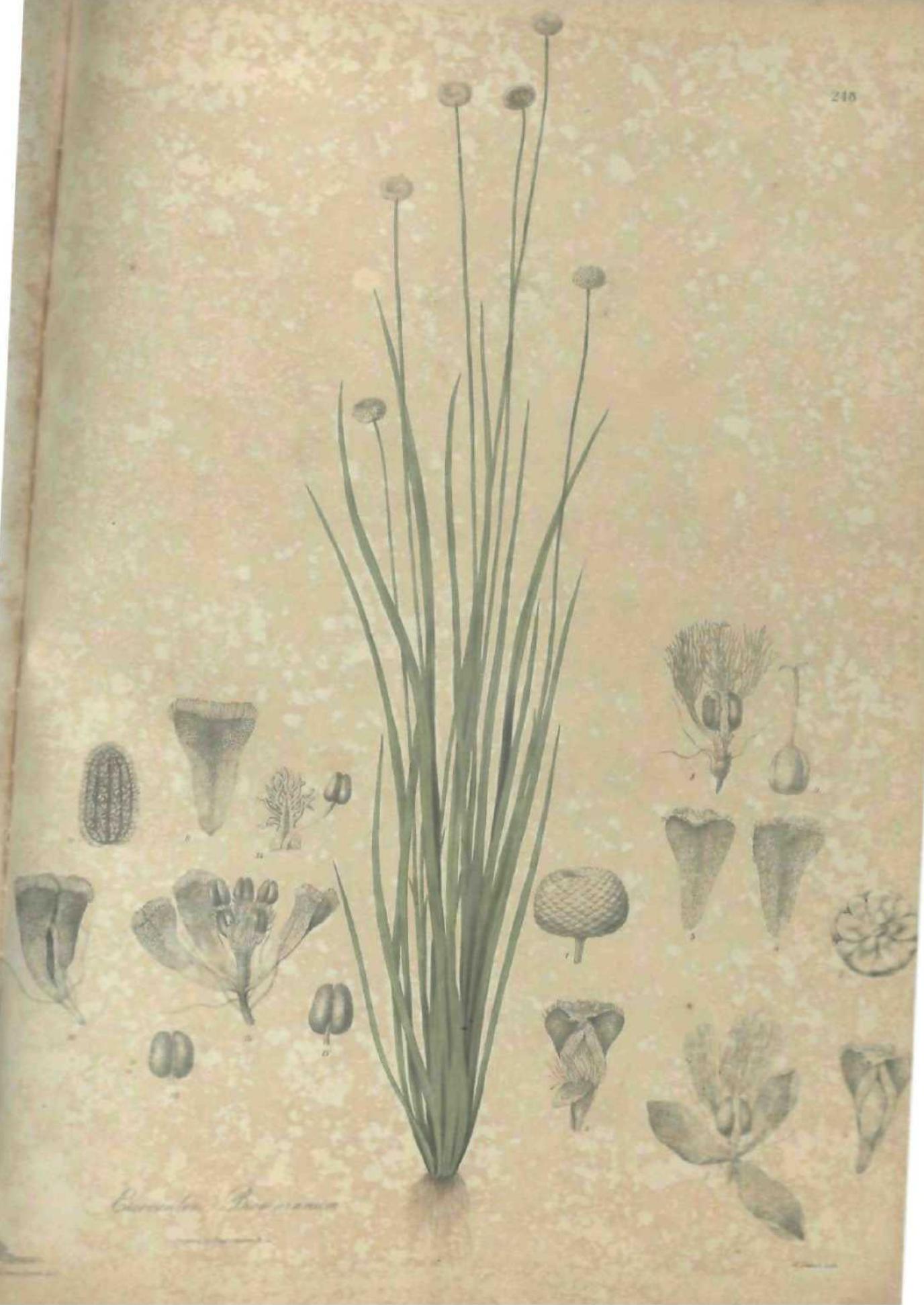
Pinus Sitchensis.

Printed by Chapman & Hall.



Pinus Biaurriana

247





Eriocaulon Wallichianum



Ruellia maculata

Painted by J. Johnson & Co.



Gentiana Chirata

Illustration by J. C. Ellington

252



Oenothera angustifolia?

