**Descriptions of some New Plants from Eastern
Asia, chiefly from the Island of Formosa,
presented by Dr. Augustine Henry, F.L.S.,
to the Herbarium, Royal Gardens, Kew.**

BY

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With Plates VII and VIII.
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IN May of last year Kew received a collection of dried plants from Formosa, presented by Dr. A. Henry, the same gentleman who previously collected so successfully in Hupeh and Szechuen, and who has sent to Kew probably not less than five hundred species previously unknown in the botanical world, and also a considerable number of new genera. Altogether the collection contained about 1500 species, and the following is a selection therefrom, with a few from the mainland of China. It was the wish of the Director of Kew that the whole collection should be elaborated and published, but pressure of other work has prevented this from being done, and in justice to Dr. A. Henry it was decided not to delay any longer the publication of those already described. They were partly collected by Dr. Henry himself in the neighbourhood of Takow, and at the South Cape; partly by a Chinese in the mountains of Bankinsing, in the interior of the southern peninsula; and partly by a Mr. Schmüser,

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a lighthouse keeper at South Cape. Although Ape's Hill, near Takow, had been previously botanised, Dr. Henry succeeded in finding a number of interesting novelties. On a map in the Proceedings of the Royal Geographical Society, vol. vii, 1885, the height of Ape's Hill is given as 1110 feet, and the mountains in the vicinity of Bankinsing as 8050 feet; but Dr. Henry's collector did not reach a greater altitude than 2000 feet, being in constant fear of the native savages. The Orchids are described by my colleague, R. A. Rolfe, A. L. S.

Hypericum (Ascyron) trinervium, Hemsl.

Frutex undique glaberrimus, ramulis teretibus. *Folia* conferta, subsessilia, chartacea, ovato-oblonga, $1-1\frac{1}{2}$ poll. longa, apice obtusa vel rotundata et simul apiculata, basi subcuneata, a basi trinervia, subtus pallidiora, crebre minuteque pellucido-punctata. *Flores* vix 1 poll. diametro, pedunculis axillaribus 3-6 lineas longis solitariis vel superioribus 2-3-floris nudis; *sepala* leviter inaequalia, ovata vel oblonga, obtusa $1-1\frac{1}{4}$ lin. longa; *petala* valde obliqua, apice rotundata; *stamina* pentadelpa, quam petala breviora; *ovarium* 5-loculare, stylis per totam longitudinem connatis, stigmatibus parvo clavato. *Capsula* subcylindrica, leviter curvata, circiter semipollicaris, stylo 3-4 lineas longo coronata, demum arcte recurva; *semina* numerosissima, cylindrico-clavata, unilateraliter obscure alata.

Formosa: South Cape, Schmüser (Hb. Henry, 906 and 906 A).

This and the following species belong to a small group inhabiting Eastern Asia, characterized by the styles being consolidated throughout their whole length. *H. trinervium* resembles *H. formosanum*, Maxim. in foliage, but it is readily distinguished by the lateral nerves of the leaves and the much less conspicuous glands. The flowers of the latter, too, are borne on short lateral branchlets or peduncles bearing one or two pairs of leaf-like bracts. The closely reflexed ripe capsules is a striking character this has in common with *H. geminiflorum*. Hemsl.

Hypericum (Ascyron) geminiflorum, Hemsl.

Frutex tripedalis (fide A. Henry) undique glaberrimus, ramulis gracilibus rubescentibus. *Folia* subsessilia, tenuiter chartacea, ovato-oblonga, usque ad $1\frac{3}{4}$ poll. longa, apiculata, pallida, subtus glauca, obscurissime pellucido-punctata. *Flores* in axillis foliorum superiorum

saepissime solitarii, vel supremi supra folia geminatim racemosi (folia cito decidua), pedunculis 3-6 lineas longis; *sepala* leviter inaequalia, ovato-oblonga, obtusa, circiter lineam longa; *petala* *stamina* *Capsula* 5-locularis, cylindrica vel teres, stylo simplice brevi coronata, 4-5 lineas longa, demum insigniter reflexa; *semina* minuta, cylindrico-clavata.

Formosa: Ape's Hill, Takow (Hb. Henry, 1155).

The absence of lateral nerves traversing the whole length of the leaves, the very obscure glands, pale leaves and the absence of leaves from the upper part of the branches in the fruiting stage, distinguish this from the preceding.

Capparis membranacea, Gard. et Champ. var.? **angustissima**, Hemsl., foliis usque ad 8 poll. longis et maximis 3 lineas latis.

Formosa: Bankinsing mountains. White-flowered climber (Hb. Henry, 471, 1005).

This appears to be an extreme variety of a very heterophyllous species. Dr. Henry's 410 from the same locality, has somewhat broader leaves; and the specimens from China proper exhibit a considerable variety in shape, though none has them so narrow as those described above.

Capparis (§ **Eucapparis**) **formosana**, Hemsl.

Frutex alte scandens (fide *A. Henry*), ramulis floriferis crassiusculis cinereis pulverulentis. *Folia* distincte petiolata, coriacea, oblonga, ovato-oblonga, vel superiora minora anguste obovata vel oblanceolata, maxima cum petiolo usque ad 7 poll. longa sed saepius breviora, apice obtusissima vel rotundata atque brevissime acuminata, basi rotundata vel cuneata, integerrima, utrinque glaberrima, supra subnitida, subtus pallida, venis primariis lateralibus utrinque circiter 6-8 inter se conspicue anastomosantibus in foliis siccis utrinque sat conspicuis; petiolus 6-10 lineas longus. *Flores* rosei, fragrantissimi (fide *Henry*), circiter 1 poll. diametro, racemoso-fasciculati vel subumbellati cum paucis infra umbellas positi, racemi quam folia breviores, pulverulenti, pedicellis usque ad $1\frac{1}{2}$ poll. longis; *sepala* 4, quorum 2 exteriora pulverulenta, crassa, subcarnosa, valvata, aequalia, alte concava, orbicularia, intus nuda, 2 interiora tenuiora, petaloidea, lata, marginata, uno breviter galeato; *petala* lata, sepala vix aequantia; *stamina* numerosissima, bene evoluta non visa; *ovarium* glabrum, longe graciliterque

stipitatum, placentis 3 et ovulis numerosissimis. *Fructus* lignosus, globosus, circiter 1 poll. diametro (an maturus?), stipite fere bipollicari; *semina* ignota.

