



sula of India. Bengal, (Serampore,) &c. Fl. small, purple, and fr. nearly the whole year.

3. *articulatis*, L. (*DC. pr. 4, p. 555*;—*G. Don's Mill. dict. 3, p. 621*;—*W. and A. pr. 1, p. 438*;—*Roxb. fl. ind. 1, p. 572*; *ed. Carey, 1, p. 378*;—*J. Grah. Cat. B. pl. p. 93*.) ♂ Peninsula of India. Amherst. Fl. small, white, and fr. nearly the whole year.
? 4. *semierecta*, Roxb. (*fl. ind. 1, p. 371*; *ed. Carey, 1, p. 377*;—*DC. pr. 4, p. 556*;—*G. Don's Mill. dict. 3, p. 621*.) ♂ Sumatra. Fl. small, white. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
? 5. *costata*, Roxb. (*fl. ind. 1, p. 370*; *ed. Carey, 1, p. 376*, excl. syn. L.—*DC. pr. 4, p. 556*;—*G. Don's Mill. dict. 3, p. 621*.) ♂ 2. Fl. very small, pale rose-coloured. In H. C. G. fl. and fr. the whole year. (*Roxb.*)

KNOXIA, L. (*DC. pr. 4, p. 569*;—*G. Don's Mill. dict. 3, p. 628*;—*W. and A. pr. 1, p. 439*)

1. *corymbosa*, Willd. (*Sp. 1, p. 582*;—*W. and A. l. c.*—*K. teres*, *DC. l. c.*;—*G. Don. o. c. p. 629*.—*K. umbellata*, *Herb. Banks*;—*Spreng.*—*K. exserta*, *DC. l. c.*;—*G. Don. l. c.*—*Spermacoce teres*, *Roxb. fl. ind. 1, p. 367*; *ed. Carey, 1, p. 373*.—*S. exserta* *Roxb. fl. ind. 1, p. 368*; *ed. Carey, 1, p. 374*.—*S. sumatrensis*, *Retz.*; according to Cham. and Schlecht.) 5 Circars, Dindygul. Colamala. Courtallum. Bengal, (Serampore.) Fl. small, white, tinged with purplish, R. S.; fr. C. S.
2. *levis*, DC. (*pr. 4, p. 570*;—*G. Don's Mill. dict. 3, p. 629*.—*Spermacoce levis*, *Roxb. fl. ind. 1, p. 368*; *ed. Carey, 1, p. 374*;—*Wight. icon. 1, p. 193*.—*S. Roxburghiana*, *Schult. Mant. 3, p. 199*.—*S. Roxburghii*, *Spreng.*) ♂ Fl. middle-sized, pale rose. Interior of Bengal. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

SERISSA, Commers. (*DC. pr. 4, p. 575*;—*G. Don's Mill. dict. 3, p. 633*; *W. and A. pr. 1, p. 440*)

1. *fetida*, Commers. (*DC. l. c.*;—*G. Don. l. c.*;—*W. and A. o. c. p. 441*;—*Roxb. fl. ind. 1, p. 579*; *ed. Carey, 2, p. 268*;—*J. Grah. Cat. B. pl. p. 93*.—*Dysoda fasciculata*, *Lour.*—*D. fetida*, *Salisb.*—*Buchosia coprosmoides*, *L'Herit.*—*Lycium japonicum*, *Thunb. fl. jap. t. 17*;—*B. M. 11, t. 361*.—*L. indicum*, *Retz.*—*L. fetidum*, *L. f. suppl.*) 5 Taramuni. 5 China. Japan. Cultivated in Cochin China. India. Mauritius. W. Indies. &c. Fl. small, white, fetid, C. S.; fr. March.

β. *plena*.—Fl. double, throughout the year.

HYDROPHYLAX, L. fil. (*DC. pr. 4, p. 576*;—*G. Don's Mill. dict. 3, p. 633*;—*W. and A. pr. 1, p. 441*)

1. *maritima*, L. fil. (*DC. l. c.*;—*G. Don. l. c.*;—*Roxb. Corom. 3, t. 233*; *fl. ind. 1, p. 373*; *ed. Carey, 1, p. 380*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p. 93*.—*Sarissus anceps*, *Gürtn. fr. 1, p. 118, t. 25, f. 4*.—*Diodia orientalis*, *Kön. MSS.*) 2. Sand-hills along the shores of Coro-



396

CINCHONACEÆ—LYGODYSODEACEÆ.

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mandel and Malabar. Fl. small, pale rose-coloured, and fr. the whole year.

- * *Cephalanthus Sarandi*, Cham. and Schlecht. 5 Brazil.—*Democritea serisoïdes*, DC. 5 China.—*Borreria globularioides*, Cham. and Schlecht. 5 Equinoctial Brazil.—*B. verticillata*, Meyer. 5 Jamaica, Trinidad.—*B. podocephala*, DC. 5 Mexico.—*B. distans*, Cham. and Schlecht. 4 Mexico.—*Spermacoce riparia*, Cham. and Schlecht. 4. Brazil, on the banks of Rio Negro.—*S. longifolia*, Aubl. 5 Guiana.—*Herazepulum angustifolium*, Bartl. 5 Mexico.—*Diodia scandens*, Swz. 5 St. Domingo.—*D. sarmientosa*, Swz. 5 St. Domingo, Jamaica.—*D. grandiflora*, DC. 5 St. Domingo.—*D. discolor*, DC. 5 Surinam.—*Triodon anthospermoïdes*, Cham. and Schlecht. 5 Equinoctial Brazil.—*Crusea cubra*, Cham. and Schlecht. (*Spermacoce strigosa*, Sims.; B. M. 38, t. 1558.) 5 Cuba. Vera Cruz.—*C. coccinea*, DC. 4. New Spain.—*Richardsonia seabra*, St. Hil. 4. Rio Janeiro.—*R. adscendens*, DC. 4. Mexico.—*R. Hünkeana*, DC. 4. Mexico.—*Knoxia mollis*, R. Br. 5 Hindooosthan. Nepal. Circars.—*Psyllocarpus asparagoïdes*, Mart. 5 Brazil.—*P. schizanguis*, Lindl. 5 Mexico.—*P. sagreanus*, Lindl. 5 Havannah.—*Stelia thymoides*, Cham. and Schlecht. 4. Brazil.—*Machaonia brasiliensis*, Cham. and Schlecht. 5 Brazil.—*Ernodea littoralis*, Swz. 5 W. Indies.—*Cuncea trifida*, Buch. 4. Nepal.—*Scyphiphora hydrophyllacea*, Gärtn. 5 Moluccas.

M. OPERCULARIÆ, A. Rich.

(DC. pr. 4, p. 614.)

MYRIONEURON, R. Br.

I. nutans, Wall. 5 Khassy Hills, 1822.

- * *Lipostoma campanuliflorum*, D. Don.; B. M. 55, t. 2840. 4. Rio Janeiro.—*L. capitatum*, D. Don. 4. Brazil.—*L. sericeum*, D. Don. 4. Brazil.

Incertæ sedis.

- * *Canephara axillaris*, Lam. 5 Madagascar.—*Deppea hedyotidea*, DC. 5 Mexico.—*Psilobium nutans*, Jack. 5 Sumatra.—*Alseis floribunda*, Schott. 5 Brazil.—*Breonia madagascariensis*, A. Rich. 5 Madagascar.—*Lecananthus erubescens*, Jack. 5 Singapore.—*Jackia ornata*, Wall. pl. as. rar. 3, t. 293. L. 5 Singapore.

ORDER CLXXXII.—LYGODYSODEACEÆ, Bartl.—Lindl. Nat. Syst.
p. 247.

Twining shrubs, of one genus, *Lygodysodea*, Ruiz. and Pav. and 2 species, one Peruvian, the other Mexican. Properties unknown.

* *Lygodysodea ciliata*, Bartl. 5 Mexico.

ORDER CLXXXIII.—LONICERACEÆ (CAPRIFOLIACEÆ, Lindl.
Nat. Syst. p. 247.)

THE HONEYSUCKLE TRIBE.

Herbs or shrubs, often twining, seldom arborescent, by Lindl. referred to 15 genera. Of these, DC. pr. enumerates 32 species from N. America; 15 from Europe; 14 from S. America, Mexico, and the W. Indies; 9 from Japan; 5 or more from China; 4 from Siberia; 3 from N. Holland and the South Sea Islands; 3 from Iberia; 2 from N. Africa; 2 from the Canaries; 1 from Abyssinia; 1 from Terra Nova; 1 from Dahuria; and 1 from Tartary. In the E. Indies have been discovered, according to DC., Wall. Cat. and Royl. ill., 62 species; viz., 1 of *Triosteum*; 25 of *Lonicera*; 1 of *Leycesteria*; 1 of *Abelia*; 1 of *Aidia*, (*Lour.*); 2 of *Mastixia*; 1 of *Diacarpium*; 3 of *Polyosma*; 6 of *Sambucus*; and 22 of *Viburnum*; all natives of the Himalayas, the Khassyá Mountains, the Neelgherries, the Mountains of Penang, Java and Cochin China, and several of them also common to China and Japan. The Elders and Honeysuckles are well known. Properties in general unimportant.

LONICERA, L. (DC. pr. 4, p. 330;—G. Don's Mill. dict. 3, p. 444;—W. and A. pr. 1, p. 389.) *Honeysuckle*.

1. *Periclymenum*, L. (DC. o. c. p. 331;—G. Don. o. c. p. 445;—E. B. 12, t. 800;—Roxb. H. B. p. 15.—*Periclymenum vulgare*, Mill. dict. No. 6.—*Caprifolium distinctum*, Mönch.—C. *Periclymenum*, Röm. and Sch.—C. *sylvaticum*, Lam.) *Common Honeysuckle. Woodbine.* 5 ↗ Hedges, groves, and thickets of middle Europe. Fl. large, deep rose-buff coloured, H. and R. S.; fr. 0.
2. *semperflorens*, Ait. (DC. pr. 4, p. 332;—G. Don's Mill. dict. 3, p. 446;—Roxb. H. B. p. 15;—J. Grah. Cat. B. pl. p. 86.) *Trumpet Honeysuckle.* 5 ↗ N. America, in stony dry woods, from New York to Carolina.
3. *minor*, Ait. (B. M. 42, t. 1753;—B. Reg. 7, t. 556.) Fl. large, deep red, March and April; fr. 0.
3. *macrantha*, DC. (pr. 4, p. 333;—G. Don's Mill. dict. 3, p. 446.—L. *japonica*, Wall.;—Roxb. fl. ind., ed. Carey, 2, p. 174, excl. syn.—*Caprifolium macranthum*, D. Don. pr. fl. nep. p. 140.—*Xylosteon scandens*, Buch. MSS.) 5 ↗ Khassyá Mountains. Nepal. Fl. large, white, becoming yellow, sweet-scented, March and April; fr. 0.
4. *japonica*, Thunb. (fl. jap. p. 89;—G. Don's Mill. dict. 3, p. 447.—L. *flexuosa*, Lodd. B. Cab. t. 1037;—B. Reg. 9, t. 712; not Thunb.—L. *chinensis*, Wats. dendr. brit. t. 117;—DC. pr. 4, p. 333; excl. syn. Wall.—B. M. 61, t. 3316;—J. Grah. Cat. B. pl. p. 87.—*Nin-toa japonica*, Swt.) 5 ↗ Japan. China. Fl. large, white, gradually changing to a golden yellow, purple-dotted, delightfully fragrant, more or less, throughout the year; fr. 0.



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5. *Leschenaultii*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 2, p. 178;—*DC. pr.* 4, p. 334;—*G. Don's Mill. dict.* 3, p. 447;—*W. and A. pr.* 1, p. 389;—*J. Grah. Cat. B. pl. p. 37.*) 5 ~ Neelgherries. Fl. large, white, becoming yellow, sweet-scented, March and April; fr. 0.

SAMBUCUS, Tournef. (*DC. pr.* 4, p. 321;—*G. Don's Mill. dict.* 3, p. 436;—*W. and A. pr.* 1, p. 387.)

1. *Ebulus*, L. (*DC. o. c. p. 5*;—*G. Don. l. c.*;—*Roxb. H. B. p. 22*;—*E. B. 7, t. 475*.—*S. humiliis*, Lam.) *Dwarf-elder*. 2. Cultivated and fertile places in Europe, even to Caucasus. Fl. smallish, dull blood-red, R. S.; fr. C. S. (*Roxb.*) Its qualities are violently purgative, sometimes emetic. The whole plant is fetid.

2. *nigra*, L. (*DC. l. c.*;—*G. Don. l. c.*;—*Roxb. H. B. p. 22*;—*E. B. 7, t. 476*.—*S. vulgaris*, Lam.) *Common Elder*. 5 Europe. Caucasus. Siberia. Fl. small, white. Was introduced into H. C. G. in 1799, but had not fl. up to 1814.

VIBURNUM, L. (*DC. pr.* 4, p. 323;—*G. Don's Mill. dict.* 3, p. 438;—*W. and A. pr.* 1, p. 388.)

1. *punctatum*, Buch. (*D. Don. pr. fl. nep. p. 142*;—*DC. pr.* 4, p. 324;—*G. Don's Mill. dict.* 3, p. 439.—*V. odoratum*, Wall. MSS.) 5 Nepal. Fl. small, white, fragrant, March and April; fr. 0.

2. *Colebrookianum*, Wall. (*Cat.*—*DC. pr.* 4, p. 325;—*G. Don's Mill. dict.* 3, p. 439.) 5 Khassa Mountains. In H. C. G. Fl.?

3. *cotinifolium*, D. Don. (*pr. fl. nep. p. 141*;—*DC. pr.* 4, p. 328;—*G. Don's Mill. dict.* 3, p. 441;—*B. Reg.* 19, t. 1650.—*V. polycarpum*, Wall. *Cat.*,—*DC. o. c. p. 328*;—*G. Don. o. c. p. 443.*) 5 Himalayas, at elevations of from 5000 to 7000 f., in 30° N. lat. Fl. small, white, tinged with rose. Has very much the appearance of *V. Lantana*, L., the English *Waysfaring-tree*. (*Lindl.*) In H. C. G. Fl.?

4. *adenophyllum*, Wall. MSS. In H. C. G. Fl.? Native place?

- * *Diervilla japonica*, DC. 5 Japan.—*Lonicera Caprifolium*, L.; E. B. 12, t. 799. 5 ~ Middle and South Europe.—*L. etrusca*, Santu. ~ S. 5 Europe.—*L. implexa*, Ait. B. M. 17, t. 640. 5 ~ Sicily.—*L. flava*, Sims. B. M. 32, t. 1318. 5 ~ S. Carolina.—*L. sempervirens*, Ait. a. *major*; B. M. 20, t. 781.—*L. confusa*, DC. (*L. japonica*, Andr.; *B. Reg.* 1, t. 70, not Thunb.) 5 ~ China, Japan.—*L. longiflora*, DC. (*Caprifolium longiflorum*, Lindl. *B. Reg.* 15, t. 1232.) 5 ~ China. Nepal.—*L. Telfairii*, Hook. and Arn. 5 ~ China.—*L. Xystosteum*, L.; E. B. 13, t. 916. 5 ~ Europe.—*L. gibbosa*, Willd. 5 Mexico.—*L. Mociniana*, DC. 5 Mexico.—*Abelia chinensis*, R. Br. 5 China.—*Sambucus chinensis*, Lindl. 2. China.—*S. australis*, Cham. and Schlecht. 5 Brazil.—*S. racemosa*, L.; Jacq. icon. rar. 1, t. 59. 5 S. Europe.—*S. ebuloides*, Desv. 5 Canton.—*Viburnum Tinus*, L.; B. M. 2, t. 38. 5 S. Europe. (*Laurestina*.)—*V. integrerrimum*, Wall. 5 Penang.—*V. acuminatum*, Wall. 5 Neelgherries.—*V. nervosum*, Hook. and Arn. 5 China.—*V. foetidum*, Wall. pl. as. rar. 1, t. 61. 5 Taong-



Dong.—*V. odoratissimum*, Ker.; B. Reg. 6, t. 456. ♂ China.—*V. Lantana*, L.; E. B. 5, t. 331. ♂ Europe.—*V. Mullahia*, Buch. (*V. stellatum*, Wall. pl. as. rar. 2, t. 169.) ♂ Deyrah-Dhoon.—*V. Opulus*, L.; E. B. 5, t. 332. ♂ Europe.—*V. microcarpum*, Cham. and Schl. ♂ Mexico.

ORDER CLXXXIV.—GALIACEÆ, Lindl. Nat. Syst. p. 249.

THE MADDER TRIBE.

Herbs, by Lindl. referred to 7 genera, of these, DC. assigns 112 species to Europe; 43 to S. America, Mexico, and the W. Indies; 16 to N. America; 12 to the Levant; 10 to Tauria; 10 to S. Africa; 8 to Persia; 8 to N. Africa; 3 to Caucasus; 3 to Iberia; 3 to the Canaries; 2 to New Holland; 1 to Japan; 1 to Arabia; and 1 to Tartary. In the E. Indies have been discovered, according to DC., W. and A., Wall. Cat., and Royl. ill., 17 species, viz., 5 of *Rubia*; 1 of *Asperula*; and 11 of *Galium*, mostly natives of the Himalayas, the Khassya Mountains and Kunawur; two from Java, 1 from Dindygul-hills and 1 from Cochin China. *Madder* is the only product of the order.

SHERARDIA, Dill. (DC. pr. 4, p. 581;—*G. Don's Mill. dict.* 3, p. 637.)

1. *arvensis*, L. (DC. l. c.;—*G. Don. l. c.*;—E. B. 13, t. 891.) ⊕ Europe. Tauria. Fl. small, purplish-blue, Feb.; fr. March.

ASPERULA, L. (DC. pr. 4, p. 581;—*G. Don's Mill. dict.* 3, p. 637.)

1. *arvensis*, L. (DC. l. c.;—*G. Don. l. c.*) ⊕ Europe. Fl. small, blue, March.

CRUCIANELLA, (DC. pr. 4, p. 586;—*G. Don's Mill. dict.* 3, p. 640.)

1. *angustifolia*, L. (DC. l. c.;—*G. Don. o. c. p.* 641.) ⊕ From Spain and Mauritania to Tauria. Fl. small, yellowish-green, March.

RUBIA, Tournef. (DC. pr. 4, p. 588;—*G. Don's Mill. dict.* 3, p. 642;—W. and A. pr. 1, p. 442.)

1. *cordifolia*, L. (DC. l. c.;—*G. Don. l. c.*;—W. and A. l. c.;—Wight. icon. 1, t. 187;—J. Grah. Cat. B. pl. p. 93.—R. Munjista. Roxb. fl. ind. 1, p. 374; ed. Carey, 1, p. 383;—DC. l. c.;—*G. Don. l. c.*) ♀. Neelgherries. Dindygul. Mahableshwur. Taong-Dong. Khassya Mountains. Bhootan. Nepal. Japan. Siberia. Roots, stems and larger branches, (*Indian Madder*.) used to dye red with. Was introduced into H. C. G. in 1801, but had not fl. up to 1814.

GALIUM, Scop. (DC. pr. 4, p. 593;—*G. Don's Mill. dict.* 3, p. 647;—W. and A. pr. 1, p. 442.)

1. *anglicum*, Huds. (DC. o. c. p. 607;—*G. Don. o. c. p.* 657;—E. B. 6, t. 384.) ⊕ England. France. Sicily. Caucasus. Fl. very small, pale greenish-yellow, Feb.

2. *tricorne*, Wither. (DC. pr. 4, p. 608;—*G. Don's Mill. dict.* 3, p. 658;—E. B. 23, t. 1641.) ⊕ Cornfields of Europe. Caucasus. Fl. very small, cream-coloured, Feb. and March.



3. *Aparine*, L. (DC. l. c.;—G. Don. l. c.;—E. B. 12, t. 816.) ◎
Hedges and fields of Europe, N. Asia, and N. America. Fl. small, pale
buff, Feb. and March.

ORDER CLXXXV.—CALYCERACEÆ. Lindl. Nat. Syst. p. 251.

Herbs of 3 genera, and 10 species, all natives of S. America. Properties unknown.

* *Calycera Cavanillesii*, Rich. ♀. Chili.—*C. balsamitæfolia*, Rich. ♀. Chili.—*Boopis anthemoides*, Juss. ♀. Buenos Ayres.—*Acicarpha spathulata*, R. Br. ♂ Rio Janeiro.

ORDER CLXXXVI.—MATRICARIACEÆ. (COMPOSITÆ. Vaill.—
DC. pr. 5, p. 4.—Lindl. Nat. Syst. p. 251.)

Herbs, oftener perennial, or shrubs, or more seldom trees, spread all over the globe. DC. pr. with addenda, enumerates, under 898 genera, the following species, viz.

	Vernonieæ.	Eupatoriæc.	Astoriæ.	Senecionieæ.	Cynareae.	Mutisiæ.	Nassauvieæ.	Cichoriæ.	Total.
S. America, Mexico, and the W. Indies, about,	340	520	458	945	10	167	115	37	2592
S. Africa,	21	10	216	877	373	26	0	10	1533
Europe,	0	14	76	293	310	0	0	395	1088
N. America,	12	65	328	290	18	1	1	80	795
E. Indiæs,	65	32	206	217	54	10	0	65	650
New Holland, and the South Sea Islands,	1	6	106	224	3	1	0	2	343
Siberia,	0	2	27	94	58	1	0	37	219
Dahuria, Iberia, Tauria & Caucasus,	0	1	21	64	83	0	0	48	217
Orient,	0	1	15	54	70	0	0	32	172
N. Africa,	0	1	21	47	42	0	0	35	146
Madagascar,	18	5	20	65	0	2	0	3	113
Persia,	1	0	8	22	68	0	0	12	110
Canaries, Azores and Madeira,	0	0	11	26	11	0	0	26	74
Mascarenhas islands,	4	1	22	27	0	0	0	5	59
China,	0	3	12	28	13	2	0	9	67
Nubia, Senegal, Guinea and Congo,	10	1	22	12	2	1	0	3	51
Arabia,	2	1	17	10	6	1	0	3	40
Japan,	0	1	6	9	3	2	0	10	31
Mageellan Straits,	0	0	6	3	0	0	8	0	17
Juan Fernandez,	0	0	1	5	0	0	0	8	14
St. Helena,	0	0	6	4	0	0	0	0	10
Timor,	2	0	5	3	0	0	0	0	10
Zanzibar and Mozambique,	2	0	2	5	0	1	0	1	11
Falkland Islands,	0	0	0	4	0	0	0	2	6
Melville Island,	0	1	0	1	0	0	0	0	2
Tristan d'Acunha,	0	0	0	1	0	0	0	0	1



The E. Indian Compositæ are distributed among the following genera thus :—

VERNONIÆ.

<i>Oiospermum</i> ?	1. (Peninsula of India.)
<i>Ethulia</i> ,	1. (Bengal, &c.)
<i>Vernonia</i> ,	46. (Java. Neelgherries. Nepal, &c.)
<i>Decaneurum</i> ,	11. { (Java. Neelgherries. Dindygul. Khassya Mountains. Moluccas.)
<i>Cyanopsis</i> ,	3. (Java. Burma. Moluccas.)
<i>Monosis</i> ,	1. (Neelgherries.)
<i>Elephantopus</i> ,	1. (All India.)

EUPATORIÆ.

<i>Ageratum</i> ,	1. (Bengal, &c.)
<i>Adenostemma</i> ,	19. { (Java. Moluccas. Ceylon. Dindygul. Bengal. Khassya Mountains. Nepal.)
<i>Eupatorium</i> ,	9. { (Nepal. Khassya Mountains. Burma. Penang.) 1. Cochin China. (Lour.)
<i>Mikania</i> ,	2. (Java. Penang. Singapore. Nepal.)
<i>Tussilago</i> ,	1. (Himalayas.)

ASTERIÆ.

<i>Aster</i> ?	1. (Neelgherries ?)
<i>Galatella</i> ,	1. (Himalayas.)
<i>Calimeris</i> ,	1. (Mussooree.)
<i>Callistephus</i> ,	2. (Dindygul.)
<i>Diplopappus</i> ,	4. (Nepal. Kemaon.)
<i>Leptocoma</i> ,	1. (Nepal.)
<i>Fullartonia</i> ,	1. (Kemaon.)
<i>Heterochaeta</i> ,	3. (Himalayas.)
<i>Erigeron</i> ,	13. { (Nepal. Peerpunjal. Neelgherries. Tanjore. Bengal. (2 uncertain; Retz. and Lour.)
<i>Rhynchospermum</i> , . . .	1. (Java.)
<i>Stenactis</i> ,	2. (Nepal.)
<i>Asteromæa</i> ,	1. (Java ?)
<i>Myriactis</i> ,	5. (Nepal. Java. Neelgherries.)
<i>Microglossa</i> ,	1. (Java. Penang. Moluccas.)
<i>Amphirrapis</i> ,	7. (Nepal. Khassya Mountains. Ceylon.)
<i>Blepharispermum</i> , . . .	2. (Peninsula of India.)
<i>Athroisma</i> ,	1. (Martaban, at Trogl.)
<i>Sphaeranthus</i> ,	5. { (Java. Luçon. Penang. Travancore. Bengal. Khassya Mountains. Negapatam. 1 uncertain, Lour.)
<i>Dicrocephala</i> ,	4. (Himalayas. Java.)
<i>Grangea</i> ,	1. (Peninsula of India. Bengal, &c.)
<i>Cyathocline</i> ,	2. (Nepal. Prome. Madras.)
<i>Thespis</i> ,	2. (Khassya Mountains.)



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MATRICARIACEÆ.

<i>Berthelotia</i> ,	1.	(Banks of the Jumna.)
<i>Conyza</i> ,	24.	{ (Nepal. Khassy Mountains. Oude. Hurdwar. Martaban. Travancore. (9 uncertain. Lam. (Roxb.)
<i>Blumea</i> ,	78.	(All over the E. Indies.)
<i>Pluchea</i> ,	6.	(Luçon. Martaban. Mysore. Shrinagur.)
<i>Epaltes</i> ,	5.	(Peninsula of India. Prome.)
<i>Inula</i> ,	12.	(Himalayus. Khassy Mountains. Prome.)
<i>Vicoa</i> ,	4.	(Ceylon. Both Peninsulas of India.)
<i>Francoeuria</i> ,	1.	(Banks of the Ganges, in Behar.)
<i>Pulicaria</i> ,	3.	(Seringapatam. Patna. Himalayas.)
<i>Cæsulia</i> ,	1.	(Tanjore. Nepal.)
<i>Buphthalmum</i> ?	1.	(Cochin China. Lour.)
<i>Eclipta</i> ,	4.	{ (Moluccas. Java. Peninsula of India. Bengal, &c.)
<i>Blainvillea</i> ,	1.	(Dindygul. Monghir.)
<i>Siegesbeckia</i> ,	2.	(Dindygul. Circars.)
? <i>Placus</i> ,	2.	(Cochin China. Lour.)
SENECONIÆ.		
<i>Melampodium</i> ,	1.	(Luçon.)
<i>Xanthium</i> ,	2.	(India. Java.)
<i>Moonia</i> ,	1.	(Ceylon.)
<i>Wedelia</i> ,	2.	(All over India.)
<i>Wollastonia</i> ,	5.	{ (Both Peninsulas of India. Khassy Mountains. Java. Moluccas.)
<i>Grizotia</i> ,	1.	(Lower Bengal.)
<i>Sclerocarpus</i> ,	1.	(Mussooree.)
<i>Helianthus</i> ?	1.	(Cochin China. Lour.)
<i>Bidens</i> ,	5.	{ (Nepal. Both Peninsulas of India. Java. Bengal.)
<i>Verbesina</i> ?	1.	(Cochin China. Lour.)
<i>Spilanthes</i> ,	5.	(Java. Martaban. Mysore. Moluccas. Bengal.)
<i>Chrysanthellum</i> ,	1.	(Sukanaghur.)
<i>Neuractis</i> ,	1.	(Java.)
<i>Glossocardia</i> ,	1.	(Madras. Carnatic.)
<i>Glossogyne</i> ,	1.	(Gorukpur.)
<i>Enhydra</i> ,	4.	(Cochin China. Java. Bengal. Assam.)
<i>Porophyllum</i> ,	3.	(Luçon. Nepal.)
<i>Calea</i> ?	1.	(Cochin China. Lour.)
<i>Achillea</i> ,	1.	(Kemaon.)
<i>Matricaria</i> ,	1.	(Cashmere. Scarcely Indian.)
<i>Pyrethrum</i> ,	2.	(One all over India; the other from Cashmere.)
<i>Chrysanthemum</i> ,	1.	(Bengal.)
<i>Artemisia</i> ,	28.	{ (Himalayas. Khassy Mountains. Prome. Moluccas. Cashmere. 3 uncertain.)



<i>Chrysostephium</i> ,	1. (Luçon.)
<i>Tanacetum</i> ,	5. (Himalayas.)
<i>Myriogyne</i> ,	1. (Java. Peninsula of India. Bengal.)
<i>Sphaeromorphæa</i> ,	2. (Cochin China. Peninsula of India.)
<i>Machlis</i> ,	1. (Nepal. Khassy Mountains. Bengal.)
<i>Helichrysum</i> ,	4. { (Shrinagur. Neelgherries. Ceylon. Cochin China. 2 uncertain.) { (Himalayas. Khassy Mountains. Hurdwar. 9. { Neelgherries. Java. Bengal. Cochin China. { 1 uncertain.)
<i>Gnaphalium</i> ,	
<i>Filago</i> ,	1. (Negapatam. Patna.)
<i>Antennaria</i> ,	7. (Himalayas. Java.)
<i>Anaphalis</i> ,	21. { (Himalayas. Khassy Mountains. Neelgherries. Ceylon. Java.) { (Himalayas. Khassy Mountains. Peninsula of India. Irrawaddy. Java. Moluccas. 1 uncertain.)
<i>Leontopodium</i> ,	1. (Himalayas.)
<i>Carpesium</i> ,	7. (Himalayas. 1 from Travancore.)
<i>Gynura</i> ,	17. { (Himalayas. Khassy Mountains. Peninsula of India. Irrawaddy. Java. Moluccas. 1 uncertain.) { (Khassy Mountains. Bengal. Peninsula of India. Philippines.)
<i>Emilia</i> ,	5. { (Khassy Mountains. Bengal. Peninsula of India. Philippines.) { (Himalayas.)
<i>Ligularia</i> ,	7. { (Himalayas. Khassy Mountains. Neelgherries. Travancore. Ceylon.) { (Himalayas.)
<i>Doronicum</i> ,	7. { (Himalayas. Khassy Mountains. Neelgherries. Travancore. Ceylon.) { (Himalayas.)
<i>Cacalia</i> ?	1. (Java.)
<i>Senecio</i> ,	46. { (Himalayas. Kunawur. Cashmere. Khassy Mountains. Neelgherries. Ceylon. Taong-Dong. Java. Madras. 1 uncertain.) { (Himalayas. Neelgherries. Ceylon. Taong-Dong. Java. Madras. 1 uncertain.)
<i>Madaractis</i> ,	4. (Peninsula of India.)
<i>Notonia</i> ,	3. (Neelgherries. Travancore. Dindygul. Ava.)
	CYNARÆ.
<i>Echinops</i> ,	3. (Himalayas. Benares. Mysore.)
<i>Saussurea</i> ,	2. (Himalayas.)
<i>Apotaxis</i> ,	21. { (Himalayas. Khassy Mountains. 1 from Lower Bengal.) { (Himalayas.)
<i>Dolomiea</i> ,	1. (Himalayas.)
<i>Amberboa</i> ,	4. { (Two from the Himalayas. 2 from the Peninsula of India.) { (Himalayas.)
<i>Microlonchus</i> ,	1. (Himalayas.)
<i>Tricholepis</i> ,	5. (Himalayas. Mysore. Travancore. Bombay.)
<i>Centaurea</i> ,	2. { (One cultivated in Indian gardens; the other Lour.) { (Himalayas.)
<i>Kentrophyllum</i> ,	1. (Banks of the Jumna.)
<i>Onobroma</i> ,	1. (West of India.)



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<i>Carthamus</i> ,	1. (Moluccas, &c.)
<i>Carduus</i> ,	1. (Choor.)
<i>Cirsium</i> ,	6. (Himalayas. Neelgherries. 1 uncertain.)
<i>Lappa</i> ,	1. (Himalayas.)
<i>Echenais</i> ,	1. (Himalayas.)
<i>Serratula</i> ,	3. { (Two from the Himalayas. 1 from Cochin China, 2 of these uncertain.)
<i>Jurinea</i> ?	1. (Himalayas.)
MUTISIÆ.	
<i>Ainsliaea</i> ,	2. (Himalayas.)
<i>Gerbera</i> ,	1. (Himalayas.)
<i>Oreoseris</i> ,	3. (Himalayas.)
<i>Berniera</i> ,	1. (Himalayas.)
<i>Leucomeris</i> ,	2. (Himalayas.)
<i>Dicoma</i> ,	1. (Madras. Yenangheun.)
CICHORIÆ.	
<i>Cichorium</i> ,	1. (Himalayas. Patna.)
<i>Tragopogon</i> ,	1. (Himalayas.)
<i>Scorzonera</i> ,	3. (Himalayas.)
<i>Picris</i> ,	2. (Himalayas.)
<i>Lactuca</i> ,	12. { (Himalayas. Khassya Mountains. Neelgherries. Negapatam. Java.)
<i>Chondrilla</i> ?	1. (Himalayas.)
<i>Taraxacum</i> ,	3. (Himalayas. Oude.)
<i>Ixeris</i> ,	2. (Himalayas.)
<i>Barkhausia</i> ,	2. (Himalayas.)
<i>Brachyramphus</i> ,	3. (N. India. Peninsula of India.)
<i>Microrrhynchus</i> ,	3. (Coromandel. Bengal. Oude. Kemaon.)
<i>Sonchus</i> ,	7. (All over India. Java.)
<i>Youngia</i> ,	8. { (Himalayas. Silhet. Bengal. Peninsula of India. Java. 2 uncertain.)
<i>Prenanthes</i> ,	7. (Himalayas. Java. 1 uncertain.)
<i>Hieracium</i> ,	2. (Himalayas. Khassya Mountains. 1 uncertain.)
<i>Dubya</i> ,	1. (Himalayas.)
<i>Mulgedium</i> ,	7. (Himalayas.)

If we add to these E. Indian Compositæ the following species: *Eupatorium divergens*, Roxb. (Mysore); *Verbesina scandens*, Roxb. (Bengal); *Gnaphalium albo-luteum*, Roxb. (Bhootan); *Senecio moluccanus*, Roxb. (Moluccas); *Chrysanthemum cuneatum*, Roxb. (Moluccas); *Carduus ramosus*, Roxb.; *Apargia Hamones*, Buch. (Nepal); and *Prenanthes linifolia*, Roxb. (Bengal); their exact number will be 655.

Few of the E. Indian plants of this order are possessed of properties of much medical or dietetical importance. Whatever little is remarkable will be adverted to under the species.



A. TUBULIFLORE. DC. o. c. p. 8.

a. *Vernoniææ.*

(Vernoniaceæ, DC. o. c. p. 9.)

ETHULIA, L. (DC. o. c. p. 12.)

1. *conyzoides*, L. (Sp. p. 1171;—*L. fil. dec.* 1, t. 1;—DC. o. c. p. 12;—*B. Reg.* 9, t. 695;—*Roxb. H. B.* p. 61.) ◎ Fl. light purple, small, and fr. C. S.

a. *indica*; (E. *ramosa*, *Roxb. H. B.* p. 61; *fl. ind.* 3, p. 413.)
Bengal.

VERNONIA, Schreb. (DC. pr. 5, p. 15.)

1. *cinerea*, Less. (DC. o. c. p. 24;—*J. Grah. Cat. B. pl. p.* 96.—*Serratula cinerea*, *Roxb. fl. ind.* 3, p. 406.—*Conyza cinerea*, L.—*Chrysocoma violacea*, *Schum. guin.* p. 158.—C. *purpurea*, *Forst.*—*Conyza mollis*, *Willd.*;—*Rheed.* 10, t. 64;—*Rumph.* 6, t. 14, f. 1;—*Burm. zeyl.* t. 96, f. 1.) ছাঁটি কোকসিম Chhoto-koksim. ◎ Equatorial Africa, Java, Ceylon, Coromandel, Bombay Presidency, Bengal, (Serampore,) &c. Moluccas. Fl. small, light purple, and fr. Jan. Feb. and March.

2. *aspera*, Buch. (not Less.—DC. pr. 5, p. 31.—V. *Roxburghii*, *Less.*—*Eupatorium asperum*, *Roxb. fl. ind.* 3, p. 415.—E. *pyramidalis*, *Don.* pr. *fl. nep.* p. 170?) ৯ Bengal, &c. Fl. small, purplish blue, C. S.; fr. H. S.

3. *multiflora*, Less. (DC. pr. 5, p. 31;—*Conyza multiflora*, *Wall. Cat.*) ৯ Prome, Penang. In H. C. G.

4. *vagans*, DC. (pr. 5, p. 32.—*Eupatorium vagans*, *Wall. Cat.*) ৯ Khassya Mountains. Fl. smallish, deep purple, fragrant, C. S.; fr. H. S.

5. *volkameriaefolia*, DC. (pr. 5, p. 32.—*Conyza volkameriaefolia*, *Wall. Cat.*) ৯ Nepal. In H. C. G.

6. *anthelmintica*, Willd. (DC. pr. 5, p. 61.—*Conyza anthelmintica*, L.—*Serratula anthelmintica*, *Roxb. fl. ind.* 3, p. 405;—*J. Grah. Cat. B. pl. p.* 96.—S. *elegans*, *Hb. Maurit.*—*Baccharoïdes anthelmintica*, *Möach.*—*Ascaridia indica*, *Cass.*;—*Rheed.* 2, t. 24;—*Burm. zeyl.* t. 95.) সোম রাজ Som-raj. ◎ Mauritius, Ceylon, Peninsula of India, Bengal, (Serampore,) &c. Fl. purplish, C. S.; fr. March.

DECANEURUM, DC. (pr. 5, p. 66.)

1. *grande*, DC. (pr. 5, p. 67.—*Vernonia grandis*, *Bojer.*) ৯ Madagascar. Fl. lilac, C. S.

2. *fimbrilliferum*, DC. (pr. 5, p. 68.—*Gymnanthemum fimbrilliferum*, *Cass.*—*Vernonia fimbrillifera*, *Cass.*—*Eupatorium coriaceum*, *Vahl.*; not *Spreng.*) Fl. whitish, C. S.

CENTRANTHERUM, Cass. (DC. pr. 5, p. 70.)

1. *intermedium*, Less. (DC. l. c.—*Ampherepis intermedia*, *Lk. abbild.* 5, t. 29.—*Spixia violacea*, *Schränk. pl. rar. h. mon.* t. 80.) ◎ Brazil. Fl. purplish, C. S.; fr. March.



406

MATRICARIACEÆ.

SL

DISTEPHANUS, Cass. (*DC. pr. 5, p. 74.*)

1. *populifolius*, Cass. (*Conyzza populifolia*, Lam.—*Vernonia populifolia*, Spreng.) 5 Mauritius. Has been introduced into H. C. G. Fl. ?

ELEPHANTOPUS, L. (*DC. pr. 5, p. 85.*)

1. *scaber*, L. (*Sp. p. 1813*, excl. syn. Gron. and Brown;—*DC. pr. 5, p. 86*;—*Roxb. fl. ind. 3, p. 445*;—*J. Grah. Cat. B. pl. p. 96*.—*Rheed. 10, t. 7.*) সামুলুন *Samulun*. 2. Timor. Java. Luçon. Both Peninsulas of India. Bengal, (Serampore.) Khassya Mountains. Nepal. Fl. pale red, C. S.; fr. H. S.

LAGASCA, Cav. (*Lagasca, H. B. and Kth.*—*DC. pr. 5, p. 91.*)

1. *mollis*, Cav. (*Annal. sc. nat. 6, p. 333, t. 44.*;—*DC. l. c.*;—*B. M. 43, t. 1804*;—*J. Grah. Cat. B. pl. p. 96*,—*Noceæa mollis*, Jacq. *frag. t. 13.*) ♂ Hills of Cuba, and at St. Fé in Mexico. Fl. small, white, C. S.; fr. H. S.

LORENTEA, Less. (*DC. pr. 5, p. 101*; not Ort. nor Lag.)

1. *humifusa*, Less. (*DC. o. c. p. 102.*—*Pectis humifusa*, Swz.) ♂ St. Cruz. Guadeloupe. Fl. small, yellow, C. S.; fr. H. S.

- * *Adenocyclus condensatus*, Less. 5 Trinidad.—*Spartanophorus Vaillantii*, Gärtn. ♂ W. Indies.—*Heterocoma albida*, Pers. 5 Brazil.—*Vernonia celebica*, DC. 5 Woods of Celebes.—*V. arborea*, Buch. 5 Lower Nepal.—*V. elatagnifolia*, DC. 5 Moulmein.—*V. elliptica*, DC. 5 Neelgherries.—*V. sericea*, Rich.; B. Reg. 7, t. 522. ♀ Rio Janeiro.—*V. axilliflora*, Mart.; B. Reg. 17, t. 1464. 5 Brazil.—*V. flexuosa*, Sims.; B. M. 51, t. 2477. ♀ Brazil.—*Decaneurum reticulatum*, DC. ♀. Neelgherries.—*D. dindygulense*, DC. ♀. Dindygul.—*Monosis Wightiana*, DC. 5 Neelgherries.—*Distephush spicatus*, Cass. ♀. W. Indies.—*Rolandra argentea*, Rottl. 5 Jamaica.—*Synechodendron ramiflorum*, Bojer. 5 Madagascar.—*Centauropsis fruticosa*, Bojer. 5 Madagascar.—*Bojera speciosa*, DC. ♀. Madagascar.—*Liabum Brownei*, Cass. ♀. Jamaica.
b. *Eupatoriææ*.

(Eupatoriaceæ, Less.; DC. pr. 5, p. 103.)

AGERATUM, L. (*DC. pr. 5, p. 108.*)

1. *conyzoides*, L. (*DC. l. c.*;—*Hook. exot. fl. t. 15.*)

- ♂ *cordifolium*, DC. (*Ageratum cordifolium*, Roxb. *fl. ind. 3, p. 415*.—*A. conyzoides*, J. Grah. Cat. B. pl. p. 98.) উচ্চতা ওঁচুন্তি Oohchunti. ♂ Belgaum. Bombay. Bengal, (Serampore,) &c. Fl. small, pale purple, C. S.; fr. March. Has an unpleasant smell.

ADENOSTEMMA, Forst. (*DC. pr. 5, p. 110.*)

1. *leiocarpum*, DC. (o. c. p. 113.—*Ageratum aquaticum*, Roxb. *fl. ind. 3, p. 416.*) বড় কেশতি *Buro-keshuti*. ♂ Borders of the Circars. Bengal. Fl. small, white, Feb. and March; fr. C. S.

STEVIA, Cav. (*DC. pr. 5, p. 115.*)

1. *Eupatoria*, Willd. (*DC. o. c. p. 118*;—*B. M. 43, t. 1849*.—*S. hyssopifolia*, Cav.; *Lag.*; not Kth., nor Sims.—*S. punctata*, Pers.—*Agera-*



- tum punctatum, Oct. not Jacq.—*Mustelia Eupatoria*, *Spreng.* 2. Mexico. Fl. white, tinged with rose, C. S.
2. *paniculata*, Lag. (*DC. pr.* 5, p. 120.—*S. hyssopifolia*, *Sims.*; *B. M.* 44, t. 1861; not Cav. nor Kth.) 2. Mexico. Fl. purplish white, Feb. and March.

EUPATORIUM, Tournef. (*DC. pr.* 5, p. 141.)

1. *triplicifolium*, Vahl. (*Symb.* 3, p. 96; not Lam.;—*DC. pr.* 5, p. 144.—*E. triangulare*, *Poir.*) 5 St. Cruz. Fl. bluish-purple, Feb.; fr. March.
2. *triplinerve*, Vahl. (*E. Ayapana*, *Vent. Malm.* t. 3;—*DC. pr.* 5, p. 169;—*Roxb. H. B.* p. 61;—*J. Grah. Cat. B. pt.* p. 98.—*E. tripinnerve*, *Vahl.*) 2. Banks of the Amazon river. Fl. whitish, C. S. A good bitter. Leaves used as a substitute for tea at the Mauritius. (*J. Grah.*) In India and America formerly employed against snakes and snake-bites.
3. *cannabinum*, L. (*DC. pr.* 5, p. 180;—*E. B.* 6, t. 478.—*E. trifoliatum*, *Habl.* not L.) 2. Ditches and inundated places of Europe and Tauria. Fl. pale purple, C. S.

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- * *Piqueria trinervia*, Cav.; *B. M.* 53, t. 2650. 2. Mexico.—*Isocarpha triplicifolia*, R. Br. 2. S. America.—*I. oppositifolia*, R. Br. 2. Jamaica.—*Coelestina ageratooides*, H. B. and Kth. (*Ageratum coelestinum*, Sims. *B. M.* 42, t. 1730.) 2. Mexico.—*Adenostemma microcephalum*, DC. Goalpara.—*A. latifolium*, D. Don. (*Ageratum strictum*, Sims. *B. M.* 50, t. 2410.) 2. Nepal.—*Sclerolepis verticillata*, Cass. 2. Carolina.—*Stevia salicifolia*, Cav. 5 Mexico.—*S. serrata*, Cav. 2. Mexico.—*S. purpurea*, Pers. (*S. Eupatoria*, B. Reg. 2, t. 93; not Willd.) 2. Mexico.—*Paloxia linearis*, Lag.; *B. M.* 47, t. 2132. 5 Mexico.—*Clavigera scoparia*, DC. 2. Mexico.—*Conoclinium microphyllum*, DC. (*Eupatorium microphyllum*, L.) 5 New Grenada.—*Hebeclinium macrophyllum*, DC. (*Eupatorium macrophyllum*, L.) 5 Jamaica.—*Bulbostylis pendula*, DC. (*Eupatorium pendulum*, Schrad.) 5 Mexico.—*Critonia Dalea*, DC. (*Eupatorium Dalea*, L.) 5 Jamaica.—*Eupatorium macranthum*, Swz. 5 Martinique.—*E. odoratum*, L. 5 Jamaica.—*E. sinuatum*, Lam. 5 St. Domingo.—*E. punctatum*, Lam. 5 W. Indies.—*E. ternifolium*, Ell. Carolina.—*E. canescens*, Vahl. 5 St. Thomas.—*E. burmannicum*, DC. 5 Seguen.—*E. Reevesii*, Wall. 2. China.—*E. nodiflorum*, Wall. 2. Khassa Mountains.—*Mikania hastata*, Willd. 5 Jamaica.—*M. clematidea*, Wall. 5 Nepal.—*M. amara*, Willd. 5 Guiana. W. Indies.—*M. volubilis*, Willd. 5 Penang. Singapore.—*Adenostyles glabra*, DC. 2. S. Europe.—*Nardosmia fragrans*, Reich. (*Tussilago fragrans*, B. M. 34, t. 1388.) 2. S. Europe.—*Petasites vulgaris*, Desf. (*Tussilago Petasites*, E. B. 6, t. 431.) 2. Europe.



c. *Asteriæ. Asteroideæ*, Less.

(*DC. pr. 5, p. 211.*)

FELICIA, DC. (*pr. 5, p. 218.*)

1. *tenella*, Nees. (*DC. o. c. p. 219.*—*F. fragilis*, Cass.—*Aster tenellus*, L.;—*B. M. l. t. 33.*—*A. dentatus* and *tenellus*, *Thunb.*—*Kaulfussia ciliata*, *Spreng. fil.*—*Cineraria tenella*, *Lk.*) ⊗ C. G. H. Fl. small, white, C. S.

ASTER, L. (*DC. pr. 5, p. 226.*)

1. *spectabilis*, Ait. (*DC. o. c. p. 230;*—*B. Reg. 18, t. 1527.*—*A. elegans*, *Willd.*) 2. N. America. Fl. largish, blue-purple, C. S.
2. *Amellus*, L. (*DC. pr. 5, p. 231.*)
β. latifolius, DC. (*A. Amellus*, *B. Reg. 4, t. 340.*) 2. Middle and S. Europe. Fl. purple, C. S.
3. *fragilis*, Willd. (*DC. pr. 5, p. 241;*—*B. Reg. 18, t. 1537.*) 2. N. America. Fl. middle-sized, white, C. S.
4. *dumosus*, L. (*DC. pr. 5, p. 241;*—*Roxb. H. B. p. 61.*—*A. foliolosus*, Nees.) 2. N. America, from New England to Carolina. Fl. white, May; fr. August.
5. *cyaneus*, Hoffm. (*DC. pr. 5, p. 246;*—*B. Reg. 18, t. 1495.*) 2. N. America. Fl. largish, blue, C. S.

CALLISTEPHUS, Cass. (*DC. pr. 5, p. 274.*)

1. *chinensis*, Nees. (*DC. l. c.*;—*J. Grah. Cat. B. pl. p. 98.*—*C. hortensis*, Cass.—*Aster chinensis*, L.;—*Roxb. fl. ind. 3, p. 433.*—*Callistemma hortense*, Cass.—*Diplopappus chinensis*, Less.) ⊗ Japan. China. Nepal. Fl. of various colours, C. S.

DIPLOPAPPUS, DC. (*pr. 5, p. 275.*)

1. *trinervius*, (D. asperrimus, *DC. o. c. p. 277.*—*Aster trinervius*, *Roxb. fl. ind. 3, p. 433;*—*H. B. p. 61.*) 2. Nepal. In H. C. G. fl. C. S. (*Roxb.*)

STENACTIS, Nees. (*DC. pr. 5, p. 298.*)

1. *annua*, Nees. *DC. l. c.*—*S. dubia*, Cass.—*Aster annuus*, L.;—*Roxb. H. B. p. 61.*—*Erigeron heterophyllum*, Willd.,—*E. annuus*, Pers.—*Cineraria corymbosa*, Mönch.—*Pulicaria annua*, Gürtn.—*Phalacroloma acutifolium*, Cass.—*Diplopappus dubius*, Cass.) ⊗ N. America. Domesticated in Europe. Fl. white, Feb.

BRILLIS, L. (*DC. pr. 5, p. 304.*)

1. *perennis*, L. (*DC. l. c.*;—*Lam. ill. 3, t. 677;*—*E. B. 6, t. 424.*)—*Common Daisy.* 2. Europe. Fl. middle-sized, white, C. S.

PSIADIA, Jacq. (*DC. pr. 5, p. 318.*)

1. *arguta*, (P. balsamica, *DC. o. c. p. 319.*—*Baccharis arguta*, Pers. syn. 2, p. 423.—*Eupatorium flexuosum*, *Roxb. fl. ind. 3, p. 415*, not Lam.—*Elpegea latifolia*, Cass.—*Conyzia balsamica*, *Wall. Cat.*) 5 Mauritius. Has been introduced into H. C. G. Fl.?

MICROGLOSSA, DC. (*pr. 5, p. 320.*)

1. *sessilifolia*, DC. (*l. c.*) 5 ⊂ Madagascar. Fl. small, yellowish, C. S.

*CHRYOPSIS*, Nutt. (*DC. pr. 5, p. 326.*)

1. *marianna*, Ell. (*DC. o. c. p. 327.*)—*Inula mariana*, L.;—*I. glandulosa*, Lam.—*Diplogon marianus*, Rafin.) 2. Carolina. Georgia. Fl. yellow, C. S.

SOLIDAGO, L. (*DC. pr. 5, p. 330.*)

1. *canadensis*, L. (*DC. l. c.*) 2. N. America, from Canada to Pennsylvania, and on the Mountains of Carolina. Fl. small, bright yellow, C. S.

SPHERANTHUS, Vaill. (*DC. pr. 5, p. 369.*)

1. *hirtus*, Willd. ? (*DC. l. c.*)—S. indicus, Roxb. *fl. ind. 3*, p. 446, not L.;—*Wight. herb.* ছাগল নদি Chhagul-nudi. ⊙ Peninsula of India. Bengal, (Serampore.) Fl. small, purplish, C. S.; fr. March. Whole plant inodorous.
2. *mollis*, Roxb. (*fl. ind. 3*, p. 446;—*DC. pr. 5, p. 369*;—*J. Grah. Cat. B. pl. p. 96.* excl. syn.—S. *hirtus*, Burm.—*Rheed. 10, t. 43.*) শুক্রা Mundee. ⊙ Peninsula of India. Bengal. (Serampore.) Hindoosthan. Kemaon. Fl. small, purplish, C. S.; fr. March. Whole plant very fragrant.

DICROCEPHALA, DC. (*pr. 5, p. 371.*)

1. *latifolia*, DC. (*o. c. p. 372.*)—*D. erecta*, L'Herit.—*Cotula latifolia*, Pers.—*C. bicolor*, Roth.—*C. sinapifolia*, Roxb. *fl. ind. 3*, p. 437.—*Grangea latifolia*, Lam.—*Ethulia glomerata*, Spreng. MSS.—*Hippia bicolor*, Sm.—*Spilanthes triplacifolius*, L.—*Sphaeranthus africanus*, Burm. *ind. t. 60, f. 2*; not L.) ⊙ Madagascar. Java. Nepal. Fl. small, yellow white. In H. C. G. fl. H. S. (*Roxb.*)

GRANGRA, Adans. (*DC. pr. 5, p. 372.*)

1. *maderaspatana*, Poir. (*DC. o. c. p. 373.*)—*G. Adansonii*, Cass.—*Artemisia maderaspatana*, L.—Roxb. *fl. ind. 3*, p. 422;—*J. Grah. Cat. B. pl. p. 102.*—*Cotula maderaspatana*, Willd.—*Rheed. 10, t. 49.*) নামতি Namuti. ⊙ Java. Peninsula of India. Bengal. (Serampore.) Fl. small, yellow, C. S.; fr. March.

CONYZA, L. (*DC. pr. 5, p. 377.*)

1. *angustifolia*, Roxb. (*fl. ind. 3*, p. 429;—*DC. pr. 5, p. 83*, not Lam.) ⊙ Native place unknown, but probably the Andamans. (*Roxb.*) Fl. small, pale yellow, C. S.; fr. March.
2. *pinnatifida*, Buch. (*Roxb. H. B. p. 61*;—*fl. ind. 3*, p. 430;—not Less, nor DC. pr. 5, p. 384, under *C. absinthifolia*.) 5 Nepal. Fl. yellow, small, C. S.; fr. H. S.
- ? 3. *repanda*, Roxb. (*fl. ind. 3*, p. 431.) ⊙ Pegu. Fl. small, yellow. In H. C. G. fl. and fr. from Dec. till May. (*Roxb.*)
- ? 4. *lanceolaria*, Roxb. (*fl. ind. 3*, p. 432.) 2. Silhet. In H. C. G. fl. Feb. and March; fr. May. It is an article of the Materia Medica of Silhet. (*Roxb.*)
- ? 5. *diffusa*, Roxb. (*fl. ind. 3*, p. 429; not Poir.) ⊙ Bengal. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)



SL

? 6. *stricta*, Roxb. (*H. B.* p. 61.—*Willd.* ?) ⊕ Bengal. In *H. C. G. fl. C. S.*; fr. Feb. and March. (*Roxb.*)

BLUMEA, DC. (*pr. 5, p. 432.*)

1. *pubiflora*, DC. (*pr. 5, p. 434;—J. Grah. Cat. B. pl. p. 97.*—*Erigeron asterooides*, Roxb. *fl. ind. 3, p. 432.*) ⊕ Madras. The Concans. Fl. large, yellow, C. S.; fr. March.

2. *bifoliata*, DC. (*l. c.—Conyzza bifoliata, L.*;—*Roxb. fl. ind. 3, p. 430;* not Wall.) ⊕ Peninsula of India. Bengal, (Serampore.) Fl. small, yellow, C. S.; fr. Feb. and March.

3. *lacera*, DC. (*pr. 5, p. 436;—J. Grah. Cat. B. pl. p. 97.*—*Conyzza lacera, Burm. ind. t. 59, f. 1;—Roxb. fl. ind. 3, p. 428.*) बड़े कोक्सिम *Buro-kokssima*. ⊕ Peninsula of India. Bengal, (Serampore.) Silhet. China. Java. Fl. small, yellowish, C. S.; fr. Feb. and March. The whole plant is strongly aromatic, somewhat smelling of turpentine, and is often used in cases of dyspepsia by the natives.

4. *laciniata*, DC. (*pr. 5, p. 436.*—*Conyzza laciniata, Roxb. fl. ind. 3, p. 427.*) ⊕ Bengal, (Serampore.) Fl. small, yellow, C. S.; fr. Feb. and March.

5. *balsamifera*, DC. (*pr. 5, p. 447;—J. Grah. Cat. B. pl. p. 97.*—*Conyzza balsamifera, L.*;—*Roxb. fl. ind. 3, p. 427.*—*Pluchea balsamifera, Less.*—*Baccharis Salvia, L.*—*Conyzza odorata, Rumph. 6, t. 24, f. 1*;—not L.) 5 Luzon. Cochin China. Java. Moluccas. Assam. The Concans. Fl. small, yellow, Feb. and March; fr. H. S. The whole plant when bruised smells of camphor. (*Roxb.*)

6. *alata*, DC. (*pr. 5, p. 448;—J. Grah. Cat. B. pl. p. 97.*—*Conyzza alata, Roxb. fl. ind. 3, p. 430.*—*Erigeron alatus, Don. pr. fl. nep. p. 171.*) 5 Concans. Nepal. Fl. small, purple, H. S. (*Roxb.*)

7. *aurita*, DC. (*pr. 5, p. 449;—J. Grah. Cat. B. pl. p. 97.*—*Conyzza aurita, Roxb. fl. ind. 3, p. 428;—L. ?*) ⊕ Both Peninsulas of India. Bengal, (Serampore.) Fl. small, yellow, C. S.; fr. Feb. and March. Smells strongly of turpentine, (*Roxb.*)

PLUCHEA, Cass. (*DC. pr. 5, p. 449.*)

1. *indica*, Less. (*DC. pr. 5, p. 451;—Wight. ill. 2, t. 131.*—*Baccharis indica, L.*—*Conyzza indica, Bl.*—*C. corymbosa, Roxb. fl. ind. 3, p. 426.*) 5 Luzon. Java. Timor. Penang. Chittagong. Soonderbuns. Fl. small, pale rose-coloured. (in Wight. ill. bright yellow) C. S.; fr. H. S.

MONARRHENUS, Cass. (*DC. pr. 5, p. 457.*)

1. *salicifolius*, Cass. (*DC. l. c.—Conyzza salicifolia, a. Lam.*;—*Roxb. fl. ind. 3, p. 431.*) 5 Mauritius. Bourbon. Has been introduced into H. C. G. ?

INULA, L. (*DC. pr. 5, p. 463.*)

1. *Helenium*, L. (*DC. l. c.—E. B. 22, t. 1546;—Gürtn. fr. 2, p. 449, t. 170, f. 2.*—*Aster Helenium, Scop.*—*A. officinalis, All.*—*Corvisartia Helenium, Merat. and Cass.*) *Elecampane.* 2. England. Belgium.



France. Germany. Denmark. Fl. large, bright yellow, C. S.; but rarely.

VICOA, Cass. (*DC.* pr. 5, p. 474.)

1. *indica*, DC. (*l. c.*)

β *subintegra*, DC. (*Inula indica*, L.—*Doronicum calcaratum*, Roxb. fl. ind. 3, p. 434.—*Aster indicus*, Willd., not L.—*Vicoa indica*, J. Grah. Cat. B. pl. p. 97.) ◉ Peninsula of India, growing under the shade of trees, in dry, uncultivated ground. Fl. largish, yellow. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

CASULIA, Roxb. (*DC.* pr. 5, p. 482.)

1. *axillaris*, Roxb. (*Corom.* 1, t. 93; fl. ind. 3, p. 447;—*DC.* l. c.;—*B. Repos.* t. 431.—*J. Grah. Cat. B.* pl. p. 96.—*Meyera orientalis*, D. Don. pr. fl. nep. p. 180.—*Melanthera orientalis*, Spreng.) ◉ Rice fields and other moist places of the Peninsula of India. Fl. light purple, R. and C. S.; fr. C. S.

BUPHTHALMUM, L. (*DC.* pr. 5, p. 483.)

1. *salicifolium*, DC. (*l. c.*;—*Jacq. austr.* t. 370.—*B. salicifolium* and *grandiflorum*, L.) ♀. Europe. Fl. large, yellow, C. S.

TELEKIA, Baum. (*DC.* pr. 5, p. 485.)

1. *cordifolia*, DC. (*l. c.*;—*B. M.* 63, t. 3466.—*Telekia speciosa*, Baumg.—*Molpadia suaveolens*, Cass.—*Inula caucasica*, Pers.—*Buphtalmum cordifolium*, Kit.; pl. hung. rar. 2, p. 117, t. 113.—*B. speciosum*, Schreb.) ♀. Hungary. Tauria. Persia. Fl. large, yellow, C. S.

ECLIPTA, L. (*DC.* pr. 5, p. 489.)

1. *erecta*, L. ? (Willd.—*DC.* o. c. p. 490.—*E. prostrata*, Roxb. fl. ind. 3, p. 438;—*J. Grah. Cat. B.* pl. p. 99.—*E. adpressa*, Mönch.—*Verbesina alba*, L.—*Cotula alba*, L.—*Microleum asteroïdes*, Forsk.—Rumph. 6, t. 18, f. 2;—*Rheed.* 10, t. 41.) ◉ केशोरी Keshoori. ◉ N. and S. America. C. G. H. Egypt. Senegal. India. China. Moluccas. Java. Mauritius, &c. Fl. small, white, and fr. the whole year.

BLAINVILLEA, Cass. (*DC.* pr. 5, p. 492.)

1. *latifolia*, DC. (*l. c.*—*Eclipta latifolia*, L.—*Verbesinia Lavenia*, Roxb. fl. ind. 3, p. 442; excl. syn.) ◉ Dindygul. Malabar. Monghir. Fl. small, white. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*) The whole plant has a faint, pleasant, aromatic smell. (*Roxb.*)

DAHLIA, Cav. (*DC.* pr. 5, p. 494.)

1. *variabilis*, Desf. (*DC.* l. c.—*J. Grah. Cat. B.* pl. p. 100.—*D. pinnata* and *rosea*, Cav.—*D. sambucifolia*, Salisb.;—*Roxb. H. B.* p. 62.—*D. purpurea*, Poir.—*D. superflua*, Ait.;—*B. M.* 44, t. 1885.—*Georgina variabilis*, Willd.—*G. superflua*, DC.—*Coreopsis Georgina nuda*, Cass.) ♀. Mexico. Fl. large, deep rose-coloured, single, more or less double, purple-red, white or yellow, C. S.; fr. H. S.

2. *coccinea*, Cav. (*DC.* pr. 5, p. 494;—*B. M.* 20, t. 762.—*D. fulgens*, Hortul.—*D. crocata*, Lag.—*D. bidentifolia*, Salisb.—*D. crocea*, Poir.—*D. frustranea*, Ait.—*Georgina variabilis*, β . Kth.—*G. crocata*,

Sweet.—*G. coccinea*, Willd.—*G. frustranea*, DC.—*Coreopsis Georgina pruinosa*, Cass.) 2. Mexico. Fl. large, scarlet, deep orange, or yellow, but not purple or white, C. S.; fr. H. S.

SIECKSBECKIA, L. (*DC. pr. 5, p. 495.*)

1. *orientalis*, L. (*DC. l. c.*;—*Roxb. fl. ind. 3, p. 439*;—*J. Grah. Cat. B. pl. p. 100*.—*S. brachiata*, Roxb. *l. c.*) ④ China. Circars. Deccan. Fl. small, yellow, R. and C. S.; fr. C. S.

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- * *Aster Novæ Angliae*, Ait. 2. N. America.—*A. carolinianus*, Walth. 2. Carolina, Georgia.—*A. grandiflorus*, L.; B. Reg. 4, t. 273. 2. N. America.—*A. longifolius*, Lam. 2. N. America.—*A. coridifolius*, Michx.; B. Reg. 18, t. 1487. 2. Carolina.—*Tripolium vulgare*, Nees. (*Aster Tripolium*, L.; E. B. 2, t. 87.) 2. Europe.—*Galatella punctata*, DC. 2. S. Europe.—*Podocoma hieracifolia*, Cass. 2. Buenos Ayres.—*Sericocarpus solidagineus*, Nees. 2. N. America.—*Machæranthera tanacetifolia*, Nees. 2. Mexico.—*Heleastrum paludosum*, DC. 2. S. Carolina.—*Biotia corymbosa*, DC.; B. Reg. 18, t. 1532. 2. N. America.—*Leptocoma racemosa*, Less. and Nees. 2. Nepal.—*Fulartonnia kamaonensis*, DC. 2. Kemaon.—*Polyactidium delphinifolium*, DC. 2. Mexico.—*Erigeron glaucus*, Ker.; B. R. 1, t. 10. 2. Buenos Ayres.—*E. bellidifolius*, Mühl. B. M. 50, t. 2402. 2. Canada, Carolina.—*E. canadensis*, L.; E. B. 29, t. 3019. 2. Europe. Canada. Mexico. W. Indies.—*Bellis sylvestris*, Cyr. B. M. 51, t. 2511. 2. S. Europe.—*Xanthocoma humilis*, H. B. and Kth. 2. Mexico.—*Gymnosperma glutinosum*, Less. (*Selloa glutinosa*, Spreng.; B. Reg. 6, t. 462.) 5 Brazil.—*Grindelia glutinosa*, Dun.; B. Reg. 3, t. 187. 5 Mexico.—*G. inuloides*, Willd.; B. Reg. 3, t. 248. 5 Mexico.—*G. arguta*, Schrad. (*G. angustifolia*, H. B. and Kth.; B. Reg. 10, t. 781.) 2. Mexico.—*Psiadia glutinosa*, Jacq. 5 Mauritius.—*Microglossa volubilis*, DC. 5 Rumph. 5, t. 104, f. 1, Penang.—*Neja gracilis*, D. Don.; B. Cab. t. 1814. 5 Mexico.—*Solidago procera*, Ait. 2. N. America.—*S. Virgaurea*, L.; E. B. 5, t. 301. 2. Europe.—*Amphirhapis heterotricha*, DC. 5 Khassy Mountains.—*Commidendrum gummiferum*, DC. 5 St. Helena.—*Linosyris vulgaris*, Cass. (*Chrysocoma Linosyris*, L.; E. B. 35, t. 2505.) 2. S. Europe. England.—*Sarcanthemum Coronopus*, Cass. 5 Mauritius. Bourbon.—*Blepharispermum subsessile*, DC. 5 Madras.—*Athroisma laciniatum*, DC. 5 Martaban, near Troglia.—*Berthelotia lanceolata*, DC. 5. indica, 5 Cawnpore.—*Baccharis Vahlii*, DC. 5 St. Cruz, St. Domingo.—*B. articulata*, Pers. 5 Brazil.—*Pluchea odorata*, Cass. 2. Mexico.—*Monarrhenus pinifolius*, Cass. 5 Bourbon.—*Cylindrocline Commersonii*, Cass. 5 Mauritius.—*Inula eupatorioides*, DC. 5 Khassy Mountains.—*Pulicaria dysenterica*, Gärtn. (*Inula dysenterica*, L.; E. B. 16, t. 1115.) 2. Europe.—*Borrichia frutescens*, DC. 5 Jamaica.—*Salmea scandens*, DC. (*Bidens scandens*, L.; B. M. 46, t. 2062.) 5



Jamaica.—*Siegesbeckia jorullensis*, H. B. and Kth.; B. Reg. 13, t. 1061. ⊙ Mexico.

d. Senecieæ. Senecionidæ, Less.

(DC. pr. 5, p. 497.)

XANTHIUM, Tourref. (DC. pr. 5, p. 522.)

1. *orientale*, L. (excl. syn.—*X. indicum*, Kön. MSS.;—Roxb. fl. ind. 3, p. 601;—DC. o. c. p. 523;—J. Grah. Cat. B. pl. p. 101.) बन ओकड़ी *Bun-Okra*. ⊙ Egypt. Most parts of India, (Serampore.) Fl. small, white, Feb. and March; fr. H. S.

AMBROSIA, Tourn. (DC. pr. 5, p. 525.)

1. *abrotanifolia*, Wall. (Cat.—DC. I. c.) 5 Native place unknown. According to DC. cultivated in H. C. G. Perhaps a native of Brazil.

2. *elatior*, L. (DC. pr. 5, p. 526;—Roxb. H. B. p. 67.) ⊙ N. America, from Canada to Carolina. In H. C. G. fl. R. S.; fr. C. S. (Roxb.)

3. *trifida*, L. (DC. pr. 5, p. 527;—Roxb. H. B. p. 67.) ⊙ N. America, from Canada to Georgia. Flowers white. In H. C. G. fl. R. S.; fr. C. S. (Roxb.)

PARTHENIUM, L. (DC. pr. 5, p. 531.)

1. *Hysterophorus*, L. (DC. o. c. p. 532;—B. M. 49, t. 2275;—Roxb. H. B. p. 62.—Argyrochaeta bipinnatifida, Cav.—Villanova bipinnatifida, Ort.) ⊙ Mexico. Cuba. Trinidad. Jamaica. St. Thomas. Martinique. Fl. small, white, inodorous, and fr. R. S.

ZINNIA, L. (DC. pr. 5, p. 534.)

1. *tenerviflora*, Jacq. (icon. rar. 3, t. 590.—DC. o. c. p. 535;—B. M. 16, t. 555;—J. Grah. Cat. B. pl. p. 99. (misprinted Z. terniflora.)—Z. revoluta, Cav. ic. 3, t. 251.) ⊙ Mexico. Fl. middle-sized, scarlet, C. S.; fr. H. S.

2. *multiflora*, L. (DC. I. c.;—B. M. 5, t. 149;—Roxb. H. B. p. 61.) ⊙ Mexico. Louisiana. Brazil. Fl. largish, scarlet, March; fr. April and May.

3. *pauciflora*, L. (DC. I. c.;—Lam. ill. t. 685.—Z. lutea, Gärtn. fr. 2, p. 459, t. 172, f. 3.—Rudbeckia foliis oppositis, Zinn. h. Gott. t. 1.—Chrysogonum peruvianum, L. sp. ed. 1, p. 920. excl. syn.—Bidens Mill. dict. t. 64.—Lejica, Hill. exot. 29.—Crassina, Scop. diss.) ⊙ Peru. Fl. middle-sized, yellowish, C. S.; fr. March.

4. *hybrida*, Sims. (B. M. 47, t. 2123;—DC. pr. 5, p. 536.—Z. grandiflora, Hortul.) ⊙ S. America. Fl. large, crimson, C. S.; fr. H. S.

5. *elegans*, Jacq. (Coll. 3, p. 152;—DC. I. c.) ⊙ Mexico. Fl. large, C. S.; fr. H. S.

a. *violacea*, DC. (Z. violacea, Cav.; ic. 1, t. 81;—B. Repos. 1, t. 55.—Z. elegans, Jacq. ic. rar. 3, t. 589;—B. M. 15, t. 527.) Fl. violet.

δ. *coccinea*, DC. (Z. violacea, β. coccinea, Lindl. B. Reg. 15, t. 1294.) Fl. bright scarlet.

WEDELIA, Jacq. (*DC. pr.* 5, p. 538.)

1. *calendulacea*, Less. (*DC. o. c. p.* 539.—*Verbesina calendulacea*, *L.*;—*Lam. ill. t.* 686, *f. 1*;—*Roxb. fl. ind.* 3, *p. 440*;—*J. Grah. Cat. B. pl. p.* 100.—*V. benghalensis*, *Rich.*; *Pers.*—*Jägeria calendulacea*, *Spreng.*;—*Rheed.* 10, *t. 42*;—*Burm. zeyl. t. 22, f. 1.*) बंगड़ा *Bangra*. केशो राज *Kesho-raj.* 2. Ceylon. Coromandel. The Concans. Bengal. (Serampore.) &c. Fl. largish, bright yellow. R. and C. S.; fr. H. S. The plant has a slight terebinthinaceous taste. (*Roxb.*)

WOLLASTONIA, DC. (*pr.* 5, *p.* 546.)

1. *biflora*, DC. (*l. c.*—*Verbesina biflora*, *L.*;—*Roxb. fl. ind.* 3, *p. 440*;—*J. Grah. Cat. B. pl. excl. syn.*—*V. urticifolia*, *Wight.*—*Acmella biflora*, *Spreng.*;—*Rheed.* 10, *t. 40.*) ⊖ Coromandel. Very common on the Ghauts, covers the roofs of houses at Kandalla, Martaban, &c. Fl. largish, yellow. C. S.; fr. H. S.
2. *scabriuscula*, DC. (*o. c. p.* 547.—*Eclipta scabriuscula*, *Wall. Cat.*—*Melanthera glandulosa*, *Wall. herb.*—*Megera capitata*, *Spreng. excl. syn.*—*Verbesina dichotoma*, *Heyn.*—*V. biflora*, *Bl.*; not *L.*) 2. Timor. Penang. Singapore. Rangoon. Silhet. Fl. yellow. In H. C. G.

HELIOPSIS, Pers. (*DC. pr.* 5, *p.* 550.)

1. *laevis*, Pers. (*DC. l. c.*;—*B. M.* 61, *t. 3372.*—*Helianthus laevis*, *L. fil.*—*Buphtalmum helianthoides*, *L. hort. ups.*;—*L'Herit. stirp. p.* 93, *t. 45.*—*Silphium solidaginoides*, *L. sp. p. 1302?*—*Rudbeckia oppositifolia*, *L. sp. 1280.*) 2. N. America, from Pennsylvania to Carolina, on shady, rocky banks of rivers. Fl. large, bright yellow. R. S.; fr. C. S.

GUIZOTIA, Cass. (*DC. pr.* 5, *p.* 551.)

1. *abyssinica*, Cass. (*G. oleifera*, *DC. l. c.*;—*Wight. ill.* 2, *t. 132.*—*Polymnia abyssinica*, *L. fil. suppl. p.* 383.—*P. frondosa*, *Bruce.*—*Verbesina sativa*, *Roxb. fl. ind.* 3, *p. 441*;—*B. M.* 26, *t. 1017*;—*J. Grah. Cat. B. pl. p.* 100.—*Werinnua*, *Heyn.*—*Parthenium luteum*, *Spreng.*—*Heliopsis platyglossa*, *Cass.*—*Tetragonotheca abyssinica*, *Ledeb.*—*Jügera abyssinica*, *Spreng.*—*Helianthus oleifer*, *Wall. Cat.*—*Bidens?* *Ramtilla*, *Wall. Cat.*—*Ramtilla oleifera*, *DC.*—*Buphtalmum Ramtilla*, *Buch.*—*Anthemis mysorensis*, *Hb. Madr.*) राम्तिला *Ramt. 2.* Abyssinia. Mysore. Deccan, where it is commonly cultivated for the sake of the oil it affords. Lower Bengal. Fl. large, bright-yellow. C. S.; fr. Feb. and March.

ECHINACEA, Mönch. (*DC. pr.* 5, *p.* 554.)

1. *purpurea*, Mönch. (*DC. l. c.*—*Rudbeckia purpurea*, *L.*;—*B. M.* 1, *t. 2*;—*Roxb. H. B. p.* 62.) 2. Mountains of N. America, from Virginia to Florida. Fl. large, purple. In H. C. G. fl. C. S.; fr. O. (*Roxb.*)

RUDBECKIA, L. (*DC. pr.* 5, *p.* 555.)

1. *digitata*, Mill. (*DC. l. c.*; not Willd.—*R. laciniata* *G. angustifolia*, *Pers.*) 2. Mountainous parts of Virginia and Carolina. Fl. large, yellow, with a brownish disk. C. S.; fr. O.



2. *triloba*, L. (*DC. l. c.*;—*B. Reg.* 7, *t.* 525;—*Roxb. H. B.* *p.* 62.) R.
triloba and aristata, *Pursh.*;—*Nutt.*—*Centrocarpha aristata*, *Don.*?)
♀. Mountainous parts of Virginia and Carolina. Fl large, yellow, with
a brownish disk, C. S.; fr. H. S.
3. *hirta*, L. (*DC. pr.* 5, *p.* 556;—*Swt. brit. fl. gard.* 1, *t.* 82;—*Roxb.*
H. B. *p.* 62.) ♂. Mountainous places of N. America, from Virginia
to Florida. Fl. large, yellow, with a brownish disk. In *H. C. G. fl.*
C. S.; fr. O. (*Roxb.*)
4. *spathulata*, Michx. (*DC. o. c. p.* 557.) ♀. Mountainous places of Caro-
lina and Florida. Fl. large, yellow, with a brownish disk. R. and C.
S.; fr. March, but rarely.

CHRYSSOSTEMMA, Less. (*DC. pr.* 5, *p.* 567.)

1. *Tripteris*, Less. (*DC. o. c. p.* 568;—*B. M.* 64, *t.* 3583.—*Coreopsis*
Tripteris, L.;—*Roxb. H. B.* *p.* 62,—*Anacis Tripteris*, *Schrank.*) ♀.
Mountains of N. America, from Virginia to Carolina and Georgia. Fl.
large, yellow, with a purple disk. C. S.; fr. O.

CALLIOPSIS, Reichenb. (*DC. pr.* 5, *p.* 568.)

1. *tinctoria*, DC. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 101.—C. bicolor,
Reichenb.—*Coreopsis tinctoria*, *Nutt.*;—*B. M.* 51, *t.* 2512;—*B. Reg.*
10, *t.* 846.—*Diplosastera tinctoria*, *Tausch.*) ♂ Arkansas. Fl. large,
gold-coloured, with a brown base, Feb. and March; fr. C. S.
2. *Atkinsoniana*, Hook. (*DC. l. c.*—*Coreopsis Atkinsoniana*, *Dougl.*;—
B. Reg. 16, *t.* 1376.) ♀. Banks of the Colombian river, in N. America.
Fl. like those of No. 1, C. S.; fr. O.

HELIANTHUS, L. (*DC. pr.* 5, *p.* 585.) Sunflower.

1. *annuus*, L. (*DC. l. c.*;—*Roxb. fl. ind.* 3, *p.* 443;—*J. Grah. Cat. B. pl.*
p. 100.) शूरीया मूक्ति Shooriya-mookti. ♂ Peru. Fl. very large, yel-
low, and fr. nearly the whole year.
2. *ovatus*, Lehm. (*DC. pr.* 5, *p.* 586.) ♂ Mexico. Fl. very large, orange-
coloured, tinged with brownish, Feb. and March; fr. April and
May.
3. *multiflorus*, L. (*DC. o. c. p.* 590;—*B. M.* 7, *t.* 227;—*Roxb. H. B.* *p.*
62.—*H. polyccephalus*, *Cass.*) ♀. Dry, woody and mountainous places
of N. America, from Canada and Pennsylvania to Carolina. Fl. large,
bright-yellow. In *H. C. G. fl.* R. and C. S.; fr. C. S. (*Roxb.*)
4. *tuberosus*, L. (*DC. l. c.*;—*Roxb. H. B.* *p.* 62;—*J. Grah. Cat. B. pl.*
p. 100;—*Jacq. vind. t.* 161.) Jerusalem Artichoke. ♀. Brazil. Com-
monly cultivated in gardens. Fl. large, yellow, R. and C. S.; fr. O.
Tubers of the root edible.

BIDENS, L. (*DC. pr.* 5, *p.* 593.)

1. *trifida*, Buch. (*Roxb. fl. ind.* 3, *p.* 411.—*B. tripartita*, *Roxb. H. B.* *p.*
60; not L., nor DC. pr. 5, *p.* 596, under *B. repens*.) ♂ Nepal.
Fl. smallish, yellow, R. and C. S.; fr. H. S. (*Roxb.*)
2. *pilosa*, L. (*DC. pr.* 5, *p.* 597.—*Ceratocephalus pilosus*, *Rich. cat. h.*
med. *p.* 91.—*Kerneria dubia*, *Cass.*—*K. tetragona*, *Mönch.*) ♂ N.



America, from Pennsylvania to Carolina. Fl. smallish, yellow, Feb. and March; fr. April.

4. *sundaica*, Bl. (B. bipinnata, *Roxb. H. B.* p. 60; *J. Ind.* 3, p. 411, not L.) ◎ Rajmahal. Fl. smallish, yellow, R. and C. S.; fr. H. S.

COSMOS, Cav. (*DC. pr.* 5, p. 606.)

1. *bipinnatus*, Cav. (*Icon.* 1, p. 9, t. 14;—*DC. I. c.*—*Cosmea bipinnata*, *Willd.*;—*B. M.* 37, t. 1535.—*Georgia bipinnata*, *Spreng.*—*Coreopsis formosa*, *Bonato.*) ◎ Mexico. Fl. large, deep rose-coloured, R. and C. S.; fr. H. S.

2. *sulphureus*, Cav. (*Icon.* 1, p. 56, t. 79;—*J. Grah. Cat. B. pl.* p. 101.—*Cosmea sulphurea*, *Willd.*—*Coreopsis artemisiæfolia*, *Jacq. icon.* 3, t. 595.) ◎ Mexico. Fl. large, sulphur-coloured, R. and C. S.; fr. H. S.

SPILANTHES, Jacq. (*DC. pr.* 5, p. 620.)

1. *acmella*, L. (*DC. o. c.* p. 625.—S. *Acmeilla*, *Roxb. fl. ind.* 3, p. 410;—*J. Grah. Cat. B. pl.* p. 99; not L.—*Verbesinia Pseudoacmella*, L.—*Pyrethrum Acmella*, *Medic.*;—*Rumph.* 6, t. 65.) মাহুতা তিঙা *Marta-tiga*. ◎ Moluccas. Peninsula of India. Bengal, (Serampore.) Fl. small, yellow, R. and C. S.; fr. C. S.

2. *oleracea*, Jacq. (*Hort. vind.* 2, t. 135;—*DC. pr.* 5, p. 624.—*Pyrethrum Spilanthus*, *Medic.*—*Bidens acmelloides*, *Berg.*—*B. fervida*, *Lam.*) ◎ S. America. Fl. small, yellow, and fr. whole year.

XIMENESIA, Cav. (*DC. pr.* 5, p. 627.)

1. *encliooides*, Cav. (*Icon.* 2, p. 60, t. 178;—*DC. I. c.*—*Pallasia serratifolia*, *Sm. in Rees' cycl.*) ◎ Mexico. Fl. large, bright-yellow, and fr. C. and H. S.

HETEROSPERMUM, Willd. (*DC. pr.* 5, p. 632.)

1. *pinnatum*, Willd. (*DC. o. c.*—*Heterosperma pinnata*, *Cav. ic.* 3, t. 267.) ◎ Mexico. Fl. largish, yellow, Feb. and March; fr. April and May.

BROTEROA, DC. (*pr.* 5, p. 635.)

1. *trinervata*, DC. (*I. c.* p. 636.—*Broteroa trinervata*, *Pers.*—*B. Contrayerva*, *Spreng.* excl. syn. Cav. and Feuill.—*B. Sprengelii*, *Cass.*—*Nauemburgia trinervata*, *Willd.*—*Flaveria repanda*, *Lag.*) ◎ Caraccas. Mexico. Fl. small, yellow, C. S.; fr. H. S.

ENHYDRA, DC. (*pr.* 5, p. 636.—*Enydra*, *Lour.*)

1. *Hingcha*, (E. *Heloncha*, *DC. o. c.* p. 637.—*Hingcha repens*, *Roxb. H. B.* p. 62.—*Hingtcha*, *Roxb. fl. ind.* 3, p. 637.—*Meyera Heloncha*, *Wall. Cat.*) হিঙচা *Hingcha*. 2. Bengal, (Serampore.) Silhet, Assam. Fl. small, white, H. and R. S.; fr. R. S. Leaves eaten by the natives.

TAGETES, Tournef. (*DC. pr.* 5, p. 642.)

1. *patula*, L. (*DC. o. c.* p. 643;—*B. M.* 5, t. 150.;—*Roxb. fl. ind.* 3, p. 434;—*J. Grah. Cat. B. pl.* p. 99.) ছোট গেঁদা *Chhoto-genda*. *French Marygold*. ◎ Mexico. Domesticated in India. Fl. large, golden-brown, C. S.; fr. H. S.



Z. erecta, L. (*DC. l. c.*; — *Roxb. fl. ind.* 3, p. 335; — *J. Grah. Cat. B. pl.* p. 99.) *T. major*, *Gürta. fr.* 2, p. 437, t. 172, f. 4.) बुड़ी गोंदा! *Buro-*
genda. African Marygold. ⊖ Mexico. Domesticated in India. Fl.
large, citron-coloured, C. S. Has a fetid smell.

TRIDAX, L. (*DC. pr. 5*, p. 679.)

1. *procumbens*, L. (*DC. l. c.* — *Balbisia elongata*, *Willd.* — *B. pedunculata*,
Hoffmans. — *B. divaricata*, *Cass.* — *Amellus pedunculatus*, *Ort.*) ⊖
Mexico. Vera Cruz. St. Martha. Cuba. Entirely naturalized at
the Mauritius, in Tropical India, &c. In Serampore and its neigh-
bourhood it is one of the worst weeds, growing every where, especially
on walls and houses, and being in flower and fruit the whole year.
Fl. middle-sized, pale yellowish, with an orange disk.

MADIA, Mol. (*DC. pr. 5*, p. 691.)

1. *sativa*, Mol. (*DC. l. c.* — *M. viscosa*, *Cav. icon.* 3, p. 50, t. 298; — *B.*
M. 52, t. 2574; — *M. mellosa*, *Jacq. hort. schönbr.* 3, p. 29, t. 302.)
⊖ Chili. Fl. middle-sized, deep yellow, Feb. and March.

ANTHEMIS, L. (*DC. pr. 6*, p. 4.)

1. *arvensis*, L. (*DC. o. c. p. 6*; — *E. B. 9*, t. 602.) *Chamælum ar-*
vense, *All.* *Corn Chamomile.* ⊖ Europe. Levant. Egypt. Fl. largish,
white, with a yellow disk, Feb. and March.

MARUTA, Cass. (*DC. pr. 6*, p. 13.)

1. *Cotula*, DC. (*l. c.* — *M. vulgaris*, *Bluff and Fing.* — *M. foetida*, *Cass.*
— *Anthemis Cotula*, L.; — *E. B. 25*, t. 1772; — *Roxb. H. B.* p. 62. —
A. foetida, *Lam.* — *A. cotuloides*, *Raf.* — *A. ramosa*, *Lk.* — *Chamæle-*
lum Cotula, *All.* ⊖ Europe. N. Africa. Madeira. Canaries. Crimea.
Persia. Fl. middle-sized, white, with a yellow disk, March and April;
fr. 0.

2. *fuscata*, DC. (*pr. 6*, p. 14.) *Anthemis fuscata*, *Brot.* — *A. praecox*,
Lk. — *A. fallax*, *Willd.* ⊖ S. Europe. N. Africa. Fl. like those of
No. 1. March and April; fr. 0.