Printed in England by W. & C. Green

1860



Basilia semiglobata



Eurycoma grandiflora

— — — — —

— — — — —



Rosaceae capillata



Camellia Kiskeana

Printed by Wm. H. Allen

1860



fsnj/tpi. / 1868



Garcinia speciosa

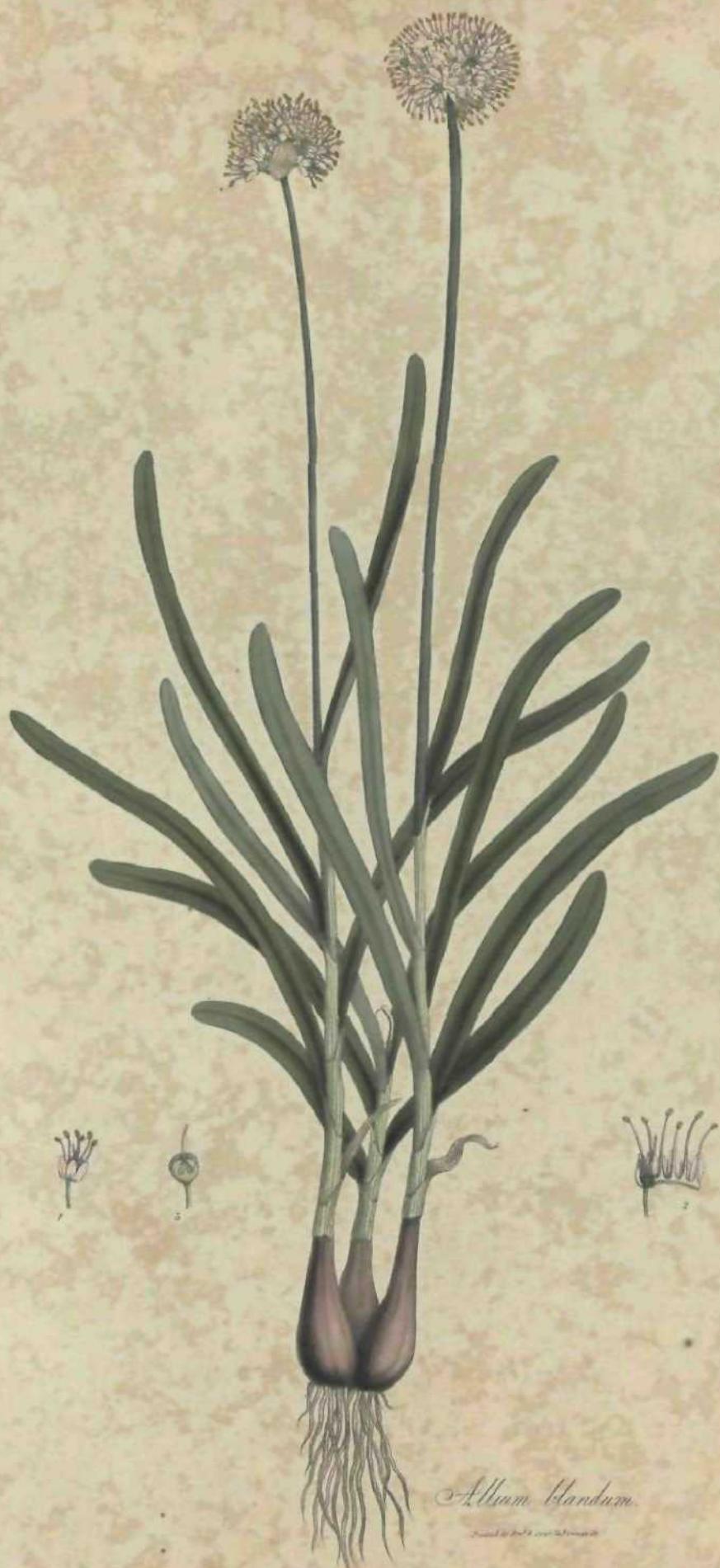
W. H. Bishop & Son

Printed by W. H. Bishop & Son

London



Agapanthus caeruleo-roseus



Allium blandum



f - . f 9 f

Pithecellobium

Printed in India by the Government of India



Stenocarpus Reticulatus

Printed in New York by A. S. Barnes & Co.



jaburan Hardwickii



VI X

*Thlaspi rotundifolium*Printed by Wm. H. Allen & Son.