Formosa: Bankinsing and Ape's Hill (Hb. A. Henry, 501, 501 A, 501 B, 501 C, 501 D).

Camellia gracilis, Hemsl.

Frutex 10-pedalis (fide A. Henry) ramulis floriferis gracillimis primum parce pilosulis cinereis. *Folia* brevissime petiolata, tenuia, fere membranacea, anguste lanceolata, 2-3 poll. longa, et usque ad 9 lineas lata, caudato-acuminata, simul obtusiuscula, minute apiculato-serrata, concoloria, pallide viridia, subtus secus costam primum parcissime pilosula; petiolus circiter lineam longus, magis pilosus. *Flores* circiter 9 lineas diametro, pseudoterminalis, erecti, solitarii, pedunculis 3-4 lineas longis bracteis paucis parvis instructis; *sepala* 5, aequalia, parva, crassa, coriacea, rotundata, pubescentia; *petala* 5, saepius suborbicularia, undulata, breviter unguiculata, mucronulata, extus plus minusve sericea; *stamina* numerosissima, 5-6 interioris exceptis, alte monadelphica, filamentis dense barbatis, filamentis liberibus valde incrassatis clavatis; *ovarium* hirsutum, triloculare; stylus etiam hirsutus stamina excedens, alte trifidus. *Capsula* ignota.

Formosa: Bankinsing mountains (Hb. Henry, 1612).

Closely allied to *C. assimilis*, Champ., and possibly a variety of it, though it has much thinner leaves, erect, smaller flowers, and exhibits other differences; all of which however may be due to local conditions and not permanent.

Actinidia lanata, Hemsl. Species ex affinitate *A. fulvicomae*, sed magis hirsuta, foliis late ovato-cordatis, pedunculis saepius trifloris, etc.

Frutex ramulis floriferis foliis fructibusque ferrugineo-lanatis vel tomentosis. *Folia* longe petiolata, crassa, chartacea, cum petiolo pollicari usque ad 6 poll. longa et $3\frac{1}{2}$ poll. lata, longe acuminata, basi breviter cordata, aculeolato-ciliata, supra hispidulo-strigillosa, subtus stellato-tomentosa vel lanata. *Pedunculi* petiolos vix excedentes. *Flores* *calycis* fructiferi sepala crassa, lanata, ovata, obtusa, 4-5 lineas longa.

Bacca (immatura tantum visa) villosa, ovoidea, 9-10 lineas longa, stylis numerosissimis coronata.

China: Kwangtung along the North-west river, Mr. C. Ford's native collector; 228 of 1890 collection.

Echinocarpus sinensis, Hemsl. Species quoad fructum *E. murici* simillima sed foliis multo-majoribus oblanceolatis tenuioribus.

Arbor 16-pedalis (*A. Henry*), ramulis fructiferis foliisque glaberrimis. *Folia* graciliter petiolata, tenuia, papyracea, anguste oblanceolata, cum petiolo 4-8 poll. longa, $1\frac{1}{2}$ -2 poll. lata, abrupte acutoque acuminata, deorsum attenuata sed basi obtusa, remote callosa-serrulata, venis primariis lateralibus utrinque 7-10; petiolus gracilis, 6-12 lineas longus, basi incrassatus, apice geniculatus. *Flores* ignoti. *Capsula* solitaria, pedicellata, pedicellis circiter sesquipollicaribus, lignosa, 4-5 locularis, globosa, $1-1\frac{1}{4}$ poll. diametro, densissime setoso-aculeata, simul tomentosa, setis rectis rigidis semipollicaribus setulosis; *semina* cylindrico-oblonga, arillo ceraceo rubro ad $\frac{2}{3}$ vestita.

China: province of Hupeh, on cliffs (*A. Henry*, 7488).

***Zanthoxylum stenophyllum*, Hemsl.**

Frutex 5-6 pedalis vel scandens (*A. Henry*), fere undique glaber, dense ramosus, ramulis floriferis fructiferisque gracilibus aculeis paucis brevibus rigidis armatis. *Folia* pinnata, rachi gracillima saepius elongata (interdum usque 9 poll. longa) aculeis numerosis rigidis $1\frac{1}{2}$ -3 lin. longis leviter curvatis instructis; foliola 5-9, alterna vel subopposita, breviter petiolulata, subcoriacea, anguste lanceolata vel linear-lanceolata, $1\frac{1}{2}$ -3 poll. longa, sursum longe attenuata, sed vix acuta, basi cuneata vel subrotundata, minute glanduloso-serrata, supra nitida vel subopaca, secus costam primum puberula. *Cymae* corymbosae vel subumbellatae, axillares, brevissime pedunculatae, pauciflorae, fructiferae circiter $1\frac{1}{2}$ poll. longae et latae, pedicellis fructiferis gracilibus angulatis circiter semipollicaribus. *Flores* unisexuales vel polygami, ♀ ignoti, ♂ glabri, vix 2 lineas diametro; *sepala* 4, minuta, oblonga; *petala* 4, ovalia, obtusa, lineam longa; *stamina* 4, antheris magnis cordiformibus; *ovarium* rudimentarium ovoideum, glabrum. *Cocci* sessiles, glabri, glandulosi, oblique-ovoidei, circiter $2\frac{1}{2}$ lin. longi; *semina* nigra, nitida.

China: Hsingshan, province of Hupeh (*A. Henry*, 6466, 6555); South Wushan, province of Szechuen (*A. Henry*, 5560).