PTARMICA, Tournef. (*DC. pr. 6*, p. 19.)

1. *vulgaris*, Blackw. (*Herb. t. 256*; — *DC. o. c. p. 23*. — *Achillea Ptarmi-*
ca, L.; — *E. B. 11*, t. 757.) 2. Europe. Siberia. Fl. smallish, white,
C. S.; fr. 0.

ACHILLEA, L. (*DC. pr. 6*, p. 24.)

1. *Millefolium*, L. (*DC. l. c.*; — *E. B. 11*, t. 728.) *Milfoil*. 2. Europe.
N. Asia. Fl. middle-sized, white, R. and C. S.; fr. C. S.

2. *tanacetifolia*, All. (*DC. pr. 6*, p. 25.) 2. France. Switzerland. Italy.
Fl. middle-sized purple, C. S.; fr. 0.

3. *asplenifolia*, Vent. (*H. Cels. t. 95*; — *DC. pr. 6*, p. 26. — *A. crispa*,
Lam. herb. — *A. nova*, *Herm. in herb. L'Herit.* — *A. rosea*, *Desf.*) 2.
Native place uncertain. Fl. smallish, rose-coloured, C. S.

4. *crithmifolia*, Wald. and Kit. (*DC. pr. 6*, p. 25.) 2. Hungary. Has
been introduced into H. C. G.

5. *nobilis*, L. (*DC. pr. 6*, p. 26.) 2. S. Europe. Introduced in 1841.



SL

LEUCANTHEMUM, Tournef. (*DC. pr. 6, p. 45.*)

1. *vulgare*, Lam. (*DC. o. c. p. 46.*—*Chrysanthemum Leucanthemum*, *L.*;—*E. B. 9, t. 601*;—*Roxb. H. B. p. 62.*—*C. montanum*, *Willd.*; not *L.*) 2. Europe. Fl. very large, white, with a yellow disk, C. S.

MATRICARIA, L. (*DC. pr. 6, p. 50.*)

1. *suaveolens*, L. (*DC. o. c. p. 51*;—*Roxb. fl. ind. 3, p. 437.*—*M. Chamomilla*, *Wall. MSS. not L.*) ⊖ Hindooosthan. Persia. (*Roxb.*) Cashmere. (*Royle.*) Fl. smallish, white, with a yellow disk, Feb.; fr. H. S.

PYRETHRUM, Gärtn. (*DC. pr. 6, p. 53.*)

1. *maritimum*, Sm. (*DC. l. c.*;—*E. B. 14, t. 979.*—*Matricaria maritima*, *L.*—*Chrysanthemum maritimum*, *Pers.*) 2. Sea-coasts of England, Gothland and N. W. France. Fl. middle-sized, white, with a yellow disk, C. S.; fr. H. S.

2. *Parthenium*, Sm. (*DC. pr. 6, p. 58*;—*E. B. 18, t. 1231.*—*Matricaria Parthenium*, *L.*—*M. odorata*, *Lam.*) 2. Europe. Fl. smallish, white, with a yellow disk, C. S.; fr. H. S.

3. *Myconis*, Mönch. (*Suppl. p. 287*;—*Spreng. excl. syn.*;—*DC. pr. 6, p. 61.*—*Chrysanthemum Myconis*, *L.*;—*Jacq. obs. 4, p. 10, t. 94.*—*Coleostephus Myconis*, *Cass.*) ⊖ S. Europe. N. Africa. Fl. large, deep-yellow, March; fr. April.

4. *indicum*, Cass. (not *Roxb.*;—*DC. pr. 6, p. 62.*—*Chrysanthemum indicum*, *L.*; *Subine. trans. hort. soc. 14, p. 144*;—*B. Reg. 15, t. 1287.*—*Roxb. fl. ind. 3, p. 436*;—*J. Grah. Cat. B. pl. p. 102*; not *B. M.*, nor *Thunb.* nor in *J. Grah.* as to the remarks.—*C. tripartitum*, *Swt. fl. gard. t. 193.*) ଚନ୍ଦ୍ର ମୁଲିକା *Chundro-moolika*. ଶୁଙ୍ଗ ନାଇନୀ *Gool-daoodee*. 2. China. Japan. Dindygul. Taong-Dong. Common in gardens. Fl. middle-sized, or smallish, yellow, R. and C. S.; fr. C. S.

- $\beta.$ *plenum*, (*Chrysanthemum indicum*, $\beta.$ *plenum*, *B. Reg. 18, t. 1502*;—*Rheed. 10, t. 44*;—*Rumph. 5, t. 91, f. 1.*) Fl. yellow, double.

5. *sinense*, DC. (*pr. 6, p. 62.*—*Chrysanthemum sinense*, *Sabin. trans. hort. soc. 4, t. 14.*—*Chrysanthemum indicum*, *Thunb.*;—*Lour.*;—*J. Grah. Cat. B. pl. p. 102*, as to the remarks, and excl. all syn.—*Anthemis grandiflora*, *Ramat.*;—*DC. hort. monspel.*—*A. artemisiæ-folia*, *Willd.*—*A. stipulacea*, *Mönch.*) 2. Japan. Cultivated in China, India, Europe, and America. Fl. large, of various colours, (dark purple, purple-lilac, rose, white, yellow, orange, variegated,) in our gardens double, C. S.

- a. *purple*. (*Chrysanthemum indicum*, *B. M. 10, t. 327*, excl. syn.)

- $\beta.$ *changeable-white*. (*Chrysanthemum indicum*, $\beta.$ *B. M. 46, t. 2042*, excl. syn. *Curt. Willd. 3, p. 2147.* *Rheed.* and *Rumph.*)

- $\gamma.$ *rose-coloured*. (*Chrysanthemum sinense*, *B. M. 52, t. 2556.*)

- $\delta.$ *golden-yellow*. (*Chrysanthemum indicum*, a. *B. Reg. 1, t. 4.*)

- $\varepsilon.$ *quilled-white*. (*Chrysanthemum indicum*, $\delta.$ *B. Reg. 1, t. 4.*)



- ζ. *superb-white*. (*Chrysanthemum indicum*, var. *superbum*, *B. Reg.* 6, *t. 455.*)
η. *quilled-pink*. (*Chrysanthemum indicum*, var. 14, *B. Reg.* 8, *t. 616.*)

CHRYSANthemum, L. (*DC. pr. 6, p. 63.*)

1. *foeniculaceum*, DC. (*o. c. p. 66.*—*Pyrethrum foeniculaceum*, *Choisy.*)

♂ Canaries. Fl. smallish, white.

- β. *bipinnatifidum*, DC. (*Pyrethrum foeniculaceum*, *B. Reg. 4, t. 272.*)
Fl. C. and H. S.; fr. H. S.

2. *segetum*, L. (*DC. pr. 6, p. 64;*—*E. B. 8, t. 540;*—*Roxb. H. B. p. 61.*
—*Pyrethrum segetum*, *Mönch.*) *Corn-Marygold.* ♂ Fields of Sweden,
Denmark, Belgium, France, England, and Germany. Fl. large, gold-
coloured, C. S.

3. *Roxburghii*, Desf. (*DC. pr. 6, p. 64.*—*C. senecioides*, *Dm.*—*Pyre-*
thrum indicum, *Roxb. fl. ind. 3, p. 436;*—*B. M. 37, t. 1521;*—*J. Grah.*
Cat. B. pl. p. 102.—*Matricaria oleracea*, *Buch. in Wall. Cat.*—*Pinar-*
dia Roxburghii, *Less.*—*Glebionis Roxburghii*, *Cass.*) ♂ Bombay,
Bengal, (Serampore.) Fl. large, lively yellow, Feb. and March; fr.
H. S. The flowers &c. impress a peculiar prickling sensation on the
tongue when chewed. (*Nimmo.*)

4. *carinatum*, Schousb. (*DC. pr. 6, p. 65.*—*C. tricolor*, *Andr.* *B. Re-*
pos. 2, *t. 109;*—*B. M. 15, t. 508.*—*Ismelia versicolor*, *Cass.*) ♂ N.
Africa, near Mogadore. Fl. large, yellow-white, with a purplish and
dark purplish disk, March; fr. April.

DIMORPHOTHECA, Vaill. (*DC. pr. 6, p. 70.*)

1. *hybrida*, DC. (*l. c.*—*D. incrassata*, *Mönch.*—*Calendula hybrida*, *L.*—
Meteorine crassipes, *Cass.*) ♂ C. G. H. Fl. middle-sized, above
whitish, underneath purplish, March; fr. O.

LONAS, Adans. (*DC. pr. 6, p. 84.*)

1. *inodora*, Gärtn. (*fr. 2, p. 396, t. 165, f. 5;*—*DC. l. c.*—*L. inodora*
and *minima*, *Cass.*—*Athanasia annua*, *L. sp. 1182;* excl. *Triumf-*
syn.;—*B. M. 49, t. 2276.*—*Achillea inodora*, *L. sp. ed. 2, p. 1265.)*
- ♂ N. Africa. Sicily. Fl. small, dirty dark-yellowish, March; fr. O.

ARTEMISIA, L. (*DC. pr. 6, p. 93.*) *Wormwood.*

1. *scoparia*, Waldst. and Kit. (*pl. rar. hung. 1, p. 66, t. 65;*—*DC. pr.*
6, p. 99.—*A. elegans*, *Roxb. fl. ind. 3, p. 421.)* ♂ Siberia, China,
Persia, Cashmere, Kamaon, Caucasus, Crimea, Smyrna, Armenia,
Hungary, Lithuania. Fl. small, yellow, March; fr. H. S.

2. *parviflora*, Buch. (*Roxb. fl. ind. 3, p. 420;*—*DC. pr. 6, p. 100.*—*A.*
glabratra, *Wall. Cat.?*—*DC. l. c.*) ♀ Khassy Mountains, Nepal. Fl.
minute, green, May. (*Roxb.*)

3. *paniculiformis*, DC. (*pr. 6, p. 107.*—*A. paniculata*, *Roxb. fl. ind.*
3, p. 418; not Lam.) ♂ Persia. (*Roxb. H. B.*) Fl. small, yellow, C.
S.; fr. H. S. The smell of the plant is somewhat like that of South-
ernwood, but less powerful.



4. *Abrotanum*, L. (*DC.* pr. 6, p. 108;—*J. Grah. Cat. B.* pl. p. 102.)
Southernwood. 5 Hills of S. Europe. Fl. very small, greenish-white, C. S.; fr. O.
5. *vulgaris*, L. (*DC.* pr. 6, p. 112;—*E. B.* 14, t. 978;—*Roxb. fl. ind.* 3, p. 420.—*A. officinalis*, *Gat. fl. mont.* p. 144.) नागदाना *Nagdana*. *Magwort*. 2. Europe. N. Africa. Levant. Siberia. Cultivated in gardens in India. Fl. minute, purplish, Feb. and March; fr. H. S.
6. *indica*, Willd. (*DC.* pr. 6, p. 114;—*Roxb. fl. ind.* 3, p. 419;—*J. Grah. Cat. B.* pl. p. 102, excl. syn. *Rheed.* *Rumph.* and *Pluk.*) दाना *Dana*. 5 China. Japan. Nepal. Cultivated in India. Fl. very small, greenish, Feb. and March; fr. H. S. Leaves of a slightly aromatic odour, and of a bitterish taste. (*Roxb.*)
7. *grata*, Wall. (*Cat.*—*DC.* pr. 6, p. 114.—*A. vulgaris*, *Burm. fl. ind.* p. 177;—*Rheed.* 10, t. 45.) 2. Peninsula of India. Fl. small, greenish-white, Feb.
8. *lactiflora*, Wall. (*Cat.*—*DC.* pr. 6, p. 115.) 2. China. Fl. small, whitish, C. S.
9. *carvifolia*, Buch. (*Roxb. fl. ind.* 3, p. 422;—*DC.* pr. 6, p. 119.—*A. riparia*, *Buch. herb.*) ◎ Khassy Mountains. Nepal. Fl. minute, greenish-yellow. In H. C. G. fl. March and April. (*Roxb.*)

CROSSOSTEPHİUM, Less. (*DC.* pr. 6, p. 127.)

1. *artemisioides*, Less. (*DC.* l. c.—*Artemisia chinensis*, *Vahl.* not L.) 5 Luçon, near Manilla. Canton. Fl. minute, sulphur-coloured, C. S.; fr. O.

TANACETUM, L. (*DC.* pr. 6, p. 127.)

1. *vulgare*, L. (*DC.* o. c. p. 128;—*E. B.* 18, t. 1229;—*Roxb. H. B.* p. 61;—*Gärtn. fr.* 2, p. 395, t. 165, f. 7;—*Lam. ill. t.* 696, f. 1.—*T. sibiricum*, *Falk. topogr.* 2, No. 992.) Common Tansy. 2. Europe. Tauria. Fl. minute, yellow, C. S.; fr. H. S. The whole plant is very bitter, and exhales a peculiar, strong scent. Its medicinal use is now obsolete.

MYRIOGYNE, Less. (*DC.* pr. 6, p. 139.)

1. *minuta*, Less. (*DC.* l. c.—*Cotula minuta*, *Forst.*—C. minuta and *cuneifolia*, *Willd.*—*Grangea minuta* and *cuneifolia*, *Poir.*—G. *decumbens*, *Desf.*—*Artemisia minima*, *Thunb.*; not L.—*Dicrocephala minuta*, *L'Herit. MSS.*) ◎ Japan. India. Luçon. New Holland. New Zealand. N. Caledonia. Madagascar. Fl. minute, yellow.
- β. *lanuginosa*, DC. (*Artemisia sternutatoria*, *Roxb. fl. ind.* 3, p. 423.—*Cotula minima*, *Bl.*—C. *sternutatoria*, *Wall. Cat.*) हाचुटी *Hachutee*. ◎ Java. Bengal, (Serampore.) Fl. Feb. and March; fr. H. S. The minute seeds are used as a sternutatory by the natives. Roxb. says he often used them successfully himself.

MACHLIS, DC. (*pr.* 6, p. 140.)

1. *hemisphaerica*, DC. (l. c. and in *Detess. ic. sel.* 4, t. 50.—*Artemisia hemisphaerica*, *Roxb. fl. ind.* 3, p. 423.—*Cotula hemisphaerica*, *Wall.*



Cat.—*Ethulia nepalensis*, *Spreng. MSS.*—*Grangea mucronata*, *Buch. herb.*) ⊗ Bengal, (Serampore.) &c. Fl. small, yellow, Feb. and March; fr. H. S.

HELICHRYSUM, *Vaill. (DC. pr. 6, 169.)*

1. *bracteatum*, *Willd. (DC. o. c. p. 189.*—*H. chrysanthum*, *Pers.*—*Elachrysum lucidum*, *Hank.*—*Xeranthemum bracteatum*, *Vent.*) 2. Fl. heads large; florets bright-yellow, March; fr. O. S. and E. New Holland.

GNAPHALIUM, *L. (DC. pr. 6, p. 221.) Everlasting.*

1. *indicum*, *L. (DC. pr. 6, p. 221; Roxb. H. B. p. 61; J. Grah. Cat. B. pl. p. 97.*—*G. pluricaule*, *Buch. herb.*—*G. multicaule*, *Willd.*;—*Roxb. fl. ind. 3, p. 425*; not *Lam.*—*G. polycaulon*, *Pers.*—*G. pluricaule*, *Poir.*—*G. strictum*, *Roxb. fl. ind. 3, p. 424.*) ⊗ Ceylon. Peninsula of India. Prome. Martaban. Bengal, (Serampore.) Fl. very small; florets yellow, C. S.; fr. Feb. and March.

2. *Roxburghianum*, (*G. albo-luteum*, *Roxb. fl. ind. 3, p. 425.* not *G. luteo-album*, *L.*) ⊗ Bhootan. Fl. minute, yellow, Feb. and March; fr. H. S. (*Roxb.*)

FILAGO, *Tournef. (DC. pr. 6, p. 247.)*

1. *prostrata*, *DC. (o. c. p. 248.*—*Gnaphalium prostratum*, *Roxb. herb.*—*G. depressum*, *Roxb. fl. ind. 3, p. 425.*—*Evax indica*, *Buch. in Wall. herb.*) ⊗ Negapatam. Patna. Fl. minute, yellow, Feb. and March; fr. H. S. (*Roxb.*)

CREMOCEPHALUM, *Cass. (DC. pr. 6, p. 297.)*

1. *cernuum*, *Cass. (DC. l. c.—Senecio cernuus, L. fil. suppl. p. 370;*—*Ait.*—*S. rubens*, *Jacq. h. vind. 3, p. 50, t. 98.*—*S. uniflorus*, *Retz.*—*S. purpureus*, *Will. fl. maur. 51.*—*Crassocephalum cernuum*, *Mönch.*) ⊗ Mauritius. Bourbon. Madagascar. Fl. small, purple, March.

GYNURA, *Cass. (DC. pr. 6, p. 298.)*

1. *sarmentosa*, *DC. (l. c.—Cacalia sarmentosa, Bl. bijdr. p. 907.*—*C. reclinata*, *Roxb. fl. ind. 3, p. 412;*—*Wall. Cat.*—*C. cylindriflora*, *Wall. Cat.*—*Rumph. 5, t. 103, f. 2.*?) 2. Java. Penang. Singapore. Fl. largish, orange, C. S.

2. *purpurascens*, *DC. (pr. 6, p. 299.*—*Cacalia purpurascens*, *Wall. Cat.*) 2. Nepal. Fl. yellow. In H. C. G. Fl.?

3. *bicolor*, *DC. (l. c.—Cacalia bicolor*, *Roxb. fl. ind. 3, p. 412.*—*Salisb. parad. t. 25;*—*B. Reg. 2, t. 110.*) 2. Moluccas. Fl. largish, deep orange, and fr. C. S.

4. *nepalensis*, *DC. (pr. 6, p. 300.*—*Cacalia nepalensis*, *Spreng. MSS.*—*C. aurantiaca*, *Wall. Cat.* not *Bl.*) 2. Nepal. Fl. largish, orange, C. S.

EMILIA, *Cass. (DC. pr. 6, p. 301.)*

1. *sonchifolia*, *DC. (o. c. p. 302.*—*E. purpurea*, *Cass.*—*Cacalia sonchifolia*, *L.*; not *Forsk.*—*Roxb. fl. ind. 3, p. 413;*—*J. Grah. Cat. B. pl. p. 98.*—*C. sonchifolia*, and *glabra*, *Wall. Cat.*—*G. prenanthoides*,



422

MATRICARIACEAE.

CSL

- Sieb.* excl. syn. Kth.—*Senecio sonchifolia*, Mönch—*Crassocephalum sonchifolium*, Less.—*Rheed.* 10, t. 68;—*Rumph.* 5, t. 103, f. 1.) शुदि मूदि *Shudi-mudi*. ◎ China. Timor. Mauritius. Moluccas. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. small, bright purple, and fr. C. S.
2. *sagittata*, DC. (pr. 6, p. 302.—*E. flammea*, Cass.—*Cacalia sagittata*, Vahl. symb. 3, p. 91, excl. syn.—*C. coccinea*, Curt. B. M. 16, t. 564.) ◎ Philippine Islands. Fl. smallish, deep orange, scarlet, and fr. C. S.
SENECIO, L. (*DC.* pr. 6, p. 341.)

1. *vulgaris*, L. (*DC.* L. c.;—*E. B.* 11, t. 747;—*Roxb. H. B.* p. 61.) ◎ Europe. N. Africa. N. and temperate Asia. Fl. smallish, yellow, Feb. and March.

NOTONIA, DC. (pr. 6, p. 441.)

1. *grandiflora*, DC. (l. c. and in *Deless. ic. sel.* 4, t. 61.—*Cacalia grandiflora*, Wall. Cat.) 5 Travancore. Neelgherries. Fl. heads largish, white, C. S.
2. *crassissima*, DC. (l. c.—*Cacalia crassissima*, Wall.) 5 Ava. Fl. heads largish, white, C. S.

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- * *Pterolobium arboreum*, R. Br. 5 St. Helena.—*Glibadium asperum*, DC. 2. Cayenne.—*C. erosum*, DC. 5 W. Indies.—*Chrysogonum Diotostaphus*, DC. 2. Carolina.—*Franseria artemisioides*, Willd. 5 Peru.—*Philactis zinnioides*, Schrad. 2. Mexico.—*Zinnia verticillata*, Andr. B. Repos. 3, t. 189. ◎ Mexico.—*Wedelia radiosa*, Ker.; B. Reg. 8, t. 610. 5 Brazil.—*W. cernosa*, Rich. 2. W. Indies.—*Melanthera hastata*, Rich. 2. Havannah.—*Heliosp. scabra*, Dun. (H. canescens, Don.; B. Reg. 7, t. 592.) 2. N. America.—*H. bupthalmoides*, Dun. 2. Peru.—*Ferdinanda augusta*, Lag. 5 Mexico.—*Chrysophania fastigiata*, Kth. 5 Mexico.—*Zaluzania triloba*, Pers. 2. Mexico.—*Chiliophyllum globosum*, DC. 2. Mexico.—*Echinacea serotina*, DC. 2. S. Louisiana.—*E. heterophylla*, D. Don.; Swt. brid. fl. gard. ser. 2, t. 32. 2. Mexico.—*Rudbeckia fulgida*, Ait.; B. M. 49, t. 1996. 2. N. America.—*Obeliscaria pinnata*, Cass. (*Rudbeckia pinnata*, Vent.; B. M. 49, t. 2310.) 2. Carolina. Georgia.—*Wulffia maculata*, DC. (*Gymnoloma maculatum*, Ker.; B. Reg. 8, t. 662.) 2. Brazil.—*Encelia carescens*, Cav. B. Reg. 11, t. 909. 5 Peru.—*Coreopsis lanceolata*, L.; B. M. 5, t. 156. 2. Carolina.—*C. diversifolia*, DC.; B. M. 63, t. 3474. 2. Carolina.—*C. senifolia*, Michx.; B. M. 63, t. 3484. 2. Carolina. Georgia.—*C. delphinifolia*, Lam. (*C. verticillata*, Willd.; B. M. 5, t. 156.) 2. Carolina.—*Simsia heterophylla*, DC. 2. Mexico.—*Leighia linearis*, DC. (*Helianthus linearis*, Cav.; B. Reg. 7, t. 523.) 2. Mexico.—*Tithonia tagetiflora*, Desf.; B. Reg. 7, t. 591. ◎ Mexico.—*T. tubaeformis*, Cass.; B. Reg. 18, t. 1519. ◎ Mexico.—*Bidens tripartita*, L.; E. B. 16, t. 1113. ◎ Europe.—*B. cernua*, Willd.; E. B. 16, t. 1114. ◎ Europe.—*B. striata*, Swt.; brit. fl. gard. t. 237.



Mexico.—*B. Coreopsis*, DC. 2. Jamaica.—*Cosmos caudatus*, H. B. and Kth. 2. W. Indies.—*Verbesina aurea*, DC. (*Wedelia aurea*, Hook.; B. M. 62, t. 3384.) 5 Mexico.—*V. gigantea*, Jacq. 5 W. Indies.—*V. alata*, L.; B. M. 41, t. 1716. 2. Jamaica.—*V. erucata*, Less. (*Spiranthes erucata*, Sims.; B. M. 39, t. 1629.) 2. Mexico.—*Sanvitalia procumbens*, Lam.; B. Reg. 9, t. 707. 2. Mexico.—*Flaveria Contrayerva*, Pers.; B. M. 50, t. 2400. 2. Mexico.—*Adenophyllum coccineum*, Pers. Mexico.—*Tagetes lucida*, Cav.; B. M. 20, t. 740. 2. Mexico.—*T. tenuifolia*, Cav.; B. M. 46, t. 2045. 2. Peru.—*T. glandulifera*, Schrank. 2. Buenos Ayres.—*Porophyllum linifolium*, DC. 5 Mexico.—*Gaillardia Drummondii*, DC.; (*G. bicolor*, β . *Drummondii*, Hook.; B. M. 61, t. 3368.) 2. Mexico.—*G. lanceolata*, Michx. (*G. bicolor*, Ell.; B. M. 39, t. 1602.) 2. Carolina. Florida.—*Florestina pedata*, Cass. (*Stevia pedata*, Cav.; B. M. 46, t. 2040.) 2. Mexico.—*Hymenopappus scabioseus*, L'Herit. 2. Carolina. Georgia.—*Helenium quadridentatum*, Labill.; B. Reg 7, t. 598. 2. Mexico.—*Calea jamaicensis*, Swz. 5 Jamaica.—*Sogalginga trilobata*, Cass. (*Galisoga trilobata*, Cav.; B. M. 44, t. 1895.) 2. Mexico.—*Madaria elegans*, DC. (*Madia elegans*, Don.; B. Reg. 17, t. 1458.) 2. California.—*Achillea Ageratum*, L. 2. S. Europe.—*A. decolorans*, Schrad. (*A. serrata*, E. B. 36, t. 1531.) 2. England.—*Santolina Chamaceyparissus*, L. 5 S. Europe.—*Matriaria Chamomilla*, L.; E. B. 18, t. 1232. 2. Europe.—*Pyrethrum carneum*, Bieb. (*P. roseum*, Lindl.; B. Reg. 12, t. 1034.) 2. Caucasus.—*Chrysanthemum coronarium*, L. 2. S. Europe, N. Africa.—*C. viscosum*, Desf. 2. Spain.—*C. frutescens*, L. 5 Canaries.—*Artemisia campestris*, L. E. B. 5, t. 338. 2. Europe.—*A. Moxa*, DC. 5 China.—*Rhodanthe Manglesii*, Lindl.; B. Reg. 20, t. 1703. 2. Swan River.—*Helichrysum bicolor*, Lindl.; B. Reg. 21, t. 1814. 2. Swan River.—*Neurolana lobata*, R. Br. (*Calea lobata*, Swz.; B. M. 42, t. 1734.) 5 Jamaica.—*Gynura angulosa*, DC. 2. Khassya Mountains.—*G. Pseudochina*, DC. 2. Canton.—*G. ovalis*, DC. (*Cacalia ovalis*, Ker.; B. Reg. 2, t. 101.) 2. China.—*Doronicum Pardalianches*, L.; E. B. 9, t. 630. 2. Europe.—*Cacalia reticulata*, Vahl. 2. Mauritius.—*C. flexuosa*, Wall. Cat. 2. Mauritius.—*Senecio ampullaceus*, Hook.; B. M. 63, t. 3487. 2. Texas.—*S. Petasitis*, DC. (*Cineraria Petasitis*, Sims.; B. 37, t. 1536.) 5 Mexico.

e. *Cynarœæ*, Less.

(DC. pr. 6, p. 449.)

CALENDULA, L. (DC. pr. 6, p. 451.)

1. *officinalis*, L. (DC. l. c.;—B. M. 59, t. 3204;—Roxb. H. B. p. 62;—J. Grah. Cat. B. pl. p. 101;—Görtn. fr. 2, p. 422, t. 168, f. 4.—*Caltha officinalis*, Münch.—*Caltha vulgaris*, C. Bauh.) *Common Mary-gold*. 2. S. Europe. Fl. large, deep orange, Feb. and March; fr. H. S.
2. *stellata*, Cav. (icon. 1, p. 3, t. 5.—DC. pr. 6, p. 454.—C. Cristagalli, Viv.) 2. Barbary. Fl. large, yellow, Feb. and March; fr. H. S.



24

MATRICARIACEÆ.

SL

ECHINOPS, L. (DC. pr. 6, p. 522.)

1. *echinatus*, Roxb. (fl. ind. 3, p. 447;—DC. pr. 6, p. 526;—J. Grah. Cat. B. pl. p. 95.) ◎ Mysore. Deccan. Mahableshwur. Flower-heads large, greenish-white, Feb. and March; fr. H. S.

APLOTAXIS, DC. (pr. 6, p. 538.)

1. *cirsoides*, DC. (l. c.—*Carduus lanatus*, Roxb. fl. ind. 3, p. 408.) तिक दुमा Tik-booma. ◎ Bengal, (Serampore,) &c. Fl. large, pale purple, Feb. and March; fr. H. S.
2. *carthamoïdes*, DC. (*Serratula carthamoïdes*, Buch.;—Roxb. fl. ind. 3, p. 407.—*Saussurea carthamoïdes*, Hb. Buch.) ◎ Khassy Mountains. Nepal. Martaban. Fl. small, rose-coloured, and fr. Nov. to March. (Roxb.)

AMBERBOA, DC. (pr. 6, p. 558.)

1. *indica*, DC. (l. c.—*Serratula indica*, Klein; Willd.; Wall. Cat.—*Athanasia indica*, Roxb. fl. ind. 3, p. 417.—*Centaurea indica*, Less.) ◎ Peninsula of India. Fl. largish, purplish rose coloured, Feb. and March; fr. H. S. (Roxb.)
2. *odorata*, DC. (pr. 6, p. 559.—*Chryseis odorata*, Cass.) ◎ Levant. Persia. Tauria. Iberia.
 - a. *ambracea*, DC. (*Centaurea Amberboi*, Lam.—*C. suaveolens*, Willd.—*C. moschata*, β. L.—*C. ambracea*, Schkuhr.) ◎ Fl. largish, bright yellow, sweet-scented, Feb. and March; fr. H. S.
3. *moschata*, DC. (pr. 6, p. 560.—*Centaurea moschata*, a. L.—Roxb. fl. ind. 3, p. 444;—J. Grah. Cat. B. pl. p. 95.—*Chryseis moschata*, Cass.) सपुसुंद Sapusund.—Sweet Sultan. ◎ Levant. Greece. Fl. large, lilac purplish, sweet scented, C. S.; fr. H. S.

TRICHOLEPIS, DC. (pr. 6, p. 563.)

1. *radicans*, (DC. o. c. p. 564.—*Carduus radicans*, Roxb. fl. ind. 3, p. 408.—*C. glaber*, Hb. Buch.—*C. punctatus*, Hb. Madr.) ◎ Mysore. Fl. middle-sized, lively lilae, R. S.; fr. C. S. (Roxb.)

CENTAUREA, L. (DC. pr. 6, p. 565.)

1. *glastifolia*, L. (DC. o. c. p. 568;—B. M. 2, t. 62.) ३. Iberia. Armenia. Lower Caucasus. S. Siberia. Fl. large, bright yellow, C. S.
2. *macrocephala*, Muss. Puschk. (DC. l. c.;—B. M. 31, t. 1428.) ३. Iberia. Fl. very large, deep yellow, C. S.
3. *alba*, L. (DC. pr. 6, p. 569.) ३. S. Europe. Fl. largish, white, C. S.
4. *amara*, L. (DC. l. c.—*Jacea supina*, Lam. fl. fr. 2, p. 53.—*C. Jacea*, γ. Lam. dict. 1, p. 666.—*C. alba*, Sut. fl. helv. 2, p. 204; not L.) ३. Meadows of S. Europe.
5. *bracteata*, DC. (C. bracteata, Bertol. dec. 1. in Röm. cat. 1, p. 111;—Scop. del. 2, p. 17, t. 9.) ३. S. France. Italy. Fl. large, white, R. and C. S.
5. *Jacea*, L. (DC. pr. 6, p. 570;—E. B. 24, t. 1678.—*Cyanus Jaceus*, Baumg.) ३. Meadows of middle Europe. Fl. large, bright purple, R. and C. S.; fr. C. S.



6. *nigra*, L. (DC. pr. 6, p. 571;—E. B. 4, t. 278.—*Cyanus niger*, Gärtn. fr. 2, p. 382, t. 161, f. 4.—*Jacea nigra*, Cass.—*Rhaponticum ciliatum*, Lam.) ♀. Meadows of Europe. Fl. large, bright purple, R. and C. S.; fr. C. S.
7. *phrygia*, L. (DC. pr. 6, p. 573;—fl. dan. t. 520.—*Leptanthus hygrometricus*, Cass.) ♀. Alpine meadows of France, Switzerland, Piedmont, Germany, and Denmark. Fl. large, violet, red, C. S.; fr. March.
8. *Cyanus*, L. (DC. pr. 6, p. 578;—E. B. 4, t. 277;—J. Grah. Cat. B. pl. p. 95.—*Jacea segetum*, Lam.—*Cyanus arvensis*, Mönch.—*Cyanus segetum*, C. Bauh.—*Cyanus vulgaris*, Lob., Cass.) ♂. Corn Blue-bottle. ♂ Corn-fields of Europe. Fl. large, bright blue, with a purplish disk, Feb. and March; fr. April.
9. *paniculata*, L. (DC. pr. 6, p. 583.—*Jacea paniculata*, Lam.) ♂. Hills and sterile places of S. France, Spain, Italy, &c. Fl. largish, white, R. S.
10. *melitensis*, L. (Syn. uncertain.—DC. pr. 6, p. 593.) ♂. Malta. Sicily. Madeira, Teneriffe. Fl. largish, yellow, Feb. and March; fr. April.
11. *sphaerocephala*, L. (DC. pr. 6, p. 599.—B. M. 52, t. 2551.—C. cæspitosa, Vahl.) ♀. Dry maritime places of Italy. Sicily. Corsica. Sardinia. Spain, and N. Africa. Fl. large, purple, C. S.
- CNICUS**, Vaill. (DC. pr. 6, p. 606.)
1. *benedictus*, L. (DC. l. c.;—Gärtn. fr. 2, p. 385, t. 165, f. 5.—*Centaura benedicta*, L.;—Roxb. H. B. p. 62.—*Carduus benedictus*, Cam.—*Calcitrappa lanuginosa*, Lam.) ♂. Stony and cultivated places of Persia, Tauria, Greece, &c. Fl. large, yellow, Feb. and March.
- CARTRAMUS**, Tournef. (DC. pr. 6, p. 611.)
- c. *tinctorius*, L. (DC. o. c. p. 612;—B. Reg. 2, t. 170;—Gärtn. fr. 2, p. 375, t. 161, f. 2;—Lam. ill. t. 661, f. 3;—Roxb. fl. ind. 3, p. 409;—J. Grah. Cat. B. pl. p. 95;—Rumph. 5, t. 79, f. 2.) 千瓣花 Koosoom, Safflower. ♂ India, from whence it has wandered into Egypt, the Levant, N. Africa, Europe, Madeira, &c. Fl. large, deep orange, C. S.; fr. H. S. Cultivated in India for the use of the dyers, as also for the oil obtained from the seeds. (Roxb.)
- SILYBUM**, Vaill. (DC. pr. 6, p. 616.)
1. *mariannum*, Gärtn. (fr. 2, p. 378, t. 168, f. 2;—DC. l. c.—*Carduus mariannus*, L.;—E. B. 14, t. 976;—Roxb. H. B. p. 60.—*Silybum maculatum*, Mönch.—*Cirsium maculatum*, Scop.—*Carthamus maculatus*, Lam.) ♂. S. Europe. England. W. Asia. Fl. large, purplish, Feb. and March.; fr. H. S.
- ONOPORDON**, Vaill. (DC. pr. 6, p. 617.)
1. *Acanthum*, L. (DC. o. c. p. 618;—E. B. 14, t. 977;—Roxb. H. B. p. 60.—*Acanos Spina*, Scop.) Cotton Thistle. ♂ Europe. Fl. large, deep purple, C. S.

CARDUUS, Tournef. (*DC. pr. 6, p. 621.*)

1. *nutans*, L. (*DC. l. c.*; — *E. B. 16, t. 1112.* — *C. apenninus*, *Jau. herb.* — *C. montosus*, *Poll.*) ♂ Europe. Fl. large, rich crimson, strongly smelling of musk, Feb.; fr. H. S.
2. *tenuiflorus*, Sm. (*E. B. 6, p. 412;* — *DC. pr. 6, p. 626;* — *Roxb. H. B. p. 60.*) ♂ England. S. Europe, from Madeira to Tauria and Persia. Fl. smallish, pale purple, Feb. and March.
3. *arabicus*, Jacq. (*Coll. 1, p. 56;* — *icon. rar. 1, t. 166;* — *DC. pr. 6, p. 626.* — *C. Galactites*, *Lam.*) ♂ Arabia. Syria. Malta. Sicily. Fl. like those of No. 2, Feb. and March; fr. H. S.

CYNARA, Vaill. (*DC. pr. 6, p. 620.*)

1. *Scolymus*, L. (*DC. l. c.*; — *Roxb. fl. ind. 3, p. 409;* — *J. Grah. Cat. B. pl. p. 95;* excl. B. M.) Artichoke. ♀ Native place uncertain. Fl. very large, blue-violet, Feb. and March; fr. H. S.

CIRSIUM, Tournef. (*DC. pr. 6, p. 634.*)

1. *lanceolatum*, Scop. (*DC. o. c. p. 636.* — *Carduus lanceolatus*, L.; — *E. B. 2, t. 107;* — *Roxb. H. B. p. 60.* — *Cnicus lanceolatus*, *Hoffm.* — *Lopholepis dubia*, *Cass.* — *Eriolepis lanceolata*, *Cass.*) ♂ Fl. large, pale purple, Feb. and March.
2. *horridulum*, Michx. (*DC. pr. 6, p. 651;* — *Roxb. H. B. p. 60.* — *Carduus spinosissimus*, *Wall.*; not Vill. — *Carduus horridulus*, *Pers.* — *Cnicus horridulus*, *Ell.*) ♀ Carolina. Fl. large, purple. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

NOTOBASIS, Cass. (*DC. pr. 6, p. 660.*)

1. *syriaca*, Cass. (*DC. l. c.* — *Carduus syriacus*, L.; — *Roxb. H. B. p. 60.* — *Cirsium syriacum*, *Gärtn. fr. 2, p. 383, t. 163, f. 2;* — *Cirsium maculatum*, *Mönch.* — *Cnicus syriacus*, *Willd.* excl. syn. *Bauh.* — *Cnicus obvallatus*, *Salzm.*) ♂ Madeira. Portugal. N. Africa. Corsica. Italy. Sicily. Archipelago. Egypt. Syria. Fl. purple. In H. C. G. fl. Feb. and March. (*Roxb.*)

LAPPA, Tournef. (*DC. pr. 6, p. 661.*)

1. *tomentosa*, Lam. (*DC. l. c.* — *Arctium tormentosum*, *Schkuhr.* — A. Lappa, *β. L.* — A. Bardana, *Willd.*; — *E. B. 35, t. 2478.*) ♂ Europe. Fl. largish, bluish-red, C. S.
2. *minor*, DC. (*l. c.* — *Arctium minus*, *Schkuhr.* — A. Lappa, *E. B. 18, t. 1228.*) *Clot-Bur.* ♂ Europe. W. Asia. Fl. largish, purple, C. S.

JURINEA, Cass. (*DC. pr. 6, p. 673.*)

1. *alata*, Cass. (*DC. o. c. p. 675.* — *Serratula alata*, *Desf.*; not Poir. *Carduus alatus*, *Don.*; — *Swt. brit. fl. gard. 2, t. 103.*) ♂ Caucasus. Fl. purple, C. S.

* *Calendula arvensis*, L. ♂ S. Europe. — *C. parviflora*, Rafin. ♂ Sicily. — *Cryptostemma calendulaceum*, R. Br. ♂ C. G. H. — *C. hypochondriacum*, R. Br. ♂ C. G. H. — *Echinops niveus*, Wall., Royle ill. 56, f. 1.



◎ Shrinagar. Mussooree.—*Carlina vulgaris*, L.; E. B. 16, t. 1144. ♂ Europe. Levant.—*C. sicula*, L. ◎ S. Europe.—*Centaurea pectinata*, L. ♀. S. France.—*C. Scabiosa*, L.; E. B. 1, t. 56. ♀ Europe.—*C. spinosa*, L.; B. M. 51, t. 2493. ♂ Greece. Levant.—*C. solstitialis*, L.; E. B. 4, t. 243. ◎ England. S. Europe.—*C. aurea*, Ait.; B. M. 12, t. 421. ♀. S. Europe.—*C. Calcitrapa*, L.; E. B. 2, t. 125. ◎ Europe.—*Kentrophyllum lanatum*, DC. (*Carthamus lanatus*, L.; B. M. 47, t. 2142.) ◎ S. Europe.—*K. arborescens*, Hook.; B. M. 61, t. 3302.—*Carduncellus cæruleus*, DC. (*Carthamus cærolens*, L.; B. M. 49, t. 2293.) ♀. S. Europe.—*Onopordon arabicum*, L.; B. M. 61, t. 3299. ♂. Greece. S. France. Portugal.—*Cynara Cardunculus*, L.; B. M. 60, t. 3241. ♀. S. Europe.—*Cirsium arvense*, Scop. (*Carduus arvensis*, L.; B. 14, t. 975.) ♂. S. Europe.—*Erythrolæna conspicua*, Swt.; B. M. 56, t. 2909. ♀. Mexico.—*Serratula tinctoria*, L.; E. B. 1, t. 38. ♀. Europe.

B. LABIATIFLORA, DC.

(Pr. 7, p. 1.)

f. Mutisiæ.

(Mutisiaceæ, Less. DC. l. c.)

* *Mutisia speciosa*, Hook.; B. M. 54, t. 2705.—*Ainsliaea pteropoda*, DC. ♀. Nepal.—*Berniera nepalensis*, DC. ♀. Khassy Mountains. Nepal.—*Tricocline incana*, Cass. ♀. Brazil.—*Lycoseris mexicana*, Cass. and Less. ♂ Mexico.—*Anastrophia ilicifolia*, Don. ♂ Havannah.—*Onoseris reflexa*, Less. (*Centroclinium reflexum*, Hook.; B. M. 58, t. 3114.) ♂ Peru.—*Dicoma lanuginosa*, DC. ♀. Madras. Trichinopoly.—*Chaptalia tomentosa*, Vent. ♀. Carolina. Florida.—*C. dentata*, Cass. ♀. W. Indies.—*Leria nutans*, DC. ♀. Brazil.—*Loxodon brevipes*, Cass. ♀. Brazil.—*Chevreulia stolonifera*, Cass. ♀. Brazil.

g. Nassauviæ, Cass.

(Nassauviaceæ, Less.; DC. pr. 7, p. 48.)

* *Triptilon spinosum*, Ruiz. and Pav. ♀. Chili.—*T. cordifolium*, Lag.: B. R. 10, t. 853. ◎ Chili.—*Trixis corymbosa*, D. Don. ♂ Mexico.—*T. frutescens*, P. Browne. ♂ Jamaica. Mexico.—*T. divaricata*, Spreng. ♂ Brazil.—*T. brasiliensis*, DC. ♀. Buenos Ayres.—*Moscharia bipinnatifida*, Ruiz. and Pav.; B. Reg. 18, t. 1564. ◎ Chili.

C. LIGULIFLORA, DC.

(Pr. 7, p. 74.)

h. Cicoriæ.

(Cichoraceæ, Vaill.; DC. l. c.)

SCOLYmus, Tournef. (DC. pr. 7, p. 75.)

I. maculatus, L. (DC. l. c.—*Lam. ill. t. 659*.—S. angiospermous, Gärtn. fr. 2, p. 356, t. 157, f. 4.—S. pectinatus, Cass.) ◎ S. Europe. N. Africa. Fl. large, yellow, C. S.; fr. O.



LAMPSANA, Tournef. (DC. pr. 7, p. 76.)

1. *communis*, DC. (l. c.—*Lapsana communis*, L.; *Gärtn. fr.* 2, p. 353, t. 175, f. 1;—*E. B.* 12, t. 844.) ⊖ Europe. Fl. small, light yellow, Feb. and March; fr. April.

2. *grandiflora*, Bieb. (DC. o. c. p. 77.—*L. lyrata*, Willd.—*L. glandulifera*, Cass.) ⊖ Fl. large, yellow, Feb. and March. Caucasus. Tauria.

RHAGADIOLUS, Tournef. (DC. pr. 7, p. 77.)

1. *stellatus*, Gärtn. (fr. 2, p. 354, t. 157, f. 2.)

γ. *edulis*, DC. (R. *edulis*, Gärtn. fr. 2, p. 354.—*Lapsana Rhagadiolus*, L.) ⊖ S. Europe. Fl. smallish, yellow, Feb. and March; fr. April.

HYOSERIS, L. (DC. pr. 7, p. 79.)

1. *microcephala*, Cass. (DC. l. c.—*H. scabra*, L.; not Mönch.—*H. adspersa*, Mönch.—*Hedypnois scabra*, Less.—*Rhagadiolus scaber*, All.) ⊖ Along the Mediterranean. Fl. small, yellow, Feb. and March; fr. April.

2. *radiata*, L. (DC. l. c.—*Hedypnois radiata*, Gärtn. fr. 2, p. 373, t. 160, f. 3.—*Leontodon radiatum*, Lam.—*Rhagadiolus stellatus*, All.—*Taraxacum saxatile*, Bocc.) ♀. Along the Mediterranean. Fl. largish, yellow, C. S.

HEDYPNOIS, Tournef. (DC. pr. 7, p. 81.)

1. *cretica*, Willd. (DC. l. c.;—*Hyoseris cretica*, L.—Gärtn. fr. 2, p. 360, t. 160, f. 2;—*Roxb. H. B.* p. 60.—*H. scabra*, Mönch; not L.—*Rhagadiolus creticus*, All.) ⊖ Creta. Nizza. Spain. Fl. yellow. In H. G. fl. C. S. (*Roxb.*)

2. *polymorpha*, DC. (pr. 7, p. 81.) ⊖ Mediterranean Coasts. Fl. smallish, yellow, Feb. and March; fr. April.

CICHORIUM, Tournef. (DC. pr. 7, p. 83.)

1. *Intybus*, L. (DC. o. c. p. 84;—Gärtn. fr. 2, p. 357, f. 6;—*E. B.* 8, t. 539;—*Roxb. H. B.* p. 60.) Succory. ♀. Road-sides of Europe. Fl. large, pale-blue, C. S.

2. *Endivia*, Willd. (DC. l. c.) ⊖ ♂. *Endivia*.

α. *Cosnia*, DC. (C. *Cosnia*, *Buch. in Wall. Cat.*) Patna. Nepal. Kemaon.

β. *sativa*, DC. (C. *Endivia*, L.;—*Roxb. H. B.* p. 60;—*J. Grah. Cat. B. pl.* p. 94.) Cultivated in gardens. Fl. large, blue and white, C. S.; fr. H. S.

TOLPIS, Bivon. (DC. pr. 7, p. 85.)

1. *barbata*, Gärtn. (fr. 2, p. 373, t. 160, f. 1;—*Lam. ill.* t. 651;—DC. o. c. p. 86.—*Crepis barbata*, L.—*B. M.* 1, t. 35; not Mill.—*C. baetica*, Mill.—*Swertia barbata*, All.—*Drepania barbata*, Desf.—*D. falcatula*, Rouss.) ⊖ S. Europe. N. Africa. Fl. largish, straw-coloured, with a dark brown disk, Feb.; fr. H. S.

2. *altissima*, Pers. (DC. pr. 7, p. 86.—*T. sexaristata*, Bivon.—*Crepis altissima*, Balb.—*C. ambigua*, Balb. diss. p. 4, t. 1.—*C. virgata*, Desf.



—*Drepania ambigua*, *DC. cat. h. monspel.* — *Schmidtia ambigua*, *Cass.*) ♂. ⊖ Liguria. Corsica. N. Africa. Fl. yellowish, Feb. and March; fr. April.

HYPOCHEMIS, *Vaill. (DC. pr. 7, p. 90.)*

1. *glabra*, L. (*DC. l. c.*; — *Gärtn. fr. 2, p. 374, t. 160, f. 4*; — *Lam. ill. t. 646, f. 1*; — *Curt. lond. 3, t. 149*; — *E. B. 9, t. 575*. — *H. stellata*, *Gat.* — *H. dimorpha*, *Brot. fl. lus. 1, p. 332*. — *H. adscendens*, *Bort. phyt. lus. t. 25.*) ⊖ Europe. Fl. small, yellow, Feb. and March; fr. April.
2. *radicata*, L. (*DC. pr. 7, p. 91*; — *E. B. 12 t. 831*; — *Curt. lond. 3, t. 168*. — *Achyrophorus radicatus*, *Scop.*; — *Gärtn. fr. 2, p. 370, t. 159, f. 6*. — *Porcellites radicata*, *Cass.* — *Seriola taraxacifolia*, *Salzm.*) 2. Europe. Fl. large, yellow, C. S.

ACHYROPHORUS, *Scop. (DC. pr. 7, p. 92.)*

1. *hispidus*, DC. (*l. c.* — *Hypochæris hispida*, *Willd. h. berol. t. 46*; not Roth.) 2. Native country unknown. Fl. largish, yellow, C. S.
2. *maculatus*, DC. (*pr. 7, p. 93*. — *Hypochæris maculata*, L.; *Fl. dan. t. 149.*) 2. Middle and N. Europe.
3. *monocephalus*, DC. (*Hypochæris maculata*, *E. B. 4, t. 225.*) ⊖ England, &c. Fl. largish, yellow, C. S.

SERIOLA, L. (*DC. pr. 7, p. 95.*)

1. *aetnensis*, L. (*DC. l. c.*; — *Gärtn. fr. 2, p. 370, t. 159, f. 5*; — *Jacq. obs. 4, p. 3, t. 79*; — *Lam. ill. t. 656, f. 1*). — *S. urens*, *All.*; not L. *S. hispida*, *Mönch.*) ⊖ S. Europe. Fl. yellow, Feb. and March; fr. April.

THRINCIA, Roth. (*DC. pr. 7, p. 99.*)

1. *hirta*, DC. (*l. c.*; not Roth). — *Leontodon hirtus*, L.; — *Curt. lond. 2, t. 160*. — *Hedypnois hirta*, *Sm.*; *E. B. 8, t. 555*. — *Hyoseris hirta*, *Gärtn. fr. 2, p. 373*. — *Hyoseris taraxacoides*, *Lam.*) 2. Europe. Fl. smallish, externally orange, internally yellow, C. S.
2. *hispida*, Roth. (*DC. pr. 7, p. 100*. — *T. hirta*, β . *crassa*, *Richt. Lips.* — *T. turaxacoides*, α . *Gand.* — *Hyoseris taraxacoides*, *Vill. dauph. 3, p. 166, t. 25*; not Lam.). — *Colobium hispidum*, *Roth*. — *Rhagadiolus taraxacoides*, *All.* — *Leontodon saxatilis*, *Lam.*) ⊖ Europe. Fl. like those of No. 1, Feb. and March.
3. *maroccana*, Pers. (*DC. l. c.*). — *T. mauritanica*, *Spreng.* — *Hyoseris hispida*, *Schoubs.*; — *Willd.*) ⊖ Tangier. Mogador. Fl. largish, yellow, externally brownish, March; fr. H. S.

LEONTODON, L. (*DC. pr. 7, p. 101.*)

1. *hastilis*, L. (*DC. o. c. p. 102*. — *L. danubialis*, *Jacq. austr. t. 164*. — *L. proteiformis*, var. A. B. C. *Vill. dauph. 3, p. 87, t. 24*. — *Apargia hastilis*, *Hoffm.* — *A. danubialis*, *Scop.* — *A. livida* and *heterophylla*, *Mönch.* — *Picris danubialis*, *All.* — *Virea hastilis*, *Gärtn. fr. 2, p. 365, t. 159, f. 3.*) 2. Humid places of Europe. Fl. large, yellow, C. S.; fr. H. S.



2. *caucasicus*, Fisch. (not Stev.—*DC. pr. 7, p. 104.*—*Apargia caucasica*, *Bieb.*) 2. Caucasus. Fl. large, yellow, C. S.; fr. H. S.

APARGIA, Willd. (*DC. pr. 7, p. 107.*)

1. *Hamones*, Buch. (*Roxb. H. B. p. 60.*) ⊗ Nepal, from whence it was introduced into H. C. G., in 1802, where it fl. C. S.; fr. H. S. (*Roxb.*)

PODOSPERMUM, DC. (*pr. 7, p. 110.*)

1. *laciniatum*, DC. (*o. c. p. 111.*—*Scorzonera laciniata*, *L.*;—*Gärtn. fr.*

2. *paucifida*, *Lam.*—*S. petiolaris*, *Lapeyr.* excl. syn.) 2. S. Europe. Fl. yellow, C. S.; fr. H. S.

GEROPOGON, L. (*DC. pr. 7, p. 111.*)

1. *glaber*, L. (*DC. l. c.—B. M. 14, t. 479.*—*Jacq. h. vind. 1, t. 33.*—*G. australis*, *Spreng.*) ⊗ Corn-fields about Nizza. Sardinia. Sicily. Spain. Madeira. Italy. Greece. Mogador. Fl. largish, pale rose-coloured, Feb. and March; fr. H. S.

TRAGOPOGON, Tournef. (*DC. pr. 7, p. 112.*)

1. *porrifolius*, L. (*DC. o. c. p. 113;*—*Jacq. icon. rar. t. 159.*—*E. B. 9, t. 638.*—*T. sativus*, *Gat.*) *Salsify.* ⊗ Europe. Fl. large, deep purple, Feb. and March; fr. C. S. The root, when boiled or stewed, has a mild sweetish flavour, and used formerly to be much more cultivated for the table than it is at present. (*Sm.*)

URÓSPERMUM, Scop. (*DC. pr. 7, p. 116.*)

1. *picroides*, Desf. (*DC. l. c.—Tragopogon picroides*, *L.*;—*Lam. ill. t. 646, f. 3.*—*T. aculeatum*, *Mönch.*—*Arnopogon picroides*, *Willd.*;—*Roxb. H. B. p. 60.*) ⊗ Greece. Italy. S. France. Spain, Madeira, &c. Fl. large, yellow, March; fr. April.

SCORZONERA, L. (*DC. pr. 7, p. 117.*)

1. *hispanica*, L. (*DC. o. c. p. 120;*—*Lam. ill. t. 647, f. 5;*—*Roxb. H. B. p. 60.*—*S. sativa*, *Gater.*—*S. denticulata*, *Lam. fl. fr.*) 2. Spain. Fl. large, yellow, C. S. Root edible.

LACTUCA, Tournef. (*DC. pr. 7, p. 133.*)

1. *sativa*, L. (*DC. o. c. p. 138;*—*Roxb. fl. ind. 3, p. 403;*—*J. Grah. Cat. B. pl. p. 94.*—*L. romana longa dulcis*, *J. Bauh.*—*L. romana*, *Gars. ic. t. 315.*—*L. sativa longifolia*, *Lam.*—*L. sativa* and *bracteata*, *Wall. Cat.*) *Garden Lettuce.* ⊗ Native country unknown. Persia? Fl. small, pale yellow, Feb. and March; fr. H. S.

2. *Heyneana*, DC. (*pr. 7, p. 140.*—*Prenanthes sonchifolia*, *Willd. sp. 3, p. 1541;*—*Heyne, in Wall. Cat.*—*P. racemosa*, *Roxb. fl. ind. 3, p. 405;* not Michx.—*Chondrilla racemosa*, *Poir.*) ⊗ Coromandel. Ne-gapatam. Fl. small, yellow. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

TARAXACUM, Hall. (*DC. pr. 7, p. 145.*)

1. *Dens leonis*, Desf. (*DC. l. c.—T. Leontodon*, *Dumort.*—*T. officinale*, *Vill.*—*Leontodon Taraxacum*, *L.*;—*E. B. 8, t. 510;*—*Roxb. H. B. p. 60;*—*Gärtn. fr. 2, p. 363, t. 158, f. 7.*—*L. officinalis*, *With.*—*L. vulgaris*, *Lam.*—*Hedypnois Taraxacum*, *Scop.*) *Dandelion.* 2. Mea-



dows and road-sides of Europe, W. Asia, and N. Africa. Fl. large, bright yellow. Was introduced into H. C. G. in 1807, but had not fl. up to 1814.

BORKHAUSIA, Mönch. (DC. pr. 7, p. 152.)

1. *alpina*, DC. (o. c. p. 153.—*B. scariosa*, Mönch.—*Crepis alpina*, L.;—*Gärtn. fr.* 2, p. 354, t. 158, f. 8.—*C. alpina* and *vesicaria*, Lam.) ⊙ Mountains of Tauria, Siberia, and Asia Minor. Fl. largish, yellow, Feb. and March.
2. *rubra*, Mönch. (DC. pr. 7, p. 157.—*Crepis rubra*, L.—*C. incarnata*, Vis.—*Pieris rubra*, Lam.) ⊙ Dalmatia. Greece. S. Italy. Fl. largish, pale rose-coloured, March; fr. H. S.
3. *foetida*, DC. (pr. 7, p. 158.—*Crepis foetida*, L.; E. B. 6, t. 406; Roxb. H. B. p. 60.—*C. foetens*, Lk.—*C. barbata*, Mill.; not L.—*Picris foetida*, Lam.—*Wibelia graveolens*, fl. weu. 3, p. 144.—*Hos-tia foetida*, Mönch.) ⊙ Middle and S. Europe. Teneriffe. Tauria. Fl. largish, pale-yellow, Feb. and March; fr. H. S.

CREPIS, L. (DC. pr. 7, p. 160.)

1. *pulchra*, L. (DC. l. c.;—E. B. 33, t. 2325.—*Chondrilla pulchra*, Lam.—*Lampsana pulchra*, Vill.—*Prenanthes paniculata*, Mönch.—*P. hieracifolia*, Willd.—*P. pulchra*, DC. fl. fr.—*P. viscosa*, Baumg.—*Hieracium pulchrum*, J. Bauh.—*Phæcasium lampsanoides*, Cass.) ⊙ England. France. Germany. Italy. Tauria. W. Asia. Fl. small, pale-yellow, Feb. and March; fr. H. S.

ZACINTHIA, Tournef. (DC. pr. 7, p. 178.)

1. *verrucosa*, Gärtn. (fr. 2, p. 358, t. 157, f. 7;—DC. l. c.;—Desf. fl. alt. 2, p. 233.—*Z. pendula*, Räusch.—*Lapsana Zacintha*, L.—*Ragadiolus Zacintha*, All.) ⊙ S. Europe. N. Africa, along the Mediterranean. Fl. yellow, March; fr. April and May.

MICRORRHYNCHUS, Less. (DC. pr. 7, p. 180.)

1. *asplenifolius*, DC. (o. c. p. 181, excl. syn. Roxb. which does not exist.—*Prenanthes asplenifolia*, Willd.;—*Roxb. fl. ind.* 3, p. 404.—*P. dichotoma*, Wall. Cat.) तिक चमा Tik-chama. ♂ Coromandel. Bengal, (Serampore.) Fl. largish, bright yellow, C. S.; fr. H. S.

PICRIDIUM, Desf. (DC. pr. 7, p. 182.)

1. *tingitanum*, Desf. (DC. l. c.—*Scorzonera tingitana*, L.;—B. M. 4, t. 142;—Roxb. H. B. p. 60.—*S. tingitana* and *ciliata*, Forsk.—*Reichardia tingitana*, Roth.—*R. runcinata*, Mönch.—*Sonchus hispidulus*, Bové.—*S. pinnatifidus*, Lag.) ⊙ Sea-rocks of Barbary, (especially at Tangier,) Egypt. Sicily, and the Balearic Islands. Fl. large, golden yellow, March; fr. H. S.
2. *vulgare*, Desf. (DC. l. c.—*Scorzonera picroïdes*, L.—*Sonchus picroïdes*, Lam.;—All. ped. t. 16, f. 1;—Gärtn. fr. 2, p. 359, t. 158, f. 2.—*S. squamosus*, Lam. fl. fr.—*Reichardia picroïdes*, Roth.—*R. integrifolia*, Mönch.) ⊙ Cultivated places along the Mediterranean. Fl. like those of No. 1, but smaller, March; fr. H. S.



SL

SONCHUS, L. (DC. pr. 7, p. 184.)

1. *orixensis*, Roxb. (*J. Ind.* 3, p. 402;—*DC. pr. 7*, 190.) बन पालुंग
Bun-palung. ◎ Coromandel, (Samulkota,) Bengal, (Serampore,) &c.
Fl. large, yellow, Feb. and March; fr. H. S. Cattle are fond of every part of the plant, which on being wounded, discharges much milky juice that thickens into a substance like fresh, soft opium. (*Roxb.*)
2. *ciliatus*, Lam. (*DC. pr. 7*, p. 185.—*S. oleraceus*, *L.* α . and β .—*S. oleraceus*, *E. B.* 12, t. 843;—*Roxb. J. Ind.* 3, p. 402; excl. syn. Willd. 3, p. 154.—*J. Grah. Cat. B. pt. p. 94*, excl. syn. *S. orixensis Roxb.*—*S. asper*, *Blackw. herb. t. 30*;—*Gürt. fr. 2*, p. 360, t. 158, f. 2; not *Fuchs. Bess.*, &c.—*S. laevis*. *Vill.*—*Hieracium oleraceum, Scop.*) ◎ Europe. Peninsula of India. Bengal, (Serampore,) &c. Fl. as in No. 1. Feb. and March; fr. H. S. Cattle are fond also of this species, which, on being wounded, yields a milky juice.

YOUNCIA, Cass. (*DC. pr. 7*, p. 192.)

- ? 1. *procumbens*, DC. (*pr. 7*, p. 193.—*Prenanthes procumbens*, *Roxb. fl. ind. 3*, p. 404.) ♂ Bengal. Fl. yellow. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
- ? 2. *acaulis*, DC. (*I. c.*—*Prenanthes acaulis*, *Roxb. fl. ind. 3*, p. 403.) ♀. Dinaigepore. Fl. yellow. In H. C. G. fl. March and April; fr. C. S. (*Roxb.*)
- ? 3. *linifolia*, (*Prenanthes linifolia*, *Roxb. H. B. p. 60.*) ♀. Bengal. In H. C. G. fl. and fr. C. S. (*Roxb.*)

HIERACIUM, L. (*DC. pr. 7*, p. 199.)

1. *Pilosella*, L. (*DC. l. c.*;—*E. B.* 16, t. 1093.) ♀. Hills and road-sides of Europe. Fl. largish, bright yellow, C. S.
2. *glomeratum*, Tröl. MSS. (*DC. pr. 7*, p. 207.—*H. cymosum*, *fl. dan. t. 810*; not *Vill.*) ♀. Denmark. Prussia. Fl. smallish, yellow, C. S.
3. *sabaudum*, All. (*Pedem. No. 796*, t. 27, f. 2; not *L. snec*, nor German authors;—*DC. pr. 7*, p. 226;—*Lapeyr.*—*H. canadense*, *Hort. gotting.*—*H. cotoneifolium*, *Ger. h. exsicc.*—*H. virgatum*, *Hort. greifsw.*—*H. sylvaticum*, *Lapeyr.*; not *Sm.*) ♀. Mountains and woods of S. Europe. Fl. pale yellow, C. S.; fr. H. S.

* *Scolymus hispanicus*, L. ♂ Spain.—*S. grandiflorus*, Desf. ♀. Barberry. Sicily.—*Kölpinia linearis*, Pall. ◎ Siberia. Bagdad.—*Arnoseris pusilla*, Gürt. (*Hyoseris minima*, L.; *E. B.* 2, t. 95.) ◎ Europe.—*Hyoseris lucida*, L. ♀. Greece. Egypt. Sicily.—*Aposeris foetida*, Less. ♀. S. Europe.—*Catananche coerulea*, L.; *B. M.* 9, t. 293. ◎ S. Europe.—*Tolpis umbellata*, Bert. ◎ S. Europe.—*T. macrorrhiza*, DC. (*Crepis macrorrhiza*, Banks.; *B. M.* 57, t. 2988.) ♀. Madeira.—*Krigia virginica*, Willd. ◎ N. America.—*Microseris pygmaea*, Hook. and Arn. ◎ Valparaiso.—*Cynthia Boschii*, DC. ♀. Carolina.—*Oporinia autumnalis*, Don. (*Hedypnois autumnalis*, *E. B.* 12, t. 830?) ♀. Europe.—*Podospermum calcitrapifolium*, DC. ♀. S. Europe.—*Trago-*



pogon pratensis, L.; E. B. 7, t. 434. ♂ Europe, Levant.—*Urospermum Dalechampii*, Desf. (*Arnogpon Dalechampii*, Willd.; B. M. 39, t. 1623.) ♂ Italy, Spain.—*Scorzonera purpurea*, L.; B. M. 49, t. 2294. ♀ Germany.—*S. humilis*, L. ♀ Europe.—*S. mollis*, Bieb.; B. M. 57, t. 3027. ♀ Tauria.—*Picris hieracioides*, L.; E. B. 3, t. 196. ♂ Europe.—*Helminthia echioïdes*, Gärtn. (*Picris echioïdes*, L.; E. B. 14, t. 972.) ♂ England, France.—*Lactuca perennis*, L.; B. M. 47, t. 2130. ♀ Europe.—*L. sativa*, L.; E. B. 10, t. 707. ♂ Europe, Tauria, Syria.—*L. virosa*, L. E. B. 28, t. 1957. ♂ Europe.—*L. Scariola*, L.; E. B. 4, t. 268. ♂ Europe.—*L. muralis*, DC. (*Prenanthes muralis*, L.; E. B. 7, t. 457.) ♂ Europe.—*Pyrrhopappus carolinianus*, Nutt. ♀ Carolina.—*Taraxacum Wallichii*, DC. ♀ Oude.—*T. palustre*, DC. (*Leontodon palustris*, Sm.; E. B. 8, t. 553.) ♀ Swampy places of Europe and N. America.—*Borkhausia setosa*, DC. ♂ S. Europe.—*Crepis tectorum*, L.; E. B. 16, t. 1111. ♂ Europe, Siberia.—*C. biennis*, L.; E. B. 3, t. 149. ♂ Europe.—*C. hieracioides*, Willd. E. B. 31, t. 2210. ♀ Europe.—*Phænopus vimineus*, DC. ♂ S. Europe.—*Endoptera Dioscoridis*, DC. ♂ S. Europe.—*Microrrhynchus sarmentosus*, DC. Wight. ill. 2, t. 133. ♀ Negapatam, Penang, Mauritius.—*Zollitscheria pumila*, DC. ♀ Spain.—*Sonchus arvensis*, L.; E. B. 10, t. 674. ♀ Europe.—*Hieracium Auricula*, L.; E. B. 33, t. 2368. 5 Wet places of Europe.—*H. aurantiacum*, L.; E. B. 21, t. 1469. ♀ Europe.—*H. sylvaticum*, Sm.; E. B. 29, t. 2031. ♀ England, France, Italy.—*H. venosum*, L. ♀ Carolina.—*H. umbellatum*, L.; E. B. 25, t. 1771. ♀ Meadows of Europe.—*H. sylvestre*, Tausch. (*H. sabaudum*, E. B. 5, t. 349; not L.) ♀ Europe.—*Nabalus Fraseri*, DC. ♀ S. Carolina.—*Andryala ragusina*, L. ♀ Ragusa.—*A. sinuata*, L. ♂ S. France.—*Mulgedium alpinum*, Less. (*Sonchus alpinus*, L.; E. B. 34, t. 2425.) ♀ Europe.

ORDER CLXXXVII.—DIPSACEÆ, Juss.—Lindl. Nat. Syst. p. 264.

THE SCABIOUS TRIBE.

Herbs or undershrubs, by Lindl. referred to 7 genera. Of these, DC. pr. enumerates 59 species from Europe; 11 from the Orient; 8 from S. Africa or 10 (Harvey); 7 from Dauria, Tauria, and Caucasus; 6 from N. Africa; 4 from Siberia; 3 from the Azores and Canaries; 2 from Persia; and 1 from Arabia. In the E. Indies have been found, according to DC. Wall. Cat. and Royl. ill. 16 species; viz. 7 of *Dipsacus*; 4 of *Scabiosa*; and 5 of *Morina*;—one of these from the Neelgherries, one from Cochin China, (uncertain) one from Taong-Dong, one from the Khassya Mountains, and the rest from the Himalayas. Properties unimportant.



434

DIPSACÆ—VALERIANACEÆ.

GSL

DIPSACUS, Tournef. (*DC. pr. 4, p. 645*;—*G. Don's Mill. dict. 3, p. 682*;—*W. and A. pr. 1, p. 444.*)

1. *sylvestris*, Mill. (*DC. l. c.*;—*G. Don. l. e.*;—*E. B. 15, t. 1032*;—*Jacq. fl. austr. t. 402*.—*D. vulgaris*, *Gmel.*—*D. fullonum*, *Thor.*;—not Mill.) ♂. Europe. Siberia. Flower-heads very large, florets small, bluish-purple. Introduced in 1841.

2. *inermis*, Wall. (*DC. pr. 4, 646.*) Nepal, 1818.

SCABIOSA, L. (*DC. pr. 4, p. 654*;—*G. Don's Mill. dict. 3, p. 689.*)

1. *stellata*, L. (*DC. o. c. p. 655*;—*G. Don. o. e. p. 690*;—*Scabiosa rotata*, *Bieb.*—*Succisa stellata*, *Mönch.*—*Astrocephalus rotatus*, *Spreng.*) ♂ Fields along the Mediterranean. Flower-heads middle-sized, florets, whitish-bluish, small, C. S.; fr. April.

2. *atropurpurea*, L. (*DC. pr. 4, p. 657*;—*G. Don's Mill. dict. 3, p. 691*;—*B. M. 7, t. 247*;—*J. Grah. Cat. B. pl. p. 94*.—*Succisa atropurpurea*, *Mönch.*—*Sclerostemma atropurpureum*, *Schott.*—*Astrocephalus atropurpureus*, *Spreng.*) ♂ Native country unknown. Cultivated in gardens. Flower-heads large; florets smallish, dark purple, Feb. and March; fr. H. S.

* *Morina persica*, L. 2. Persia. Syria. Asia Minor.—*Dipsacus fullonum*, L.; E. B. 29, t. 2080. ♂. England. S. Europe.—*D. pilosus*, L.; E. B. 13, t. 877. ♂. Europe.—*D. asper*, Wall. Khassya Mountains.—*Cephalaria transylvanica*, Schrad. ♂ S. Europe.—*Knautia orientalis*, L. ♂ Levant.—*K. hybrida*, Coult. ♂ S. Europe.—*K. arvensis*, Coult. (*Scabiosa arvensis*, L.; E. B. 10, t. 659.) 2. Meadows of Europe.—*Pterocephalus papposus*, Coult. ♂ Portugal. Spain. Greece.—*P. plumosus*, Coult. ♂ Levant.—*P. lusitanicus*, DC. 2. Portugal.—*Scabiosa micrantha*, Desf. ♂ Tauria. Armenia.—*S. maritima*, L. ♂ ♂ S. France.—*S. Columbaria*, L.; E. B. 19, t. 1311. 2. Europe.—*S. succisa*, L.; E. B. 13, t. 878. 2. Europe.

ORDER CLXXXVIII.—VALERIANACEÆ, Lindl. Nat. Syst. p. 265.

THE VALERIAN TRIBE.

Herbs, by DC. pr. referred to 11 genera. Of these according to the same author, 53 species belong to S. America, Mexico, and the W. Indies; 41 to Europe; 6 to N. America; 6 to Iberia, Dahuria, Tauria, and Caucasus; 3 to the Levant; 8 to Siberia; 2 to the Straits of Magellan; 1 to Falkland Islands; 1 to N. Africa; 1 to S. Africa; and 1 to Japan. In the E. Indies, according to DC. and Royl. ill. have been discovered 16 species; viz. 2 of *Nardostachys*; 13 of *Valeriana*; and 1 of *Triplostegia*;—of which



3 are from the Mountains of the Peninsula of India, and the rest from the Himalayas and Khassya Mountains.

The roots of several species of *Valeriana* (*officinalis*, *celtica*, *Phu*, &c.) have a bitter taste and an offensive penetrating smell. They (specially *V. officinalis*, L.) increase in a high degree the action of several organs, and are upon the whole a very powerful remedy against nervousness, spasms and worms. "The young leaves of the species of *Valeriaella* are eaten as salad under the French name of *Mâche*, or the English one of Lamb's Lettuce. Red Valerian is also eaten in the same way in Sicily." (Lindl.)

NARDOSTACHYS, DC. (pr. 4, p. 624.—*G. Don's Mill. dict.* 3, p. 666.)

1. *Jatamansi*, DC. (l. c.;—*G. Don. o. c. p. 667*;—*Royl. ill. t. 54*.—*Valeriana Jatamansi*, W. Jones;—*Roxb. fl. ind.* 1, p. 163; ed. *Carey*, 1, p. 186.—*V. Spica*, Vahl.—*Patrinia Jatamansi*, D. Don. pr. *fl. nep.* p. 150.—*Nardus*, *Gare. ab. hort. arom.* p. 133, *ie. rad.*—*N. indica*, C. Bauh.—*Nardostachyon*, *Nardus Gangitis*, *Nardus syriaca* of the ancients.) *Jatamangsi* of the Natives of India. 2. *Nepal*. (Gossainthan.) Fl. small pale rose-coloured.—Was introduced into H. C. G. in 1796, but had not fl. up to 1814.—This plant, the true Spikenard of the ancients, is highly esteemed in India, not only on account of its scent, but as a remedy in hysteria and epilepsy.

VALERIANELLA, Mönch. (DC. pr. 4, p. 625;—*G. Don's Mill. dict.* 3, p. 667.)

1. *olitoria*, Mönch. (DC. l. c.;—*G. Don. l. c.*—*Valeriana olitoria*, Willd.;—*Valeriana Locusta*, L.;—*E. B.* 12, t. 811.—*Fedia olitoria*, Vahl; not Gärtn.—*F. Locusta*, Reichb.—*Lactuca agnina*, Ger.) *Corn Sallad*. *Lamb's Lettuce*. ☺ Cornfields of Europe. Fl. minute, pale blue, or flesh-coloured, Feb.; fr. March.

2. *uncinata*, Dufr. (DC. pr. 4, p. 626;—*G. Don's Mill. dict.* 3, p. 668.—*Fedia uncinata*, Stev.; Bieb.; Reichb.—*Valeriana pubescens*, Hopp.) ☺ Dry, mountainous places of Tauria and E. Caucasus, and at the Bosphorus.—Fl. small, lilac, Feb.

3. *coronata*, DC. (pr. 4, p. 628;—*G. Don's Mill. dict.* 3, p. 670.—*Fedia sicula*, Guss.—*F. coronata*, Reichb.) ☺ Region of the Mediterranean. Fl. small, rose-coloured, Feb. and March; fr. April.

FEDIA, Mönch. (DC. pr. 4, p. 630;—*G. Don's Mill. dict.* 3, p. 671.)

1. *Cornucopia*, Gärtn. (fr. 2, p. 37, t. 86, f. 3;—DC. l. c.;—*G. Don. l. c.*—*Valeriana Cornucopiae*, L.;—*Sibth. and Sm. fl. gr. t. 32*.—*V. Locusta*, *Ucria*; not L.) ☺ Corn-fields and waste places in S. Europe. Levant, N. Africa, &c. Fl. small, red, Feb. and March; fr. April.

CENTRANTHUS, DC. (pr. 4, p. 631;—*G. Don's Mill. dict.* 3, p. 672.)

1. *ruber*, DC. (l. c.;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 93*.—*C. maritimus*, Gray.—*C. latifolius*, Dufr.; H. B. and Kth.—*Valeriana rubra*, All.—*V. rubra*, a. L.;—*E. B.* 22, t. 1531.) 2. S. Europe,



Levant. N. Africa. Mount Vesuvius. Now cultivated in gardens, even about Quito. Fl. smallish, rose-coloured, C. S.

2. *Calcitrapa*, Dufr. (*DC. pr. 4*, p. 632;—*G. Don's Mill. dict. 3*, p. 672.—*Valeriana Calcitrapa*, L.;—*Sibth. and Sm. fl. gr. t. 30*.—*V. annua*, Gray.) ◎ S. Europe, along the Mediterranean. Temperate France, as far as Nantes. Fl. smallish, white, tinged with red, Feb. and March; fr. April.

* *Valerianella Morisonii*, DC. (*Fedia dentata*, Bieb.;—*E. B. 20*, t. 1370.) ◎ Europe. Tauria.—*V. Auricula*, DC. ◎ S. Europe.—*V. dentata*, DC. ◎ Europe.—*Astrophyllaoides*, DC. ◎ Lima.—*Plectritis congesta*, DC. (*Valerianella congesta*, Lindl.;—*B. Reg. 13*, t. 1095.) ◎ N. W. America.—*Valeriana scandens*, L. 2. Brazil, St. Domingo.—*V. dioica*, L.;—*E. B. 9*, t. 628. 2. Swampy places of Europe and Levant.—*V. mexicana*, DC. 2. Mexico.—*V. officinalis*, L.; *E. B. 10*, t. 698. 2. Humid places of Europe.

ORDER CLXXXIX.—BRUNONIACEÆ, Lindl. Nat. Syst. p. 266.

Herbs, referred by Lindl. to one genus, with 2 species, both natives of N. Holland. Properties unknown.

* *Brunonia sericea*, Sm. 2. Tropical New Holland.

ORDER CXC.—PLANTAGINACEÆ, Lindl. Nat. Syst. p. 267.

THE RIB GRASS TRIBE.

Herbs, by Lindl. referred to 2 genera. Of these, 38 species have, according to Spreng. syst. been discovered in Europe; 20 in S. America, and Mexico; 7 in N. America; 6 in N. Africa; 5 in S. Africa; 4 in Siberia; 4 in N. Holland and the South Sea Islands; 3 in Caucasus and Tauria; 3 in the Canaries; 2 in the Levant; 1 in Patagonia; 1 in Terra del Fuego; and 1 in the Straits of Magellan. About 5 species have been found in the Himalayas, Khassya Mountains, Neelgherries, Philippines, and Cochin China; all belonging to *Plantago*. Properties slightly bitter and astringent; the seeds covered with mucus.

PLANTAGO, L. (*Spreng. syst. 1*, p. 369, No 456;—*R. Br. pr. fl. Nov. Holl. 1*, p. 280.) *Plantain*.

1. *major*, L. (*Spreng. syst. 1*, p. 433;—*E. B. 22*, t. 1558.—*Roxb. H. B. p. 10.*) 2. Europe. Fl. small, white, R. S.; fr. C. S.



2. *asiatica*, L. (*P. erosa*, *Wall. Roxb. fl. ind.*; *ed. Carey*, 1, p. 423.) 2. Khassya Mountains. Nepal. Fl. small, whitish, and fr. C. S.
3. *media*, L. (*Spreng. syst.* 1, p. 434;—*E. B.* 22, t. 1559.) 2. Fl. minute, whitish, with a tinge of red, C. S.
4. *virginica*, L. (*Spreng. syst.* 1, p. 434;—*Moris. hist.* 3, s. 8, t. 15, f. 8;—*Roxb. H. B.* p. 10.) ◎ Virginia. Fl. small, greenish-white, R. S.
5. *lanceolata*, L. (*Spreng. syst.* 1, p. 434;—*E. B.* 8, t. 507;—*Roxb. H. B.* p. 10. 2. Europe. Himalayas.) Fl. small, pale reddish-greenish, R. S.; fr. C. S.
6. *Lagopus*, L. (*Spreng. syst.* 1, p. 435;—*Moris. hist.* 3, s. 8, t. 16, f. 13.—*Roxb. H. B.* p. 10.) ◎ S. France, Spain. Fl. greenish-white, Feb.; fr. H. S.
7. *maritima*, L. (*Spreng. syst.* 1, p. 436;—*E. B.* 3, t. 175.) 2. Sea coasts of Europe. Fl. small, greenish-red, C. S.
8. *Coronopus*, L. (*Spreng. syst.* 1, p. 439;—*E. B.* 13, t. 892.) ◎ Europe. Barbary. Fl. minute, whitish-green, R. S.; fr. C. S.
9. *amplexicaulis*, Cav. (*Spreng. syst.* 1, p. 439;—*Cav. ic.* t. 25.) ◎ Spain. Fl. small, greenish-white, March; fr. April.
10. *vaginata*, Vent. (*Spreng. syst.* 1, p. 439;—*Vent. jard. de Cels.* t. 29.) 2. N. Africa. Fl. small, greenish-white, R. S.; fr. C. S.
11. *Cynops*, L. (*Spreng. syst.* 1, p. 440;—*Moris. hist.* 3, s. 8, t. 17, f. 1.;—*Roxb. H. B.* p. 10.) 5 S. Europe. Siberia. Fl. small, greenish-white, C. S.; fr. January.
12. *Psyllium*, L. (*Spreng. syst.* 1, p. 440.) ◎ S. Europe. Fl. small, greenish-white, Feb.; fr. April.
13. *stricta*, Schousb. (*Moroc.* 1, p. 69, *ic.* 145;—*Spreng. syst.* 1, p. 440;—*Roxb. H. B.* p. 11.) ◎ Mogadore. Fl. small, greenish-white, C. S.; fr. Feb. and March.
14. *Ispaghula*, Roxb. (*fl. ind.* 1, p. 404; *ed. Carey* 1, p. 421;—*Spreng. syst.* 1, p. 440.) इस्फ़गूल *Issufgool*. ◎ Persia. Cultivated in India. Fl. small, whitish, and fr. C. S. Seeds of a very cooling nature, and, like those of *Plantago Psyllium*, L., forming with boiling water, a rich mucilage, which is much used in India in catarrh, blennorrhœa, and affections of the kidneys. They are also deservedly recommended in chronic diarrhoea, two tea-spoonsful of them being given twice a day with a little powdered sugar-candy. (*Ainslie. Twining*).
15. *pumila*, L. (*Spreng. syst.* 1, p. 440.—*P. exigua*, *Murr. comm. gött.* 1778, p. 94, t. 5.) ◎ S. Europe. Fl. small, whitish, C. S.; fr. March.

* *Plantago mexicana*, Lk. 2. Mexico.—*P. brasiliensis*, Sims.; B. M. 53, t. 2616. 2. Brazil.—*P. Serraria*, L. 2. Barbary.—*P. Gouani*, Gmel. 2. S. Europe.



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ORDER CXCI.—GLOBULARIACEÆ, Lindl. Nat. Syst. p. 268.

Shrubs, undershrubs, or perennial herbs, constituting but one genus. Of these, Spreng. syst. assigns 9 species to Europe; 1 to Asia Minor; and 1 to the E. Indies. With the latter, (*Globularia bisnagarica*, L.; according to Spreng.) we are not acquainted. “Properties, bitter, tonic, and purgative.” (Lindl.)

* *Globularia vulgaris*, L. 2. B. M. 48, t. 2256. S. Europe.—*G. bellidifolia*. Ten. 2. Italy.

ORDER CXCII.—SALVADORACEÆ, Lindl. Nat. Syst. p. 269.

Shrubs, or small trees, of one genus, and 3 species; one from Arabia, Persia, and the Peninsula of India; and two from Cochin China, according to Lour. “Fruit eatable.” (Lindl.)

* *Salvadora persica*, L. Roxb. Corom. I. t. 26. 5 Circars, near the sea. Both Concans.

ORDER CXCIII.—PLUMBAGINACEÆ, Lindl. Nat. Syst. p. 269.

THE LEADWORT TRIBE.

Herbs, undershrubs, or shrubs, by Lindl. referred to 6 genera. Of these, Spreng. syst. enumerates 36 species for Europe; 10 for S. Africa; 7 for N. Africa; 7 for Siberia; 7 for Tauria and Caucasus; 5 for S. America; 3 for the Canaries; 2 for the Levant; 2 for New Holland; and 1 for Arabia. In the E. Indies have been found 3 species of *Plumbago*; (Ceylon, Moluccas, both Peninsulas of India, Bengal;) and 1 of *Ægialitis*, (Soonderbuns, Amherst.)

“This order contains plants of very opposite qualities; part are tonic and astringent, and part acrid and caustic in the highest degree.” (Lindl.) PLUMBAGO, L. (Spreng. syst. 1, p. 501, No. 573;—R. Br. pr. fl. Nov. Holl. 1, p. 425.)

1. *zeylanica*, L. (Spreng. syst. 1, p. 537;—R. Br. o. c. p. 426;—Roxb. fl. ind. 1, p. 463; ed. Carey, 2, p. 38;—J. Grph. Cat. B. pl. p. 166;—Rheed. 10, t. 8.) ~~fl.~~ Chita. ~~fl.~~ Ceylon. Segaden. Prome. Penang. Rangoon. Courtallum. Malabar hill. Bombay. Hills throughout the Concans. Guzerat. Bengal. (Serampore.) Kutmandu. New Holland. Fl. middle-sized, pure white. R. and C. S.; fr. H. S. The fresh bruised bark of the root is sometimes applied for raising blisters. (Ainslie.)



2. *rosea*, L. (*Spreng. syst.* 1, p. 537;—*B. M.* 7, t. 230;—*Roxb. fl. ind.* 1, p. 463; *ed. Carey*, 2, p. 38;—*J. Grah. Cat. B. pl.* p. 166;—*Rheed.* 12, t. 9;—*Rumph.* 5, t. 168.) रुक्तो चिता Rukto-chita. ५ Moluccas. Both Peninsulas of India. Common in gardens. Fl. middle-sized, bright red. R. and C. S.; fr. H. S.
3. *capensis*, Thunb. (*Spreng. syst.* 1, p. 537;—*B. Reg.* 5, t. 417;—*B. M.* 47, t. 2110;—*J. Grah. Cat. B. pl.* p. 166.) ५ C. G. H. Fl. large, pale blue, more or less the whole year; fr. O.

Egialitis, R. Br. (*pr. fl. Nov. Holl.* 1, p. 426.)

1. *rotundifolia*, Roxb. (*fl. ind.* 2, p. 111.) S. ५ Soonderbuns. Amherst. Fl. largish, pale yellow. Introduced in 1840. Has not fl.

* *Plumbago scandens*, L. ५ ↗ New Granada.—*P. europaea*, L.; *B. M.* 47, t. 2189. ५ S. Europe.—*P. occidentalis*, Scop. ५ ↗ W. Indies.—*P. mexicana*, Lk. and Otto. ५ Mexico.—*P. rhomboidea*, Hook; *B. M.* 56, t. 2917. ♂ S. America.—*Vogelia africana*, Lam. ५ C. G. H.—*Egialitis annulata*, R. Br. ५ Tropical New Holland.

ORDER CXCIV.—HYDROPHYLLOIDÆ, Lindl. *Nat. Syst.* p. 271.

THE WATERLEAF TRIBE.

Hispid herbs, by Lindl. referred to 6 genera. Of these, according to *Spreng. syst.* *B. M.* and *B. Reg.* 18 species belong to N. America; 1 to Peru; and 1 to Patagonia. Properties unknown.

- * *Ellisia Nyctelea*, L. ♂ Virginia.—*Eutoca Franklinii*, R. Br.; *B. M.* 57, t. 2985. ♂ Banks of the Mississippi.—*E. Menziei*, R. Br.; *B. M.* 66, t. 3762. ♂ California.—*E. viscosa*, Benth.; *B. Reg.* 21, t. 1808. ♂ California.—*E. divaricata*, Benth.; *B. Reg.* 21, t. 1784. ♂ California.—*Nemophila phacelioides*, Bartl.; *B. M.* 50, t. 2373. ♂ N. America.—*N. aurita*, Lindl.; *B. Reg.* 19, t. 1601. ♂ California.—*N. insignis*, Benth.; *B. Reg.* 20, t. 1713. ♂ California.—*N. atomaria*, Fisch.; *B. Reg.* 23, t. 1940. ♂ California.—*Phacelia congesta*, Hook; *B. M.* 62, t. 3452. ♂ Texas.—*P. tanacetifolia*, Benth.; *B. Reg.* 20, t. 1696. ♂ N. America.