Uvaria undulata



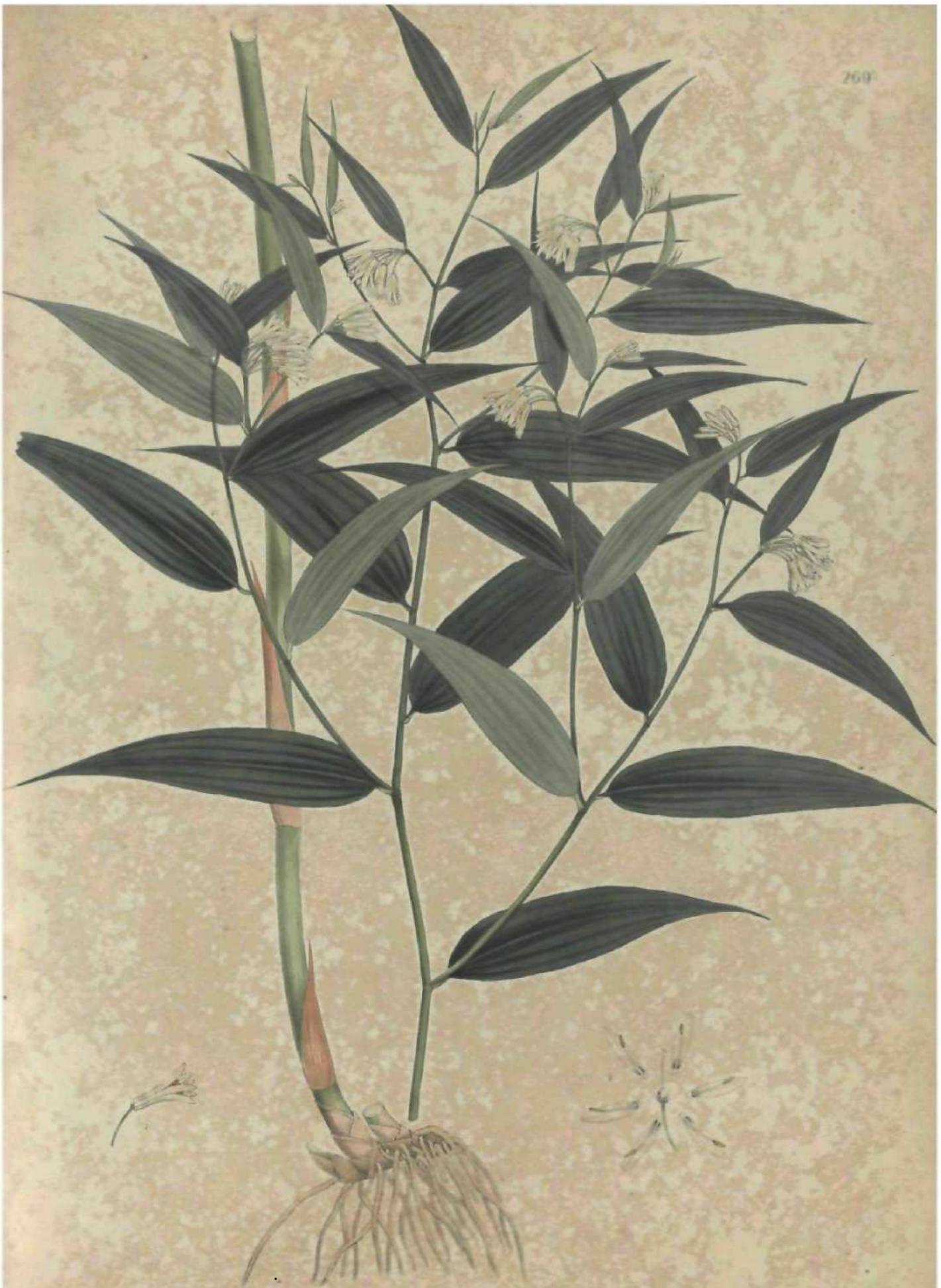
Gmelina elliptica



Colquhounia vestita



C. Collier - 1888



Uvularia umbellata



Ligustrum vulgare



Clusiella lementaria



Malpighia cerasiformis

Grisebach



Oenothera elegans

Illustration by G. Bentham

273



Jasminum dispermum