***Zanthoxylum micranthum*, Hemsl.**

Arbor usque ad 50 ped. alta sed saepius minor (*A. Henry*), ex affinitate *Z. ailanthoides*, ramis floriferis aculei paucissimis rectis

circiter 2 lineas longis armatis. *Folia* pinnata, 5-10 poll. longa, parce puberula, rachi gracili compresso-tereti supra angustissime canaliculata; foliola 7-11, opposita vel subopposita, distincte petiolulata, coriacea, lanceolata, 3-5 poll. longa, longe acuminata, obtusa atque emarginata, basi saepius oblique rotundata, minutissime glanduloso-dentata, undique parce pellucido-glandulosa, glabra vel cito glabrescentia, subtus pallidiora, venis primariis inconspicuis. *Cymae* amplissimae usque ad 12 poll. diametro, terminales et axillares, multiflorae, puberulae. *Flores* minuti, breviter pedicellati, sepalis petalis staminibusque saepius 5. *Cocci* maturi non visi, saepissime 3, nudi, punctati, 2-ovulati, stigmatibus sessilibus conniventibus capitatis.

China: Ichang, Nanto and immediate neighbourhood, Hupeh (A. Henry, 2095, 4127, 4127, A. 4538).

This differs from *Z. ailanthoides* in the much less numerous, less conspicuous primary veins of the leaves.

***Zanthoxylum fraxinoides*, Hemsl.**

Frutex 5-pedalis (A. Henry), *Z. undulatifolio* similis sed undique glaberrimus, &c. *Rami* fructiferi rigidi, recti, paucispinosi, cortice nigrescente lenticellato. *Folia* pinnata, 4-6 poll. longa, rachi gracili inermi vel aculeis paucis minutissimis armata supra canaliculata atque angustissime bialata; foliola 5-9, opposita vel inferiora subopposita, papyracea vel demum subcoriacea, pallida, subsessilia, (terminale petiolulatum) inaequalia, deorsum saepius gradatim minora, saepius oblonga, interdum elliptica vel lanceolata, obtusa vel subacuta, 1-2½ poll. longa, basi saepius rotundata, crenato-denticulata, in angulis dentium unipellucido-glandulosa, venis primariis lateralibus utrinque 5-9 prominulis. *Cymae* axillares, subsessiles, subtrichotomo-ramosae, 1-1½ poll. diametro, pedicellis graciliusculis nudis 2-3 lineas longis. *Flores* non visi. *Cocci* 2-4, saepius 2, rubri (A. Henry), ovoidei, compressi, circiter 2½ lineas longi, grosse glandulosi, sessiles, sub insertionem producti; *semina* nigra, nitida.

China: Fang, province of Hupeh (A. Henry, 6903).

***Zanthoxylum undulatifolium*, Hemsl.**

Frutex circiter 10-pedalis valde aculeatus (A. Henry), glabrescens, ramulis fructiferis graciliusculis aculeis paucis brevissimis instructis. *Folia* pinnata, 5-8 poll. longa, rachi gracili, angulata, puberula, inermia vel aculeis paucissimis minutis instructa; foliola 5-9, stricte

opposita, sessilia, vel brevissime petiolulata (terminale graciliter petiolulatum), subcoriacea, lanceolata, $1\frac{1}{2}$ –3 poll. longa, longe acuminata, vix acuta, basi saepius rotundata, insigniter glanduloso-denticulata atque undulata, subtus pallidiora, supra hispidula. *Cymae* axillares, subsessiles, pauciflorae $1\frac{1}{2}$ –2 poll. diametro, pedicellis graciliusculis 3–6 lin. longis puberulis. *Flores* non visi. *Cocci* 2–4, parvi, oblique ovoidei, vix 2 lin. diametro, glabri, grosse glandulosi; *semina* nigra, nitida.

China: Nanto and mountains to the northward, province of Hupeh (A. Henry, 393⁸); South Wushan, province of Szechuen (A. Henry, 5646); above Chungking (Faber, 234).

Zanthoxylum emarginellum, Miq. in Ann. Mus. Bot. Lugd. Bat. iii. p. 22, descript. hic amplif.

Frutex speciosissimus trunco simplice (*Ford*). *Folia* ampla, glabra, pinnata, fere bipedalia; rachis glauca, teres, crassa, aculeis numerosis rectis complanatis a basi dilatata 2–5 lin. longis armata, parte infra foliola infima circiter 2 poll. longa; foliola speciminis fordiani 27, opposita, subsessilia, tenuia, fere membranacea, oblongo-lanceolata, maxima 5 poll. longa (superiora ac inferiora gradatim minora), sursum attenuata, apice insigniter emarginata, basi leviter obliqua, rotundata, brevissime crenato-denticulata, ad crenas et per totam laminam grosse pellucido-glandulosa. *Cymae* pedunculatae, circiter 2 poll. diametro, densiusculae, pedunculis bipollicaribus aculeatis, pedicellis brevibus. *Flores* . . . *Cocci* sessiles, 2–3 lineas diametro, pallidi, glabri, rugulosi; *semina* nigra, sphaeroidea, circiter $1\frac{1}{2}$ lin. diametro.—*Euonymo adfinis aromatico*, s. *Zanthoxylum spinosissimum*, *Fraxini angustiore folio punctatum*, Pluk. Amalth. Bot. p. 76, et Iconogr. t. 392. f. 1; Bretschneider, Early Researches into Ch. Fl. p. 72; *Zanthoxylum* sp. 13, Hemsl. in Journ. Linn. Soc. xxiii. p. 108.

Island of Chusan, Cunningham, Hb. Sloane, vol. xciv. p. 190 in Hb. Mus. Brit.; Kelung, Formosa, C. Ford, in Hb. Hort. Kew.

Zanthoxylum echinocarpum, Hemsl.