ORDER CXCV.—CORDIACEÆ, Link.—*Lindl. Nat. Syst.* p. 272.

Trees or shrubs, sometimes climbing, by Lindl. referred to 4 genera. Of these *Spreng. syst.* enumerates 61 species for S. America, Mexico, and the



W. Indies; 2 for New Holland; 1 for Patagonia; 1 for China; and 1 for Senegal. In the E. Indies have been discovered, according to Spreng. syst. Wall. Cat. and Royl. ill. 25 species; viz. 14 or 15 of *Cordia*; 1 of *Cordiopsis*; and 9 of *Erycibe*;—all natives of the Himalayas, the Khassya Mountains, both Peninsulas of India, and the Moluccas. Properties under the species.

CORDIA, L. (*R. Br. pr. fl. Nov. Holl.* 1, p. 498;—*G. Don's Mill. dict.* 4, p. 374.)

1. *orientalis*, R. Br. (*pr. l. c.* (1810).—C. campanulata, Roxb. *H. B. p.* 17; *fl. ind.* 1, *p.* 593; *ed. Carey*, 2, *p.* 336;—*Rumph.* 2, *t.* 75.) 5 Moluccas, Tropical New Holland. Fl. largish, reddish-orange. Introduced into H. C. G. in 1839, but had not fl. up to 1814.—R. Brown's specific character of this tree is “(calyx 5-raro 4-dentatus) foliis ovatis, subacuminatis, laevibus, integris; calycibus glabris, exsulcis; drupâ inclusâ.” As he quotes as a synonym *Rumph.* 2, *t.* 75, with an ! there can be no doubt of the correctness of the quotations, although the panicles in the plate quoted, and according to Roxb., are lateral, not terminal.—The calyx in *Rumphius*'s plate is more than 3 dentate, and, adds R. Br., glabrous. His *C. orientalis*, and *Rumph.* 2, *t.* 75, can, therefore, be referred neither to *C. Rumphii*, Bl., nor to *C. subcordata*, Lam., the calyx being, in the former tomentose within, and, in both, 3-dentate, not to speak of the pubescence of the leaves underneath.—*G. Don's C. subcordata*, in *Mill. dict.* 4, *p.* 375, is a compound of Lamark's name, and Roxburgh's character of *C. campanulata*.

2. *Sebestena*, L. (*G. Don's Mill. dict.* 4, *p.* 375;—*Jacq. amer.* 42, *ed. 2, t.* 44;—*B. Repos.* 2, *t.* 157;—*B. M.* 21, *t.* 794;—*Lam. ill. t.* 96, *f.* 1;—*Roxb. fl. ind.* 1, *p.* 593; *ed. Carey*, 2, *p.* 336, under *C. campanulata*.) 5 W. Indies. Fl. large, orange scarlet, R. S.; fr. 0. A small piece of the wood of this species put on a pan of lighted coals will perfume the whole house with a most agreeable smell. (*G. Don. l. c.*)

3. *latifolia*, Roxb. (*fl. ind.* 1, *p.* 589; *ed. Carey*, 2, *p.* 330;—*G. Don's Mill. dict.* 4, *p.* 378; not Wall. *ibid.* *p.* 375;—*J. Grah. Cat. B. pl. p.* 136.) बुरो बुहूवारि *Buro-buhooari*. 5 Hindooosthan, Silhet. Common throughout Guzerat. Fl. small, white, C. S.; fr. June and July. The fruit, (*Larger Sepistens*, or *Sebestens*, Roxb. Colebr.) while young and tender, is pickled, and is also eaten as a vegetable by the natives. (*Vaupell.*)

4. *Myxa*, L. (*G. Don's Mill. dict.* 4, *p.* 379;—*Roxb. fl. ind.* 1, *p.* 590; *ed. Carey*, 2, *p.* 332;—*J. Grah. Cat. B. pl. p.* 136;—*Delile. fl. agypt.* *p.* 47, *t.* 19, *f.* 1, 2.—*Cordia officinalis*, or *Sebestena domestica*, *Lam. ill. t.* 96, *f.* 2.—*C. domestica*, *Roth*.—*Sebestena officinalis*, *Gärtn. fr.* 1, *p.* 364, *t.* 76, *f.* 1.—*S. domestica*, *Prosp. Alp. agypt.* *p.* 30; *Bauh. hist.* 1, *p.* 198.—*S. domestica*, or *Myxa*, *Commel. hort. amst.* 1, *t.* 72.—*Prunus Sebestena*, &c. *Pluk. alm.* *t.* 217, *f.* 3.—*Cornus sanguinea*,



- Forsk.*; not L.—*Rheed.* 4, t. 37.) बहुवारि *Buhooari*. ५ Both Peninsulas of India, Bengal, Hindooosthan, Nepal, Egypt. Fl. small, white, C. S.; fr. May and June. Wood soft, and of little use except for fuel, and kindling fire by friction. Fruit (*Smaller Sepistens or Sebestans*, Roxb. Colebr.) eaten by the natives pickled or raw. Smell of the nut, when cut, heavy and disagreeable. Kernels tasting like fresh filberts. (Roxb.) The tree abounds in a transparent, glutinous juice. (J. Garh. l. c.)
5. *polygama*, Roxb. (fl. ind. 1, p. 594; ed. Carey, 2, p. 337;—G. Don's Mill. dict. 4, p. 379.) ५ Mountains of Coromandel. Fl. small, white, May; fr. August.
6. *monoica*, Roxb. (Corom. 1, t. 58; fl. ind. 1, p. 592; ed. Carey, 2, p. 334;—G. Don's Mill. dict. 4, p. 379;—J. Grah. Cat. B. pl. p. 136.) ५ Circars. Fl. small, white. In H. C. G. fl. R. S. (Roxb.)
7. *prionodes*, (C. serrata, Roxb. fl. ind. 1, p. 591; ed. Carey, 2, p. 333;—G. Don's Mill. dict. 4, p. 379; not Juss.) ५ Travancore. Fl. middle-sized, white. In H. C. G. fl. August.
8. *grandis*, Roxb. (fl. ind. 1, p. 593; ed. Carey, 2, p. 335;—Wight. icon. 2, t. 469;—G. Don's Mill. dict. 4, p. 379; not Cham. and Schlecht.) L. ५ Chittagong. Fl. small, white, fragrant, Oct. and Nov.
9. *angustifolia*, Roxb. (H. B. p. 17; fl. ind. 1, p. 595; ed. Carey, 2, p. 337;—G. Don's Mill. dict. 4, p. 379;—J. Grah. Cat. B. pl. p. 136; not Röm. and Sch.;—G. Don. o. c. p. 386.—C. reticulata, Roth.; not Vahl.) ५ Mysore. Bombay. Guzerat. Deccan. Hurdwar. Fl. small, white, May.
10. *Gerascanthus*, Jacq. (Amer. p. 43, t. 175, f. 16.) W. Indies, Mexico.
11. *tectoneæfolia*, Wall. (C. domestica, Bojer. not Roth.) Egypt. *Teek d'Arabie*.
- ERYCIBE, Roxb. (G. Don's Mill. dict. 4, p. 392.)
1. *paniculata*, Roxb. (Corom. 2, t. 159;—fl. ind. 1, p. 585; ed. Carey, 2, p. 284;—G. Don. l. c.;—J. Grah. Cat. B. pl. p. 137.—E. Rheedei, Bl.;—G. Don. l. c.—Erimatalia Rheedei, Röm. and Sch.—Rheed. 7, t. 39.) L. ५ Java. Circars. The Concans. Monghir. Khassya Mountains. Fl. smallish, straw-coloured, delightfully fragrant, April and May.

* *Cordia Dillenii*, Spreng. ५ Bahama Islands.—*C. laevis*, Jacq. ५ Caraccas.—*C. Collococca*, L. ५ Jamaica.—*C. tetraphylla*, Aubl. ५ Guiana.—*C. nodosa*, Lam. ५ Guiana.—*C. elliptica*, Swz. ५ Jamaica.—*C. macrophylla*, L. ५ W. Indies.—*C. domingensis*, Lam. ५ St. Domingo.—*C. incana*, Royle. Deyra-Dhoon.—*C. dentata*, Vahl. ५ Mexico.—*C. alba*, Röm. and Sch. ५ Curaçao.—*C. guazumafolia*, Röm. and Sch. ५ Brazil.—*C. globosa*, Röm. and Sch. ५ W. Indies.



442

BORAGINACEÆ.

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ORDER CXCVI.—BORAGINACEÆ, Lindl. Nat. Syst. p. 272.

THE BORAGE TRIBE.

Herbaceous plants, seldomer shrubs or trees, by Lindl. including his Ehretiaceæ, referred to 49 genera. Of these Spreng. syst. enumerates about 120 for S. America, Mexico and the W. Indies; 114 for Europe; for N. Africa 35; for Dauluria, Iberia, Tauria and the Caucasus 26; for the Levant 24; for New Holland and the South Sea Islands 24; for Siberia 22; for N. America 20; for the Canaries and Madeira 14; for the Mascarenhas Islands 5; for Persia 5; for Arabia 2; for Guinea 1; for China 1, and for Japan 1. In S. Africa have been discovered 60 species, (Harvey,) and in the E. Indies, according to Spreng. syst., Wall. Cat., Royl. ill. and B. Reg. 99; viz. 1 of *Coldenia*; 2 of *Tiaridium*; 14 of *Heliotropium*; 4 of *Lithospermum*; 5 of *Echinospermum*; 1 of *Messerschmidia*; 1 of *Echium*; 7 of *Onosma*; 1 of *Anchusa*; 15 of *Myosotis*; 17 of *Cynoglossum*; 5 of *Trichodesma*; 7 of *Tournefortia*, and 19 of *Ehretia*. The principal stations of these are Cashmere, the Himalayas, Kunawur, the Khassya Mountains, both Peninsulas of India and Bengal. A few are from Ceylon, Java and the Philippines.

"Soft, mucilaginous, emollient properties are the usual characteristics of this order. Some are also said to contain nitre, a proof of which is shewn by their frequent decrepitation when thrown on the fire." (Lindl.)

A. BORAGEÆ, Benth.

(In Royle's ill. p. 305.)

BORAGO, Tournef. (G. Don's Mill. dict. 4, p. 309.)

1. *officinalis*, L. (G. Don. l. c.;—E. B. 1, t. 36.) Common Borage. ♂
Said to be a native of the Levant, but now naturalized in most parts of Europe, growing on dung-hills and heaps of rubbish. Fl. largish, pale-blue, or purple, C. S.

CERINTHE, Tournef. (G. Don's Mill. dict. 4, p. 320.)

1. *major*, L. (G. Don. l. c.;—B. M. 10, t. 333.—C. glabra, Mill. fig. t. 91.—C. glauca, Mönch.) ♂ S. Europe, N. Africa. Fl. middle-sized, yellow-orange at bottom, deep-purple and pale-yellow at top, Feb. and March.

LITHOSPERMUM, Tournef. (G. Don's Mill. dict. 4, p. 321.)

1. *arvense*, L. (G. Don. o. c. p. 323;—E. B. 2, t. 123.) ♂ Europe, Asia, Africa, N. America. Fl. small, white, Feb. and March; fr. H. S.

2. *tenuiflorum*, L. (G. Don. o. c. p. 324;—Jacq. icon. rar. 2, t. 313;—Sibth. and Sm. fl. græc. t. 159.—Buglossoïdes rumosissima, Mönch.) ♂ Egypt. Island of Cyprus. Fl. smallish, whitish, March; fr. H. S.

ECHIUM, Pliny. Tournef. (G. Don's Mill. dict. 4, p. 327.)

1. *vulgare*, L. (G. Don. o. c. p. 322;—E. B. 3, t. 181;—Roxb. H. B. p. 13.) ♂ Europe, N. America. Fl. largish, pale blue, C. S.



2. *violaceum*, L. (*G. Don. I. c.*;—*J. Grah. Cat. B. pl.* p. 134.—*E. creticum*, *Lam.*; not L.) ⊗ S. Europe. Fl. large, violet or pale-blue, Feb. and March; fr. H. S.

3. *plantagineum*, L. (*G. Don. o. c. p. 333*;—*Sibth. and Sm. fl. græc. t. 179*;—*Jacq. hort. vind. I. t. 45*.—*E. plantaginoides*, *Röm. and Sch.*) ⊗ S. Europe. Fl. large, purplish violet, Feb. and March; fr. H. S.

LVCOPSIS, L. (*G. Don's Mill. dict. 4, p. 338.*)

1. *arvensis*, L. (*G. Don. I. c.*;—*Curt. fl. lond. t. 336*;—*E. B. 14, t. 938*.—*Anchusa arvensis*, *Hoffm. and Lk.*) ⊗ Europe. N. America. Fl. small, blue or rose-coloured, March; fr. H. S.

ANCHUSA, L. (*G. Don's Mill. dict. 4, p. 339.*)

1. *paniculata*, Ait. (*G. Don. o. c. p. 340*;—*Sibth. and Sm. fl. græc. t. 163*.—*A. italica*, *Retz.*;—*Roxb. H. B. p. 13*.—*A. officinalis*, *Gouan*;—*Brot.*;—*Desf.*;—*Sav.*;—*Jaume St. Hil.*; not L.—*Buglossum officinale*, *Lam.*.—*B. elatum*, *Mönch*.—*B. angustifolium*, *All.*.—*B. amoenum*, *Gärtn. fr. I. p. 323, t. 67, f. 2.*) 2. S. Europe. N. Africa. Madeira. Siberia. Introduced into H. C. G. in 1807, but had not fl. up to 1814.

2. *undulata*, L. (*G. Don. o. c. p. 342*;—*B. M. 47, t. 2219*;—*Sibth. and Sm. fl. græc. t. 165.*) 2. S. Europe. N. Africa. Has been introduced into H. C. G. Fl?

3. *officinalis*, L. (*G. Don. I. c.*;—*E. B. 10, t. 662.*) 2. Europe. Asia. Africa. Has been cultivated in the garden here for more than fourteen years, without flowering.

MYOSOTIS, L. (*G. Don's Mill. dict. 4, p. 343.*)

1. *arvensis*, Sibth. (*G. Don. o. c. p. 345*;—*E. B. 36, t. 2558*.—*M. annua*, *Mönch*.—*M. scorpioides*, *Desf.*.—*M. scorpioides*, *a. arvensis*, *L.*.—*Echioïdes annua*, *Mönch.*) ⊗ Europe. Asia. Africa. N. America. Fl. small, pale blue, Feb. and March; fr. H. S.

B. CYNOGLOSSÆ, Benth.

(In Royle's ill. p. 305.)

CYNOGLOSSUM, Tournef. (*G. Don's Mill. dict. 4, p. 352.*)

1. *diffusum*, Roxb. (*fl. ind. I. p. 457*; *ed. Carey, 2, p. 7*;—*G. Don. o. c. p. 353.*) ⊗ Bengal, (Serampore.) Fl. small, white, R. and C. S.; fr. March.

2. *furcatum*, Wall. (*Roxb. fl. ind.*; *ed. Carey, 2, p. 6*;—*G. Don. I. c.*;—*Royl. ill. p. 306.*) 2. Mussoorie. Saharanpore. Kheree. Nepal. Fl. small, blue. In H. C. G. fl. R. S. (Wall.)

3. *marifolium*, Roxb. (*fl. ind. I. p. 457*; *ed. Carey, 2, p. 8*;—*G. Don. I. c.*) ⊗ Chittagong. Fl. very small, pale whitish-blue, C. S.

4. *canescens*, Willd. (*G. Don. o. c. p. 354*.—*C. micranthum*, *Desf.*.—*C. hirsutum*, *Jacq. hort. schonbr. 4, t. 489*; not Thunb.;—*C. racemosum*, *Roxb. fl. ind. I. p. 456*; *ed. Carey, 2, p. 6.*) ⊗ Bengal, (Serampore)



444

BORAGINACEA.

SL

pore.) Mussoorie. Saharunpore. Kandala Ghant. Various parts of the Concan. Fl. very small, white, with a purple throat, R. S.; fr. C. S.

5. *Falconerianum*, Wall. Cashmere.

ASPERUGO, Tournef. (*G. Don's Mill. dict.* 4, p. 357.)

1. *procumbens*, L. (*G. Don. l. c.*; — *E. B.* 10, t. 661.—*A. vulgaris*, *Tournef.*) ◎ Europe. Siberia. Fl. small, pale blue, Feb. and March; fr. C. S.

TRICHOIDESMA, R. Br. (*G. Don's Mill. dict.* 4, p. 311.)

1. *indicum*, R. Br. (*G. Don. l. c.*; — *J. Grah. Cat. B. pl. p. 134.*—*Borago indica*, L.; — *Roxb. fl. ind.* 1, p. 458; *ed. Carey*, 2, p. 8.—*Borragineoides sagitata*, Mönch.—*Pollachia indica*, *Med.*) ছোট কাষা Chhoto-Kulpa. ◎ Both Peninsulas of India. Bengal, (Serampore.) Hindoothan. N. India. Mauritius. Fl. smallish, pale blue, and fr. nearly the whole year.

2. *zeylanicum*, R. Br. (*G. Don. l. c.*; — *J. Grah. l. c.*—*Borago zeylanica*, L.; — *Jacq. ic. rar.* 2, t. 314; — *Burm. ind.* t. 14, f. 2.—*Roxb. fl. ind.* 1, p. 458; *ed. Carey*, 2, p. 10.) ବୁରୁ କାଷା Buro-Kulpa. ◎ Ceylon. Deccan. Bengal, (Serampore.) New Holland. Fl. middle-sized, pale blue, C. S.; fr. H. S.

3. *spinulosum*, (*Borago spinulosa*, *Roxb. fl. ind.* 1, p. 459; *ed. Carey*, 2, p. 11.) ◎ Bengal. Fl. C. S.

C. HELIOTROPE, Benth.

(In *Royl. ill.* 305.)

HELIOTROPIUM, Tournef. (*G. Don's Mill. dict.* 4, p. 357.)

1. *peruvianum*, L. (*G. Don. l. c.*; — *B. M.* 4, t. 141; — *Roxb. H. B. p. 13*; — *J. Grah. Cat. B. pl. p. 135.*—*H. odoratum*, Mönch.) 5 Peru. Fl. small, purple-lilac, with a green throat, smelling like Vanilla, C. S.; fr. O.

2. *curassavicum*, L. (*G. Don. o. c. p. 358*; — *Forsk. fl. arab.* p. 38; — *Szw.*; — *Desf.*; — *Ruiz. and Pav.*; — *B. M.* 53, t. 2669; — *Roxb. H. B. p. 13*.—*H. glaucophyllum*, Mönch.) ◎ S. America. Sandwich Islands. N. America. Domesticated about Serampore. Fl. small, white, with a yellowish green bottom, R. S.; fr. C. S.

3. *parviflorum*, L. (*G. Don. l. c.*—*H. angiospermum*, *Murr.*) 5 W. Indies. Fl. minute, white, and fr. nearly the whole year.

4. *coromandelianum*, Retz. (*G. Don. o. c. p. 359*; — *Roxb. fl. ind.* 1, p. 454; *ed. Carey*, 2, p. 2; — *J. Grah. Cat. B. pl. p. 135.*) নাগ ফুলি Naga-phoolee. ◎ Peninsula of India. Bengal, (Serampore.) Plains of North India. Fl. small, white, R. and C. S.; fr. C. S.

5. *supinum*, L. (*Spec. 187*; — *Benth. in Royl. ill.* p. 306.—*H. malabaricum*, Retz.—*H. europaeum*, *Forsk. descr.* p. 742, not L.—*H. europaeum*, var. *malabaricum*, *Burm. ind.* p. 40, t. 16, f. 1.—*H. humifusum*, *Tournef.*—*Piptoclaina malabarica*, *G. Don's Mill. dict.* 4, p. 364; — *J. Grah. Cat. B. pl. p. 135.*—*P. supina*, *G. Don. l. c.*) ◎ Portugal. S. France.



Islands of the Archipelago. Barbary. Arabia. C. G. H. The Deccan. Fl. small, white, with a yellow tube, Feb. and March; fr. H. S.

6. *brevifolium*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 2, p. 2;—*G. Don. v. c.* p. 361.—*H. compactum*, *D. Don. pr. fl. nep.* p. 101.) ◊ Banks of the Irrawaddi. Bengal, (Serampore.) Hindooosthan. Nepal. Fl. small, white, with a yellow tube, R. and C. S.; fr. C. S.

7. *Roxburghianum*, (H. Roxburghii, *Spreng. syst. c.* p. 54.—*H. paniculatum*, *Roxb. fl. ind.* 1, p. 455; *ed. Carey*, 2, p. 2; not *R. Br.*) Chittagong. Introduced into H. C. G. before 1814. It is not mentioned, whether the plant is an annual or perennial, or whether it flowered.

TIARIDIUM, Lehm. (*G. Don's Mill. dict.* 4, p. 364.)

1. *indicum*, Lehm. (*G. Don l. c.*;—*J. Grah. Cat. B. pl.* p. 135.—*Heliotropium indicum*, *L.*;—*B. M.* 43, t. 1837;—*Roxb. fl. ind.* 1, p. 454; *ed. Carey*, 2, p. 1.—*H. cordifolium*, *Mönch.*—*Rheed.* 10, t. 48.) ◊ হাতুরি Hatsoora. ◊ Fl. small, lilac-bluish, R. S.; fr. C. S.

COLDENIA, L. (*G. Don's Mill. dict.* 4, p. 365.)

1. *procumbens*, L. (*G. Don. l. c.*;—*Roxb. fl. ind.* 1, p. 448; *ed. Carey*, 2, p. 468;—*Lam. ill. t.* 89;—*J. Grah. Cat. B. pl.* p. 135.) ◊ Ceylon. Peninsula of India. Bengal, (Serampore.) Monghir, &c. Fl. small, white, C. S.; fr. H. S.

TOURNEFORTIA, L. (*G. Don's Mill. dict.* 4, p. 365.)

1. *viridiflora*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 2, p. 5, annot.—*Lithospermum viridiflorum*, *Roxb. fl. ind.* 1, p. 455; *ed. Carey*, 2, p. 4.—*Heliotropium viridiflorum*, *Lehm.*;—*G. Don's Mill. dict.* 4, p. 358.) 5 Chittagong. Fl. small, green, C. S.

EHRETIA, L. (*G. Don's Mill. dict.* 4, p. 388;—*R. Br. pr. fl. Nov. Holl.* 1, p. 467.)

1. *serrata*, Roxb. (*fl. ind.* 1, p. 596; *ed. Carey*, 2, p. 346;—*G. Don. l. c.*;—*B. Reg.* 13, t. 1096;—*Benth. in Royle's ill.* p. 306.—*E. pyrifolia*, *D. Don. pr. fl. nep.* p. 102;—*G. Don. l. c.*) 5 Bengal. Hindooosthan. Chittagong. Khassyia Mountains. Bhootan. Deyra-Dhoon. Kheree Pass. Fl. small, greenish-white, sweet scented, H. S.

2. *lavis*, Roxb. (*Corom.* 1, t. 56; *fl. ind.* 1, p. 597; *ed. Carey*, 2, p. 341;—*J. Grah. Cat. B. pl.* p. 136, excl. syn. *Don.*;—*Benth. in Royle's ill.* p. 306.—*Beurrieria lavis*, *G. Don's Mill. dict.* 4, p. 390.) 5 Peninsula of India. Bengal, (Serampore.) Hindooosthan. Deyra-Dhoon. Kheree Pass. Fl. small, white, inodorous, Jan. and Feb.; fr. May and June. *Wood* used by the hill people for many purposes. (*Roxb.*) Has a 5-parted calyx, a bilocular 4-seeded berry, and inverse embryo, and is, therefore, like the next species, no genuine *Ehretia*. (*R. Br.*)

3. *aspera*, Roxb. (*Corom.* 1, t. 55; *fl. ind.* 1, p. 598; *ed. Carey*, 2, p. 342.—*E. tomentosa*, *Roth.*; not *Lam.* nor *H. B.* and *Kth.*—*E. Heynei*, *Röm. and Sch.*—*Beurrieria aspera*, *G. Don's Mill. dict.* 4, p. 390.) 5 Coromandel. Fl. very small, white, R. S.; fr. O.



? 4. *internodis*, L'Herit. (*Stirp.* I, p. 47, t. 24; — *G. Don's Mill. dict.* 4, p. 388.)

β. *Subria*. (*Commers. Hb.* according to Lam.—*E. internodis*, Roxb. *fl. ind.* I, p. 599; *ed. Carey*, 2, p. 343.) δ Mauritius. Was introduced into H. C. G. in 1811, but had not fl. up to 1814.

5. *buxifolia*, Roxb. (*Corom.* I, t. 57; *fl. ind.* I, p. 598; *ed. Carey*, 2, p. 343.—*Cordia retusa*, Vahl. *symb.* 2, p. 42.) \S Coromandel. Fl. small, white, C. S.—No genuine Ehretia, having a lateral inflorescence, a two-parted style, and the putamen of a berried drupe, consisting of two closely cohering nuts, and besides eight empty cells, quadrilocular. (*R. Br.*)

6. *graveolens*, Wall. Khassya Hills.

TRICHODESMA, R. Br.

1. *persfoliatum*, Wall. Banks of the Irawaddi.

- * *Trichodesma africanum*, R. Br. \ominus C. G. H.—*Colsmannia flava*, Lehm. \varnothing Levant.—*Onosma strigosum*, H. B. and Kth. \varnothing . Meadows of Mexico.—*Cerinthe aspera*, Roth. \ominus S. Europe.—*C. minor*, L. σ . S. Europe.—*Lithospermum apulum*, Vahl. \ominus S. Europe, &c.—*L. villosum*, Wall. Cat. \varnothing . Hurdwar.—*Macromeria longiflora*, D. Don. \varnothing . Mexico.—*M. exserta*, D. Don. \varnothing . Mexico.—*Echium rubrum*, Jacq. σ . B. M. 43, t. 1826. Hungary, &c.—*E. italicum*, L. σ . S. Europe.—*E. pustulatum*, Sibth. and Sm. σ . Sicily.—*E. orientale*, L. σ . Levant.—*E. grandiflorum*, Desf. ; B. Reg. 2, t. 124. \ominus Barbary.—*E. creticum*, L. ; B. M. 44, t. 1934. \ominus Candia.—*E. bonariense*, Poir. \ominus ? Buenos Ayres.—*Nonea ciliata*, Röm. and Sch. \ominus Levant.—*N. lutea*, DC. \ominus France. Italy.—*Lycopsis orientalis*, L. \ominus Caria.—*L. variegata*, L. \ominus Italy.—*Anchusa stoechadifolia*, Cham. and Schlecht. \varnothing . Brazil.—*A. ciliata*, Cham. and Schlecht. \varnothing . Tropical Brazil.—*A. tuberosa*, H. B. and Kth. σ . Mexico.—*Myosotis versicolor*, Roth. \ominus E. B. 7, t. 480. Europe.—*Echinospermum zeylanicum*, Lehm. \varnothing . Ceylon.—*E. virginicum*, Lehm. \ominus Virginia. Carolina.—*Omphaiodes linifolia*, Mönch. \ominus S. Europe.—*Cynoglossum officinale*, L. ; E. B. 13, t. 921. σ . Europe.—*C. pictum*, Ait. ; B. M. 47, t. 2134. σ . S. Europe.—*Heliotropium amplexicaule*, Vahl. \S Brazil.—*H. corymbosum*, Ruiz. and Pav. ; B. R. 39, t. 1609. \S Peru.—*H. zeylanicum*, Lam. ; Burn. ind. t. 16, f. 2. \S Ceylon.—*H. inundatum*, Swz. \S W. Indies. Mexico.—*H. humile*, Lehm. \S W. Indies.—*H. europaeum*, L. \ominus S. Europe.—*Tournefortia cymosa*, L. \S W. Indies.—*T. foetidissima*, L. \S W. Indies. Mexico.—*T. bicolor*, Swz. \S Jamaica.—*T. sarmentosa*, Lam. \S Mauritius.—*T. argentea*, L. Rumph. 4, t. 55. \S Mauritius. New Holland, &c.—*T. ovata*, Wall. Cat. \S Rangoon.—*Messerschmidia volubilis*, Röm. and Sch. \S Jamaica. Mexico.—*M. syringifolia*, Röm. and Sch. \S Cayenne.—*M. laurifolia*, Röm. and Sch. \S St. Thomas.—*Ehretia macrophylla*, Wall. δ Nepal.—*E. tinifolia*, L. δ Jamaica.—



E. divaricata, DC. 5 Havannah.—*E. Radula*, Poir. 5 St. Domingo.—*Beurreria exsucca*, Jacq. 5 St. Thomas. Mexico.—*B. succulenta*, Jacq. 5 Jamaica.—*Cortesia cuneifolia*, Cav. 5 Buenos Ayres.—*Rhabdia lycoïdes*, Mart. 5 Brazil.

ORDER CXCVII.—LAMIACEÆ, Lindl. Nat. Syst. p. 275.—
(LABIATÆ, Juss.)

THE MINT TRIBE.

Herbs or undershrubs, seldom shrubs, by Bentham, (Gen. and Spec. Labiatarum 1832-1836,) arranged under 110 genera, in 11 sections. To this work we must refer for the distribution of the order, only adding that the number of E. Indian species, amounts to 299; viz. 80 of *Ocimeæ*; 38 of *Mentheæ*; 8 of *Monardeæ*; 4 of *Satureiæ*; 7 of *Melisseæ*; 12 of *Scutellariæ*; 0 of *Prostanthereæ*; 25 of *Nepeteæ*; 93 of *Stachyæ*; 14 of *Prasiæ*; and 18 of *Ajugeæ*. Many of these have been found in the plains, but the bulk of them consists of Mountain plants, especially from the Northern Provinces.

"Tonic, cordial, and stomachic qualities, due to the presence of an aromatic volatile oil and a bitter principle, are the universal features of Labiatæ, which do not contain a single unwholesome or even suspicious species." (Lindl.)

A. OCIMEÆ.

(*Ocymoïdeæ*, Benth.; —*G. Don's Mill. dict.* 4, p. 666.)

OCIMUM, L. (Benth. *Lab. gen. and sp.* p. 1; —*G. Don. l. c.*)

1. *canum*, Sims. (*B. M.* 51, t. 2452; —*G. Don. l. c.*; —*J. Grah. Cat. B. pl.* p. 147.—*O americanum*, *L. amoen.* 4, p. 276; *spec.* 833; not Jacq.—*O. stamineum*, *B. M. l. c.*, in the text.—*O. incanescens*, *Mart.* and *Spir.*—*O. album*, *Roxb. fl. ind.* 3, p. 15; not, *L.*) @ Madagascar. East Indies. China. Brazil, &c. Fl. white, smaller than those of the next species, R. and C. S.; fr. C. S.

2. *Basilicum*, L. (*G. Don. l. c.*)

a. *pilosum*, Benth. (*Lab. p. 4*; —*G. Don. l. c.*—*O. pilosum*, *Willd. enum.* 2, p. 29; —*Roxb. fl. ind.* 3, p. 16.—*O. minimum*, *Burm.*; not *L.*—*O. Basilicum*, *Burm.*—*O. hispidum*, *Lam.*—*O. ciliatum*, *Horn.*—*O. hispidulum*, *Schum.*—*Basilicum indicum*, *Rumph.* 5, t. 92, f. 1.) बाबूइ तुलसी *Babooi-tulsee*. 5 Peninsula of India. Bengal, (Serampore,) Hindooasthan, Oude, &c. Fl. small, white, and fr. nearly the whole year. Whole plant aromatic, fragrant.—The seeds steeped in water swell into a pleasant jelly, which is used by the natives in cases of catarrh, dysentery, chronic diarrhoea, &c. and is very nourishing and demulcent.



- β. *anisatum*, Benth. (*l. c.*; — *G. Don*, *l. c.*) — *Ocimum Basilicum*, L. *spec.* 833; not Burm. — *Roxb. fl. ind.* 3, *p.* 17. — *Basilicum citratum*, *Rumph.* 5, *t.* 93, *f.* 1; — *Rheed.* 10, *t.* 87.) *Sweet Basil*. ◎ *Persia*. — Very aromatic and fragrant. Fl. small, white, R. and C. S.; fr. C. S.
γ. *glabratum*, Benth. (*l. c.*; — *G. Don*, *l. c.*) — *Ocimum caryophyllum*, *Roxb. fl. ind.* 3, *p.* 16. — *O. integrerrimum*, *Willd.* — *O. lanceolatum*, *Schum.*) गुलाल तुलसी *Goolal-tulsee*. ॐ *Guinea*. *Penang*. *Bengal*, (*Serampore*.) *Patna* &c. Fl. smallish-white, R. and C. S.; fr. C. S. Whole plant very aromatic and fragrant.
δ. *thyrsiflorum*, Benth. (*l. c.*; — *G. Don*, *o. c.* *p.* 671) — *Ocimum thyrsiflorum*, *L.*; *Murr. comm. gött.* 8, *t.* 5; — *Jacq. h. vind.* 3, *p.* 72; — *Roxb. fl. ind.* 3, *p.* 15.) ♂. Peninsula of India. Fl. smallish, pale pink, and fr. nearly the whole year. Whole plant very aromatic and fragrant.
3. *gratissimum*, L. (*G. Don's Mill. dict.* 4, *p.* 671; — *Jacq. rar.* 3, *t.* 495; — *Roxb. fl. ind.* 3, *p.* 17; — *J. Grah. Cat. B. pl.* *p.* 147.) — *O. zeylanicum*, *Burm. zeyl.* *t.* 80, *f.* 1. — *O. petiolare*, *Lam.* — *Rheed.* 10, *t.* 86.) राम तुलसी *Ram tulsee*. ॐ Only found in gardens. Diffuses a very strong degree of fragrance. Fl. white, pale-yellow, and fr. nearly the whole year.
4. *adscendens*, Willd. (*G. Don. o. c.* *p.* 672) — *O. cristatum*, *Kön.*; — *Roxb. fl. ind.* 3, *p.* 19. — *O. indicum*, *Roth.*; — *Plectranthus indicus*, *Spreng.*) बन तुलसी *Bun-tulsee*. ♂. Peninsula of India. *Bengal*, (*Serampore*.) Fl. small, pale rose-coloured, R. S.; fr. C. S. Whole plant scentless.
5. *sanctum*, L. (*G. Don's Mill. dict.* 4, *p.* 672; excl. syn. *Roxb.* — *Roxb. fl. ind.* 3, *p.* 14; — *J. Grah. Cat. B. pl.* *p.* 147.) — *O. hirsutum*, *Benth.* in *Wall. pl. as. rar.* 2, *p.* 14; — *O. tomentosum*, *Lam.* — *O. tenuiflorum*, *Lam.*; — *Willd.*; not *L.* — *O. frutescens*, *Burm. ind.* *p.* 129; — *Burm. zeyl.* *t.* 80, *f.* 1. — *Lumnitzera tenuiflora*, *Spreng.* — *Plectranthus monachorum*, *Spreng.* — *Basilicum agreste*, *Rumph.* 5, *t.* 92, *f.* 2. — *Rheed.* 10, *t.* 85.) कालो तुलसी *Kalo-tulsee*. ॐ तुलसी *Krishna-tulsee*. ॐ Found cultivated about the Hindoo temples. Fl. small, pale purple, and fr. nearly the whole year. Whole plant dark purple, and gratefully smelling. The juice expressed forms one of the ingredients of a celebrated and rather effectual nostrum for the cure of ringworms. (*Dr. Gibson.*)
6. *villosum*, Roxb. (*fl. ind.* 3, *p.* 13; excl. syn. *Rheed.*; not *Weinm.*) तुलसी *Tulsee*. ॐ Common about the Hindoo temples; aromatic. Fl. small, pale greenish rose-coloured, and fr. the whole year.
7. *micranthum*, Willd. (*G. Don's Mill. dict.* 4, *p.* 672) — *O. frutescens*, *Sieb.* — *O. americanum*, of several authors. — *O. pubescens*, *Mill. dict.* — *O. montanum*, *Hook.*; *B. M.* 57, *t.* 2996.) ◎ Tropical America, from Carracas to Rio Janeiro. Fl. small, white or purple, and fr. nearly throughout the year. Whole plant fragrant.



8. *inodorum*, Kön. (*Roxb. fl. ind.* 3, p. 19.) ♂. 2. India about old walls, and under the shade of bushes. Fl. very minute, white, and fr. R. and C. S. Scentless.

GENIOSPORUM, Wall. (*Benth. Lab.* p. 19;—*G. Don's Mill. dict.* 4, p. 674.)

1. *strobiliferum*, Wall. (*Benth. Lab.* p. 20;—*G. Don. l. c.*—*Plectranthus coloratus*, *D. Don. pr. fl. nep.* p. 116.) 5 Khassy Mountains. Nepal. Fl. small, blue, C. S.

MOSCHOSMA, Reichb. (*G. Don's Mill. dict.* 4, p. 675.)

1. *polystachya*, Reichb. (*Lumnitzera polystachya*, *Jacq.*—*Ocimum polystachyon*, *L.*;—*Murr. comm. gött. nov.* 3, p. 71, t. 3;—*Roxb. fl. ind.* 3, p. 18.—*O. tenuiflorum*, *Burm. ind.* p. 129; not *L.*—*Plectranthus micranthus*, *Spreng.*) ⊕ Circars. Travancore. Rangoon. Fl. minute, pale purple, R. S.; fr. C. S. Possesses little or no fragrance.

ORTHOSIPHON, Benth. (*Lab.* p. 25;—*G. Don's Mill. dict.* 4, p. 676.)

1. *incurvus*, Benth. (*Lab.* p. 28;—*G. Don. l. c.*;—*B. M.* 67, t. 3847.)

2. Silhet. Fl. twelve lines, pale rose-coloured, R. and C. S.

2. *stamineus*, (*Benth. G. Don's Mill. dict.* 4, p. 677.—*Ocimum grandiflorum*, *M. Bijdr.* p. 835.) 2. Lower Assam. R. S.

SACCOSTOMA, Wall. MSS.

1. *urticacefolium*, Wall. MSS. 2. Munipore. Fl. small, white, R. and C. S.

PLECTRANTHUS, L'Herit. (*G. Don's Mill. dict.* p. 677;—*Benth. Lab.* p. 29.)

1. *secundus*, Roxb. (*H. B.* p. 45;—*fl. ind.* 3, p. 20.—*P. cordifolius*, *D. Don. pr. fl. nep.* (1825.) p. 116;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 148.—*P. mollis*, *Spreng. syst.* 2, p. 69. (1825.) ;—*Benth. Lab.* p. 35.—*P. divaricatus*, *Weinm. obs. in Regenb. bot. zeit.* (1821.)—*P. incanus*, *Lk. enum.* 2, p. 120. (1822.)—*P. magpurensis*, *Roth. nov. spec.* p. 271. (1821.)—*Ocimum molle*, *Ait.*—*Rheed.* 10, t. 84.) ⊕ Mysore. Abundant throughout Kandala village, on the ruins of Rosa, near Ellora Caves, and generally every where near the habitations of man, in the Presidency of Bombay. Nepal. Fl. small, pale yellow, (*Roxb.*) blue, (*J. Grah.*) In H. C. G. fl. Oct. and Nov.; fr. Jan. and Feb. (*Roxb.*)

2. *parviflorus*, Willd. (*Hort. berol.* 1, p. 65; not R. Br.—*G. Don's Mill. dict.* p. 679.—*P. graveolens*, *R. Br. pr. p.* 506.—*P. paniculatus*, *Jacq. fragm.* p. 62, t. 91.) 5 Tropical New Holland. Mountains about Port Jackson. Sandwich Islands. Fl. blue, or purple. Has been introduced into H. C. G. Fl.?

3. *rugosus*, Wall. (*Benth. Lab.* p. 43;—*G. Don's Mill. dict.* 4, p. 681.—*Lumnitzera densiflora*, *Spreng.*—*Isodon plectranthoides*, *Schrad.*) 5 Mount Choor. Sirmore. Deyra Dhoon. Fl. small, with the upper lip purple edged and purple dotted, R. and C. S. The leaves have an aromatic, sage-like smell, and a somewhat bitterish taste.

COLEUS, Lour. (*Benth. Lab.* p. 47;—*G. Don's Mill. dict.* 4, p. 682.)

1. *barbatus*, Benth. (*Lab.* p. 49;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.*

- p. 148.—*Plectranthus barbatus*, *Andr. B. Repos. t. 594*.—P. *Forskálii*, *Willd.*;—*B. M.* 46, *t. 2036*.—P. *comosus*, *Sims.*; *B. M.* 49, *t. 2318*.—P. *asper*, *Spreng.*—P. *monadelphus*, *Roxb. fl. ind. 3*, *p. 22*.—*Ger-manea* *Forskálii*, *Poir.*—*Ocimum asperum*, *Roth.*) ◎ Bangalore. Dindygul. Guzerat. Nepal. Kemaon. Fl. small, light purple. In H. C. G. & C. S.; fr. H. S. (*Roxb.*) The whole plant possesses a strong, though not disagreeable smell. (*Roxb.*) Commonly cultivated in native gardens at Bombay for the roots, which are pickled. (*Dr. Gibson.*) Sold in the green-market, Bombay. (*Nimmo.*)
2. *amboinicus*, Lour. (*fl. cochinch. p. 372*).—C. *aromaticus*, *Benth.*;—G. *Don's Mill. dict. 4*, *p. 682*;—*B. Reg.* 18, *t. 1520*;—*J. Grah. Cat. B. pl.*, *p. 148*.—C. *crassifolius*, *Benth. Lab. p. 51*.—*Plectranthus aromaticus*, *Roxb. fl. ind. 3*, *p. 22*.—P. *amboinensis*, *Spreng.*?—P. *crassifolius*, *Hortul.*—*Marrubium album amboinicum*, *Rumph. 5, t. 102, f. 3.*) പാതുര് ചൂര് *Pathur-choor*. ♀. Common in gardens, Cochin China, the Moluccas, India, &c. Fl. smallish, pale blue, very aromatic, April; fr. O. Leaves, and, indeed, all the parts of the plant, delightfully fragrant. The former are frequently eaten with bread and butter, or bruised and mixed with various articles of food, drink, or medicine. (*Roxb.*)
3. *scutellarioides*, Benth. (*Lab. p. 53*;—G. *Don's Mill. dict. 4*, *p. 683*).—*Plectranthus scutellarioides*, *Roxb. fl. ind. 3*, *p. 21*;—R. *Br. pr. p. 506*.—*Ocimum scutellarioides*, *L.*;—*B. M.* 35, *t. 1446*.—*Majoiana rubra*, *Rumph. 5, t. 101.*) 5 Moluccas. Tropical N. Holland. Mauritius. Fl. small, pale blue, with a white tube and throat, March and April. Scentless.
- ANISOCHILOS**, Wall. (*Benth. Lab. p. 59*;—G. *Don's Mill. dict. 4*, *p. 685*.)
1. *carnosum*, Wall. (*Benth. l. c.*;—G. *Don. l. c.*;—J. *Grah. Cat. B. pl. p. 148*).—*Lavandula carnosa*, *L. amoena*, *10, p. 56, t. 3*.—*Plectranthus carnosus*, *Sm.*—P. *strobiliferus*, *Roxb. fl. ind. 3*, *p. 23*.—P. *dubius*, *Spreng.*—P. *crassifolius*, *Hortul.*;—*Rheed. 10, t. 90.*) ♀. Clefts of the rocks among the Circear Mountains. Taong-Dong. Fl. smallish, bluish purple, R. and C. S.
- HYPRIS**, Jacq. (*Benth. Lab. p. 64*;—G. *Don's Mill. dict. 4*, *p. 686*.)
1. *pectinata*, Poit. (*Ann. mus. 7, p. 474*;—*Benth. Lab. p. 127*;—G. *Don. o. c. p. 703*).—H. *persica*, *Poit.*—H. *racemosa*, *Zucc.*?—*Mentha perloloides*, *L. syst. ed. 13, p. 445*; not of others.—*Nepeta pectinata*, *L. spec. 799*.—N. *aristata*, *Rich.*—*Bystropogon pectinatus*, *L'Herit.*—B. *coarctatus*, *Thonn. and Schum.*—*Broteria persica*, *Spreng.*—*Bal-lotha disticha*, *Rodech.*;—*Meyer*; not L.—B. *suaveolens*, *Rösch.*; not L.) ◎ Tropical America. W. Indies. Guinea. Madagascar. Arabia. Fl. small, blue, R. S.; fr. C. S.
2. *radiata*, Willd. ◎ Mexico.
- LAVANDULA**, Tournef. (*Benth. Lab. p. 146*;—G. *Don's Mill. dict. 4*, *p. 708*.)
1. *Spica*, DC. (*G. Don. o. c. p. 710*;—*Roxb. H. B. p. 44*;—*J. Grah.*



Cat. B. pl. p. 149.—*L. Spica*, β . *L.*—*L. vulgaris*, β . *Lam.*—*L. latifolia*, *Vill.*) Common Lavender. 5 S. Europe. N. Africa. Fl. small, indigo coloured, July, but rarely.

* *Ocimum viride*, Willd. (*O. febrifugum*, Ker.; B. R. 9, t. 753.) 5 West coast of Africa, within the Tropics.—*O. suave*, Willd. 5 Madagascar.—*O. Bojeri*, Benth. 5 Madagascar.—*O. serpyllifolium*, Forsk. 5 Arabia. C. G. H.—*Geniosporum parviflorum*, Benth. 2. Silhet.—*G. prostratum*, Benth. 2. Coromandel. Ceylon. S. Concan.—*Aerocephalus capitatus*, Benth. ② China.—*Moschosma ocyoides*, Benth. ② Silhet.—*Orthosiphon rubicundus*, Benth. 2. Nepal.—*O. virgatus*, Benth. 2. Mourung Mountains.—*O. tomentosus*, Benth. 2. Madras.—*O. pallidus*, Royle. 2. Banks of the Jumna.—*O. glabratus*, Benth. 2. Courtallum.—*O. scapiger*, Benth. 2. Nepal.—*O. stamineus*, Benth. 2. Banks of the Attram.—*Plectranthus fruticosus*, L'Her. 5 C. G. H.—*P. rotundifolius*, Spreng. 2. The Concans. Mauritius.—*P. ternatus*, Sims.; B. M. 51, t. 2460. 2. Madagascar.—*P. madagascariensis*, Benth. 2. Madagascar. Mauritius.—*P. striatus*, Benth. 2. Silhet. Nepal.—*P. Coetsa*, D. Don. 2. Simla. Mussooree. &c.—*P. ternifolius*, D. Don. 2. Silhet. Nepal. &c.—*Coleus Bojeri*, Benth. 2. Madagascar.—*C. atropurpureus*, Benth. 2. Singapore.—*Anisochilos pallidum*, Wall. 2. Taong-Dong.—*Hyptis radiata*, Willd. 2. Carolina. Mexico.—*H. barbata*, Schrank. 5 Brazil.—*H. canescens*, H. B. and Kth. 2. Caraccas.—*H. spicata*, Poit. 2. Mexico.—*H. suaveolens*, Poit. ② Mexico. &c.—*H. scoparia*, Poit. 5 Portorico.—*H. tomentosa*, Poit. 5 Mexico.—*Eriope nudiflora*, H. B. and Kth. 5 Guiana.—*Lavandula Stoechas*, L. 5 S. Europe. N. Africa.—*L. viridis*, Ait. 5 Portugal.—*L. dentata*, L.; B. M. 12, t. 400. 5 S. Europe, N. Africa.—*L. vera*, DC. (True Lavender.) 5 S. Europe. N. Africa.—*L. multifida*, L. 2. S. Europe. N. Africa.—*L. Burmanni*, Benth. 2. Deccan.

B. MENTHEÆ.

(*Menthoidæ*, Benth. Lab. p. 152;—G. Don's Mill. dict. 4, p. 711.)

POGOSTEMON, Desf. (Benth. l. c.;—G. Don. l. c.)

1. *plectranthoides*, (Desf.—Benth. l. c.;—G. Don. l. c.;—B. M. 60, t. 3238.—*Origanum bengalense*, *Burm. ind.* t. 38, f. 1.—*Mentha secura*, Roxb. H. B. p. 44.—*M. fruticosa*, Roxb. fl. *ind.* 3, p. 6.—*Wen-sea pyramidata*, Wendl. coll. 2, p. 26, t. 84.) बीज बता। Beel-luta. 5 Bengal, (Serampore.) Hindooosthan. Deyra-Dhoon. Kheree Pass. Kemaon. Fl. small, tinged with deep rose, C. S.; fr. H. S. The plant possesses a strong, heavy, aromatic smell, and a bitterish taste. (Roxb.)

DYSOPHYLLA, Bl. (Benth. Lab. p. 156;—G. Don's Mill. dict. 4, p. 712.)

1. *quadrifolia*, Benth. (l. c.;—G. Don. l. c.—*Mentha quadrifolia*, Roxb. fl. *ind.* 3, p. 4; not D. Don.—*Chotekia sericea*, Opiz. and Corda.) 5 Circars. Tavoy. Fl. small, rose-coloured, R. and C. S.; fr. C. S.



SL

2. *verticillata*, Benth. (*o. c.*;—*G. Don. l. c. p. 713.*—*Mentha stellata*, *Lour.*—*M. verticillata*, *Roxb. fl. ind. 3, p. 5.*) पानी कुला *Panee-kula*. ◎ Cochin China. Bengal, (Serampore,) &c. in wet places. Fl. minute, purple, R. S.; fr. C. S. Smell and taste very aromatic. (*Roxb.*)

3. *Auricularia*, Bl. (*G. Don's Mill. dict. 4, p. 712.*—*Mentha Auricularia*, *L.*—*Roxb. fl. ind. 3, p. 4.*—*M. foetida*, *Burm. ind. p. 126.*—*Majana foetida*, *Rumph. 6, t. 16, f. 2.*) ४. Mahableshwur? Ceylon. Taong-Dong. Penang. Moluccas. Java. Silhet. Has been introduced into H. C. G.

COLEBROOKIA, Sm. (*Benth. Lab. p. 165;*—*G. Don's Mill. dict. 4, p. 715.*)

1. *oppositifolia*, Sm. (*Exot. bot. 2, p. 111, t. 115;*—*G. Don. l. c.*;—*Roxb. fl. ind. 3, p. 26.*—*Elzholtzia oppositifolia*, *Poir. suppl. 5, p. 663, f. 75.*) ५ Nepal. Kemaon. Fl. minute, white, inodorous, Feb. and March; fr. H. S.

2. *ternifolia*, Roxb. (*Corom. 3, t. 245;* *fl. ind. 3, p. 25;*—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 150*, excl. syn. Sm.) ५ Mysore. Kandalla Ghaut. Hills about Parr. Sidney. Mahableshwur, &c. Fl. minute, white, inodorous, Feb. and March; fr. H. S.

PERILLA, L. (*Benth. Lab. p. 166;*—*G. Don's Mill. dict. 4, p. 715.*)

1. *ocimoides*, L. (*Benth. l. c.*;—*G. Don. l. c.*;—*B. M. 50, t. 2395;*—*J. Grah. Cat. B. pl. p. 150.*—*Mentha perilloides*, *Lam.*;—*Roxb. fl. ind. 3, p. 7*; not L.—*Ocimum frutescens*, L.—*Melissa maxima*, *Arduin. spec. 2, p. 28, t. 13.*) ◎ Common on the Ghauts, and at Mahableshwur. Ava. Silhet. Nepal. Kemaon. Fl. very small, white. C. S.; fr. H. S. The whole plant has a strong, rather disagreeable smell. (*J. Grah.*)

MENTHA, Pliny. L. (*Benth. Lab. p. 168;*—*G. Don's Mill. dict. 4, p. 716.*)

1. *sylvestris*, L. (*G. Don. l. c.*)

2. *vulgaris*, Benth. (*Lab. p. 171;*—*G. Don. l. c.*—*M. sylvestris*, *Sm.*; *E. B. 10, t. 686.*—*M. candicans*, *Mill. dict.*—*M. gratissima*, *Willd.*—*M. niliaca*, *Willd.* not Vahl.—*M. longifolia*, *Huds.*) *Horse Mint.* ७ Europe. Tauria. Caucasus. Siberia. C. G. H. &c. Fl. very small, purplish. Has been cultivated for many years in the garden here without flowering.

2. *viridis*, L. (*G. Don's Mill. dict. 4, p. 717;*—*E. B. 34, t. 2424.*—*M. verticillata*, *Feuill.*—*M. spicata*, *Crantz.*—*M. ocimiodora*, *Opiz.*—*M. brevispicata*, *Lehm.*—*M. balsamea*, *Reichb.*? not Willd.—*M. niliaca*, *Vahl.*; not Willd.—*M. tenuis*, *Michx.*—*M. sativa*, *Roxb. fl. ind. 3, p. 6*; not L.;—*J. Grah. Cat. B. pl. p. 151*, excl. syn.—*M. pudina*, *Buch.*—*M. laevigata*, *Willd.*) पूदिना *Poodina*. ७. Temperate parts of Europe. C. G. H. N. and S. America, where, as in our gardens, it is probably but domesticated. Fl. small, purplish. Does not fl. in Lower Bengal. It was introduced into H. C. G. in 1795, but had not fl. up to 1814.



3. *piperita*, L. (*G. Don. o. c. p. 718*;—*E. B. 10, t. 687*.—*M. glabrata*, Vahl.—*M. kahirina*, Forsk.) *Pepper Mint*. 2. N. Europe. Cultivated throughout Europe, Egypt, Asia, and America. Fl. small, purple. Has been cultivated for more than fourteen years in the garden here, without flowering.

4. *arvensis*, L. (*G. Don. o. c. p. 719*.)

L. vulgaris, Benth. (*Lab. p. 179*;—*G. Don. l. c.*;—*M. arvensis*, Sole, *menth. brit. t. 12*;—*E. B. 30, t. 2119*.—*M. agrestis*, Sole, *o. c. t. 14*;—*E. B. 30, t. 2120*.—*M. gentilis*, Mill. *dict. No. 15*, &c.—*M. austriaca*, Jacq.—*M. palustris*, Mönch, &c.) 2. Europe. N. and M. Asia. Fl. small, purplish. Has been introduced into H. C. G. Fl.?

Lycopus, Tournef. (*Benth. Lab. p. 185*;—*G. Don's Mill. dict. 4, p. 720*.)

1. *exaltatus*, L. fil. (*Benth. l. c.*;—*G. Don. l. c.*;—*Sibth. and Sm. fl. græc. t. 12*.—*L. pinnatifidus*, Pall. *fl. ross. 2, t. 1.*) 2. E. Europe, Middle Asia, in humid or watery places. Fl. small, white. Has been cultivated in the garden here for several years, without flowering.

Meriandra, Benth. (*Lab. p. 188*;—*G. Don's Mill. dict. 4, p. 722*.)

1. *strobilifera*, Benth. (*l. c.*;—*G. Don. l. c.*) 5 Sirmore, Simla. Fl. very small, white. March and April. The whole plant has a very strong camphor-like smell, and a bitterish taste.

2. *bengalensis*, Benth. (*l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 151*.)—*Salvia bengalensis*, Kön.;—*Roxb. fl. ind. 1, p. 145*; ed. *Carey, 1, p. 146*.—*S. dianthera*, Roth.—*S. abyssinica*, R. Br. *app. to Salt. abyss.*—*S. stellata*, Buch. *Herb.*) 5 Coromandel, Bengal. Abyssinia. Fl. small, white, May and R. S.; fr. C. S. The whole plant has a very strong camphor-like smell and taste, even stronger than those of the common Sage, whose virtues it possesses.

* *Pogostemon paniculatus*, Benth. *Rheed. 10, t. 65*. 2. The Concans, Tavoy.—*P. parviflorus*, Benth. 2. Silhet.—*P. Heyneanus*, Benth. *Rheed. 10, t. 77*. 2. The Concans.—*Dysophylia strigosa*, Benth. 2. Silhet.—*D. cruciata*, Benth. 2. Nepal.—*D. crassicaulis*, Benth. 2. Silhet.—*D. pumila*, Benth. (*Mentha verticillata*, Hook., B. M. 56, t. 2907.) 2. Nepal.—*Eisholtzia polystachya*, Benth. (*Aphanochilus polystachyus*, Benth. in Wall. *pl. as. rar. 1, t. 33*, not *Mentha fruticosa*, Roxb.) 5 Mussooree.—*E. blanda*, Benth. (*Aphanochilus blandus*, Benth.); Hook. B. M. 58, t. 3091.) 2. Silhet. Nepal.—*E. incisa*, Benth. 2. Deyra Dhoon. Taong-Dong.—*E. strobilifera*, Benth. 2. Nepal.—*E. cristata*, Willd.; B. M. 52, t. 2560. 2. Siberia.—*Tetradenia fruticosa*, Benth. 5 Madagascar.—*Isanthus caruleus*, Michx. 2. Carolina, &c.—*Preslia cervina*, Fresen. 2. Ditches of S. Europe.—*Mentha Royleana*, Benth. 2. Deyra. Dhoon.—*M. rotundifolia*, L. 2. Europe, N. Africa.—*M. suavis*, Guss. 2. Italy, Sicily.—*M. aquatica*, L. (*M. hirsuta*, Sm.; *E. B. 7, t. 447*.) 2. Watery places of Europe.—*M. lanceolata*, Benth. 2. Cey-



454

LAMIACEÆ.

CSL

lon.—*M. mollis*, Benth. 2. Tropical America.—*M. Pulegium*, L.; E. B. 15, t. 1026. 2. Europe, in ditches.

C. MONARDEÆ, Benth.

(*Lab. p. 190*;—*G. Don's Mill. dict. p. 722*.)

SALVIA, L. (*Benth. l. c.*;—*G. Don. l. c.*)

1. *officinalis*, L. (*G. Don. o. c. p. 723*;—*Roxb. H. B. p. 4*;—*J. Grah. Cat. B. pl. p. 151*.—*S. grandiflora*, *Ten.*; not Ettling.) *Common Sage*. 5 S. Europe. Was introduced into H. C. G., in 1809, but had not fl. up to 1814.
2. *aurea*, L. (*G. Don. o. c. p. 726*;—*B. M. 6, t. 182*.—*S. colorata*, L.? not Vahl.—*S. africana*, &c. *Commel. hort. 2, p. 183*, *t. 92*.) 5 C. G. H. Fl. large, orange, quickly becoming coloured like rusty iron, March; fr. 0.
3. *africana*, L. (*G. Don. l. c.*;—*Commel. hort. 2, p. 181*, *t. 91*;—*Mill. fig. t. 225, f. 1*;—*S. colorata*, *Vahl.*; not L.—*S. integriflora*, *Mill. fig. t. 225, f. 2*.) 5 C. G. H. Fl. largish, white bluish, March; fr. 0.
4. *nubicola*, Wall. (*Benth. Lab. p. 219*;—*G. Don. l. c.*;—*Swt. fl. gard. 2, t. 140*.) 2. Kemaon. Shrinaghur. Kidar-kanta. Valley of Cashmere. Simla. Fl. largish, pale yellow, C. S.; fr. 0.
5. *Horminum*, L. (*G. Don. o. c. p. 727*;—*Sibth. and Sm. fl. græc. l. t. 20*.—*S. colorata*, *Thore*; not L.; nor Vahl.—*Horminum sativum*, *Mill. dict. No. 5*.—*H. coloratum*, *Mönch.*) 5 S. Europe. N. Africa. W. Asia, along the Mediterranean. Fl. smallish, purple, Feb. and March; fr. April.
6. *syriaca*, L. (*G. Don. o. c. p. 728*;—*Roxb. H. B. p. 4*.—*Horminum syriacum*, *Bath.*—*Sclarea syriaca*, *Mill. dict. No. 5*.) 2. Persia. Palestine. Syria, near Aleppo. Fl. white. In H. C. G. fl. C. S.; fr. 0. (*Roxb.*)
7. *Sclarea*, L. (*G. Don. l. c.*;—*Sibth. and Sm. fl. græc. l. t. 25*.—*S. Simsiana*, *Röm. and Sch.*;—*B. Reg. 12, t. 1003*.—*S. bracteata*, *Sims.*; *B. M. 49, t. 2320*; not Russel. *Sclarea vulgaris*, *Mill. dict. No. 1*.) 5 S. Europe. Fl. large, pale blue, with large, greenish rose-coloured bracts, C. S.; fr. 0.
8. *lanata*, Roxb. (*fl. ind. 1, p. 146*; *ed. Carey, 1, p. 147*;—*G. Don. o. c. p. 730*;—*Wight. icon. 2, t. 325*;—*Wall. pl. as. rar. 2, t. 116*, under name of *S. cana*, afterwards corrected to *S. lanata*.—*S. integrifolia*, *Hardw.*—*Stenarrhena lanata*, *D. Don. pr. fl. nep. p. 111*.) 5 Kemaon. Sirmore. Mussoorce. Fl. large, purple, C. S.; fr. 0.
9. *pratensis*, L. (*G. Don. o. c. p. 731*;—*E. B. 3, t. 153*;—*S. haemato-des*, *L. sp. p. 35*.—*S. agrestis*, *L. amœn.* 3, *p. 399*?—*S. Barrelieri*, *Ten.*—*S. Tenorii*, *Spreng.*;—*Swt. fl. gard. 1, t. 26*.—*S. rubicunda*, *Wenderoth.*—*S. virgata*, *Sav.* not Ait.—*S. variegata*, *Waldst. and Kit.*—*S. tricolor*, *Hortul.*) 2. Middle and S. Europe, in dry grassy fields, and by way-sides. Fl. large, blue, H. and R. S. Not very aromatic.



10. *lusitanica*, Jacq. fil. (*Ecl. 1*, p. 57, t. 38, excl. syn. Vahl. and Poir.—*G. Don. l. c.*—*Sclarea lusitanica*, *Mill. dict. No. 3?*) ፲. Spain. Portugal. Fl. small, blue, H. S.
11. *Verbenaca*, L. (*G. Don. o. c. p. 733*;—*E. B. 3, t. 154*;—*Curt. lond. 6, t. 1*.—*S. Spielmanni*, *Willd.* not *Scop.*—*S. Spielmanniana*, *Bieb.*—*S. illyrica*, *Schult.*—*S. micrantha*, *Desf.*, not *Vahl.*—*S. horminoïdes*, *Poirr.*—*S. byzantina* and *heterophylla*, *Hortul.*—*Horminum Verbenacum*, *Mill. dict. No. 1.*) ፲ N. and M. Europe. Tauria. Caucasus. Fl. small, purple, H. and R. S. Very aromatic when rubbed. The seeds produce a great quantity of mucilage when moistened, whence they become serviceable for removing extraneous matter from the eyes.
12. *clandestina*, L. (*Spec. p. 36*; not of his *Hb.*—*G. Don. l. c.*—*S. Verbenaca*, *Vahl.*; not L.;—*Reichb. icon. bot. 6, t. 523*.—*S. verbenacioides*, *Brot.*) ፲. S. Europe. N. Africa. Madeira. Syria. Caucasus. Fl. small, pale blue, or pale purple, C. S.; fr. H. S. Plant very variable.
13. *hispanica*, L. (*G. Don. o. c. p. 739*;—*B. Reg. 5, t. 359*.—*S. tetragona*, *Mönch.*—*S. prismatica*, *Cav.*;—*Lam. ill. t. 20, f. 2.*) ☉ Tropical America. Jamaica. Mexico. Now apparently naturalized in S. Europe. Fl. small, pale blue, Feb. and March; fr. H. S.
14. *splendens*, Sello. (*Benth. Lab. p. 287*;—*G. Don. o. c. p. 748*;—*B. Reg. 8, t. 687*;—*S. brasiliensis*, *Spreng.*—*S. colorans*, *Hortul.*) ፲. Woods in Brazil, near Rio Janeiro. Fl. large, deep scarlet, C. and H. S.; fr. O.
15. *coccinea*, L. (*G. Don. o. c. p. 749*;—*Roxb. H. B. p. 4*;—*Murr. comm. gött. 1778, p. 86, t. 1*.—*S. rosea*, *Vahl.*—*S. glaucescens*, *Pohl. pl. bras. 2, t. 192*.—*Horminum coccineum*, *Mönch.*) ៥ Florida. Georgia. Mexico. Cuba. Jamaica. Brazil. Domesticated in many parts of India. Fl. large, scarlet, and fr. nearly throughout the year.—Leaves slightly aromatic, very bitter.
16. *lyrata*, L. (*G. Don. o. c. p. 755*.—*Cumila lyrata*, *Schrantz.*—*Horminum lyratum*, *Mill. dict. No. 2*.—*H. virginicum*, L.) ፲. Virginia. Carolina. Georgia. Fl. purplish-violet. Was introduced into H. C. G. in 1790, but had not fl. up to 1814.
17. *plebeia*, R. Br. (*pr. p. 501*;—*G. Don. o. c. p. 756*.—*S. minutiflora*, *Bunge enum. pl. chin. p. 146*.—*S. brachiata*, *Roxb. fl. ind. 1, p. 145*; *ed. Carey, 1, p. 146*.—*S. parviflora*, *Roxb. H. B. p. 4*.—*Ocimum fastigiatum*, *Roth.*—*Lumnitzera fastigiata*, *Spreng.*) କୋକ ବାଣୀ *Kokaburadee*, ହୁମଦୀ *Bhoo-tulsee*. ☉ Tropical New Holland. China. Deyra-Dhoon. Oude. Hindoosthan. Silhet. Cashmere. Bengal, (Serampore.) Fl. minute, purple, and fr. C. S. Slightly aromatic.
18. *verticillata*, L. (*G. Don. l. c.*—*Horminum verticillatum*, *Mill. dict. No. 3.*) ፲. S. Europe. N. Africa. Caucasus. Fl. largish, bluish-violet, C. S.
19. *nepifolia*, Jacq. (*Hort. vind. 2, t. 152*;—*G. Don. l. c.*) ፲. Asia Minor, among bushes about Smyrna. Fl. small, bluish-purple, C. S.



ROSMARINUS, Tournef. (*Benth. Lab.* p. 314;—*G. Don. o. c.* p. 757.)

1. *officinalis*, L. (*G. Don. l. c.*;—*Sibth. and Sm. fl. græc.* 1, t. 14.—*J. Grah. Cat. B. pl.* p. 151.—*R. latifolius*, *Mill. dict. No. 2.*) Common Rosemary. 5 S. Europe. N. Africa. Fl. whitish, with blue spots and dots. Has been cultivated in the garden here for many years, without flowering

MONARDA, L. (*Benth. Lab.* p. 315;—*G. Don. o. c.* p. 758.)

1. *fistulosa*, L. (*G. Don. l. c.*;—*Reichb. icon. exot.* 2, t. 172;—*Mill. fig. t.* 183, f. 2.) 2. N. America. Texas. Mexico. Fl. large, purplish or pale red, never-scarlet, C. S.
2. *punctata*, L. (*G. Don. o. c.* p. 759;—*B. Repos.* 8, t. 546;—*B. Reg. 1, t.* 87;—*Roxb. H. B.* p. 4.—*M. lutea*, *Michx.*) 2. N. America, from Virginia and New Jersey to Florida, Carolina, and New Orleans. Fl. yellowish, dotted with brown, largish, C. S.

- * *Salvia cretica*, L. 5 Candia.—*S. interrupta*, Schousb.; Swt. fl. gard. 2, t. 169. 5 S. Morocco.—*S. bracteata*, Russ. 2. Syria, near Aleppo.—*S. viridis*, L. 2. S. Europe. N. Africa.—*S. Forskühlii*, L.;—*B. M. 25, t.* 988. 2. Levant.—*S. indica*, L., *B. M. 11, t.* 376. 2. Persia?—*S. odorata*, Willd. 5 Bagdad.—*S. spinosa*, L. 2. Syria. Egypt.—*S. argentea*, L. 2. S. Europe. N. Africa.—*S. austriaca*, L. *B. Reg. 12, t.* 1019. 2. S. Austria.—*S. occidentalis*, Swz. 2. Mexico. W. Indies—*S. tiliifolia*, Vahl. 2. Mexico.—*S. angustifolia*, Cav. 2. Mexico—*S. chamædryoides*, Cav.; *B. M. 21, t.* 808. 2. Mexico.—*S. scordonia*, Poir. 5 Mexico.—*S. amarissima*, Ort.; *B. Reg. 4, t.* 347. 2. Mexico.—*S. involucrata*, Cav.; *B. M. 55, t.* 2874; *B. Reg. 14, t.* 1205. 5 Mexico.—*S. Grahamii*, Benth.; *B. Reg. 16, t.* 1370. 5 Mexico.—*S. pseudocoerulea*, Jacq. *B. M. 55, t.* 2864. 2. Trinidad.—*S. pulchella*, DC. 5 Mexico.—*S. fulgens*, Cav.; *B. Reg. 16, t.* 1356. 5 Mexico.—*S. mexicana*, L. 5 Mexico.—*S. lamifolia*, Jacq. 5 Trinidad. St. Vincent.—*S. purpurea*, Cav. 2. Mexico.—*S. nilotica*, Vahl. 2. Egypt.—*Elephilia ciliata*, Rafin. 2. Carolina.—*Ziziphora hispanica*, L. 2. Spain.

D. SATURRIÆ.

(Satureinae, *Benth. Lab.* p. 324;—*G. Don's Mill. dict. 4, p.* 761.)

ORIGANUM, L. (*Benth. Lab.* p. 334;—*G. Don. o. c.* p. 764.)

1. *vulgare*, L. (*G. Don. l. c.* p. 765.—*E. B. 16, t.* 1143.—*O. stoloniferum*, Bess.—*O. orientale*, *Mill. dict. No. 5.*—*O. decipiens*, *Walbr.*) Common Majoram. 2. Europe. N. Africa. Middle Asia. (Caucasus, Siberia. Cashmere.) Fl. small, rose-coloured, or purple, C. S.; fr. 0.

MARJORANA, Mönch. (*Benth. Lab.* p. 338;—*G. Don. o. c.* p. 766.)

1. *hortensis*, Mönch. (*Benth. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 152.—*M. vulgaris*, *Bauh.*—*Organum Marjorana*, L.—*Roxb. H. B. p.* 44.—*O. marjoranoïdes*, *Willd.*—*O. Wallichianum*, *Benth. in Wall. pl. as. rar. 1, p.* 31.—*O. onites*, *Lam.*; not L.—*O. acinacifolium*,



Walter.—*Amaracus vulgarior*, *Löb.*) *Sweet Marjoram*. 5 Fl. small, purplish, or white, C. S.; fr. H. S.

THYMUS, L. (*Benth. Lab.* p. 340;—*G. Don. o. c.* p. 767.)

1. *vulgaris*, L. (*G. Don. l. c.*;—*Roxb. H. B.* p. 44;—*J. Grah. Cat. B. pl.* p. 152;—*Blackw. icon. t.* 211.) *Common Thyme*. 5 Dry, arid, uncultivated places in the S. W. of Europe. Was introduced into H. C. G. before 1794, but had not fl. up to 1814.

SATURRIA, L. (*Benth. Lab.* p. 351;—*G. Don. o. c.* p. 771.)

1. *hortensis*, L. (*G. Don. l. c.*;—*Roxb. H. B.* p. 44;—*J. Grah. Cat. B. pl.* p. 152;—*Lam. ill. t.* 504, *f. 1*.—*S. viminea*, *Burm. fl. ind.* p. 126; not L.) *Garden Savory*. 5 S. Europe. Fl. small, pale red, Feb. and March; fr. April.

HYSSOPUS, L. (*Benth. Lab.* p. 356;—*G. Don. o. c.* p. 773.)

1. *officinalis*, L. (*G. Don. l. c.*;—*Jacq. austr.* 3, *t.* 254;—*Roxb. H. B.* p. 44.) *Common Hyssop*. 5 S. Europe. Caucasus. Altai Mountains. Was introduced into H. C. G. in 1796, but had not fl. up to 1814.

* *Pychnanthemum linifolium*, Pursh. 2. New Orleans.—*P. nudum*, Nutt. 2. Carolina.—*Origanum normale*, D. Don. 2. Nepal.—*Collinsonia tuberosa*, Michx. 2. Carolina.—*C. scabriuscula*, Ait. 2. Carolina.—*Cunila leucantha*, Benth. 2. Mexico.—*C. lythrifolia*, Benth. 2. Mexico.

E. MELISSEÆ.

(*Melissineæ*, *Benth. Lab.* p. 365;
G. Don's Mill. dict. 4, p. 775.)

HEDEOMA, Pers. (*Benth. Lab.* p. 365;—*G. Don. l. c.*)

1. *nepalense*, Benth. (*Lab.* p. 366;—*G. Don. l. c.*—*Cunila nepalensis*, D. Don. *pr. fl. nep.* p. 107.—*C. Buchanani*, *Spreng.*—*Melissa nepalensis*, Benth., in *Wall. pl. as. rar.* 1, *p.* 66.—*Mosla ocimoides*, *Buch. MSS.*—*Lycopus diantherus*, *Buch.*—*Roxb. fl. ind.* 1, *p.* 144; *ed. Carey*, 1, *p.* 145.) 5 Himalaya. Cashmere. Deyra Dhoon. Fl. small, pale rose-coloured, Feb. and March; fr. H. S.

MELISSA, L. (*Benth. Lab.* p. 383;—*G. Don. o. c.* p. 780.)

1. *Acinos*, Benth. (*Lab.* p. 388;—*G. Don. o. c.* p. 782.—*Thymus Acinos*, L.;—*E. B.* 6, *t.* 411.—*T. heterophyllus*, *Poir.*—*T. canescens*, *Dumort.*—*Acinos thymoides*, *Mönch.*—*A. vulgaris*, *Pers.*—*Calamintha arvensis*, *Lam.*) 5 Corn fields of Europe. Fl. small, purplish-blue, Feb. and March. Has a pleasant, aromatic smell.

2. *repens*, Benth. (*Lab.* p. 392;—*G. Don. o. c.* p. 782.—*Thymus repens*, D. Don. *pr. fl. nep.* p. 113.—*Clinopodium repens*, *Roxb. fl. ind.* 3, *p.* 13.) 2. Nepal. Fl. small, purplish, R. S.

3. *officinalis*, L. (*G. Don. l. c.*—*M. graveolens*, *Host.*—*M. foliosa*, *Opiz.*—*M. occidentalis*, *Rafin.*—*M. corsica*, *Host.*) *Common Balm*. 2. S. Europe. Middle Asia. Fl. white or pale yellow, C. S.



- * *Hedeoma pulegioides*, Pers. ⊗ Carolina.—*H. Drummondii*, Benth. 5 Mexico.—*Micromeria bracteolata*, Benth. 2. Carolina.—*M. Brownei*, Benth. 2. Jamaica.—*M. biflora*, Benth. 5 Mussooree.—*M. obovata*, Benth. 5 Jamaica.—*Melissa Nepeta*, L. (*Thymus Nepeta*, Sm.; E. B. 20, t. 1414.) 2. S. Europe.—*M. caroliniana*, Benth. 2. Carolina.—*M. parviflora*, Benth. 2. Deyra-Dhoon.—*Glechon spathulatus*, Benth. 5 Brazil.—*G. thymoides*, Benth. 5 Brazil.—*Keithia pilosa*, Benth. 2. Humid pastures of Brazil.—*Dicerandra linearis*, Benth. 2. Carolina.

F. SCUTELLARIÆ.

(Scutellarinæ, Benth. Lab. p. 416;

(G. Don's Mill. dict. 4, p. 789.)

SCUTELLARIA, L. (Benth. Lab. p. 419;—G. Don. o. c. p. 791.)

1. *discolor*, Colebr. (*Wall. pl. as. rar.* 1, p. 66;—*G. Don. l. c.*—*S. indica*, *D. Don. pr. fl. nep.* p. 109; not *L.*) 2. Khussya Mountains. Nepal. Fl. 8 lines, pale blue violet, R. and C. S.
2. *indica*, L. (*G. Don. l. c.* not *D. Don.*;—*Roxb. fl. ind.* 3, p. 24;—*J. Grah. Cat. B. pl. p. 152.*) ⊗ China. Japan. Java. Moluccas. Mahableshwur in the Bombay Presidency. Fl. white. In H. C. G. fl. and fr. C. S. (*Roxb.*)
3. *rivularis*, Wall. (*pl. as. rar.* 2, p. 66;—*Benth. Lab.* p. 438;—*G. Don. o. c.* p. 796.—*S. peregrina*, *Roxb. fl. ind.* 3, p. 24, not *L.*—*S. barbata*, *D. Don. pr. fl. nep.* p. 109.—*S. squamulosa*, *Arth. Hamilt. Mon.* p. 35.) 2. Nepal and China, by sides of rivulets and rivers. Fl. small, blueish, C. S.; fr. H. S.
4. *scandens*, Buch. (*D. Don. pr. fl. nep.* p. 110.—*G. Don. o. c.* p. 797.—*S. angulosa*, *Benth. in Wall. pl. as. rar.* p. 67.—*S. celtidifolia*, *Arth. Hamilt. Mon.* p. 27.) 5 ⊕ Nepal. Kemaon. Fl. 8 lines, white sulphur-coloured violet, R. and C. S.

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- * *Cleonia lusitanica*, L. ⊗ Portugal. Spain. Barbary.—*Scutellaria purpurascens*, Swz. 2. W. Indies.—*S. Colebrookiana*, Wall. 2. Peninsula of India.—*S. pilosa*, Michx. 2. Carolina.—*S. galericulata*, L.; E. B. 8, t. 523. Europe. Asia. N. America. 2.—*S. rumicifolia*, H. B. and Kth. 2. Mexico.—*Perilomia fruticosa*, Schiede and Deppe. 5 Mexico.

G. PROSTANTHERIÆ, Benth.

(Lab. p. 447;—G. Don's Mill. dict. 4, p. 798.)

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- * *Prostanthera ovalifolia*, R. Br. 5 Tropical New Holland.

H. NEPETÆ, Benth.

(Lab. p. 462;—G. Don's Mill. dict. 4, p. 802.)

NEPETA, L. (G. Don. o. c. p. 803.)

1. *ruderalis*, Buch. (*Benth. in Wall. pl. as. rar.* 1, p. 64;—*G. Don. o. c.* p. 806.—*Thymus nepetoides*, *D. Don. pr. fl. nep.* p. 113.—*Glechoma erectum*, *Buch.*; *Roxb. fl. ind.* 3, p. 7.—*G. hindostanum*, *Roth.*—*G. indicum*, *Spreng.*) ⊗ Saharanpore. Rajmahal. Hurdwar. Deyra-Dhoon.



- Fl. small, purple. In H. C. G. fl. and fr. whole year.—Has a pleasant smell, not unlike that of Balm, and a pungent, bitterish taste. (*Roxb.*)
2. *ciliaris*, Benth. (*Lab.* p. 475;—*G. Don. o. c.*) 2. Nepal, Cashmere.
Fl. small, C. S.
? 3. *madagascariensis*, Lam. (*Spreag. syst.* 2, p. 730.) 2. Madagascar.
Has been introduced into H. C. G. Fl.?

DRACOCEPHALUM, L. (*Benth. Lab.* p. 490;—*G. Don. o. c.* p. 811.)

1. *Moldavica*, L. (*G. Don. o. c.* p. 813.—*Lam. ill. t.* 513, f. 1;—*Roxb. H. B.* p. 44.—*Moldavica punctata*, Mönch.) ♂ E. Siberia. Cultivated in India and S. America. Fl. 10 lines, deep blue, with a white tube, and fr. C. S. Plant when bruised emits a fragrance somewhat like that of Citron-oil.
β. *roseum*. Fl. rose-coloured.
2. *Ruyschiana*, L. (*G. Don. o. c.* p. 814; *fl. Don. t.* 121.—*D. hyssopifolium*, Mart.—*Zornia linearifolia*, Mönch.—*Ruyschiana spicata*, Mill. *dict. No. 1.*—*R. glabra*, Amm. ruth. p. 50.) 2. Mountains of Europe, and Asiatic Russia. Fl. 12 lines, purplish, C. S.; fr. H. S.

CEDRONELLA, Mönch. (*Benth. Lab.* p. 501;—*G. Don. o. c.* p. 814.)

1. *triphylla*, Mönch. (*G. Don. o. c.* p. 815.—*Dracocephalum canariense*, L.;—*Roxb. H. B.* p. 44.) 3 America. Canaries?—Was introduced into H. C. G. in 1799, but had not fl. up to 1814. This is the plant first brought to Europe under the name of *Permenta de Tana*. It is now known under the name of *Balm of Gilead*, which it has obtained from its rich odour on being gently rubbed. (*Mill. dict.*)

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- * *Nepeta elata*, Royle. 2. Simla.—*N. spicata*, Benth. Simla.—*N. discolor*, Royle. 2. Mussooree.—*N. tuberosa*, L. 2. S. Spain, Sicily.—*N. distans*, Royle. 2. Mussooree.—*N. clinopodioides*, Royle. 2. Banks of the Jumna.—*N. leucophylla*, Benth. 2. Mussooree, Simla.—*N. graciliflora*, Benth. 2. Hurdwar. Deyra-Dhoon.—*N. Glechoma*, Benth. (*Glechoma hederaceum*, L.; E. B. 12, t. 873.) 2. Europe, Asia.—*Dracocephalum peltatum*, L. ♂ Syria.—*D. canescens*, L. ♂ Syria.—*D. thymiflorum*, L. ♂ E. Europe.—*D. nutans*, L. ♂ Siberia.—*Cedronella mexicana*, Benth. 2. Among corn and in woods of Mexico.

I. STACHYDEÆ.

(*Stachydeæ*, Benth. *Lab.* p. 503;
G. Don's Mill. dict. 4, p. 815.)

LEONURUS, L. (*Benth. Lab.* p. 517;—*G. Don. o. c.* p. 820.)

1. *Cardiaca*, L. (*G. Don. L. c.*;—*E. B.* 4, t. 286.—*L. campestris*, Andrz.—*L. illyricus*, Hortul.—*Cardiaca vulgaris*, Mönch.—*C. trilobata*, Lam.) 2. ♂ Europe, Middle Asia. Fl. smallish, externally whitish, elegantly stained with paler and darker purple within, C. S.
β. *vilosus*, Benth. (*Lab.* p. 518.—*L. villosus*, Desf.—*L. condensatus*, Horn.—*L. lacerus*, Lindl.—*L. canescens*, Dumort.—*L. neglectus*, Schrank.) 2. ♂ Has been introduced into H. C. G. Fl.?



2. *sibiricus*, L. (*G. Don. o. c.* p. 821;—*Reichb. icon. bot. eur.* 4, t. 337;—*Sm. exot. bot.* 2, t. 94;—*Swt. fl. gard.* 3, t. 204.—*L. tataricus*, *Burm. ind.*;—*Roxb. fl. ind.* 3, p. 8; not *L.*—*L. heterophyllus*, *Swt. brit. fl. gard.* 2, t. 197.—*Stachys Artemisiae*, *Lour.*) ◉ Asia. Africa. America. Bengal, (Serampore,) where it is no doubt only naturalized. Fl. 6 lines, deep rose-coloured, inodorous, and fr. nearly the whole year.

ANISOMELES, R. Br. (*Pr. p. 503*;—*Benth. Lab. p. 701*;—*G. Don. l. c.*)

1. *ovata*, R. Br. (*G. Don. o. c.* p. 822;—*Wight. in Hook. bot. misc.* 2, t. 19;—*J. Grah. Cat. B. pl. p. 153*.—*A. disticha*, *Heyne*, according to Roth.—*Nepeta amboinica*, *L. suppl. p. 273*.—*N. disticha*, *Bl.*—*Ballota disticha*, *L. Mant. p. 83*.—*B. mauritiana*, *Pers.*—*Ajuga disticha*, *Roxb. fl. ind.* 3, p. 2.—*Marrubium indicum*, *Burm. ind. p. 127*;—*Burm. Zeyl. t. 71*.—*Monarda Zeylanica*, *Burm. ind. p. 12*;—*Rheed. 10, t. 88.*) গোবরা *Gobura*. ◉ Ceylon. Coromandel. Bombay. Bengal, (Serampore,) Nepal, &c. Fl. middle-sized, reddish-purple, R. and C. S.; fr. C. S. The whole plant has a strong camphoraceous smell. (*Nimmo.*)

2. *malabarica*, R. Br. (*B. M. 46, t. 2071*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 153*.—*Nepeta malabarica*, *L.*;—*Ajuga fruticosa*, *Roxb. fl. ind.* 3, p. 1.—*Stachys malabarica*, *Sieb.*;—*Rheed. 10, t. 93?*) 2. Java. Both Peninsulas of India. Mauritius. Fl. large, purplish, faintly fragrant, R. and C. S.; fr. C. S.

STACHYS, L. (*Benth. Lab. p. 525*;—*G. Don. o. c. p. 823.*)

1. *densiflora*, Benth. (*Lab. p. 532*;—*G. Don. l. c.*—*Betonica Monnierii*, *Osb. p. 146*.—*B. hirsuta*, *L. Mant. p. 248*.—*Murr. comm. gött. 1779. vol. 2, t. 3.*—*Reichb. icon. bot. eur.* 8, t. 714.—*B. danica*, *Mill. dict. No. 2.*—*B. incana*, *Ait.*;—*B. M. 47, t. 2125*.—*Reichb. icon. bot. eur.* 8, t. 713.—*Barrel. icon. t. 340.*) 2. Subalpine places in S. Europe. Has been cultivated in the garden here for many years without flowering.

2. *Betonica*, Benth. (*Lab. p. 532*;—*G. Don. l. c.*—*Betonica officinalis*, *L.*;—*E. B. 16, t. 1142*;—*Reichb. icon. bot. eur.* 8, t. 710.—*B. stricta*, *Ait.*;—*Reichb. icon. bot. eur.* 8, t. 712.) 2. Woods, heaths and pastures of Europe and Russian Asia. Has been cultivated for many years in the garden here, but has not fl.

3. *germanica*, L. (*Jacq. austr. 4, t. 319*;—*E. B. 12, t. 829*;—*Reichb. icon. bot. eur.* 10, t. 950;—*B. Reg. 15, t. 1289*.—*S. Janata*, *Crantz.*; not *Jacq.*) 2. Dry, arid, and stony places of Europe, Middle Asia, and N. Africa. Has been cultivated for many years here, but has not fl.

4. *sericea*, Wall. (*pl. as. rar. 1, p. 64*;—*Benth. Lab. p. 537*;—*G. Don. l. c.*;—*S. persica*, *Gmel. jun.*) ◉ Caucasus. Persia. Nepal. Kimaon. Fl. 6 lines, whitish rose-coloured, March; fr. H. S.

5. *annua*, L. (*G. Don. o. c. p. 831*;—*Jacq. austr. 4, t. 360*.—*S. nervosa*, *Gat.*—*S. Betonica*, *Crantz.*—*Betonica annua*, *L.*; *Mönch.*) ◉ Europe, in corn-fields, and by road-sides. Fl. 7 lines, white, inodorous, March; fr. H. S.