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Schima superba



Exacum tetragonum



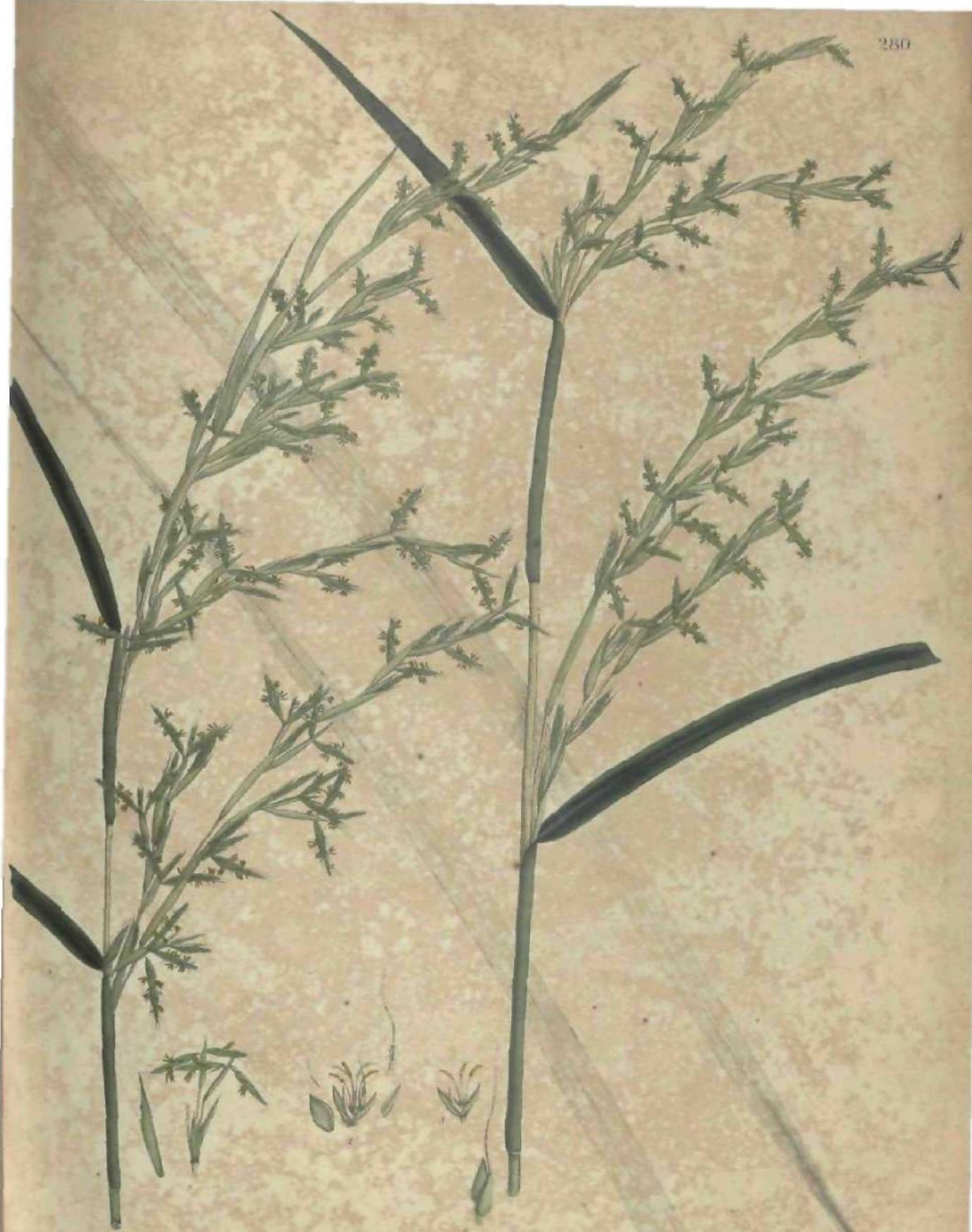
Plaxanis floribunda



Salacia longifolia



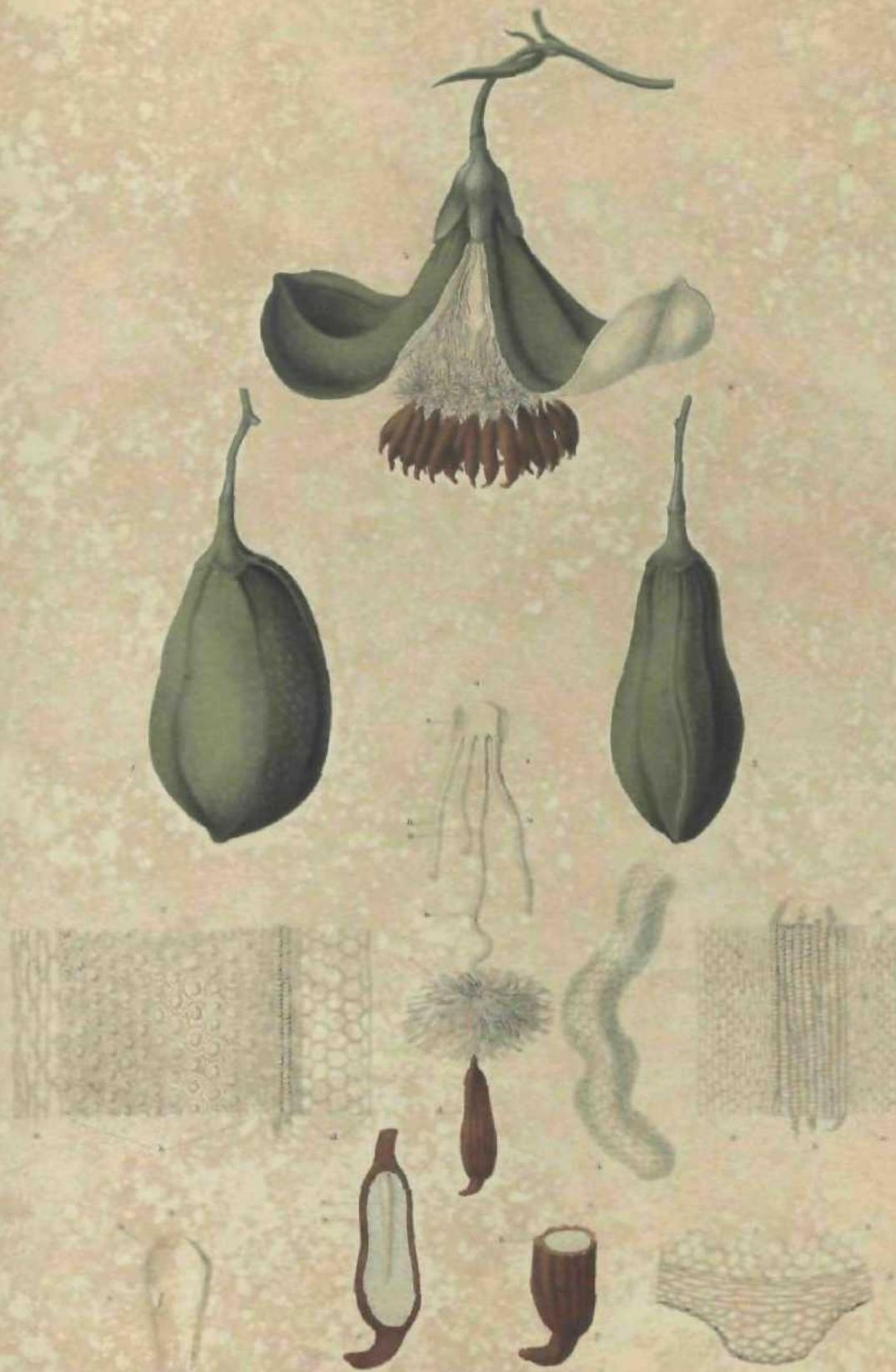
Indigofera guianensis



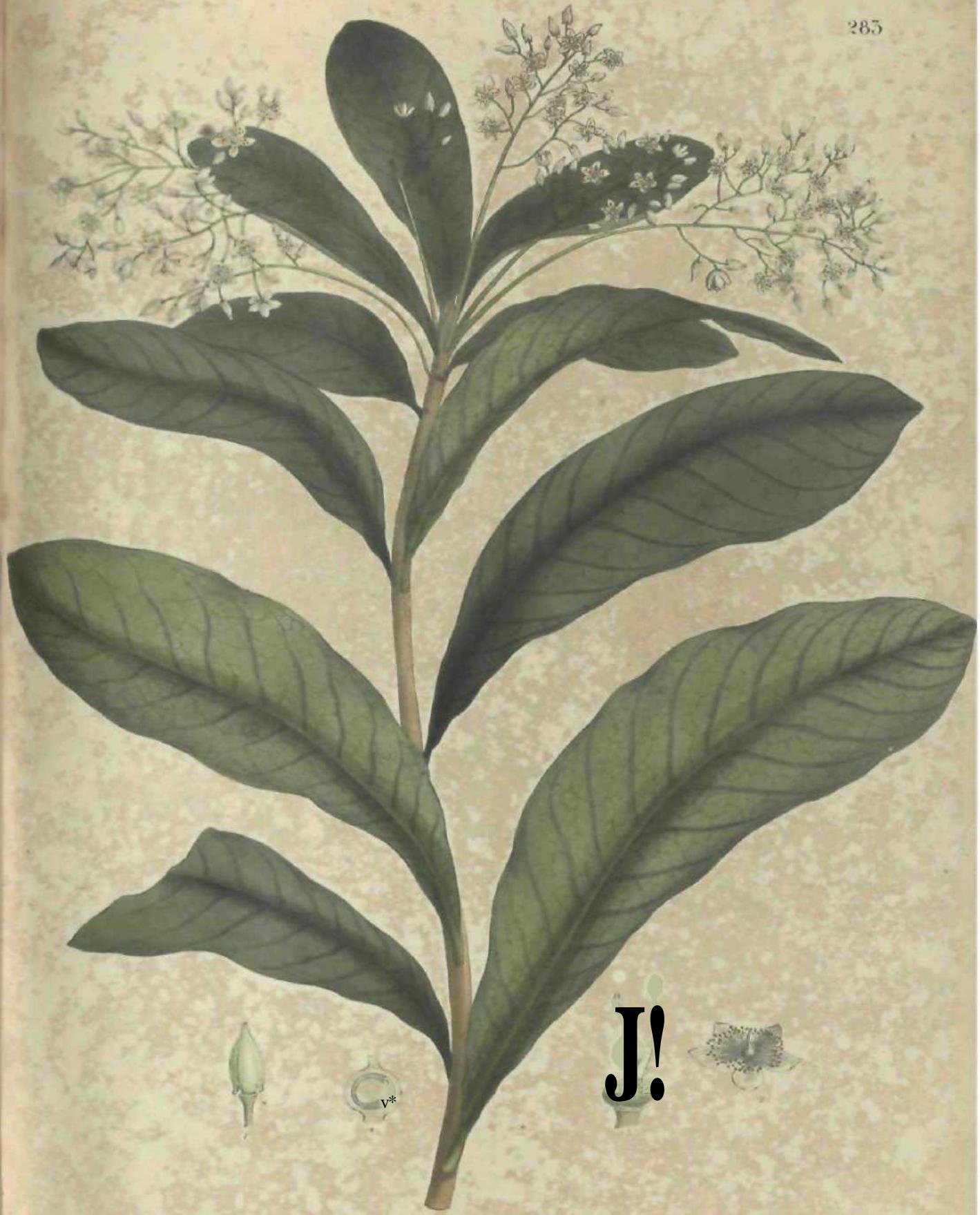
Andropogon schenckii



Gardneria Halliana



Rhabdiglossa multiflora



Melanostoma suw.

Illustration by
J. D. Hooker, 1862



Andromeda fastigata

Illustration by Maria Sibylla Merian



Malanta latissima



Hedyotis speciosa



Phragmites australis

Grisebach



Adonis Amurensis

Fl. Russ. Vol. II

Pl. 137. Fig. 1.



Cissus napolensis



Citrus rigata



Lilium napalense

Printed by Fred. J. Goss



Ilex depresna

Illustration by Mary V. Jones

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Suckia ericata



Tectona Hamiltoniana

W. C. WOODWARD



Strobilanthes auriculatus