Arbor vel frutex aculeatus, ramulis fructiferis rigidis crassiusculis puberulis. *Folia* imparipinnata, 7–10 poll. longa, rachi graciliuscula puberula, praecipue subtus aculeata, aculeis circiter 1 lin. longis rigidis basi incrassatis recurvis; foliola 5–11, alterna vel interdum suboppo-

sita, breviter petiolulata, coriacea, saepius oblonga, nunc fere elliptica nunc oblanceolata, $1\frac{1}{2}$ – $4\frac{1}{2}$ poll. longa, $\frac{3}{4}$ –2 poll. lata, abrupte obtuseque caudato-acuminata, basi saepissime rotundata, utrinque secus costam primum puberula, margine minute glandulosa excepta eglandulosa, venis primariis lateralibus numerosis furcatis et inter se connexis subtus conspicuis; petioluli puberuli, 1–2 lineas longi. *Flores* dense racemosi, subsessiles, racemis 2–3 poll. longis. *Sepala* 4, oblonga, obtusa, persistentia, ut videtur valvata. *Petala* et stamina non visa. *Cocci* saepissime 4, sessiles, a latere compressi, 3–4 lineas longi, aculeis demum rigidis rectis 3–4 lineas longis armati, dispermi vel abortu monospermi; *semina* matura non visa.

China: Ichang and immediate neighbourhood, Hupeh (A. Henry, 3416 B and D).

***Zanthoxylum dimorphophyllum*, Hemsl.**

Frutex 5–10 pedalis, ramis valde spinosis (A. Henry), ramulis floriferis rigidis minute puberulis inermibus vel aculeis rectis paucissimis armatis. *Folia* 1- vel 3-foliolata, nunc omnia 1-foliolata nunc omnia 3-foliolata et inaequalia, interdum 1- et 3-foliolata intermixta, petiolis $\frac{1}{2}$ – $1\frac{1}{2}$ poll. longis; foliola crassa, coriacea, subsessilia, vel plus minusve (praesertim terminale) distincte petiolulata, circumscriptione variabilia, sed saepissime ovato-oblonga vel ovato-lanceolata, 1–4 poll. longa, sed saepius $1\frac{1}{2}$ – $2\frac{1}{2}$ poll. longa, obtusa, basi rotundata, paucicrenata, glaberrima, vel primum supra secus costam puberula, supra nitida vel subopaca, tota crebre pellucido-glandulosa, glandulis majusculis. *Cymae* axillares, parvae, circiter 5–7-florae, pedicellis crassiusculis hirsutis 2–4 lin. longis. *Flores* unisexuales vel polygami, ♂ non visi, ♀ $2\frac{1}{2}$ –3 lin. diametro, apetalis, vel sepala petalis simillima, 5–9, crassa, basi incrassata, angusta, fere linearia, obtusa, longitudinaliter involuta, intus pilis paucis conspersa. *Carpella* 2–4, saepissime 2, lepidota, stylis crassis recurvis, stigmate magno capitato; ovula 2, collateralia, pendula. *Cocci* globosi, circiter 2 lin. diametro; *semina* nigra, nitida.

China: various localities near Ichang in the province of Hupeh (A. Henry, 3902, 4462, 4512, 5512, 7003).

***Celastrus hypoglaucus*, Hemsl.**

Frutex alte scandens (A. Henry) undique glaberrimus, ramulis floriferis graciliusculis, cortice rubescente vel nigrescente. *Folia* graciliter petiolata, papyracea vel vix coriacea, oblongo-ovata,

elliptica vel interdum fere orbicularia, cum petiolo $2\frac{1}{2}$ – $5\frac{1}{2}$ poll. longa, maxima $2\frac{1}{2}$ poll. lata, saepius obtuse acuminata, basi rotundata, obscure denticulata, subtus nunc insigniter glauca nunc quam supra pallidiora. *Flores* flavi, 3–4 lineas diametro, saepius in racemos elongatos 4–9 poll. longos terminales dispositi, interdum cymosi, cymis axillaribus 3–5-floris, pedicellis 3–9 lineas longis; *calycis* lobi deltoidei, obtusissimi; *petala* quam sepala duplo longiora, oblonga vel fere elliptica, crispula, infra medium biauriculata et deorsum attenuata. *Capsula* sphaeroidea, nuda, circiter 3 lineas diametro, valvis 3–4 tenuibus crustaceis.

China: various localities near Ichang, Hupeh (A. Henry, 2837, 6771, 6811); South Wushan, Szechuen (A. Henry, 5887).

Ventilago elegans, Hemsl. (Plate VII.)

Frutex scandens (A. Henry), dense ramosus, ramulis gracillimis flexuosis striato-angulatis puberulis, internodiis quam folia brevioribus. *Folia* disticha, breviter petiolata, subcoriacea, ovali-oblonga vel obovata, 6–12 lin. longa, apiculata, utrinque glabra, supra subnitida, venis primariis lateralibus utrinque saepissime 4 in dentes minutissimos excurrentibus, venis ultimis transversis creberrimis eximiiis; petioli circiter 1 lin. longi, puberuli; stipulae minutae, setaceae, deciduae. *Flores* albi (A. Henry), circiter $1\frac{1}{2}$ lin. diametro, glabri, axillares, brevissime pedicellati, solitarii vel 2–3 aggregati; *calycis* lobi crassi, deltoidei, vix acuti, intus carinati; *petala* quam sepala breviora, 3-lobulata, lobo intermedio multo minore, lateralibus complicatis stamen amplectentibus; ovarium 2-loculare, loculis 1-ovulatis, stylo crasso. *Fructus* glabri ala anguste oblonga, circiter 9 lineas longa; semen unicum, testa membranacea, embryo intense viridis.

Formosa: Ape's Hill (Hb. A. Henry, 489).

Vitis formosana, Hemsl. Species *V. umbellatae* similis sed cymis compositis brevissime pedunculatis.

Frutex alte scandens (A. Henry), omnino glaber, ramulis floriferis graciliusculis angulatis, internodiis quam folia saepe brevioribus. *Folia* trifoliolata, breviter petiolata; foliola brevissime petiolulata, subcarnosa, inaequalia (lateralia minora plus minusve obliqua), oblonga, anguste lanceolata vel interdum fere ovata, 1 – $2\frac{1}{2}$ poll. longa, subacuta, obtusa vel rotundata, basi saepe cuneata, interdum rotundata, obscure paucidentata, venis subtus (in foliis siccis) prominulis; petiolus $\frac{1}{2}$ –1 poll.

longus. *Cymae* axillares, compositae, umbelliformes, densae, brevissime pedunculatae, circiter 1 poll. diametro, pedicellis 1–2 lin. longis gracilibus. *Sepala* minuta, dentiformia; *petala* ovato-oblonga, vix acuta, vix 1 lin. longa, patentia, demum reflexa. *Bacca* ignota.