MARRUBIUM, Tournef. (*Benth. Lab.* p. 585;—*G. Don. o. c.* p. 840.)

1. *supinum*, L. (*G. Don. o. c.* p. 842.) 2. S. Europe. Introduced into H. C. G. in 1801, but had not fl. up to 1814.

2. *vulgare*, L. (*G. Don. l. c.*;—*E. B.* 6, t. 410;—*M. hamatum*, *H. B.* and *Kth.*—*M. germanicum*, *Schrank.*) 2. Europe. Middle Asia. Introduced into H. C. G. in 1807, but had not fl. up to 1814.

BALLOTA, L. (*Benth. Lab.* p. 592;—*G. Don. l. c.*)

1. *hispanica*, Benth. (*Lab.* p. 597;—*G. Don. o. c.* p. 844.—*Marrubium hispanicum*, *L. sp.* 816; not of his Hb.) 2. Spain. S. Italy. Sicily. Has been introduced into H. C. G. Fl.?

ROYLEA, Wall. (*Benth. Lab.* p. 601;—*G. Don. o. c.* p. 845.)

1. *elegans*, Wall. (*pl. as. rar.* 1, t. 74;—*Benth. l. c.*;—*G. Don. l. c.*—*Phlomis calycina*, *Roxb. fl. ind.* 3, p. 11.—*Ballota cinerea*, *D. Don. pr. fl. nep.* p. 111.) 3 Sirmore. Deyra-Dhoon. Shrinagur. Hurdwar. Fl. small, white pale rose-coloured, C. S.

LEUCAS, R. Br. (*pr. p.* 504;—*Benth. Lab.* p. 602;—*G. Don. l. c.*)

1. *mollissima*, Wall. (*pl. as. rar.* 1, p. 62;—*G. Don. o. c.* p. 846.) 2. Valleys of Nepal. Khassya Mountains. Fl. small, white, R. and C. S.; fr. C. S.

2. *pilosa*, Benth. (*G. Don. o. c.* p. 847.—*Phlomis pilosa*, *Roxb. fl. ind.* 3, p. 12?) 2. Bengal. Banks of the Irrawaddi. Fl. small, white, R. S.; fr. C. S.

3. *procumbens*, Desf. (*Mem. mus. par.* 11, t. 3, f. 2.—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 153, excl. *L. biflora*, R. Br. and Burm. zeyl.—*Phlomis biflora*, *Roxb. fl. ind.* 3, p. 12, excl. syn. Burm. zeyl. not Vahl.—*Nepeta indica*, *Burm. ind.* p. 126.) ଶ୍ଵେତ ବସନ୍ତ *Shwet-busunto*. 2. Ceylon. Peninsula of India. Bengal, (Serampore.) Bundekund, &c. Fl. and fr. nearly the whole year.

4. *stelligera*, Wall. (*pl. as. rar.* 1, p. 61;—*Benth. Lab.* p. 613;—*G. Don. o. c.* p. 848.) 2. Aurungabad. Fl. 6 lines, white, C. S.; fr. H. S.

5. *aspera*, Spreng. (*Syst. 2.* p. 743;—*G. Don. o. c.* p. 849;—*J. Grah. Cat. B. pl.* p. 153.—*L. Plukenetii*, *Spreng.*?—*Phlomis aspera*, *Willd.*—*P. Plukenetii*, *Roth.*?—*P. cephalotes*, *Bl.*?—*P. esculenta*, *Roxb. fl. ind.* 3, p. 10.—*Rheed.* 10, t. 91?) ଛୋଟ ହଙ୍କମୀ *Chhoto-hulkusa*. ⊖ Mauritius. Bourbon. Java. Philippines. Peninsula of India. Bengal, (Serampore.) Himalayas. Fl. small, white, R. and C. S.; fr. C. S. This plant possesses a considerable degree of peculiar fragrance. Its leaves are used as a potherb by the natives. (*Roxb.*)

6. *cephalotes*, Spreng. (*Syst. 2.* p. 743;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 153;—*Wight, icon.* 2, t. 337.—*L. capitata*, *Desf. mem. mus.* 11, t. 4.—*Phlomis cephalotes*, *Kön.*; *Roxb. fl. ind.* 3, p. 10;—*Roth.*) ବଡ଼ ହଙ୍କମୀ *Buro-hulkusa*. ⊖ Peninsula of India. Bengal, (Serampore.) Hindooesthan. Nepal. Fl. small, white, R. and C. S.; fr. C. S.

7. *martinicensis*, R. Br. (*pr. p.* 617;—*G. Don. l. c.*—*Clinopodium martinicense*, *Jacq. amer.* t. 177, f. 75.—*Phlomis martinicensis*, *Swz.*—



P. caribaea, Jacq. icon. rar. 1, t. 110.—*P. mollis*, Schum.—*Leonurus parviflorus*, Mönch.) ◎ Brazil. West Indies. W. Africa. Madagascar. Taong-Dong. Fl. small, white, and fr. C. S.

8. *linifolia*, Spreng. (Syst. 2, p. 743;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 153*.—*L. lavandulæfolia*, Sm.—*Phlomis linifolia*, Roth.—*P. zeylanica*, Roxb. fl. ind. 3, p. 9, excl. syn. Rheed;—*Jacq. icon. rar. 1, t. 111*; not *L.*.—*Leonurus indicus*, Burm. ind. p. 127.—*Rumph. 6, t. 16, f. 1.*) *ইককসা* Hulkusa. ◎ Mauritius. Bourbon. Madagascar. Moluccas. Philippines. Peninsula of India. Bengal, (Serampore.) Fl. 8 lines, white, C. S.; fr. H. S. Has a pleasant, faint, aromatic smell. (Roxb.)

LEONOTIS, R. Br. (pr. p. 504;—*Benth. Lab. p. 618*;—*G. Don. o. c. p. 850*.)

1. *nepetaefolia*, R. Br. (*l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 153*;—*B. Reg. 4, t. 281*.—*Phlomis nepetifolia*, L.;—*Roxb. fl. ind. 3, p. 8*.—*Leonurus globosus*, Mönch.—*L. nepetifolius*, Mill. dict. No. 2.) *খৌজুর চিপি* Khujoor-churi. ◎ Peninsula of India. Bengal, (Serampore.) Silhet, &c. Tropical Africa. W. Indies. Brazil. Fl. large, deep orange-coloured, C. S.; fr. H. S.

2. *Leonurus*, R. Br. (pr. p. 504;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 153*.—*Phlomis Leonurus*, L.;—*B. M. 14, t. 478*;—*Roxb. H. B. p. 44*.—*Leonorus grandiflorus*, Mönch.—*L. africanus*, Mill. dict. No. 1.) 5 C. G. H. Fl. large, golden-scarlet, with a white yellowish tube, and fr. nearly the whole year.

HOLMSKJOLDIA, Retz. (*Benth. Lab. p. 642*;—*G. Don. o. c. p. 856*.)

1. *sanguinea*, Retz. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 153*;—*B. Reg. 9, t. 692*.—*Hastignia coccinea*, Körn.;—*Sm. exot. bot. 2, t. 80*;—*Roxb. fl. ind. 3, p. 65*.—*Platunium rubrum*, Juss.) L. 5 China. Silhet. Hindooosthan. Nepal. Fl. large, orange-scarlet or scarlet, C. S.; fr. H. S.

COLQUHOUNIA, Wall. (*Benth. Lab. p. 644*;—*G. Don. o. c. p. 857*.)

1. *coccinea*, Wall. (*Tent. fl. nep. 1, t. 6*.—*Hastiugia scandens*, Roxb. fl. ind. 3, p. 66?—*Holmskjoldia scandens*, Swt.) 5 Nepal. Fl. large, scarlet. Has been introduced into H. C. G. Fl.?

* *Melittis Melissophyllum*, L.;—E. B. 9, t. 577. 2. England. S. Europe.—*Physostegia virginiana*, Benth. (*Dracoccephalum virginianum*, L.; B. M. 13, t. 467.) 2. Humid places of N. America, from Canada to Texas.—*P. truncata*, Benth. 2. Mexico.—*Macbridea pulchella*, Elliot. 2. Carolina.—*Lamium amplexicaule*, L.; E. B. 11, t. 770. ◎ Europe. N. Africa, &c.—*L. purpureum*, L.; E. B. 11, t. 769. ◎ Europe. Asia.—*L. incisum*, Willd.; E. B. 27, t. 1933. ◎ Europe.—*L. moschatum*, Mill. ◎ Levant.—*Anisomeles moschata*, R. Br. 5 Tropical New Holland.—*A. inodora*, R. Br. 5 Tropical New Holland.—*Galeopsis Ladanum*, L.; E. B. 13, t. 884. ◎ Europe. Caucasus.—

G. Tetrahit, L. *a. parviflora*, Benth. (*G. Tetrahit*, E. B. 3, t. 207.)
γ. grandiflora, Benth. (*G. versicolor*, L.; E. B. 10, t. 667.) ◊ Europe. Middle Asia.—*Stachys splendens*, Wall. Mussooree.—*S. coccinea*, Jacq.; B. M. 18, t. 666. ♀ Mexico.—*S. hirsuta*, H. B. Kth. Mexico.—*S. arvensis*, L.;—E. B. 17, t. 1154. ◊ Europe, N. Africa, Middle Asia.—*Sphaecle salviaefolia*, Benth. ♂ S. America.—*Lepechinia spicata*, Willd.; B. R. 15, t. 1292. ♀ Mexico.—*Craniotome versicolor*, Reichb. ♀ Nepal. Silhet.—*Sideritis lanata*, L. ◊ S. Europe.—*S. purpurea*, H. F. Talbot. ◊ Corfu.—*S. romana*, L. ◊ Italy. Sicily, &c.—*Leonotis ovata*, Spreng. ♀. C. G. H.—*L. intermedia*, Lindl; B. R. 10, t. 850. ♀. C. G. H.—*Phlomis bracteosa*, Royle. ♀. Simla.—*P. tamifolia*, Royle. ♀. Mussooree.—*Eremostachys superba*, Royl. ill. t. 74. ♀. Deyra-Dhoon.—*Moluccella laevis*, L.; B. M. 43, t. 1852. ◊ Syria. Palestine.—*M. spinosa*, L. ◊ Sicily. Naples. Palestine.—*Achyrospermum densiflorum*, Bl. Java.—*A. fruticosum*, Benth. ♂ Madagascar.—*Colquhounia elegans*, Wall. pl. as. rar. 3, t. 268. ♂ ↗ Taong-Dong.

K. PRASIÆ, Benth.

(*Lab.* p. 646;—*G. Don's Mill. dict.* 4, p. 857.)

GOMPHOSTEMMA, Wall. (*Benth. Lab.* p. 646;—*G. Don. l. c.*)

1. *lucidum*, Wall. (*Benth. Lab.* p. 648;—*G. Don. o. c. p. 858.*) ♀. Chappedong, on the coast of Tenasserim. Khassya Mountains. Fl. middle-sized, yellow, R. S.; fr. C. S.
2. *mellissæfolium*, Wall. (*Benth. Lab.* p. 649;—*G. Don. l. c.*—*Prasium melissifolium*, Roxb. *fl. ind.* 3, p. 26.) ♂ ↗ Silhet. Fl. largish, yellow, R. S.; fr. C. S.

* *Gomphostemma strobilinum*, Wall. ♀. Prome.—*G. viride*, Wall. ♀. Tavoy.—*G. Heyneanum*, Wall. ♀. Courtallum.—*G. oblongum*, Wall. ♂ Tavoy.—*G. parviflorum*, Wall. ♀. Penang. Khassya Mountains. Nepal.—*G. crinitum*, Wall. ♀. Tavoy.—*G. velutinum*, Wall. ♀. Khassya Mountains.

L. AJUGÆ.

(*Ajugoïdeæ*, Benth. *Lab.* p. 657;—

G. Don's Mill. dict. 4, p. 860.)

TRUCRIUM, L. (*Benth. Lab.* p. 660;—*G. Don. o. c. p. 861.*)

1. *Leucosceptrum*, (T. *macrostachyum*, Wall.; *Benth. Lab.* p. 663.—*Leucosceptrum canum*, Sm. *exot. bot.* t. 116.—*Clerodendron Leucosceptrum*, D. *Don. pr. fl. nep.* p. 103.) ♂ Nepal. Khassya Mountains. Has been introduced into H. C. G. Fl.?
2. *stoloniferum*, Buch. (*Benth. Lab.* p. 674;—*G. Don. o. c. p. 865*;—*Roxb. fl. ind.* 3, p. 3?) ♀. Khassya Mountains. Taong-Dong. Fl. small, lively pink-coloured. (*Roxb.*) In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
3. *Botrys*, L. (*G. Don. o. c. p. 867*;—*Mill. fig.* 176, t. 264, f. 1.—Chamædrys *Botrys*, Mönch—*Scorodonia Botrys*, Ser.) ◊ S. Europe. N.



Africa. Fl. small, purplish. March; fr. April. The plant has a pleasant aromatic smell. (*Milt. dict.*)

AJUGA, L. (*Benth. Lab.* p. 690;—*G. Don. o. c. p. 870.*)

1. *bracteosa*, Wall. (*Benth. Lab.* p. 696;—*G. Don. o. c. p. 872.*)—*A. integrifolia*, Buch.;—*D. Don. pr. fl. nep. p. 108.* 2. Nepal. Fl. small, white. C. S.

? 2. *repens*, Roxb. (*fl. ind. 3, p. 3;*—*G. Don. o. c. p. 873.*) ♂ Chittagong. In H. C. G. fl. Jan. and Feb.; fr. Feb. and March. (*Roxb.*)

CYMARIA, Benth. (*Lab.* p. 705;—*G. Don. l. c.*)

1. *elongata*, Benth. (*l. c.*;—*G. Don. o. c. p. 874.*) ♂ Taong-Dong. Segaeen. Fl. small, white, C. S; fr. H. S.

* *Amethystea coerulea*, L.; B. M. 51, t. 2448. ♂ Asiatic Russia. China.—*Trichostema lineare*, Nutt. ♂ N. America.—*T. dichotomum*, L. ♂ N. America.—*Teucrium cubense*, L. ♂ Mexico. W. Indies. Buenos Ayres.—*T. Wallichianum*, Benth. 2. Silhet.—*T. inflatum*, Swz. 2. Mexico. Jamaica.—*T. Royleianum*, Wall. 2. Deyra-Dhoon, Mussooree.—*T. quadrifarium*, Buch. 2. Silhet. Nepal.—*T. resupinatum*, Desf. ♂ N. Africa.—*Ajuga lobata*, D. Don. 2. Nepal.—*A. remota*, Benth. 2. Deyra-Dhoon.—*A. parviflora*, Benth. 2. Simla. Mussooree.—*A. decumbens*, Thunb. 2. Deyra-Dhoon.—*A. macrosperma*, Wall. 2. Khassy Mountains.—*A. Iva*, Schreb. ♂ S. Europe. N. Africa.—*A. chia*, Schreb. ♂ Europe and Asia, along the Mediterranean.—*A. Chamæpithys*, Schreb.; E. B. 2, t. 77. ♂ Middle and S. Europe. Tauria. Caucasus.—*Cymaria dichotoma*, Benth. ♂ Taong-Dong. Segaeen.

ORDER CXCVIII.—VERBENACEÆ, Juss.—Lindl. Nat. Syst. p. 277.

THE VERVAIN TRIBE.

Trees or shrubs, sometimes herbs, by Lindl. referred to 52 genera. Of these, Spreng. syst. assigns 180 species to S. America, Mexico, and the W. Indies; 26 to N. Holland and the South Sea Islands; 16 to N. America; 10 to China; 4 to Europe; 3 to Guinea; 3 to Japan; 2 to the Mascarenhas Islands; 2 to Arabia; and 1 to the Falkland Islands. In S. Africa have been discovered about 7 species; (*Harvey.*) and in the E. Indies, according to Spreng., syst., Wall. Cat., and Royl. ill. 153, viz. 40 of *Clerodendron*; 1 of *Ægiphyla*? 14 of *Callicarpa*; 36 of *Premna*; 26 of *Vitex*; 8 of *Congea*; 1 of *Sympherema*; 8 of *Gmelina*; 2 of *Tectona*; 1 of *Phryma*; 1 of *Streptium*; 3 of *Verbena*; 1 of *Stachytarpheta*? 2 of *Zapaniu*; 5 of *Lantana*; 1 of *Asaphes*; 1 of *Glossocarya*; 1 of *Hymenopramis*; and 1 of *Avicennia*. Most of these are natives of Nepal, Kemaon, the Khassy Mountains, Assam and both Peninsulas of India. Many have



also been found in the Moluccas, Java, Ceylon and the Philippines. We are unacquainted with *Peronema*, Jack, and *Geunsia*, Bl.

Excepting the Teak-tree, the order is not of much importance either in a medicinal or economical point of view.

A. VITICÆ, Bartl.

(*Lindl. l. c. p. 278.*)

CLERODENDRON, L. (*Spreng. syst. 2. p. 678*, No. 2121;—*R. Br. pr. p. 510.*)

1. *Siphonanthus*, R. Br. (*Spreng. syst. 2. p. 758*;—*J. Grah. Cat. B. pl. p. 157*.—*Siphonanthus indicus*, L.; *Roxb. fl. ind. 3. p. 67*;—*Lam. ill. t. 79, f. 1.*.—*Ovieda mitis*, L.;—*Burm. ind. t. 43, f. 1, 2.*) বাগন হাতী *Bamun-hatee*, L. ৫ Prome, Ava, Tavoy, Peninsula of India, Bengal, (Serampore.) Silhet, &c. Fl. more than four inches long, greenish-white, April, May and from Aug. to Jan.; fr. Jan. and Feb.

2. *hastatum*, Wall. (*Cat.*;—*B. Reg. 16, t. 1307*;—*B. M. 62, t. 3398*.—*Siphonanthus hastatus*, *Roxb. fl. ind. 3. p. 67.*) হাতি কাণি *Hati-kana*. L. ৫ Silhet. Fl. more than 5 inches long, greenish-white, with the mouth of the throat marked with 5 purple dots, April and May; fr. June and July.

3. *photoides*, L. fil. (*Spreng. syst. 2. p. 760*;—*Roxb. fl. ind. 3. p. 57*;—*J. Grah. Cat. B. pl. p. 157*.—*Volkameria multiflora*, *Burm. ind. t. 45, f. 1.*) ৫ Coromandel, Deccan, Bengal, Lower Kemaon. Fl. $1\frac{1}{2}$ inch, white, fragrant, R. and C. S.

β. rubrum, Roxb. Mountains of Coromandel. Fl. red.

4. *inerme*, Gärtn. (*fr. 1, p. 271, t. 57, f. 1*;—*R. Br. pr. p. 367*;—*Spreng. syst. 2. p. 758*;—*Roxb. fl. ind. 3. p. 58*;—*J. Grah. Cat. B. pl. p. 157*.—*Volkameria inermis*, L.;—*Jacq. coll. suppl. p. 117, t. 4, f. 1*;—*Rheed. 5, t. 49*;—*Rumph. 5, t. 46.*) বন শিঁঝি *Bun-jocen*. L. ৫ New Holland, China, Moluccas. Both Peninsulas of India, Soonderbuns. Fl. nearly 2 inches, pure-white, with greenish-white tube, R. and C. S.

5. *nerifolium*, Wall. (*Cat.*.—*Volkameria nerifolia*, *Roxb. fl. ind. 3. p. 64.*) ৫ Chittagong, Tenasserim, Tavoy. Fl. 12 lines, white, R. S.; fr. Feb. and March. Has a strong premnaceous smell.

β. lanceolatum, Wall. *Cat.*.—Martaban, Tavoy. Fl. smallish, white, C. S.

6. *heterophyllum*, R. Br. (*Spreng. syst. 2. p. 758*.—*Volkameria heterophylla*, *Poir.*) ৫ Mascarenhas Islands. Fl. white, largish, C. S.

7. *emirnense*, Bojer, (*B. M. 56, t. 2925*;—*J. Grah. Cat. B. pl. p. 158*). L. ৫ Province of Emirne in Madagascar. Fl. middle-sized, pale flesh-coloured, almost white, C. S.

8. *nutans*, Wall. (*Cat.*;—*B. M. 58, t. 3049.*) ৫ Silhet. Fl. large, white, C. S.; fr. H. S.

9. *viscosum*, Vent. (*Malm. No. 25*;—*B. M. 43, t. 1805*;—*B. Reg. 8, t. 629*.—*C. infortunatum*, L.;—*J. Grah. Cat. B. pl. p. 157*.—*Volkameria*



- infortunata, Roxb. fl. ind. 3, p. 59;—Rheed. 2, t. 29.) ৩। ভান্ত. ৫
Both Peninsulas of India. Bengal, (Serampore.) Oude, &c. Fl. large,
white, tinged with rose on the inside, Feb. and March; fr. April and
May.
10. *velutinum*, Wall. (*Cat.*—*C. molle*, *Jack.*; not H. and B.) ৫ Singapore.
Has, I think, been introduced into H. C. G.
11. *squamatum*, Vahl. (*Spreng. syst.* 2, p. 759;—*B. Reg.* 8, t. 69.—
Volkameria Kämpferiana, *Jacq. icon. rar.* 3, t. 500.—*V. Kämpferi*,
Willd.;—*Roxb. fl. ind.* 3, p. 60;—*Banks. icon. Kämpf.* t. 58.) ৫
China. Fl. 12 lines, scarlet, H. and R. S.; fr. 0.
12. *dentatum*, Wall. (*Cat.*—*Volkameria dentata*, *Roxb. fl. ind.* 3, p. 61.)
৫ Silhet. Fl. like those of No. 11, May and August; fr. 0.
13. *Buchananii*, Wall. (*Cat.*—*Volkameria Buchananii*, *Roxb. fl. ind.* 3, p.
60.) ৫ Moluccas. Fl. like those of No. 11 and 12. In H. C. G.
fl. R. S.; fr. 0.
14. *urticafolium*, Wall. (*Cat.*—*Volkameria urticifolia*, *Roxb. fl. ind.* 3, p.
61.) ৫ Pegu. Taong-Dong. Fl. largish, scarlet, August, September
and October; fr. 0.
15. *paniculatum*, L. (*Spreng. syst.* 2, p. 760;—*B. Reg.* 5, t. 406.—*C.*
pyramidalis, *Andr. B. Repos.* 10, t. 626.) ৫ Penang. Has been
introduced into H. C. G. Fl.?
16. *fragrans*, Vent. (*Malm.* t. 70.—*Spreng. syst.* 2, p. 760;—*B. Reg.*
1838, t. 41.) ৫ China. Chittagong. Taong-Dong. Martaban. Fl.
largish, purplish deep rose-coloured, fragrant.
 $\beta.$ *plenum*. (*B. M.* 43, t. 1834;—*J. Grah. Cat. B. pl.* p. 157.—*Vol-*
kameria japonica, *Jacq. hort. schönbr.* 3, t. 338.) Fl. double, nearly
throughout the year.
17. *glandulosum*, Colebr. (*Watt. Cat.*) ৫ Khassya Mountains. Fl. large,
whitish, C. S.
18. *deflexum*, Wall. (*pl. as. rar.* 3, t. 215.) ৫ Penang. Singapore. Fl.
large, white, rose-coloured. In H. C. G. fl. January.
19. *serratum*, Bl. (*Bijdr.* p. 110;—*J. Grah. Cat. B. pl.* p. 157.—*C.*
macrophyllum, *Sims.*; *B. M.* 52, t. 2536.—*Volkameria serrata*, *L.*;—
Roxb. fl. ind. 3, p. 62.) ৫ Courtallam. Kandalla. The Mahal districts,
above the Ghauts. Salsette. Assam. Morung Mountains. Nepal. Fl.
large, pale lilac, with the lower lip indigo-coloured, May and June;
fr. Sept. Oct. and Nov. The natives eat the flowers and leaves as
greens. (*J. Grah.*)
20. *farinosum*, Wall. (*Cat.*—*Volkameria farinosa*, *Roxb. fl. ind.* 3, p. 64.)
L. ৫ Silhet. In H. C. G. fl. R. S.; fr. 0. (*Roxb.*)
21. *odoratum*, Buch. (*Volkameria odorata*, *Roxb. H. B.* p. 46.) ৫ Patna.
Sivapur. Oude. Nepal. Kemaon. Fl. middle-sized, bluish, with an
indigo-coloured lip, sweet-scented, Jan. and Feb.
 $\beta.$ *albiflorum*. White-flowered.
22. *herbaceum*, Wall. (*Cat.*—*Volkameria herbacea*, *Roxb. H. B.* p. 46.)



2. *Nepal*. In H. C. G. fl. May and June; fr. October and November. (*Roxb.*)
23. *Madaera*, (Volkameria Madaera, *Roxb. H. B.* p. 46.) Cawnpore. Was introduced into H. C. G. in 1800, but had not fl. up to 1814.)
24. *trichotomum*, Thunb. (*Spreng. syst. 2*, p. 759;—*Thunb. jap.* p. 256.) 5 Japan. Fl. white. In H. C. G. Fl.?
25. *roseum*, Wall. In H. C. G.
26. *aculeatum*, J. Grah. (*Cat. B. pl.* p. 157.—Volkameria aculeata, *L.*; *Spreng. syst. 2*, p. 760;—*Javq. amer.* 185, t. 117; *ed. pict.* t. 177;—*Browne jam.* 262, t. 20, f. 2;—*Plum. spec. ic.* 164, f. 1.) 5 Jamaica. Barbadoes. Fl. small, white, inodorous, and fr. nearly throughout the year.
- CALLICARPA**, L. (*Spreng. syst. 1*, p. 363, No. 430;—*R. Br. pr.* p. 513.)
1. *arborea*, Roxb. (fl. ind. 1, p. 390; ed. *Carey*, 1, p. 405;—*Spreng. syst. 1*, p. 421.) 5 Moulmein. Chittagong. Goalpara. Morung Mountains. Oude. Nepal. Kamaon. Fl. small, purple-lilac, unpleasantly smelling. C. S.; fr. H. S.
 2. *purpurea*, Juss. (*Roxb. fl. ind.* 1, p. 395; ed. *Carey*, 1, p. 410;—*Spreng. syst. 1*, p. 420.—*Porphyra dichotoma*, *Lour.*) 5 S. China. Fl. small, pale purple, sweet-scented, May, June and July; fr. R. S.
 3. *lanceolaria*, Roxb. (fl. ind. 1, p. 395; ed. *Carey*, 1, p. 409;—*Spreng. syst. 1*, p. 420.) 5 Amherst. Tavoy. Khassy Mountains. Fl. small, pale purplish-lilac, C. S.; fr. H. S.
 4. *Heynii*, Roth. (*Spreng. syst. 1*, p. 429.—*C. acuminate*, *Roxb. fl. ind.* 1, p. 394; ed. *Carey*, 1, p. 408; not Humb.) 5 Silhet. In H. C. G. fl. April, May and June; fr. C. S. (*Roxb.*)
 5. *Reevesii*, Wall. (*Cat.*) 5 China. Fl. small, purplish, C. S.; fr. H. S.
 6. *macrophylla*, Roxb. (fl. ind. 1, p. 393; ed. *Carey*, 1, p. 408;—*Vahl.*?) 5 Taong-Dong. Chittagong. Silhet. Assam. Shreenagar. Nepal. Fl. small, rose-coloured. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
 7. *villosa*, Vahl. (*Spreng. syst.* p. 421;—*Roxb. H. B.* p. 10,) 5 Silhet. Introduced into H. C. G. in 1810, but had not fl. up to 1814.
 8. *incana*, Roxb. (fl. ind. 1, p. 393; ed. *Carey*, 1, p. 407.—*C. Roxburghii*, *Wall. Cat.*) 5 Bengal. (Serampore.) Fl. small, purple, H. and R. S.; fr. C. S.
 9. *cana*, L. (*Spreng. syst.* 1, p. 419;—*Roxb. fl. ind.* 1, p. 392; ed. *Carey*, 1, p. 406;—*B. M.* 47, t. 2107.—*C. tomentosa*, *Lam.*—*C. americana*, *Lour.*; not *L.*) 5 Moluccas. Java. Sumatra. Cochin China. Penang. Malabar Coast. Fl. small, pale-reddish, and fr. throughout the year.
 10. *dentata*, Roth. (*Wall. Cat.*) 5 China. Has not fl. here as yet.
- PREMNA**, L. (*Spreng. syst. 2*, p. 678, No. 2118;—*R. Br. pr.* p. 512.)
1. *esculenta*, Roxb. (fl. ind. 3, p. 81.) 5 Chittagong. Fl. small, pale-greenish, and fr. whole year. The natives of Chittagong use the leaves in their diet, as well as in medicine. (*Roxb.*)



SL

2. *barbata*, Wall. Cat. (P. serratifolia, Roxb. fl. ind. 3. p. 77; not L.)
হৃত ভেড়াবী *Bhoot-bheruvee*. L. ৫ Bengal, (Serampore.) Goalpara.
Morung. Nepal. Kemaon. Fl. minute, greenish-white, R. S.; fr. C. S.
The whole plant has a heavy, unpleasant smell, nearly the same as
some of the other species of this genus. (Roxb.)
3. *latifolia*, Roxb. (fl. ind. 3, p. 76.) 5 Coromandel. Fl. minute, dirty-
yellowish. In H. C. G. fl. April; fr. Aug. (Roxb.) Wood white,
firm, used for many economical purposes. The leaves have a pretty
strong, though not disagreeable smell, and are much used in curries
by the natives. (Roxb.)
4. *longifolia*, Roxb. (fl. ind. 3, p. 79.) 5 Bengal. Khassya Mountains.
Assam. Fl. small, white. In H. C. G. fl. H. and R. S.; fr. C. S.
(Roxb.) Has an agreeable smell. (Roxb.)
5. *herbacea*, Roxb. (fl. ind. 2, p. 80.) খুই জাম *Bhooi-jam*. 2. Interior
of Bengal. Fl. small, pale-whitish-yellow. Feb. and March.
6. *procumbens*, Moon, (*Catal. ceyl. pl.*—Wall. Cat.) L. ৫ Ceylon. Fl.
small, greenish-white, nearly the whole year.
7. *spinosa*, Roxb. (fl. ind. 3, p. 77;—Rumph. 3, t. 134.) 5 Bengal, (Cal-
cutta. Serampore.) গুণিয়ারী *Guniaree*. Fl. small, greenish-yellow-
ish, unpleasantly smelling, R. S.; fr. C. S.
8. *hircina*, Buch. MSS. (according to Wall.—P. integrifolia, Roxb. fl.
ind. 3, p. 81;—Spreng. syst. 2, p. 755, excl. syn.;—J. Grah. Cat. B.
pl. p. 155; not L.;—Rheed. 1, t. 53. ?—Rumph. 3, t. 134.) ৫ Mauritius.
Sea-shores of Bombay. Moluccas. Goalpara. (Buch.) Fl. small,
greenish, H. S.; fr. R. S.
9. *scandens*, Roxb. (fl. ind. 3, p. 82;—J. Grah. Cat. B. pl. p. 155.) L.
৫ কান্দালা. Silhet. Fl. small, greenish-yellow, H. S.; fr. R. S.
10. *grandifolia*, Wall. MSS. In H. C. G. Fl. ?
11. *cordifolia*, Roxb. (fl. ind. 3, p. 78;—J. Grah. Cat. B. pl. p. 155.)
৫ Penang. Kandalla. Fl. small, greenish-white. May and June.
Leaves not so disagreeably smelling as those of other species.
(Roxb.)
12. *levis*, Wall. L. ৫ Doab. Fl. small, greenish-white, and fr. March
and April.
13. *coriacea*, L. ৫ Native place? Fl. small, white, H. S.; fr. O.
- VITEX, L. (Spreng. syst. 2, p. 678, No. 2120;—R. Br. pr. p. 511.)
1. *trifolia*, L. (Spreng. syst. 2, p. 757;—R. Br. l. c.;—Roxb. fl. ind. 3,
p. 69;—B. M. 47, t. 2187;—J. Grah. Cat. B. pl. p. 155, excl.
Rheed. 2, t. 12;—Rheed. 2, t. 11;—Rumph. 4, t. 18.) 5 Tropical
New Holland. Moluccas. Pegu. Coromandel. The Concan and Dec-
can. Patna. Morung. Fl. smallish, bluish-white, April and May. For
the cure of the spleen, the Malays employ the leaves given in deco-
ction, and infusion, and formed into a cataplasm, which is applied to
the enlarged spleen. (Roxb.) The leaves and flowers are rather agree-
ably heavy-scented.



2. *Negundo*, L. (*Spreng. syst.* 2, p. 757;—*Roxb. fl. ind.* 3, p. 70.—V. *paniculata*, Lam.;—*Roxb. fl. ind.* 3, p. 71;—*Rheed. 2, t. 12*;—*Rumph. 4, t. 10.*) निशिंदा Nishinda. 5 Moluccas. Peninsula of India. Bengal, (Serampore.) Rajmahl. Deyra-Dhoon, &c. Fl. smallish, odoriferous, beautifully blue, H. and R. S.; fr. C. S. A decoction of the aromatic leaves helps to form the warm bath for native women after delivery. Bruised they are applied to the temples for the head-ache. Pillows stuffed with them are put under the head to remove a catarrh and the head-ache attending it. (*Roxb.*) For the rest of the medicinal use of this plant, see *Azadirachta indica*, Juss.
3. *heterophylla*, Roxb. (*fl. ind.* 3, p. 75;—*Wall. pl. as. rar.* 3, t. 226.) L. 5 Tippera. Goalpara. Fl. largish, yellowish, H. S.
4. *incisa*, Lam. (*Spreng. syst.* 2, p. 757;—*Roxb. fl. ind.* 3, p. 72.—V. Negundo, *Curt.*;—*B. M.* 11, t. 364; not L.—V. *chinensis*, *Hb. Banks.*) L. 5 China. Penang. Nepal. Fl. small, bluish-white, odoriferous. H. S.; fr. C. S.
5. *arborea*, Roxb. (*fl. ind.* 3, p. 73;—*Rheed. 5, t. 2.*) L. 5 Circars. Courtallum. Shores of Penang and Singapore. Martaban. Tavoy. Silhet. Fl. small, blue, April; fr. August. Wood, when old, chocolate-coloured, very hard and durable, which renders it useful for various purposes. (*Roxb.*)
6. *Leucoxylon*, Roxb. (*H. B.* p. 46; *fl. ind.* 3, p. 74;—*Rheed. 4, t. 36.*) L. 5 Ceylon. Both Peninsulas of India. Chittagong. Silhet. Assam. Fl. largish, whitish-yellow, fragrant. In H. C. G. fl. April; fr. March. (*Roxb.*)

Wall. Cat. makes a distinction between V. *Leucoxylon* and *saligna*, of the flor. ind. and the same plants of Hort. Beng. The late Dr. Carey, who compiled the latter work from the MSS. of the former, assured us, however, that he had meant no difference, and consequently there is none.

7. *saligna*, Roxb. (*H. B.* p. 46.; *fl. ind.* p. 75.) L. 5 Coromandel. Fl. pure white, middle-sized, inodorous, April; fr. O.

8. *alata*, Roxb. (*fl. ind.* 3, p. 72;—*J. Grah. Cat. B. pl. p.* 155, excl. syn. *Spreng.*—*Rheed. 5, t. 1.*) L. 5 Hills W. of Panwell. South Mahratta Country. Chittagong. Silhet. Monghir Mountains. Fl. smallish, yellowish, slightly tinged with blue, April and May; fr. August and Sept.

9. *altissima*, Roxb. (*fl. ind.* 3, p. 71.—L.?) L. 5 Mountainous forests of Coromandel. Goalpara. Fl. small, white, tinged with blue. In H. C. G. it fl. April and May; fr. August and Sept. (*Roxb.*)

10. *Haynga*, Roxb. (*H. B.* p. 46.) 5 Chittagong. Introduced into H. C. G. before 1814. Fl. ?

CONGEA, Roxb. (*Spreng. syst.* 2, p. 678, No. 2115.—*Sphenodesme, Jack.*—*Roscoea*, *Roxb. fl. ind.* 3, p. 54, not Sm.)

1. *pentandra*, Wall. (*Cat.* not *Jack.*—*Roscoea pentandra*, *Roxb. l. c.*) कुंगिया Kungiya. L. 5 Khassy Mountains. Fl. middle-sized, purple, March and April; fr. C. S.



2. *azurea*, Wall. (*Cat.*) 5 Martaban. Has not fl. here yet, though introduced 5 years ago.

SYMPHOREMA, Roxb. (*fl. ind.* 2, p. 262;—*Spreng. syst.* 2, p. 170, No. 1418.)

1. *involucratum*, Roxb. (*Corom. pl.* 2, t. 186; *fl. ind.* l. c.;—*Spreng. syst.* 2, p. 208;—*Wight. icon.* 2, t. 362.) L. 5 Forests of Coromandel. Fl. small, sessile, white, Feb. March and April; fr. 0.

? 2. *polyandrum*, Wight. (*icon.* 2, t. 363.) 5 Hills at Balaghaut. Fl. 10 lines, pure-white, April; fr. 0.

GMEA, L. (*Spreng. syst.* 2, p. 679, No. 2131.)

1. *arborea*, Roxb. (*Corom. pl.* 3, t. 246;—*fl. ind.* 3, p. 84;—*J. Grah. Cat. B. pl. p.* 158;—*Spreng. syst.* 2, p. 765;—*Rheed.* 1, t. 41.) गम्भारी Gumbharee. L. 5 Coromandel. Neelgherry. Concans. Bombay Island. Prome. Troglia River. Saluen. Taong-Dong. Gorukpore. Sukanaghur. Oude, &c. Fl. large, sulphur-coloured, slightly tinged with reddish on the outside of the tube, H. S.; fr. G. S. Timber very strong and durable, resisting the influence of water and worms better than teak. (Roxb.)? Roxburgh could not be sure, whether the wood, which he subjected to his experiments, really belonged to this tree. Indeed, he only says, "I conceived it to be this wood." The light wood of this tree is used by the natives of Hindoosthan for making the cylinders of the drums called Dholucks; (Asiat. Res. 6, p. 366,) also for making carriage pannels, as it combines lightness with strength. (Dr. Gibson.)

2. *villosa*, Roxb. (*fl. ind.* 3, p. 86;—*Rumph.* 2, t. 39.) 5 Moluccas. Penang. Madura. Fl. large, bright-yellow, the whole year; fr. C. S.

3. *asiatica*, L. (*Spreng. syst.* 2, p. 765;—*Roxb. fl. ind.* 3, p. 85;—*J. Grah. Cat. B. pl. p.* 158, excl. syn. *G. parviflora* [O: *parvifolia*.] Roxb. Corom. and Pluk. and Rumph. 2, t. 39.—*Rumph.* 1, t. 40.) L. 5 Coromandel. Fl. large, bright sulphur, whole year; fr. C. S.

4. *parvifolia*, Roxb. (*H. B. p.* 46;—*Spreng. syst.* 2, p. 765.—G. [by a misprint] *parviflora*, Roxb. *Corom.* 2, t. 162; *fl. ind.* 3, p. 87.—G. *coromandelica*, *Burm. ind. p.* 32;—*Pluk. t.* 14, *f. 4.*) L. 5 Coromandel. Mirzapore. Fl. like those of No. 3, April; fr. C. S.

5. *macrophylla*, Wall. (*Cat.*) Amboyna. In H. C. G. Fl.?

TECTONA, L. (*Spreng. syst.* 1, p. 509. No. 704.)

1. *grandis*, L. (*Spreng. syst.* 1, p. 643.—*Roxb. Corom.* 1, t. 6; *fl. ind.* 1, p. 600; *ed. Carey.* 2, p. 346;—*J. Grah. Cat. B. pl. p.* 158;—*Gärtn. fr.* 1, p. 275, t. 57, *f. 6.*—*Theka, Lam. ill. t.* 136;—*Rheed.* 4, t. 24;—*Rumph.* 3, t. 18.) गेंगी Segoon. Teak-tree. L. 5 Banks of the Taptee, The Concans. Malabar. Siam. Java. Bundekund. Fl. smallish, white, R. S.; fr. Oct. and Nov.

2. *ternifolia*, Buch. (*T. Hamiltoniana*, Wall. *pl. as. rar.* 3, t. 294.) L. 5 Banks of the Irrawaddi at Segaeen, Loongye, Prome, Ava, &c. Foot of Taong-Dong. Fl. small, pale blue, fragrant, March; fr. 0.



B. VERBENEÆ. Bartl.

(Lindl. Nat. Syst. p. 278.)

DURANTA, L. (Spreng. syst. 2, p. 679, No. 2129.)

1. Plumieri, L. (Spreng. syst. 2, p. 764.—B. Reg. 3, t. 244;—Jacq. amer. 186, t. 176, f. 76; ie. pict. t. 261.) 5 W. Indies. Fl. small, blue, C. S.

2. Ellisia, L. (B. M. 42, t. 1759.) In H. C. G.

PETRA, L. (Spreng. syst. 2, p. 679.)

1. volubilis, L. (Spreng. syst. 2, p. 761;—Jacq. amer. 180, t. 114;—B. M. 17, t. 628.) 5 Vera Cruz. W. Indies. Fl. large, violet. Introduced in 1841.

STREPTIUM, Roxb. (Spreng. syst. 2, p. 678, No. 2116.)

1. asperum, Roxb. (Corom. 2, t. 146; fl. ind. 3, p. 90;—Spreng. syst. 2, p. 754;—J. Grah. Cat. B. pl. p. 154.—Tortula aspera, Willd.—Verbena Forskällii, Vahl.—Priva leptostachya, Pers.) 5 Arabia. Coromandel. Old walls at Dapooree. Banks of the Irrawaddi. Fl. small, white, C. S.; fr. H. S.

VERBENA, L. (Spreng. syst. 2, p. 678, No. 2109;—R. Br. pr. p. 514.)

1. bonariensis, L. (Spreng. syst. 2, p. 748.—Dill. elth. 406, t. 300, f. 387;—Roxb. H. B. p. 4.—V. trichotoma, Mönch.) 5 Banks of the Plata River. Fl. minute, purple, H. S.

2. officinalis, L. (Spreng. syst. 2, p. 750;—E. B. 11, t. 767;—R. Er. l. c.—Roxb. H. B. p. 4.—J. Grah. Cat. B. pl. p. 154.) Common Verbain.) 4 Europe. Rajmahl. Gondoyer. Oude. Nepal. Taong-Dong. Kemaon. New Holland. Fl. small, pale rose-coloured, C. S.; fr. H. S.

ALOYSIA, Ort. (Pers. syn. 2, p. 139.)

1. citriodora, Ort. (Pers. l. c.;—J. Grah. Cat. B. pl. p. 154.—Lippia citriodora, Kth.;—Spreng. syst. 2, p. 753.—Verbena triphylla, L'Herit. stirp. 1, p. 20, t. 11;—B. M. 11, t. 367.) 5 Peru. Chili. Paraguay. Buenos Ayres. Fl. small, white, with red calices. Has been introduced into H. C. G. Fl.? In Bombay, at Belgaum and Dhawar, it thrives luxuriantly, and is much esteemed for the delightful fragrance of its leaves. (Law.)

STACHYTARPHETA, Vahl. (Spreng. syst. 1, p. 26, No. 87.)

1. jamaicensis, Vahl. (Spreng. syst. 1, p. 53;—B. M. 44, t. 1860;—J. Grah. Cat. B. pl. p. 154.—Verbena jamaicensis, Jacq. obs. 4, p. 6, t. 85;—Roxb. H. B. p. 4.) 5 W. Indies. S. America. Fl. small, pale blue, and fr. the whole year.

2. urticæfolia, Sims. (B. M. 43, t. 1848.—Cymburus urticæfolius, Sabl. par. lond. p. 53, excl. syn.) 5 S. America. Fl. small, indigo-coloured, whole year.

3. orubica, Vahl. (Spreng. syst. 1, p. 53.—Ehret. pict. 5, f. 1;—J. Grah. Cat. B. pl. p. 154.) 5 New Granada. Has been introduced into H. C. G. Fl.?

4. mutabilis, Vahl. (Spreng. syst. 1, p. 53;—B. M. 25, t. 976.—J. Grah.



472

VERBENACEAE.

SL

Cat. B. pl. p. 154.—*Zapania mutabilis*, *Lam.*—*Verbena mutabilis*, *Willd.*;—*Jacq. ic. rar. 2, t. 207.*—*Cymburus mutabilis*, *Salisb. par. lond. p. 49.*) ५ Caracas. Fl. at first deep scarlet, then rose or flesh-coloured, middle-sized, and fr. nearly the whole year.

ZAPANIA, Juss. (*Pers. syn. 2, p. 140*;—*R. Br. pr. p. 514.*)

1. *nodiflora*, Lam. (*R. Br. l. c.*;—*J. Grah. Cat. B. pl. p. 158*, excl. syn. *Lippia repens*, *Spreng.*—*Lippia nodiflora*, *Rich.*;—*Spreng. syst. 2, p. 751.*—*S. sarmentosa*, *Spreng. o. c. p. 752.*—*Verbena cuneata*, *Willd. herb.*—*V. nodiflora*, *L.*; *Roxb. H. B. p. 4*;—*Burm. ind. l. 6, f. 1*;—*Rheed. 10, l. 47.*) ६ छोटे ओकड़े Chhoto-okra. ७ औही ओकड़ी Bhooi-okra. ४. N. America. W. and E. Indies. Islands in the Pacific. New Holland. Fl. minute, white, and fr. the whole year.

VERBENA, L.

1. *Aubletii*, L. *suppl. (B. M. 9, t. 308;—B. Reg. 4, 264.)* ५ Carolina.
2. *chamaedrifolia*, Juss. (*B. Cab. 16, t. 1514.*) ५ Buenos Ayres.
3. *sororia*, Don. (*Prodr. fl. nep.*;—*Roxb. Hort. Beng. p. 4*, not L.) Nepal.

LANTANA, L. (*Spreng. syst. 2, p. 679, No. 2126.*)

1. *aculeata*, L. (*Spreng. syst. 2, p. 761*;—*B. M. 3, t. 96*;—*Roxb. H. B. p. 46*;—*J. Grah. Cat. B. pl. p. 156.*) ५ Jamaica and most W. Indian Islands, where it is called Wild Sage, on account of its strongly aromatic smell. Fl. yellowish orange-scarlet, small, and fr. whole year.
 2. *nivea*, Vent. (*Spreng. syst. 2, p. 761*;—*B. M. 45, t. 1946.*) ५ W. Indies. (*Sm.*)
३. *mutabilis*, Hook. (*B. M. 58, t. 3110.*) ५ Native country unknown. Fl. smallish, first yellow, then rose-coloured, and fr. the whole year.
 3. *odorata*, L. (*Spreng. syst. 2, p. 762*;—*Plum. gen. 32, ic. 71, f. 2.*) ५ W. Indies. Fl. small, rose-coloured, sweet-scented, C. S.
 4. *trifolia*, L. (*Spreng. syst. 2, p. 762*;—*B. M. 35, t. 1449*;—*Roxb. H. B. p. 46.*) ५ West Indian Mountains. Fl. smallish, purplish, and fr. the whole year.
 5. *indica*, Roxb. (*fl. ind. 3, p. 89*;—*J. Grah. Cat. pl. p. 56.*) ५ Mysore. Common about Dharwar. Fl. small, light purple, inodorous, R. S.; fr. 0.
 6. *Gogchana*, Buch. MSS. (*L. dubia*, *Wall. Cat.*;—*Royle ill. p. 300, t. 73, f. 2.*) ५ Banks of the Jumna. Saharunpore. Peer Punjal. Assufghur in Rohilkund. Fl. small, white, aromatic, sweet-scented, and fr. nearly the whole year.
 7. *canescens*, Kth. ५ S. America.
 8. *Selloviana*, Lk. and Ott. (*B. M. 57, t. 2987.*) ५ Monte Video.
- ? **HYMENOPYRAMIS**, Wall. Cat. (*Sine charactere!*)
1. *brachiata*, Wall. (*Cat.*) L. ५ Banks of the Irawaddi. Taong-Dong. Fl. small, white, delightfully fragrant, June and July; fr. August and Sept.



* *AVICENNIA*, L. (*Spreng. syst. 2*, p. 680, No. 2143;—*R. Br. pr. p. 518.*)

1. *tomentosa*, L. (*Spreng. syst. 2*, p. 768;—*R. Br. l. c.*;—*Roxb. fl. ind. 3*, p. 88;—*Wall. pl. as. rar. 3*, t. 211;—*J. Grah. Cat. B. pl. p. 159*;—*Jacq. amer. t. 112, f. 2*.—*A. resinifera*, *Forst. pr. no. 246*.—*A. africana*, *Palis. flor. d'Oware*, 80, t. 47.—*A. Oepata*, *Buch. Herb.*—*Sceura marina*, *Forsk. descr. 37*.—*Oepata*, *Rheed. 4*, t. 45.—*Mangium album*, *Rumph. 3*, t. 76.) बिना Bina. Between the tropics all over the world. N. Holland. Penang. Singapore. Moluccas. Soonderbuns, &c. Fl. small, dingy-yellow. H. S.; fr. 0. The bark is in general use in Rio Janeiro for tanning. (*Lindl.*)

* *Clerodendrum fortunatum*, L. 5 Goalpara.—*C. calamitosum*, L. Java.—*C. ligustrinum*, R. Br. 5 Mauritius.—*C. pubescens*, Lindl.; B. R. 12, t. 1035. 5 W. Indies.—*C. coromandelianum*, Spreng. 5 Mauritius.—*C. lividum*, Lindl. B. Reg. 11, t. 945. 5 China.—*C. tomentosum*, R. Br.; B. M. 37, t. 1518. 5 Tropical N. Holland.—*C. floribundum*, R. Br. 5 Tropical N. Holland.—*C. ovatum*, R. Br. 5 Tropical N. Holland.—*C. coriaceum*, R. Br. 5 Tropical N. Holland.—*Cornutia pyramidata*, *Callicarpa longifolia*, Lam.; B. Reg. 10, t. 864. 5 Penang.—*C. lanata*, L. 5 Neelgherries.—*C. pentandra*, Roxb. 5 Penang.—*C. ferruginea*, Swz. 5 Jamaica.—*C. reticulata*, Swz. 5 Jamaica.—*C. pedunculata*, R. Br. 5 Tropical N. Holland.—*C. adenantha*, R. Br. 5 Tropical N. Holland.—*C. rubella*, Lindl.; B. Reg. 11, t. 883. 5 China.—*Pityrodia salviifolia*, R. Br. 5 Tropical N. Holland.—*Premna mucronata*, Roxb. 5 Morung and Khassy Mountains.—*P. tomentosa*, Willd. 5 Circar Mountains.—*P. flavescens*, Buch. Goalpara.—*P. cordata*, *acuminata*, *ovata*, *obtusifolia*, R. Br. 5 Tropical N. Holland.—*P. reticulata*, Juss. 5 Jamaica.—*Hosta coerulea*, Jacq.; B. Reg. 14, t. 1204. 5 Mexico.—*Vitez umbrosa*, Swz. 5 Jamaica.—*V. triflora*, Vahl. 5 Cayenne.—*V. ovata*, Thunb. 5 China. Tropical N. Holland.—*V. acuminata*, R. Br. 5 Tropical N. Holland.—*Congea villosa*, (*Roscoea villosa*, Roxb.) 5 Rangoon.—*Gmelina oblongifolia*, Roxb. L. 5 East of Bengal.—*Duranta Mutisii*, L. 5 W. Indies.—*Citharexylum caudatum*, L. 5 W. Indies.—*C. villosum*, Jacq. 5 Domingo.—*Amasonia punicea*, Vahl. 2. Trinidad.—*Taligalia campestris*, Aubl. 2. Guiana.—*Priva mexicana*, Pers. 2. Mexico.—*P. Lappulacea*, Pers. 2. W. Indies.—*Tamonia curassavica*, Aubl. 2. Curaçao.—*Verbena Lambertii*, Sims; B. M. 45, t. 2200. 2. S. America.—*V. bracteosa*, Michx.; B. M. 56, t. 2910. 2. Mexico.—*V. scabra*, Vahl. 2. Mexico.—*Stachytarpheta angustifolia*, Vahl. 5 S. America.—*S. prismatica*, Vahl. 5 W. Indies.—*Lippia purpurea*, Jacq. 5 Mexico.—*Lantana mollis*, Grah. 5 Buenos Ayres.—*L. scabrida*, Ait. 5 W. Indies.—*L. melissifolia*, Ait. 5 W. Indies.—*L. Lockharti*, G. Don. 5 Trinidad.—*L. stricta*, Swz. 5 Jamaica.—*L. Radula*, Swz. 5 W. Indies.—*L. involucrata*,



GSL

crata, L. 5 W. Indies.—*L. crocea*, Lk. 5 Jamaica.—*Glossocarya mollis*, Wall. Cat. Sagaen. Towards Taong-Dong.

ORDER CXCIX.—MYOPORACEÆ, Lindl. Nat. Syst. p. 279.

Shrubs, by Lindl., excluding Avicennia, referred to 5 genera, with 21 species, of which 20 are natives of New Holland, and 1 (Bontia) of the W. Indies. "Properties unknown." (Lindl.)

MYOPORUM, Banks. (*Spreng. syst.* 2, p. 679, No. 2133;—*R. Br. pr. p.* 515.)

1. *acuminatum*, R. Br. (*Spreng. syst.* 2, p. 766;—*R. Br. l. c.*) 5 New Holland, near Port Jackson. Fl. smallish, white, at the bottom purple stained, Feb. and March; fr. 0.
 2. *debile*, R. Br. (*Spreng. syst.* 2, p. 766;—*R. Br. pr. p.* 516;—*B. M.* 43, t. 1830.—*Pogonia* (not R. Br.) *debilis*. *Andr. B. Repos.* t. 212.) 5 N. Holland, near Port Jackson. Fl. smallish, pale rose-coloured with a tinge of purple, more or less the whole year.
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* *Myoporum ellipticum*, R. Br. 5 Tropical N. Holland.—*M. tenuifolium*, R. Br. 5 Tropical New Holland.—*Bontia daphnoïdes*, L. 5 W. Indies.

ORDER CC.—SELAGINACEÆ, Lindl. Nat. Syst. p. 279.

Herbs or small shrubs, referred by Harvey to 7 genera, containing numerous species, all natives of S. Africa. "Properties unknown." (Lindl.)

HEBENSTREITIA, L., (*Spreng. syst.* 2, p. 678, No. 2113.)

1. *fruticosa*, Thunb. (*Spreng. syst.* 2, p. 754;—*B. M.* 45, t. 1970.) 5 C. G. H. Fl. small, white, C. S.; but very rare; fr. 0.
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* *H. dentata*, L. B. M. 14, t. 483. 5 C. G. H.

ORDER CCI.—PEDALIACEÆ, Lindl. Nat. Syst. p. 281.

THE OIL-SEED TRIBE.

Herbs, by Lindl. referred to 10 genera, of which Spreng. syst. only enumerates 5 for S. America, Mexico and W. Indies; 2 for New Holland, and 1 for E. Africa. In S. Africa have been found 3 species (Harvey); and in the E. Indies as many; viz. 1 of *Pedalium*; and 2 of *Sesamum*. Properties under the species.



MARTYNIA, Houst. (*G. Don's Mill. dict.* 4, p. 234.)

1. *diamondia*, Gloc. (*G. Don. o. c. p.* 235;—*B. Repos.* 9, t. 575;—*B. Reg.* 23, t. 2001;—*Roxb. H. B.* p. 45;—*J. Grah. Cat. B. pl.* p. 127.—excl. syn. *Gärtm. B. M.* and *G. Don.*—*M. angulosa*, *Lam.*) ◦ Mexico. Fl. 2 inches, white-pale rose-coloured, stained with orange below on the inside, and stained on the limb above with 5 central dark purple spots, and fr. R. S. Domesticated about Serampore.

PEDALIUM, L. (*G. Don's Mill. dict.* 4, p. 235.)

1. *Murex*, L. (*G. Don. o. c. p.* 236;—*Roxb. fl. ind.* 3, p. 114;—*J. Grah. Cat. B. pl.* p. 127;—*Gärtm. fr.* 1, p. 276, t. 58, f. 1;—*Rheed.* 10, t. 72;—*Burm. ind.* t. 45, f. 2.) ◦ Sea-shores of the Coromandel Coast. At Bombay, in compounds on the Esplanade, near the Marine Lines. Ceylon. Fl. largish, yellow, and fr. R. and C. S. The fresh leaves have the property of thickening water, and rendering it mucilaginous. (*J. Grah.*)

SESAMUM, L. (*G. Don's Mill. dict.* 4, p. 234.)

1. *indicum*, L. (*G. Don. l. c.*;—*B. M.* 41, t. 1688;—*Endl. ichnogr.* t. 70.—*S. orientale*, L.;—*G. Don. l. c.*;—*Gärtm. fr.* 2, p. 132, t. 110, f. 2;—*Roxb. fl. ind.* 3, p. 100.—*S. trifoliatum*, *Mill. dict.* No. 3.—*S. luteum*, *Retz.*—*S. laciniatum*, *Willd.*;—*Rheed.* 9, t. 54, 55;—*Rumph.* 5, t. 76, f. 1;—*Burm. zeyl.* t. 38, f. 1.) तेल तिळ. ◦ All over India. Cultivated in Egypt, S. America, W. Indies, the Levant, &c. Fl. largish, white rose-coloured, H. S.; fr. R. S. Leaves emollient. Seeds contain a fixed oil, as tasteless as Olive oil.

β. *majus* कृष्ण तिळ *Krishna-til.* Of a larger size. Fl. deeper rose-coloured.

* *Martynia annua*, L. (*M. proboscidea*, *Gloc.*; *B. M.* 26, t. 1056.) ◦ Mexico.—*M. longiflora*, L. ◦ *C. G. H.*—*M. lutea*, *Lindl.*; *B. Reg.* 11, t. 934. ◦ Brazil.—*Josephinia grandiflora*, *R. Br.* ◦ Tropical New Holland.—*Sesamum prostratum*, *Retz.* ◦ Coromandel.

ORDER CCII.—BIGNONIACEÆ, R. Br.—*Lindl. Nat. Syst.* p. 282.

THE TRUMPET-FLOWER TRIBE.

Trees or shrubs, often twining or climbing, by *Lindl.* referred to 31 genera. Of these, *Spreng.* syst. enumerates 106 species for S. America, Mexico and the W. Indies; 3 for N. America; 3 for Madagascar; 3 for N. Holland; 2 for Guinea; 1 for Senegal; and 1 for China. In S. Africa have been found 4 species; (*Harvey.*) and in the E. Indies, according to *Spreng.* syst. *Wall. Cat.*, about 27; viz. 17 of *Bignonia*; (both Peninsulas of India, Assam, Morung, Banks of the Jumna, Moluccas), 6 of *Spathodea*,



(Peninsula of India, One from Pegu); 1 of *Calosanthes*; (Coromandel, The Concans, Cochin China); 1 of *Schrebera*; (Circars); 1 of *Trigonocarpus*; (Amherst, Chappedong); and 1 of *Wightia*. (Nepal). Wall. Cat., B. M., and B. Reg.; add 2 species for Mauritius; 1 for Madagascar; and 1 for New Holland. "Plants of this order little known, except for the great beauty of the flowers." (Lindl.)

COLEA, (Bojer.)

1. *mauritiana*, Boj. (B. Colei. B. M. 55, 2817.) Madagascar.

BIGNONIA, Tournef. (G. Don's Mill. dict. 4, p. 214.)

1. *undulata*, Roxb. (fl. ind. 3, p. 101;—J. Grah. Cat. B. pl. p. 124.—

Tecoma undulata, G. Don's Mill. dict. 4, p. 223.) 5 Banks of the Jumna and Chumbul. Cawnpore. Abundant in one locality about Kandesh, Guzerat. Fl. large, orange-coloured, scentless, Feb. and March; fr. June and July.

2. *capreolata*, L. (G. Don's Mill. dict. 4, p. 217;—B. M. 22, t. 864.)

5 ✓ Virginia. Carolina. Fl. largish, externally red, internally sulphur-red, scentless; March.

3. *equinoctialis*, L. (G. Don. l. c.) 5 ✓ Cayenne. Introduced in 1840.

4. *crucigera*, L. (G. Don's Mill. dict. 4, p. 217;—Roxb. H. B. p. 47.)

5 ✓ Virginia. Mexico. Fl. largish, yellow, whitish beneath. Has not fl. here, though cultivated for many years.

5. *suaveolens*, Roxb. (fl. ind. 3, p. 104;—J. Grah. Cat. B. pl. p. 125.—

Tecoma suaveolens, G. Don's Mill. dict. 4, p. 224.) পাতুলি Patali পারুল Parool. 5 Deccan. Bengal. Sukanaghur. Gorukpur. Kheree Jungle. Fl. large, dark dull crimson, fragrant, H. S.; fr. C. S.

6. *chelonoides*, L. (Roxb. fl. ind. 3, p. 106;—J. Grah. Cat. B. pl. p.

125, excl. syn. G. Don.—Rheed. 6, t. 26.) L. 5 Coromandel. Elephanta. Lanowlee grove, near Kandalla. Jungles in a ravine, near Parr. The Ghauts. Silhet. Assam. Fl. largish, dull yellowish, tinged with brown and orange, May, June and July; fr. Dec. and January.

7. *multijuga*, Wall. (pl. as. rar. 1, t. 95, 96;—G. Don's Mill. dict. 4, p.

221.) 5 Silhet. Penang. Fl. very large, greenish-pale, sulphur-coloured, more or less tinged with dark purple, Feb. and March; fr. C. S.

8. *adenophylla*, Wall. (G. Don's Mill. dict. 4, p. 221.) 5 Banks of the Irawaddi. Taong-Dong. Ava. Prome. Has been cultivated here for many years, without fl.

9. *amoena*, Wall. (pl. as. rar. 2, t. 183;—G. Don's Mill. dict. 4, p. 222.) 5 Mauritius. Fl. large, pale rose-coloured, at the throat inside orange, fragrant, H. S.; fr. C. S.

? 10. *suberosa*, Roxb. (fl. ind. 3, p. 111;—J. Grah. Cat. B. pl. p. 126.—

Millingtonia hortensis, L. fil.;—G. Don's Mill. dict. 4, p. 229;—Roxb. Corom. 3, t. 214.) L. 5 Tanjore. Segaien. Between Ava and Taong Dong. Fl. large, pure white, fragrant, C. S.; fr. March.



11. *xylocarpa*, Roxb. (*fl. ind.* 3, p. 108;—*J. Grah. Cat. B. pl. p.* 125.—*Tecoma xylocarpa*, *G. Don's Mill. dict.* 4, p. 225.) 5 Neelgherries. Tull Ghaut. Jowar Jungles. Hills about Nagotnah, and on Parr Ghaut. Jungles about Rutnaguiree. Abundant in the Jungles about Daung in Kandesh. Fl. large, white, tinged with yellow, fragrant, March and April; fr. Feb. and March. Tender fruit edible. (*Nimmo.*)

12. *fimbriata*, Wall. Moulmein.

13. *cauliflora*, Burke. (*Maurit. Cat.*) 5 Madagascar, R. S. 1840.

14. *venusta*, Ker. (*B. Reg.* 3, 249.—*B. M.* 46, 2050.) 5 ✓ Brazil. C. S. 39.

15. *gracilis*, B. Cab. (18, 1705.) S. Amer. C. S. 39.

16. *viridiflora*, B. Cab. (11, 1026.)

17. *echinata*, Jacq. (*Amer. p.* 183, t. 176, f. 52.) C. S. 1840.

SPATHODEA, Beauv. (*G. Don's Mill. dict.* 4, p. 222.)

1. *uncinata*, Spreng. (*syst.* 2, p. 835.—*Bignonia uncinata*, *Meyer*;—*G. Don's Mill. dict.* 4, p. 216.) 5 ✓ Essequebo. Fl. largish, dull-red, Oct.; fr. 0.

2. *Rheedii*, Spreng. (*S. longifolia*, *Vent.* ex Lam.—*B. spathacea*, *L. fil. suppl.* not Roxb. *Corom.* 2, 24, t. 144.—*fl. ind.* 3, t. 103, quo teste, *B. falcata*, *Kön.* MSS.) H. S.; fr. C. S.

3. *Roxburghii*, Spreng. (*G. Don's Mill. dict.* 4, p. 223.—*Bignonia quadrilocularis*, *Roxb. Corom.* 2, t. 145; *fl. ind.* 3, p. 107;—*J. Grah. Cat. B. pl. p.* 125.) L. 5 Circar Mountains. Malabar Hill. Bombay. Elephanta. The Ghauts. Very common in Paddashapore Jungles, in South Mahratta Country. Kandesh. Fl. large, rose-coloured, fragrant, Feb. and March. Wood employed for many purposes by the natives. (*Roxb.*)

4. *crispa*, Wall. (*Cat.*—*G. Don's Mill. dict.* 4, p. 222.—S. *atrovirens*, *Spreng.*—*Bignonia crispa*, *Roxb. fl. ind.* 3, p. 103;—*J. Grah. Cat. B. pl. p.* 125.—*B. atrovirens*, *Roth.*) 5 Mysore. Duddi on the Gutpurba. Fl. large, pure white, fragrant, opening in the evening, falling the next morning, May and June; fr. Dec.

5. *stipulata*, Wall. (*pl. as. rar.* 3, t. 238;—*G. Don's Mill. dict.* 4, p. 223.—*Bignonia stipulata*, *Roxb. fl. ind.* 3, p. 108.) L. 5 Pegu. Fl. large, sulphur-coloured, of an unpleasant smell, Feb.; fr. April.

6. *serrulata*, Wall. Irawaddi. In H. C. G. Fl.?

TECOMA, Juss. (*G. Don's Mill. Dict.* 4, p. 223.)

1. *australis*, R. Br. (*G. D. t. c.*—*Bignonia pandorea*, *Vent. malm.* t. 43.—*B. pandorana*, *B. Repos.* t. 86.—*B. Pandore*, *Ker. in. recens. bot. repos.* 97.—*B. M.* 22, t. 865.) 5 ✓ Trop. N. Holland. Fl. largish, white pale-rose, with a dark purple throat. Introduced in 1841.

2. *jasminoides*, G. Don. (*Mill. dict.* 4, p. 235;—*Lindl. B. Reg.* 23, p. 2002.—*Bignonia jasminoides*, *Cunningh.*) 5 ✓ N. Holland. Fl. large, white rose-coloured, March and April; fr. 0.

3. capensis, Lindl. (*B. Reg.* 13, *t.* 1117 ;—*G. Don's Mill. dict.* *t. c.*)—
Bignonia capensis, Thunb.) Fl. large, orange scarlet. Has been introduced into H. C. G. Fl. ?

4. grandiflora, Swt. (*G. Don. t. c.*)—*Bignonia grandiflora*, Thunb.;—
Roxb. fl. ind. 3, *p.* 105 ;—*Bl.*;—*B. M.* 34, *t.* 1398 ;—*B. Repos.* 8, *t.* 493.—*B. chinensis*, Lam.—*Incarvillea grandiflora*, Spreng.) L. 5 ✓ Japan, China. Fl. large, orange-coloured, scentless, June, July and August; fr. C. S.

5. radicans, Juss. (*G. Don. t. c.*)—*Bignonia radicans*, L.;—*B. M.* 14, *t.* 485.—*Roxb. H. B. p.* 47;—*J. Grah. Cat. B. pl. p.* 126.)

B. minor. 5 Carolina. Fl. large, deep orange, tinged with scarlet, nearly the whole year; fr. O.

CATALPA, Juss. (*G. Don's Mill. dict.* 4, *p.* 230.)

1. syringæfolia, Sims. (*B. M.* 27, *t.* 1094;—*G. Don. t. c.*)—*Bignonia Catalpa*, L.;—*Roxb. H. B. p.* 47.) 5 Banks of the Ohio and Mississippi. Has been cultivated in H. C. G. as well as here, for many years, without fl.

JACARANDA, Juss. (*G. Don's Mill. dict.* 4, *p.* 225.)

1. mimosæfolia, D. Don. (*B. Reg.* 8, *t.* 631;—*G. Don. t. c.*)—*J. ovalifolia*, R. Br. *B. M.* 49, *t.* 2327.) 5 Brazil. Fl. large, pale-blue. Introduced in 1841.

CALOSANTHES, Bl. (*Bijdr. p.* 760;—*G. Don's Mill. dict.* 4, *p.* 229.)

1. indica, Bl. (*o. c. p.* 761;—*G. Don. t. c.*)—*Bignonia indica*, L.;—
Roxb. fl. ind. 3, *p.* 110;—*J. Grah. Cat. B. pl. p.* 125.—*B. pentandra*, Lour.—*Spathodea indica*, Pers.;—*Rheed.* 1, *t.* 43, 44.) L. 5 Coromandel, Bombay Presidency, in Mahim woods; Elephanta; Hills throughout the Concans; Jungles in Kandesh. Fl. very large, outside dark purple, inside yellowish-white, June; fr. Jan. and Feb.

AMPHILOPHIUM, Humb. Bonpl. and Kth.

1. Mutisii, Kth. Equinoctial America.

SCHREBERA, Roxb. (*G. Don's Mill. dict.* 4, *p.* 231.)

1. swietenioides, Roxb. (*Corom.* 2, *t.* 101; *fl. ind.* 1, *p.* 109; *ed. Carey*, 1, *p.* 109;—*J. Grah. Cat. B. pl. p.* 112;—*G. Don. t. c.*) L. 5 Circar Mountains. Hala hills, W. of the Indus. Tull Ghaut, near Bhewndy. Jowaur. Fl. smallish, variegated with white and brown, during the night very fragrant, Feb. and March. Wood of a grey colour, very close-grained, heavy, and durable. It is employed by weavers in many parts of their looms, particularly the beam. It is also used for a variety of other purposes. (*Roxb.*)

? **CRESCENTIA**, L. (*G. Don's Mill. dict.* 4, *p.* 232.)

1. Cujete, L. (*G. Don. t. c.*)—*Jacq. amer.* 175, *t.* 111; *ed. pict.* *p.* 86, *t.* 167;—*Roxb. H. B. p.* 45.) Common Calabash tree. 5 Equinoctial America. Fl. large, variegated with green, purple, red and yellow, not withering, but becoming putrid, and exhaling a nauseous and in-



tolerable smell, R. S.; fr. O. *Shells* of the fruit, cleansed and dried, are used by the inhabitants of Tropical America for drinking cups. Those of the long, small-fruited kind, are formed into spoons and ladles. The round ones are cut through the middle and used for chocolate-cups; they are frequently large enough to hold a gallon of fluid, serving to boil water in, as they bear fire well. The thicker parts are frequently used for button-moulds in the W. Indies. The Caribs engrave the outside with a number of grotesque figures, which they sometimes colour black and red. The *pulp* is now and then eaten by the negroes, but it is not looked upon as either agreeable, or wholesome; it is, however, much used by way of poultice, and a syrup made out of it is much in request among the natives, in disorders of the breast, in contusions, and inward bruises. The *wood* being very tough and flexible, is fit for the coach-makers, and frequently used for making saddles, stooles, and other furniture. (*Mill. dict.*)

2. *alata*, H. B. and Kth. (*G. Don. o. c. p. 233.*) 5 Mexico. In the Governor General's garden, at Barrackpore, fl. R. S. The flowers are like those of No. 1.

? *TRIPINNA*, Lour. (*Tripinnia, Pers.*—*G. Don's Mill. dict. 4, p. 233.*)

1. *africana*, (*Tripinnia africana*, Spreng. *syst. 2, p. 842*;—*G. Don. l. c.*—*Crescentia pinnata*, Jacq. *coll. 3, t. 18.*—*Tanæcum pinnatum*, Willd.) L. 5 Mozambique. Introduced in 1841.

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- * *Bignonia pallida*, Lindl.; B. Reg. 12, t. 965 5 St. Vincent.—*B. Unguis*, L. 5 Barbadoes.—*B. staminea*, Lam. 5 St. Domingo.—*B. Chamberlaynii*, Sims.; B. M. 47, t. 2148. 5 Brazil.—*B. alliacea*, Swz. 5 Guiana.—*B. rigescens*, Jacq. 5 Caraccas.—*B. lactiflora*, Vahl. 5 St. Cruz.—*B. Leucozylon*, L. B. Repos. 1, t. 43. 5 Jamaica.—*B. Telfairiae*, Bojer; B. M. 57, t. 2976. 5 Madagascar.—*B. Colei*, Bojer; B. M. 55, t. 2817. 5 Mauritius. Has been introduced at Bombay.—*Spathodea uncata*, Spreng. (*Bignonia uncata*, Andr.; B. M. 37, t. 1511.) 5 Guiana. W. Indies.—*Tecoma pentaphylla*, Juss. 5 W. Indies.—*T. stans*, Juss.; B. M. 59, t. 3191. 5 W. Indies. Mexico. Introduced at Bombay.—*T. radicans*, Juss. a. *major*, (*Bignonia radicans*, L.; B. M. 14, t. 485.) 5 Virginia. Carolina. Florida.—*Jacaranda brasiliiana*, Lam. 5 Brazil.—*J. tomentosa*, R. Br.; B. Reg. 13, t. 1103. 5 Brazil.—*Fredericia speciosa*, Mart. 5 Rio Janeiro.—*Ferdinandusa elliptica*, Pohl. 5 Brazil.—*Astianthus longifolius*, D. Don. 5 Mexico.—*Chilopsis saligna*, D. Don. 5 Mexico.—*Wightia gigantea*, Wall. pl. as. rar. 1, t. 81. 5 Nepal.—*Catalpa longissima*, Juss. 5 W. Indies.—*Tourretia lappacea*, Willd. 5 B. M. 66, t. 3749. Peru.—*Crescentia cucurbitina*, L. 5 Jamaica.—*C. aculeata*, H. B. and Kth. 5 Mexico.—*Tanæcum parasiticum*, Swz. 5 Jamaica.—*T. Jaroba*, Swz. 5 Jamaica.



ORDER CCIII.—CYRTANDRACEÆ, Jack.—Lindl. Nat. Syst. p. 283.

Terrestrial or parasitical plants, usually herbaceous and stemless, occasionally caulescent, and sometimes shrubby, referred by R. Br. (*Horsf. pl. jav. rar.* 2, p. 114.) to 22 genera: of these 5 species belong to S. Africa and Madagascar; (*Streptocarpus*, Lindl.); 1 to Magellan; 1 to N. China, (*Bea*, Commers.); 1 to Mexico; (*Glossanthus*, Klein.); 1 to New Zealand; (*Rhabdothamnus*, Cunningham.); 1 to N. S. Wales; (*Fieldia*, Cunningham.). The E. Indian species, amount to about 75 species, referred to the following genera; viz. *Æschynanthus*, (12), *Tromsdorffia*, (1?). *Agalmyla*, (1), *Lysionotus*, (1), *Chirita*, (10), *Didymocarpus*, (22), *Loxocarpus*, (1. *Loxonia?* incana, Wall. Cat.), *Epithema*, *Stauranthera*, (2). *Monophyllea*, (1), *Platystemma*, (1), *Rhynchothecum*, (*Corysanthera*, Wall. Cat.), *Centronia*, (1), *Cyrtandra*, (13), *Whitia*. “Properties unknown.” (Lindl.)

ÆSCHYNANTHUS, Jack. (*G. Don's Mill. dict.* 4, p. 656.)

1. *parasiticus*, Wall. (*Cat.*—*Æ.* *grandiflorus*, *G. Don. l. c.*;—*B. M.* 67, t. 3843;—*J. Grah. Cat. B. pl.* p. 146.—*Trichosporum grandiflorum*, *D. Don. pr. fl. nep.* p. 125.—*Incarvillea parasitica*, *Roxb. Corom.* 2, t. 291;—*H. B.* p. 47; *fl. ind.* 3, p. 112.) ♀. Paras. The Concans. Khassy Mountains, &c. Fl. large, orange-scarlet, R. S.; fr. Sept. and Oct.

PLATYSTEMMA, Wall. (*G. Don's Mill. dict.* 4, p. 664.)

1. *violetoides*, Wall. (*pl. as. rar.* 2, t. 151;—*Royle. ill. t.* 71, f. 1;—*G. Don. l. c.*) ♂. Rocks of Upper Nepal. Fl. largish, violet-blue, in the centre minutely green-rayed, underneath whitish, G. S.

LOXONIA?

1. *alata*, Wall. ♂ North East of Bengal.

* *Tromsdorffia speciosa*, Blum. ♂ Banks of rivers in Java.—*Æschynanthus oblongifolius*, G. Don. (*Incarvillea oblongifolia*, Roxb.) ♂ Chittagong.—*Æ. ramosissimus*, Wall. (*pl. as. rar.* 1, t. 71.) ♂ Paras. Nepal.—*Didymocarpus crinitus*, Jack. ♀. Penang.—*D. reptans*, Jack. ♀. Penang.—*Loxotis obliqua*, Benth. Khassy Mountains.—*L. intermediæ*, Benth. Moulmein.—*Stauranthera grandifolia*, Benth. Penang.—*Epithema Brunonis*, Decaisne. (*Aikinia Brunonis*, Wall. *pl. as. rar.* 3, t. 228.) ♂ Timor.

ORDER CCIV.—ACANTHACEÆ, R. Br.—Lindl. Nat. Syst. p. 284.

THE JUSTICIA TRIBE.

Herbs or shrubs, by Nees von Esenbeck and Lindl. Nat. syst. p. 285, referred to 78 genera. Of these, Spreng. syst. and Lindl. l. c. addenda, enumerate about 140 species from S. America, Mexico and Brazil; 24 from



Arabia; 22 from New Holland; 12 from Senegal and Guinea; 9 from the Southern part of N. America; 4 from S. Europe; 4 from Madagascar; 4 from China; 3 from Japan; 2 from the Mascarenhas Islands; 2 from N. Africa; and 1 from the Canaries. In S. Africa have been discovered 50 species. (*Harvey.*) Of E. Indian ones, Nees. v. Esenb. has described 263; viz. 6 of *Thunbergia*; 1 of *Meyenia*; 3 of *Hexacentris*; 1 of *Elytraria*; 1 of *Nelsonia*; 1 of *Cardanthera*; 4 of *Adenosma*; 3 of *Ebermayera*; 1 of *Hemadelphis*; 6 of *Hygrophila*; 3 of *Dyschoriste*; 9 of *Dipteracanthus*; 1 of *Pelidium*; 6 of *Ruellia*; 1 of *Phlebophyllum*; 1 of *Buteaa*; 1 of *Adenanthera*; 2 of *Stenosiphonium*; 26 of *Strobilanthes*; 2 of *Aechmanthera*; 14 of *Goldfussia*; 11 of *Asystasia*; 1 of *Echinacanthus*; 1 of *Leptacanthus*; 1 of *Asteracanthus*; 24 of *Barleria*; 1 of *Aethilema*; 18 of *Lepidagathis*; 1 of *Neuracanthus*; 2 of *Blepharis*; 1 of *Acanthus*; 3 of *Dilivaria*; 3 of *Crossandra*; 3 of *Endopogon*; 1 of *Loxanthus*; 5 of *Phlogacanthus*; 4 of *Cryptophragmum*; 10 of *Rostellaria*; 1 of *Hemichoriste*; 1 of *Graptophyllum*; 7 of *Adhatoda*; 10 of *Gendarussa*; 2 of *Leptostachya*; 1 of *Gymnostachyum*; 14 of *Eranthemum*; 4 of *Justicia*; 3 of *Rhinacanthus*; 1 of *Blechum*; 7 of *Rungia*; 8 of *Dicliptera*; 8 of *Peristrophe*; 2 of *Hypoestes*; 1 of *Rhaphidospora*; 2 of *Erianthera*; 1 of *Haplanthus*; and 6 of *Andrographis*. To these must be added *Eranthemum harlerioides*, Roxb.; *Justicia vetellina*, Roxb.; *J. alba*, Roxb.; *J. bivalvis*, Roxb.; *J. latebrosa*, Kön.; *J. verticillata*, Roxb.; *Ruellia comosa*, Roxb.; *R. flava*, Roxb.; *R. cernua*, Roxb.; *R. flagelliformis*, Roxb.; *R. Pavala*, Roxb.; *R. hirsuta*, Roxb.; and *R. suffruticosa*, Roxb. Perhaps *Staurogyne argentea* and *angustifolia*, Wall. may also belong to the order. About 60 of these have been found in the Himalayas, the Khassya Mountains, and Assam; the rest are natives chiefly of Mountainous districts of both Peninsulas of India, Java, the Moluccas, Luçon, and Ceylon. But few properties of this order are known.

A. THUNBERGIÆ, Nees.

(*In Wall. pl. as. rar. 3. p. 74.*)

THUNBERGIA, L. (*Nees. o. c. p. 77.*)

1. *grandiflora*, Roxb. (*fl. ind. 3. p. 34*;—*Nees. o. c.*;—*J. Grah. Cat. B. pl. p. 163*;—*B. Reg. 6. t. 493*;—*B. M. 50. t. 2366.*) नील लता *Neel-lata*. 2. ↗ Bengal, (Serampore.) Silhet. Hindooostan. Assam. Peninsula of India, &c. Fl. very large, blue, with a white tube, and fr. the whole year.
2. *fragrans*, Roxb. (*Corom. 1. t. 67*;—*fl. ind. 3. p. 33*;—*Nees. l. c.*;—*J. Grah. Cat. B. pl. p. 163*;—*B. M. 44. t. 1881.*) 2. ↗ Circular Mountains. Kennery Jungles. The Ghauts. Hindooosthan. Fl. 15 lines, white, with a sulphur-coloured bottom, inodorous, and fr. the whole year.
3. *alata*, Hook. (*Exot. fl. t. 177*;—*B. M. 52. t. 2591*;—*Nees. o. c. p. 78.*) 2. ↗ Zanzibar and Pemba. Fl. 16 lines, ochraceous, with deep purple bottom, and fr. C. S.



A. angulata, Hook. (*Exot. fl. t.* 166;—*Nees. l. c.*) 2. Madagascar. Fl. 1 inch, violet, with a yellow throat, R. S.

MEYENIA, Nees. (*o. c. p.* 78; not Schlecht.)

1. *Hawtayneana*, Nees. (*l. c.*—*Thunbergia Hawtayneana*, *Wall. tent. fl. nep.* 1, *p.* 49; *pl. as. rar.* 2, *t.* 164.) 5. ~ Neelgherries. Fl. 16 lines, indigo-coloured, with a yellow throat, and fr. the whole year.

2. *albiflora*. Fl. white.

HEXACENTRIS, Nees. (*l. c.*)

1. *coccinea*, Nees. (*l. c.*—*Thunbergia coccinea*, *Hook. exot. fl. t.* 195;—*D. Don. pr. fl. nep.* *p.* 120.) 2. ~ Nepal. Khaseya Mountains. Fl. largish, intensely red, with a yellow throat, and fr. C. S.

* *Thunbergia levis*, Wall. Cat. 2. ~ Dindygul.—*T. tomentosa*, Wall. 2. ~ Neelgherries.—*Hexacentris acuminata*, Nees. Khassy Mountains.—*Mendoza aspera*, Ruiz. and Pav. 5. Peru.—*Mendoza racemosa*, Ruiz. and Pav. Peru.

B. NELSONIÆ, Nees.

(In *Wall. pl. as. rar.* 3, *p.* 74.)

ELYTRARIA, Vahl. (*Nees. o. c. p.* 79.)

1. *crenata*, Vahl. (*Nees. l. c.*—*E. indica*, Pers.—*Justicia acaulis*, L.;—*Roxb. Corom.* 2, *t.* 127; *fl. ind.* 1, *p.* 119; *ed. Carey*, 1, *p.* 120.) 2. Circar Mountains. Madras. Gingie. Madura. Banks of the Jumna, &c. Fl. small, white, R. and C. S.

NELSONIA, R. Br. (*Nees. l. c.*)

1. *tomentosa*, Dietr. (*Nees. l. c.*—*Justicia tomentosa*, *Roxb. fl. ind.* 1, *p.* 131; *ed. Carey*, 1, *p.* 132.—*J. vestita*, *Röm. and Sch.*—*J. ben-galensis*, *Spreng.*) পুরামূল *Puramool*. 2. Both Peninsulas of India. Bengal, (Serampore.) Fl. 3½ line, bluish-purple, inodorous, R. and C. S.; fr. C. S.

2. *lamiifolia*, (*Justicia lamiifolia*, *Kön.*; *Roxb. fl. ind.* 1, *p.* 134; *ed. Carey*, 1, *p.* 135.—*Nelsonia lamiifolia*, *Spreng.*) 2. Chappedong. Banks of the Saluen River. Bengal, (Serampore.) Fl. small, variegated with deep and light purple, C. S.; fr. March.

CARDANTHERA, Buchan.

1. *triflora*, Buch. (*Ruellia triflora*, *Roxb. fl. ind.* 3, *p.* 52.) কালা *Kala*. 2. Bengal, (Serampore.) Fl. 8 lines, deeper and lighter blue, with a white reddish tube, and a yellow stained throat, and fr. C. S.

ADENOSMA, R. Br. (*Nees. o. c. p.* 79.)

1. *uliginosa*, R. Br. (*Nees. l. c.*—*Ruellia uliginosa*, L.; *Roxb. fl. ind.* 3, *p.* 52.) 2. Coromandel. Tranquebar. Bengal, (Serampore,) &c. Fl. small, blue; and fr. C. S.

ERYTHRACANTHUS, Nees. (*o. c. p.* 80.)

1. *racemosus*, Nees. (*l. c.*—*Ruellia racemosa*, *Roxb. fl. ind.* 3, *p.* 42.) 5. Penang. Has been introduced into H. C. G.?



Adenosma biplicata, Nees. Prome.—*Ebermaiera humilis*, Nees. Prome.
—*E. thyrsoides*, Nees. Moulmein.—*E. axillaris*, Nees. Penang.—
Gymnacanthus petiolaris, Nees. Mexico.

C. ECHMATACANTHI, Nees.

(In Wall. pl. as. rar. 3, p. 75.)

a. *Hygrophiliæ*, Nees. l. c.

HEMIADELPHIS, Nees. (o. c. p. 80.)

1. *polysperma*, Nees. (l. c.—*Justicia polysperma*, Roxb. fl. ind. 1, p. 119; ed. Carey, I, p. 120.—*Ruellia polysperma*, Roth.—*Adenosma polysperma*. Spreng.) ছোট ঘেছতা Chhoto-mecheta. ☺ Bengal, (Serampore.) Silhet. Assam. Oude. Banks of the Irawaddi. Fl. small, pale blue. C. S.; fr. H. S.

HYGROPHILA, R. Br. (Nees. l. c.)

1. *obovata*, Nees. (o. c. p. 81.—*Ruellia obovata*, Roxb. fl. ind. 3, p. 51; —J. Grah. Cat. B. pl. p. 162, excl. syn. Rheed.) ☺ Bombay. Coromandel. Bengal, (Serampore.) Chittagong. Fl. small, blue, C. S.; fr. Feb. and March.
2. *radicans*, Nees. (l. c.—*Ruellia radicans*, Wall. Cat.—R. salicifolia, Roxb. ? fl. ind. 3, p. 50; not Vahl.) ☺ Circars. Fl. small, light blue. Silhet. In H. C. G. fl. R. S.; fr. C. S.