Formosa: Takow, Playfair, 203; same locality (Hb. Henry, 745).

Desmodium (§ **Eudesmodium**) *gracillimum*, Hemsl.

Herba vel suffrutex debilis, ramulis elongatis fere filiformibus radicanibus parce albo-strigillosis. *Folia* unifoliolata, longe graciliterque petiolata, tenuissima, pallide viridia, cordiformia, absque petiolo $\frac{1}{2}$ – $1\frac{1}{4}$ poll. longa, obtusa vel rotundata, utrinque parcissime strigillosa; petiolus gracillimus, 4–9 lin. longus; stipulae ac stipellae minutae, setuliformes. *Flores* perfecti non visi, parvi (circiter 2 lin. longi), albo-caerulei (*Henry*) pauci, in racemos laxos terminales dispositi. *Legumen* maturum non visum, breviter stipitatum, pubescens, angustum, rectum, circiter pollicare, articulis circiter 4 oblongis.

Formosa: Summit of Ape's Hill, Takow (Hb. Henry, 1160).

Crotalaria similis, Hemsl. Species *C. perpusillae*, Coll. et Hemsl. (Journ. Linn. Soc. xxviii. p. 37. t. 5) simillima sed foliis angustioribus &c.

Herba ramosissima, procumbens, undique dense longeque strigilloso-villosa, ramis gracilibus 2–4 poll. longis. *Folia* simplicia, subdisticha, conferta, brevissime petiolata, papyracea, ovato-oblonga vel obovata, $2\frac{1}{2}$ –3 lin. longa, apiculata, supra demum glabrescentia, punctulata. *Flores* pauci, ad apices ramorum conferti, breviter pedicellati, 3–4 lin. longi, bracteolis minutis lanceolatis calycis tubo adnatis; *calyx* dense villosus, distincte bilabiatus, labio antico alte trilobo, lobis angustis acutissimis declinato-curvatis, labio postico erecto vix ad medium bifido lobis latis apice oblique rotundatis; *petala* calycem vix excedentia, brevissime unguiculata, striata, vexillo orbiculari circiter 3 lin. diametro extus medio apicem versus strigilloso, alis late oblongis apice rotundatis, carina e basi lata curvato-acuminata; ovarium glabrum, circiter 12-ovulatum, stylo curvato gracili. *Legumen* oblongum, 4–5 lin. longum et 2 – $2\frac{1}{2}$ lin. latum, oligospermum; semina parva, nitida, compressa, reniformia.

Formosa: South Cape, Schmüser (Hb. Henry, 252).

Prunus (§ **Laurocerasus**) *xerocarpa*, Hemsl.

Arbor 10-pedalis (*A. Henry*) fere omnino glabra, ramulis floriferis

gracilibus primum minute puberulis vel pulverulentis rubescentibus. *Folia* petiolata, ut videtur persistentia, subcoriacea, lanceolata, cum petiolo 3-5 poll. longa, caudato-acuminata, obtusa, basi saepe subcuneata, integerrima, subtus pallidiora, rubro-punctata; stipulae cito deciduae non visae. *Flores* albi, circiter 4 lineas diametro, simpliciter racemosi vel racemoso-paniculati, paniculis folia aequantibus vel excedentibus, ramulis pedicellisque gracillimis; *calycis* tubus intus villosus; *calycis* lobi minuti, petaloidei, rotundati, crispulati; *petala* fere orbicularia, circiter $1\frac{1}{2}$ lin. diametro, crispulata; *stamina* circa 20; ovarium glabrum. *Fructus* exsuccus, pisiformis, globosus, 3-4 lin. diametro, epicarpio ut videtur tenuissimo, endocarpio crustaceo.

Formosa: Bankinsing mountains (Hb. Henry, 1656, 1658, 1658, A).

Photinia (§ *Eriobotrya*) *deflexa*, Hemsl. *Eriobotryae Hookerianae* proxime affinis, sed foliis longe petiolatis insigniter deflexis et grosse serratis.

Arbor 30-pedalis (*A. Henry*) ramulis fructiferis crassis puberulis. *Folia* longe petiolata, crassa, coriacea, deflexa, oblongo-lanceolata, pedalia, grosse irregulariterque serrata, serris curvatis obtusis, utrinque glabra, venis primariis lateralibus numerosis utrinque conspicuis in serras excurrentibus; petiolus $1\frac{1}{2}$ - $2\frac{1}{2}$ poll. longus, basi incrassatus; stipulae deciduae non visae. Inflorescentia terminalis, cymoso-corymbosa, ramulis crassis, pedicellis brevissimis. *Flores* ignoti. *Fructus* ovoideus, 6-8 lin. longus, lignoso-suberosus, calycis lobis oblongis obtusis lanatis coronatus; *semina* ovoidea.

Formosa: Bankinsing (Hb. A. Henry, 498).

Itea parviflora, Hemsl.

Frutex glaber vel glabrescens, ramulis floriferis gracilibus, internodiis quam folia multo brevioribus. *Folia* distincte petiolata, tenuia, papyracea, glabra, anguste lanceolata vel oblongo-lanceolata, 2-4 poll. longa, acuminata, obtusa simul apiculata, basi cuneata, sursum plus minusve crenato-serrulata et subundulata, subtus pallidiora, venis primariis lateralibus utrinque saepius 5 vel 6 arcuatis subtus sat conspicuis, venis ultimis transversis pulchre reticulatis; petiolus gracilis, 3-6 lin. longus. *Racemi* axillares, gracillimi, 1-3 poll. longi, multiflori, interdum puberuli, pedicellis gracillimis 1-2 lin. longis. *Flores* albi, circiter lineam longi, conferti; *calycis* dentes elongato-

deltoidei, vix acuti, quam petala dimidio breviores, tubo intus hirtello; *petala* anguste ovato-lanceolata, vix acuta, medio indistincte carinata, persistentia. *Capsula* 2–3 lin. longa, saepius puberula, polysperma; *semina* elongata, gracilia, fusiformia.