* *Hygrophila phlomoides*, Nees. Silhet.—*H. salicifolia*, Nees. ☺ Silhet. Assam.—*Geissomeria longiflora*, Lindl; B. Reg. 13, t. 1045. 5 Brazil.
b. *Ruellia*, Nees.

(In Wall. pl. as. rar. 3, p. 75.)

DIPTERACANTHUS, Nees. (o. c. p. 81.)

1. *ciliatus*, Nees. (l. c.—*Ruellia ciliata*, Hornem;—Spreng.) 5 Mountains near Prome. Fl. large, blue, C. S.
2. *dejectus*, Nees. (o. c. p. 82.—*Ruellia ringens*, Roxb. fl. ind. 3, p. 44; not L.—J. Grah. Cat. B. pl. p. 162, excl. syn. Rheed.) বৃড়িগোপনা Boorigopana. 4. Tanjore. The Concans. Bengal, (Serampore.) Fl. large, pale blue, expanding in the evening, drooping the next morning, nearly the whole year; fr. C. S.
3. *patulus*, Nees. (l. c.—*Ruellia patula*, Jacq. icon. rar. 1, t. 119;—Roxb. fl. ind. 3, p. 45;—J. Grah. Cat. B. pl. p. 162.) 2. Negapatam. Bombay. Fl. largish, pale blue, C. S. The plant has a weak, but pleasant, fragrant smell. (Roxb.)
- ? 4. *suffruticosus*, (Ruellia suffruticosa, Roxb. fl. ind. p. 53.) 5 Dinagepore, &c. Fl. 2 inches, pure white, May; fr. 0.

PETALIDIUM, Nees. (l. c.)

1. *barlerioides*, Nees. (l. c.—*Ruellia barlerioides*, Roth.—R. bracteata, Roxb. fl. ind. 3, p. 47;—J. Grah. Cat. B. pl. p. 162.) 5 Sheikpur. Monghir. Deyra-Dhoon. The Ghauts. Hills in the vicinity of Panwell. Fl. large, white, with a brownish throat, Feb. and March.



484.

ACANTHACEAE.

SL

RUELLIA, L. (Nees. l. c.)

1. *surmentosa*, Nees. (o. c. p. 83.—*Ruellia latebrosa*, Roxb. fl. ind. 3, p. 46; not Roth.) 2. Bengal, (Serampore,) &c. Fl. small, light blue, C. S.; fr. Feb, and March.
2. *hirta*, Vahl. (Roxb. fl. ind. 3, p. 46.) 2. Circars. Fl. large, bluish-purple. In H. C. G. fl. C. S.; fr. H. S. (Roxb.)
- ? 3. *conosa*, Roxb. (fl. ind. 3, p. 43.) L. 5 Moluccas. Fl. large purple. In H. C. G. fl. R. S.; fr. C. S. (Roxb.)
- ? 4. *cernua*, Roxb. (fl. ind. 3, p. 45; not Wall. Cat., and consequently not *Dyschoriste cernua*, Nees.;—*Rumph.* 6, t. 23, f. 1; according to Roxb.) 5 Mysore. Fl. small, pale pink. In H. C. G. fl. R. S.; fr. C. S. (Roxb.)
- ? 5. *maculata*, Wall. (pl. as. rar. 3, t. 250.) 5 Khassy Mountains. Fl. large, pale blue. In H. C. G.

BUTEREA, Nees. (o. c. p. 83.)

1. *ulmifolia*, Nees. (o. c. p. 84.) 5 Native place not mentioned. Fl. middle-sized, pale violet. Has been cultivated in H. C. G.

STROBILANTHES, Bl. (Nees. l. c.)

1. *scabra*, Nees. (l. c.) 5 Prome. Khassy Mountains. Fl. 14 lines, sulphur-coloured, March; fr. H. S.
2. *callosa*, Nees. (o. c. p. 85.) 5 Nagpur. Fl. large, pale blue, C. S.
3. *Sabiniana*, Nees. (o. c. p. 86;—*B. Reg.* 15, t. 1238;—*B. M.* 63, t. 3517.) 5 Khassy Mountains. Fl. large, lilac, C. S.
4. *auriculata*, Nees. (Wall. pl. as. rar. 3, t. 295.) 5 Nepal. Fl. large, pale blue, externally whitish, C. S.
5. *levigata*, Wall. MSS. 5 Khassy Hills. In H. C. G.
6. *elegans*, Wall. MSS. 5 Munipore.

GOLDFUSSIA, Nees. (o. c. p. 87.)

1. *lamijolia*, Nees. (o. c. p. 88.) 5 Nepal. Fl. large, purplish blue, C. S.
2. *glomerata*, Nees. (l. c.) 5 Khassy Mountains. Fl. 2 inches, bluish-violet. C. S.
3. *anisophylla*, Nees. (l. c.—*B. M.* 62, t. 3404.—*Ruellia anisophylla*, *Hook. exot. fl.* t. 191; *B. Reg.* 11, t. 955.) 5 Khassy Mountains. Fl. 1½ inch, pale purplish blue, with a yellow base, C. S.
4. *isophylla*, Nees. (l. c.) 5 Khassy Mountains. Fl. 14 lines, pale purplish blue, C. S.

ASYSTASIA, Bl. (Nees. o. c. p. 89.)

1. *coromandeliana*, Nees. (l. c.—*Justicia gangetica*, L. *amæn*, 4, p. 290, excl. all. syn.?—*Ruellia intrusa*, Vahl.—*R. secunda*, Vahl.—*R. zeylanica*, Koen.; Roxb. fl. ind. 3, p. 42;—*J. Grah. Cat. B.* pl. p. 161.—*Rheed.* 9, t. 45.) 5 Common about hedges in India. Fl. 16 lines, purplish blue, and fr. C. S.

* *Dyschoriste littoralis*, Nees. ; Wight icon. 2, t. 447. (*Justicia madurensis*, Burm. ind. t. 4, f. 3.) 5 Madura. Negapatam.—*Dipteracanthus*



prostratus, Nees. Negapatam.—*Ruellia quadrifaria*, Wall. ५ Taong-Dong.—*R. elegans*, Hook; B. M. 62, t. 3389. २. The Ghauts.—*R. ciliatiformis*, Hook, B. M. 65, t. 3718. २. Buenos Ayres.—*R. formosa*, Andr.; B. M. 34, t. 1400. ५ Brazil.—*R. rubricaulis*, Cav. २. Mexico.—*R. ovata*, Cav. २. Mexico.—*R. tuberosa*, L. २. Jamaica.—*R. lactea*, Cav. २. Mexico.—*R. fulgida*, Andr.; B. Repos. t. 527. २. Barbadoes.—*Phlebophyllum Kunthianum*, Nees.; Wight icon. २, t. 448. ५ Neelgherries.—*Adenacanthus acuminatus*, Nees. २. Burma.—*Stenosiphonium subsericeum*, Nees. Madras.—*Strobilanthes rosea*, Nees. ५ Taong-Dong.—*S. glaucescens*, Nees. ५ Prome.—*S. barbata*, Nees. ५ Courtallum.—*S. fimbriata*, Nees. ५ Khassy Mountains.—*S. echinata*, Nees. ५ Khassy Mountains.—*S. ciliata*, Nees. ५ Courtallum.—*S. glutinosa*, Nees. ५ Nepal.—*S. collina*, Nees. ५ Penang.—*S. Wallichii*, Nees. (*Ruellia alata*, Wall. pl. as. rar. १, t. 31.) ◎ Nepal.—*S. Brunonianae*, Nees. ५ Khassy Mountains.—*Echmanthera tomentosa*, Nees. २. Nepal.—*E. gossypina*, Nees. (*Ruellia gossypina*, Wall. pl. as. rar. १, t. 42.) ५ Deyra-Dhoon.—*Goldfussia extensa*, Nees. ५ Khassy Mountains.—*G. pentastemonoides*, Nees. ५ Nepal.—*G. colorata*, Nees. २. Borjora.—*Asystasia Kunthiana*, Nees. ५ Penang.—*A. macrocarpa*, Nees. ५ Nepal.—*A. Neesiana*, Nees. (*Ruellia Neesiana*, Wall. pl. as. rar. १, t. 83.) ५ Khassy Mountains.—*Echinacanthus attenuatus*, Nees. २. Nepal.

c. *Barlerieæ*, Nees.

(In Wall. pl. as. rar. ३, p. 75.)

ASTERACANTHA, Nees. (o. c. p. 90.)

1. *longifolia*, Nees. (l. c.—Wight. icon. २, t. 449.—*Barleria longifolia*, L.; —*J. Grah. Cat. B. pl. p. 161.*—*Ruellia longifolia*, Roxb. fl. ind. ३, p. 50;—*Rheed.* २, t. 45.) কঁটা কুলিকা। Kanta-koolika. ◎ c. Both Peninsulas of India. Bengal, (Serampore). Monghir. Oude. Nepal. Fl. 16 lines, pale blue, with the tube and throat white ochraceous, R. S.; fr. C. S. Considered tonic, and diuretic.

BARLERIA, L. (Nees. o. c. p. 91.)

1. *hirsuta*, Nees. (l. c.) ५ Prome. Fl. 2 inches, blue, C. S.
2. *polytricha*, Wall (pl. as. rar. १, t. 82;—Nees. l. c.) ५ Banks of the Irawaddi. Fl. 2½ inches, pale blue, C. S.; fr. Feb.
3. *coerulea*, Roxb. (fl. ind. ३, p. 39;—Nees. l. c.) ५ Banks of the Irawaddi. Nepal. Fl. 2 inches, pale blue, C. S.; fr. Feb. and March.
4. *dichotoma*, Roxb. (fl. ind. ३, p. 39;—Nees. l. c.;—B. Cab. ४, t. 360.) শাদা জাতি। Sada-jati. ५ Banks of the Irawaddi. Prome. Meloon. Taong-Dong. Penang. Bengal, (Serampore. Patna). Fl. 2 inches, pure white, C. S.; fr. Feb. and March.
5. *ciliata*, Roxb. (fl. ind. ३, p. 38;—Nees. o. c. p. 92.) ५ Bengal. Hindooستان. Himalayas. Fl. nearly 2 inches, purplish-pink, downwards rosy streaked, C. S.; fr. Feb. and March.
6. *cristata*, L. (Roxb. fl. ind. ३, p. 37;—Nees. l. c.;—B. Cab. ४, t. 344;—



SL

ACANTHACEÆ.

- B. M. 39, t. 1615;—Wight. icon. 2, t. 453;—J. Grah. Cat. B. pl. p. 160.) ५ Negapatam. Nepal, &c. Fl. 2½ inches, bright blue, with a dash of purple, Oct. and Nov.; fr. Feb. and March.
B. rosea, (Roxb. H. B. p. 45.) ५ Cawnpore. Fl. rose-coloured.
7. *Prionitis*, L. (Nees. o. c. p. 93;—Roxb. fl. ind. 3, p. 36;—Wight. icon. 2, t. 452;—J. Grah. Cat. B. pl. p. 160; excl. syn. Rumph.—*Justicia appressa*, Forsk.;—Rheed. 9, t. 41.) कृष्ण जटि Kanta-jati. ५ Arabia. Java. Ceylon. Both Peninsulas of India. Bengal, (Serampore). Silhet. Assam. Hurdwar, &c. Fl. 1½ inch, bright orange, and fr. C. and H. S.
8. *obovata*, L. (B. buxifolia, Roxb. fl. ind. 3, p. 37, not L.) ५ Mysore. Fl. 14 lines, pale rosy lilac, C. S.
9. *bispinosa*, (Nees. l. c. not Vahl, excl. some synonymes.) ५ Arabia. Courtallum. Fl. like those of No. 8, C. S.

ÆTHERELMA, R. Br. (Nees. l. c.)

1. *reniforme*, Nees. (l. c.—*Ruellia imbricata*, Vahl. excl. syn. Forsk;—Roxb. fl. ind. 3, p. 48.—*R. dorsiflora*, Retz.) ४ Prome. Taong-Dong. Bengal, (Serampore). Silhet. Fl. small, white, R. and C. S.; fr. C. S.
LEPIDAGATHIS, Willd. (Nees. o. c. p. 95.)

1. *fasciculata*, Nees. (l. c.—*Ruellia fasciculata*, Vahl.;—Roxb. fl. ind. 3, p. 48.) ५ Ceylon. Both Peninsulas of India. Fl. small, white. In H. C. G. fl. Feb. and March; fr. H. S. (Roxb.)
2. *hyalina*, Nees. (l. c.—*Ruellia dependens*, Roxb. fl. ind. 3, p. 49.) ५ Prome. Amherst. Chappedong. Mysore. Assam. Fl. 5 lines, white, dotted with brown, R. and C. S.; fr. C. S.
3. *ustulata*, Nees. (l. c.) ५ Gorakpur. Sukanaghur. Fl. like those of No. 2, C. S.; fr. Feb. and March.
4. *cristata*, Willd. (Nees. o. c. p. 96;—Roxb. fl. ind. 3, p. 53;—Wight. icon. 2, t. 455.—J. Grah. Cat. B. pl. p. 160.) ४ Coromandel. Bombay. Banks of the Jumna. Fl. small, rose-coloured. Was introduced into H. C. G. in 1803, but had not fl. up to 1814.

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- * *Barleria nitida*, Nees.; Wight. icon. 2, t. 454. ५ Dindygul. Madura.—*B. involucrata*, Wight. ४ Neelgherries.—*B. tomentosa*, Roth. ५ Negapatam.—*B. longiflora*, L. ५ Prome. Vellore. Travancore.—*B. Hystris*, L.; Rumph. auct. t. 18. ५ Moluccas. Segaeen. Prome.—*B. nepalensis*, Nees. ५ Nepal.—*B. nuda*, Nees. ५ Silhet.—*B. noctiflora*, L. ५ Courtallum. Ceylon.—*B. solanifolia*, L. ५ W. Indies.—*Lepidagathis mucronata*, Nees. ४ Coromandel.—*L. scariosa*, Nees.;—Wight. icon. 2, t. 457. ५ Dindygul. Madura.—*L. dulcis*, Nees. ४. Prome.—*L. pungens*, Nees. ५ Tinnevelly.—*Aphelandra cristata*, R. Br.; B. Reg. 18, t. 1477. ५ W. Indies.—*Neuracanthus tetragonostachyus*, Nees. ५ Prome. Taong-Dong. d. Acantheæ, Nees.

(In Wall. pl. as. rar. 3, p. 76.)

BLEPHARIS, Juss. (Nees. o. c. p. 97.)

1. *boerhaaviaefolia*, Juss. (Nees. l. c.—Wight. icon. 2, t. 458.)



- $\beta.$ *maderaspatensis*, Nees. (*Acanthus maderaspatensis*, L.; — *Roxb. fl. ind.* 3, p. 33.) २ Madras. Banks of the Jumna. Fl. largish, blue, C. S.; fr. H. S.

ACANTHUS, L. (*Nees. o. c. p. 98.*)

1. *leucostachys*, Wall. (*Nees. l. c.*) ५ Khassy Mountains. Fl. largish, white. Has been introduced into H. C. G. Fl.?

DILIVARIA, Juss. (*Nees. l. c.*)

1. *ilicifolia*, Juss. (*Nees. l. c.*; — *Wight. icon.* 2, t. 459.—*Acanthus ilicifolius*, L.; — *Roxb. fl. ind.* 3, p. 32; — *J. Grah. Cat. B. pl.* p. 159, excl. syn. Rumph.—*Rheed.* 2, t. 48.) ३ हाकुच कंटो Hakooch-kanta. ५ Sea-shores of India and New Holland. (Soonderbuns.) Fl. large, blue, R. and C. S.; fr. C. S.

- * *Blepharis molluginifolia*, Juss. (*Acanthus repens*, Vahl.) २. Madras. Bombay. Monghir.—*B. baerhaaviaefolia*, a. *ciliaris*, Nees. (Burm. ind. t. 42, f. 2.) ० Ceylon. Bombay. Tanjore. Madras. Chingliput. Banks of the Irawaddi.—*Acanthus spinosus*, L.; B. M. 43, t. 1808. २. Italy.—*Blepharacanthus capensis*, Nees. २. C. G. H.—*Dilivaria ebracteata*, Juss. (Rumph. 6, t. 71, f. 1.) ५ Moluccas. Chappedong.—*D. volubilis*, Nees. (*Acanthus volubilis*, Wall. pl. as. rar. 2, t. 172; Rumph. 6, t. 72, f. 2.) ५ ~ Moluccas. Java.

e. *Justiciæ*, Nees.

(In *Wall. pl. as. rar.* 3, p. 76.)

CROSSANDRA, Salisb. (*Nees. o. c. p. 98.*)

1. *infundibuliformis*, Nees. (l. c.—*Wight. icon.* 2, t. 461.—C. undulæ-folia, Salisb.—*B. M.* 47, t. 2186; — *B. Reg.* 1, t. 69.—*Justicia infundibuliformis*, L.—*Ruellia infundibuliformis*, Andr.; *B. Repos.* 8, t. 542; — *Roxb. fl. ind.* 3, p. 41; — *J. Grah. Cat. B. pl.* p. 161.—*Harachia speciosa*, Jacq. *ecl.* t. 21; — *Blum.*; — *Rheed.* 9, t. 62.) ५ Common in flower-pots about temples, and in gardens. Fl. large, copper-coloured, whole year; fr. C. S.

- $\beta.$ *aurantiaca*. ५ Singapore. Madura. Nepal. Fl. orange-coloured, large, whole year; fr. C. S.

PHLOGACANTHUS, Nees. (*o. c. p. 99.*)

1. *curviflorus*, Nees. (l. c.—*B. M.* 66, t. 2783.—*Justicia curviflora*, Wall. *pl. as. rar.* 2, t. 112.) ५ Khassy Mountains. Fl. 2 inches, reddish-orange, Nov. and Dec.; fr. O.
2. *thyrsiflorus*, Nees. (l. c.—*Justicia thyrsiflora*, Roxb. *fl. ind.* 1, p. 114; ed. Carey, 1, p. 116.) ५ Interior of Bengal. Malung. Khassy Mountains. Nepal. Oude. Fl. 1 inch, deep orange, Jan. and Feb.; fr. April and May.
4. *guttatus*, Nees. (l. c.—*Justicia guttata*, Wall. *pl. as. rar.* 1, t. 28; — *B. Reg.* 16, t. 1334.) ५ Khassy Mountains. Fl. 1 inch, very pale greenish, stained with blood-red spots, Dec. and Jan.
5. *asperulus*, Nees. (l. c.—*Justicia asperula*, Wall.—*J. quadrangularis*,



Hook;—*B. M.* 55, *t.* 2845;—*B. Reg.* 16, *t.* 1340.—*Justicia vitellina*, *Roxb.* *fl. ind.* 1, *t.* 117.) 5 Khassy Mountains. Fl. 6 lines, pale rose-coloured, Feb.

CRYPTOPHRAGMIUM, Nees. (*o. c. p.* 100.)

1. *venustum*. Nees. (*o. c.*—*B. M.* 60, *t.* 3208.—*Justicia venusta*, *Wall.* *pl. as. rar.* 1, *t.* 66;—*B. Reg.* 16, *t.* 1380.) 5 Khassy Mountains. Fl. indigo-coloured, 13 lines, beginning of C. S.; fr. O.

ROSTELLARIA, Nees. (*l. c.*)

1. *procumbens*, Nees. (*o. c. p.* 101.—*Justicia procumbens*, *L.*;—*Roxb.* *fl. ind.* 1, *p.* 132; *ed. Carey*, 1, *p.* 133.) 4 Both Peninsulas of India. Fl. small, rose-coloured, and fr. C. S.
2. *quinquangularis*, Nees. (*l. c.*—*Justicia quinquangularis*, *Kön.*;—*Roxb.* *fl. ind.* 1, *p.* 133; *ed. Carey*, 1, *p.* 134.) 4 Coromandel. Bengal, (Serampore), Rajmahal. Nepal. Fl. small, white-rose-coloured, R. and C. S.; fr. C. S.
3. *glaberrima*. 4. Serampore. Fl. small, rosy-white, R. and C. S.; fr. C. S.
4. *Vahlii*, Nees, (*o. c. p.* 102.—*Justicia Vahlii*, *Roth.*—*J. Vahliana*, *Rüm.* and *Sch.*—*J. diffusa*, *Vahl.* excl. syn. *Willd.*) Southern India.
5. *mollissima*, Nees.
β. *graminea*, (*Justicia graminea*, (*juncea*), *Kön.*;—*Roxb.* *fl. ind.* 1, *p.* 133; *ed. Carey*, 1, *p.* 134.) 4 Coromandel. Bengal. Fl. small, rosy-white, C. S.

GRAPTOPHYLLUM, Nees. (*l. c.*)

1. *hortense*, Nees. (*l. c.*—*Justicia picta*, *L.*;—*Roxb.* *fl. ind.* 1, *p.* 117; *ed. Carey*, 1, *p.* 118;—*B. Reg.* 15, *t.* 1227;—*J. Grah. Cat. B. pl. p.* 163;—*Rheed.* 6, *t.* 60;—*Rumph.* 4, *t.* 30.) 5 Java. Commonly cultivated in gardens. Fl. 1½ inch, crimson, more or less the whole year.
- β. *lurido-sanguineum*, (*Justicia picta*, *L.* var. *lurido-sanguinea*, *Sims.*; *B. M.* 44, *t.* 1870.) Larger. Leaves dark-blood-coloured. Fl. larger.

ADHATODA, Herm. (*Nees. l. c.*)

1. *Betonica*, Nees. (*o. c. p.* 103.—*Justicia Betonica*, *L.*;—*Roxb.* *fl. ind.* 1, *p.* 128; *ed. Carey*, 1, *p.* 129;—*J. Grah. Cat. B. pl. p.* 165.) J. Pseudo-Betonica, *Roth.*—J. *ochroleuca*, *Bl.*;—*Rheed.* 2, *t.* 21.) 4 Coromandel. Bombay. The Concans. Prome. Monghir Hills, &c. Fl. 7 lines, whitish, tinged with pale rose and purple, C. S.; fr. Feb. and March.
2. *ramosissima*, Nees. (*l. c.*—*Justicia ramosissima*, *Roxb.* *fl. ind.* 1, *p.* 129; *ed. Carey*, 1, *p.* 130;—*J. Grah. Cat. B. pl. p.* 165.) 4 Coromandel. The high Table-land, E. of Mahableshwur. Fl. 6 lines, white, slightly tinged with purple, C. S.; fr. Feb. and March.
3. *Vasica*, Nees. (*l. c.*—*Justicia Adhatoda*, *L.*;—*Roxb.* *fl. ind.* 1, *p.* 126; *ed. Carey*, 1, *p.* 127;—*J. Grah. Cat. B. pl. p.* 164;—*B. M.* 22, *t.* 861.) वाक्स *Bakus*. L. 5 Java. Ceylon. Both Peninsulas of India. Bengal,



(Serampore.) Silhet, Nepal, &c. Fl. 14 lines, white, tinged with sulphur at the throat, and at the limb with dark purple lines and spots, C. S.; fr. Feb. Wood soft, considered very fit for making charcoal for gunpowder. (Roxb.) Flowers, leaves, and roots bitterish, subaromatic, and considered antispasmodic. (Ainslie.)

4. *corynostachya*, Wall. 5 Khassy Hills.

GENDARUSA, Rumph. (Nees. l. c.)

1. *vulgaris*, Nees. (o. c. p. 104;—Wight. icon. 2, t. 468.—Justicia Gendarussa, L.; Roxb. fl. ind. 1, p. 128; ed. Carey, 1, p. 129;—B. Reg. 8, t. 635;—J. Grah. Cat. B. pl. p. 164;—Rheed. 9, t. 42;—Rumph. 4, t. 28, 29.) জগন্মুদুন Jagan-mudun. গন্ধু রস Gundho-ruso. 5 Rangoon. Taong-Dong. Madura. Salsette. N. Concan. Bengal, (Serampore.) Khassy Mountains, &c. Fl. 7 lines, pale greenish-white, sparingly stained with purple, C. S.; fr. Feb. and March. Leaves and tender stalks have when rubbed a strong, not unpleasant smell. (Ainslie.)

2. *bifaria*, Nees. (l. c.) 5 Rocks near Pingee, on the banks of the Irawaddi. In H. C. G.

3. *decussata*, Nees. (l. c.—Justicia decussata, Roxb. fl. ind. 1, p. 127; ed. Carey, 1, p. 128.) 5 Rangoon. Amherst. Prome. Fl. 6½ lines, rosy-white, Feb. and March; fr. April.

4. *ventricosa*, Nees. (l. c.—Justicia ventricosa, Wall. pl. as. rar. 1, t. 93;—B. M. 54, t. 2766.) 5 Khassy Mountains. Amherst. Fl. 9 lines, greenish-white, the limb inside streaked with purple, Dec. Jan. and Feb.; fr. March.

5. *orixensis*, Nees. (l. c.—Justicia orixensis, Kön.;—Roxb. fl. ind. 1, p. 132; ed. Carey, 1, p. 133.—J. tranquebariensis, Roxb. fl. ind. 1, p. 130; ed. Carey, 1, p. 131, excl. syn. L.; not Röm. and Sch. which is the real J. tranquebariensis, L.) 2. Coromandel. Orissa. Fl. small, pale yellowish-red, and fr. Feb. and March.

6. *Neesiana*, Nees. (o. c. p. 105.—Justicia Neesiana, Wall.) 5 Khassy Mountains. Fl. small, pale greenish-rose, C. S.

7. *quadrifaria*, Nees. (l. c.) 5 Khassy Mountains. Fl. 4 lines, streaked with white and purple, C. S.; fr. Feb.

8. *micrantha*, Wall. MSS. 2. Burma. In H. C. G. fl. C. S.

9. *furcata*, Nees. (l. c.—Justicia furcata, Jacq. hort. schönbr. 1, t. 3.—J. peruviana, L.;—Cav. icon. 1, p. 17, No. 26, t. 28;—B. M. 12, t. 430;—Roxb. H. B. p. 4.) 5 Peru. Fl. 14 lines, pale purple violet, the lower lip at the middle reticulated with white veins, C. S.; fr. O. Has been cultivated in H. C. G. since 1805.

10. *vasculosa*, Nees. 5 Khassy Hills.

11. *ptychostoma*, Wall. 5 Penang.

ERANTHEMUM, R. Br. (Nees. o. c. p. 106.)

1. *nervosum*, R. Br. (Nees. l. c.—E. pulchellum, Andr.; B. Repos. t. 88;—Roxb. fl. ind. 1, p. 111; ed. Carey, 1, p. 111;—J. Grah. Cat. B. pl. p. 163.—J. pulchella, Ker. recens. pl. repos. p. 41;—Roxb.



Corom. 2, t. 177.—*J. nervosa*, Vahl;—*B. M.* 33, t. 1358.—*Ruelia varians*, Cels. t. 46.) काल झांडी *Kalo-jhantee*. L. 5 Common throughout the hilly parts of the Concan. Malabar Hill. Bombay. Mahableshwur. Silhet. Hurdwar. Nepal. Fl. 16 lines, indigo-coloured, with a whitish-yellow tube, Feb.

β. floribus pallido-caeruleis. Fl. pale-blue.

2. *strictum*, Colebr. (*Nees. l. c.*;—*Roxb. fl. ind. ed. Carey. I. p. 114*;—*B. Reg. 10, t. 867*;—*B. M. 58, t. 3068.*) 5 Khassy Mountains. Fl. 20 lines, above indigo-coloured, beneath pale blue, at the tube white-yellowish-blue, Jan. Feb. and March.

3. *suffruticosum*, Roxb. (*fl. ind. I. p. 111*; *ed. Carey. I. p. 112*;—*Nees. o. c. p. 107.*) 5 Andaman Islands. Fl. pale blue. In H. C. G. fl. March. (*Roxb.*)

4. *crenulatum*, Wall. (*Nees. l. c.*;—*B. Reg. 11, t. 879*—*E. fecundum*, *Lindl.*;—*B. Reg. 18, t. 1494?*) 5 Khassy Mountains. Penang. Fl. 14 lines, pale lilac, C. S.

5. *racemosum*, Roxb. (*fl. ind. I. p. 113*; *ed. Carey. I. p. 113*;—*Nees. l. c.*) 5 Moluccas. Fl. largish, pale pink, or white, tinged with red. In H. C. G. fl. Nov. (*Roxb.*)

6. *palatiferum*, Nees. (*o. c. p. 108.*—*Justicia palatifera*, *Wall. pl. as. rar. I. t. 92.*) 5 Khassy Mountains. Fl. 2 inches, pale rose-coloured, with a yellowish dark purple-stained palate, end of R. S. and beginning of C. S.; fr. C. S.

? 7. *diantherum*, Roxb. (*fl. ind. I. p. 112*; *ed. Carey. I. p. 112*;—*Nees. l. c.*) 5 Moluccas. Fl. small, white, with a tinge of red, and some minute red spots on the base of the middle lobe of the under lip. In H. C. G. fl. Sept. (*Roxb.*)

? 8. *barlerioides*, Roxb. (*fl. ind. I. p. 113*; *ed. Carey. I. p. 114.*) 5 Andaman Islands. Fl. blue. In H. C. G. fl. March. (*Roxb.*)

JUSTICIA, L. (*Nees. l. c.*)

1. *Ecbolium*, L. (*Nees. l. c.*;—*B. M. 43, t. 1847*;—*Wight. icon. 2, t. 463*, not Roxb.) large, greenish-livid. In H. C. G. ?

2. *dentata*, Klein. (*Nees. l. c.*;—*J. Ecbolium*, *Roxb. fl. ind. I. p. 114*; *ed. Carey. I. p. 115*; not L.—*J. Grah. Cat. B. pl. p. 164*, excl. syn. L., *Wall. Roxb.* and *B. M.*—*Rheed. 2, t. 20.*) ଡେଣ୍ଟ ଜାତି *Oodoo-jai*. 5 Fl. 2 inches, livid-verdigris-coloured, with a white tube. Common in most parts of India, and fl. nearly the whole year.

3. *calycotricha*, Lk. (*B. M. 55, t. 2816*;—*Spreng. syst. c. p. p. 18*.—*J. calytricha*, *Hook. exot. fl. t. 212*.—*J. flavicoma*, *Lindl.*;—*B. Reg. 12, t. 1027.*) 5 Brazil. Fl. 1½ inch, pale yellow, tinged with orange, Feb. and March.

RHINACANTHUS, Nees. (*l. c.*)

1. *communis*, Nees. (*o. c. p. 109*;—*Wight. icon. 2, t. 464*.—*Justicia nasuta*, L.;—*Roxb. fl. ind. I. p. 120*; *ed. Carey. I. p. 121*;—*J. Grah. Cat. B. pl. p. 164*;—*B. M. 10, t. 325*;—*Rheed. 9, t. 69.*) ଛୁଇ ପାନୀ *Jovin-*



- pana*. 5 Rocky part of the Rotunda Ghaut, Mahableshwur. Common in gardens. Fl. $1\frac{1}{2}$ inches, pure white, C. and H. S.; fr. 0.
2. *calcaratus*, Nees. (*l. c.*—*Justicia calcarata*, *Wall. pl. as. rar.* 2, *t.* 113.) 5 Khassa Mountains. Fl. 20 lines, greenish-white, with a tinge of sulphur, March; fr. 0.
3. *albus*, Wall. (*Justicia alba*, *Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 117.) 5 Andaman Islands. Fl. large, pure white. In *H. C. G. fl. H. S.* (*Roxb.*)

* *Crossandra oppositifolia*, Wight. 5 Courtallum.—*Endopogon Anomum*, Nees. Peninsula of India?—*E. consanguineus*, Nees. Courtallum.—*Loxanthus Gomezii*, Nees. 5 Khassa Mountains.—*Phlogacanthus tubiflorus*, Nees. 5 Goalpara.—*Cryptophragmum cordifolium*, Nees. 5 Courtallum.—*Rostellaria mollissima*, Nees. 2. Nepal.—*Beloperone oblongata*, Nees. Brazil.—*Adhatoda argyrostachya*, Nees. 5 Prome.—*A. nilgherrensis*, Nees. 5 Neelgherries.—*A. arenaria*, Nees. 5 Negapatam.—*Gendarussa vasculosa*, Nees. 5 Khassa Mountains.—*G. tranquebarica*, Nees.; Wight. icon. 2, *t.* 462. 5 Tranquebar. Madras.—*Leptostachya virgata*, Nees. Taong-Dong.—*L. pectoralis*, Nees. (*Justicia pectoralis*, Jacq.; *B. Reg.* 10, *t.* 796.) Great Antilles.—*L. nitida*, Nees. (*Justicia nitida*, Jacq.) Small Antilles.—*Gymnostachyum leptostachyum*, Nees. 2. Tavoy.—*Eranthemum macrophyllum*, Wall. 5 Taong-Dong.—*E. purpurascens*, Nees. Monghir.—*E. montanum*, Roxb. (*Justicia montana*, Roxb. Corom. 2, *t.* 176.) 5 Circars.—*E. Wightianum*, Wall. 5 Courtallum.—*E. graciliflorum*, Nees. 2. Penang.—*E. cinnabarinum*, Wall. pl. as. rar. 1, *t.* 21. Martaban.—*E. bicolor*, Schrank. *B. M.* 35, *t.* 1423. 5 Luçon.—*E. fæcundum*, Lindl.; *B. R.* 18, *t.* 1494, 5 Brazil.—*E. spinosum*, R. Br. 5 W. Indies.—*E. variabile*, R. Br. 5 Tropical New Holland.—*Justicia ? coccinea*, Aubl. 5 *B. M.* 12, *t.* 432. S. America.—*J. ? quadrifida*, Vahl. 5 Mexico.—*J. ? variegata*, Aubl. 5 Guiana.—*J. ? secunda*, Vahl.; *B. M.* 46, *t.* 2060. 5 W. Indies.—*J. ? geniculata*, Sims.; *B. M.* 51, *t.* 2487. 5 W. Indies.—*J. ? lucida*, Andr.; *B. M.* 26, *t.* 1014. 5 W. Indies.—*J. ? salviaeflora*, Humb. 5 Mexico.—*J. ? carthaginensis*, Jacq.; *B. Reg.* 10, *t.* 797. 5 Carthagena.—*J. ? nemorosa*, Swz. 2. W. Indies.—*J. ? eustachiana*, Jacq.; *B. M.* 46, *t.* 2078. 5 St. Eustace.—*J. ? carneae*, Lindl.; *B. Reg.* 17, *t.* 1397. 5 Rio Janeiro.

f. Diclipterææ, Nees.

(In *Wall. pl. as. rar.* 3, *p.* 96.)

RUNGIA, Nees. (*o. c. p.* 109.)

1. *parviflora*, Nees. (*o. c. p.* 110.—*Justicia parviflora*, Retz.—*J. pectinata*, Roxb. Corom. 2, *t.* 153; *fl. ind.* 1, *p.* 133; *ed. Carey*, 1, *p.* 134;—*J. Grah. Cat. B. pl. p.* 165.—*Dicliptera coerulea*, Bl.) 2. Both Peninsulas of India. Bengal, (Serampore.) Monghir. Khassa Mountains, Nepal. Fl. $1\frac{1}{2}$ lines, white and blue; fr. C. S.



repens, Nees. (*l. c.*—*Wight. icon.* 2, *t.* 465.—*Justicia repens*, *L.*;—*Roxb. Corom.* 2, *t.* 152; *fl. ind.* 1, *p.* 182; *ed. Carey*, 1, *p.* 133;—*J. Grah. Cat. B. pl. p.* 165.—*Dicliptera retusa*, *Juss.*—*D. repens*, *Röm. and Sch.*—*R. Br. pr.*—*Burm. zeyl. t. 3, f. 2.*) 2. Ceylon. Peninsula of India. Rajmahal. Monghir, &c. Fl. small, pale rose-coloured, R. and C. S.; fr. C. S.

DICLIPTERA, JUSS. (*Nees. o. c. p.* 111.)

1. *bupleuroides*, Nees. (*l. c.*—*Justicia chinensis*, *a. Roxb. fl. ind.* 1, *p.* 124; *ed. Carey*, 1, *p.* 125, excl. syn. *L. Vahl.* and *Burm.*) 2. Coromandel. Silhet. Assam. Nepal. Fl. small, pale rose-coloured, R. and C. S.; fr. G. S.

2. *Roxburghiana*, Nees. (*l. c.*—*Justicia chinensis*, *Roxb. l. c.*) 2. China. Fl. 6 lines, pale rose-coloured, stained with red, R. and C. S.; fr. C. S.

PERISTROPHE, Nees. (*o. c. p.* 112.)

1. *tinctoria*, Nees. (*o. c. p.* 113.—*Justicia tinctoria*, *Roxb. fl. ind.* 1, *p.* 123; *ed. Carey*, 1, *p.* 124;—*J. Roxburghiana*, *Röm. and Sch.*—*J. baphica*, *Spreng.*;—*Rumph. 6, t. 22, f. 1.*) ২ রেখ রঞ্জ *Bet-rung.* ৫ Bengal, (Calcutta, Serampore.) Taong-Dong. Fl. 16 lines, deep rose-coloured, with a white tube, and a purple throat, R. and C. S.; fr. C. S.

2. *speciosa*, Nees. (*l. c.*—*Justicia speciosa*, *Roxb. fl. ind.* 1, *p.* 122; *ed. Carey*, 1, *p.* 123;—*B. M. 54, t. 2722.*) ৫ Interior of Bengal. Nepal. Fl. 15 lines, crimson, with the upper lip at the base dark purple-spotted, the end of C. S.; fr. 0.

3. *bicalyculata*, Nees. (*l. c.*—*Justicia bicalyculata*, *Vahl.*;—*Roxb. fl. ind.* 1, *p.* 126; *ed. Carey*, 1, *p.* 127;—*J. Grah. Cat. B. pl. p.* 164;—*Blum.*—*J. ligulata*, *Lam. ill. t. 12, f. 2*;—*Cavan. ic.* 1, *p.* 52, *t.* 71.—*J. malabarica*, *Ait.*—*Dianthera bicalyculata*, *Retz.*) নাসা ভাগা *Nasabha*. ০ Java. Both Peninsulas of India. Bengal, (Serampore.) Hindooستان. Fl. 6 lines, pale rose-coloured and white, C. S.; fr. C. S. and Feb. and March. The plants growing about Serampore have their leaves strigulose, and not glabrous as those described by Nees.

β. albiflora. Fl. white.

4. *lanceolaria*, Nees. (*o. c. p.* 114.—*Justicia lanceolaria*, *Roxb. fl. ind.* 1, *p.* 121; *ed. Carey*, 1, *p.* 122.) ৫ Khassy Mountains. Fl. 2 inches, rose-coloured, with the upper lip towards the base cream-coloured and dark purple dotted, Dec. and Jan.

5. *pulchella*, (*Justicia pulchella*, *Carey MSS.*) ৫ Native place uncertain. The plant was introduced into the garden here by Mrs. Middleton, in 1819. Fl. 8 lines, without pale rose-coloured, within pale purple, the base whitish and dark purple-dotted, Dec. Jan. and Feb.; fr. Feb. and March.

HYPÖESTES, R. Br. (*Nees. o. c. p.* 114.)

1. *purpurea*, R. Br. (*Nees. l. c.*—*Justicia purpurea*, *Vahl.* not *L.*) ৫ China. Fl. 11 lines, purple, with a white tube, C. S.; fr. Feb.



RHAPHIDOSPORA, Nees. (o. c. p. 115.)

1. *glabra*, Nees. (l. c.) 5 Coromandel. Fl. 4 lines, white, tinged with greenish-yellow and rose, and fr. C. S.
 - a. *Königiana*, (Justicia glabra, Kön.; —Roxb. fl. ind. 1, p. 130; ed. Carey, 1, p. 132.) Panicles somewhat glabrous.
 - b. *Careyana*. (Justicia Careyana, Roxb. H. B. p. 4.) Panicles more rigid, thickly covered with glands.

* *Blechum luzonium*, Nees. 2 Luçon.—*B. Brownei*, Juss. 2. W. Indies,—*B. laxiflorum*, Juss. 2. Jamaica.—*B. angustifolium*, R. Br. 2. Jamaica.—*Dicliptera cuneata*, Nees. 5 Travancore. Courtallum.—*D. Burmanni*, Nees.; Burm. ind. t. 4, f. 1. 5 Peninsulas of India.—*Peristrophe montana*, Nees. 5 Courtallum.—*P. fragilis*, Nees. Tavoy.—*P. acuminata*, Nees. Tavoy. Khassy Mountains.—*P. pubigera*, Nees. 5 Bhud-drinath, Kamroop.—*Hypoëstes Wallichii*, Nees. Nepal.—*H. floribunda*, R. Br. 2. Tropical New Holland.—*H. verticillaris*, R. Br. 5 C. G. H.
g. *Andrographiæ*, Nees.

(In Wall. pl. as. rar. 3, p. 77.)

ANDROGRAPHIS, Wall. (Nees. o. c. p. 116.)

1. *paniculata*, Wall. (Nees. o. c.—Justicia paniculata, Burm.; —Roxb. fl. ind. 1, p. 117; ed. Carey, 1, p. 119; —J. Grah. Cat. B. pl. p. 164; —Rheed. 9, t. 56.) कालो मेघ Kalo-megh. महा तिता Maha-tita. ⊙ Java. Peninsula of India. Ceylon. Bengal, (Serampore,) &c. Fl. 6 lines, white, upper lip with each of the two side lobes marked with a dark purple streak and a couple of dark purple dots; its middle lobe at base having a large purple spot on the inside, R. and C. S.; fr. C. S. and Feb. Plant very bitter, and in the Peninsula of India much used in medicine. It forms the basis of the French *drogue amère*.
2. *echoïdes*, Nees. (o. c. p. 117; —Wight. icon. 2, t. 467.) ⊙ Ceylon. Both Peninsulas of India. Himalayas.
 - a. *Lamarckiana*, (Justicia ciliaris, Lam. excl. syn. L.) Racemes nearly simple.
 - b. *Liannæana*, (Justicia echoïdes, L. fl. zeyl. p. 21; —Roxb. fl. ind. 1, p. 118; ed. Carey, 1, p. 119; —J. Grah. Cat. B. pl. p. 164; —Vahl.; —Lam.; —Röm. and Sch.; —Spreng.; —Rheed. 9, t. 46.) Fl. lines, white, with the upper lip, especially its middle lobe, dark purple-dotted, and fr. nearly throughout the year.

* *Erianthera serpyllifolia*, Nees. 5 Mysore.—*E. lobelioides*, Nees. 5 Neelgherries.—*Haplanthus tener*, Nees. 2. Tavoy. Taong-Dong.

? STAUROGYNE, Wall. (pl. as. rar. 2, t. 186.)

1. *argentea*, Wall. (l. c.) 2. Silhet. Fl. 1 inch, purple, with the tube yellowish pale violet, and the two lower lobes of the limb marked with a whitish disk. Has been introduced into H. C. G. Fl. ?

ORDER CCV.—PINGUICULACEÆ, (LENTIBULACEÆ,) Lindl. Nat.
Syst. p. 286.

Watery or marshy herbs, referred to two genera. Of these, Spreng. syst. enumerates 24 for N. Holland, 15 for S. America, Mexico, and the W. Indies; 15 for N. America; 11 for Europe; and 2 for Egypt. In S. Africa have been found 6 species; (*Harvey.*) and in the E. Indies, according to Spreng. syst. and Wall. Cat., 22 of *Utricularia*. A few species of these have been discovered in Nepal; all the rest are tropical. Properties of no importance.

UTRICULARIA, L. (*Spreng. syst.* 1, p. 26. No. 86;—*R. Br. pr.* p. 430.)

1. *reticulata*, Sm. (*Spreng. syst.* 1, p. 49.—*U. coerulea*, *Hb. Madr.* not L.)

नील झाँजि *Neel-jhanjee.* ◎ Peninsula of India. Bengal, (Serampore.) Fl. small, pale blue, and fr. R. S.

2. *nivea*, Vahl. (*Spreng. syst.* 1, p. 49;—*Roxb. fl. ind. ed. Carey*, 1, p. 144.) सादा झाँजि *Sada-jhanjee.* ◎ Bengal, (Serampore.) Ceylon, &c. Fl. very small, white, with a yellowish palate, and fr. R. and C. S.

β. *coerulea*. Fl. pale blue. (Serampore.)

3. *stellaris*, L. (*Spreng. syst.* 1, p. 52;—*Roxb. Corom.* 2, t. 180; *fl. ind.* 1, p. 143; *ed. Carey*, 1, p. 143;—*J. Grah. Cat. B. pl.* p. 185.) बुरु झाँजि *Buro-jhanjee.* ◎ Lower Egypt. Coromandel. Bombay. Bengal, (Serampore.) Fl. smallish, yellow, and fr. R. S.

4. *fasciculata*, Roxb. (*fl. ind.* 1, p. 143; *ed. Carey*, 1, p. 143;—*Spreng. syst.* 1, p. 52.) ◎ Coromandel. Tavoy. Bengal, (Serampore.) Silhet. Kemaon. Fl. smallish, yellow, C. S.; fr. March.

5. *diantha*, Schult. (*U. Roxburghii*, *Spreng. syst.* 1, p. 52.—*U. biflora*, *Roxb. fl. ind.* 1, p. 143; *ed. Carey*, 1, p. 144.) ছেঁটি ঝাঁজি *Choto-jhanjee.* ◎ Bengal, (Serampore.) Silhet. Nepal. Fl. small, yellow, with an orange-streaked scale, and fr. R. S.

ORDER CCVI.—GESNERACEÆ, Lindl. Nat. Syst. p. 286.

Herbs or undershrubs, by Lindl., (excluding *Sinningia* and *Pieria*,) referred to 19 genera. They are all natives of the tropical parts of S. America and the W. Indies.

"Generally beautiful herbaceous plants, bearing flowers, the prevailing colour of which is bright red, and having tuberous roots. The succulent fruits are mucilaginous, sweetish and eatable. A dye is obtained from the calyxes and fruit of some of them for staining cotton, straw work, and domestic utensils." (*Lindl.*)



I. verticillata, Hook. 2. (B. M. 54, t. 2776.) Brazil. H. S. 1840.

TREVIRANIA.

1. coccinea, Willd. (*Cyrilla pulchella*, L'Her. B. M. 11, t. 374.) Jamaica.
C. S. 1840.

GLOXINIA, L'Herit. (G. Don's Mill. dict. 4, p. 648.)

1. caulescens, Lindl. (B. Reg. 14, t. 1127;—G. Don. o. c. p. 649.) 2.
Pernambuco. Fl. large, dark bluish, R. S.; fr. 0.

2. speciosa, Ker. (B. Reg. 3, t. 213;—G. Don. l. c.;—B. M. 44, t. 1937;—B. Cab. 1, t. 28;—J. Grah. Cat. B. pl. p. 146.) 2. Brazil.
Fl. 2 inches, pale blue-indigo-coloured with a white purple-dotted
throat, May; fr. 0.

- * *Gesnera Douglassii*, Lindl.; B. Reg. 13, t. 1110;—B. M. 54, t. 2776, and 64, t. 3612. 2. Woods near Rio Janeiro.—*G. aggregata*, Ker.; B. M. 4, t. 329;—B. M. 54, t. 2725. 2. Woods near Rio Janeiro.—*G. Deppeana*, Cham. and Schlecht. 2. Woods of Jalapa, Mexico.—*G. macrostachya*, Lindl.; B. Reg. 14, t. 1202. 2. Rio Janeiro.—*G. tubiflora*, Cav. 2. Panama.—*G. Suttonii*, Booth.; B. Reg. t. 1637. 2. Rio Janeiro.—*G. Scopulatum*, Mart.; B. M. 64, t. 3576. 2. Brazil.—*G. Lindleyi*, Hook.; B. M. 64, t. 3602. 2. Brazil.—*G. fascialis*, Lindl.; B. Reg. 21, t. 1785. 2. Brazil.—*G. tuberosa*, Mart.; B. M. 65, t. 3664.—*G. elongata*, Humb.; B. M. 66, t. 3725. 2. Tropical America.—*Gloxinia macrophylla*, Nees. 2. Brazil.—*G. hirsuta*, Lindl.;—B. R. 12, t. 1004. 2. Brazil.—*G. maculata*, L'Herit.;—B. M. 29, t. 1191. 2. Carthagena.—*G. Schottii*, Mikan. (*Sinningia Helleri*, Nees.; B. Reg. 12, t. 997.) 2. Rio Janeiro.—*G. guttata*, Mart. (*Sinningia guttata*, Lindl.; B. Reg. 13, t. 1112.) 2. Rio Janeiro.—*G. velutina*, Mart. 2. Brazil.—*G. villosa*, Mart. (*Sinningia villosa*, Lindl.; B. Reg. 14, t. 1134.) 2. Brazil.—*Rytidophyllum tomentosum*, Mart. (*Gesnera tomentosa*, L.; B. M. 26, t. 1023.) 5 Banks of rivers in Tropical America.—*R. auriculatum*, Hook.; B. M. 64, t. 3562. 5 W. Indies.—*Conradia humilis*, Mart. 5 W. Indies.—*Besleria umbrosa*, Mart. 5 Humid places in Brazil.—*B. lutea*, L. 5 Humid places in Jamaica.—*B. luteo-virens*, Nees. 5 Humid woods in Brazil.—*Hypocryta aggregata*, Mart. 5 Woods of Brazil, along rivers.—*Columnea scandens*, L.—B. Reg. 10, t. 805. 5 ~ Humid places of Guiana and W. Indies.—*Klugia azurea*, Schlecht. 2. Mexico.—*Tapinaria barbata*, Mart. 2. Marshy places, Brazil.—*Nemonanthus Chloronema*, Mart. 5 Rio Janeiro.—*N. Jonema*, Schrad. 5 ~ Brazil.—*Alloplectus cristatus*, Mart. 5 ~ Humid woods of Guiana and Martinique.—*A. coccineus*, Mart. 5 ~ Guiana.—*Episcia decumbens*, Mart. 2. Marshy places of Brazil.—*E. melittifolia*, Mart. 2. Guiana.



ORDER CCVII.—OROBANCHACEÆ, Lindl. Nat. Syst. p. 287.

Leafless, parasitical herbs, by Lindl. referred to 9 genera, of these, Spreng. syst. enumerates 23 species from Europe; 5 from N. America; 3 from N. Africa; 3 from Caucasus; 2 from the Levant; 1 from Siberia, and 1 from Arabia. In S. Africa has been found 1 species, (*Harvey.*) To the E. Indies are assigned 3 species of *Orobanche*; (Pungee, Oude, Nepal, China?); 1 of *Philipæa?* (Herb. Madras.); 3 of *Aeginetia*; (Himalayas, Bengal, Courtallum.); and 1 of *Lathraea*, (Himalayas.) Properties unimportant.

OORBANCHE, Tournef. (*G. Don's Mill. dict.* 4, p. 628.)

1. *indica*, Buch. (*Roxb. Corom.* 3, t. 292; *fl. ind.* 3, p. 27.—*Philipæa indica*, *G. Don. o. c.* p. 632;—*J. Grah. Cat. B.* pl. p. 146.) ☺ Coromandel. Deccan. Guzerat. Bengal. (Serampore.) Hindooosthan. Oude. Nepal. A parasite growing on Tobacco plants. Fl. middle-sized, blue, Jan.; fr. March.
2. *acaulis*, Roxb. (*fl. ind.* 3, p. 28;—*G. Don. o. c.* p. 630.) ☺ Parasite, found growing on the roots of the China Sugar-cane in H. C. G. Fl. large, lively purple, Sept.; fr. C. S. (*Roxb.*)

ÆGINETIA, Roxb. (*G. Don's Mill. dict.* 4, p. 635.)

1. *indica*, Roxb. (*fl. ind.* 3, p. 30; *Corom.* 3, t. 92;—*J. Grah. Cat. B.* pl. p. 146;—*G. Don. l. c.*—*Orobanche Æginetia*, *L.*;—*Rheed.* 11, t. 47.) ☺ Circars. Kandalla. The Concans. Salsette. Silhet. Deyra-Dhoon. Tavoy. Taong-Dong. Fl. large, purple. Has been introduced into H. C. G. ?
2. *pedunculata*, Wall. (*pl. as. rar.* 3, t. 219.—*Orobanche pedunculata*, *Roxb. fl. ind.* 3, p. 29;—*G. Don. o. c.* p. 631.) ☺ Parasite, growing upon the roots of the Kuskus grass. (*Andropogon muricatus*, Retz.) Fl. large, deep purple, with the tube brownish and inside yellow, R. S.; fr. Oct. Bengal, (Serampore.)

ORDER CCVIII.—SCROPHULARIACEÆ, Lindl. Nat. Syst. p. 288.

THE FIGWORT TRIBE.

Herbs, undershrubs, or sometimes shrubs, by Bentham referred to 133 genera. Of these, Spreng. syst. enumerates about 250 for Europe; 230 for S. America, Mexico, and the W. Indies; 75 for N. America; 52 for Siberia; 46 for New Holland and the South Sea Islands; 32 for N. Africa; 30 for the Levant; 30 for Caucasus, Tauria, Dauria, and Iberia; 7 for Madeira, and the Canaries; 5 for the Mascarenhas Islands; 4 for China; 2 for Japan; 2 for Persia; 1 for Arabia; 1 for Madagascar; 1 for Guinea; and 1 for Melville Island. *Harvey* assigns to S. Africa 250 species.—Ben-



tham's E. Indian Scrophularinæ comprehend 166 species; viz. 1 of *Verbascum*; 1 of *Celsia*; 8 of *Scrophularia*; 2 of *Linaria*; 1 of *Antirrhinum*; 5 of *Pterostigma*; 5 of *Lindenbergia*; 12 of *Stemodia*; 7 of *Limnophila*; 3 of *Mazus*; 3 of *Mimulus*; 5 of *Herpestis*; 3 of *Dopatrium*; 2 of *Peplidium*; 13 of *Bonnaya*; 19 of *Vandellia*; 6 of *Torenia*; 2 of *Artanema*; 8 of *Striga*; 3 of *Buchnera*; 1 of *Sutera*; 7 of *Buddleia*; 1 of *Hemiphragma*; 1 of *Ourisia*; 1 of *Scoparia*; 1 of *Picrorrhiza*; 12 of *Veronica*; 1 of *Calorrhodas*; 1 of *Wulfenia*; 2 of *Gymnandra*; 4 of *Gerardia*; 1 of *Glossostylis*; 4 of *Centranthera*; 1 of *Euphrasia*; 1 of *Siphonostegia*; and 18 of *Pedicularis*. "They are common in the plains, and occur in considerable numbers in the mountains. But the tribes which prevail in the latter are those of which the genera are chiefly found in temperate countries; though of these a few species occur also in the plains, but it is only during the cold weather; while the tropical genera which occur in the mountains spring up entirely in the rainy season." (Royle)—"Scrophulariaceæ are generally acrid, bitterish, and suspected plants." (Lindl.) *Digitalis purpurea*, L. (*Foxglove*) is now almost the only plant of the order, which is usefully employed in medicine. Its use requires, however, great caution.

A. VERBASCÆ, Bartl.

VERBASCUM, Tournef. (G. Don's Mill. dict. 4, p. 488.) *Mullein*.

1. *Thapsus*, L. (G. Don. l. c.;—E. B. 8, t. 549;—Roxb. H. B. p. 16.)

♂ Europe. Tauria. Siberia. Caucasus. Gossain Than. Fl. largish, deep yellow, C. S.; fr. H. S.

2. *indicum*, Wall. (Roxb. fl. ind.; ed. Carey, 2, p. 236;—G. Don. o. c. p. 489.—V. *Thapsus*, Roxb. fl. ind. 1, p. 560; not L.) ♂. Gossainthan. Fl. like those of No. 1, C. S.

3. *macranthum*, Hoffm. and Lk. (G. Don. o. c. p. 490.) ♂. Spain. Fl. large, yellow, C. S.

4. *australe*, Schrad. (G. Don. l. c.) ♂. S. Europe. Fl. largish, yellow, sweet-scented, C. S.

5. *pulverulentum*, Vill. (G. Don. o. c. p. 493.) ♂. Danphiny. Fl. middle-sized, yellow, sweet-scented, C. S.

CELSIA, L. (G. Don's Mill. dict. 4, p. 498.)

1. *coromandeliana*, Vahl. (G. Don. o. c. p. 499;—Roxb. fl. ind. 3, p. 100.)

—C. *viscosa*, Roth.) কোকসিম Koksim. ♂. Fl. 4½ lines, bright sulphur-coloured, C. S.; fr. H. S.

2. *cretica*, L. (G. Don. l. c.;—B. M. 24, t. 964;—Roxb. H. B. p. 45.) ♂. ♂. Candia. N. Africa. Fl. largish, deep yellow, Feb. and March.

CALCEOARIA, L. (G. Don's Mill. dict. 4, p. 602.)

1. *pinnata*, L. (G. Don. l. c.;—Vahl. enum. excl. syn.;—B. M. 2, t. 41;

—Roxb. H. B. p. 4.) ♂. Humid places of Peru. Fl. smallish, pale yellowish, Feb. and March.

* *Verbascum crassifolium*, Hoffm. and Lk. ♂. Portugal.—*V. cuspidatum*, Schrad. ♂. Vienna.—*V. rotundifolium*, Ten. ♂. Sicily.—*V. Blattaria*,



SCROPHULARIACEAE.

SL

L.; E. B. 6, t. 393. ♂. S. Europe.—*Celsia Arcturus*, L.; B. M. 45, t. 1962. ♂. Candia.—*C. betonicæfolia*, Desf. ♂. N. Africa.—*Isanthera permollis*, Nees. Peninsula of India?—*Calceolaria ovata*, Sm. ♂. Peru.—*Scrophularia vernalis*, L.; E. B. 8, t. 567. ♂. Europe.

B. HEMIMERIÆ.

Hemimerideæ. Benth.

* *Angelonia salicariæfolia*, Humb.; B. M. 51, t. 2478. ♂. S. America.—*A. Gardneri*, Hook.; B. M. 66, t. 3754. ♂. Pernambuco.—*Ehylacantha campestris*, Mart. ♀. Fields of Brazil.—*Nemesia bicornis*, Pers. ♂. C. G. H.

C. ANTIRRHINEÆ. Chav.

(G. Don's Mill. dict. 4, p. 514.)

LINARIA, Tournef. (G. Don. o. c. p. 517.) Toadflax.

1. *ramosissima*, Wall. (*pl. as. rar.* 2, t. 153;—G. Don. o. c. p. 521.)—L. Roylei, Chav.) ♂. Burma. Patna. Delhi. Fl. 4 lines, pale sulphur, R. S.; fr. C. S.

2. *triphylla*, Mill. (G. Don. o. c. p. 522.—L. *glabrata*, H. B. and Kh.—L. *neglecta*, Clarke and Guss.—L. *tricolor*, Hortul.—*Antirrhinum triphyllum*, L.;—Gärtn. fr. 1, p. 249, t. 53, f. 7, H.;—B. M. 9, t. 324;—Roxb. H. B. p. 45.) ♂. S. Europe. Fl. large, yellow, purple, and white, Feb. and March; fr. April.

3. *vulgaris*, Mill. (G. Don. o. c. p. 524.—L. *Gebleri*, Besser.—L. *ciliata*, Lang.—*Antirrhinum communé*, Lam.—A. *Linaria*, L.;—Gärtn. fr. 1, p. 248, t. 53, f. 7;—E. B. 10, t. 658;—Roxb. H. B. p. 45.) ♀. Europe. Siberia. Fl. largish, white sulphur orange-coloured, Feb. and March; fr. O.

4. *spartea*, Hoffm. and Lk. (G. Don. o. c. p. 526.—L. *junccea*, Desf.; not Ait.—L. *praecox*, Hoffm. and Lk. excl. syn. L.—*Antirrhinum junceum*, Lam.; not L.—A. *sparteum*, L.; B. M. 6, t. 200.) ♂. Spain. Portugal. S. France. Canaries. Morocco. Fl. large, deep yellow orange-coloured, Feb. and March; fr. April.

5. *juncea*, Ait. (G. Don. l. c.; not Desf.; nor Reichb.—L. *meonantha*, Hoffm. and Lk.—*Antirrhinum virgulatum*, Brot.—A. *junceum*, L.; not Lam.;—Roxb. H. B. p. 45.) ♂. Spain. Portugal. Fl. much smaller than those of No. 4, yellow, with the palate orange, Feb. and March; fr. April.

6. *bipartita*, Willd. (G. Don. o. c.;—Swt. fl. gard. t. 30.—L. *speciosa*, Jacq. fil. ecl. 1, t. 95; not Tenore.—L. *coerulea*, Hortul.—*Antirrhinum speciosum*, Donn. hort. cant.;—Roxb. H. B. p. 45.—A. *orchidiflorum*, Hortul.—A. *bipartitum*, Vent. hort. cels. t. 82.) ♂. Morocco. Tangier. Fl. small, blue, Feb. and March; fr. April.

7. *purpurea*, Mill. (G. Don. o. c. p. 527.—L. *purpurascens*, Bernh.—*Antirrhinum purpureum*, L.;—Gärtn. fr. 1, p. 249, t. 53, fig. 7, K.;—B. M. 3, t. 99;—Roxb. H. B. p. 45;—Sibth. and Sm. fl. gr. t. 589.) ♂.



4. S. Europe. Fl. largish, purple, with a dark purple palate, Feb. and March; fr. O.

ANTIRRHINUM, Tournef. (*G. Don's Mill. dict.* 4, p. 514.) *Snapdragon.*

1. *semperflorens*, Lapeyr. (*G. Don. o. c. p.* 515.—*A. molle, St. Am.*; not L.) 5 France. Portugal. Fl. largish, white, having the upper lip and tube marked with purple, and the palate yellowish, Feb.; fr. O.

2. *majus*, L. (*sp. pl.* 859. β .—*Gärtn. fr.* 1, p. 249, t. 53, fig. 7, G.;—*E. B.* 2, t. 129;—*G. Don. l. c.*—*A. grandiflorum, Stek.*—*A. murale, Bauh.*—*Oroonium majus, Pers.*) 4. South and Middle Europe. Barbary. Persia. Fl. 1-2 inches, purple, red, scarlet, white, or variegated with these colours, April; fr. O.

3. *siculum*, Ueria. (*G. Don. o. c. p.* 516.—*A. angustifolium, Poir.*) 4. Sicily. Calabria. Fl. scarcely an inch, white or yellowish, rarely purple, March; fr. O.

4. *Orontium*, L. (*G. Don. l. c.*;—*Gärtn. fr.* 1, p. 249, t. 53, f. 7;—*Lam. ill. t.* 531, f. 2;—*E. B.* 17, t. 1155;—*Roxb. H. B.* p. 45;—*A. humile, Salisb.*—*Orontium arvense, Pers.*) ④ Europe. Barbary. Madeira. Scio. Fl. small, rose-coloured or white, striped with purple, and fr. April. β . *indicum*, Chav. (*Antirrhinum indicum, Royle.*—*A. gibbosum, Wall.*)

④ Hindooosthan. Fl. smaller, yellowish, the tube purple, dotted.

γ . *grandiflorum*, Chav. (*Antirrhinum calycinum, Lam.*—*A. Orontium.* β . *album, Roth.*—*A. jamaicense, Fisch. and Hortul.*—*A. elegans, Ten.*) ④ Portugal. Fl. 8 lines, whitish, streaked with purple.

MAURANDYA, Ort. (*G. Don's Mill. dict.* 4, p. 532.)

1. *Barclayana*, Lindl. (*B. Reg.* 13, t. 1108;—*G. Don. l. c.*;—*Chav. antirrh.* p. 77.) 5 Mexico. Fl. 3 inches, dark purple, with a greenish tube, C. S.; fr. H. S.

2. *semperflorens*, Ort. (*G. Don. o. c. p.* 533;—*Jacq. hort schönbr.* 3, t. 288;—*B. M.* 13, t. 460;—*J. Grah. Cat. B. pl.* p. 142.—*M. scandens, Pers.*—*Usteria scandens, Cav.*;—*B. Repos.* 1, t. 63.) 5 Mexico. Fl. 1½ inch, rose-coloured, with the tube and throat white, tinged with rose, and fr. nearly throughout the year.

3. *antirrhiniflora*, Willd. (*G. Don. l. c.*;—*B. M.* 40, t. 1643;—*J. Grah. Cat. B. pl.* p. 142.—*M. personata, Sessé.*—*Usteria antirrhiniflora, Poir.*) 5 Mexico. Fl. 9-10 lines, lilac-violet, with the throat minutely violet-dotted, and marked with four cream sulphur-coloured convexities, and fr. C. and H. S.

LOPHOSPERMUM, D. Don. (*G. Don's Mill. dict.* 4, p. 533.)

1. *erubescens*, D. Don. (*G. Don. l. c.*;—*Swt. flowr. gard. n. s.* t. 68.—*L. scandens, Hook.*;—*B. M.* 57, t. 3037, 38;—*B. Reg.* 16, t. 1381; not D. Don.) 5 Mexico. Fl. 3 inches, rose-coloured, the lower lobe of the limb marked with a yellow hairy crest, C. S.

* *Linaria tenella*, DC. ④ Spain—*L. villosa*, DC. 4. Spain.—*L. origanifolia*, DC. 4. S. France.—*L. minor*, Desf. (*Antirrhinum minus, L.*;



E. B. 28, t. 2014.) ⊖ Europe.—*L. Cymbalaria*, Mill. (*Antirrhinum Cymbalaria*, L.; E. B. 7, t. 502.) ♀. Europe.—*L. spuria*, Mill. (*Antirrhinum spurium*, L.; E. B. 10, t. 691.) ⊖ Europe.—*L. Elatine*, Mill. (*Antirrhinum Elatine*, L.; E. B. 10, t. 692.) ⊖ Europe. N. Africa.—*L. cirrhosa*, Willd. ⊖ S. France.—*L. incana*, Wall. ♀. Nepal.—*L. triornithophora*, Willd. (*Antirrhinum triornithophorum*, L.; B. M. 15, t. 525.) ♀. Portugal.—*L. pedunculata*, Spreng. ⊖ Spain.—*L. flava*, Desf. ⊖ Barbary.—*L. lusitanica*, Hoffm. and Lk. not Mill. ♀. Portugal.—*L. versicolor*, Mönch. ⊖ S. France.—*L. Pelisseriana*, DC. ⊖ S. Europe.—*L. tristis*, Mill. (*Antirrhinum triste*, L.; B. M. 3, t. 74.) ♀. Near Gibraltar.—*L. amethystea*, Hoffm. and Lk. ⊖ Portugal. Spain.—*Anarrhinum bellidifolium*, Desf. ♂. France. Portugal. Germany, &c.—*A. duriminium*, Brot. ♂. N. Portugal.—*Lophospermum scandens*, D. Don. B. M. 65, t. 3650, not Hook and Lindl. 5 Mexico.—*L. atrosanguineum*, Zucc. (*Rhodochiton volubilis*, Zucc.; B. Reg. 21, t. 1755.) 5 Mexico.—? *Gastromeria physalodes*, G. Don. 5 Mexico.

D. SALPIGLOSSÆ.

(Salpiglossidea, Benth.)

SCHIZANTHUS, Ruiz. and Pav. (G. Don's Mill. dict. 4, p. 469.)

1. *pinnatus*, Ruiz. and Pav. (G. Don. l. c.;—*Hook. exot. fl. t. 73*;—B. Reg. 9, t. 725;—B. M. 50, t. 2404.) ⊖ Chili. Fl. middle-sized, upper lip rosy-lilac, with the uppermost lobe orange-dotted, lower lip violet, Feb. and March; fr. April.

BROWALLIA, L. (G. Don's Mill. dict. 4, p. 477.)

1. *demissa*, L. (G. Don. o. c. p. 478;—B. M. 28, t. 1136.) ⊖ Panama. Fl. middle-sized, indigo-coloured, and fr. C. S. Perhaps not different from No. 2.

2. *elata*, L. (G. Don. l. c.;—B. M. 1, t. 34.—*Roxb. H. B. p. 45.*) ⊖ Peru. Fl. middle-sized,—the tube greenish-white, tinged with dark purple, the limb externally violet, internally beautifully blue, with the upper lip on the inside sulphur-coloured downwards, and fr. C. S.

3. *albiflora*. Tube of corol greenish-white; limb pure white, with the veins beneath greenish.

FRANCISCEA, Pohl. (G. Don's Mill. dict. 4, p. 476.)

1. *uniflora*, Pohl. (G. Don. o. c. p. 477.—F. *Hopeana*, *Hook.*;—B. M. 55, t. 2829.—B. Cab. t. 1822.) 5 Rio Janeiro. Fl. middle-sized, fragrant, indigo-coloured, with a pale tube, and its mouth on the lower margin yellow, Feb.; fr. 0.

BRUNFELSIA, Plum. (G. Don's Mill. dict. 4, p. 476.)

1. *undulata*, Swz. (G. Don. l. c.;—B. *Repos. t. 167*;—B. Reg. 3, t. 228;—*Roxb. H. B. p. 45.*) 5 Jamaica. Fl. 2½ inches, whitish cream-coloured, sweet-scented, and fr. nearly throughout the year.

2. *americana*, L. (G. Don. l. c.;—B. M. 11, t. 393.) 5 W. Indies. Fl. very large, whitish-greenish with a tinge of sulphur. Introduced in 1841.



* *Schizanthus porrigens*, Grah. B. M. 51, t. 2521. ⊕ Chili.—*S. retusus*, Hook; B. M. 58, t. 3045. ⊕ Chili.—*S. Hookeri*, Gillies; B. M. 58, t. 3070. ⊕ Chili.—*S. Grahamii*, Hook; B. M. 58, t. 3044. ⊕ Chili.—*Salpiglossis sinuata*, Ruiz. and Pav. (*S. atropurpurea*, Grah.; B. M. 55, t. 2811.) ♂ Chili.—*Browallia viscosa*, H. B. and Kth. ⊕ New Granada.—*B. grandiflora*, Grah.; B. M. 58, t. 3069. ⊕ Peru.—*B. cordata*, G. Don. (*B. grandiflora*, Lindl.; B. Reg. 16, t. 1364, not Grah.) ⊕ Peru.—*Franciscea latifolia*, Pohl. ♂ Rio Janeiro.—*F. acuminata*, Pohl. ♂ Rio Janeiro.—*F. ramosissima*, Pohl. ♂ Rio Janeiro.—*Duboisia myoporoides*, R. Br. ♂ Port Jackson, N. Holland.

E. DIGITALEÆ, Benth.

(Cheloneæ, D. Don.)

PENTSTEMON, Michx. (G. Don's Mill. dict. 4, p. 636.)

1. *campanulatus*, Willd. (G. Don. o. c. p. 639;—B. M. 44, t. 1878.—*Chelone campanulata*, Cav. ic. 1, t. 29.—*C. campanuloïdes*, Andr.; B. Repos. 1, t. 40.) ♀. Mexico. Fl. 1 inch, externally purple, internally below the limb whitish, and streaked with purple on the lower-side, H. S.
2. *roseus*, G. Don. (l. c.—*P. angustifolius*, Lindl. B. Reg. 13, t. 1122;—not Kth.) ♀. Mexico. Has been introduced into H. C. G.

RUSSELLIA, Jacq. (G. Don's Mill. dict. 4, p. 513.)

1. *floribunda*, H. B. and Kth. (G. Don. o. c. p. 514.) ♂ Mexico. Fl. middle-sized, scarlet, C. S.
2. *junccea*, Zucc. (B. Reg. 21, t. 1773.) ♂ Mexico. Fl. 9 lines, scarlet, R. S.; fr. 0. Seems very nearly allied to *R. equisetiformis*, Cham. and Schlecht.

* *Pentstemon pubescens*, Ait. ♀. Carolina. Georgia.—*P. pulchellus*, Lindl.; B. Reg. 14, t. 1138. ♀. Mexico.—*P. atropurpureus*, G. Don. (*Chelone atropurpurea*, Swt. fl. gard. t. 235.) ♀. Mexico.—*P. gentianoides*, G. Don. (*Chelone gentianoides*, H. B. and Kth.) ♀ Mexico.—*P. Humboldtii*, G. Don. ♀. Mexico.—*P. barbatus*, Nutt. (*Chelone barbata*, Cav.;—B. Reg. 2, t. 116.) ♀. Mexico.—*Chelone obliqua*, L.; B. Reg. 2, t. 175. ♀. Southern States of N. America.—*C. latifolia*, Mühl. ♀. Carolina.

F. GRATIOLEÆ, Benth.

LINDNERBERGIA, Lk. and Otto. (Benth. scroph. ind. p. 21;—G. Don's Mill. dict. 4, p. 539.)

1. *ruderalea*, (L. *urticaefolia*, Lehm.;—G. Don. l. c.;—J. Grah. Cat. B. pl. p. 143.—*Stemodia ruderalea*, Vahl.;—Roxb. fl. ind. 3, p. 94.—*Brachycoris parviflora*, Schrad.) হুল্দী বসন্ত *Huldee-busunto*. ⊕ All over India. Fl. small, bright yellow, and fr. throughout the year.

STEMODIA, L. (Benth. scroph. ind. p. 23;—G. Don's Mill. dict. 4, p. 539.)
1. *viscosa*, Roxb. (fl. ind. 3, p. 94; Corom. 2, t. 163;—G. Don. o. c.



- p. 540;—*J. Grah. Cat. B. pl. p. 143.*) ⊙ Coromandel. Bombay. Fl. small, violet. In H. C. G. fl. and fr. C. S. (*Roxb.*) The plant has a pleasant, aromatic smell. (*Roxb.*)
- LIMNOPHILA*, R. Br. (*pr. p. 442;—Benth. scroph. ind. p. 25;—G. Don's Mill. dict. 4, p. 542.*)
1. *heterophylla*, Benth. (*l. c.;—G. Don. o. c. p. 543.*)—*Columnea heterophylla*, *Roxb. fl. ind. 3, p. 97?*) ⊙ Bengal. (Serampore.) Hindoothan. Nepal. Fl. Feb. and March; fr. H. S. (*Roxb.*)
 2. *gratioloides*, R. Br. (*l. c.;—G. Don. l. c.—J. Grah. Cat. B. pl. p. 143.*)—*Gratiola trifida*, *Willd.*—*Hottonia indica*, *L.*—*Hydropityon pedunculatum*, *Ser.*;—*DC. pr. 1, p. 422.*—*Columnea balsamica*, *Roxb. fl. ind. 3, p. 97;—Rheed. 9, t. 85.*—*Burm. zeyl. t. 55, f. 1.*) **কলুকুরু** *Kurpoor.* ⊙ Ceylon. Coromandel. Bombay. Bengal. (Serampore,) &c. Tropical N. Holland. Fl. 5 lines, greenish-white, streaked with purple. R. and C. S.; fr. C. S. The plant has a grateful, somewhat terebinthaceous smell, and a warm aromatic taste. (*Roxb.*)
 3. *myriophylloides*, Benth. (*Limnophila myriophylloides. Roth.—Rheed. 12, t. 36.*) ⊙ Serampore.
 4. *Roxburghii*, G. Don. (*l. c.;—J. Grah. Cat. B. pl. p. 143, excl. syn. Rheed.*)—*Capraria gratissima*, *Roxb. fl. ind. 3, p. 92.*) **কাল কলুকুরু** *Kalo-Kurpoor.* ⊙ Peninsula of India. Bengal. (Serampore.) Fl. small, purple, R. and C. S.; fr. C. S. The whole plant is delightfully aromatic, and has a sweet pleasant taste. (*Roxb.*)
 4. *racemosa*, Benth. (*G. Don. l. c.;—J. Grah. Cat. B. pl. p. 144.—L. hyssopifolia, Roth.—Cyrilla aquatica, Roxb. fl. ind. 3, p. 115;—Corom. 2, t. 189.*) ⊙ Coromandel. The Concans. Belgaum. Bengal. (Serampore.) Fl. smallish, beautifully bluish, R. and C. S.; fr. C. S. The whole plant fragrant.
 5. *albiflora*. ⊙ Bengal. (Serampore.) Very nearly allied to No. 3. Fl. white, small, racemose, Sept. and Oct.; fr. C. S. The whole plant delightfully aromatic.
- HERPESTIS*, Gärtn. (*Benth. scroph. ind. p. 29;—G. Don's Mill. dict. 4, p. 544.*)
1. *Monnieria*, H. B. and Kth. (*G. Don. o. c. p. 545;—J. Grah. Cat. B. pl. p. 144.*)—*H. Brownei*, *Nutt.*; *Lk.* excl. syn.—*H. procumbens*, *Spreng.*—*H. cuneifolia*, *Pursh.*—*Bramia indica*, *Lam.*—*Calytriplex obovata*, *Ruiz. and Pav.*—*Monnieria cuneifolia*, *Michx.*—*M. Brownei*, *Pers.*—*Gratiola portulacacea*, *Weinm.*—*B. M.* 52, t. 2554.—*G. Monnieria*, *L.*;—*Roxb. fl. ind. 1, p. 141; ed. Carey, 1, p. 141; Corom. 2, t. 178;—Rheed. 10, t. 14.*) **আদা বরি** *Ada-burni.* ♀. Fl. smallish, blue, R. and C. S.; fr. C. S. The natives employ the expressed juice, mixed with Petroleum, to rub on parts affected with rheumatic pains. (*Roxb.*)
 2. *sessiliflora*. ⊙ Serampore. Fl. small, purplish, R. S.



CURANDA, Juss. (*in Vahl's enum. 1, p. 100.—Juss. Ann. Mus. 9, p. 319.—*

Herpestis amara, Benth.—Serratula, Rumph. 5, t. 170, f. 11.)

I. amara, Vahl. ♂ Moluccas. Fl. white, small, or purple dotted. In H. C. G. fl. C. S. Leaves exceedingly bitter. (*Roxb.*)

DOPATRIUM, Buch. (*G. Don's Mill. dict. 4, p. 536;—Benth. scroph. ind. p. 31.*)

1. nudicaule, Benth. (*G. Don. l. c.—Gratiola nudicaulis, Willd.—G. aphylla, Roxb.—G. cuneifolia, Roxb. fl. ind. 1, p. 142; ed. Carey. 1, p. 142.)* ♂ Coromandel. Bengal, (Serampore.) Fl. very small, blue. R. S.; fr. C. S.

2. junceum, Buch. (*G. Don. l. c.;—J. Grah. Cat. B. pl. p. 142.—Gratiola juncea, Roxb. Corom. 2, t. 129; fl. ind. 1, p. 142; ed. Carey. 1, p. 142.)* ♂ Coromandel. Fl. small, rose-coloured. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

PEPLIDIUM, Delile. (*G. Don's Mill. dict. 4, p. 536.*)

1. diandrum, (P. capense, Spreng.—*Microcarpaea spathulata, Hook. Bot. Misc. suppl. 1, t. 4;—J. Grah. Cat. B. pl. p. 142.—Limosella diandra, L.; Roxb. fl. ind. 3, p. 91.*) ♀. Plains of India as far as Seharanpore. Fl. small, R. S.; fr. C. S.

BONNAYA, Lk. (*Benth. scroph. ind. p. 32;—G. Don's Mill. dict. 4, p. 537.*)

1. serrata, (B. brachiata, Lk. and Otto.;—*G. Don. l. c.;—J. Grah. Cat. B. pl. p. 143.—Gratiola serrata, Roxb. H. B. p. 4; fl. ind. 1, p. 139; ed. Carey. 1, p. 140;—Rheed. 9, t. 59?*) छुमि निम Bhoo-mi-nim. ♂ Peninsula of India. Bengal, (Serampore.) Fl. smallish, pink-coloured, R. S.; fr. C. S.

2. reptans, Spreng. (*Benth. scroph. ind. p. 32;—G. Don. l. c.—B. ruellioïdes, Spreng.—B. ciliata, Spreng.—Gratiola reptans, Roxb. fl. ind. 1, p. 140; ed. Carey. 1, p. 140.—G. ruellioïdes, Kön.—G. ciliata, Colsm.*) ♂ Moluccas. Khassya Mountains. Nepal. Fl. smallish, bluish-pink. R. S.; fr. C. S.

3. veronicæfolia, Spreng. (*Benth. o. c. p. 33;—G. Don. l. c.;—J. Grah. Cat. B. pl. p. 143.—B. rigida, Benth. in Wall. Cat.—B. procumbens, Benth. ibid.—B. marginata, Spreng.?*—B. Rothii, Lk.—*Gratiola veronicaefolia, Retz.?*—*Roxb. Corom. 2, t. 154; fl. ind. 1, p. 138; ed. Carey. 1, p. 139.—G. marginata, Colsm.?*—*G. grandiflora, Retz.*; not Roxb.—*G. racemosa, Roth.*; not Roxb.—*Rumph. 5, t. 170, f. 2.*) ♂ Moluccas. Coromandel. Mahableshwnr. Bengal, (Serampore.) Burma. Silhet. Nepal. China. Fl. small, violet, R. S.; fr. C. S.

4. verbenæfolia, Spreng. (*Benth. o. c. p. 33;—G. Don. l. c.;—J. Grah. Cat. B. pl. p. 143.—B. Roxburghiana, Lk.—Gratiola verbenæfolia, Colsm.—G. ciliata, Commers.—G. racemosa, Roxb. fl. ind. 1, p. 138; ed. Carey. 1, p. 139; not Roth.—G. Roxburghiana, Röm. and Sch.—Tittmannia Colsmanni, Benth. in Wall. Cat.—Torenia gracilis, Benth. ibid.*) ♂ Peninsula of India. Bengal, (Serampore.) Burma. Silhet. Hindoosthan. China. Fl. small, blue, R. S.; fr. C. S.



5. *grandiflora*, Spreng. (*Benth. o. c.* p. 33;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 143;—*B. Wightii*, *Benth. in Wall. Cat.*—*Gratiola grandiflora*, *Roxb. Corom.* 2, t. 179; *fl. ind. 1. p.* 136; *ed. Carey. 1. p.* 137;—*Retz.?*—*Henckelia grandiflora*, *Lk.*) ⊙ Coromandel. Bombay. Bengal. (Serampore.) Fl. middle-sized, light blue, R. S.; fr. C. S.
 6. *oppositifolia*, Spreng. (*Benth. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 143.—*Gratiola oppositifolia*, *Roxb. Corom.* 2, t. 155; *fl. ind. 1. p.* 139; *ed. Carey. 1. p.* 139;—*Retz.?*—*Henckelia oppositifolia*, *Lk.*) ⊙ Coromandel. Bombay. Bengal. (Serampore.) Fl. small, blue, R. S.; fr. C. S.
 7. *tenuifolia*, Spreng. (*G. Don. o. c.* 538.—*Gratiola tenuifolia*, *Celsm.*) ⊙ China. Tavoy. Coromandel. Bengal. (Serampore.) Fl. small, blue, R. S.; fr. C. S.
 8. *hyssopioides*, Benth. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 143.—*Gratiola hyssopioides*, *Roxb. Corom.* 2, t. 128; *fl. ind. 1. p.* 141; *ed. Carey. 1. p.* 142.) ⊙ Coromandel. Bombay. Bengal. (Serampore.) Silhet. Hindoosthan. China. Fl. small, blue, R. S.; fr. C. S.
 9. *parviflora*, Benth. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 143.—*Gratiola parviflora*, *Roxb. Corom.* 3, t. 203; *fl. ind. 1. p.* 140; *ed. Carey. 1. p.* 141.) ⊙ Coromandel. Bombay. Burma. Silhet. Hindoosthan. Fl. small, blue or white. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
 10. *rotundifolia*, Benth. (*o. c.* p. 34;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 143, excl. syn. *Rheed.*—*Gratiola rotundifolia*, *L.*; *Roxb. Corom.* 3, t. 204; *fl. ind. 1. p.* 137; *ed. Carey. 1. p.* 138.—*G. debilis*, *Heyne. in Wall. Cat.*) ⊙ Coromandel. Bombay. Ceylon. Bengal. (Serampore.) Fl. small, white, R. S.; fr. C. S.
 11. *integrifolia*, (*Gratiola integrifolia*, *Roxb. fl. ind. 1. p.* 137; *ed. Carey. 1. p.* 138;—*Rheed. 9. t. 57.*) ⊙ Coromandel. Bengal. (Serampore.) Fl. smallish, blue, R. S.; fr. C. S.
- VANDELLIA, L. (*Benth. scroph. ind.* p. 35;—*G. Don's Mill. dict.* 4, p. 547.)
1. *crustacea*, Benth. (*l. c.*;—*G. Don. o. c.* p. 548;—*J. Grah. Cat. B. pl.* p. 144; excl. syn. *Rheed.*—*Capraria crustacea*, *L.*—*Torenia crustacea*, *Cham. and Schlecht.*—*T. lucida*, *Buch. in Wall. Cat.*—*Morgania lucida*, *Spreng.*—*Hornemannia ovata*, *Lk. and Otto.*—*Tittmannia ovata*, *Reichb.*—*Gratiola aspera*, *Roth.*—*G. lucida*, *Roxb. Corom.* 3, t. 202; *fl. ind. 1. p.* 138; *ed. Carey. 1. p.* 138;—*Rumph. 5. t. 170. f. 3.*) ⊙ Moluccas. Coromandel. Bombay. Bengal. (Serampore.) Fl. small, indigo-coloured, R. S.; fr. C. S.
 2. *Roxburghii*, G. Don. (*o. c.* p. 549;—*J. Grah. Cat. B. pl.* p. 144.—*Vandellia diffusa*, *Willd.*; not *L.*—*Torenia diffusa*, *Roxb. fl. ind. 3. p.* 95.) ⊙ Coromandel. Bombay. Bengal. (Serampore.) Fl. small, blue, R. S.; fr. C. S.



3. *varians*, G. Don. (*l. c.*—*Torenia varians*, Roxb. *fl. ind.* 3, p. 96.)
◎ Coromandel. Bengal, (Serampore.) Fl. small, bluish, R. S.; fr. C. S.
4. *multiflora*, G. Don. (*l. c.*—*Torenia multiflora*, Roxb. *fl. ind.* 3, p. 96.)
◎ Bengal, (Serampore.) Fl. small, bluish-white, R. S.; fr. C. S.
- TORENIA**, L. (*Benth. scroph. ind.* p. 38;—*G. Don's Mill. dict.* 4, p. 550.)
1. *asiatica*, L. (*Benth. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 144*, excl. syn. Rheed.—*Lam. ill. t. 523*, *f. 1.*—*T. cordifolia*, Benth. in *Wall. Cat.*; not Roxb.—*T. peduncularis*, Benth. *l. c.*—*T. diffusa*, Don. and Benth. *l. c.*; not Roxb.—*T. alba*, Buch.—*T. hians* and *vagans*, Roxb. *fl. ind.* 3, p. 96.—*T. hirsuta*, Willd.—*Gratiola alata*, Roxb. *fl. ind.* 1, p. 137; ed. Carey, 1, p. 137?—*Bonnaya alata*, Spreng.?—*Hencckelia alata*, Lk.? ◎ Coromandel. South Concan. Amboyna. Chittagong. Bengal, (Serampore,) &c. Fl. largish, generally blue, R. S.; fr. C. S.
2. *cordifolia*, Roxb. (*Corom. 2*, *t. 161*; *fl. ind.* 3, p. 95;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 144*;—*B. M. 66*, *t. 3715*;—*Rheed. 9*, *t. 68*.)
◎ Circars. South Concan. Bengal, (Serampore.) Mussooree. Fl. largish, bluish-purple, R. S.; fr. C. S.

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- * *Gratiola officinalis*, L. Fl. dan. *t. 363*, 2. Denmark. France, &c.—*G. linifolia*, Vahl. 2. Portugal.—*G. aurea*, Pursh.; B. Cab. *t. 1399*. 2. Carolina.—*G. tetragona*, Ell. 2. S. Carolina.—*Beyrichia ovimoides*, Cham. and Schlecht. 2. Rio Janeiro.—*Achetaria Sprengelii*, Cham. and Schlecht. 2. Tropical Brazil.—*Peplidium humifusum*, Delile. 2. Bombay, N. Africa.—*Stemodia maritima*, L. 2. Jamaica.—*Mazus surculosus*, D. Don. 2. Mussooree.—*M. rugosus*, Lour. 2. Silhet. Seharunpore, &c.—*Mimulus strictus*, Benth. 2. Rajmahl.—*M. parviflorus*, Lindl.; B. Reg. 11, *t. 874*. ◎ Chili.—*M. floribundus* Dougl.; B. Reg. 14, *t. 1125*. ◎ California.—*M. nepalensis*, Benth. Nepal.—*Uvedalia linearis*, R. Br. Tropical N. Holland.—? *Collinsia bicolor*, Benth. ◎ California.—*C. parviflora*, Lindl.; B. Reg. 13, *t. 1082*. ◎ N. America.—*Teedia lucida*, Rudolf; B. Reg. 3, *t. 209*. ♂. C. G. H.—*T. pubescens*, Burch.; B. Reg. 3, *t. 214*. ♂. C. G. H.

G. BÜCHNERÆ, Benth.

(In *Hook. comp. Bot. Mag.* 1, p. 356;—*G. Don's Mill. dict.* 4, p. 582.)

STRIGA, Lour. (*fl. cochinch.* p. 22;—*Benth. o. c.* p. 361;—*G. Don. l. c.*)

1. *densiflora*, Benth. (*o. c.* p. 363;—*G. Don. l. c.*—*Büchnera asiatica*, Vahl.?—*L.* partly.—*B. densiflora*, Benth. *scroph. ind.* p. 41.) 2. Peninsula of India, and the plains of India as far as Saharunpore. Fl. small, C. S.

2. *lutea*, Lour. (*fl. cochinch.* p. 22?—*Benth. l. c.*;—*G. Don. o. c.* p. 583.—*Büchnera hirsuta*, Wall.;—*Benth. scrophul. ind.* p. 41.—*B. asiatica*, L. partly.) 2. Peninsula of India, Bengal. Saharunpore. Macao. Canton. Fl. yellow, C. S.



3. *euphrasioïdes*, Benth. (*I. c.*;—*G. Don. I. c.*)—*Büchnera euphrasioïdes*, Vahl.—*B. angustifolia*, *D. Don. prod. fl. nep. p. 91.*—*B. asiatica*, *L.* partly.) 2. Java. Peninsula. Bengal, &c. to the Mountains of N. India.

H. BUDDLEÆ, Benth.

(*G. Don's Mill. dict. 4, p. 596.*)

BUDDLEA, Houst. (*G. Don. I. c.*)

1. *diversifolia*, Vahl. (*G. Don. o. c. p. 597*;—*Benth. scroph. ind. p. 43*;—*B. indica*, *Lam.*) 5 Java. In H. C. G.
2. *paniculata*, Wall. (*Roxb. fl. ind.*; *ed. Carey, I. p. 412*;—*G. Don. I. c. p. 599.*) 5 Deyra-Dhoon. Fl. 6½ lines, reddish-white, fragrant, Feb. March and April.
3. *Neemdu*, Buch. (*Roxb. fl. ind. I. p. 396*; *ed. Carey, I. p. 411*;—*G. Don. o. c. p. 600*.—*B. serrulata*, *Roth.*—*B. subserrata*, *D. Don. prod. fl. nep. p. 92.*) 5 Peninsula of India. Penang. Chittagong. Saharunpore. Oude. Deyra-Dhoon. Fl. 2 lines, white, almost inodorous, March, April and May; fr. R. S.
4. *madagascariensis*, Vahl. (*G. Don. o. c. p. 601*;—*B. M. 55, t. 2824*;—*B. Reg. 15, t. 1259.*) 5 Madagascar. Fl. 4½ lines, bright orange, March, April and May.

- * *Buddlea brasiliensis*, Jacq. fil.; *B. M. 54, t. 2713*. 5 Tropical Brazil.—*B. globosa*, Lam.; *B. M. 5, t. 174*. 5 Chili.—*B. heterophylla*, Lindl.; *B. Reg. 15, t. 1259*. 5 S. America.—*B. thyrsoidæa*, Lam. 5 Brazil.—*B. macrostachya*, Benth. 5 Silhet.—*B. discolor*, Roth. 5 Nepal. Oude. Rungpore.—*B. crispa*, Benth. 5 Oude. Silhet.

I. VERONICEÆ, Benth.

(*Scroph. ind. p. 43.*)

VERONICA, Tournef. (*Benth. scroph. ind. p. 44*;—*G. Don's Mill. dict. 4, p. 563.*) Speedwell.

1. *foliosa*, Wall. and Kit. (*Hung. 2, p. 106, t. 102*;—*G. Don. I. c.*) 2. Hungary. Humid meadows about Halle, in Saxony. Fl. small, blue, C. S.
2. *maritima*, L. (*G. Don. I. c.*;—*fl. dan. t. 374.*) 2. N. Europe. A very variable plant. Fl. small, purple, C. S.
3. *spuria*, L. (*G. Don. I. c.*;—*V. amethystina*, *Willd.*—*V. rubella*, *Pall.*) 2. S. Europe. Fl. small, blue, C. S.
4. *elatior*, Ehrh. (*G. Don. I. c.*;—*V. maritima*, *Bieb. excl. syn.*) 2. S. Europe. Fl. small, blue, C. S.
5. *hybrida*, L. (*G. Don. o. c. p. 366*;—*E. B. 10, t. 673.*—*V. spicata*, *DC. fl. fr.*; not L.) 2. Europe. Fl. small, light blue, C. S.
6. *longifolia*, L. (*G. Don. o. c. p. 365*.—*V. maritima*, *Hoffm. excl. syn.*—*V. ciliaris*, *Hoffm.*—*V. spuria* *Schkuhr.* not L.—*V. acuta*, *Mart.*—*V. urticæfolia*, *Amm.*) 2. Humid meadows of Europe. Fl. small, blue, C. S.



Anagallis, L. (*G. Don. o. c.* p. 577;—*E. B.* 11, *t.* 781;—*fl. dan.* 1, 903.—*V. undulata*, *Wall. Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 147.) ⊙ Europe. Siberia. Levant. Virginia, &c. Silhet. Hindooosthan. Nepal. Kanowur. Fl. small, pale blue, or white lined with blue, or entirely white, Feb. and March; fr. April.

B. glandulosa-pubesens. ⊙ Banks of the Hoogly, about Serampore. Fl. $\frac{1}{2}$ line, pure white, Feb. and March; fr. April. Stem, branches, peduncles, pedicels, bractes, calyxes, and ovaries covered with a gland-tipped pubescence,

S. agrestis, L. (*G. Don. l. c.*;—*E. B.* 11, *t.* 783.) ⊙ Europe, Saharun-pore. Fl. very small, pale blue, Feb. and March; fr. April.

Scoparia, L. (*G. Don's Mill. dict.* 4, *p.* 642;—*R. Br. prodr.* *p.* 443.)

1. dulcis, L. (*G. Don. l. c.*;—*R. Br. pr. l. c.*) ⊙ Native of every part of the world within the Tropics, common particularly near the sea. Fl. $1\frac{1}{2}$ line, white, about Serampore; and fr. nearly throughout the year. An infusion of the plant is used by the Indians of S. America to cure agues. (*Humb.*)

* *Veronica media*, Schrad. 2. Hungary.—*V. australis*, Schrad. 2. S. Europe.—*V. Crista galli*, Stev. ⊙ Cuba.—*V. virginica*, L. 2. Virginia.—*Calorrhados Brunonianus*, Benth. 2. Nepal.—*Scoparia flavia*, Cham. and Schlecht. 2. Brazil.—*S. multifida*, Cham. and Schlecht. 3. Brazil.—*Aragoa cupressina*, H. B. and Kth. 5 St. Fé de Bogota.—*A. abietina*, H. B. and Kth. 5 St. Fé de Bogota.—*Hemiphragma heterophyllum*, Wall. tent. fl. nep. t. 8. 2. Nepal.—*Sibthorpia europea*, L.;—*E. B.* 10, *t.* 649. 2. England. S. Europe.—*Disandra africana*, L. 2. N. Africa.

K. GERARDIÆ, Benth.

GERARDIA, L. (*Benth. scroph. ind.* *p.* 49;—*G. Don's Mill. dict.* 4, *p.* 556.)

1. delphinifolia, L. (*Benth. l. c.*;—*Hook. comp.* 1, *p.* 211, *t.* 11;—*Roxb. Corom.* 1, *t.* 90; *fl. ind.* 3, *p.* 98.—*Sopubia delphinifolia*, *G. Don's Mill. dict.* 4, *p.* 560;—*J. Grah. Cat. B. pl.* *p.* 145.) ⊙ Coromandel. The Concans. The Ghauts at Kandalla. Lohargan. (*Royle.*) Fl. largish, pale rose-coloured, R. and C. S.; fr. C. S.

GLOSSOSTYLIS, Cham. and Schlecht. (*Benth. in Hook. comp. Bot. Mag.* 1, *p.* 211;—*G. Don's Mill. dict.* 4, *p.* 561.)

1. avensis, Benth. (*L. c.*;—*G. Don. l. c.*—*Hymenospermum dentatum*, *Benth. in Wall. Cat.*) ⊙ Taong-Dong. Has been introduced into H. C. G.?

CENTRANTHERA, R. Br. (*Prodr.* *p.* 438;—*Benth. scroph. ind.* *p.* 50;—*G. Don's Mill. dict.* 4, *p.* 562.)

1. hispida, R. Br. (*L. c.*;—*Benth. l. c.*;—*G. Don. l. c.*;—*Wall. pl. as. rar.* 1, *t.* 45;—*J. Grah. Cat. B. pl.* *p.* 145.—*C. nepalensis*, *D. Don.*—*Digitalis stricta*, *Roxb. fl. ind.* 3, *p.* 99;—*Rheed.* 9, *t.* 78?) ⊙ Tropi-

- cal N. Holland. Ram Ghaut. Coromandel. Prome. Bengal. (Serampore.) Hindoothan. Nepal. Kemaon. Fl. middle-sized, deep purplish red, R. and C. ; fr. C. S.
2. *humifusa*, Wall. (*Benth. scroph. ind.* p. 50;—*G. Don. o. c.* p. 563. —*Razumovia tranquebarica*, *Spreng.*) ◎ Peninsula of India. Bengal, (Serampore.) Fl. smaller, but of the same colour with No. 1, R. and C. S. ; fr. C. S.

* *Gerardia grandiflora*, Benth. 2. Mexico.—*G. densiflora*, Benth. 2. Mexico.—*G. fasciculata*, Ell. 2. S. Carolina.—*G. longifolia*, Nutt. ◎ N. America.—*Esterhazia splendida*, Mikan. 5 Tropical Brazil.—*Centrathera grandiflora*, Benth. ◎ Khassy Mountains.—*C. Brunonianæ*, Wall. Moulmein.

RHINANTHEÆ, Benth.

- * *Rhinanthus Crista galli*, L. ; E. B. 10, t. 657. ◎ Europe. America.—*R. orientalis*, L. ◎ Levant.—*Pedicularis Chamissonis*, Stev. ◎ Siberia.—*P. palustris*, L. ; E. B. 6, t. 399. ◎ Europe.—*P. sylvatica*, L. ; E. B. 6, t. 400. ◎ Europe. Siberia.—*Melampyrum cristatum*, L. ; E. B. 1, t. 41. ◎ North and Middle Europe.—*M. arvense*, L. ; E. B. 1, t. 53. ◎ England. S. Europe.—*M. pratense*, L. ; E. B. 2, t. 113. ◎ N. Europe.—*M. sylvaticum*, L. ; E. B. 12, t. 804.—*Triphysaria versicolor*, Fisch. and Mey. ◎ California.—*Euphrasia officinalis*, L. ; E. B. 20, t. 1416. ◎ Europe. Siberia. Himalaya. Cashmere.—*E. tricuspidata*, L. ◎ Italy.—*E. aspera*, Brot. ◎ Portugal.—*Odontites rubra*, Pers. (*Euphrasia Odontites*, L. ; E. B. 20, t. 1415.) ◎ Meadows of Europe and Siberia.—*Bartsia purpurea*, Duby. ◎ S. France.—*B. viscosa*, L. (*Rhinanthus viscosus*, Sm. ; E. B. 15, t. 1045.) ◎ England. France. Italy.—*B. versicolor*, Pers. ◎ Italy. N. Africa.—*B. maxima*, Pers. ◎ Candia.

ORDER CCIX.—SOLANACEÆ, Lindl. Nat. Syst. p. 293.

THE NIGHTSHADE TRIBE.

Herbs or shrubs, by Lindl. (excluding *Brugmansia*,) referred to 42 genera. Of these, Spreng. syst. enumerates about 280 for S. America, Mexico and the W. Indies; 25 for New Holland and Van Diemen's Land; 15 for North America; 15 for Europe; 10 for N. Africa; 4 for the Mascarenhas Islands; 4 for China; 4 for Madeira and the Canaries; 4 for Guinea; 3 for Madagascar; 2 for Arabia; 2 for Japan; 2 for Siberia; 1 for Caucasus, and 1 for Persia. Several of the European species are also natives of Tauria, Caucasus, the Orient and N. Africa. In S. Africa Harvey enumerates 50 species. According to Nees Von Esenbeck's synopsis of Indian Solanaceæ, and



Reyde's All. 44 species have been discovered in the E. Indies; viz. 31 of *Solanum*; 4 of *Physalis*; 1 of *Anisodus*; 4-5 of *Datura*; 1 of *Hyoscyamus*; 1 of *Atropa*; and 1 of *Lycium*. Of these, *Lycium europaeum*, *Atropa acuminata*, *Hyoscyamus niger*, *Solanum laxum*, *lysimachioides*, *crassipetalum*, *rubrum*, *Physalis angulata*, *Datura ferox*, and *Anisodus luridus* are from the Himalayas; the rest are all tropical.

"At first sight this family would seem to offer a strong exception to the general uniformity of structure and property, containing as it does the Deadly Nightshade and Henbane, and the wholesome Potato and Tomato; but a little inquiry will explain this apparent anomaly. The tubers of the Potato are well known to be perfectly wholesome when cooked, any narcotic property which they possess being wholly dissipated by heat. This is the case with other succulent underground stems in equally dangerous families, as the Cassava among Euphorbiaceæ; besides which, as DeCandolle justly observes,—'Il ne faut pas perdre de vue que tous nos alimens renferment une petite dose d'un principe excitant, qui, s'il y était en plus grande quantité, pourrait être nuisible, mais qui y est nécessaire pour leur servir de condiment naturel.' The leaves of all are narcotic and exciting, but in different degrees, from the *Atropa Belladonna*, which causes vertigo, convulsions, and vomiting, the well known Tobacco, which will frequently produce the first and last of these symptoms, the Henbane and *Stramonium*, down to some of the *Solanum* tribe, the leaves of which are used as kitchen herbs. It is in the fruit that the greatest diversity of character exists: *Atropa Belladonna*, *Solanum nigrum*, and others, are highly dangerous poisons; *Stramonium*, Henbane, and *Physalis* are narcotic; the fruit of *Physalis Alkekengi* is diuretic; that of *Capsicum* is pungent and even acrid; some species of *Physalis* are subacid, and so wholesome as to be eaten with impunity, (f. ex. the well known *Tepariya*;) and finally, the Egg plant, (*Solanum Melongena*, *Brinjal*,) and all the Tomato tribe of *Solanum*, yield fruits which are common articles of cookery. It is stated that the poisonous species derive their properties from the presence of a pulpy matter which surrounds the seeds; and that the wholesome kinds are destitute of this pulp, the pulp consisting only of what botanists call the sarcocarp, that is to say, the centre of the rind, in a more or less succulent state. It must also be remembered, that if the fruit of the Egg-plant is eatable, it only becomes so after undergoing a peculiar process, by which all its bitter acrid matter is removed, and that the Tomato is always exposed to heat before it is eaten." (Lindl.)

LYCIUM, L. (*G. Don's Mill. dict.* 4, p. 457.)

1. *afrum*, L. (*G. Don. o. c. p. 459*;—*B. Reg.* 5, t. 354;—*Lam. ill. t. 112, f. 1*;—*J. Grah. Cat. B. pl. p. 140?*) 5 N. Africa. Spain. Fl. violet, rich purple above. Has been introduced into H. C. G. Fl.?
2. *barbarum*, L. (*G. Don. o. c. p. 458*, excl. Shaw and syn. *Lam.*—*L. halimifolium*, *Mill. dict.*) 5 N. Asia. Africa. S. Europe. Fl. purple, with a yellow base. Has been introduced into H. C. G. Fl.?



CAPSICUM, Tournef. (*G. Don's Mill. dict. 4, p. 444.*)

1. *grossum*, Willd. (*G. Don. o. c. p. 445;—Röm. and Sch.;—Roxb. fl. ind. 1, p. 574; ed. Carey, 2, p. 260;—Nees. v. Esenb.*) কাকরি মরিচ
Kaphuri-murich. ৩ Nepal? Cultivated all over India. Fl. smallish, white, and fr. the whole year.
2. *annuum*, L. (*G. Don. o. c. p. 444; excl. syn. Rheed.—Roxb. fl. ind. 1, p. 573; ed. Carey, 2, p. 260.*) ৩ S. America. Fl. smallish, white, and fr. the whole year.
3. *frutescens*, L. (*Hort. Cliff.; not L. sp.—G. Don. o. c. p. 446;—Willd.;—Röm. and Sch.;—Lour. s.—Roxb. fl. ind. 1, p. 574; ed. Carey, 2, p. 261;—J. Grah. Cat. B. pl. p. 139, excl. syn. Don.—Rheed. 9, t. 35, and B. M.—Rheed. 2, t. 56.—Rumph. 5, t. 88, f. 1 and 3.*)
লাল লংকা মরিচ *Lal-lungka-murich.* ৩ Fl. small, white, and fr. the whole year. Fruit red.
 β . *flavum*; হুল্দী লংকা মরিচ *Huldee-lungka-murich.* Fruit yellow.
4. *fastigiatum*, Bl. (*G. Don. l. c.—C. frutescens, L. sp.; not L. Hort. Cliff.;—Burm. ind.—Nees.;—C. minimum, Roxb. fl. ind. 1, p. 573; ed. Carey, 2, p. 261; not Mill.*) ধান লংকা মরিচ *Dhan-lungka-murich.*
Cayenne-pepper capsicum. ৩ S. America? Fl. smallish, white, and fr. the whole year.
5. *Chamaecerasus*, Nees. (*G. Don. l. c.—C. cerasiforme, Poir.; not Willd.—C. purpureum, Roxb. fl. ind. 1, p. 573; ed. Carey, 2, p. 259.*)
৫ Moluccas? Fl. smallish, purple, and fr. the whole year.
6. *baccatum*, L. (*G. Don. o. c. p. 447; Willd.;—H. B. and Kth.;—Roxb. H. B. p. 17.—C. frutescens, β . L. sp.—Rumph. 5, t. 88, f. 2.*) ৩ Tropical America. Cultivated in Guinea and India. Fl. smallish, whitish, and fr. the whole year.

SOLANUM, L. (*G. Don's Mill. dict. 4, p. 400.*) Nightshade.

1. *tuberosum*, L. (*G. Don. l. c.;—Roxb. fl. ind.; ed. Carey, 2, p. 216, annot.;—H. B. p. 16;—J. Grah. Cat. B. pl. p. 137.*—*Solanum tuberosum esculentum*, Bauh.—*Lycopersicum tuberosum*, Mill.—*Papas americanum*, Bauh.—*P. Pernanorum*, Best.—*Batata peruviana*, Park.) বিষাণু
আলু *Bilati-aloo.* Potatoe. ২. West Coast of S. America. Cultivated all over the world. Fl. middle-sized, white or blue, and fr. C. S.
2. *macrocarpon*, L. (*G. Don. o. c. p. 410;—Willd. sp. excl. syn. Feuill. and Plum.;—Dun.;—Roxb. H. B. p. 16.*) ২. Peru. Fl. large, blue, and fr. the whole year.
3. *ethiopicum*, L. (*G. Don. l. c.;—Jacq. vind. t. 12;—Roxb. fl. ind. 1, p. 568; ed. Carey, 2, p. 250.*—*Lycopersicum ethiopicum*, Mill.)
৩ \ominus Ethiopia. China. Japan. Mauritius? Fl. white, or violet, and fr. the whole year.
4. *Pseudocapsicum*, L. (*G. Don. o. c. p. 411;—Roxb. H. B. p. 16;—J. Grah. Cat. B. pl. p. 137.*) ৩ Madeira. Fl. small, white, and fr. the whole year.
5. *nodiflorum*, Jacq. (*Icon. rar. 2, t. 326;—G. Don. l. c.—Roxb. H. B.*



- p. 16.) 5 Guiana. Brazil. Mauritius. Fl. white, with a yellow base, and fr. the whole year.
6. *nigrum*, L. (G. Don. o. c. p. 412;—E. B. 8, t. 566.) ♂ Europe. Fl. smallish, white, and fr. C. S.
7. *incertum*, Dun. (*Solan. p. 155*;—Nees.;—G. Don. o. c. p. 412;—J. Grah. Cat. B. pl. p. 137, excl. syn. L. Mill. Roxb. E. B. and Rumph.—S. *nigrum*, Forsk.—S. *miniatum*, Bernh.;—Rheed. 10, t. 73.) ♂ Bengal. Silhet. Fl. small, white, and fr. C. S.
8. *rubrum*, Mill. (Nees.;—G. Don. l. c.)
a. *erythropyrenum*, (*Solanum rubrum*, Mill.;—Roxb. fl. ind. 1, p. 565; ed. Carey, 2, p. 246; excl. syn. Rheed.;—Röm. and Sch.;—Dun.—Wight. icon. 2, t. 344.—S. *nigrum*, γ. *rubrum*, Willd.—S. *Rumphii*, Dun.;—Röm. and Sch.—S. *asperum*, Hornem.—Rumph. 6, t. 26, f. 2.) গোঁফেরী Gorkhee. Fl. small, white, and fr. whole year. Berries red.
- β. *melanopyrenum*, (*Solanum oleraceum*, Rich. herb.;—Dun.—Röm. and Sch.—S. *nigrum*, Bl.; not L.) ♂ All over India. Java. Ambona. California. Fl. like those of a. Berries black.
9. *verbascifolium*, L. (G. Don. o. c. p. 415;—Nees.;—R. Br. pr. p. 444;—Lour.;—Dun.;—Jacq.—Röm. and Sch.;—J. Grah. Cat. B. pl. p. 138.—S. *pubescens*, Roxb. fl. ind. 1, p. 564; ed. Carey, 2, p. 244; not Willd.) অঢ়স Urus. 5 All over India. N. Holland. America. Fl. 5 lines, white, green-veined, and fr. the whole year.
10. *auriculatum*, Ait. (G. Don. l. c.;—Nees.;—Dun.;—Röm. and Sch.;—Roxb. fl. ind. 1, p. 564; ed. Carey, 2, p. 245;—S. *mauritianum*, Scop.) 5 Madagascar. Bourbon. Mauritius. Fl. small, lively blue-purple, R. and C. S.; fr. Dec. to May.
11. *byrsinum*, (S. *coriaceum*, Hook.;—B. M. 54, t. 2708;—G. Don. o. c. p. 418. not Dun.—G. Don. o. c. p. 428.) 5 Mexico. Fl. largish, pale blue. Introduced in 1841.
12. *spirale*, Roxb. (fl. ind. 1, p. 566; ed. Carey, 2, p. 247;—Nees.;—G. Don. o. c. p. 419.) 5 Silhet. Assam. Fl. white, smallish, and fr. several times a year.
13. *decendentium*, Roxb. (fl. ind. 1, p. 565; ed. Carey, 2, p. 247;—G. Don. o. c. p. 421.—S. *decemfidum*, Wall. Cat.;—Nees.) ♂ China. Singapore. Fl. smallish, white, and fr. the whole year.
14. *torvum*, Swz. (G. Don. o. c. p. 430;—Willd.;—Dun.;—Röm. and Sch.;—Nees.;—Wight. icon. 2, t. 345.—S. *stramonifolium*, Lam.;—Poir.;—Roxb. fl. ind. ed. Carey, 2, p. 256;—H. B. p. 17; not Jacq.—S. *ferrugineum*, Jacq.;—Willd.;—Dun.;—Röm. and Sch.—S. *ficiifolium*, Ort.;—Cavan.—S. *scabrum*, Ruiz. and Pav.;—Poir.—S. *saponaceum*, Dun.;—Poir.;—Röm. and Sch.;—not Hook. B. M.—S. *pseudosaponaceum*, Bl.) গোঁফ বেগুন Goto-begoon. L. 5 Bengal, (Serampore.) &c. Jamaica. Hispaniola. Bermuda Islands. Fl. 8-9 lines, white, and fr. nearly the whole year.



15. *Melongena*, L. (*G. Don. o. c. p. 432*;—*Nees.*)

a. *Fertile peduncle solitary, often with a small raceme of sterile flowers.*

aa. *Stem, leaves, and calyxes, unarmed, or nearly so.* (*Solanum ovi-gerum*, *Dun.*;—*Röm. and Sch.*;—*Bl.*;—*S. Melongena*, *L.*;—*Willd. Roxb. fl. ind. 1*, *p. 566*; *ed. Carey*, *2*, *p. 248*;—*Lour.*;—*J. Grah. Cat. B. pl. p. 138*, partly.—*S. pseudo-undatum*, *Bl.*;—*Rumph. 5, t. 85.*) **বেঁশি** *Begoon. Brinjal. Egg-plant.* ২. All over India. Fl. largish, violet, C. S.; fr. H. S.

ββ. *Stem, leaves, and calyxes more or less aculeate.* (*Solanum esculentum*, *Dun.*;—*Röm. and Sch.*;—*S. Melongena*, *L. suppl.*;—*Roxb. l. c. partly*;—*Lour.* partly.—*S. insanum*, *L.*;—*Willd.*; not *Roxb.*—*S. longum*, *Roxb. fl. ind. 1*, *p. 567*; *ed. Carey*, *2*, *p. 248*;—*Rheed. 10, t. 74.*) **কুলি বেঁশি** *Kooli-begoon. Long Brinjal.* ২. Like aa. cultivated all over India. Fl. largish, bright bluish-purple, C. S.; fr. H. S.

The fruit of each of these varieties is either ovate-oblong or oblong, violet or white;—or globular (larger and smaller), violet; or more and less globular, white, or white striped on a violet ground.

β. *Fertile, peduncle racemose-corymbose, 3-4 flowered; stem, leaves, and calyxes aculeate; fruit smaller, ovate, or somewhat globular, in some enclosed within the calyx.* (*Solanum Melongena spontaneum*;—*S. insanum*, *Roxb. fl. ind. 1*, *p. 568*;—*ed. Carey*, *2*, *p. 249*; excl. syn. *Rumph.* not *L.*—*S. undatum*, *Lam.*;—*Bl.*;—*S. incanum*, *L.*;—*Dun.*;—*Röm. and Sch.*;—*S. Zeylanicum*, *Scop.* ২. Moluccas. In *H. C. G. fl. C. S.*; fr. H. S. (*Roxb.*)

16. *sodomeum*, L. (*G. Don. o. c. p. 433*;—*Lam. ill. No. 2358*, *t. 115, f. 1*;—*R. Br. prodr. p. 446*;—*Roxb. H. B. p. 17*;—*Sibth. and Sm. fl. gr. t. 235.*) ৩ S. Europe, N. Africa, N. Holland, C. G. H. Brazil. Fl. purple. Introduced into *H. C. G.* in 1798, but had not fl. up to 1814.

17. *marginatum*, L. (*G. Don. o. c. p. 434*;—*Jacq. icon. rar. 1, t. 45*;—*Dun. solan. p. 215, t. 3*;—*B. M. 44, t. 1928.*) ৩ Palestine. Fl. large, white, with a central purple star. Introduced into *H. C. G.* before 1814, but had not flowered then.

18. *campechiense*, L. (*G. Don. l. c.*;—*Willd. sp.*; excl. syn. *L. Mant.*—*S. acanthifolium*, *Mill.*) ০ Campeche Bay. Fl. pale, violet. Introduced in 1841.

19. *indicum*, L. (*G. Don. o. c. p. 433*;—*Nees.*;—*Roxb. fl. ind. 1*, *p. 570*; *ed. Carey*, *2*, *p. 252*;—*Wight. icon. 2, t. 346*;—*J. Grah. Cat. B. pl. p. 138*; excl. syn. *Rumph.*;—*Burm. zeyl. t. 102*;—*Lour.*;—*S. violaceum*, *Jacq.*;—*Röm. and Sch.*;—*Dun.*;—*G. Don. o. c. p. 437*.—*S. canescens*, *Bl.*;—*Rheed. 2, t. 36.*) **আকু** *Byakoor. L.* ৩ All over India. Fl. middle-sized, blue, and fr. the whole year.

20. *ferox*, L. (*G. Don. o. c. p. 435*;—*Willd.*;—*Röm. and Sch.*;—*Dun.*;—*Nees.*;—*J. Grah. Cat. B. pl. p. 139*.—*S. involucratum*, *Bl.*;—*S.*



- lasiocarpum*, Dun.; — *Röm. and Sch.*; — *Blume*; — *Wall.* — *S. hirsutum*, Roxb. fl. ind. 1, p. 571; ed. Carey, 2, p. 253. — *S. mammosum*, Lour. — *Rheed.* 2, t. 35.) ରାମ ବେଣୁ Ram-beegoon. 2. Cochin-China. Penang. Singapore. Coromandel. S. Concan. Bengal. (Serampore.) Fl. largish, white, R. S.; fr. C. S.
21. *trilobatum*, L. (G. Don. o. c. p. 437; — Nees.; — Dun.; — *Röm. and Sch.*; — *Burm.* ind. t. 22, f. 2; — Roxb. fl. ind. 1, p. 574; ed. Carey, 2, p. 253; — *J. Grah. Cat. B. pl.* p. 138. — *S. acetosæfolium*; *Lam.*; — *Poir.*; — *Dun.*; — *Röm. and Sch.* — *Spreng.*) ୩. Coromandel. Guzerat. Deccan. Soonderbuns. Jamaica. Fl. largish, bluish-purple, and fr. nearly the whole year.
22. *Jacquini*, Willd. (G. Don. o. c. p. 437; — Nees.; — *J. Grah. Cat. B. pl.* p. 139, excl. syn. *S. chinense*, *Dun.*)
a. Fruit larger, plant less armed. (*Solanum diffusum*, Roxb. fl. ind. 1, p. 568; ed. Carey, 2, p. 250. — *S. xanthocarpum*, Schrad. and Wendel.; *sert. Lannov.* 1, t. 2; — Willd.; — *Dun.*; — *Röm. and Sch.*; G. Don. o. c. p. 438.) ୨. Coromandel. Elephanta. Bombay. Deccan, &c. Fl. largish, bluish-purple, R. and C. S.; fr. C. S.
- β. Fruit smaller; plant strongly armed. (*Solanum Jacquini*, Willd.; — *Dun.*; — *Röm. and Sch.*; — Roxb. fl. ind. 1, p. 569; ed. Carey, 2, p. 251. — *S. virginianum*, Jacq.; not L.) କନ୍ଟକାରୀ Kanta-karee. ୯. Bengal, (Serampore,) &c. Fl. largish, bright-blue, and fr. whole year.
23. *pentapetaloides*, Roxb. (H. B. p. 17.) ୧୮. Brazil. In H. C. G. fl. and fr. the whole year.
- LYCOPERSICUM, Tournef. (G. Don's Mill. dict. 4, p. 443.)
1. *esculentum*, Mill. (G. Don. l. c.; — *J. Grah. Cat. B. pl.* p. 139; — *Dun.*; — *Röm. and Sch.*; — Nees.) *L. Pomum amoris*, Mönch. — *L. Galeni*, Tournef. — *Solanum Lycopersicum*, L.; *Lam.* ill. t. 115, f. 2; — *Lour.*; — Roxb. fl. ind. 1, p. 565; ed. Carey, 2, p. 245. — *Pomum amoris*, Blackw. t. 133; — *Rumph.* 5, t. 154, f. 1.) ଗୋଥ ବେଣୁ Godh-beegoon. Love-apple. Tomato. ୧୦ S. America. Domesticated in India. Fl. small, cream-coloured, C. S; fr. H. S.
2. *cerasiforme*, Dun. (G. Don. l. c.—L. Galeni, Mill. not Tournef. *Solanum Lycopersicum*, L. β; — *S. Pseudo-lycopersicum*, Murr.; — *Jacq. vind.* 1, t. 11; — *Ruiz. and Pav.*; — *S. spurium*, Gmel. — *Pomum amoris*, *Rumph.* 5, p. 416, "Altera species," &c.) ୧୧ Peru. Scarcely distinct from No. 1. Domesticated in India.
3. *Humboldtii*, Dun. (G. Don. l. c.; — Nees.; — *Röm. and Sch.* — *Solanum Humboldtii*, Willd.) — *S. Lycopersicum*, Roxb. fl. ind. 1, p. 565; ed. Carey, 2, p. 245, partly.) ୧୨ S. America. Domesticated in India. Fl. and fr. as in No. 1.
- PHYSALIS, L. (G. Don's Mill. dict. 4, p. 447.) Winter Cherry.
1. *somnifera*, Nees. (l. c.; — G. Don. o. c. p. 448; — *J. Grah. Cat. B. pl.* p. 139.)



- a. *flexuosa*. (*Physalis flexuosa*, L.—*Willd.*;—*Röm.* and *Sch.*;—*Roxb.* fl. ind. 1, p. 561; ed. *Carey*, 2, p. 240;—*Rheed.* 4, t. 55.) অর্থ গুণা *Ushwa-gunda*. ৩ Coromandel. Both the Concans. Guzerat. Bengal. (Serampore.) Fl. 3½ lines, pale greenish, R. and C. S.; fr. H. S. *Rheed.* 1. c. says that this plant is a middle-sized tree. (*Arbor justa magnitudinis*.) In all other respects it answers to the common *Physalis flexuosa* of L. and Roxb.
2. *peruviana*, L. (*Willd.* sp.;—*Lk.*;—*Röm.* and *Sch.*;—*G. Don.* o. c. p. 449.—*Roxb.* fl. ind. 1, p. 562; ed. *Carey*, 2, p. 241, partly;—*J. Grah. Cat. B. pl. p. 140.*—*P. pubescens*, *L. herb.* not *Hort. cliff.*;—*Ruiz.* and *Pav.*—*R. Br. pr. p. 447*;—*Röm.* and *Sch.*;—*Spreng.*—*P. esculenta*, *Willd.*;—*Röm.* and *Sch.*—*P. tomentosa*, *Medic.*—*P. tuberosa*, *Zucc.*—*P. latifolia*, *Lam.*;—*Röm.* and *Sch.*—*P. barbadensis*, *Lam.*; not *Jacq.*—*P. edulis*, *Sims.*;—*B. M.* 27, t. 1068.) তেপুরিয়া *Tepuriya*. ২. Peru. Antilles. Much cultivated in India. N. Holland, &c., on account of its largish, yellowish, palatable berries, here generally called *Gooseberries*. Fl. small, yellowish, C. S.; fr. H. S.
3. *pubescens*, L. (*Hort. cliff.*;—*Lam.*;—*Pursh.*;—*G. Don.* l. c.—*P. pruinosa*, *L.*; *Willd.*—*P. barbadensis*, *Jacq.*;—*Willd.*;—*Röm.* and *Sch.*;—*Hornem.*; not *Lam.*) ⊙ America. India, where it is perhaps only cultivated. Fl. and fr. as in No. 2.
4. *Alkekengi*, L. (*G. Don.* o. c. p. 448;—*Sibth.* and *Sm.* fl. gr. t. 234;—*Roxb.* fl. ind. 1, p. 562; ed. *Carey*, 2, p. 241.—*P. Halicacabum*. *Scop.*—*Alkekengi officinarum*, *Tourn.*) ২. S. Europe. Persia. Fl. small, dirty white. Does not thrive in Bengal.
5. *minima*, L. (*Hort. cliff.*;—*G. Don.* o. c. p. 450;—*Roxb.* fl. ind. 1, p. 563; ed. *Carey*, 2, p. 242;—*J. Grah. Cat. B. pl. p. 140.*—*P. villosa*, *Roth.*—*P. Rothiana*, *Röm.* and *Sch.*—*P. parviflora*, *Lag.*;—*Willd.*;—*R. Br.*—*Röm.* and *Sch.*—*P. Lagascæ*, *Rom.* and *Sch.*—*P. indica*, *Lam.*—*P. pseudo-angulata*, *Bl.*—*P. Alkekengi*, *Lour.*; not L.—*Nicandra indica*, *Röm.* and *Sch.*;—*Rheed.* 10, t. 70;—*Rumph.* 6, t. 26, f. 1.) বন তেপুরিয়া *Bun-tepuriya*. ⊙ Tropical N. Holland. Moluccas. Cochin-China. Java. Ceylon. Peninsula of India. Bengal. (Serampore.) Hindooosthan. Nepal. Fl. small, uniformly pale yellow, R. and C. S.; fr. C. S.
6. *angulata*, L. (*G. Don.* o. c. p. 450;—*Nees*;—*Willd.*;—*Röm.* and *Sch.* excl. β.—*Roxb. H. B. p. 16.*—*P. obscura*, *Pursh.* a.) ⊙ E. and W. Indies. Introduced from Malacca into H. C. G., fl. R. and C. S.; fr. C. S.
- NICANDRA, Adans. (*G. Don's Mill. dict.* 4, p. 457.)
1. *physaloides*, Gärtn. (fr. 2, p. 237, t. 131, f. 2;—*G. Don.* l. c.;—*J. Grah. Cat. B. pl. p. 140.*—*B. M.* 51, t. 2458;—*Pers.*;—*Pursh.*;—*Nutt.*;—*Willd.*;—*Röm.* and *Sch.*—*Atropa physaloides*, *L.*;—*Jacq. obs.* 4, t. 98;—*Roxb. H. B. p. 16.*—*Physalis daturæfolia*, *Lam.*—



Calydermos erosus, *Ruis.* and *Pav.*) ◦ Peru. Chili. N. America. Fl. large, pale blue, rayed, with a whitish bottom, which is marked with five dark blue spots, Feb. and March; fr. H. S.

SOLANDRA, Swz. (*G. Don's Mill. dict.* 4, p. 475.)

1. *grandiflora*, Swz. (*G. Don. l. c.*; — *B. M.* 44, t. 1874; — *Roxb. H. B.* p. 16.—*S. scandens*, *Willd.*—*Swarzia grandiflora*, *Gmel.*—*Datura sarmentosa*, *Lam.*) ॐ Jamaica. Fl. 7 inches, outside greenish-yellowish, inside yellowish and streaked with dark purple, sweet scented, Dec. and Jan.; fr. April and May.

2. *viridiflora*, Sims. (*B. M.* 45, t. 1948; — *G. Don. l. c.*) ॐ Rio Janeiro. Fl. very large, pale green. Introduced in 1841.

DATURA, L. (*G. Don's Mill. dict.* 4, p. 427.) *Thorn-apple*.

1. *alba*, Rumph. (*Nees.*; — *G. Don. o. c.* p. 474; — *J. Grah. Cat. B. pl.* p. 141, excl. Rumph. 5, t. 87, f. 2. syn. L. and *B. M.* — *D. Metel*, *Roxb. fl. ind.* 1, p. 561; *ed. Carey*, 2, p. 238; not L. — *Rheed.* 2, t. 28.—*Rumph.* 5, t. 87, f. 1.) ॲ ॲ धूतूरा *Dhootoro*. ◦ All over India. Fl. very large, white, and fr. the whole year. A strong narcotic, in India frequently and sometimes fatally employed by thieves and other rogues, to deprive their victims of the power of resistance.

2. *Metel*, L. (not Roxb.—*G. Don. l. c.*; — *Nees.*; — *B. M.* 35, t. 1440.) ◦ N. Africa. Canaries. Fl. like those of No. 1, Feb. and March; fr. H. S. Poisonous like No. 1.

3. *fastuosa*, Mill. (*G. Don. l. c.*; — *Willd.*; — *Röm. and Sch.*; — *Nees.*; — *Roxb. fl. ind.* 1, p. 561; *ed. Carey*, 2, p. 238; — *J. Grah. Cat. B. pl.* p. 141, excl. *D. dubia*, *Pers.*) कला ॲ ॲ *Kala-dhootooro*. ◦ All over India. Fl. very large, outside dark purple, inside whitish, and fr. whole year. More virulently poisonous than No. 1.

a. *simplex*, (*Rheed.* 2, t. 29.) Fl. single.

β. *plena*, (*Rheed.* 2, t. 30; — *Rumph.* 5, t. 87, f. 2.)

4. *ferox*, L. (*Amoen. acad.*; — *G. Don. l. c.*; — *Nees.*; — *Willd.*; — *Mill.* — *D. Stramonium*, *β. canescens*, *Wall.*; — *Roxb. fl. ind.*; *ed. Carey*, 2, p. 239.—*Stramonium ferox*, *Zan.*) ◦ China. Cochin-China. Mountains of N. India. Nepal.—Fl. very large, white, and fr. whole year. Used by the Chinese for the same purposes as No. 1 by the Hindoos.

5. *Stramonium*, L. (*G. Don. l. c.*; — *Nees.*; — *Ruiz. und Pav.*; — *Pursh.*; *E. B.* 18, t. 1288; — *Roxb. H. B.* p. 16.—*D. loricata*, *Sieb.* — *D. Pseudostramonium*, *Sieb.* — *D. capensis*, *Hortul.* — *Stramonium vulgare*; *Mönch.* — *S. foetidum*, *Scop.* — *S. vulgatum*, *Gürtn.* fr. 2, p. 243, t. 132, f. 4.—*S. spinosum*, *Lam.*) *Common Thorn-apple*. ◦ America. Naturalized in Europe, N. Asia, and N. Africa. Fl. and fr. like No. 4, of which it is, perhaps, only a variety.

6. *Tatula*, L. (*G. Don. l. c.*; — *Swt. fl. gard.* t. 83; — *Nees.*; — *Mill.*; — *Willd.*; — *Röm. and Sch.*; — *Spreng.*; — *Pursh.*; — *Roxb. H. B.* p. 16.) ◦ America; naturalized in the same places with the preceding species. Fl. large, white, Feb. and March; fr. H. S.

7. *inermis*, Jacq. (*Hort. vind.* (1770-76,) 3, t. 82;—*G. Don. o. c. p. 473.*
—*D. laevis*, L. *fil. suppl.* (1781);—*Willd.*;—*Spreng.*—*Stramonium laeve*, Mönch.) ◉ Abyssinia. Fl. large, white, Feb. and March; fr. H. S.
8. *suaveolens*, Willd. (*D. arborea*, Mill. *dict. excl. syn. and descript.*—*Stramonium arboreum*, Mönch.—*Brugmansia* (Pers. not Bl.) *suaveolens*, *G. Don's Mill. dict. 4, p. 475.*) L. 5 Peru. Chili. Mexico. Fl. 10½ inches, white cream-coloured, in the evening fragrant, C. and H. S.; fr. 0.

Nicotiana, Tourn. (*G. Don's Mill. dict. 4, p. 462.*) *Tobacco*.

1. *Tabacum*, L. (*G. Don. l. c.*;—*Roxb. H. B. p. 16.*—*J. Grah. Cat. B. pl. p. 140;*—*Desf.*;—*Pursh.*;—*Ruiz. and Pav.*;—*Lam. ill. t. 113;*—*Gärtu. fr. 1, p. 264, t. 55, f. 11.*—*N. havanensis*, *Lag.*;—*Roxb. H. B. p. 16.*) *Common Tobacco*. तुमाक् *Tumak*. ◉ America. Cultivated all over the world. Fl. large, rose-coloured, C. S.; fr. H. S.
2. *paniculata*, L. (*G. Don. o. c. p. 464*;—*Ruiz. and Pav.*;—*Lehm. nicot.*;—*Roxb. H. B. p. 16.*—*N. viridiflora*, *Cav. Feuill. per. t. 10.*) ◉ Peru, near Patabilca, on the sea-shore. Fl. largish, greenish, C. S.; fr. H. S.
3. *fruticosus*, L. (*G. Don. l. c.*;—*Lehm. nicot.*;—*Roxb. H. B. p. 16.*—*N. frutescens*, *Cav.*) 5 C. G. H. Fl. large, rose-coloured, C. S.; fr. H. S.
4. *rustica*, L. (*G. Don. o. c. p. 465*;—*Roxb. H. B. p. 16.*) ◉ Europe. Asia. Africa. America. ◉ Fl. largish, greenish-yellow, C. S.; fr. H. S. This is commonly called *English Tobacco*, from having been the first introduced there. (*Mill. dict.*)
5. *plumbaginifolia*, Viv. (*G. Don. o. c. p. 466*;—*Lehm. nicot.*—*N. crispa*, Jacq. *fragm. t. 84*;—*Desf.*—*N. cerinthoides*, *Vittm.*; not Hornem.) ◉ Rio Grande. Fl. middle-sized, white, below fuscescent, and fr. nearly the whole year. Domesticated about Serampore.
6. *bonariensis*, Lehm. (*Nicot.*;—*G. Don. l. c.*) ◉ Buenos Ayres. Fl. middle-sized, white, Feb. and March; fr. H. S.
7. *quadrivalvis*, Pursh. (*G. Don. l. c.*;—*B. M. 43, t. 1778*;—*Roxb. H. B. p. 16.*) ◉ N. America, at the Missouri-river. Fl. largish, bluish-white, C. S.; fr. H. S.
8. *glutinosa*, L. (*Spec.—B. Repos. t. 484*;—*Ruiz. and Pav.*;—*Lehm. nicot.*;—*Roxb. H. B. p. 16.*—*N. militaris*, *L. act. holm.* (1753,) 15, p. 44, t. 2.—*Tabacus viridis*, Mönch.—*Sairanthus glutinosus*, *G. Don. o. c. p. 467.*) ◉ Peru, in temperate places near Guancabamba, and elsewhere in S. America. Fl. rose-coloured. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

PETUNIA, Juss. (*G. Don's Mill. dict. 4, p. 467.*)

1. *nyctaginiflora*, Juss. (*G. Don. o. c. p. 468*;—*B. M. 52, t. 2552.*—*Nicotiana axillaris*, *Lam.*—*N. nyctaginiflora*, *Lehm.*) 2. S. America, at the mouth of the river Plata. Fl. large, greenish-white, Feb. and March; fr. H. S.

*HYOSCYAMUS*, Tourn. (*G. Don's Mill. dict.* 4, p. 471.) *Henbane.*

1. *niger*, L. (*G. Don. l. c.*—*E. B.* 9, t. 891.—*H. flavus, Fuchs.*) *Common Henbane.* ♂ Europe. Caucasus. N. India. Fl. largish, straw-coloured, reticulated with dark purple veins, C. S.; fr. H. S.

2. *agrestis*, Nees. (*H. agrestis, Kit.*—*Schult.*;—*Röm and Sch.*;—*Swt. fl. gard.* 1, t. 27;—*Mart. and Koch.*;—*G. Don. l. c.*;—*H. niger, Wall.*—*Roxb. fl. ind.*; *ed. Carey*, 2, p. 237.—*H. niger, β. annuus, Sims.*; *B. M.* 50, t. 2394.) ◉ Futtighur. Delhi. Sasseram. Fl. largish, minutely reticulated with purple veins on a pale rose-coloured and yellowish ground, marked with a dark purple throat, Feb. and March; fr. H. S.

2. *albus*, L. (*G. Don. l. c.*;—*Gärtn. fr.* 1, p. 369, t. 75, f. 8;—*Lam. ill. t.* 117, f. 2;—*Sibth. and Sm. fl. gr.* t. 230.) ◉ S. Europe. Tauria. Fl. largish, greenish yellow, with a white or greenish throat, Feb. and March; fr. H. S.

3. *canariensis*, Ker. (*B. Reg.* 3, t. 130;—*G. Don. o. c.* p. 472.) 5 Canaries. Fl. largish, pale yellowish, with a dark purple throat, March and April; fr. May.

* *Lycium chinense*, Mill. 5 Canton. Cochin China.—*Ancistus arborescens*, Schlecht. 5 Martinique. Jamaica. Brazil.—*Grabowskia boerhaaviaefolia*, Schlecht; *B. Reg.* 23, t. 1985. 5 Brazil.—*G. duplicata*, Arn. *B. M.* 67, t. 3841. 5 Brazil.—*Capsicum havanense*, H. B. and Kth. 5 Cuba.—*C. bicolor*, Jacq.; *B. M.* 43, t. 1835. 5 W. Indies.—*C. sinease*, Jacq. hort. vind. 3, t. 67. 5 China.—*Solanum Seaforthianum*, Andr.; *B. Reg.* 12, t. 969. 5 Barbadoes.—*S. muricatum*, Ait. 5 Peru. Mexico.—*S. Tweedianum*, Hook.; *B. M.* 62, t. 3385. 2. Buenos Ayres.—*S. Rudula*, Vahl. 5 Cayenne.—*S. Swartzianum*, Röm. and Sch. 5 Brazil.—*S. argenteum*, Dun. 5 Rio Janeiro.—*S. havanense*, Jacq. 5 Martinique. Jamaica.—*S. nudum*, Dun. 5 Mexico.—*S. racemosum*, Jacq. 5 Martinique.—*S. igneum*, L. 5 W. Indies. Guiana.—*S. tetrandrum*, R. Br. 2. Tropical N. Holland.—*S. uniflorum*, Dun. 5 St. Domingo.—*S. macrodon*, Wall. 5 Khassy Mountains.—*S. crassipetalum*, Wall. 5 Nepal.—*S. denticulatum*, Bl. 5 Silhet.—*S. obtusifolium*, Dun. 5 Mexico.—*S. bahamense*, L. 5 Bahama Islands.—*S. molle*, Dun. 5 Caraccas.—*S. polyanthum*, Lam. 5 Island of Dominica.—*S. microphyllum*, Dun. 5 W. Indies.—*S. crotalariae*, Lam. 5 W. Indies.—*S. cordifolium*, Dun. 5 Rio Janeiro.—*S. jamaicense*, Swz. 5 Jamaica.—*S. giganteum*, Jacq. *B. M.* 44, t. 1921. 5 C. G. H. Neelgherries.—*S. platanifolium*, Sims.; *B. M.* 53, t. 2618. 5 S. America.—*S. mammosum*, L. ◉ Virginia. Guiana. W. Indies.—*S. amazonium*, Ker.; *B. Reg.* 4, t. 71. 5 Mexico.—*Physalis viscosa*, L. 2. Brazil.—*P. Walteri*, Nutt. 2. S. Carolina.—*P. curassavica*, L. 2. Curaçao.—*Witheringia stramonifolia*, H. B. and Kth. 5 Mexico.—*Saracha procumbens*, Ruiz. and Pav. ◉ Peru.—



S. umbellata, DC.; Swt. fl. gard. t. 85. ♂ Peru.—*S. viscosa*, Schrad.; Swt. fl. gard. n. s. t. 323. ♂ Mexico.—*Anisodus stramonifolius*, (A. luridus, Lk.) Physalis stramonifolia, Wall. Gossain Than.—*Netouzia formosa*, H. B. and Kth. ♀. Mexico.—*Jaborosa integrifolia*, Lam.; B. M. 63, t. 3489. ♀. Buenos Ayres.—*Solandra guttata*, D. Don.; B. Reg. 18, t. 1551. ♂ Mexico.—*Datura discolor*, Bernh. ♂ W. Indies.—*D. ceratocaula*, Ort.; B. Reg. 12, t. 1031. ♂ Cuba. Mexico.—*D. candida*. (Brugmansia candida, Pers. *Datura arborea*, L. not Mill.) ♂ N. Granada. Peru. Chili. Has already been introduced at Bombay.—*Nierembergia calycina*, Hook.; B. M. 62, t. 3371. ♀. Buenos Ayres.—*N. gracilis*, Hook.; B. M. 58, t. 3108. ♀. Buenos Ayres.—*N. filicaulis*, Lindl.; B. Reg. 19, t. 1649. ♀. Buenos Ayres.—*Nicotiana cerithoides*, Hornem. ♂ Country unknown.—*N. Langsdorffii*, Weinm.; B. M. 48, t. 2221, and 52, t. 2555. ♂ Brazil.—*N. humilis*, Lk., not Ehret. ♂ Country unknown.—*N. vinacea*, Lag. ♀. S. America.—*N. persica*, Lindl.; B. Reg. 19, t. 1592. ♂ Persia. Has been introduced at Bombay.—*N. angustifolia*, Ruiz. and Pav. ♂ Chili.—*N. rotundifolia*, Lindl. ♂ Swan-river.—*Petunia parviflora*, Juss. ♀. Mouth of the Plata-river.—*P. violacea*, Lindl.; B. Reg. 19, t. 1626. ♀. Buenos Ayres.—*P. intermedia*, Lindl.; B. Reg. 23, t. 1931. ♀. Buenos Ayres.—*Scopolia carniolica*, Jacq.; B. M. 28, t. 1126. ♀. Bavaria. Austria. Hungary.—*Hyoscyamus pallidus*, Wald. and Kit. ♂ Hungary.—*H. muticus*, L. ♂. Arabia. Egypt.—*H. pusillus*, L. ♂ Egypt.—*H. auriculatus*, Ten. ♂ Naples.—*Triguera ambrosiaca*, Cav. ♂ Spain.—*T. inodora*, Cav. ♂ Spain.—*Lamurkia* (not Mönch.) *coccinea*, Rich. ♂ Cayenne.—? *Meyenia* (not Nees.) *fasciculata*, Schlecht. ♂ Mexico.—? *M. corymbosa*, Schlecht. ♂ Mexico.

ORDER CCX.—CESTRACEÆ, Lindl. Nat. Syst. p. 296.

Shrubs, by Lindl. referred to 4 genera. Of these, Spreng syst. enumerates 36 species for S. America, Mexico, and the W. Indies; 5 of uncertain origin; and 1 (*Cestrum venenatum*, Thunb.) for S. America. *Cestrum oppositifolium*, Lam. is put down as a native of "Africa."

CESTRUM, L. (*G. Don's Mill. diet.* 4, p. 480.)

1. *joetidissimum*, Jacq. (*Schönbr.* 3, t. 329;—*G. Don. o. c. p. 482.*) ♂ W. Indies. Fl. 10½ lines, pale greenish-yellowish, nearly the whole year. fr. O.
2. *laurifolium*, L'Herit. ♂ S. America, Jan. 1840.

* *Cestrum pendulinum*, Jacq. ♂ Caraccas.—*C. vespertinum*, L. ♂ W. Indies.—*C. diurnum*, L. ♂ Havannah.—*C. fastigiatum*, Jacq.; B. M.



42, t. 1729. ♂ W. Indies?—*C. tinctorium*, Jacq. ♂ Caracas.—*C. latifolium*, Lam. ♂ Trinidad.—*C. bracteatum*, Lk. and Otto.; B. M. 57, t. 2974. ♂ Rio Janeiro.—*C. pallidum*, Lam. ♂ Jamaica.—*C. Parqui*, L'Herit; B. M. 42, t. 1770. ♂ Brazil.—*C. alaternoïdes*, Hort. Paris; B. M. 56, t. 2929. ♂ Trinidad.—*C. hirtum*, Swz. ♂ Jamaica.—*C. macrophyllum*, Vent. ♂ W. Indies.—*Vestia lycioides*, Willd. ♂ Chili.

ORDER CCXI.—GENTIANACEÆ, Lindl. Nat. Syst. p. 296.

THE GENTIAN TRIBE.

Herbs, seldom shrubs, by Lindl. referred to 41, or perhaps, only to 37 genera, “extending over almost all parts of the world, from the regions of perpetual snow upon the summits of the mountains of Europe, to the hottest sands of S. America, and India. They however, do not appear in the Flora of Melville Island, but they form part of that of the Straits of Magellan.” (Lindl.) Spreng. syst. enumerates about 100 species for S. America and Mexico; 50 for Europe; 40 for N. America; 26 for New Holland and Van Diemen's Land; 20 for Siberia; 10 for Tauria, Caucasus, and Altai; 2 for Madagascar; 2 for Japan; 1 for Arabia; and 1 for the Azores. In S. Africa have been found 30 species; and in the E. Indies, according to D. Don. and Wall. Cat., about 68, viz. 10 of *Gentiana*; 2 of *Pneumonanthe*; 5 of *Ericala*; 3 of *Eurythalia*; 2 of *Crawfurdia*; 9 of *Swertia*; 3 of *Agathotes*; 6 of *Ophelia*; 1 of *Halenia*; 1 of *Erythraea*; 8 of *Canscora*; 9 of *Exacum*; 1 of *Slevogtia*; 2 of *Mitreola*; 1 of *Mirasacme*; and 4-5 of *Villarsia*. Of these by far the greater part inhabit the Himalayas, Khassya Mountains, Neelgherries, and other Mountains of both Peninsulas of India and Ceylon. But few are found in the plains, such as *Erythraea centaurioides*; *Canscora diffusa*, *decussata*, *pusilla*, *sessiliflora*; *Exacum tetragonum*, *pedunculatum*; *Slevogtia verticillata*; *Villarsia indica*, *crisata*, &c.

“The intense bitterness of the Gentian is a characteristic of the whole order. It resides both in the stems and roots, and renders them tonic, stomachic, and febrifugal; and it is very remarkable that there are no exceptions to these properties in the whole order, as it is now limited.” (Lindl.)

AGATHOTRS, D. Don. (*G. Don's Mill. dict.* 4, p. 177.)

1. *Cherayta*, D. Don. (*G. Don. l. c.*—*Swertia Cheyrata*, Buch. MSS.—*S. racemosa*, Wall. Cat.—*Gentiana Cheyrata*, Roxb. fl. ind. 2, p. 71;—Wall. pl. as. rar. 3, t. 252;—Röm. and Sch.) ଚିର୍ତ୍ତା Chirata. ◎ Mussooree. Nepal. Kemaon. Fl. smallish, bright yellow. Has been



introduced into H. C. G. Fl.? In the garden here it has never succeeded.

ERYTHREA, Rich. (*G. Don's Mill. dict.* 4, p. 203.)

1. *centaurioïdes*, (E. Roxburghii, *G. Don. o. c. p.* 206.—*Chironia centaurioïdes*, *Roxb. fl. ind.* 1, p. 584; *ed. Carey*, 2, p. 283.—*C. carinata*, *Hb. Banks.*) गिमा *Gima*. ◦ Bengal, (Serampore. Monghir,) Himalayas. Fl. small, Jan. and Feb.; fr. March. The fresh, but especially the dried plant, is considerably bitter. (*Roxb.*)

CANSORA, Lam. (*G. Don's Mill. dict.* 4, p. 198.)

1. *diffusa*, R. Br. (*Prodr. p.* 451, annot.—*G. Don. o. c. p.* 199;—*J. Grah. Cat. B. pl. p.* 123;—*Wall. Cat.*—*C. tenella*, *Wall. Cat.*—*C. foliosa*, *D. Don. in G. Don. l. c.*—*Pladera virgata*, *Roxb. fl. ind.* 1, p. 401; *ed. Carey*, 1, p. 417;—*Cham. and Schlecht. in Linnæa*, 1, p. 198;—*Hook. Bot. misc.* 3, p. 89, t. 25.—*P. muralis*, *Herb. Buch.*—*Gentiana diffusa*, *Vahl.*—*Exacum diffusum*, *Willd.*—*E. tenellum*, *Hb. Madras.*—*Flemingia virgata*, *Roxb. Herb.*) ◦ Both Peninsulas of India. Bengal, (Serampore.) Himalayas. Fl. small, rose-coloured, R. and C. S.; fr. C. S.
2. *decussata*, Schult. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 123.—*Pladera decussata*, *Roxb. fl. ind.* 1, p. 402; *ed. Carey*, 1, p. 418;—*B. M.* 58, t. 3066.—*Exacum alatum*, *Roth.*; not *Herb. Heyne*.—*Flemingia decussata*, *Roxb. Herb.*) डुकुनी *Dunkuni*. ◦ Both Peninsulas of India. Bengal, (Serampore.) Silhet. Khassy Mountains. Himalayas. Fl. middle-sized, white, R. and C. S.; fr. C. S.
3. *justiciaeoides*, Griff. (MSS. 1836.) ◦ Khassy Mountains. Fl. small, pale rose-coloured or white, C. S.; fr. March.
- ? 4. *pusilla*, Schultes; (*G. Don. l. c.*—*Pladera pusilla*, *Roxb. fl. ind.* 1, p. 403; *ed. Carey*, 1, p. 419.—*Hopea dichotoma*, *Vahl.*—*Exacum sessile*, *Willd.*) ◦ Ceylon. Coromandel. Bengal, (Serampore). Delhi. Fl. small, yellow, R. S.; fr. C. S.

SLEVOGTIA, Reichb.

1. *verticillata*, D. Don. (*Adenema hyssopifolium*, *G. Don's Mill. dict.* 4, p. 201.—*Exacum hyssopifolium*, *Willd.*—*Spreng.*—*Gentiana verticillata*, *L. fil.*; *Roxb. fl. ind.* 2, p. 71.—*Hippion hyssopifolium*, *Spreng.*) हेटे किराती *Cihoto-Kirata*. ♀. Coromandel. Bengal, (Serampore). Banks of the Jumna. Fl. small, white, R. S.; fr. C. S.

EXACUM, L. (*G. Don's Mill. dict.* 4, p. 212.)

1. *tetragonum*, Roxb. (*fl. ind.* 1, p. 398; *ed. Carey*, 1, p. 413;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 123;—*Wall. pl. as. rar.* 3, t. 276; not D. Don.) कूचड़ी *Koochuri*. ◦ Bombay. Salsette. Kandalla. Wurgaum. Bengal, (Serampore). Rajmahl. Silhet. Morung. Himalayas. Fl. large, beautifully blue, with gold-coloured anthers, R. and C. S.; fr. C. S.
2. *pedunculatum*, L. (*G. Don. l. c.* excl. syn. *Roxb.* and *Spreng.*)—*Wight.*



- icon. 2, t. 336.—*E. sulcatum*, Roxb. *fl. ind.* 1, p. 400; *ed. Carey*, 1, p. 415;—*G. Don. o. c. p. 213*.—*Sebaea sulcata*, Spreng.) ⊙ Bengal, (Serampore,) &c. Fl. bright-blue, C. S.; fr. March.
3. *carinatum*, Roxb. (*fl. ind.* 1, p. 399; *ed. Carey*, 1, p. 415.) ⊙ Ceylon. Fl. largish, yellow, C. S.; fr. March.
4. *teres*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, p. 414;—*G. Don. o. c. p. 212.*) ⊙ Khassya Mountains. Fl. like those of No. 1, Feb. and March; fr. March.

VILLARSIA, Vent. (*G. Don's Mill. dict.* 4, p. 168.)

1. *indica*, Vent. (*G. Don. l. c.*;—*Hook. bot. misc.* 3, p. 97, t. 30.—*Menyanthes indica*, L.;—*Roxb. fl. ind.* 1, p. 460; *ed. Carey*, 2, p. 31;—*J. Grah. Cat. B. pl. p. 123*, excl. syn. B. M.—*Rheed.* 11, t. 28;—*Rumph.* 6, t. 72, f. 3.) बड़ा पांच हृनी *Buro-pan-choolee*. Indian Buck bean. ⊙ Peninsula of India. Moluccas. Bengal, (Serampore,) &c. Fl. middle-sized, with a yellow tube, and a white-bearded limb, R. and C. S.; fr. C. S.
2. *cristata*, Spreng. (*syst.* 1, p. 582;—*J. Grah. Cat. B. pl. p. 123*.—*Menyanthes cristata*, Roxb. *Corom.* 2, t. 105; *fl. ind.* 1, p. 459; *ed. Carey*, 2, p. 29;—*G. Don's Mill. dict.* 4, p. 168;—*Rheed.* 11, t. 29.) छोटा पांच हृनी *Chhoto-pan-choolee*. ⊙ Peninsula of India. Bengal, (Serampore,) &c. Fl. smallish, white, R. and C. S.; fr. C. S.

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- * *Eurythalia Amarella*, Borkh. (*Gentiana Amarella*, L.; E. B. 4, t. 236.) ⊙ N. Europe.—*E. campestris*, Borkh. (*Gentiana campestris*, L.; E. B. 4, t. 237.) ⊙ N. Europe.—*Agathotes alata*, D. Don. ⊙ Nepal.—*Ophelia angustifolia*, D. Don. ⊙ Nepal.—*Gentiana umbellata*, Bieb. ⊙ Caucasus.—*Centaurella aestivalis*, Pursh. ⊙ Carolina.—*Eriocala capitata*, D. Don. ⊙ Nepal.—*Schultesia Aubletii*, G. Don. ⊙ Guiana. Trinidad, &c.—*Orthostemon erectus*, R. Br. ⊙ Tropical N. Holland.—*Chlora perfoliata*, L.; E. B. 1, t. 60. ⊙ Europe.—*C. imperfoliata*, L. ⊙ Italy.—*Carascora sessiliflora*, Schult. ⊙ Coromandel.—*C. Schultesii*, Wall. ⊙ Prome.—*C. perfoliata*, Lam. ⊙ Salsette, &c.—*Voyria rosea*, Aubl. ♀. Guiana.—*V. carulea*, Aubl. ♀. Guiana.—*Coutoubea spicata*, Aubl. ⊙ Guiana.—*Schubleria stricta*, Mart. ⊙ Humid places, Brazil.—*Erythraea Centaurium*, Pers. (*Chironia Centaurium*, With.; E. B. 6, t. 417.) ⊙ Europe.—*E. maritima*, Pers. ⊙ S. Europe, by the sea-side.—*Lisanthus grandiflorus*, Aubl. ⊙ Guiana.—*Eustoma exaltatum*, Salisb. ⊙ St. Domingo.—*Sebaea cordata*, R. Br. ⊙ C. G. H.—*Exacum bicolor*, Roxb. ⊙ Salsette. Kandalla. Cuttack.—*E. zeylanicum*, Roxb. ⊙ Ceylon. Neelgherries.—*E. grandiflorum*, Wall. ⊙ Courtallum.—*E. pteranthum*, Wall. ⊙ Tavoy.—*E. Hamiltonii*, G. Don. (*E. tetragonum*, D. Don.; not L.) ⊙ Nepal.—*Microcale filiforme*, Lk. (*Exacum filiforme*, Sm.; E. B. 4, t. 235.) ⊙ Europe.



ORDER CCXII.—SPIGELIACEÆ, Mart.—Lindl. Nat. Syst. p. 298.

THE WORMSEED TRIBE.

Herbs or undershrubs, by Lindl. referred to 2 genera. Of these Spreng. syst. enumerates 11 species, all natives of S. America, Mexico, and the southern part of N. America. “The root of *Spigelia marilandica* is used in N. America as a vermifuge.” (Lindl.)

- * *Spigelia fruticulosa*, Lam. 5 Cayenne.—*S. marilandica*, L.; B. M. 3, t. 80. 2. Carolina. Georgia. Maryland.

ORDER CCXIII.—APOCYNACEÆ, Lindl. Nat. Syst. p. 299.

Trees or shrubs, seldom herbs, by Lindl. (excluding *Cryptolepis*, and adding *Epichysianthus*, *Pentalinon*, *Echaltium*, *Calpicarpum*, and *Tanghinia*) referred to 73 genera. Of these, Spreng. syst. enumerates for S. America, Mexico, and the W. Indies, about 126 species; for New Holland and the South Sea Islands 24; for N. America 8; for Madagascar 6; for the Mascarenhas Islands 6; for Europe 5; for Mozambique 4; for Guinea 3; for Arabia 3; for China 2; for Owaree 1; and for the Canaries 1. In S. Africa have been discovered 12 species; (Harvey) and in the E. Indies about 153, viz. 23 of *Echites*; 5 of *Epichysianthus*; 4 of *Ichnocarpus*; 1 of *Braumontia*; 2 of *Holarrhena*; 3 of *Vallaris*; 7 of *Parsonsia*; 5 of *Apocynum*?; 1 of *Nerium*; 1 of *Echaltium*; 4 of *Strophanthus*; 8 of *Wrightia*; 11 of *Alstonia*; 2 of *Vinca*; 14 of *Tebernæmontana*; 1 of *Plumbiera*; 1 of *Urecolea*; 1 of *Rejona*; 8 of *Carissa*; 2 of *Melodinus*; 10 of *Strychnos*; 3 of *Cerbera*; 1 of *Calpicarpum*; 1 of *Rauwolfia*; 7 of *Huntera*; 4 of *Alyxia*; 1 of *Ophioxylon*; 5 of *Willughbeia*; 1 of *Leuconotis*; 1 of *Cercocoma*; 1 of *Orechipteda*; 1 of *Copsia*; 1 of *Heyligia*; 2 of *Chilocarpus*; and 1 of *Kitabalia*. The greater part of these prevail in Java, Ceylon, both Peninsulas of India, Bengal, and the Khassya Mountains, whence they extend to the forests bounding Nepal. The order abounds in a milky juice, distinguished, like that of Asclepiadaceæ, by its acrid, purgative, febrifugal, and perhaps, more suspicious properties. (Lindl.)

A. ECHITES, Bartl.

ECHITES, L. (*R. Br. in. Wern. soc.* 1, p. 59;—*G. Don's Mill. dict.* 4, p. 72.)

1. *apoxys*, (*E. acuminata*, Roxb. *Jl. Ind.* 2, p. 15. not Ruiz. and Pav.—*Aganosma acuminata*, G. *Don o. c.* p. 77;—*Wight. icon.* 2, t. 424.)
L. 5 Silhet. Fl. 10 lines, pale greenish white, fragrant, April and May; fr. Jan. and Feb.



2. *cymosa*, Roxb. (*fl. ind.* 2, p. 16;—*Wight. icon.* 2, t. 395.—*Aganosma cymosa*, G. Don. *l. c.*) 5 Khassy Mountains. Fl. small, dull white, fragrant. In H. C. G.
3. *tisanthiflora*, Bojer. (*Hort. Maurit.* p. 211.) 5 Madagascar.
4. *caryophyllata*, Roxb. (*H. B.* [1814.] p. 20; *fl. ind.* 2, p. 11;—*B. M.* 44, t. 1919, not Bl.—*Aganosma Roxburghii*, G. Don. *l. c.*;—*J. Grah. Cat. B. pl.* p. 113, excl. Rheed. 7, t. 55;—*Wight. icon.* 2, t. 440;—*Rheed.* 9, t. 14.) L. 5 Mountains of the Peninsula of India, Bengal. Monghir. गुंधो मालती *Gundho-malutee*. Fl. 15 lines, pure-white, delightfully fragrant, R. S.; fr. 0.
5. *paniculata*, Roxb. (*fl. ind.* 2, p. 17;—*G. Don. o. c.* p. 75;—*Wight. icon.* 2, t. 396; not Poir, which, according to G. Don. o. c. p. 74, is perhaps no Echites at all.—*E. manubriata*, Wall. *Cat.*) L. 5 Silhet. Fl. small, cream-coloured, fragrant, March and April; fr. Feb. and March.

EPICHYSIANTHUS, (*Chonemorpha*, G. Don's *Mill. dict.* 4, p. 76, not *Conomorpha*, Alph. DC., the pronunciation of which two words can scarcely be distinguished.)

1. *macrophyllus*, (*Chonemorpha macrophylla*, G. Don. *l. c.*;—*J. Grah. Cat. B. pl.* p. 113;—*Wight. icon.* 2, t. 432.—*Echites macrophylla*, Roxb. *fl. ind.* 2, p. 13; not H. B. and Kth.) L. 5 Silhet. Fl. very large, white, May and June; fr. March and April.

PENTALINON, (*Corolla infundibuliformis*; tubo basin versus constricto; lacinia profunda, inaequilateris. Antheræ medio stigmatis cohaerentes; lobis postice epolliniferis; connectivo in processum loriformem, e basi angustissima subdilatatum longe producto. Glandulae hypogynæ 5. Stylus unicus, clavatus, in annulum infra stigma dilatatus, apice bipiculatus. Ovaria 2. Folliculi)—Genus *Epichysiantho* propinquum, processibus autem connectivi discrepans.

1. *suberectum*, (*Echites suberecta*, Jacq. *amer.* 32, t. 26;—*B. M.* 27, t. 1064.—*Haemadictyon suberectum*, G. Don's *Mill. dict.* 4, p. 83.—*Nerium sarmentosum*, &c. *Browne jam.* 180.—*Apocynum erectum*, *fruticosum*, &c. *Sloane jam.* 89, *hist.* 1, p. 206, t. 130, f. 2.) 5 Savannas of Jamaica and St. Domingo. Fl. 2½ inches, bright yellow, inodorous, R. and C. S. especially; fr. 0.

ICHNOCARPUS, R. Br. (*Mem. Wern. soc.* 1, p. 62;—*G. Don's Mill. dict.* 4, p. 78.)

1. *frutescens*, R. Br. (*Hort. Kew. ed.* 2, *vol.* 2, p. 69;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 113;—*Wight. icon.* 2, t. 430.—*Echites frutescens*, Roxb. *fl. ind.* 2, p. 12;—*Burm. zeyl.* t. 12, f. 1.—*Apocynum frutescens*, L.) श्यामा लता *Shyama-lata*. 5 Both Peninsulas of India, Bengal, (Serampore.) Silhet. Sirmore, Kemaon. Fl. 5 lines, greenish-white, sweet-scented, R. S.; fr. C. S.
2. *fragrans*, Wall. (*Cat.*;—*G. Don. l. c.*) 5 Nepal. Kemaon. In H. C. G. Fl.?



BEAUMONTIA, Wall. (*G. Don's Mill. dict.* 4, p. 77.)

1. *grandiflora*, Wall. (*Tent. fl. nep.* p. 14, t. 7;—*B. Reg.* 11, t. 911;—*G. Don. l. c.*;—*B. M.* 60, t. 3213;—*J. Grah. Cat. B. pl.* p. 113.—*Echites grandiflora*, *Roxb. fl. ind.* 2, p. 14, not Meyer, nor Roth.) L. 5 ↗ Chittagong. Khassy Mountains. Nepal. Fl. 4-5 inches, white, with the tube and lower part of the faux greenish-yellowish, sweet-scented, Feb. and March; fr. C. S.

HOLARRHENA, R. Br. (*Mem. Wern. soc.* 1, p. 62;—*G. Don's Mill. dict.* 4, p. 78.)

1. *antidysenterica*, Wall. (*Cat.*—*Echites antidysenterica*, *Roxb. H. B.* p. 20.—*Chonemorpha antidysenterica*, *G. Don. o. c.* p. 76;—*Wight icon.* 2, t. 439.) 5 Chittagong. Silhet. Nepal. In H. C. G. fl. Feb. to May; fr. Oct. and Nov. (*Roxb.*) Has been cultivated in the garden here for five years, without fl.

2. *pubescens*, Wall. 5 Burma. 1827.

VALLARIS, Burm. (*R. Br. Mem. Wern. soc.* 1, p. 63;—*G. Don's Mill. dict.* 4, p. 78.)

1. *pergularius*, Burm. (*ind.* p. 51;—*G. Don. o. c.* p. 79;—*Wight icon.* 2, t. 429.—*Pergularia glabra*, *L.*;—*Willd.*—*Houtt. Lian. pf. syst.* 3, p. 335, t. 20, f. 1.—*Echites hircosa*, *Roxb. fl. ind.* 2, p. 18.—*Flos pergularius*, *Rumph.* 5, t. 21, f. 2.—*Emericia Pergularia*, *Röm. and Sch. syst.* 4, p. 40.) 5 ↗ Moluccas. Java. Bengal. Fl. middle-sized, of a goatish smell, May and June; fr. O.

2. *dichotomus*, Wall. (*Cat.*;—*G. Don. l. c.*;—*Wight icon.* 2, t. 438.—*Echites dichotoma*, *Roxb. fl. ind.* 2, p. 19;—*J. Grah. Cat. B. pl.* p. 113, No. 857, excl. syn. Don;—not H. B. and Kth. nor Roth.) *হাপুরমালী* *Hapurmalee*. L. 5 ↗ Taong-Dong. Banks of the Irawaddi. Bengal, (Serampore.) Silhet. Hindooosthan. Nepal. Fl. middle-sized, white, pleasantly fragrant, C. and H. S.; fr. C. S.

PARSONSIA, R. Br. (*Mem. Wern. soc.* 1, p. 64; *pr. p.* 465;—*G. Don's Mill. dict.* 4, p. 79.)

1. *spiralis*, Wall. (*Cat.*;—*G. Don. o. c.* p. 80.) 5 ↗ Khassy Mountains. Fl. middle-sized, green, inodorous, R. S.; fr. O.

NERIUM, L. (*R. Br. Mem. Wern. soc.* 1, p. 71;—*G. Don's Mill. dict.* 4, p. 84.)

1. *odorum*, Ait. (*Roxb. fl. ind.* 2, p. 2;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 114.—*N. odoratum*, *Lam.*—*N. indicum*, *Mill. dict.* No. 2.—*N. Oleander*, *Lour.*; not *L.*) *Sweet-scented Oleander*, L. 5. China, Cochin-China. Common in gardens. Fl. 1½-2 inches, sweet-scented, nearly throughout the year; fr. O.

a. *rubro-simplex*. *রক্ত কুরুবী* *Rukto-Kurubee*. Fl. single, deep-red.

b. *albo-simplex*. (*Rheed.* 9, t. 2.) *শ্বেত কুরুবী* *Shwet-Kurubee*. Fl. single, white.

γ. *roseolo-simplex*. (*B. M.* 46, t. 2032.) Fl. single, white, tinged with rose.



d. roseo-plenum. (*Rheed.* 9, t. 1;—*B. M.* 43, t. 1799;—*B. Reg.* 1, t. 74.) लाल पद्म करबी *Lal-pudmo-Kurubee.* Fl. double, beautiful rose-coloured.

e. albo-plenum. श्वेत पद्म करबी *Shwet-pudmo-Kurubee.* Fl. double, white, with a yellow throat.

ECHALTIUM, Wight. (*Icon.* 2, t. 472.) Khassya name: *Echalut.*

1. *piscidium*, Wight. (*Icon. l. c.*—*Nerium piscidium, Roxb. fl. ind.* 2, p. 7.—*Wrightia? piscidia, G. Don's Mill. dict.* 4, p. 86.) L. 5 मुख्य Mountains. Fl. large, pale yellow, May and June; fr. Jan. and Feb. The bark contains a great deal of fibrous matter, used by the natives as a substitute for hemp. In steeping some of the young shoots in a fish-pond, in order to hasten the removal of the bark, and cleaning the fibres, many, if not all, the fishes were killed. Hence the specific name. (*Roxb.*)

STROPHANTHUS, DC. (*R. Br. Mem. Wern. soc.* 1, p. 72;—*G. Don's Mill. dict.* 4, p. 84.)

1. *dichotomus*, DC. (*B. Reg.* 6, t. 469;—*G. Don. o. c.* p. 85, excl. syn. *Echites dichotoma, Roxb. H. B.* p. 20, which is *Vallaris dichotomus, Wall.*;—*J. Grah. Cat. B. pl. p.* 114.—*S. terminalis, Bl.*—*Nerium caudatum, Roxb. fl. ind.* 2, p. 9.—*Echites caudata, L.*;—*Burm. ind.* t. 26.—*Nerium scandens, Lour.*) 5 मुख्य Coromandel. Khassya Mountains, &c. Fl. above 2 inches, greenish-white, the throat crimsoned with streaks and dots, H. S.; fr. 0.

WRIGHTIA, R. Br. (*Mem. Wern. soc.* 1, p. 73;—*G. Don's Mill. dict.* 4, p. 85.)

1. *antidysenterica*, R. Br. (*o. c.* p. 74;—*G. Don. l. c.*; excl. syn. *Burm. zeyl.* t. 77;—*J. Grah. Cat. B. pl. p.* 114.—*Nerium antidysentericum, L.*;—*Roxb. H. B.* p. 19; excl. annot. 28, which is *Holarrhena antidysenterica, Wall.*—*Lour.*;—*Rheed.* 1, t. 47.) 5 The Ghauts and hilly parts of the Concan. Fl. 2 inches, pure white, sweet-scented, March and April; fr. Jan. and Feb. The bark of this tree is called *Cortex Conessi, s. profluvii, s. Codaga-pala*, and is by the natives considered a specific in dysenteries and bowel complaints.

2. *tinctoria*, B. Br. (*l. c.*;—*G. Don. o. c.* p. 86;—*J. Grah. Cat. B. pl. p.* 114;—*Wight icon.* 2, t. 444.—*Nerium tinctorium, Roxb. fl. ind.* 2, p. 4.—*Burm. zeyl.* t. 77.) 5 Ceylon. Coromandel, &c. Fl. above 2 inches, pure white, fragrant, March, April and May; fr. Jan. and Feb. Wood remarkably white, close-grained, very beautiful in appearance, coming near ivory, used for planking, in much repute among turners and escritoire makers. A kind of Indigo exudes from the bruised leaves. (*Lour. Roxb.*)

3. *tomentosa*, Röm. and Sch. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 114;—*Wight. icon.* 2, t. 443.—*Nerium tomentosum, Roxb. fl. ind.* 2, p. 6;—*Rheed.* 9, t. 3, 4.) 5 Circars. Concans. Segaeen. Martaban. Tavoy. Fl. largish, yellowish-white, with an orange-coloured throat,



526

APOCYNACEÆ.

GL

faintly smelling of rhubarb, April, May and June; fr. 0. "With the yellow juice, flowing from the wounded plant, diluted with water, bits of cotton cloth were dyed a pretty good yellow, which still continues bright as at first, now two years." (Roxb.)

4. *mollissima*, Wall. (*pl. as. rar.* 2, *t.* 146;—*G. Don. l. c.*) 5 Deyra-Dhoon. Kemaon. Fl. largish, yellowish, tinged with reddish, April and May; fr. 0.
5. *coccinea*, Sims. (*B. M.* 53, *t.* 2696;—*B. Cab. t.* 894;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 114;—*Wight. icon.* 2, *t.* 442.—*Nerium coccineum*, Roxb. *fl. ind.* 2, *p.* 2.) L. 5 Khassyia Mountains. Fl. 17 lines long, expanded 2½ inch in diameter, internally deep orange-red, externally green, richly pine-apple-scented, the faux crimson, April; fr. 0. Wood white, remarkably light but firm, and much used by turners to make palkees, &c. (Roxb.)

ALSTONIA, R. Br. (*Mem. Wern. soc.* 1, *p.* 75;—*G. Don's Mill. dict.* 4, *p.* 86.)

1. *scholaris*, R. Br. (*o. c. p.* 76;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 115, excl. syn. Labill.;—*Wight. icon.* 2, *t.* 422.—*Echites scholaris*, L.;—Roxb. *H. B.* *p.* 20;—*Rheed.* 1, *p.* 81, *t.* 45;—*Rumph.* 2, *t.* 82.) छातिन Chhatin. L. 5 Moluccas. Coromandel. Hilly parts of the Concan. Vale of Sawetre, between Poladpore and the Ghauts. Bengal, (Serampore,) &c. northwards as far as Mirzapore. Fl. small, greenish-white, Feb.; fr. C. S. Bark powerfully tonic, a rustic medicine in bowel complaints. (*Nimmo.*)
2. *macrophylla*, Wall. (*Cat.*;—*G. Don. o. c. p.* 87.) 5 Penang. Fl. large, white, H. S.; fr. C. S.
3. *neriifolia*, D. Don. (*pr. fl. nep. p.* 131;—*G. Don. l. c.*) 5 Nepal. Fl. large, pure white, with a pale greenish throat, and fr. nearly throughout the year.
4. *venenata*, R. Br. (*o. c. p.* 77;—*G. Don. l. c.*;—*Wight icon.* 2, *t.* 436.—*Echites venenata*, Roxb. *H. B.* *p.* 20.) 5 Peninsula of India. Fl. large, pure white, and fr. nearly throughout the year.
5. *spectabilis*, R. Br. (*o. c. p.* 76.—*Bl. bijdr. p.* 1038.) 5 Penang. Rumph's fig. under *A. scholaris* belongs rather to this.

VINCA, L. (*G. Don's Mill. dict.* 4, *p.* 95.)

1. *major*, L. (*G. Don. o. c.*;—*E. B. 8, t.* 514.—*V. media*, *Delile.*—*Per-vinca major*, *Scop.*) Great Periwinkle. 2. England. S. Europe, &c. Fl. large, of a fine purplish blue colour, C. S.; fr. 0.
2. *herbacea*, Waldst. and Kit. (*G. Don. l. c.*;—*B. M.* 45, *t.* 2002.) 2. Hungary. Fl. large, purplish-blue. Lately introduced.
3. *rosea*, L. (*Gärtn. fr.* 2, *p.* 172, *t.* 117, *f.* 5;—*B. M.* 7, *t.* 248;—*Lour.*; Roxb. *fl. ind.* 2, *p.* 1.—*Catharanthus roseus*, *G. Don's Mill. dict.* 4, *p.* 95;—*J. Grah. Cat. B. pl. p.* 115.) गुल्फिरिंगी Gulphiringee. 5 China. Cochin China. Common in gardens. Fl. largish, rose-coloured, and fr. nearly throughout the year.
- β. *albiflora*. Fl. white.