Formosa: South Cape, Schmüser (Hb. A. Henry, 965, 1263, 1322).

Most nearly related to *I. chinensis*, differing in its narrow, thin leaves, smaller flowers, relatively broad petals, and puberulous capsule.

***Diospyros utilis*, Hemsl.**

Arbor magna (*A. Henry*), ramulis fructiferis crassis sericeo-hirsutis. *Folia* alterna, breviter petiolata, crassa, coriacea, oblonga vel lanceolata, 5–8 poll. longa, maxima 3 poll. lata, acute acuminata, basi biauriculata vel superiora minora interdum rotundata vel cuneata, undulata, supra glabra, costa impressa, subtus albida, dense arcte appresseque sericeo-strigillosa, costa elevata; petiolus crassus, teres, 3–4 lin. longus. *Flores* *Fructus* edulis (*A. Henry*) subsessilis, depresso-globosus, fere 2 poll. diametro, tomentosus, saepius 8-locularis, sepalis amplis crassis sericeo-tomentosis fere orbicularibus persistentibus subtendus; *semina* oblonga, compressa, testa nigra nitida crassissima dura, albumine non ruminato.

Formosa: Bankinsing mountains (Hb. Henry, 815).

Dr. Henry describes this as a large tree furnishing a good wood, used for making axles, and an edible fruit called *mao-shih*, that is, hairy persimmon.

***Rehmannia Oldhami*, Hemsl. in Journ. Linn. Soc. xxvi, p. 194; descriptio hic amplificata.**

Perenne, undique albo-hirsutum, caulibus saepius simplicibus gracilibus maximis cum inflorescentia 3-pedalibus sed saepius brevioribus. *Folia* distincte petiolata, membranacea, opposita, subopposita, vel inferiora saepe alterna, saepe obliqua, ovata vel obovata, maxima cum petiolo 9 poll. longa, sed saepius breviora, grosse et inaequaliter serrata, utrinque strigilloso-hirsuta. *Racemi* simplices vel interdum ramosi saepe valde elongati et gracillimi, supra medium proliferi, corporibus minutis carnosiss fasciculatis instructi; pedicelli demum circiter semi-pollicares. *Flores* flavi (*A. Henry*), maculati, $1\frac{1}{4}$ – $1\frac{1}{2}$ poll. longi; *calycis* segmenta lineari-lanceolata, acutissima, 4–5 lin.

longa; *corolla* anguste ventricosotubulosa, limbo obliquo lobis brevibus rotundatis; *stamina* 4, inclusa, antheris per paria cohaerentibus. *Capsula* ovoidea, calyce inclusa, in valvas 4 placenticide dehiscens; *semina* minuta linearia vel cylindrica, breviter funiculata, in utroque termino cristata.

Formosa: Ape's Hill, Takow, on the sides of cliffs in dry, shaded situations (Hb. A. Henry, 1052).

There is now no doubt that this plant belongs to the genus *Rehmannia*; and there is also little doubt that this genus would be better placed in the Cyrtandreae.

Mesona procumbens, Hemsl. (Plate VII.)

Herba procumbens, radicans, caulibus elongatis 2-3-pedalibus graciliusculis pilis paucis longis debilibus instructis vel demum glabrescentibus. *Folia* distincte petiolata, tenuia, fere membranacea, ovata vel ovato-lanceolata, cum petiolo gracili 1-2 poll. longa, acuta, basi rotundata vel subcuneata, grossiuscule callososerrata, praecipue subtus pilis paucis tenuissimis conspersa, venis primariis lateralibus utrinque saepius 6; petiolus 3-6 lineas longus. *Verticillastri* dense racemosi, racemis densis terminalibus vel axillaribus cum pedunculo 2-3-pollicaribus, pedicellis brevissimis; bracteae rotundatae, ciliatae, subito caudato-acuminatae, cauda demum sub laminam arcte recurva. *Flores* minuti, cum staminibus exsertis circiter 2 lineas longi, setulosi; *calyx* fructifer auctus, circiter 1½ lin. longus, scariosus, longitudinaliter 10-costatus et insigniter transverse multicostatus, irregulariter bilabiatus, demum clausus, tubo leviter inflato, labio antico oblongo integro apice rotundato, labio postico inaequaliter tridentato dentibus omnibus acutis; *corolla* alte bilabiata, hians, tubo brevissimo, labio antico concavo cymbiformi extus parce villosus, labio postico lato breviter tridentato, dente intermedio obscure emarginato; *stamina* longe exserta, declinata, filamentis staminum duorum posticorum basi appendiculatis, appendiculis oblongis hirsutis. *Nuculae* anguste ellipsoideae, glabrae.

Formosa: South Cape: collected by Schmüser (Hb. Henry, 1317).

This is a very distinct species, and markedly so in its much elongated procumbent stems. It seems evident that Wallich's genus *Geniosporum* must be reduced to *Mesona*; the only difference given being the presence or absence of appendages at the base of the posterior filaments; but these are often very minute and easily

overlooked where they do occur, and scarcely furnish a character of generic importance. Comparing our figure of *Mesona procumbens* with that of *Geniosporum strobiliferum*, Wall. in Hooker's 'Icones Plantarum' t. 462, the resemblances, it will be seen, are very strong.

Helicia formosana, Hemsl. in Journ. Linn. Soc. xxvi, p. 394. Descriptio hic amplificata (Plate VIII).

Folia maxima fere pedalia et $4\frac{1}{2}$ poll. lata, interdum grosse serrato-dentata. Racemi circiter 6 poll. longi. *Fructus* depresso-globosus, $1-1\frac{1}{4}$ diametro: semen unicum, cotyledonibus hemisphaericis.