1. *coronaria*, R. Br. (*Ait. Hort. Kew. ed. 2*, vol. 2, p. 72;—*G. Don. o. c. p. 90*;—*Roxb. H. B. p. 20*; *fl. ind. 2*, p. 23;—*B. Reg. 13, t. 1064*;—*B. Cab. t. 406*;—*J. Grah Cat. B. pl. p. 115*;—*Wight. icon. 2, t. 477*.—*T. divaricata*, R. Br.;—*Rom. and Sch.*—*Nerium coronarium*, *Ait.*;—*Jacq. icon. rar. 1, t. 52*;—*Roxb. H. B. p. 19*.—*N. divaricatum*, L.; *fl. zeyl.*;—*Rheed. 2, t. 55.*) **ফিরকি টগুর** *Phirki-tugur*. ৩ Moluccas. Manilla. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Silhet. Nepal. Fl. 2 inches, pure white, fragrant, the tube bright yellow within, H. and R. S.; fr. C. S.
2. *plena*, Roxb. (*Nerium coronarium*, *B. M. 44, t. 1865*.—*Rheed. 2, t. 54*;—*Rumph. 4, t. 39.*) **বড় টগুর** *Bura-tugur*. Fl. double, very fragrant during the night. More common in gardens than a.
3. *recurva*, Roxb. (*fl. ind. 2*, p. 26;—*G. Don. o. c. p. 91*;—*Wight. icon. 2, t. 476*.—*T. gratissima*, *Lindl.*; *B. Reg. 13, t. 1084.*) ৩ Chittagong. Fl. large, yellowish-white, March and April; fr. 0.
4. *crispa*, Roxb. (*fl. ind. 2*, p. 24;—*G. Don. l. c.*;—*Wight. icon. 2, t. 470*.—*T. alternifolia*, L. which by a misprint, is put down in Roxb. l. c. as a species instead of a syn.;—*J. Grah. Cat. B. pl. p. 115*, excl. syn. R. Br.—*Rheed. 1, p. 83, t. 46.* (bad.) ৩ Coromandel. Fl. 15 lines, pure white, with a greenish tube, fragrant, April, May and June; fr. 0.
5. *dichotoma*, Roxb. (*fl. ind. 2*, p. 21;—*G. Don. l. c.*;—*Wight. icon. 2, t. 433*;—*J. Grah. Cat. B. pl. p. 115?*) ৩ Ceylon. Malabar. Fl. nearly 2 inches, yellowish-white, slightly fragrant, nearly throughout the year; fr. C. S.; but seldom. Very much like *T. laurifolia*, L.; *B. Reg. 9, t. 716*.
6. *micrantha*, (T. parviflora, Roxb. *fl. ind. 2*, p. 25; not Poir; nor *Nouv. ann. mus. 3, p. 379.*) ৩ Sumatra. Fl. small, white, R. S.; fr. 0. (Roxb.)

6. rugosa, Wall. ৩ Ava.

UROBOLA, Roxb. (*Asiat. res. 5, p. 169*, not Vandelli.)

1. *elastica*, Roxb. (*o. c. with a plate at p. 167*;—*Wight. icon. 2, t. 473*;—*G. Don's Mill. dict 4, p. 92*, where it is strangely enough placed as a syn. of *Vahea gummosa*, Poir.—*Tabernæmontana elastica*, *Spreng. syst. 1, p. 639.*) ৩ Sumatra. Penang. Fl. minute, dull greenish. Has been introduced into H. C. G. Fl.? The juice issuing from this shrub is one of those which constitutes *Caoutchouc*.

PLUMIERA, Tournef. (*G. Don's Mill. dict. 4, p. 93*)

1. *rubra*, Jacq. (*Amer. p. 35. pict. p. 23*;—*L. hort. cliff. p. 76*; *spec. 306*;—*G. Don. l. c.*;—*B. M. 8, t. 279.*) 5 Jamaica. Surinam. S. America. Fl. large, red, very sweet-scented, so much so, that the women of S. America put them among linen to scent it, as we do lavender. Introduced in 1841.

2. *alba*, Jacq. (*Amer.* 36, t. 174, f. 12; *ed. pict.* t. 38;—*L.* sp.;—*G. Don.* *l. c.*;—*Roxb. H. B.* p. 20.) 5 West Indies, S. America. Fl. large, white, with a yellowish tube and throat, very fragrant, or, as L. says, “ambrosiacal, exciting cephalgia,” May, June and July; fr. O.
3. *acuminata*, Ait. (*G. Don.* o. c. p. 94; *B. Reg.* 2, t. 114;—*Roxb. fl. ind.* 2, p. 20;—*J. Grah. Cat. B.* pl. p. 115;—*Wight. icon.* 2, t. 471. —*P. acutifolia*, *Poir.*—*P. obtusa*, *Lour.*, not L.—*Rumph.* 4, t. 38.) **গুলা চীন** *Goola-cheen.* (Hind.) **গোবৰিয়া চাপা** *Goburiya-champa.* 5 Cultivated in China, Cochin-China, India, the Moluccas, &c. where it is thoroughly domesticated. It is, however, no doubt, with the other Plumieras a native of S. America or the W. Indies. Fl. large, reddish-yellowish-white, fragrant, especially during the night. H. and R. S.; fr. O, or very rare.

ALLAMANDA, L. (*Mill. dict. ed. G. Don.* 4, p. 102.)

1. *cathartica*, L. (*Mant.* 214;—*Gärtn. fr.* 1, p. 293, t. 61, f. 4;—*B. M.* 10, t. 338;—*Roxb. H. B.* p. 19.—*A. oenotheræfolia*, *Pohl.*;—*G. Don.* o. c. p. 103.—*A. Schottii*, *Pohl.*;—*G. Don.* l. c.—*A. angustifolia*, *Pohl.*;—*G. Don.* l. c.—*A. Linnaei*, *Pohl.*;—*G. Don.* l. c.—*A. Aubletii*, *Pohl.*;—*G. Don.* l. c.;—*J. Grah. Cat. B.* pl. p. 116.—*A. verticillata*, *Desf.*;—*Pohl.*;—*G. Don.* l. c.) 5 Guiana. Brazil. Surinam. W. Indies. Fl. very large, bright yellow, fragrant, and fr. throughout the year.

This shrub was introduced from Guiana into India in 1803, and is now very common in gardens. *Stems* erect, larger *branches* hollow in the middle; smaller ones and young shoots filled with thick viscid milk, glabrous, in a dried state fistulous. *Leaves* mostly 4, sometimes 6, 5 or 3 in a wharl, or only 2, opposite, sub-opposite or alternate; they are oblong, 2-4-5 inches long, $\frac{1}{2}$ -1-2 wide across the middle, acuminate, acute, towards base cuneately attenuated, now and then oblong-obovate, acutish, at margins revolute undulated, above dark green and glabrous, underneath pale green and when badly dried brown-spotted, roughishly hairy along the midrib and primary veins, or only very little so along the first, or over the whole surface. Of this characteristic there is more than enough to form six such species as Pohl's, which being made exclusively from unimportant leaf-discrepancies, are good for nought. His one climbing species has not been discovered here, but were a specimen of Allamanda placed close to a tree, it might, perhaps, like a Clerodendron phlomoides in our garden, take a fancy to ascend a pretty large Coccocoba uvifera.

* *Echites umbellata*, Jacq. ↗ Jamaica.—*E. biflora*, Jacq. ↗ W. Indies.—*E. domingensis*, Swz. 5 ↗ St. Domingo. Jamaica.—*E. trifida*, Jacq. 5 ↗ Cumana.—*E. rhynchosperma*, Wall. pl. as rar. I, t. 49. 5 ↗ Martaban.—*E. Blumii*, (*E. earyophyllata*, Bl. not Roxb.—Rheed. 7, t. 55.) 5 ↗ Java.—*E. marginata*, Roxb. (*Aganosma marginata*, G. Don;—*Wight. icon.* 2, t. 425.) 5 ↗ Silhet.—*E. parviflora*,



Roxb.; Wight. icon. 2, t. 423. 5 N. Circars.—*Hæmadictyon venosum*, Lindl. (*Echites nutans*, B. M. 51, t. 2473.) 5 St. Vincent.—*Isonema Smeathmanni*, R. Br. 5 Tropical Africa, on the W. Coast.—*Parsonsia corymbosa*, R. Br. 5 St. Domingo, in woods.—*P. floribunda*, R. Br. 5 Jamaica.—*P. spicata*, R. Br. 5 Carthagena.—*P. velutina*, R. Br. 5 Tropical N. Holland.—*P. mollis*, R. Br. 5 Tropical N. Holland.—*P. lanceolata*, R. Br. 5 Tropical N. Holland.—*Apocynum androsæmifolium*, L.;—B. M. 8, t. 280. 2. Carolina.—*Thenardia floribunda*, H. B. and Kth. 5 City of Mexico.—*Prestonia tomentosa*, R. Br. 5 Rio Janeiro.—*Balfouria saligna*, R. Br. 5 Tropical N. Holland.—*Nerium Oleander*, L. 5 S. Europe.—*Wrightia zeylanica*, R. Br. Burm. zeyl. t. 12, f. 2. 5 Ceylon.—*Alstonia spectabilis*, R. Br. 5 Java.—*A. spathulata*, Bl. 5 Java.—*A. costata*, R. Br. 5 Penang.—*Vinca minor*, L.;—E. B. 13, t. 1917. 2. England. S. Europe.—*Tabernaemontana orientalis*, R. Br. 5 Tropical N. Holland.—*T. pubescens*, R. Br. 5 Tropical N. Holland.—*T. ebracteata*, R. Br. 5 Tropical N. Holland.—*T. trifolia*, L. 5 W. Indies.—*T. odorata*, Vahl. 5 Guiana.—*T. grandiflora*, Jacq. 5 Carthagena.—*T. amygdalifolia*, Jacq.; B. Reg. 4, t. 338. 5 Carthagena.—*T. persicariaefolia*, Jacq. 5 Mauritius.—*T. mauritiana*, Poir. 5 Mauritius.—*T. corymbosa*, Roxb. 5 Penang.—*T. laurifolia*, L.; B. Reg. 9, t. 716.—*T. densiflora*, Wall.; B. Reg. 15, t. 1259. 5—*Vahea gummifera*, Poir. 5 Madagascar.—*Cameraria latifolia*, Jacq. 5 Jamaica.—*Plumiera Kerii*, G. Don. (*P. tricolor*, Ker.; B. Reg. 6, t. 510. not Ruiz. and Pav.) 5 Mexico.—*P. pudica*, Jacq. 5 Curaçao.—*P. Lambertiana*, Lindl.; B. Reg. 16, t. 1378. 5 Mexico.—*P. tuberculata*, Lodd. B. Cab. t. 681. 5 St. Domingo.—*Aspidosperma bicolor*, Mart. 5 Brazil.

B. CARISSEA, Bartl.

CARISSA, L. (R. Br. pr. p. 468;—G. Don's Mill. dict. 4, p. 104.)

1. *Carandas*, L. (Mant. p. 52;—G. Don. l. c.;—Lam. ill. t. 118, f. 1.—Ann. mus. 8, t. 32, f. 2.—Roxb. Corom. 1, t. 77; fl. ind. 1, p. 687; ed. Carey, 2, p. 523;—J. Grah. Cat. B. pl. p. 116;—Wight. icon. 2, t. 426.—*Capparis Carandas*, Gmel.—*Echites spinosa*, Burm. ind. p. 69.—*Carandas*, Rumph. auct. t. 25.) করমচা Kurumcha. L. 5 Moluccas. Both Peninsulas of India, Bengal, (Serampore.) Hindooasthan. Lower Kemaon. Fl. middle-sized, pure-white, inodorous. Feb. March and April; fr. July and August. Makes, on account of its strong sharp thorns, exceedingly strong fences. Fruit employed to make tarts, and preserves of various kinds, also pickles, and by most people reckoned superior for these uses, to every other fruit in the country, not even the mango excepted. (Roxb.)
2. *diffusa*, Roxb. (fl. ind. 1, p. 689; ed. Carey, 2, p. 524;—G. Don. l. c.;—Wight. icon. 2, t. 427.) 5 Ganjam district. Soonderbuns. Fl. 9 lines, pure white, inodorous. H. and R. S.; fr. O.



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3. *villosa*, Roxb. (*H. B.* [1814.] p. 19; *fl. ind.* 1, p. 690; *ed. Carey*, 2, p. 525;—*G. Don*, *l. c.*;—*J. Grah. Cat. B. pl.* p. 116;—*Wight. icon.* 2, t. 437.—*C. hirsuta*, *Heyne*; *Roth. nov. sp.* p. 128.) ५ Hills eastward of Belgaum. Kyouk Talong, Irawaddi. Fl. small, white, March, April and May; fr. R. S.

4. *ovata*, R. Br. ५ Tropical N. Holland.

ARDUINA, L.

1. *bispinosa*, L. (*Mant.*—*B. Cab.* 4, t. 387.) S. Africa.

MELODINUS, Forst. (*G. Don's Mill. dict.* 4, p. 101.)

1. *monogynus*, Roxb. (*fl. ind.* 2, p. 56;—*G. Don. l. c.*;—*B. Reg.* 10, t. 834;—*B. M.* 52, t. 2527;—*Wight. icon.* 2, t. 394.) L. ५ Silhet. Fl. largish, white, fragrant, March, and April; fr. Oct. and Nov. Pulp of the berries sweetly agreeable, eaten by the natives. (Roxb.)

STRYCHNOS, L. (*R. Br. pr.* p. 469;—*G. Don's Mill. dict.* 4, p. 64.)

1. *Nux vomica*, L. (*Gürtn. fr.* 2, p. 476, t. 179, f. 7;—*G. Don. o. c.* p. 65;—*Roxb. Corom.* 1, t. 4; *fl. ind.* 1, p. 575; *ed. Carey*, 2, p. 261;—*J. Grah. Cat. B. pl.* p. 112;—*Rheed.* 1, p. 37.) कुचिला Koochila. ५ Martaban, Coromandel. Hilly parts of the Concan. Fl. small, greenish-white, Feb.; fr. O. Wood hard, durable, used for many purposes by the natives. It is exceedingly bitter, particularly that of the root, which is used to cure intermitting fevers, and the bites of venomous snakes. Seeds employed in the distillation of country spirits to render them more intoxicating. The pulp of the fruit seems perfectly innocent, as it is greedily eaten by many sorts of birds. (Roxb.) Strychnine, an alcoholic extract of the seeds, has been found a powerful remedy in palsies.

2. *potatorum*, L. (*G. Don. l. c.*;—*Roxb. Corom.* 1, t. 5; *fl. ind.* 1, p. 576; *ed. Carey*, 2, p. 263;—*J. Grah. Cat. B. pl.* p. 112.) निर्मली Nirmmulee.—Clearing Nut. ५ Coromandel. Hilly parts of the Concans. Adjunta Jungles. Banks of the Kalinadi River, South Mahratta Country. Hills about Parr. The Ghauts generally. Prome. Fl. small, greenish-yellow, fragrant, April; fr. O. (Roxb.) In the garden here it has been more than twelve years without fl. The ripe seeds are dried and sold in every bazar to clear muddy water. One of the seeds is well rubbed for a minute or two round the inside of the vessel containing the water, generally an unglazed earthen one. In a very short time the impurities fall to the bottom, leaving the water clear, and perfectly wholesome. (Roxb.)

3. *spinosa*, Lam. (*Ill. No.* 2449;—*Poir. dict.* 8, p. 697;—*G. Don. l. c.*) ५ Madagascar. Fl. small, greenish-whitish, H. S.; fr. O.

4. *cobriformis*, L. (*G. Don. l. c.*;—*Roxb. fl. ind.* 1, p. 577; *ed. Carey*, 2, p. 264;—*Wight. icon.* 2, t. 434.—*J. Grah. Cat. B. pl.* p. 112, excl. *Rheed.* 7, t. 5, and *Rumph.* 2, t. 38.—*Rheed.* 8, t. 24.) कुचिला जड़ा Koochila-luta. L. ५ S. Concan. Coromandel. Khassya Mountains.



Fl. small, greenish-yellow. In H. C. G. fl. April; fr. Sept. Oct. and Nov. (Roxb.)

5. *axillaris*, Colebr. 5 Khassya Hills.

* *Carissa ovata*, R. Br. 5 Tropical N. Holland.—*C. lanceolata*, R. Br. 5 Tropical N. Holland.—*Ambellania acida*, Aubl. 5 Guiana.—*Hancornia speciosa*, Gomez. 5 Brazil.—*Landolphia owariensis*, Beauv. 5 Guinea.—*Rouhamon guianensis*, Aubl. 5 Guiana.—*Strychnos St. Ignatii*, Berg. 5 Cochin China, Philippine Islands.—*S. lucida*, R. Br. 5 Tropical N. Holland.—*S. madagascariensis*, Pet. Th. 5 Madagascar.—*S. Tjeute*, Leschen. 5—*S. bicirrhosa*, Leschen. 5 Tanjore. Ravines at Kandilla. Parr Ghaut.

G. RAUWOLPIËN, Bartl.

CERBERA, L. (*G. Don's Mill. dict.* 4, p. 97; excl. *Thevetia*, Juss. ann. mus.)

1. *Odallam*, Gärtn. (fr. 2, p. 193, t. 124, f. 1; by a mistake spelled Odollam.—Roxb. fl. ind. 1, p. 692; ed. Carey, 2, p. 526;—J. Grah. Cat. B. pl. p. 116;—Wight. icon. 2, t. 441.—C. Manghas, Sims.; B. M. 43, t. 1845; not L.—Tanghinia Odallam, *G. Don's Mill. dict.* 4, p. 98.—Odallam, *Rheed.* 1, t. 39.) L. 5 Salt swamps on the coast of Malabar and the S. Concan. Common on the Maldive and Laccadive Isles. Fl. 1½ inch, white, fragrant, and fr. nearly throughout the year. Wood remarkably soft, spongy, and white.
2. *Manghas*, L. (fl. zeyl. p. 106;—Gärtn. fr. 2, p. 192, t. 123 and 124;—Roxb. fl. ind.; ed. Carey, 2, p. 529.—C. quaternifolia, Roxb. H. B. p. 19.—C. Lactaria, Buch.—Manghas lactescens, Burm. zeyl. t. 70, f. 1.—Tanghinia Manghas, *G. Don's Mill. dict.* 4, p. 98.—Arbor Lactaria, *Rumph.* 2, t. 81.) L. 5 Moluccas. Singapore. Penang. Tenasserim. Martaban. Pegu. Fl. largish, white, inodorous. (*Rumph.*) In H. C. G. Fl.?
3. *parviflora*, Forst. (pr. No. 121;—*Hook. and Arn. in Beech. voy pt. bot.* p. 90;—*Wall. Cat.*—*Ochrosia parviflora*, *G. Don's Mill. dict.* 4, p. 99.) 5 Sandwich Islands. Singapore. In H. C. G. Fl.?

THEVETIA, Juss. (*Ann. Mus.* 15, p. 346.)

1. *nereifolia*, Juss. (*Cerbera Thevetia*, L.;—Jacq. amer. 48, t. 34;—B. M. 49, t. 2309;—*G. Don. o. c.* p. 97;—J. Grah. Cat. B. pl. p. 116.—Ahouai nerii folio, flore luteo, *Plum. Cat. pl. amer.* p. 20, t. 18.) 5 New Granada. Mexico. Cuba. Martinique, &c. Domesticated about Serampore. Fl. 2½ inches, bright yellow, sweet-scented, and fr. throughout the year.

CALPICARUM, G. Don. (*Mill. dict.* 4, p. 100.)

1. *Rosburghii*, G. Don. (l. c.—*Wight icon.* 2, t. 431.—*Cerbera fruticosa*, Roxb. fl. ind. 1, p. 691; ed. Carey, 2, p. 526;—B. Reg. 5, t. 391.) 5 Pegu. Fl. 2½ inches, pale rose, at the base and throat bright red, nearly throughout the year; fr. rare.



TANGHINIA, Pet. Th. (*Bajer.* in *Hook. bot. misc.* 3, p. 290, t. 110.)

(*G. Don's Mill. dict.* 4, p. 97.)

1. *venenifera*, Poir. (*Bajer.* l. c.; — *G. Don. o. c.* p. 98, under *Tanghinia veneniflora*. — *Cerbera Tanghin.* *Poir.*; — *B. M.* 57, t. 2968.) 5 Madagascar, of which it is the famous ordeal tree. In H. C. G. Fl. 1½ inches, pale rose-coloured, with a deep scarlet throat and a pale green tube; H. S. ? fr. Ø.

HUNTERIA, Roxb. (*G. Don's Mill. dict.* 4, p. 105.)

1. *corymbosa*, Roxb. (*fl. ind.* 1, p. 695; *ed. Carey*, 2, p. 531; — *G. Don. l. c.*; — *Wight. icon.* 2, t. 428.) 5 Penang. Fl. small, white, May; fr. Ø.

RAUWOLFIA, Plum.

1. *canescens*, L. 5 Jamaica.

ALYXIA, Banks. (*Herb. from R. Br. pr.* p. 469; — *G. Don's Mill. dict.* 4, p. 96.)

1. *stellata*, Röm. and Sch. (*syst.* 4, p. 439; — *G. Don. l. c.* — *Gynopogon stellatum*, *Forst. pr.* No. 117; *ch. gen.* p. 36, t. 18; — *Labill. sert. cal.* p. 30, t. 34. — *A. aromatica*, *Reinw.* — *A. Reinwardtii*, *Bl. cat. hort. buitens.* p. 43; — *Rumph.* 5, t. 20.) L. 5 Society and Friendly Islands. Amboyna. Fl. small, pure white, Oct.; fr. C. S.

2. *Gynopogon*, Röm. and Sch. (*syst.* 4, p. 440; — *G. Don. l. c.*; — *Woll. Endl. pr. fl. norf.* p. 58; — *Bauer. ill. pl. norf.* t. 119. — *A. Forsteri*, *Cunningh. MSS.* 1830. — *Gynopogon Alyxia*, *Forst. pr.* No. 118 — *G. Hunterii*, *Roxb. H. B.* p. 19?) 5 Norfolk Island, in shady, humid parts of woods. Penang. In H. C. G. Fl. ?

- 3 ? *Moonii*, Wall. (*Cameraria oppositifolia*, *Moon.*) 5 Ceylon.

OCHROSIA, Juss.

1. *borbonica*, Juss. 5 Bourbon.

OPHIOPXYLON, L. (*G. Don's Mill. dict.* 4, p. 99.)

1. *serpentinum*, L. (*fl. zeyl.* p. 398; — *G. Don. o. c.* p. 100; — *Jacq. hort. schönbr.* 3, t. 389; — *B. M.* 20, t. 784; — *Roxb. fl. ind.* 1, p. 694; *ed. Carey*, 2, p. 530; — *J. Grah. Cat. B. pt. p.* 116; — *Rheed.* 6, t. 47; — *Rumph. auct. t.* 16.) 5 Chundru. ছাঁটা চী়ং Chhoto-chand. L. 5 in a rich soil 5 or 7, in a poor soil small and erect. Moluccas. Java. Cochin China. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Hindooosthan, &c. Fl. 8 lines, white, with the tube pale rose-lilac, the calyx red, and the fruit shining black, throughout the year. Root used by the natives as a febrifuge, an alexipharmac, and to promote delivery in tedious cases. (*Roxb.*)

2. *majus*, Wall. 5 Burma. Differs in stature and greatness of parts from No. 1.

WILLUGHBRIA, Scop. (*G. Don's Mill. dict.* 4, p. 101.)

1. *edulis*, Roxb. (*fl. ind.* 2, p. 57; — *Bl. bijdr.* p. 1024; — *G. Don. l. c.*) L. 5 Mauritius. Chittagong. Silhet. Java. Fl. middle-sized, pale rose-coloured, H. S.; fr. Ø. Wounded, it produces an indifferent sort



of *Cæout chouc*. Fruit eaten by the natives where it grows, and by them reckoned good. (Roxb.)

- * *Thevetia Ahouai*, Juss. (*Cerbera Ahouai*, L.; B. M. 19, t. 737.) 5 Brazil.—*T. peruviana*, Juss. 5 Peru.—*T. Humboldtii*, (*Cerbera Thevetioides*, H. B. and Kth.) 5 New Spain.—*Dicaryum subdentatum*, Willd. 5 S. America.—*Vallesia chiococcoides*, H. B. and Kth. 5 Banks of the Amazon.—*Voacanga Thouarsii*, Röm. and Sch. 5 Madagascar.—*Rauwolfia nitida*, Jacq.; Lodd. B. Cab. t. 339. 5 St. Domingo.—*R. sumatrana*, Jack. 5 Bencoolen.—*Ochrosia maculata*, Jacq. ic. rar. 2, t. 321. 5 Bourbon.—*Willughbeia martabanica*, Wall. pl. as. rar. 3, t. 272. 5 Martaban.—*Anabata odorata*, Willd. 5 Banks of the Orinocco, near Esmeralda.—*Pacouria guianensis*, Aubl. 5 Guiana.—*Couma guianensis*, Aubl. 5 Guiana.—*Dissolena verticillata*, Lour. 5 Canton.—*Leuconotis anceps*, Jack. L. 5 Sumatra.—*Cyrtophyllum peregrinum*, Reinw. 5 China.—*Cercocoma singaporeana*, Wall. Cat. 5 Singapore.—*Orchipeda fætida*, Bl. 5 Java.—*Kopsia arborea*, Bl. 5 Java.—*Heylygia javanica*, Bl. 5 Java.—*Kitabatia arborea*, G. Don. (*Hasseltia*, (not H. B. and Kth.) arborea, Bl.) 5 Java, a very beautiful tree.—*Picrophleus javanensis*, Bl. 5 Java.—*Chilocarpus suaveolens*, Bl. 5 Java.

Apocynaceæ dubiæ.

ALAFIA, Thouars.

1. *Thouarsii*, Rom. and Sch. (*Syst. 4, p. 436.*) 5 Madagascar.

ORDER CCXIV.—RETZIACEÆ, Bartl.—Lindl. Nat. Syst. p. 302.

Consists of herbaceous or undershrubby species; 2-3 of *Retzia*, and 2 of *Lonchostoma*; all natives of the C. G. H., except the following.

RETZIA, Thunb. (*G. Don's Mill. dict. 4, p. 306.*)

1. *pilosa*, Rottl. (*Wall. Cat.*) 2. Madura. In H. C. G. Fl.?

ORDER CCXV.—ASCLEPIACEÆ, (ASCLEPIADACEÆ, Lindl. Nat. Syst. p. 302.)

Shrubs or occasionally herbs, generally milky, and often twining; by Lindl. (including *Cryptolepis* and *Vicaria*) referred to 85 genera, of these Spreng. syst. enumerates for S. America, Mexico, and the W. Indies about 82 species; 33 for N. America; for N. Holland and Van Diemen's Land 22; for Europe 7; for N. Africa 6; for Arabia 6; for Siberia 3; for China



3; for Asia Minor 2; for the Canaries 2; for Madagascar 1; for the Maccareñas Islands 1; for Senegal 1; and for Japan 1. In S. Africa have been discovered 240 species; (*Harvey*)—and in the E. Indies, chiefly according to *Wight* 221, viz. 22 of *Ceropegia*; 2 of *Caralluma*; 2 of *Boucerosia*; 1 of *Hitchenia*; 3 of *Eriopetalum*; 30 of *Hoya*; 1 of *Pterostelma*; 1 of *Physostelma*; 8 of *Marsdenia*; 1 of *Cosmostigma*; 3 of *Heterostemma*; 5 of *Pergularia*; 11 of *Dischidia*; 14 of *Gymnema*; 4 of *Sarcolobus*; 4 of *Leptadenia*; 1 of *Orthanthera*; 19 of *Tylophora*; 1 of *Belostemma*; 2 of *Iphisia*; 6 of *Calotropis*; 5 of *Oxystelma*; 1 of *Rhaphistemma*; 6 of *Holostemma*; 18 of *Cynanchum*; 1 of *Dæmia*; 3 of *Sarcostemma*; 2 of *Pentasacme*; 8 of *Secamone*; 4 of *Toxicarpus*; 1 of *Goniostemma*; 3 of *Hemidesmus*; 1 of *Brachylepis*; 1 of *Decalepis*; 9 of *Streptocaulon*; 1 of *Gurua* (*Finlaysonia*, Wall.); 1 of *Cryptostegia*; 2 of *Cryptolepis*; 1 of *Vicaraga*; 7 of *Leptostemma*; 1 of *Triplospermum*; 1 of *Conchophyllum*; 1 of *Phyleanthera*; 1 of *Leposma*; and 1 of *Pentatropis*.—About 50 of these belong to the Himalayas, the Khassya Mountains, the Mountains of Assam, &c.; the rest are natives of the two Peninsulas of India, Ceylon, the Sunda Islands, the Moluccas, Bengal and the North-Western Provinces.

The roots of Asclepiadaceæ are generally acrid and stimulating, whence some of them act as emetics; others as diaphoretic. Their milk is usually acrid and bitter, and is always to be suspected, although it probably participates in a slight degree only, in the poisonous qualities of that of Apocynaceæ, if we can judge from the use of some species of food. But very little is known about the real qualities of such plants. (*Lindl.*)

A. GENUINA, Bartl.

CEROPEGIA, L. (*R. Br. in mem. Wern. soc.* 1, p. 21;—*W. and A. contrib. to ind. bot.* p. 29;—*G. Don's Mill. dict.* 4, p. 109.)

1. *lucida*, Wall. (*pl. as. rar.* 2, t. 139;—*W. and A. l. c.*;—*G. Don. o. c. p. 110.*) 5 ↗ Prome. Khassya Mountains. Fl. 2 inches, green, purple-dotted, C. S.; fr. 0.

2. *junccea*, Roxb. (*Corom.* 1, t. 10;—*H. B.* p. 21;—*W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 117.*) 2. ↗ Circars. Hedges near Samulcottah. Negapatam. Columala. Tanjore. Kaseraya Jungle. Fl. large, greenish-yellow, and elegantly variegated with purple, C. S.; fr. 0.

3. *Lushii*, Grah. (*B. M.* 61, t. 3300;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 117.*) 2. ↗ Kaseraya Jungle. Fl. middle-sized, yellowish-green, tinged with purple, C. S.; fr. 0.

4. *elegans*, Wall. (*B. M.* 57, t. 3015;—*B. Reg.* 20, t. 1706;—*W. and A. l. c.*;—*G. Don. l. c.*) 5 ↗ Dindygul. Neelgherries. Fl. 1½ inch, purple, dotted with greenish, inodorous, C. S.; fr. 0.

5. *sphenantha*, W. and A. (*Contrib. ind. bot.* p. 31;—*G. Don. o. c. p. 111.*) 2. ↗ Neelgherries. In H. C. G. Fl.?

6. *bulbosa*, Roxb. (*Corom.* 1, t. 7; fl. *ind.* 2, p. 27;—*Wight. in*



- Hook. bot. misc.* 2, p. 99, *suppl.* t. 2;—*J. Grah. Cat. B. pl.* p. 117;—*G. Don. l. c.*) 2. ↗ Samulcottah. Negapatam. Malabar Hill. Bombay. Throughout the Concans. Allahabad. Fl. large, erect, with a greenish tube and a purple limb, H. S.; fr. O. Every part of this plant is eaten by the natives, either raw, or stewed in their curries. The fresh roots, which are as large as a small apple, taste like a raw turnip. (*Roxb.*)
7. *Stephanotis*, Röm, and Sch. (*Syst.* 6, p. 4;—*G. Don. l. c.*—*Stephanotis*, *Pet. Th.*—*Isaura aliacea*, *Commers. in Poir. encycl.* 3, p. 185.) 5 ↗ Madagascar. Has been but two years in the garden here, and not fl.
8. *tuberosa*, Roxb. (*Corom.* 1, t. 6;—*Wight. icon.* 2, t. 353;—*Roxb. H. B.* 21;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl.* p. 117.—*C. Candela-brum*, *Roxb. fl. ind.* 2, p. 27, and *J. Grah. l. c.*; not L. and excl. all syn.) 2. ↗ Coromandel. Negapatam. Has been introduced in H. C. G. In Roxb.'s time it did not fl. there.
9. *stapeliaeformis*, Haw. (*G. Don. o. c.* p. 112;—*B. M.* 64, t. 3567.) 5 C. G. H. Introduced in 1840.
10. *Vicaryi*, Wall. Hazarebaugh. R. S. 1841.

STAPELIA, L. (*R. Br. in mem. Wern. soc.* 1, p. 23;—*G. Don's Mill. dict.* 4, p. 114.)

1. *Asterias*, Mass. (*Stap.* 14, t. 14;—*B. M.* 15, t. 536;—*G. Don. o. c.* p. 115;—*Jacq. stap.* t. 58.) 5 C. G. H. Fl. very large, dark-violet. The segments variegated with transverse yellowish stripes, the bottom dark-purple, H. S.; but rarely.
2. *revoluta*, Mass. (*Stap.* p. 12, t. 10;—*B. M.* 19, t. 724.—*Tromotriche revoluta*, *Haw.*;—*G. Don. o. c.* p. 119.) 5 C. G. H. Has not fl. here.
3. *variegata*, Thunb. (*Jacq. stap.* t. 24; *misc.* 1, t. 4;—*DC. pl. gr.* t. 149.—*Orbea variegata*, *Haw.*;—*G. Don. o. c.* p. 120.) 5 C. G. H. Has not fl. here.

The same has been the case with more than 60 species of Stapelia introduced into the garden from C. G. H. by the late Dr. Carey. Indeed most of them perished during the R. S. succeeding their arrival.

BRACHYSTELMA, R. Br. (*G. Don's Mill. dict.* 4, p. 124.)

1. *tuberosum*, R. Br. (*G. Don. o. c.* p. 125;—*B. Reg.* 9, t. 722;—*B. M.* 49, t. 2343.—*Stapelia tuberosa*, *Meerb.* t. 54, f. 1.) 2. C. G. H. Has not fl. here.

CARALLUMA, R. Br. (*Mem. Wern. soc.* 1, p. 25;—*G. Don's Mill. dict.* 4, p. 122.)

1. *adscendens*, R. Br. (*l. c.*;—*G. Don. o. c.* p. 123;—*J. Grah. Cat. B. pl.* p. 118.—*Stapelia adscendens*, *Roxb. Corom.* 1, t. 30.) 5 Peninsula of India. Has been introduced into H. C. G. Fl.?
2. *fimbriata*, Wall. (*pl. as. rar.* 1, t. 8;—*G. Don. l. c.*) 5 Yenangheun, on the banks of the Irawaddi, &c. Fl. 1 inch, above yellowish, trans-



versely purple-streaked, underneath yellow;—upper part purple,—uppermost margin fringed behind with hairs, R. S.; fr. 0.

BOUCEROSIA, W. and A. (*Contrib. ind. bot. p. 34*;—*G. Don's Mill. dict. p. 123*.)

1. *umbellata*, W. and A. (*I. c.*;—*G. Don. l. c.*;—*Wight icon. 2, t. 495*.—*Caralluma umbellata*, *Haw.*—*Stapelia umbellata*, *Roxb. Corom. 3, t. 241*;—*H. B. p. 21.*) 5 Southern parts of the Peninsula of India. Fl. 9 lines, fetid, externally whitish, with dark-purple confluent spots, internally yellowish, with dark-purple circles, May; fr. 0.
2. *crenulata*, W. and A. (*I. c.*;—*G. Don. l. c.*).—*Caralluma crenulata*, *Wall. pl. as. rar. 1, p. 7.*) 5 Banks of the Irawaddi, opposite Ava. Fl. largish, pale greenish-white below, yellow above, and ornamented with broadish transverse stripes. R. S.; fr. 0.

HOYA, R. Br. (*Mem. Wern. soc. 1, p. 26*;—*G. Don's Mill. dict. 4, p. 125.*)

1. *pendula*, W. and A. (*Contrib. ind. bot. p. 36*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 119*.—*Wight icon. 2, t. 474.*)
 - a. *Rheedii*, W. and A. (*Asclepias pendula*, *Roxb. fl. ind. 2, p. 36*.—*Rheed. 9, t. 13.*) L. 5 Circars. Fl. middle-sized, white, fragrant. Has been introduced into H. C. G. Fl.?
2. *linearis*, Wall. (*W. and A. l. c.*;—*G. Don. l. c.*) 5 ~ Nepal. Has been introduced into H. C. G. Fl.?
3. *fusca*, Wall. (*pl. as. rar. 1, t. 75*;—*W. and A. o. c. p. 37*;—*G. Don. o. c. p. 126.*) 5 ~ Khassy Mountains, Nepal. Fl. smallish, brownish. Has not fl. here.
4. *pallida*, Lindl. (*B. Reg. 11, t. 951*.—*H. acuta*, *Haw. rev. p. 4*.—*H. lanceolata*, *Lindl. in Donn. hort. Cantab. ed. 11, p. 92*, not Wall.—*H. albens*, *Mill. brist. cat. 1826*;—*H. parasitica*, *Wall. Cat.*;—*W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 119*.—*Asclepias parasitica*, *Roxb. fl. ind. 2, p. 42.*) 2. Paras. ~ Mahableshwur. Lanowlee, near Kandalla. Nagotna Jungles. Soonderbuns. Fl. 6 lines in diameter, white, fragrant, with the crown paler than the rest of the flower, purple in the centre, June; fr. 0.
5. *carnosa*, R. Br. (*Mem. Wern. soc. 1, p. 27*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 118*;—*W. and A. o. c. p. 38*.—*Asclepias carnosa*, *L. fil. suppl. 1, p. 170*;—*B. M. 21, t. 788*;—*Sm. exot. bot. 2, t. 70*.—*Stapelia chinensis*, *Lour.*—*Schollia crassifolia*, *Jacq. et al. No. 2.*—*Schollia carnosa*, *Schrantz.*) 5 ~ China, about Canton, as well as various parts of Tropical Asia. Fl. middle-sized, wax-like, whitish, with a crimson dark-purple centre, R. and C. S.; fr. 0.
6. *lanceolata*, Wall. (*W. and A. l. c.*; *G. Don. l. c.*) 5 ~ Nepal. Khas-
sy Mountains. Has been introduced into H. C. G. Fl.?
7. *Pottsii*, Traill? (*Hort. trans. 7, p. 25*?—*Lodd. B. Cab. t. 1609*;—*B. M. 62, t. 3425*;—*G. Don. l. c.*) 5 ~ Macao. Fl. middle-sized, pale yellow, with a white orange centred crown, smelling strongly of bad honey. In H. C. G. Fl.?



3. *viridiflora*, R. Br. (*Mem. Wern. soc.* I, p. 26;—*Wight. in Hook. bot. misc.* 2, p. 98, *suppl. t.* 1;—*G. Don. o. c. p.* 127;—*J. Grah. Cat. B. pl. p.* 119. excl. syn. *Rumph.*—*Asclepias volubilis*, *L.*; *Roxb. fl. ind.* 2, p. 36.—*A. viridiflora*, *Roxb. herb.*—*Apocynum tiliæfolium*, *Lam.*—*Rheed.* 9, t. 15.) ତିତ୍କା କଣ୍ଟା ତିତ୍କା କଣ୍ଟା Tit-Kunga. L. ৩ ~ Coromandel. Bombay, Elephanta. The Ghauts. Mahabaleshwar. Bengal, (Serampore.) Silhet. Morung. Assam. Fl. smallish, green, inodorous, March, April, and May; fr. R. S.

MAESDENIA, R. Br. (*Mem. Wern. soc.* I, p. 28;—*pr. p.* 460;—*G. Don's Mill. dict. p.* 130.)

1. *tinctoria*, R. Br. (*o. c. p.* 29;—*G. Don. o. c. p.* 131;—*Pergularia tinctoria*, *Spreng.*—*Asclepias tinctoria*, *Roxb. fl. ind.* 2, p. 43.) ৩ ~ Sumatra. Coromandel. Pegu. Silhet. Assam. Fl. small, yellow, H. and R. S.; fr. O. The leaves yield *Indigo*, and the plant was therefore re-commended by Roxb. for extensive cultivation.

2. *tenacissima*, W. and A. (*Contrib. ind. bot.* p. 41;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 119?—*Gymnema tenacissimum*, *Spreng.*—*Asclepias tenacissima*, *Roxb. Corom.* 3, t. 240; *fl. ind.* 2, p. 51.) L. ৩ ~ Rajemahl. Chittagong. Fl. small, greenish-yellow, April; fr. Feb. The milk exuding from wounds in this shrub, thickens into an elastic substance, acting like *Caoutchouc* on black-lead marks. The bark of the young luxuriant shoots yields a large portion of beautiful, fine silky fibres, with which the mountaineers of Rajemahl make their bow-strings, on account of their great strength and durability. *Roxb.*

3. *Genevii*, Wall. ৩ ~ Mauritius. Introduced in 1840.

COSMOTIGMA, Wight. (*Contrib. ind. bot.* p. 41;—*G. Don's Mill. dict. 4, p.* 132.)

1. *racemosum*, Wight. (*o. c. p.* 42;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 119?—*Asclepias racemosa*, *Roxb. fl. ind.* 2, p. 32.) L. ৩ ~ Chittagong. Silhet. Fl. small, yellow, ferruginously speckled. In H. C. G. fl. May and June; fr. August to Oct. (*Roxb.*)

PERGULARIA, L. (*R. Br. in Mem. Wern. soc.* I, p. 31;—*G. Don's Mill. dict. 4, p.* 132.)

1. *odoratissima*, Sm. (*Icon. pict.* p. 16;—*B. Reg.* 5, t. 412;—*B. Repos.* t. 185;—*Roxb. H. B.* p. 20;—*G. Don. l. c.* excl. syn. *Sims.*;—*J. Grah. Cat. B. pl. p.* 120, excl. syn. *Sims.*;—*W. and A. contrib. ind. bot.* p. 43;—*Wight. icon.* 2, t. 414.—*P. tomentosa*, *L. Mant.*?—*Cynanchum odoratissimum*, *Lour.*—*Asclepias odoratissima*, *Roxb. H. B. p. 20; fl. ind. 2, p. 46.* excl. syn. *Sims.*—*Rumph. auct. t.* 26, f. 1.) କଣ୍ଟା କଣ୍ଟା Kunja-lata. West-coast creeper. L. ৩ ~ Prome. Pagamew. Moluccas. Cochin-China. Bengal, (Serampore.) Patna, &c. Fl. 8 lines, outside whitish, inside greenish, yellow-orange, delightfully fragrant. R. and C. S.; fr. C. S.

2. *minor*, Andr. (*B. Repos.* t. 184;—*B. M.* 20, t. 755;—*G. Don. o. c. p.* 133.—*Pergulariae odoratissimæ var. Sm. icon. pict. fasc.* 3,



p. 16.) ৰ Moluccas? Fl. like those of No. 1, and exquisitely fragrant.

3. *pallida*, W. and A. (*I. c.*—*Asclepias pallida*, *Roxb.* *fl. ind.* 2, *p. 48.*) ৰ Burma. Penang. Bengal, (Serampore.) Gungachura. Monghir. Himalayas. Fl. smallish, pale yellow, inodorous, or slightly scented. R. S.; fr. C. S.

DISCHIDIA, R. Br. (*Mem. Wern. soc.* 1, *p. 32*; *pr. p. 461*;—*G. Don's Mill. dict.* 4, *p. 133.*)

1. *bengalensis*, Colebr. (*Linn. trans.* 12, *p. 357*, *t. 15*;—*B. M.* 56, *t. 2916*;—*G. Don. I. c.*;—*J. Grah. Cat. B. pl.* *p. 120.*—*D. lanceolata*, *Wall. Cat.*) ৰ. Paras. ৰ Khassy Mountains. South Concan. Fl. small, greenish-yellowish-white. In H. C. G. Fl.

GYMNEMA, R. Br. (*Mem. Wern. soc.* 1, *p. 33*; *pr. p. 461*;—*G. Don's Mill. dict.* 4, *p. 135.*)

1. *sylvestre*, R. Br. (*pr. I. c.*;—*G. Don. I. c.*;—*Wight. contrib. ind. bot.* *p. 44*;—*J. Grah. Cat. B. pl.* *p. 120*;—*Wight. icon.* 2, *t. 349.*—*G. parviflorum*, *Wall. tent. fl. nep.* *p. 50.*—*Periploca sylvestris*, *Willd. sp.* 1, *p. 1252*;—*Phyt.* 1, *p. 7*, *t. 5*, *f. 3.*—*Asclepias geminata*, *Roxb. fl. ind.* 2, *p. 45.*) ছোট হর্ষী জাতা *Chhoto-doodhee-luta*. ৰ Canton. Coromandel. Hills near Bagulcota and Badanee. South Mahratta Country. Bengal, (Serampore.) Silhet. Assam. Nepal. Fl. 2 lines, outside green, inside greenish-yellowish, with a white centre, R. and C. S.; fr. O.

2. *acuminatum*, Wall. (*tent. fl. nep.* *p. 50*;—*G. Don. I. c.*—*Asclepias geminata*, *Roxb. fl. ind.* 2, *p. 55.*) L. ৰ Tavoy. Moulmein. Chittagong. Silhet. Fl. small, white. May, June and July; fr.

3. *tingens*, Spreng. (*syst. 1, p. 844*;—*G. Don. o. c. p. 136*;—*W. and A. o. c. p. 45.*—*Asclepias tingens*, *Buch*;—*Roxb. fl. ind.* 2, *p. 53*; *Corom.* 3, *t. 239.*—*A. montana*, *Roxb. fl. ind.* 2, *p. 45*;—*Rumph.* 5, *t. 40*, *f. 2?*) L. ৰ Pegu. Sukanaghur. Kamroop. Fl. middle-sized, cream-coloured, afterwards yellow, R. S.; fr. May. The leaves are said to yield a sort of Indigo.

4. *nepalense*, Wall. (*tent. fl. nep.* *p. 50*, *t. 38*;—*G. Don. I. c.*) ৰ Nepal. In H. C. G. Fl?

SARCOLOBUS, R. Br. (*Mem. Wern. soc.* 1, *p. 34*;—*G. Don's Mill. dict.* 4, *p. 136.*)

1. *globosus*, Wall. (*Asiat. res.* 12, *p. 577*, *t. 4*;—*G. Don. I. c.*) ৰ Banks of the Saluen. Rangoon. Soonderbuns. Has not fl. here, though cultivated for several years.

2. *carinatus*, Wall. (*o. c. p. 578*, *t. 5*;—*G. Don. I. c.*) ৰ Grows in the same places with the former species. Introduced in 1841.

LEPTADENIA, R. Br. (*Mem. Wern. soc.* 1, *p. 34*;—*G. Don's Mill. dict.* 4, *p. 124.*)

1. *spartea*, Wight. (*Contrib. ind. bot.* *p. 48*;—*G. Don. I. c.*) ৰ Banks of the Jumna. Simla. Himalaya. In H. C. G. Fl.?



ASCLEPHORA, R. Br. (*Mem. Wern. soc.* 1, p. 28; *pr. p.* 460;—*G. Don's Mill. dict.* 4, p. 128.)

1. *tenuissima*, W. and A. (*Contrib. ind. bot.* p. 49;—*G. Don. o. c. p.* 129.—*Asclepias tenuissima*, *Roxb. fl. ind.* 2, p. 41.) 5 ↗ Peninsula of India. Bengal. Fl. small, dull purple. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

2. *vomitoria*, (T. *asthmatica*, *W.* and *A. contrib. ind. bot.* p. 51.—*Cynanchum vomitorium*, *Lam.*—*C. viridiflorum*, *Sims.*; *B. M.* 44, t. 1929;—*Spreng. syst.* 1, p. 852.—*Asclepias vomitoria*, *Kön. in Hb. Banks*; *Roxb. mus. ind. or. t.* 608.—*A. asthmatica*, *Roxb. fl. ind.* 2, p. 33;—*Willd.*;—*Röhl. and. Sch.*;—*Spreng.*—*Cynanchum Ipecacuanha*, *Willd.*) अक्त मूल *Unto-mool*. 5 ↗ Peninsula of India. Bengal. (Serampore.) Segaden, &c. Fl. 5½ lines in diameter, externally pale greenish with a faint tinge of purple, internally light-purple, May and June; fr. Aug. Sept. and Oct. The roots are used on the Coast of Coromandel, as a substitute for ipecacuanha. Roxb. often prescribed this remedy himself, and found it answer as well as the latter. Given in a pretty large dose, it answers as an emetic, in smaller, often repeated doses as a cathartic, and in both ways effectually; the natives also employ it as an emetic, by rubbing upon a stone 3-4 inches of the fresh root, and mixing it with a little water for a dose. It generally purges at the same time. Dr. P. Russel was informed by Dr. J. Anderson, the Physician General at Madras, that he had many years before known it used both by the European and Native troops, with great success in the dysentery which happened at that time to be epidemic in the camp. (*Roxb.*)

ASCLEPLIAS, L. (*R. Br. in Mem. Wern. soc.* p. 36;—*G. Don's Mill. dict.* 4, p. 139.)

1. *curassavica*, L. (*G. Don. l. c.*;—*B. Cab. t.* 349;—*B. Reg. l.*, t. 81;—*Roxb. H. B.* p. 20;—*J. Grah. Cat. B. pl.* p. 120, not Lour.—*A. bicolor*, *Mönch.*) 5 Curaçao. Essequebo. Cumana. Trinidad; now found in most parts of Tropical America and India. Fl. nearly 6 lines, saffron coloured with a light orange-coloured crown, and fr. nearly throughout the year. The juice of this plant, made into a syrup, is said to be a powerful anthelmintic, and is given as such, in the West Indies, to children in doses from a tea to table-spoonful. The juice and pounded plant is said to be an excellent styptic. The root, dried and reduced to a powder, is frequently used by the Negroes as an emetic, and hence its name of *Wild, or Bastard Ipecacuanha*. (*Mill. dict.*)

GOMPHOCARPUS, R. Br. (*Mem. Wern. soc.* 1, p. 37;—*G. Don's Mill. dict.* 4, p. 143.)

1. *fruticosus*, R. Br. (*l. c.*;—*G. Don. l. c.*;—*B. M.* 39, t. 1628.—*Asclepias fruticosa*, *L.*;—*Roxb. H. B.* p. 20.—*A. glabra*, *Mill. dict.*—*Apo-cynum salicifolium*, *Medic.*) 5 C. G. H., beyond the first range of



mountains. Fl. middle-sized, white, with a pale greenish crown, tinged with purplish, R. S.; fr. R. and C. S., but rarely.

? *PENTATROPIS*, R. Br. (*in Salt. trav. app. from W. and A. contrib. ind. bot. p. 52*;—*G. Don's Mill. dict. 4, p. 145.*)

1. *microphylla*, W. and A. (*l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 120*.—*Wight. icon. 2, t. 352*.—*A. microphylla, Roxb. fl. ind. 2, p. 35*;—*Schultes. syst. 6, p. 85*;—*Rheed. 9, t. 17.*) 5 ~ Coromandel Bengal, (Serampore.) Banks of the Jumna. Fl. small, greenish-red. R. S.; fr. C. S.

CALOTROPIS, R. Br. (*Mem. Wern. soc. 1, p. 39*;—*W. and A. o. c. p. 53*;—*G. Don's Mill. dict. 4, p. 146.*)

1. *gigantea*, R. Br. (*l. c.*;—*W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 120*;—*B. Reg. 4, t. 58*.—*Asclepias gigantea, Willd.*;—*L.?*;—*Ait.*;—*Jacq. obs. 3, p. 17, t. 69*;—*Roxb. fl. ind. 2, p. 30*;—*Rheed. 2, t. 31*;—*Rumph. auct. t. 14, f. 1.*) 5 Moluccas. Sunda Islands. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Hindoothan. Assam, &c. Fl. 10-12 lines long, and fr. throughout the year. A large quantity of an acrid, milky juice flows from this plant when wounded. The natives apply it to various medicinal purposes, while they employ the plant itself and its preparations to cure all sorts of nervous disorders. In 1811, it was subjected to a regular set of medical experiments by Dr. G. Playfair, who, with many of his brethren, bears ample testimony of its efficacy in leprosy, lues, tenia, herpes, dropsy, rheumatism, hectic and intermittent fever. The powdered bark is given in doses of 5-6 grains twice a day. It will now and then occasion nausea and vomiting, but such symptoms are easily removed by a dose of castor oil. (*On the Madar, and its medicinal uses, Phys. and med. trans. Calc. 1, p. 77-102*.—*Account of the use of Akund or Mudar in the leprosy, Phys. and med. trans. Calc. 2, 409-410.*)

a. *tilacina*, (*আকন্দ Akundo.*) Fl. beneath whitish with a tinge of lilac, above whitish light purple, with the crown purplish lilac, inodorous, or nearly so.

β. *alba*, (*শ্঵েত আকন্দ Shwet-Akundo.*) Fl. white, cream-coloured, inodorous, or nearly so.

2. *procera*, R. Br. (*in Hort. Kew. ed. 2, vol. 2, p. 78*;—*G. Don. l. c.*;—*B. Reg. 21, t. 1792*.—*Asclepias procera, Ait. Hort. Kew. ed. 1, vol. 1, p. 305*;—*Willd.*;—*A. gigantea, Andr.* *B. Repos. t. 271*, not Willd.; *Lam.*;—*Beidelsar, Prosp. Alp. egypt. cap. 25, c. W.*) 5 N. Africa. Persia. Fl. 10-12 lines, inodorous, externally pale silverish, internally intensely purple-red, towards the top paler, towards the centre spotted, March and April; fr. 0.

This plant is by some esteemed more efficacious in the cure of leprosy than the preceding species.

3. *herbacea*, Carey, MSS. (*Wight. contrib. ind. bot. p. 54*;—*G. Don. o. c. p. 147*;—*Wight. icon. 2, t. 492*.—*Asclepias herbacea, Roxb. fl. ind. 2,*



p. 50.) ছেটি আকন্দ *Chhoto-akundo*. ৫ Interior of Bengal. Fl. largish, like those of *Calotropis gigantea*, a. Fl. C. S.; fr. O.

RHAPHISTEMMA, Wall. (*W. and A. contrib. ind. bot. p. 54;—G. Don's Mill. dict. 4, p. 145.*)

1. *pulchellum*, Wall. (*pl. as. rar. 2, t. 163;—W. and A. l. c.;—G. Don. l. c.—Asclepias pulchella, Roxb. fl. ind. 2, p. 54.*) ৫ ~ Tavoy. Pegu. Khassy Mountains. Assam. Fl. 1 inch, pure white, inodorous, R. S.; fr. O.

OXYSTELMA, R. Br. (*Mem. Wern. soc. 1, p. 40; pr. p. 462;—G. Don's Mill. dict. 4, p. 144;—Wight. contrib. ind. bot. p. 54.*)

1. *esculentum*, R. Br. (*l. c.;—G. Don. l. c.;—Wight. l. c.;—J. Grah. Cat. B. pl.—Periploca esculenta, Kön.;—L. fil. suppl. 168;—Roxb. Corom. 1, t. 11.—Asclepias rosca, Roxb. fl. ind. 2, p. 40.*) ছাঁচ লতা *Doodh-lata*. ৫ ~ Coromandel. Bombay. Bengal. (Serampore.) Assam, &c. Fl. $7\frac{1}{2}$ lines, externally white, internally rose-coloured and purple-veined, with a green tube, inodorous, R. S.; fr. C. S. Cattle eat it, but not the natives. (Roxb.)

HOLOSTEMMA, R. Br. (*Mem. Wern. soc. 1, p. 42;—Wight. contrib. ind. bot. p. 55;—G. Don's Mill. dict. 4, p. 149.*)

1. *Rheedianum*, Spreng. (*syst. 1, p. 851.—H. Rheedii, G. Don. l. c.;—Wight. l. c.;—J. Grah. Cat. B. pl. p. 121.—H. Ada-Kodien, Röm. and Sch.—Sarcostemma annulare, Roth.;—Röm. and Sch.—Asclepias annularia, Roxb. fl. ind. 2, p. 37;—Rheed. 9, t. 7.*) ৫ ~ Mysore. Samulcottah. Bombay; Malabar Hill. Salsette. Assam. Kanour. Fl. large, the colour a beautiful mixture of red, green and white, 'inodorous,' (Rheed.) 'agreeably fragrant, edible and sweet.' (Nimmo.) In H. C. G. fl. R. S.; fr. O. (Roxb.)

CYNANCHUM, L. (*R. Br. in Mem. Wern. soc. 1, p. 43;—W. and A. contrib. ind. bot. p. 55;—G. Don's Mill. dict. 4, p. 150.*)

1. *pauciflorum*, R. Br. (*o. c. p. 45;—W. and A. l. c.;—G. Don. o. c. p. 151;—J. Grah. Cat. B. pl. p. 121;—Wight. icon. 2, t. 354.—Periploca tunicata, Retz.;—Willd. phyt. 1, p. 7, No. 23, t. 5, f. 3.—Asclepias tunicata, Roxb. fl. ind. 2, p. 35.*) ছাঁচ পাঁচি *Chhagul-patee*. L. ৫ ~ Peninsula of India. Bengal. (Serampore). Fl. small, rust-coloured. R. S.; fr. C. S.

DEMIA, R. Br. (*Wern. soc. Mem. 1, p. 50;—Wight. contrib. ind. bot. p. 59;—G. Don's Mill. dict. 4, p. 156.*)

1. *extensa*, R. Br. (*l. c.;—Wight. l. c.;—G. Don. l. c.;—J. Grah. Cat. B. pl. p. 122.—Cynanchum extensum, Jacq. icon. rar. 1, t. 54;—Ait. hort. Kew. vol. 1, p. 303.—C. cordifolium, Retz.—C. bicolor, Andr. B. Repos. t. 562.—Asclepias echinata, Roxb. fl. ind. 2, p. 44.*) ছাঁচ বাঁটী *Chhagul-bantee*. ৫ ~ Peninsula of India. Bengal. (Serampore). Himalayas. Fl. 6 lines, pale green, internally tinged with purple, not unpleasantly smelling, (very foetid, Roxb.) R. and C. S.; fr. C. and H. S.



SARCOSTEMMA, R. Br. (*Mem. Wern. soc.* 1, p. 50;—*W. and A. contrib. ind. bot.* p. 59;—*G. Don's Mill. dict.* 4, p. 156.)

1. *acidum*, (S. brevistigma, *W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 122, No. 259*, excl. syn. R. Br.—*Asclepias acida*, *Roxb. H. B.* p. 20; *fl. ind.* 2, p. 31; excl. syn.) শোম লতা *Shom-lata*. ৩ ♂ Coromandel. Bombay Presidency. Rocky Hills about Loonee. The barren parts of the plain between Dowlatabad and the Godavery. The Kamatkee and Katruj Ghauts; throughout the Deccan. Isle of Perim. Bengal, (Serampore, but very rarely. The late Dr. Carey had only seen it once here.) Fl. small, white, R. S.; fr. 0. Dr. Gibson mentions, that it is often brought from a distance by farmers, to extirpate *white ants* from their Sugar-cane fields. A bundle of the twigs is put in the trough of the well from which the field is watered, along with a bag of common salt hard packed, so that it may dissolve gradually. The water so impregnated, destroys the ants without injuring the crop. (*J. Grah.*) "This plant yields a larger portion of very pure milky juice than any other I know, and what is rare, it is of a mild nature, and acid taste. The native travellers often suck the tender shoots to allay their thirst." (*Roxb.*)

PENTASACME, Wall. (*W. and A. contrib. ind. bot.* p. 60;—*G. Don's Mill. dict.* 4, p. 159.)

1. *caudata*, Wall. (*W. and A. l. c.*;—*G. Don. l. c.*) ৩. Khassya Mountains, Lahore. Fl. small, white, C. S.; fr. 0.

PHYSIANTHUS, Mart. (*Nov. gen. and sp.* 1, p. 53.)

1. *albens*, Mart. (*o. c. t.* 32;—*Spreng. c. p. p. 112*;—*B. M.* 59, t. 3201;—*B. Reg.* 21, t. 1759.—*Araujia albens*, *G. Don's Mill. dict.* 4, p. 149.) ৫ ♂ Buenos Ayres. Mexico. Has been introduced into the garden here twice, but both times died during the R. S., though sheltered.

SECAMONE, R. Br. (*Mem. Wern. soc.* 1, p. 53;—*G. Don's Mill. dict.* 4, p. 159;—*W. and A. contrib. ind. bot.* p. 60.)

1. *emetica*, R. Br. (*l. c.*;—*Schult. syst.* 6, p. 124;—*G. Don. l. c.*;—*W. and A. l. c.*;—*Periploca emetica*, *Retz.*;—*Willd. phyt.* 1, p. 6, t. 5, f. 2.—*Asclepias Pseudasarca*, β . *angustifolia*, *Roxb. fl. ind.* 2, p. 39.) শাদা বুড়ি *Shada-boori*. ৫ ♂ Peninsula of India. Bengal. Fl. 0; fr. 0.

TOXOCARPUS, W. and A. (*Contrib. ind. bot.* p. 61;—*G. Don's Mill. dict.* 4, p. 160.)

1. *laurifolius*, Wight. (*Contrib. l. c.*;—*G. Don. l. c.*—*Asclepias laurifolia*, *Roxb. fl. ind.* 2, p. 49.—*A. micrantha*, *Roxb. o. c. p. 50.*) L. ৩ ♂ Chittagong. Tippera. Cawnpore. Fl. very small, yellow R. S.; fr. 0.

* *Ceropegia acuminata*, Roxb. Corom. 1, t. 8. ৩ ♂ Samuleottah. Dharwar.—*C. Arnottiana*, Wight. ৩ ♂ Hills about Prome.—*Hitchenia indica*, W. and A.; Wight. icon. 2, t. 355. ৩ Peninsula of India.—*Leptadenia reticulata*, W. and A.; Wight. icon. 2, t. 350. ৩ ♂ Both



Peninsulas of India.—*L. imberbis*, Wight. 5 ♂ Meerut.—*Orthanthera viminea*, Wight; Royle ill. t. 66, f. 1. 5 ♂ Doab.—*Hoya orbiculata*, Wall. 5 ♂ Prome.—*H. longifolia*, Wall. 5 ♂ Singapore. Mussooree.—*H. parviflora*, Wight. 5 ♂ Moulmein.—*H. Hookeriana*, Wight. 5 ♂ Chittagong. Silhet.—*H. trinervis*, Trail. 5 ♂ China.—*H. australis*, R. Br. 5 ♂ Tropical N. Holland.—*H. latifolia*, G. Don. (*H. macrophylla*, Wight, not Bl.) 5 ♂ Penang.—*H. Lacuna*, Buch. 5 ♂ Segaeen.—*Pterostelma acuminatum*, Wight. 5 ♂ Silhet.—*Physostelma Wallichii*, Wight. 5 ♂ Singapore.—*Tylophora flexuosa*, R. Br. 5 ♂ Tropical N. Holland.—*T. mollissima*, Wall. 5 ♂ Neelgherries.—*T. exilis*, Colebr. 5 ♂ Khassy Mountains.—*Marsdenia velutina*, R. Br. 5 ♂ Tropical N. Holland.—*M. viridiflora*, R. Br. 5 ♂ Tropical N. Holland.—*M. clausa*, R. Br. 5 ♂ Jamaica.—*M. Roylii*, W. and A. 5 ♂ Simla.—*Heterostemma alatum*, Wight. 5 ♂ Mussooree.—*Pergularia sanguinolenta*, Lindl.; B. M. 52, t. 2532. 5 ♂ Sierra Leona.—*Dischidia cuneifolia*, Wall. 5 ♂ Banks of the Attran.—*Baxteria loniceroïdes*, Lindl. (*Harrisonia loniceroïdes*, Hook.; B. M. 53, t. 2699.) 5 ♂ Brazil.—*Gymnema geminatum*, R. Br. 5 ♂ Tropical N. Holland.—*G. molle*, Wall. 5 ♂ Irawaddi.—*G. latifolium*, Wall. 5 ♂ Tavoy. Silhet.—*G. elegans*, W. and A. 5 ♂ Dindygul.—*G. sagittatum*, Wall. 5 ♂ Khassy Mountains.—*G. Wallichii*, Wight. 5 ♂ Singapore.—*G. trinerve*, R. Br. 5 ♂ Tropical N. Holland.—*Gonolobus crispiflorus*, R. Br. 5 ♂ Jamaica.—*G. viridiflorus*, Röm. and Sch.; B. Reg. 14, t. 1126. 5 ♂ Essequebo.—*G. rostratus*, R. Br. 5 ♂ Trinidad.—*G. niger*, R. Br. B. M. 55, t. 2799. 5 ♂ Mexico.—*G. prostratus*, R. Br. 2. ♂ Mexico.—*G. diadematus*, Ker.; B. Reg. 3, t. 252. 5 ♂ Mexico.—*Asclepias pulchella*, H. B. and Kth. 2. ♂ Mexico.—*A. linifolia*, Hort. Madrit. (*A. salicifolia*, B. Cab. t. 272.) 2. ♂ Mexico.—*A. linaria*, Cav. 5 ♂ Mexico.—*A. auriculata*, H. B. and Kth. 2. ♂ Mexico.—*Oxystelma Wallichii*, Wight. 5 ♂ Banks of the Ganges and Irawaddi.—*O. carnosum*, R. Br. 5 ♂ Tropical N. Holland.—*Iphisia multiflora*, W. and A. 5 ♂ Neelgherries.—*Urostelma chinense*, Bunge. 5 ♂ China.—*Calotropis Hamiltonii*, Wight. 5 ♂ B. Repos. t. 271. Deccan.—*C. Wallichii*, Wight. 5 ♂ Meloon.—*C. heterophylla*, Wall. 5 ♂ Irawaddi.—*Oxypetalum Banksii*, Schult. 5 ♂ Rio Janeiro.—*O. riparium*, Mart. 5 ♂ Mexico.—*Macrocepis obovata*, H. B. and Kth. 5 ♂ Campeche.—*Holostemma fragrans*, Wall. 5 ♂ Irawaddi.—*H. scandens*, Lindl. 5 S. America?—*Cynanchum pedunculatum*, R. Br. 5 ♂ Tropical N. Holland.—*C. erubescens*, R. Br. 5 ♂ Tropical N. Holland.—*C. Wallichii*, Wight. 5 ♂ Khassy Mountains.—*C. callialatum*, Buch. 5 ♂ Banks of the Ganges.—*C. foetidum*, H. B. and Kth. 5 ♂ Mexico.—*Ditassa Banksii*, Röm. and Sch. 5 ♂ Rio Janeiro.—*Sarcostemma viminale*, R. Br. 5 ♂ India.—*S. australis*, R. Br. 5 ♂ Tropical N. Holland.—*S. Brownii*, Meyer. 2. ♂ Carthagena.—*Philibertia solanoides*, H. B. and Kth. 5 ♂ Banks of the Amazon.—

P. grandiflora, Hook.; B. M. 64, t. 3618. 5 ~ Buenos Ayres.—*Tweedia versicolor*, Hook.; B. M. 65, t. 3630. 5 ~ Tucuman?—*Toxocarpus Roxburghii*, W. and A. Wight, icon. 2, t. 475. 5 ~ Circars.—*T. Kleinii*, W. and A. 5 ~ Negapatam. Salsette.—*T. crassifolius*, Wight 5 ~ Silhet.—*Goniostemma acuminatum*, Wight. 5 ~ Silhet.

B. PERIPLOCEÆ, Bartl.

HEMIDESMUS, R. Br. (*Mem. Wern. soc. 1*, p. 56;—*W. and A. contrib. ind. bot.* p. 62;—*G. Don's Mill. dict. 4*, p. 161.)

1. *indicus*, R. Br. (*Hort. Kew. ed. 2*, vol. 2, p. 75;—*W. and A. o. c. p. 63*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 122*.—*Periploca indica*, Willd.—*Asclepias Pseudasarsa*, a. *latifolia*, Roxb. fl. ind. 2, p. 39, excl. syn. L. and Retz.—*Rheed. 10*, t. 34.) अन्तु मूत्र *Uunuto-moot*. 5 ~ Ceylon. Coromandel. Malabar Hill. Bombay. Mazagaum. Abundant on the Hills at Wurgaum. Bengal, (Serampore) &c. Fl. 2½ line, on the outside pale green, on the inside, dark blood-coloured, R. S.; fr. rare. The roots are used as an excellent substitute for Sarsaparilla. The natives employ them particularly for the thrush in children, giving about a dram every morning and evening of the powder fried in butter. (*Roxb.*)

GURUA, Buch. (*Finlaysonia, Wall.*;—*Wight's contrib. ind. bot.* p. 65;—*G. Don's Mill. dict. 4*, p. 162.)

1. *obovata*, Buch. (*Wall. pl. as. rar. 2*, t. 162.—*Wight. l. c.*;—*G. Don. o. c. p. 163.*) L. 5 ~ Soonderbuns. Æstuaries of the Irawaddi, &c. Fl. small, yellowish-brownish, smelling like those of *Stapeliæ*. Has not fl. here. Introduced in 1838.

PERIPLOCA, L. (*R. Br. in Mem. Wern. soc. 1*, p. 57;—*G. Don's Mill. dict. 4*, p. 163.)

1. *græca*, L. (*Spec. p. 309*;—*G. Don. l. c.*;—*Jacq. misc. 1*, p. 11, t. 1, f. 2;—*Sibth. and Sm. fl. gr. t. 249*;—*B. M. 49*, t. 2289;—*B. Reg. 10*, t. 803.—*P. maculata*, Mönch.) 5 ~ S. France. Hedges about Bursa. Bithynia. Mount Athos. Has been introduced into H. C. G. Fl.?

CRYPTOSTEGIA, R. Br. (*B. Reg. 5*, t. 485;—*W. and A. contrib. ind. bot.* p. 66;—*G. Don's Mill. dict. 4*, p. 164.)

1. *grandiflora*, R. Br. (*B. Reg. l. c.*;—*W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 122*.—*Nerium grandiflorum*, Roxb. fl. ind. 2, p. 10.) L. 5 ~ Peninsula of India. Fl. 2 inches, internally white, externally pale rose white lilac, throughout the year; fr. seldom.

VICARYA, Wall. (*MSS. 1841*.—*Jenkinsia, Wall. MSS. 1840*.)

1. *cristata*, Wall. (*MSS. 1841*.—*Jenkinsia cristata, Wall. MSS. 1840*, not *Griffith.**) 5 ~ Assam. Introduced in 1840.

CRYPTOLEPIS, R. Br. (*Mem. Wern. soc. 1*, p. 69;—*G. Don's Mill. dict. 4*, p. 82.)

1. *reticulata*, Wall. (*Cat.*;—*C. Buchananii*, G. Don. l. c.;—*J. Grah. Cat.*

* *Myriopteron paniculatum*. Griff.



- B. pl. p. 113;—*Wight. icon.* 2, t. 494; scarcely R. Br. Spreng. syst. 1, p. 636.—*Nerium reticulatum*, Roxb. fl. ind. 2, p. 8;—*Rheed.* 9, t. 11.) L. 5 ♂ Coromandel. Worlee and Malabar Hills. Elephanta. Bengal, (Serampore.) Nepal. Kemaon. Nahn. Fl. small, yellow, inodorous, R. S.; fr. 0.
2. *elegans*, Wall. (Cat.—*G. Don. l. c.*) L. 5 Silhet. Assam. Fl. 1½ inch, pure white, delightfully fragrant, Feb. and March; fr. 0.

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- * *Brachylepis nervosa*, W. and A. 5 ♂ Neelgherries.—*Decalepis Hamiltonii*, W. and A. 5 ♂ ? Locality in India unknown.—*Streptocalyx tomentosum*, Wight. 24. ♂ Taong-Dong.—*S. Wallichii*, Wight. 24. ♂ Penang. Singapore.—*S. extensum*, Wight. 24. ♂ Tavoy. Rangoon.—*S. calophyllum*, Wight. 24. ♂ Nepal.—*Hemidesmus pubescens*, W. and A. 5 ♂ Vandalore.—*H. Wallichii*, Wight. 5 ♂ Prome.—*Gymnanthera nitida*, R. Br. 5 ♂ Tropical N. Holland.

ORDER CCXVI.—LOGANIACEÆ, Lindl. Nat. Syst. p. 306.

Herbs, shrubs, or trees, by Lindl. referred to 7 genera. Of these, Spreng. syst. assigns 12 species to New Holland and the South Sea Islands; 4 to Brazil and Guiana; 1 to Guinea; and 2 to the Mascarenhas Islands.—In the E. Indies have been discovered 1 species of *Geniostoma*, (Spreng. c. p. p. 59.—Straits of Malacca); 4 of *Gardnera*, (Himalayas. Khassy Mountains); and 15 of *Fagraea*, (1 from the Khassy Mountains; the rest from the Peninsula of Malacca, the Sunda Islands, and Ceylon, 1 is from China, but cultivated at Penang.) “Properties unknown.” (Lindl.)

? *GARDNERA*, Wall. (Roxb. fl. ind.; ed. Carey, 1, p. 400; *ibid.* 2, p. 318;—*D. Don. pr. fl. nep.* p. 132;—*G. Don's Mill. dict.* 4, p. 66.)
1. *ovata*, Wall. (*l. c.*;—pl. as. rar. 3, t. 231;—*G. Don. o. c. p. 67.*) L. 5 ♂ Khassy Mountains. Nepal. Fl. smallish, yellow, April; fr. 0.

FAGRAEA, Thunb. (*G. Don's Mill. dict.* 4, p. 68.)

1. *obovata*, Wall. (Roxb. fl. ind.; ed. Carey, 2, p. 33;—*G. Don. l. c.*) 5 ♂ Khassy Mountains. Singapore. Fl. white, fragrant, large. Has been cultivated in the garden here for many years, without flowering.

* *Geniostoma febrifugum*, Spreng. 5 Brazil.—*G. acuminatum*, Wall. (Spreng.) 5 ♂ Malacca.—*Gardnera angustifolia*, Wall. 5 ♂ Nepal.—*G. glabra*, Wall. 5 ♂ Silhet.—*Usteria gyneensis*, Willd. 5 Guinea.—*Fagraea zeylanica*, L. 5 Ceylon.—*F. fragrans*, Roxb. 5 China. Cultivated at Penang.—*F. malayana*, Mart. 5 Penang.—*F. lanceolata*, Bl. 5 Java. Penang.—*F. racemosa*, Jack. 5 Penang.—*F. volubilis*, Wall. 5 ♂ Beneoolen.—*F. auriculata*, Jack. Wall. pl. as. rar. 3, t. 222. 5 Paras. Java. Singapore.—*Gürtnera vaginata*, Lam. 5 Mascarenhas Islands.—*Pagamea guianensis*, Aubl. 5 Guiana. N. Brazil.

ORDER CCXVII.—POTALIACEÆ, R. Br. Lindl. Nat. Syst.
p. 306.

Trees or shrubs, natives of Tropical Africa and S. America, amounting only to 4 species.

- * *Potalia amara*, Aubl. 5 Guiana.—*P. resinifera*, Mart. 5 Brazil.—
Anthocleista nobilis, G. Don. 5 Sierra Leona.—*A. macrophylla*,
G. Don. 5 Sierra Leona.

ORDER CCXVIII.—OLEACEÆ, Lindl. Nat. Syst. p. 307.

THE OLIVE TRIBE.

Trees or shrubs, by Lindl. referred to 14 genera. Of these, Spreng. syst. assigns 28 species to N. America; 13 to Europe; 7 to New Holland and Van Diemen's Land; 7 to China and Japan; 4 to S. America, and the W. Indies; 3 to Syria, and Asia Minor; 3 to S. Africa; 3 to the Maccarenhas Islands; 1 to the Canaries; 1 to Tauria; and 1 to Persia. In the E. Indies have been discovered 42 species, viz. 20 of *Olea*; 10 of *Ligustrum*; 3 of *Syringa*; 1 of *Pachyderma*; 1 of *Myzopyrum*; 1-2 of *Chondrospermum*; and 4 of *Ornus*. About 18 of these have been discovered in Nepal, the Himalayas and the Khassya Mountains; the rest are natives of the two Peninsulas of India, Ceylon, Java, and the Moluccas.

"This order (and Aurantiaceæ) offer one of the few instances of oil being contained in the pericarp, from which olive oil is entirely expressed. In most other plants oil is yielded by the seed." (Lindl.)

OLEA, Tournef. (G. Don's Mill. dict. 4, p. 46.) Olive.

1. *sativa*, Hoffmannsegg. (G. Don. l. c.;—J. Grah. Cat. B. pl. p. 109.—*Olea europaea*; *L. f. sp. 1*, p. 11;—*Vahl. enum. 1*, p. 39;—*Brot. fl. lusit. 1*, p. 10;—*All. pedem. 1*, p. 121, No. 449;—*Wood. med. bot. p. 369*, t. 136;—*Plenck. icon. t. 11*;—*Roxb. H. B. p. 3*.—*O. europaea*, *longifolia*,—*Lodd. B. Cab. t. 456*.—*O. longifolia*, *Mönch*.—*O. polymorpha*, *Risso.*) Cultivated Olive. 5 Aleppo. Lebanon. Was introduced into H. C. G. in 1800, but had not fl. up to 1814.—J. Grah. l. c. says: "The climate of India seems to suit it, and it may possibly hereafter become of some importance."
2. *lancea*, Lam. (Ill. 1, p. 29, n. 78. *Ejusd. Cyclopædia*. p. 4, 544.) 5 Mauritius. Bourbon.
3. *capensis*, L. (G. Don. o. c. p. 48;—B. Reg. 8, t. 613.—*O. buxifolia*, Mill. dict.) 5 Has not fl. here, though cultivated for several years.



γ. *undulata*, Ait. (*O. undulata*, *Jacq. hort. schönbr.* I, t. 2;—*Lodd. B. Cab.* t. 379;—*B. M.* 58, t. 309.—*O. laurifolia*, *Lam.*) 5 C. G. H. Introduced in 1841.

4. *fragrans*, Thunb. (*fl. jap.* p. 18, t. 2;—*G. Don. l. c.*;—*B. M.* 38, t. 1552;—*Roxb. H. B.* p. 3;—*J. Grah. Cat. B. pl.* p. 109.—*Osmanthus fragrans*, *Lour.*) 5 Japan. China. Cochin China. Fl. small, white, delightfully fragrant. C. S.; fr. O.

β. *rubra*; Fl. red.

Much cultivated in its native country for the sake of its flowers, which are said to be put into teas to give them flavour.

5. *chrysophylla*, Lam. (*Ill. p. 29, n. 77. Ejusd. cyclop.* 4, 544.) b Bourbon.

6. *grandiflora*, Wall. (*Cat.*;—*G. Don. l. c.*) b Nepal. Has not flowered in the garden, though cultivated for many years.

7. *attenuata*, Wall. (*Cat.*;—*G. Don. l. c.*) 5 Banks of the Martaban. Introduced in 1840.

8. *clavata*, G. Don. (*l. c.*—*O. Roxburghii*, *Spreng*; not *O. Roxburghiana*, Röm and Sch.—*Phillyrea paniculata*, *Roxb. fl. ind.* 1, p. 100; *ed. Carey*, 1, p. 100;—*J. Grah. Cat. B. pl.* p. 108.—not *Olea paniculata*, *Roxb.* nor *R. Br.*) 5 China. Fl. small, pure white, somewhat fragrant. H. S.; fr. O.

9. *robusta*, Wall. (*Cat.*;—*G. Don. o. c. p. 49.*—*Phillyrea robusta*, *Roxb. fl. ind.* 1, p. 101; *ed. Carey*, 1, p. 101.) L. 5 Silhet. Fl. small, white, June and July; fr. Jan. and Feb. Furnishes the natives of Silhet with very hard, durable wood. (*Roxb.*)

10. *glandulifera*, Wall. (*Cat.*;—*G. Don. l. c.*) 5 Mountains near Deyra-Dhoon, Kemaon. Has been cultivated for many years in the garden here, without flowering.

11. *Roxburghiana*, Röm. and Sch. (*syst. I. p. 77*;—*G. Don. l. c.*—*O. paniculata*, *Roxb. fl. ind.* 1, p. 105; *ed. Carey*, 1, p. 104; not *R. Br.*) 5 Circar Mountains. Fl. small, white. Has been introduced into H. C. G.?

12. *dioica*, Roxb. (*fl. ind.* 1, p. 106; *ed. Carey*, 1, p. 105;—*J. Grah. Cat. B. pl.* p. 109;—*G. Don. l. c.*) L. 5 Chittagong. Silhet. Fl. small, white, March; fr. June, but rarely. Timber considered excellent, and put to many uses by the natives. (*Roxb.*)

13. *acuminata*, Wall. 5 Nepal.

14. *verrucosa*, Lk. (*Enum. I. p. 33*;—*G. Don. l. c.*—*O. europaea*, *Thunb.* not L.—*O. sativa*, var. *verrucosa*, *Röm. and Sch.*—*O. africana*, *Mill. dict.*—*Burm. afr.* p. 237, t. 83, f. 21.) 5 C. G. H. Has been cultivated in the garden here for many years, without flowering.

15. *grata*, Wall. MSS. 5 Native place? Introduced in 1840.

16. *myrtifolia*, Wall. MSS. 5 North-east of Bengal. Fl. small, white, C. and H. S.; fr. O.

LINOCIERA, Swz. (*G. Don's Mill. dict.* 4, p. 52.)

1. *dichotoma*, Wall. (*Cat.*;—*G. Don. l. c.*—*Chionanthus dichotomus*,



Roxb. fl. ind. 1, p. 108; ed. *Carey*, 1, p. 107.) 5 Coromandel. Fl. small, white. In H. C. G. fl. H. S.; fr. Aug. (*Roxb.*)

2. *ramiflora*, Wall. (*Cat.*;—*G. Don. l. c.*—*Chionanthus ramiflorus*, *Roxb. fl. ind. 1*, p. 107; ed. *Carey*, 1, p. 106.) 5 Moluccas. Fl. small, yellow. In H. C. G. fl. March and April; fr. Sept. (*Roxb.*)

3. *macrophylla*, Wall. (*Cat.*;—*G. Don. o. c. p. 53.*) 5 Silhet. Fl. small, white, inodorous, C. S.; fr. H. S.

4. *purpurea*, Vahl. (*Enum. 1*, p. 47;—*G. Don. l. c.*;—*Chionanthus purpureus*, *Lam.*—*C. zeylanicus*, *L. fl. zeyl. No. 14*, sp. 11; excl. syn.;—*Roxb. fl. ind. 1*, p. 107; ed. *Carey*, 1, p. 107.—*Thouinia nutans*, *L. fl. suppl. p. 89*;—*Burm. zeyl. 31.*) 5 Ceylon. Fl. 3 lines, yellowish-whitish, inodorous, March and April; fr. O.

LIGUSTRUM, Tournef. (*G. Don's Mill. dict. 4*, p. 44.) *Privet.*

1. *japonicum*, Th. Ab. (*Buch. MSS.*—*L. spicatum*, *D. Don. fl. nep. prodr.* p. 107;—*G. Don. o. c. p. 45.*—*L. nepalense*, *Wall.*—*Roxb. fl. ind.*; ed. *Carey*, 1, p. 151; pl. as. rar. 3, t. 270;—*B. M. 56*, t. 2921.—*L. lanceolatum*, *Hb. Lamb.*) L. 5 Japan. Mountains of Nepal. Fl. small, white, sweet-scented, C. S.; fr. O.

NORONHIA, Pet. Th. (*G. Don's Mill. dict. 4*, p. 49.)

1. *emarginata*, Poir. (*Hook. bot. misc. 2*, p. 167, t. 88;—*G. Don. l. c.*—*N. chartacea*, *Stadm. MSS.*—*N. Binia*, *Pet. Th.*—*Olea emarginata*, *Vahl. enum. 1*, p. 42;—*Lam. dict. 4*, p. 545; ill. t. 8, f. 2.) 5 Madagascar. Grown in the gardens at Mauritius, under the name of *Ponai des Indes*.—Fruit the size of a walnut, edible. Lately introduced.

CHONDROSPERMUM, Wall. (*Cat.*;—*G. Don's Mill. dict. 4*, p. 50.)

1. *laurifolium*, (C. *smilacifolium*, *Wall. Cat.*;—*G. Don. l. c.*—*Ligustrum laurifolium*, *Roxb. H. B. p. 3*; according to *G. Don. l. c.*—*Chionanthus? smilacifolius*, *Wall.*—*Roxb. fl. ind.*; ed. *Carey*, 1, p. 108.) 5 Chittagong. Fl. small, pale green, scentless, April and May; fr. C. S.

2. *dentatum*, Wall. Burma.

FRAXINUS, Tournef. (*G. Don's Mill. dict. 4*, p. 53.) *Ash.*

1. *excelsior*, L. (*G. Don. l. c.*;—*E. B. 24*, t. 1692.—*F. apetala*, *Lam. fl. fr.*; ill. t. 858, f. 1.—*F. rostrata*, *Guss. pl. rar. p. 374.*—*F. Ornus*, *Scop.*; not L.—*F. erosa*, *Pers.*—*F. crispa*, *Bosc.*) *Common Ash.* 5 Europe. Has been introduced into H. C. G. Fl.?

2. *chinensis*, Roxb. (*fl. ind. 1*, p. 148; ed. *Carey*, 1, p. 150;—*G. Don. o. c. p. 55.*) 5 China. Flowers small, green, H. S.; but rarely.

ORNUS, Pers. (*G. Don's Mill. dict. 4*, p. 56.) *Manna Ash.*

1. *europaea*, Pers. (*G. Don. l. c.*—*Fraxinus Ornus*, *L.*;—*Sibth. and Sm. fl. gr. 1, t. 4*;—*Mill. fig. t. 1*;—*Lam. ill. 9*, t. 858, f. 1.—*F. florifera*, *Scop.*—*F. botryoides*, *Mor.*—*F. vulgarior*, *Segn.*—*F. Ornus* and *paniculata*, *Mill. dict. No. 3, 4.*) 5 S. Europe. Has been introduced into H. C. G. Fl.?

2. *floribunda*, G. Don. (*Loud. hort. brit. p. 12*;—*Mill. dict. o. c. p. 57.*—*Fraxinus floribunda*, *Wall.*;—*Roxb. fl. ind.*; ed. *Carey*, 1, p. 150;—*D.*



Don. prodr. fl. nep. p. 106;—Wall. pl. as. rar. 3, t. 277.) L. 5 Nepal.
Has been cultivated in the garden here for many years, without
flowering.

* *Olea Oleaster*, Hoffmannsegg, 5 Portugal.—*O. lancea*, Vahl. 5 Mauritius.—*O. paniculata*, R. Br. 5 Tropical N. Holland.—*Notelaea punctata*, R. Br. 5 Tropical N. Holland.—*N. microcarpa*, R. Br. 5 Tropical N. Holland.—*Linociera ligustrina*, Swz. 5 Jamaica.—*L. latifolia*, Vahl. 5 W. Indies.—*L. compacta*, R. Br. 5 W. Indies.—*Chionanthus axillaris*, R. Br. 5 Tropical N. Holland.—*Ligustrum bracteolatum*, D. Don. 5 Nepal.—*L. lucidum*, Ait.; B. M. 52, t. 2565. 5 China.—*Syringa chinensis*, Willd. 5 China.—*S. persica*, L.; B. M. 14, t. 486. 5 Persia.—*Noronhia cernua*, G. Don. 5 Mauritius.—*Pachyderma javanicum*, Bl. 5 Java.—*Myzopyrum nervosum*, Bl. 5 Java.—*Fraxinus Schiediana*, Schlecht. 5 Mexico.—*F. juglans-difolia*, Lam. 5 Carolina.—*Ornus urophylla*, G. Don. 5 Khassy Mountains.

ORDER CCXIX.—JASMINACEÆ, Lindl. Nat. Syst. p. 308.

THE JASMINE TRIBE.