Formosa: Bankinsing mountains, near watercourses (Hb. Henry, 805).

Liparis macrantha, Rolfe.

Caulis erectus, subcarnosus, subelongatus. *Folia* membranacea, petiolata; limbus elliptico-ovatus, breviter acuminatus, basi obliquus, $4-4\frac{1}{2}$ poll. longus, $2-2\frac{1}{2}$ poll. latus; petiolus latus, $1\frac{1}{4}-1\frac{3}{4}$ poll. longus, basi laxe tubuloso-vaginatus, membranaceus. *Scapus* $\frac{3}{4}-1$ ped. altus, multiflorus. *Bractee* parvae, triangulo-ovatae, acutae, reflexae, vix 1 lin. longae. *Pedicelli* 9 lin. longi. *Sepalum* posticum lanceolatum; lateralia falcato-lanceolata, subobtusata, $5\frac{1}{2}-6$ lin. longa, $1\frac{1}{2}$ lin. lata. *Petala* angustissima, 7 lin. longa. *Labellum* obcordatum, apiculatum, denticulatum, $5\frac{1}{2}$ lin. longum, 5 lin. latum, basi bituberculatum. *Columna* $2\frac{1}{2}$ in. longa.

Formosa: Tamsui (Hb. A. Henry, 1695!).

A remarkable species with dark purple flowers an inch in diameter.

Phreatia formosana, Rolfe.

Planta caespitosa. *Folia* linearia obtusa, basi paullo attenuata, 3-6 poll. longa, 2-3 lin. lata. *Scapi* graciles, elongati, multiflorae, 6-7 poll. longae. *Bractee* lanceolatae, acutae, $1-1\frac{1}{2}$ lin. longae. *Pedicelli* $\frac{3}{4}$ lin. longi. *Sepala* ovata, subacuta, $\frac{3}{4}$ lin. longa. *Petala* ovata, subacuta, sepalis paullo minora. *Labellum* breviter unguiculatum; limbus late trulliformi-cordatus, subobtusus, $\frac{2}{3}$ lin. latus. *Columna* brevissima.

Formosa: South Cape (Hb. A. Henry, 1349).

Allied to *P. elegans*, Lindl., but the lip more distinctly trulliform.

Agrostophyllum formosanum, Rolfe.

Caules erecti, 9-10 poll. longi, subcompressi, distichophylli. *Folia* lineari-oblonga, obtusa 4-6 lin. longa, 9-11 lin. lata, vaginae conduplicatae, imbricatae. *Capitulum* subsessile, densiflorum, 16 lin. latum. *Bracteae* lanceolato-oblongae, obtusae, striatae, 2 lin. longae. *Sepala* ovata, subacuta, lateralibus carinata, concava, $1\frac{3}{4}$ lin. longa. *Petala* linearia, obtusa, torta, $1\frac{3}{4}$ lin. longa. *Labellum* 2 lin. longum, hypochilio subhemisphaerico-saccato, epichilio reniformi-ovato obtuso. *Columna* crassa, 1 lin. longa.

Formosa: South Cape (Hb. A. Henry, 1350).

Allied to *Agrostophyllum majus*, Hook. f., from Perak.

Calanthe formosana, Rolfe.

Folia petiolata, lanceolata, acuta, 12-14 poll. longa, $1\frac{1}{2}$ - $2\frac{1}{4}$ poll. lata; petiolus 6-7 poll. longus. *Scapus* 10-12 poll. altus; vaginae spathaceae, basi tubulosae, $1\frac{1}{4}$ - $1\frac{3}{4}$ poll. longae. *Bracteae* lineari-lanceolatae, acutae, 1- $1\frac{1}{2}$ poll. longae, $2\frac{1}{2}$ -3 lin. latae. *Sepala* lanceolata, acuminata, 5 lin. longa, $1\frac{3}{4}$ -2 lin. lata. *Petala* lanceolata, breviter acuminata, subobliqua, uninervia, membranacea, $4\frac{1}{2}$ lin. longa, $1\frac{3}{4}$ lin. lata. *Labellum* supra medium columnae adnatum, trilobum, 3 lin. longum, lobis lateralibus rotundatis, intermedio oblongo apiculato, disco laevi, calcare gracili, $2\frac{1}{2}$ lin. longo. *Columna* 2 lin. longa, apice dilatata.

Formosa: South Cape (Hb. A. Henry, 1347).

Allied to the Indian *C. clavata*, Lindl., but with a differently shaped lip, and the spur not clavate. The bracts much resemble those of *C. densiflora*, Lindl., belonging to another group. The buds are not expanded, and probably the flowers exceed the dimensions here given.

Geodorum formosanum, Rolfe.

Folia oblongo-lanceolata, acuta, $\frac{1}{2}$ -1 ped. longa, $1\frac{1}{4}$ - $2\frac{1}{2}$ poll. lata. *Scapi* 6-10 poll. longi, apice nutante, basi laxè vaginati. *Bracteae* lineari-lanceolatae, 5-6 lin. longae. *Pedicelli* graciles 2- $2\frac{1}{2}$ lin. longae. *Sepala* et *petala* oblonga vel spathulato-oblonga, obtusa, $4\frac{1}{2}$ lin. longa. *Labellum* ovato-oblongum, obtusum, obscure bilobum, basi saccatum, 5 lin. longum, $3\frac{1}{2}$ lin. latum, disco medio incrassato obscure tricarinato. *Columna* clavata, 2 lin. longa.

Formosa: Takow (Hb. A. Henry, 1137), South Cape (Hb. A. Henry, 1375). I am unable to identify this with any Indian species.

Tropidia formosana, Rolfe.

Herba erecta, 1 ped. alta. *Folia* late lanceolata, acuta, membranacea, 4–5 poll. longa, $\frac{3}{4}$ – $1\frac{1}{4}$ poll. lata, vaginis laxis. *Racemi* abbreviati, subcapitati, 6–7 lin. lati. *Bractee* lanceolatae, acutae, striatae, 2 lin. longae. *Pedicelli* $1\frac{1}{2}$ lin. longi. *Sepala* oblonga, acuta, 3– $3\frac{1}{2}$ lin. longa, 1 lin. lata, mento saccato. *Petala* oblongo-lanceolata, subobtusa, sepalis subaequalia, nervo medio incrassata. *Labellum* oblongum, subobtusum, basi saccatum, sepalis subaequale. *Columna* clavata, $1\frac{1}{2}$ lin. longa.

Formosa: Bankinsing (Hb. A. Henry, 1573).

Allied to the Philippine *T. septemnervis*, Rchb. f.

Zeuxine formosana, Rolfe.

Caules subrepentes. *Folia* petiolata, ovata, apiculata, limbus $1\frac{1}{4}$ – $1\frac{3}{4}$ poll. longa, 6–11 lin. lata; petiolus 6 lin. longus, infra medium tubuloso-vaginatus. *Scapus* 10–14 poll. altus, pubescens. *Bractee* ovato-lanceolatae, acuminatae, 4–5 lin. longae, pubescentes. *Sepalum* posticum ovatum, subobtusum, concavum, $2\frac{1}{2}$ lin. longum; lateralia oblonga, subobtusa, 3 lin. longa. *Petala* oblique semiovata, subobtusa, $2\frac{1}{2}$ lin. longa. *Labellum* 3 lin. longum, basi cymbiforme, bicallosum, medio constrictum, angustum, apice dilatato-bilobum, lobis suborbicularibus. *Columna* lata, apice bibrachiata, $1\frac{1}{2}$ lin. longa.

Formosa: South Cape (Hb. A. Henry, 644).

This species somewhat resembles *Zeuxine flava*, Benth., in habit, but the flowers are fully twice as large.

Cheirostylis chinensis, Rolfe.

Rhizoma repens. *Folia* breviter petiolata, late ovata, acuta vel apiculata, puberula, 5–8 lin. longa, 3–6 lin. lata; petiolus 2– $2\frac{1}{2}$ lin. longus, basi dilatatus, breviter tubuloso-vaginatus. *Scapus* gracilis, 3–5 poll. altus, pubescens, paucivaginatus, pauciflorus. *Bractee* elliptico-oblongae, obtusae, submembranaceae, $1\frac{1}{2}$ lin. longae. *Perianthium* subhemisphaericum, $1\frac{1}{2}$ lin. longum. *Petala* elliptico-oblonga. *Labellum* unguiculatum, limbo flabellato bifido grosse dentato 3 lin. lato. *Columna* brevis, appendicibus subulatis.

Formosa: South of island (A. Hance, 390), Summit of Ape's Hill, Takow (Hb. A. Henry, 320); Hongkong (Ford, 130).

Allied to the Indian *C. flabellata*, Wight.

Goodyera formosana, Rolfe.

Herba elata, $2\frac{1}{2}$ –3 ped. alta. *Folia* elliptico-lanceolata vel oblonga, acuta vel subacuminata, 6–7 poll. longa, $2-2\frac{1}{2}$ poll. lata. *Scapus* pubescens, vaginis lanceolatis, numerosis. *Racemus* elongatus, multiflorus, 1 ped. longus. *Bractee* lanceolatae, acuminatae, 3–5 lin. longae. *Sepala* ovato-lanceolata, subacuta, pubescentia, $3\frac{1}{2}$ –4 lin. longa. *Petala* spathulato-lanceolata, subacuta, $3\frac{1}{2}$ –4 lin. longa. *Labellum* $3-3\frac{1}{2}$ lin. longum, basi concavo-saccatum, venis fimbriato-villosis, medio abrupte contractum, dein lineari-subulatum, apice reflexum. *Columna* clavata, 2 lin. longa.

Formosa: Bankinsing mountains (Hb. A. Henry, 409). 'Flowers whitish.'

This species has the habit of *G. fumata*, Thw., of Ceylon, to which it is most nearly allied.

EXPLANATION OF THE FIGURES IN
PLATES VII AND VIII.

Illustrating Mr. Hemsley's paper on New Plants from Eastern Asia.

PLATE VII.

A. Flowering and fruiting branches of *Ventilago elegans*. Natural size.

Fig. 1. A leaf, slightly enlarged to show the transverse venation.

Fig. 2. Vertical section of a flower.

Fig. 3. A petal spread open and stamen.

Fig. 4. The same in its natural position with the stamen drawn forward.

Fig. 5. Front view of an anther.

Fig. 6. Back view of an anther.

Fig. 7. A fruit.

Fig. 8. Vertical section of the same.

Fig. 9. Embryo, showing the large, almost terete cotyledons.

All the figures enlarged except *A*.

B. Flowering and fruiting stem of *Mesona procumbens*. Natural size.

Fig. 10. A verticillaster, with bract; all the flowers except one removed.

Fig. 11. A corolla laid open, showing the appendaged filaments.

Fig. 12. Back view of an anther.

Fig. 13. Pistil.

Fig. 14. Calyx in the fruiting stage.

Fig. 15. Fruit.

All the figures enlarged, except *B*.

PLATE VIII.

C. Flowering branch of *Helicia formosana*. Natural size.

Fig. 16. An expanded flower.

Fig. 17. Upper part of a segment of the perianth with stamen attached.

Fig. 18. Back view of anther.

Fig. 19. Pistil and disk; upper part of style removed.

Fig. 20. Vertical section of ovary.

Fig. 21. A fruit.

Fig. 22. A seed from which the membranous outer testa has begun to disappear.

Fig. 23. The same wholly removed, revealing the dimorphic inner testa, the upper half of which is rugose, the lower smooth.

Fig. 24. One of the hemispherical cotyledons and minute radicle.

Figures 16 to 20 enlarged; 21 to 24 natural size.

M. Smith del.

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Hemsley, W. Botting. 1895. "Descriptions of some new plants from Eastern Asia, chiefly from the island of Formosa, presented by Dr. Augustine Henry, F.L.S., to the Herbarium, Royal Gardens, Kew." *Annals of botany* 9, 143–160.
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