Shrubs, usually twining, and 1 tree, by Lindl. referred to 3 genera. Of these, Spreng. syst. assigns 8 to New Holland and the South Sea Islands; 3 to S. Africa; 3 to Brazil and Peru; 2 to Guinea; 2 to China; 1 to Cochin China; 1 to the Azores; 1 to S. Europe; and 2 to Madeira. Wall. Cat. adds 1 Jasminum for Mauritius, and Lindl. 1 Bolivaria for Mexico. In the E. Indies have been discovered 66 species of *Jasminum*, and 1 of *Nyctanthes*. Of these about 20 have been found in the Himalayas, the Khassy Mountains, and Assam; the rest are natives of Bengal, both Peninsulas of India, Ceylon, Sunda Islands, and the Moluccas.

"Properties not very different from those of Oleaceæ, except that their oil is deliciously fragrant, and produced by the flowers, and not by the pericarp. The genuine essential oil of the shops is produced by the *Jasminum officinale* and *grandiflorum*; but a similar perfume is also procured from *Jasminum Sambac*." (Lindl.)

JASMINUM, Forsk. (*G. Doa's Mill. dict.* 4, p. 59.)

1. *Sambac*, Ait. (*G. Doa. o. c.*;—*Roxb. fl. ind.* 1, p. 88; *ed. Carey*, 1, p. 87;—*B. Reg.* 1, t. 1.—*J. Grah. Cat. B. pl.* p. 110.—*I. undulatum*, Willd.—*Mogorium Sambac*, Lam.—*Nyctanthes Sambac*, L.) 5 All over India. Fl. 14 lines long, white, delightfully fragrant. H. S.; fr. R. S. a. *simplex*. (*B. Reg.* 1, t. 1;—*Rheed.* 6, t. 55.) बन मञ्जिका *Bun-Mulika*. Single flowered Arabian Jasmine.



- β. duplex*, (Rheed. 6, t. 50;—Rumph. 5, t. 30;—Burm. zeyl. t. 58, f. 2;—B. Repos. t. 497.) देव भेला Bela. Double-flowered Arabian Jasmine. △
- γ. plenum*, (trifoliatum;—Rheed. 6, t. 51;—B. M. 43, t. 1785;—Rumph. 5, t. 30, a.) बड़े भेला Buro-Bel. Great double Arabian or Tuscan Jasmine.—not. △
2. *scandens*, Vahl. (G. Don. l. c.;—Roxb. fl. ind. 1, p. 89; ed. Carey, 1, p. 88.—Nyctanthes scandens, Retz.—Mogorium scandens, Lam.) L. 5 मु Chittagong. Gungachara. Fl. 8 lines, white, fragrant, Jan. Feb. and March; fr. R. S. but rare.
3. *elongatum*, Vahl. (Willd.;—G. Don. l. c.;—Roxb. fl. ind. 1, p. 90; ed. Carey, 1, p. 89;—J. Grah. Cat. B. pl. p. 111.—Nyctanthes elongata, L.;—Berg. act. angl. 1772, p. 290, t. 11.) L. 5 मु Java. Soon-derbuns. Fl. largish, pure white, fragrant, March and April; fr. R. S.
4. *hirsutum*, L. (Syst. p. 56;—Sm. exot. bot. 2, p. 117, t. 118;—B. Reg. 1, t. 15;—B. M. 45, t. 1991;—Vahl.;—Willd. excl. syn. Rheed.—J. pubescens, Willd.;—Vahl.;—G. Don. l. c.;—Roxb. fl. ind. 1, p. 91; ed. Carey, 1, p. 90;—J. Grah. Cat. B. pl. p. 110.—J. multiflorum, Andr. B. Repos. 8, t. 496.—Nyctanthes hirsuta, L. sp. 1, p. 8, excl. syn.—N. pubescens, Retz.—N. multiflora, Burm. ind. 5, t. 3, f. 1, excl. syn.—Rheed. 6, t. 54.) कून्डा Koondo. 5 Coromandel. S. Conean. Bengal, (Serampore.) Monghir. Khassy Mountains. Assam. Deyra-Dhoon. Fl. 18 lines, pure white, fragrant, R. and C. S.; fr. O.
5. *laurifolium*, Roxb. (fl. ind. 1, p. 92; ed. Carey, 1, p. 91;—G. Don. o. c. p. 60.—J. angustifolium, β. laurifolium, B. Reg. 7, t. 521.) 5 मु Khassy Mountains. Fl. 16 lines long, white, fragrant, with a pale greenish tube, Nov. and Dec.; fr. O.
6. *glandulosum*, Wall. (Cat.;—G. Don. o. c. p. 61.) 5 मु Nepal. Has been introduced into H. C. G. Fl.?
7. *coarctatum*, Roxb. (fl. ind. 1, p. 92; ed. Carey, 1, p. 91;—G. Don. l. c.) L. 5 मु Chittagong. In H. C. G. fl. H. S. (Roxb.) *
8. *trinerve*, Vahl. (Symb. 3, p. 2;—G. Don. l. c.;—B. Reg. 11, t. 918;—J. Grah. Cat. B. pl. p. 110;—not Roxb.—J. acuminatum, Pers.—Mogorium acuminatum, Lam.) 5 मु Java. Fl. large, white, fragrant, H. S.; fr. R. S.
9. *stenopetalum*, Lindl. (Spreng. syst. c. p. p. 11;—B. Reg. vol. 9, app.—J. trinerve, Roxb. fl. ind. 1, p. 93; ed. Carey, 1, p. 91;—not Vahl.) 5 मु Forests of Silhet. Fl. large, white, fragrant, H. S.; fr. R. S.
10. *aristatum*, Wall. (Cat.) 5 मु Khassy Mountains. In H. C. G.
11. *bracteatum*, Roxb. (fl. ind. 1, p. 94; ed. Carey, 1, p. 92;—G. Don. o. c. p. 60.) 5 मु Sumatra. Fl. 1 inch, white, fragrant, C. S.; fr. April.
12. *bifarium*, Wall. (Cat.—G. Don. l. c.) 5 मु Penang. Fl. middle-sized, white, fragrant, March and April.
13. *latifolium*, Roxb. (fl. ind. 1, p. 95; ed. Carey, 1, p. 93;—G. Don. l. c.;—J. Grah. Cat. B. pl. p. 110.) 5 मु Circar Mountains. Elephanta.



- Kennery Jungles. The Ghauts. Mahableshwur, &c. Fl. largish, white, fragrant, March and April; fr. 0.
14. *arborescens*, Roxb. (*fl. ind.* 1, p. 95; *ed. Carey*, 1, p. 94;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p. 110.*—*Nyctanthes grandiflora*, Lour.) बुरो-कून्डो Buro-Koondo. ५ China. Cochin China. Courtallam. Monghir. Hurdwar. Fl. large, snow-white, very fragrant, March and April; fr. 0.
15. *angustifolium*, Vahl. (*Enum.* 1, p. 29;—*G. Don. l. c.*;—*Roxb. fl. ind.* 1, p. 96; *ed. Carey*, 1, p. 95;—*J. Grah. Cat. B. pl. p. 110.*—*J. vimineum* and *angustifolium*, Willd.—*J. triflorum*, Pers.—*Nyctanthes angustifolia*, L. sp. *pl. ed.* 2, p. 18.—*N. viminea*, Retz.—*N. triflora*, Burm. *ind. t.* 2.—*Mogorium triflorum*, Lam. *ill. t. 6*;—*Rheed.* 6, t. 53.) ५ ~ Coromandel Forests. Fl. largish, white, with a faint tinge of red, pleasantly fragrant, March, April and May, sometimes also R. S.; fr. 0.
16. *simplicifolium*, Forst. (*Prodr.* 3, No. 7;—*G. Don. o. c.* p. 61;—*Roxb. fl. ind.* 1, p. 97; *ed. Carey*, 1, p. 96.—*B. M.* 25, t. 980.—*J. australe*, Pers.) ५ Friendly Islands. Fl. middle-sized, white, fragrant, Feb. and March; fr. 0.
17. *gracile*, Andr. (*B. Repos.* t. 127;—*R. Br. pr. p. 521*;—*B. Reg.* 8, t. 606;—*G. Don. l. c.*) ५ Tropical N. Holland. Has been introduced into H. C. G. Fl.?
18. *syringafolium*, Wall. (*Cat.*—*G. Don. o. c.* p. 62.) ५ ~ Amherst. Tavoy. Fl. middle-sized, pure white, fragrant, Feb. and March; fr. 0.
19. *ligustrifolium*, Wall. MSS. (*not Lam.*) ५ ~ Khassy Mountains. Fl. middle-sized, pure white, fragrant, Feb.; fr. 0.
20. *attenuatum*, Roxb. (*H. B. p. 3*;—*G. Don. l. c.*) ५ ~ Silhet. Was introduced into H. C. G. in 1811, but had not fl. up to 1814.
21. *lanceafolium*, (J. lanceolatum, Roxb. *H. B. p. 3*, not Ruiz. and Pav. nor J. lanceolaria, Roxb.) ५ ~ Silhet. Was introduced into H. C. G. in 1810, but had not fl. up to 1814.
22. *auriculatum*, Vahl. (*Symb.* 3, p. 1;—*G. Don. l. c.*;—*Roxb. fl. ind.* 1, p. 98; *ed. Carey*, 1, p. 96;—*B. Reg.* 4, t. 264;—*J. Grah. Cat. B. pl. p. 111.*—*J. trifoliatum*, Pers.; not Telfair.—*Mogorium trifoliatum*, Lam.) जूँ जूँ Jooin. ५ ~ Mauritius. Peninsula of India. Bengal. Assam, &c. Fl. 1 inch, white, with a pale-greenish tube, very fragrant, H. and R. S.; fr. 0.
23. *azoricum*, Vahl. (*Enum.* 1, p. 31;—*G. Don. l. c.*;—*B. Reg.* 1, t. 89;—*B. M.* 44, t. 1889.—*J. trifoliatum*, Mönch.; not Pers.; nor Telfair.—*Nyctanthes azorica*, L. sp. 1, p. 9.) ५ ~ Azores. Madeira. Fl. 1 inch, white, tinged on the outside with rose, fragrant, the tube pale yellowish. Lately introduced.
24. *lonchophyllum*, (J. lanceolaria, Roxb. *fl. ind.* 1, p. 98; *ed. Carey*, 1, p. 97;—*G. Don. o. c.* p. 63; not J. lanceolatum, Ruiz and Pav.; nor Roxb.) ५ Silhet. In H. C. G. fl. R. S. (Roxb.)
25. *paniculatum*, Roxb. (*fl. ind.* 1, p. 99; *ed. Carey*, 1, p. 97;—*G. Don.*



- L. c.* — *B. Cab.* 5, t. 469; — *B. Reg.* 9, t. 690.) 5 China. Fl. 3 lines, white, becoming reddish yellow, as they go off. In H. C. G. fl. R. S. (*Roxb.*)

26. *dispermum*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, p. 99; *pl. as. rar.* 3, t. 274; — *G. Don. l. c.*) 5 Nepal. Sirmore. Kemaon. Fl. large, white, fragrant. Has been cultivated here for several years without flowering.

27. *fruticans*, L. (*Spec. 1, p. 9*; — *Vahl. enum. 1, p. 33*; — *G. Don. l. c.*; — *B. M.* 13, t. 461.) *J. heterophyllum*, *Mönch.*; not *Roxb.*) 5 S. France. Levant. Fl. 6 lines, yellow, inodorous, Feb. and March; fr. 0.

28. *odoratissimum*, L. (*Sp. 1, p. 10*; — *Vahl. enum. 1, p. 33*; — *G. Don. l. c.*; — *B. M.* 8, t. 285; — *J. Grah. Cat. B. pl. p. 111.*) 5 Madeira. Fl. about 1 inch, deep yellow, somewhat fragrant. Lately introduced.

29. *heterophyllum*, Roxb. (*fl. ind.* 1, p. 100; *ed. Carey*, 1, p. 99 and 164; *Wall. pl. as. rar.* 3, t. 275; — *G. Don. l. c.*; not *Mönch.* — *J. arboreum*, *Buch. MSS.*) 5 Nepal. Fl. about 6-8 lines, yellow, delightfully fragrant. Has been in the garden here more than 30 years, without flowering.

β. *macrophyllum*, Wall. Nepal. Perhaps a distinct genus.

30. *caudatum*, Wall. (*Cat.*) 5 Khassya Mountains. Fl. largish, white, Feb. and March; fr. 0.

31. *grandiflorum*, L. (*Sp. 1, p. 9*; — *Vahl. enum. 1, p. 34*; — *G. Don. l. c.*; — *B. Reg.* 2, p. 91; — *Roxb. fl. ind.* 1, p. 100; *ed. Carey*, 1, p. 98; — *J. Grah. Cat. B. pl. p. 111*; — *Rheed.* 6, t. 52.) जाती *Jatee*. Catalonian or Spanish Jasmine. 5 Common in gardens all over India. Fl. $1\frac{1}{4}$ inch, white, externally suffused with purple, peculiarly fragrant, H. S.; fr. 0. The flowers are commonly used to make Durbar and Wedding garlands.

β. *plenum*. Fl. double.

32. *chrysanthemum*, Roxb. (*H. B.* (1814), p. 3; *fl. ind.* 1, p. 99; *ed. Carey*, 1, p. 98.—*J. revolutum*, *Sims.*; *B. M.* (1815), 42, t. 1731; — *B. Reg.* (1817), 3, t. 178; — *G. Don. o. c. p. 64*; — *Lodd. B. Cab.* t. 966.) 5 Patna. Mountains near Deyra-Dhoon. Sirmore. Kemaon. Fl. 1 inch, bright yellow, delightfully fragrant, April and May; fr. 0.

33. *pubigerum*, D. Don. (*Prodr. fl. nep.* p. 106; — *G. Don. l. c.* — *J. Wallichianum*, *Lindl. B. Reg.* 17, t. 1409.) 5 Nepal. Fl. bright yellow, smaller than those of the preceding species. Has not fl. here.

34. *approximatum*, Wall. Khassya Mountains.

35. *calycinum*, Wall. MSS. Khassya Mountains.

36. *molle*, Wall. Sirmore.

NYCTANTHES, L. (*G. Don's Mill. dict.* 4, p. 64.)

1. *Arbor tristis*, L. (*Spec. p. 8*; — *G. Don. l. c.*; — *B. Reg.* 5, t. 399; — *Roxb. fl. ind.* 1, p. 86; *ed. Carey*, 1, p. 85; — *J. Grah. Cat. B. pl. p. 111*. — *Scabrita scabra*, *Vahl. symb.* 2, p. 28. — *S. triflora*, *L. Mant.* 1,



p. 37.—*Parilium Arbor tristis*, *Gürtn. fr.* I, p. 234, t. 51, f. 1.—
Rheed. I, t. 21.) **শিঙ্গাহার** *Singahar*. 5 Very common about the houses
of the natives, all over India. Fl. 9-10 lines white, with the tube
orange, exquisitely fragrant, opening at sunset, and falling off at sun-
rise, R. S.; fr. C. S. “The orange tubes of the flowers dye a most
beautiful buff or orange colour, with the various shades between them,
according to the preparation and mode of conducting the operation,
but, unfortunately, no way has yet been discovered of rendering this
elegant colour durable.” (*Roxb.*)

* *Jasmium quinqueflorum*, Buch. 5 ✓ *Gungachara*. Patna.—*J. gla-
brum*, Horsf. 5 ✓ *Batavia*.—*J. punctatum*, Buch. 5 ✓ *Patna*.—
J. amplexicaule, Buch. 5 ✓ *Goalpara*.—*J. cuspidatum*, Willd. 5 ✓
Neelgherries.—*J. undulatum*, Vahl.; B. Reg. 6, t. 436. 5 ✓ *China*.
—*J. acuminatum*, R. Br. B. Reg. 15, t. 1296. 5 ✓ Tropical N.
Holland.—*J. trifoliatum*, Telfair, Mauritius.—*J. divaricatum*, R. Br.
5 ✓ Tropical N. Holland.—*J. humile*, L.; B. Reg. 5, t. 350. 5
Madeira.—*J. glaucum*, Ait. 5 ✓ C. G. H. Has been introduced at
Bombay.—*J. officinale*, L.; B. M. I, t. 31. 5 ✓ S. Europe. Cul-
tivated at Bombay.—*Bolivaria integrifolia*, Cham. and Schlecht. 5
Brazil.—*B. trifida*, Cham. and Schlecht. 5 *Brazil*.—*B. helianthe-
moides*, Lindl. 5 *Mexico*.

CLASS 2D.

GYMNOSPERMÆ.

Lindl. Nat. Syst. p. 310.

ORDER CCXXX.—GNETACEÆ, Lindl. Nat. Syst. p. 311.

Small trees or shrubs, natives of the temperate parts of Europe, Asia,
and S. America, and, in the case of *Gnetum*, of the hottest parts of India
and Guiana, (*Lindl.*) The former constitute the genus *Ephedra*, containing
6 species, one of which inhabits the Himalayas; the latter has but 3 species,
two Indian, and one from Guiana.

GNETUM, L. (*Spreng. syst.* 3, p. 758, No. 3071;—*Endl. gen. pl.* 1, p. 263.

—*Gnemon*, *Rumph.*—*Thoa*, *Aubl.*—*Abutua*, *Lour.*)

1. *Gnemon*, L. (*Spreng. syst.* 3, p. 777;—*Roxb. fl. ind.* 3, p. 518.—*Gnemon*
domestica, *Rumph.* 1, t. 71.) 5 Moluccas. Sumatra. Fl. small,
greenish. Was introduced into H. C. G. in 1810, but has not fl. up
to 1814. Strong ropes are made of the fibres of its bark at Sumatra,
and its leaves are used as spinach. (*Roxb.*) The seeds are eaten roasted,
boiled, or fried. (*Rumph.*)



2. *scandens*, Roxb. (*A. ind.* 3, p. 518;—*J. Grah. Cat. B. pl. p.* 188.—*Gnemon funicularis*, *Rumph.* 5, t. 7, 8.—*Thoa edulis*, *Wild.* sp. 4, p. 477;—*Rheed.* 7, t. 22.) L. 5 ♂ Moluccas. Malabar. Lanowlee grove, near Kandalla. Ravines at Parr. Both Concans. Chittagong. Khassy Mountains. Assam. Fl. small, greenish. In H. C. G. fl. March and April; fr. Sept. and Oct. (Roxb.)

* *Gnetum urens*. 5 Guiana.

ORDER CCXXI.—CYCADAECÆ, Lindl. Nat. Syst. p. 313.

"Trees, with a simple cylindrical trunk, increasing by the development of a single terminal bud, and covered by the scaly bases of the leaves," (Lindl.) referred by the latter to 4 genera. Of these, Spreng. syst. enumerates 9 for S. America and the W. Indies; 1 for Florida, also found in the W. Indies; 1 for China and Japan; and 3 for New Holland.—In S. Africa have been discovered 12 species, (Harvey); and in the E. Indies 2 forms of *Cycas*.—Lindl. adds, that, according to R. Brown, species have also been found in Madagascar.

The only remarkable quality in the order is the production of a kind of Sago, by the soft centre of *Cycas circinalis*. They all abound in a mucilaginous nauseous juice. (Lindl.)

ZAMIA, L. (Spreng. syst. 3, p. 895, No. 3199;—Endl. gen. pl. 1, p. 71.)

1. *longifolia*, Jacq. (*Fragm.* 1, p. 28, t. 29;—Spreng. syst. 3, p. 908.)

5 C. G. H. Has been cultivated in the garden here for many years, without flowering.

2. *horrida*, Jacq. (*Fragm.* 1, p. 27, t. 27, 28;—Spreng. l. c.;—*J. Grah. Cat. B. pl. p.* 198.) 5 C. G. H. Like the preceding species, it has not fl. here.

CYCAS, L. (Spreng. syst. 3, p. 895, No. 3198;—Endl. gen. pl. 1, p. 71.)

1. *circinalis*, L. (Spreng. syst. 3, p. 907;—Roxb. fl. ind. 3, p. 744;—B. M. 55, t. 2826-7;—*J. Grah. Cat.* p. 198.—*C. inermis*, Lour.; Spreng. l. c.;—*Rheed.* 3, t. 13, 21;—*Rumph.* 1, t. 22 and 23.) 5 Mo-

luccas. China. Cochin-China. Fl. May; fr. Dec. and January. In gardens and plantations towards the sea-coast of the Southern provinces of Malabar, this plant is very common; it grows spontaneously from the nuts that accidentally fall. The nuts are collected, and having been dried for a month in the sun, are beaten in a mortar, and the kernels formed into a flour. This is reckoned superior to the flour obtained from the stem of the *Caryota urens*, L.; but is only used by the poor, who between the 14th of July and 13th of Sept. are in danger of perishing. It is prepared during the former month, and cannot be preserved longer than the end of the latter.



The Sago of the shops, formerly believed to come from the trunk of *Cycas circinalis*, is chiefly the product of *Sagus farinifera*. Gärtn. (*Buch.*)

2. *revoluta*, Thunb. (*Spreng. syst.* 3, p. 907;—*Sm. in Linn. Soc. trans.* 6, t. 29, 30;—*Roxb. fl. ind.* 3, p. 746;—*B. M.* 57, t. 2963.4;—*Rumph.* I, t. 24.) 5 Japan. China. ♀ Common in gardens about Calcutta. Fl. H. S.; fr. C. S. “The taste of the fruit is mealy, dry and sweetish, but insipid. It is the general opinion here, that this is the Sago Palm, or the plant that produces Sago. The Japanese eat the fruits, and from the trunk extract a kind of Sago, which is highly esteemed, especially by the people of rank. On this account, the plant is much cultivated about their houses, and is forbidden to be exported. A very small quantity of the medulla or pith suffices to satisfy the hunger of a soldier in the time of war.” (*B. M. l. c.*) Roxb., however, says, that he has no reason to think, that the plant, which was introduced into H. C. G. in 1794, can ever be made a useful article of diet.
3. *sphaerica*, Roxb. (*fl. ind.* 3, p. 747.) 5 Moluccas. Fl. R. S.; fr. C. S.

- * *Zamia furfuracea*, Ait.; *B. M.* 45, t. 1969. 5 W. Indies.—*Z. muricata*, Humb. 5 New Granada.—*Z. integrifolia*, Ait.; *B. M.* 43, t. 1851. 5 W. Indies.—*Z. debilis*, Ait.; *B. Cab.* t. 155. 5 W. Indies.—*Z. media*, Jacq.; *B. M.* 43, t. 1838. 5 W. Indies.—*Z. pygmaea*, Sims.; *B. M.* 42, t. 1741. 5 W. Indies.—*Z. pumila*, L.; *B. M.* 45, t. 2006. 5 Bahama Islands.—*Cycas media*, R. Br. 5 Tropical N. Holland.—*C. angulata*, R. Br. 5 Tropical N. Holland.

ORDER CCXXII.—PINACEÆ, Lindl. Nat. Syst. p. 313.

(*Coniferæ, Juss.*)

THE FIR TRIBE.

Trees or shrubs, by Lindl. referred to 11 genera. Of these, Spreng. syst. and Roxb. fl. ind. enumerate 20 species for Europe; 20 for N. America; 8 for Mexico, and the W. Indies; 5 for the Orient; 4 for Japan; 8 for China; 2 for the South Sea Islands; 2 for Siberia; 3 for Caucasus; 3 for S. Africa; 1 for N. Africa; 1 for the Canaries; 1 for Madagascar; and 1 for Arabia. In the E. Indies have been discovered about 19-20 species, viz. 7 of *Pinus*, Himalayas, (1 from Cochin-China); 1 of *Abies*; (Himalayas); 1 of *Dammara*, (Amboyna); 1 of *Thuja*, (Himalayas?); 2-3 of *Cupressus*, (Himalayas); 1 of *Taxodium*, (Himalayas); and 5 of *Juniperus*, (Himalayas.).

“No order can be named of more universal importance to mankind than this, whether we view it with reference to its timber or its secretions.



Gigantic in size, rapid in growth, noble in aspect, robust in constitution, these trees form a considerable proportion of every wood or plantation in cultivated countries, and of every forest where nature remains in savage state. Their timber, in commerce, is known under the names of Deal, Fir, Pine, and Cedar, and is principally the wood of the Spruce, the Larch, the Scotch Fir, the Weymouth Pine, and the Virginian Cedar; but others are of at least equal, if not greater value: the Norfolk Island Pine is an immense tree, known to botanists as *Araucaria excelsa*; the Kawrie tree of New Zealand, or *Dammara australis*, attains the height of 200 feet, and yields a light compact wood, free from knots. (*Ed. Ph. Journ.* 13. 378.) But they are both surpassed by the stupendous Pines of N. W. America, one of which, *P. Lambertiana*, is reported to attain the height of 230 feet, and the other, *Abies Douglassii*, to equal, or even to exceed it. The latter is probably the most valuable of the whole for its timber." (*Lindl.*) "The terebinthinate secretion, for which the order is chiefly noted, abounds in the bark, but is also found in the wood and in the cones. Turpentine, containing a resina and an essential oil, is known under different names, such as Common, Venice, Strasburg, American, &c., but might also be had in any quantity from the Himalayan Pine forests. Pitch and tar have both been made from Himalayan pines, but remain still unnoticed by the commercial world. As the seeds of several exotic pines are eaten in the countries where they are indigenous, so, in the Himalayas, the seed of one species, *Pinus Gerardiana*, forms one of the principal articles of subsistence in Kunawur, as well as of considerable trade from the hills to the plains." (*Royle. ill. p. 351-53.*)

A. PINÆ, (Abietinæ, Rich.)

PINUS, L. (*Spreng. syst.* 3, p. 763, No. 3143;—*Endl. gen. pl.* 1, p. 260.)

Pine.

1. *longifolia*, Lamb. (*Pin. t.* 21. 8vo.;—*Spreng. syst.* 3, p. 887;—*Roxb. fl. ind.* 3, p. 651;—*Royle ill. t.* 85, f. 1.) L. b Entrance to Nepal, in the Kheree Pass, along the Tonse and Jumna Rivers, and at elevations of 5-6000 feet within the Himalayas. Fl. C. S. In the Upper Provinces, called *Cheer* or *Surul*. Being found at the lowest elevations, and therefore most accessible from the plains, it is often employed as a substitute for English deal. The wood is light, and being full of resinous matter, like that of the Deodar, both are frequently employed in the hills for making torches, as pieces of other species often are in other parts of the world. The Cheer exudes, or yields to incisions, a very fine turpentine. This is chiefly valued by the natives for its resin, and as the latter is only obtained by exposing the turpentine to heat, the oil, the more valuable product, is dissipated to procure the resin; but by adopting a very simple still, the resin was obtained as good as ever for the purposes of the natives, while the oil of turpentine, which distilled over, was pronounced, on being sent to the General Hospital of Calcutta, "to be of very superior quality." (*Royle.*)



2. *Deodara*, Roxb. (*H. B.* p. 69; *Jl. ind.* 3, p. 651;—*Lamb. Pin.* 8vo. t. 52.) देवदार *Debdaroo*. L. 5 Narainhetty, in Nepal, and at Simla, Bhotea pergunnahs of Kemaon. Fl. Aug. to Oct. Sometimes thirty feet in circumference. The wood is particularly valued for its durability, and is therefore much used in the construction of Himalayan houses, as are also the planks of *Abies Pindrow*. Deodar yields a somewhat coarse, very fluid kind of *turpentine*, which is much valued in Upper India as a stimulating application to foul and indolent ulcers. The leaves and small twigs of the Deodar are likewise brought down to the plains, being much used in native medicine. (*Royle*.)
3. *sinensis*, Lamb, (*Loud. Hort. Brit.* p. 387, No. 23.602.—*P. chinensis*, Roxb. *H. B.* p. 69.) 5 China. Introduced into H. C. G. in 1811. Fl. ?

The *Pinus sylvestris*; L.; E. B. 35; t. 2460. Europe. N. Asia;—*P. Pumilis*, Hänke.; (*P. Muglus*, Scop.) Austria. Hungary;—*P. Pinaster*, Ait; France, Italy; and *P. Pinea*, L.; S. Europe, have been introduced into H. C. G. but not succeeded.

CUNNINGHAMIA, R. Br. (*MSS.*;—*Endl. gen. pl.* 1, p. 260; not Schreb.)

1. *sinensis*, Rich. (*Conif.* p. 80;—*B. M.* 54, t. 2743;—*Belis jaculifolia*, Salisb.;—*Spreng. syst.* 3, p. 888.—*Pinus lanceolata*, *Lamb. pin.* p. 52, t. 34.—*P. Abies*, *Lour.* not L. and excl. most syn.) L. 5 China. Introduced into H. C. G. Fl. ?

DAMMARA, Rumph. (*Mirb.*;—*Endl. gen. pl.* 1, p. 261.)

1. *orientalis*, Lamb. (*D. alba*, Rumph. 2, t. 57.—*Pinus Dammara*, *Lamb.*;—Roxb. *H. B.* p. 69.—*Agathis loranthifolia*, Salisb.) 5 Amboyna. Introduced into H. C. G. in 1798, but had not fl. up to 1814.

ARAUCARIA, Juss. (*Endl. gen. pl.* 1, p. 261.)

1. *excelsa*, R. Br. (*in Hort. Kew.*—*Dombeya excelsa*, *Lamb. pin.* t. 39, 40.—*Colymbaea excelsa*, *Spreng. c. p.* p. 315.) L. 5 Tropical N. Holland. N. Caledonia. Introduced in 1840.

2. *Cunninghami*. 5 N. Holland.

B. CUPRESSÆ. (*Cupressinae*, Rich.)

THUJA, Tournef. (*Spreng. syst.* 3, p. 763, No. 3148;—*Endl. gen. pl.* 1, p. 258.) *Arbor Vitæ*.

1. *occidentalis*, L. (*Spreng. syst.* 3, p. 888;—Roxb. *H. B.* p. 69.) American *Arbor Vitæ*. 5 N. America. Siberia. Introduced into H. C. G. in 1809, but had not fl. up to 1814.

2. *orientalis*, L. (*Spreng. l. c.*;—Roxb. *Jl. ind.* 3, p. 653;—*J. Grah. Cat. B. pl.* p. 198;—*Lam. ill. t.* 787, *f.* 2;—*Gärtn. fr.* 2, *p.* 61, *t.* 91, *f.* 2;—*Lour.*) Chinese *Arbor Vitæ*. 5 China. Japan. Nepal? Fl. H. S.; fr. R. S.

3. *sphaeroidea*, Rich. (*Spreng. syst.* 3, p. 889;—*Cupressus thyoides*, L.) 5 N. America. Has not flowered here, though cultivated for many years.



CUPRESSUS, Tournef. (*Spreng. syst.* 3, p. 763, No. 3149;—*Endl. gen. pl.* 1, p. 259.) *Cypress.*

1. *sempervirens*, L. (*Spreng. syst.* 3, p. 889;—*Gärtn. fr.* 2, p. 64, t. 91, f. 5;—*Roxb. fl. ind.* 3, p. 653.) **सूरु** *Surus*. 5 S. Europe. Himalayas. Fl. H. S.; fr. R. S. Leaves and berries thought by the natives to be a cure for every disease.
2. *torulosa*, Lamb. (*Spreng. syst.* 3, p. 889.) 5 Bootan. Neetee. In H. C. G.?
3. *australis*, Pers. (*Syn.* 2, p. 580;—*Spreng. l. c.*) 5 N. Holland. Has been introduced into H. C. G. Fl.?
4. *fastigiata*, Wall. MSS. 5 Native place? Introduced in 1838. Has not fl.

PACHYLEPIS, Brongn. (*Endl. gen. pl.* 1, p. 259; not Less.)

1. *cupressoides*, Brongn. (*Thuja cupressoides* L.;—*Spreng. syst.* 3, p. 889.) 5 C. G. H. Has not fl. here.
2. *juniperoides*, Brongn. (*Cupressus juniperoides*, L.;—*Schubertia capensis*, *Spreng. syst.* 3, p. 890.) 5 C. G. H. Has been cultivated here for more than twelve years, without flowering.

JUNIPERUS, L. (*Spreng. syst.* 3, p. 895, No. 3200;—*Endl. gen. pl.* 1, p. 258.)

1. *communis*, L. (*Spreng. syst.* 3, p. 908;—*Gärtn. fr.* 2, p. 62, t. 91, f. 3;—*Blackw.* t. 187;—*Plenck.* t. 719;—*Roxb. fl. ind.* 3, p. 839.) *Common Juniper*. 5 Europe. Middle Asia. Neetee Pass. Kunawar. China. Fl. C. S. *Juniper berries*, known to secrete sugar, as well as an essential oil, have long been noted for their diuretic properties, but are as famous for their employment in the manufacture of gin. They were formerly much employed in Europe, and at the present day may be bought in Indian bazars under the names of *ubhal* and *hooper*, being considered diuretic and emenagogue. They are now brought from the Himalayas, but were formerly from Kabul. (*Royle.*)
2. *chinensis*, L. (*Spreng. syst.* 3, p. 909;—*Roxb. fl. ind.* 3, p. 838.) 5 China. Fl. C. S.
3. *aquatica*, Roxb. (*l. c.*) 5 Rice lands near Canton, in China. Was introduced into H. C. G. in 1812. Fl.?
4. *cernua*, Roxb. (*fl. ind.* 3, p. 839.) 5 China. Has not fl. here.
5. *dimorpha*, Roxb. (*l. c.*) 5 China. Fl. C. S.
6. *cæsia*, Roxb. (*H. B.* p. 73.) China. Introduced into H. C. G. in 1812. Fl.?
7. *patens*, Roxb. (*H. B.* p. 73.) China. Introduced into H. C. G. in 1812. Fl.?
8. *bermudiana*, L. (*Spreng. syst.* 3, p. 909.) *Bermudas Cedar*. 5 Bermudas Islands. Cultivated here for many years, without flowering.
9. *barbadensis*, L. (*Spreng. l. c.*) *Barbadoes Cedar*. 5 Barbadoes. Cultivated here for many years, without flowering.



10. *Sabina*, L. (*Spreng. syst. 3*, p. 910.) *Common Savin*. 5 S. Europe. Siberia. Has been introduced into H. C. G. Fl.?

- * *Pinus Massoniana*, Lamb. 5 China.—*P. occidentalis*, Swz. L. 5 W. Indies.—*Catlitris cypresiformis*, Vent. 5 N. Holland.—*Taxodium nuciferum*, Brongn.—(*Taxus nucifera*, Kämpf.; Wall. tent. fl. nep. t. 44.) 5 Japan. Nepal.—*Cypressus glauca*, Lam. 5 Goa Cedar. Gardens in Bombay, and the Deccan.—*Thuja articulata*, Vahl. 5 Barbary.

ORDER CCXXIII.—TAXACÆ, Lindl. Nat. Syst. p. 316.

THE YEW TRIBE.

Trees or shrubs, by Lindl. referred to 5 genera. Of these, Spreng. syst. assigns 4 to New Holland, and the South Sea Islands; 3 to China and Japan; 4 to S. Africa; 3 to Peru; 1 to N. America, and 1 to Europe. In the East Indies have been found 7-8 species, viz. 2-3 of *Taxus*, (Himalayas); 6 of *Podocarpus*, (Nepal, Khassya Mountains, Penang, Amboyna); and 1 of *Dacrydium*, (Penang.) The seeds of *Salisburia adiantifolia*, Sm. and *Podocarpus nerifolius*, Lamb. are eatable.

TAXUS, Tournef. (*Spreng. syst. 3*, p. 13, No. 2475;—*Endl. gen. pl. 1*, p. 261.) *Yew tree*.

1. *buccata*, L. (*Spreng. syst. 3*, p. 148;—*E. B. 11*, t. 746.) *Common Yew tree*. 5 Europe. North and Middle Asia. Nepal. Kemaon. Introduced into H. C. G. Fl.?
2. *latifolia*, Thunb. (*Spreng. l. c.*) 5 C. G. H. Introduced into H. C. G. Fl.?

PODOCARPUS, L'Herit. (*Spreng. syst. 3*, p. 763, No. 3150;—*Endl. gen. pl. 1*, p. 262.)

1. *polystachys*, R. Br. (*Horsf. pl. jav. rar.* 1, p. 40.—*P. macrophylla*, Wall. *Cat.* 6052. *A*; not Lamb.) 5 Japan. China. Nepal. Khassya Mountains. Singapore. Malacca. Fl. C. S.
2. *elongatus*, L'Herit. (*Spreng. l. c.*—*Taxus elongata*, Thunb.;—*Roxb. H. B.* p. 73.) 5 C. G. H. Has been cultivated here for many years. Fl.?
3. *chinensis*, Swt. (*Loud. Hort. Brit.* p. 388, No. 23648.—*Taxus chinensis*, Roxb. *H. B.* p. 73.) 5 China. Fl. C. S.
4. *cupressinus*, R. Br. (*Horsf. pl. as. rar.* 1, t. 10. *P. Horsfieldii*, Wall.) 5 Penang. Java.

DACRYDIUM, Soland. (*Endl. gen. pl. 1*, p. 262.)

1. *elatum*, Wall. (*Cat.*—*Juniperus elata*, Roxb. *J. Ind.* 3, p. 838.) 5 Penang. A tree of very slow growth, cultivated in the garden here for many years, without flowering.



SALISBURIA, Sm. (*Spreng. syst.* 3, p. 763, No. 3128;—*Endl. gen. pl.* 1, p. 262.)

I. *adiantifolia*, Sm. (*Spreng. syst.* 3, p. 865;—*Roxb. H. B.* p. 68.—*Ginkgo biloba*, L.) 5 Japan. Was introduced into H. C. G. in 1806-7, but had not fl. up to 1814. Seeds large and eatable.

* *Podocarpus nerifolius*, Lamb. (*Lignum Emanum*, Rumph. 3, t. 26.) 5 Amboyna.—*P. latifolius*, Wall.; pl. as. rar. I, t. 26. 5 Khassa Mountains.—*P. taxifolius*, Kth. 5 N. Granada, Peru.—*P. verticillatus*, Hortul. 5 Japan.

ORDER CCXXIV.—EQUISETACEÆ, DC.—*Lindl. Nat. Syst.* p. 317.

THE HORSE-TAIL TRIBE.

Leafless, branched herbs, found in ditches and rivers, comprehended under one genus. Of these, *Spreng. syst.* assigns 13 species to Europe, nearly all of which are likewise common to other parts of the world; 3 to S. America and the W. Indies, and 1 to N. America. His species require, however, to be thoroughly re-examined. In the E. Indies, according to Royle, have been found 3 species, natives of Nepal, Kunawur, and Silhet. One of these is also common in Bengal, Dindygul, and Burma.

"In economical purposes the *Equisetum* are found highly useful, for polishing furniture and household utensils; a property which is due to the presence of a great quantity of silex in the cuticle. According to the observations of John of Berlin, they contain full 13 per cent. of siliceous earth. (*Ed. P. J.* 2. 394.) The quantity of silex contained in the cuticle of *Equisetum hyemale*, L. (*E. B.* 13, t. 915,) is so great, that Sivright succeeded in removing the vegetable matter and retaining the form. (*Grev. fl. edin.* 214.) Brewster observed these siliceous particles beautifully arranged in two lines parallel to the axes of the stem. From these observations, it has been concluded, that the crystalline portions of silex and other earths found in vegetable tissues, are integral parts of the plants themselves." (*Lindl.*)

Equisetum, L. (*Spreng. syst.* 4, p. 4, No. 3215;—*Endl. gen. pl.* 1, p. 58.) *Horse-tail.*

1. *debile*, Roxb. (*H. B.* p. 75;—*Wall. Cat.*—*E. pallens*, *Wall. Cat.*) 2. Dindygul. Burma. Bengal, (Serampore.) Silhet. Northern Doab. Deyra-Dhoon. Fl. R. S.

* *Equisetum diffusum*, D. Don. (*E. scoparium*, *Wall. Cat.*) Nepal.—*E. Inglesii*, Royle. Kunawar.—*E. bogotense*, Kth. New Granada.—*E. giganteum*, *Spreng.* W. Indies.



CLASS 3D.

ENDOGENÆ, DC.

Lindl. Nat. Syst. p. 319.

ORDER CCXXV.—ZINGIBERACEÆ, Rich.—Lindl. Nat. Syst. p. 322.

(Scitamineæ, R. Br.)

THE GINGER TRIBE.

Aromatic herbaceous plants by Lindl. referred to 25 genera. Of these, Spreng. syst. and Loud. Hort. Brit. (new edit.) enumerate 21 species for S. America and the W. Indies; 7 for Guinea; 5 for China; 2 for Japan; 1 for Madagascar, 1 for Mauritius; and 1 for New Holland. In the E. Indies, excluding Java, which our materials do not touch, have been discovered about 156 species, viz. 14 of *Zingiber*, (4 from the Himalayas and Khassya Mountains); 32 of *Curcuma*, (1 from the Khassya Mountains); 1 of *Dischisma*; 9 of *Kämpferia*; 14 of *Anomum*, (4 from the Khassya and Morung Mountains); 4 of *Elettaria*, (1 from the Khassya Mountains); 28 of *Hedychium*, (about 22 from the Himalayas and Khassya Mountains); 17 of *Alpinia*, (3 extending to the Khassya Mountains); 2 of *Hellenia*, (according to Spreng.); 5 of *Gastrochilus*, (2-3 from Assam); 3 of *Monophorus*, (2 from the Khassya Mountains); 1 of *Galanga*; 3 of *Costus*, (1 from the Himalayas); 14 of *Globba*, (4 from the Himalayas) and Khassya Mountains); 2 of *Hornstedtia*, (Retz.); and 7 of *Roscoea*, (all from the Himalayas.) The rest of the Indian species, whose native places are not mentioned, belong to Bengal, the two Peninsulas of India, Ceylon, the Sunda and Molucca Islands. Properties under the species.

A. ZINGIBERÆ.

(Zingibera, Bl.; Endl. gen. pl. I, p. 222.)

ZINGIBER, Gärtn. (Spreng. syst. I, p. 4, No. 12;—Endl. gen. pl. I, p. 222.) *Ginger*.

1. *officinale*, Roscoe. (Scit. ;—Spreng. o. c. p. 12;—Roxb. fl. ind. I, p. 47; ed. Carey, I, p. 46;—J. Grah. Cat. B. pl. p. 207.—*Amomum Zingiber*, L.;—Jacq. hort. vind. I, t. 75;—Lour.;—Rheed. 11, t. 12;—Rumph. 5, t. 66, f. 1.) আর্দক *Audruk*. আদা *Ada*. *Commom Ginger*. 2. Universally cultivated over all the warmer parts of Asia, but where indigenous, is not known. Fl. small, whitish-purple, R. S. but very rare. Seeds seldom perfected on account of the great increase of the roots. (*Roxb. Sm.*) Extensively cultivated in the Himalayas, at the elevations even of 4,5000 feet in moist situations; in Bengal, the Bombay Presidency, &c. The root is dug up in Oct.



SL

- and Nov. in other situations in Feb. and March ; the outer rind being rubbed off by various processes, the root is dried in the sun, and then called শুন্ধি Soontho.
2. *Zerumbet*, Roscoe. (*Scit.* ;—*Sm. exot. bot.* 2, t. 112 ;—*Spreng. syst.* 1, p. 12 ;—*Roxb. fl. ind.* 1, p. 48 ; *ed. Carey*, 1, p. 47 ;—*J. Grah. Cat. B. pl.* p. 207.—*Zingiber spuriuim*, *Kön. in Retz. obs.* 3, p. 60.—*Amomum Zerumbet*, *Willd.* ;—*Jacq. hort. vind.* 3, t. 54.—*A. sylvestre*, *Lam.*—*A. spuriuim*, *Gmel.*—*Rheed.* 11, t. 13 ;—*Rumph.* 5, t. 64, f. 1.) ৰচ *Buch.* মহুবৰী ৰচ *Muhubberee-buch.* ২। Moluccas. Cochin China. Both Peninsulas of India. Bengal, (Calcutta, Serampore.) Fl. middle-sized, pale sulphur-coloured, R. S. ; fr. Dec. and Nov. In the Moluccas the young leaves and shoots are used as greens. (*Rumph.*) Root employed by the natives as a stimulant stomachic. (*Royle.*)
3. *Cassumunar*, Roxb. (*fl. ind.* 1, p. 49 ; *ed. Carey*, 1, p. 48 ;—*Roscoe Scit.* ;—*Spreng. l. c.* ;—*B. M.* 35, t. 1426 ;—*J. Grah. Cat. B. pl.* p. 207.—*Zingiber purpureum*, *Roscoe in Trans. Linn. Soc.* 8, p. 348.—*Z. Cliffordii*, *Andr. B. Repos.* t. 558.—*Cassumunar*, *Colla.*) ৰচ
আদা *Bun-adā.* ২। Coromandel. The Concans. Behar. Bengal. (Se-
rampore.) Silhet. Fl. large, uniformly pale sulphur-coloured, July
and Aug. ; fr. Nov. and Dec. Has a strong camphoraceous smell,
and yields the true *Cassumunar* of the shops, which is employed as a
stimulant stomachic. (*Roxb.*)
4. *ligulatum*, Roxb. (*fl. ind.* 1, p. 51 ; *ed. Carey*, 1, p. 50 ; *Corom.* 3, t. 250 ;—*Spreng. syst.* 1, p. 12.) ২। Nathpur. Nepal. Fl. reddish,
pale yellow, R. S. ; fr. Nov. and Dec.
5. *roseum*, Roscoe. (*Trans. Linn. Soc.* 8, p. 348 ;—*Roxb. fl. ind.* 1, p.
50 ; *ed. Carey*, 1, p. 49 ;—*Spreng. l. c.*—*Amomum roseum*, *Roxb.*
Corom. pl. 2, t. 12.) ২। Circars. Fl. red and yellow, R. S. ; fr. O.
6. *pardocheilum*, Wall. Burma.
7. *rubens*, Roxb. (*fl. ind.* 1, p. 53 ; *ed. Carey*, 1, p. 51 ;—*Roscoe Scit.* ;
—*Spreng. l. c.*) ২। Rungpore District. Fl. red and yellow, R. S. ;
fr. O.
8. *squarrosum*, Roxb. (*fl. ind.* 1, p. 54 ; *ed. Carey*, 1, p. 52 ;—*Spreng.*
l. c.) ২। Rangoon. Prome. Fl. largish, pink-coloured, with the inner
lip of the corol speckled with purple-red and yellow, R. S. ; fr. O.
9. *panduratum*, Roxb. (*fl. ind.* 1, p. 55 ; *ed. Carey*, 1, p. 53 ;—*Spreng.*
l. c.) ২। Rangoon. Tavoy. Fl. smallish, red, pale-yellow, July ; fr.
Nov. and Dec.
10. *chrysanthum*, Roscoe. (*Scit.*—*Spreng. syst. c. p. p.* 7.) ২। Nepal.
Fl. gold-coloured, R. S. ; fr. O.
11. *barbatum*, Wall. (*pl. as rar.* 1, t. 55.) ২। Mountains round Prome.
Fl. largish, pale rose-coloured, Aug. and Sept. ; fr. O.
12. *capitatum*, Roxb. (*fl. ind.* 1, p. 55 ; *ed. Carey*, 1, p. 54 ;—*Roscoe Scit.*—*Spreng. syst.* 1, p. 13.) জঙ্গলী আড়ক *Junglee-adruk.* ২। Raj-



mal. Khassya Mountains. Fl. large, pure-yellow, R. S.; fr. Sept. and Oct. Bullocks sent into the jungles to graze in the rainy season in Northern India, have a portion of the roots of this plant given to them. (Royle.)

13. *elatum*, Roxb. (*fl. ind.* 1, p. 57; *ed. Carey*, 1, p. 56;—*Roscoe Scit.*;—*Spreng. l. c.*) 2. Interior of Bengal. Fl. bright-yellow, July and Aug.; fr. Sept. and Oct.

CURCUMA, L. (*Spreng. syst.* 1, p. 4, No. 10;—*Endl. gen. pl.* 1, p. 223.) *Turmeric.*

1. *aruginosa*, Roxb. (*fl. ind.* 1, p. 27; *ed. Carey*, 1, p. 27;—*Roscoe Scit.*;—*Spreng. l. c.*) 2. Burma. Fl. crimson, tinged with yellow, the tuft bright rose-coloured, May; fr. 0.

2. *angustifolia*, Roxb. (*fl. ind.* 1, p. 31; *ed. Carey*, 1, p. 31;—*Spreng. l. c.*) *Tikur* of the Hindoos. 2. Banks of the Sona, at Nagpore. Fl. large, bright-yellow, with a purple tuft, expanding at sunrise, and decaying at sunset of the same day, July; fr. Aug. and Sept. (See under No. 8.)

3. *aromatica*, Salisb. (*Parad. lond.* 2, part 1, f. 96;—*Roscoe Scit.*;—*Spreng. l. c.*—*Curcuma Zedoaria*, Roxb. *fl. ind.* 1, p. 23; *ed. Carey*, 1, p. 23;—*J. Grah. Cat. B. pl. p. 209.*) *जङ्गली इन्दी* *Junglee-huldee.* बुन्ह *Bun-huldee.* *Wild Turmeric.* 2. Presidency of Bombay. Throughout the Concans. Kennery forests. Parell Hill, &c. Bengal, (Calcutta, Serampore.) China, and various other parts of Asia, and the Asiatic Islands. Fl. largish, aromatic, pale rose-coloured, with a yellow tinge along the middle of the lip, and the tuft large and rosy, H. S.; fr. June. The roots (round Zedoary of the shops) are, fresh as well as dry, of a pale-yellow colour, and possess at all times an agreeable fragrant smell, and a warm, bitterish, aromatic taste. The natives use them as a perfume, and also medicinally. (Roxb.)

4. *attenuata*, Wall. (*Cat.*—*J. Grah. Cat. B. pl. p. 210.*) 2. Banks of the Irawaddi. This species, nearly allied to *C. angustifolia*, introduced here in 1827, (*Carey.*) we have not seen.

5. *cæsia*, Roxb. (*fl. ind.* 1, p. 26; *ed. Carey*, 1, p. 26;—*Spreng. l. c.*—*Tommon-itam*, *Rumph.* 5, p. 169.) *कोब इन्दी* *Kalo-huldee.* 2. Molluccas. Bengal, (Serampore.) Fl. largish, red-yellow, with a crimsonish tuft, May; fr. 0.

6. *comosa*, Roxb. (*fl. ind.* 1, p. 29; *ed. Carey*, 1, p. 29;—*Roscoe Scit.*;—*Spreng. l. c.*—*C. latifolia*, *Roscoe Scit.*?) 2. Burma. Fl. yellow-rose-coloured, with a bright rosy red tuft, May; fr. 0.

7. *elata*, Roxb. (*fl. ind.* 1, p. 25; *ed. Carey*, 1, p. 25;—*Roscoe Scit.*;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p. 209.*) 2. Burma. Fl. large, white, tinged with rose and yellow, the tuft white at base, purple above, March and April; fr. 0.

8. *ferruginea*, Roxb. (*fl. ind.* 1, p. 27; *ed. Carey*, 1, p. 27;—*Roscoe Scit.*;—*Spreng. l. c.*—*C. amarissima*, *Roscoe Scit.*) Bengal. Fl.



- large, red deep-yellow, with the tuft bright crimson, April and May; fr. 0.
9. *latifolia*, Roscoe. (*Scit.*; — *Spreng. syst. c. p. p. 7.*) 2. Native place in India unknown. Fl. greenish-yellow, with a crimson tuft, R. S.; fr. 0. Near *C. zanthorrhiza*.
10. *leucorrhiza*, Roxb. (*fl. ind.* 1, p. 30; *ed. Carey*, 1, p. 30; — *Roscoe Scit.*; — *Spreng. syst. l. c.* p. 10.) 2. Forests of Behar. Fl. rosy-yellow, with a pale rosy tuft, R. S.; fr. 0. *Tikur*, mentioned under No. 8 is made of the roots of this plant, at Bhaugulpore, by rubbing them on a stone or beating them in a mortar; after which they are rubbed in water with the hand and strained through a cloth, the fœcula having subsided, the water is poured off, and the *Tikur* dried for use. (*Roxb.*)
11. *ornata*, Wall. Pegu. Habit of *C. comosa* and equally beautiful. In H. C. G. Unknown to us.
12. *rubescens*, Roxb. (*fl. ind.* 1, p. 28; *ed. Carey*, 1, p. 28; — *Roscoe Scit.*; — *Spreng. l. c.*) 2. Bengal. Fl. small, bright-yellow-purple, fragrant, with pale-rose-coloured tuft, April and May; fr. 0. The pendulous tubers of this species, as well as of *C. leucorrhiza*, *angustifolia* and others, yield an excellent fœcula or starch, which forms a good substitute for the West Indian Arrowroot, a product of *Marcantia arundinacea*, L. It is sold in the bazars of Benares, Chittagong, and Travancore, and is eaten by the natives. A very good kind, called *Tikur*, is also made at Patna and Bhaugulpore from the tubers of *Batatas edule*, Choisy. (*Roxb. Royle.*)
13. *xanthorrhiza*, Roxb. (*fl. ind.* 1, p. 25; *ed. Carey*, 1, p. 25; — *Spreng. l. c.*) 2. Amboyna. Fl. red, with the tuft large, purple or crimson, April and May; fr. 0.
14. *Zedoaria*, Roscoe. (*Scit.*; — *Spreng. o. c. p. 10*; — *B. M.* 37, t. 1546, excl. syn.—not Roxb.—*Curcuma Zerumbet*, Roxb. *fl. ind.* 1, p. 20; *ed. Carey*, 1, p. 20; *Corom.* 3, t. 201; — *J. Grah. Cat. B. pl.* p. 209, excl. syn. Wild. Pers. Lam. and Ainslie.—*Amomum Zerumbet*, Kön.; — *Retz. obs.* 3, p. 55; not Wild.—*Rheed.* 11, t. 7; — *Rumph.* 5, t. 68.) शृंगी *Shutee*. शुक्खुरा *Kakhura*. 2. Chittagong. Fl. largish, deep-yellow, with a large white or pale straw-coloured, at the top bright crimson tuft, April; fr. 0. According to Banks, Roxburgh and Roscoe this plant yields the *Long Zedoary* of the shops. The dry root, powdered and mixed with the powdered wood of *Cæsalpinia Sappan*, L. (*Bukkum*) makes the red powder, called *Abeer* or *Shagoo*, which is copiously thrown about by the natives during the *Hooli*, or Hindoo holidays in the month of March. The root is also used medicinally amongst the natives. (*Roxb.*)
15. *Amada*, Roxb. (*fl. ind.* 1, p. 33; *ed. Carey*, 1, p. 33; — *Roscoe Scit.*; — *Spreng. l. c.*; — *J. Grah. Cat. B. pl.* p. 209.—*Common munga*, *Rumph.* 5, p. 169,) आमदा *Amoda*. 2. Mango-ginger. 2. Guzerat. The Concans.



Bengal. (Serampore.) Fl. smallish, white or pale-yellow, with a deeper yellow line running down the middle of the lip. The tuft, pale purple or rose-coloured, latter part of R. S.; fr. 0. Root used medicinally by the Natives.

16. *cordata*, Wall. (*pl. as. rar.* 1, *t.* 10. not Roxb.) 2. Mountains near the Irawaddi. Fl. large, yellow, with violet tuft, July and Aug.; fr. 0. Allied to *C. viridiflora*.
17. *grandiflora*, Wall. 2. "Native place unknown. Like No. 15." (*Carey's MSS.*) This plant we have not seen.
18. *longa*, Roxb. (*fl. ind.* 1, *p.* 32; *ed. Carey*, 1, *p.* 32;—*Spreng. l. c.*;—*B. Reg.* 11, *t.* 886;—*J. Grah. Cat. B. pl. p.* 209.—*Amomum Curcumoides*, *Gmel.*;—*Jacq. hort. vind.* 3, *t.* 4;—*Rheed.* 11, *t.* 11;—*Rumph.* 5, *t.* 67.) इल्दी *Huldee*. Long-rooted Turmeric. Common Turmeric. 2. Cultivated all over India, where it is much used for culinary purposes. The Javanese make an ointment with the pounded roots, and rub it all over their bodies, as a preservation against cutaneous diseases. (*Rumph.*) The Hindoos use it as a favorite application to recent wounds and bruises, leech-bites, &c. Fl. largish, whitish, with a faint tinge of yellowish, the tuft greenish-whitish, R. S.; fr. 0.
19. *montana*, Roxb. (*Corom.* 2, *t.* 151; *fl. ind.* 1, *p.* 35; *ed. Carey*, 1, *p.* 34.—*Spreng. l. c.*) 2. Circar Mountains. Fl. green, with a rose-coloured tuft; July and Aug.; fr. 0.
20. *parviflora*, Wall. (*pl. as. rar.* 1, *t.* 57;—*J. Grah. Cat. B. pl. p.* 210.) 2. Forests on the banks of the Irawaddi, near Prome. Fl. small, white, with a violet lip, and a small, white tuft, Feb.; fr. 0.
21. *petiolata*, Roxb. (*fl. ind.* 1, *p.* 37; *ed. Carey*, 1, *p.* 36;—*Roscoe Scit.*;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p.* 210.—*C. cordifolia*, Roxb. *H. B. p.* 2; not *cordata*, Wall.) 2. Pegu. Fl. largish, deep-yellow, fragrant, with a deep purple or lilac-coloured tuft, August; fr. 0.
22. *plicata*, Wall. 2. Prome. Rangoon. Fl. largish, white, with a green tuft, R. S.; fr. 0. "Like *C. Amada*." (*Carey's MSS.*)
23. *reclinata*, Roxb. (*fl. ind.* 1, *p.* 36;—*ed. Carey*, 1, *p.* 35;—*Spreng. l. c.*) आम्बो हुल्दी *Ambo-huldee*. 2. Hindooosthan. Fl. small, dull dark-pink, the lower segment of the inner limb tinged with yellow, and the tuft deeply coloured, R. S.; fr. 0.
24. *strobilina*, Wall. (*Cat.*—*C. strobilina*, *Wall. MSS.* in 1826;—*J. Grah. Cat. B. pl. p.* 210.) 2. Burma. Fl. unknown to me.
25. *viridiflora*, Roxb. (*fl. ind.* 1, *p.* 34; *ed. Carey*, 1, *p.* 34;—*Spreng. syst.* 1, *p.* 11;—*J. Grah. Cat. B. pl. p.* 210.—*Tammon giring*. *Rumph.* 5, *p.* 169.) 2. Sumatra. Fl. small, very pale-yellow, with a green tuft, July and Aug.; fr. 0.
26. *Roscoevana*, Wall. (*pl. as. rar.* 1, *t.* 9.—*C. coccinea*, *Wall. MSS.* in 1826, according to *Carey's MSS.*) 2. Pegu. Tenasserim. Fl. largish, pale-yellow, with a large, bright scarlet tuft, R. S.; fr. 0.



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DISCHEMA, (Hitchimia, *Wall. in Trans. med. and phys. soc. Calcutta*, vol. 7, part 2, 1835; not Hitchenia (misprinted Hutchinia,) Wight, and Arn. contrib. ind. bot. London, 1834.)

1. *glaucum*, (Hitchenia glauca, *Wall. o. c. p. 216*.—*Cureuma glauco-phylla*, *Wall. Cat.*;—*J. Grah. Cat. B. pl. p. 210.*) 2. Hills on the banks of the Irawaddi, near Prome. Fl. large, white, and fr. from June to Sept.

KÄMPFERIA, L. (*Spreng. syst. 1, p. 3*;—*Endl. gen. pl. 1, p. 223*.)

1. *Galanga*, L. (*Spreng. o. c. p. 10*;—*Roscoe Scit.*;—*B. M. 22, t. 850*;—*Roxb. fl. ind. 1, p. 15*; ed. *Carey*, 1, p. 14;—*J. Grah. Cat. B. pl. p. 208*.—*Alepinia sessilis*, *Kön.*;—*Retz. obs. 3, p. 62*.—*Rheed. 11, t. 41*;—*Rumph. 5, t. 69, f. 2*) चुंद्र मूला Chandro-moola. 2. Moluccas. Cochin China. Both Peninsulas of India. Bengal. Much cultivated in gardens. Fl. large, white, the lip at base marked with two dark-purple spots separated by a broad sulphur-coloured line, R. S.; fr. C. S. Roots fragrant, of a somewhat warm, bitterish, aromatic taste. The natives use them both as a perfume, and medicinally. (*Roxb.*)
2. *rotunda*, L. (*Spreng. o. c. p. 9*;—*Roscoe Scit.*;—*B. M. 23, t. 920*.—*Roxb. fl. ind. 1, p. 16*; ed. *Carey*, 1, p. 15;—*J. Grah. Cat. B. pl. p. 208*.—*K. longa*, *Redout. pl. lit. t. 49*;—*Jacq. hort. schönbr. 3, t. 317*;—*Rheed. 11, t. 9*) ब्लौम चंपा Bhooim-champa. 2. Native place uncertain. Commonly cultivated in gardens on account of the beauty and fragrance of its large purplish-white flowers, which appear in March and April; fr. 0. Roots warmly aromatic.
3. *Roxburghiana*, Schult. (*suppl. mant. 1, p. 33*.)
4. *angustifolia*, Roxb. (*fl. ind. 1, p. 17*; ed. *Carey*, 1, p. 16;—*Roscoe Scit.*;—*Jacq.*—*Roxb.*—*Redout. lit. pl. 7, t. 389*;—*Spreng. syst. 1, p. 10.*) 2. Bengal. मुदन निर्बिशि Mudun-nirbishi. Hind. Kanjon-boora. Fl. large, white, faintly purple tinged towards the apex, with the lip lilac, and at the middle dark-purple, June and July; fr. 0. Root used as a medicine for cattle by the Bengalees.
5. *pandurata*, Roxb. (*fl. ind. 1, p. 18*; ed. *Carey*, 1, p. 17;—*Spreng. l. c.*;—*Roscoe Scit.*;—*B. Reg. 2, t. 174*;—*B. Cab. t. 587*;—*J. Grah. Cat. B. pl. p. 208*.—*K. ovata*, *Roscoe in Linn. soc. trans. 8, p. 351, and 11, p. 274*.—*Curcuma rotunda*, L.—*Rheed. 11, t. 10*.—*Rumph. 5, t. 69, f. 1.*) 2. Java. Sumatra. The Concans. Guzerat. Moluccas. Fl. large, whitish-pale rose-coloured, with the lip striated in the centre, and deep purple round the margin, August; fr. 0.
6. *ovalifolia*, Roxb. (*fl. ind. 1, p. 19*; ed. *Carey*, 1, p. 18; *Corom. 3, t. 278*;—*Roscoe Scit.*;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p. 208.*) 2. Peninsula of Malacca. Fl. large, white, with the lip purple its claw purple streaked, on a yellow ground, July; fr. 0.
7. *marginata*, Carey. (*Roscoe Scit.*;—*Spreng. syst. c. p. p. 7.*) 2. Burma. Fl. large, white light-purplish, with the lip bright purple, and at the base darker shaded, June and July; fr. 0.



8. *candida*, Wall. (*pl. as. rārī*, I, t. 56;—*J. Grah. Cat. B.* pl. p. 208.)
9. Martaban, near Amherst and Moulmein. Fl. large, fragrant, white, with the middle of the limb yellowish. Root not aromatic.
Fl. the largest of the genus. (*Wall.*) Has been introduced into H. C. G.
9. *Roscooeana*, Wall. (*Cat.—B. Reg.* 14, t. 1212.) 9. Mountains near Ava.
Fl. large, inodorous, white, towards the base yellowish, R. S.; fr. O.
10. *parviflora*, Wall. (*Cat.*) 9. Banks of the Attran River. Fl. small, purplish-white, R. S.; fr. O.

* *Zingiber Missionis*, Wall. 9. Travancore.—*Z. Mjoga*, Roscoe. 9. Japan.—*Z. dubium*, Afzel. 9. Sierra Leona.—*C. longifolia*, Roxb. 9. Hb. Heyne.—*C. caulinia*, J. Grah. 9. Mahabaleshwur.—*C. Grahamiana*, (*C. pseudo-montana*, J. Grah.) 9. Salsette.

B. AMOMAE.

(Amoma, *Bl.*;—*Endl. gen. pl.* 1, p. 223.)

AMOMUM, L. (*Spreng. syst.* 1, p. 4, No. 11;—*Endl. gen. pl. l. c.*)

1. *Cardamorum*, L. (*Spreng. syst.* 1, p. 11;—*Roxb. fl. ind.* 1, p. 37; ed. *Carey*, 1, p. 37; *Corom.* 3, t. 227;—*Cardamomum minus*, *Rumph.* 5, t. 65, f. 1.) 9. Sumatra. Moluccas. Attran teak forests. Fl. middle-sized, pellucid, the middle lobe of the lip yellow, with two rosy lines leading up to it from the mouth of the tube. In H. C. G. fl. April. (*Roxb.*) Seeds agreeably aromatic, and by the Malays used for the true Malabar Cardamum. (*Roxb.*)
2. *angustifolium*, Sonner. (*It.* 2, t. 137;—*Lam. encycl.* 1, p. 132;—*Spreng. l. c.*;—*Roxb. fl. ind.* 1, p. 39; ed. *Carey*, 1, p. 38.) 9. Madagascar. Fl. pretty large, spicy fragrant, blood-red yellow. In H. C. G. fl. at various times of the year. Every part of the plant, when bruised or wounded, diffuses a strong, but pleasant aromatic smell. (*Roxb.*)
3. *aculeatum*, Roxb. (*fl. ind.* 1, p. 40; ed. *Carey*, 1, p. 39;—*Spreng. l. c.*;—*Roscoe Scit.*) 9. Malay Archipelago. Fl. deep orange, the lip marked with crimson spots down the middle on the inside. April and May; fr. Oct. and Nov.
4. *maximum*, Roxb. (*fl. ind.* 1, p. 41; ed. *Carey*, 1, p. 41;—*Spreng. l. c.*;—*B. Reg.* 11, t. 929.) 9. Malay Islands. In H. C. G. fl. H. S.; fr. R. S. Seeds of a warm, pungent, aromatic taste, not unlike that of Cardamuns, but by no means so grateful. (*Roxb.*)
5. *dealbatum*, Roxb. (*fl. ind.* 1, p. 43; ed. *Carey*, 1, p. 42;—*Spreng. l. c.*) 9. Chittagong. Silhet. Fl. large, white, with the middle of the lip yellow, March and April; fr. Sept. and Oct. Seeds insipid. (*Roxb.*)
6. *subulatum*, Roxb. (*fl. ind.* 1, p. 44; ed. *Carey*, 1, p. 43;—*Corom.* 3, t. 277;—*Spreng. l. c.*) बंगली शाटी *Bungali-elachee*. 9. Khassyia Mountains. Fl. large, yellow, March and April; fr. R. S.



SL

7. *aromaticum*, Roxb. (*fl. ind.* 1, p. 45; *ed. Carey*, 1, p. 44;—*Spreng. l. c.*)
ମୋରୁଙ୍ଗ ଏଲାଚୀ *Morung-elachee*. Morung Mountains. Fl. middle-sized, pale-yellow, the lip tinged with red down the middle, H. S.; fr. Sept. Seeds spicy, by the natives used for medicinal, and other purposes. (*Roxb.*)
8. *sericeum*, Roxb. (*fl. ind.* 1, p. 46; *ed. Carey*, 1, p. 45;—*Spreng. l. c.*)
କହାସ୍ୟ ପାତାଳ ଏଲାଚୀ *Khassy Mountains*. Fl. large, white, the centre of the lip variegated with pink veins on a yellow ground, R. S. (*Roxb.*)
9. *corynostachyum*, Wall. (*pl. as. rar.* 1, t. 58.) ୨. Teak Forests along the rivers of Martaban. Fl. large, white, with the centre of the lip yellow, R. S. Introduced in the garden here in 1810. (*Carey*.)

ELETTARIA, Rheed. (*Endl. gen. pl.* 1, p. 223.)

1. *Cardamomum*, White and Maton. (*Linn. soc. trans.* 10, p. 254.—*Alpinia Cardamomum*, Roxb. *fl. ind.* 1, p. 70; *ed. Carey*, 1, p. 68; *Corom. pl.* 3, t. 226;—*J. Grah. Cat. B. pl. p.* 206;—*Spreng. syst.* 1, p. 14.—*Amomum repens*, seu *Cardamomum*, *Wood*. 2, p. 365, t. 131.—*A. repens*, *Roscoe*;—*Willd.*;—*Sonner.*—*A. racemosum*, *Lam.*—*Cardamomum minus*, *Pharm. lond. and edin.*—*Cardamomum*, *Buch. journ. Mysore*, 2, p. 336, 510; 538, and 3, p. 225.—*Elettaria*, *Rheed.* 11, t. 4, 5.) ଏଲାଚୀ
Elatch. ଏଲାଚୀ *Elachee*. ୨. Hilly parts of Malabar and Travancore. Introduced at Poway in Salsette. Cultivated about Soonda Soopa, south of Dharwar. Fl. large, pale greenish-white, with the lip marked chiefly in the centre with purple-violet stripes. Was introduced into H. C. G. in 1809, but had not fl. up to 1814. Produces the well-known *Cardamums*.
2. *punicea*, Schult. (*Mantissa*.—*Alpinia punicea*, Roxb. *fl. ind.* 1, p. 73; *ed. Carey*, 1, p. 71;—*Spreng. syst.* 1, p. 15.) ୨. Sumatra. Fl. large, crimson, March and April; fr. 0.
3. *costata*, (E? *Cardamomum medium*, Schult. *Mant.*—*Alpinia costata*, Roxb. *Corom.* 3, t. 252.—A. *Cardamomum medium*, Roxb. *fl. ind.* 1, p. 74; *ed. Carey*, 1, p. 72.—*A. media*, *Spreng. syst.* 1, p. 14.) ୨. Khassy Mountains. Fl. large, red, fragrant, June; fr. Sept.
4. *linguiformis*, Schult. (*Mant.*—*Alpinia linguiformis*, Roxb. *Corom.* 3, t. 2076; *fl. ind.* 1, p. 75; *ed. Carey*, 1, p. 73;—*Spreng. syst.* 1, p. 15.) ୨. Interior of Bengal. Fl. red, with the lip yellow, and down the centre a little red, R. S.; fr. 0.

HEDYCHIUM, Kön. (*Spreng. syst.* 1, p. 3, No. 7;—*Endl. gen. pl.* 1, p. 224.)

1. *coronarium*, Kön. (*Spreng. syst.* 1, p. 9;—*Roscoe Scit.*;—*Bot. Cab.* 6, t. 507.—*Retz. obs.* 3, p. 78;—*Sm. exot. bot.* p. 96, t. 107.—*B. M.* 19, t. 708;—*B. Cab.* t. 51; *Lam. ill. t.* 1, f. 3;—*Roxb. fl. ind.* 1, p. 10; *ed. Carey*, 1, p. 9;—*J. Grah. Cat. B. pl. p.* 205;—*Rumph.* 5, t. 69, f. 3.) ଦୂଳଲ ଚିପା *Doolal-champa*. ୨. Moluccas. Coromandel. Penang. Tavoy. Bengal, (Serampore.) Khassy Mountains. Assam. Nepal. Fl. large, pure white, very fragrant, R. S.; fr. C. S.



- B. lutescens*, Carey. (*Roxb. fl. ind.*; *ed. Carey*, 1, p. 10.)
2. *angustifolium*, Roxb. (*Spreng. l. c.*;—*Roxb. fl. ind.* 1, p. 13; *ed. Carey*, 1, p. 11;—*Roscoe Scit.*;—*J. Grah. Cat. B. pl.* 205.—*H. aurantiacum*, *Roscoe Scit.*;—*Roxb.* 2, 157;—*B. M.* 46, 2078.) Chittagong. Khassy Mountains. ♀. Fl. smallish, deep orange-scarlet, May and June; fr. C. S.
3. *elatum*, R. Br. (*B. Reg.* 7, t. 526;—*Spreng. syst.* 1, p. 9;—*B. C.* 9, 856;—*B. M.* 53, 3637;—*B. Cab.* 7, t. 693;—*Spreng. syst.* 1, c. p. p. 6, No. 19.—*H. stenopetalum*, *B. C.* 20, 1902?) ♀. Nepal. Fl. largish, flesh-coloured, R. S.; fr. 0.
4. *coccineum*, Buch. (*Sm. in Rees's cycl.*;—*Spreng. l. c.*;—*B. Reg.* 14, t. 1209;—*B. C.* 8, 705, except color of flower.—*H. angustifolium*, *Roxb. Corom.* 3, t. 252, as to the plate only, the description being that of No. 2.—*H. angustifolium*, *B. Reg.* 2, t. 157.—*H. longifolium*, *Roscoe*;—*Spreng. c. p. p. 6, No. 20.*) ♀. Nepal. Fl. largish, uniformly scarlet, R. S.; fr. 0.
5. *gracile*, Roxb. (*Corom.* 3, t. 250; *fl. ind.* 1, p. 14; *ed. Carey*, 1, p. 12;—*Spreng. l. c.*;—*H. glaucum*, *Roscoe Scit.*;—*Spreng. syst. c. p. p. 6, No. 15.*—*H. glaucum*, *Roscoe Scit.*) ♀. Khassy Mountains. Fl. largish, white, fragrant, R. S.; fr. 0.
6. *flavum*, Roxb. (*fl. ind.* 1, p. 12; *ed. Carey*, 1, p. 81;—*Roscoe Scit.*;—*Spreng. l. c.*;—*B. Cab.* t. 604;—*B. M.* 58, t. 3039;—*J. Grah. Cat. B. pl.* p. 205.—*H. urophyllum*, *B. C.* 18, 1785.) ♀. Khassy Mountains. Fl. very large, orange-coloured, highly fragrant, R. S.; fr. 0.
7. *flavescens*, Carey. (*Roscoe Scit.*;—*B. Cab.* 8, t. 723;—*Spreng. syst. c. p. p. 6, No. 12.*—*H. flavum*, *B. M.* 50, t. 2378. not Roxb.) ♀. Nepal. Fl. large, outer limb sulphur-coloured, inner limb yellowish, fragrant, R. S.; fr. 0.
8. *speciosum*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, p. 13;—*pl. as. rar.* 3, t. 285;—*Roscoe Scit.*;—*Spreng. syst.* 1, p. 9.) ♀. Khassy Mountains. Fl. large, pale sulphur-coloured, R. S.; fr. 0.
9. *villosum*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, p. 12; not Roscoe;—*Spreng. l. c.*) ♀. Khassy Mountains. Fl. large, pale-yellow, delightfully fragrant, R. S.; fr. 0.
10. *ellipticum*, Buch. (*in Sm. Rees's cycl.*; not Roscoe Scit.;—*Spreng. l. c.*) ♀. Nepal. Fl. large, white, R. S.; fr. 0.
11. *spicatum*, Buch. (*in Rees's cycl.*;—*Roscoe Scit.*;—*Hook. exot. fl.* 1, t. 46;—*B. Cab.* 7, t. 653;—*B. M.* 49, t. 2300;—*Spreng. l. c.*) ♀. Borders of fields among the hills of Upper Nepal. Fl. large, pale yellow, R. S.; fr. 0.
12. *thyrsiforme*, Buch. (*in Rees's cycl.*;—*Roscoe l. c.*;—*Spreng. l. c.*.—*H. heteromallum*, *B. Reg.* 9, t. 767;—*Spreng. syst. c. p. p. 6, No. 17.*) ♀. Upper Nepal. Fl. largish, white, with lip yellow tinged at the base, R. S.; fr. 0.



570

13. *giganteum*, Wall. 2. Nepal. Allied to *H. spicatum*. Nearly allied to No. 12, but much larger. Introduced into the Garden here in 1821. Fl. ?
14. *acuminatum*, Roscoe. (*Scit.*;—*Spreng. syst. c. p. p. 6*, No. 16;—*B. M. 57*, t. 2969.) 2. Nepal. Nilgherry. Kemaon. Fl. large, pale yellow pure white, with the tube red, fragrant. Has been introduced into H. C. G. Fl. ?
15. *Gardnerianum*, Wall. (*Roscoe Scit.*;—*Spreng. l. c. No. 18*;—*B. Reg. 9*, t. 774.) 2. Nepal. Fl. large, reddish-yellowish-whitish, fragrant, R. S.; fr. O.
 $\beta.$ *latifolium*, Perhaps a distinct genus.
16. *gratum*, Wall. Khassy. * Very near *flavescens*, but smaller.
17. *trilobum*, Wall. (*in Roscoe Scit.*, under *H. spicatum*.) 2. Nepal. Introduced in 1819.
18. *tenuiflorum*, Wall. (*in Roscoe Scit.*, under *H. villosum*.—*H. villosum*, *Roscoe*, not Wall.) 2. Nepal. Khassy Mountains. Introduced in 1821.
19. *Roscoei*, Wall. 2. Nepal. Introduced in 1821.
20. *formosum*, Wall. (*H. coccineum*, Buch. *l. c.?*) 2. Nepal. Introduced 1818.
21. *fastigiatum*, Wall. (*Cat.*.—*H. ellipticum*, *Roscoe*, not Buch.—*B. C. 19*, 1881.) 2. Nepal. Introduced in 1818.
22. *densiflorum*, Wall. (*Cat.*) 2. Nepal. Introduced in 1821.
23. *barbatum*, Wall. (*Cat.*) 2. Taong-Dong. Introduced in 1827.
24. *candidum*, Wall. (*Carey's MSS.*) 2. Nepal. Introduced in 1821. The last 8 species are unknown to us.

* *Anomum Granum Paradisi*, L. Afzel. 2. Guinea.—*A. latifolium*, Afzel. 2. Sierra Leonæ.—*A. Afzelii*, Roscoe. 2. Sierra Leonæ.—*A. sylvestre*, Swz. 2. Jamaica.—*Hedychium squarrosum*, Herb. Buch. 2. Assam. Nepal. Kemaon.—*H. scaposum*, Nimmo. 2. S. Concan.

C. ALPINIÆ (*Alpinæ*, Bl.—*Endl. gen. pl. 1*, p. 224.)

ALPINIA, L. (*Spreng. syst. 1*, p. 4, No. 15;—*Endl. gen. pl. 1*, p. 224.)

1. *Galanga*, Swz. (*Spreng. syst. 1*, p. 14;—*Roscoe in Trans. Linn. soc. 8*, p. 345;—*Roxb. fl. ind. 1*, p. 59; ed. *Carey*, 1, p. 58;—*J. Grah. Cat. B. pl. p. 206*.—Maranta Galanga, L.—Amomum Galanga, Lour.—Galanga major, *Rumph. 5*, t. 63.) *គូលុនុយ* *Koolunjun*. 2. Sumatra. Moluccas. Cochin China. Singapore. Penang. Chittagong. S. Concan. Silhet. Fl. largish, pale-greenish, sometimes streaked with red, somewhat fragrant, April and May; fr. Nov. Yields the *large Galangal root* of the druggists. It has a faint aromatic smell, and strong pungent taste with some bitterness. (*Roxb.*) In Cochin China it is found cultivated as well as wild, and the fresh roots are used to season fish, and for other economical purposes. (*Lour.*)

2. *Allughas*, Roscoe. (*Linn. Trans. o. c. p. 346*;—*Roxb. fl. ind. 1*, p. 61; ed. *Carey*, 1, p. 60;—*J. Grah. Cat. B. pl. p. 206*;—*Spreng. l. c.*;—*Hellenia Allughas*, L.—*B. Repos. 8*, t. 501.—*Heretiera Allughas*,



Kön.;—*Rheed.* 11, t. 14.) तारूँ *Taro*. तारुके *Taruko* २. Coromandel. S. Concan. Estuary of Irawaddi. Bengal. (Serampore.) Silhet. Assam. Fl. large, inodorous, beautifully rose-coloured, June and July; fr. Oct. and Nov.—Root considerably aromatic.

3. *bracteata*, Roxb. (*fl. ind.* 1, p. 63; *ed. Carey*, 1, p. 61;—*Spreng. l. c.*; not Roscoe.—A. Roxburghii; *Sweet. hort. brit.* 2, p. 390.) २. Chappedong, on the coast of Tenasserim. Fl. white, with a crimson yellow lip, March; fr. O.
4. *malaccensis*, Roscoe. (*Trans. Linn. soc.* 8, p. 345;—*Spreng. l. c.*;—Roxb. *fl. ind.* 1, p. 64; *ed. Carey*, 1, p. 62;—*B. Reg.* 4, t. 328.—A. petiolaris, Soland.—*Maranta malaccensis*, *Burm. ind.* p. 2.—*Wild.*—*Renealmia sumatrana*, *Donn. cant. ed.* 8, p. 2.—*Galanga malaccensis*, *Rumph.* 5, t. 71, f. 1.) २. Moluccas. Chittagong, &c. Fl. very large, pure white, with the lip orange-crimson, April and May; fr. Augt., Sept. and Oct.
5. *aurantiaca*, Wall. २. Singapore. Introduced in 1823.—Unknown to us.
6. *nutans*, Roscoe. (*Trans. Linn. soc.* 8, p. 346;—Roxb. *fl. ind.* 1, p. 65; *ed. Carey*, 1, p. 64;—*Sm. exot. bot.* t. 106;—*B. M.* 44, t. 1903;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl.* p. 206.—A. auriculata, *Roscoe Scit.*—*Renealmia nutans*, *B. Repos.* 5, t. 360.—*Zerumbet speciosum*, *Jacq. fragm.* t. 68.—*Costus Zerumbet*, *Pers.*—*Gatimbium*, *Juss.*—*Globba nutans*, *L.*—*G. sylvestris*, *Rumph.* 6, t. 62.) दुम्बन चंपा *Poon-nag-champa*.—२. Banks of the Saluen. Silhet. Coromandel. Fl. large, more or less rose-coloured, with the lip orange yellow on a dark crimson ground, April and May; fr. Sept. and Oct.
7. *mutica*, Roxb. (*fl. ind.* 1, p. 67; *ed. Carey*, 1, p. 65;—*Roscoe Scit.*;—*Spreng. l. c.*) २. Penang. Fl. large, white, with the lip crimson yellow, and orange edged, June and July; fr. Oct. to January.
8. *calcarata*, Roscoe. (*Trans. Linn. soc.* 8, p. 347;—Roxb. *fl. ind.* 1, p. 69; *ed. Carey*, 1, p. 67;—*Spreng. l. c.*;—*B. Reg.* 2, t. 141;—*J. Grah. Cat. B. pl.* p. 206, excl. syn. *A. cernua*, Sims.—*Renealmia erecta*, *Redoute pl. lit.* t. 174.—*Renealmia calcarata*, *Andr.* *B. Repos.* t. 421.) २. China. Fl. large, white, the lip coloured with dark purple veins on a yellow ground, March, April and May; fr. O.
9. *Roscoeaana*, Röm. and Sch. (*A. bracteata*, *Roscoe*; not Roxb.) २. China. Introduced in 1820. Unknown to us.
- 10: *spicata*, Roxb. (*fl. ind.* 1, p. 70; *ed. Carey*, 1, p. 68.) २. Sumatra. In H. G. G. fl. about the close of R. S. (Roxb.)
11. *orrecta*, Wall. (*Cat.*) २. China. Has been in the garden here for about two years, but has not fl.
- GASTROCHILUS*, Wall. (*Entl. gen. pl.* 1, p. 224. not Don.; which is *Saccolabium*.)
1. *pulcherrimus*, Wall. (*pl. as. rar.* 1, t. 24.—*Paxt. Bot. Mag.* 7, No. 75.) २. Rangoon. Fl. largish, white, pale-yellow, with the exterior part of the lip rose-coloured, R. S.



2. *longiflorus*, Wall. (*pl. as. rar.* 1, t. 25.) 2^o. Rangoon. Fl. largish, pale-yellowish, with a rose-coloured lip.

3. *Jenkinsii*, Wall. 2^o. Assam. } Hills about Gowhatti. Flowered in July
4. *affinis*, Wall. MSS. 2^o. } 1838.

MONOLOPHUS, Wall. (*Cat.—Endl. gen. pl.* 1, p. 225.)

1. *secundus*, Wall. (*Kämpfera secunda*, *Wall.*;—*Roxb. fl. ind.*; *ed. Carey*, 1, p. 19.—*Costus secundus*, *Spreng. syst.* 1, p. 13.) 2^o. Khassy Mountains.

2. *linearis*, Wall. (*Kämpfera linearis*, *Wall. o. c. p.* 20.—*Costus linearis*, *Spreng. l. c.*) 2^o. Khassy Mountains. Both these species have been introduced repeatedly, but failed.

? 3. *elegans*, Wall. (*Cat.—Kämpfera elegans*, *Wall. pl. as. rar.* 1, t. 27. (1830).—*K. Crawfurdi*, *Wall. MSS.* (1827).—*K. Crawfurdi*, *Wall.*; *J. Grah. Cat. B. pl. p.* 208.) 2^o. Pegu. Martaban. Fl. large, white-purplish, R. S.

PHAROMERIA, Lindl. (*Nat. Syst.* p. 446, No. 59.)

1. *magnifica*, Lindl. (*l. c.*—*Alpinia* ? *magnifica*, *Bojer*; *B. M.* 59, t. 3192;—*Roscoe Scit.*) 2^o. Mauritius. Fl. very large, deep rose-coloured. Has been introduced into H. C. G. Fl. ?

* *Alpinia Nimmonii*, J. Grab. 2^o. Lanowlee Grove near Kandalla.—*A. Neesuma*, J. Grah. 2^o. Kandalla. Mahableshwur.—*A. cernua*, Sims.; *B. M.* 44, t. 1900. 2^o. China.—*A. comosa*, Jacq. 2^o. Caraccas.—*A. racemosa*, Roscoe. 2^o. W. Indies.—*A. occidentalis*, Swz. 2^o. Jamaica.—*A. exaltata*, Mey. 2^o. Surinam.—*A. Antillarum*, Röm. and Sch. 2^o. W. Indies.—*A. penicillata*, Roscoe. 2^o. China.—*Hellenia coerulea*, R. Br. 2^o. Tropical N. Holland.—*H. chinensis*, Willd. 2^o. China.—*Monocystis abnormis*, Lindl. 2^o. China.—*Peperidium tubulatum*, Lindl. (*Alpinia tubulata*, Ker.; *B. Reg.* 9, t. 777; *B. M.* 51, t. 2494.) 2^o. Demerara.

D. COSTRÆ.

(*Costi, Bl.—Endl. gen. pl.* 1, p. 225.)

COSTUS, L. (*Spreng. syst.* 1, p. 4, No. 13;—*Endl. l. c.*)

1. *speciosus*, Sm. (*Spreng. syst.* 1, p. 13;—*Roxb. fl. ind.* 1, p. 59; *ed. Carey*, 1, p. 57.—*J. Grah. Cat. B. pl. p.* 208;—*Linn. Trans.* 1, p. 249.—*C. arabicus* L. ?—*Hellenia grandiflora*, *Retz.*—*Banksia speciosa*, *Kön.*—*Amomum hirsutum*, *Lam. ill. 1, t. 3.*—*Tsjanæ speciosa*, *Gmel.*—*Tjana-kua*, *Rheed.* 11, t. 8.—*Herba spiralis hirsuta*, *Rumph.* 6, t. 64, f. 1.) କୁଣ୍ଡି କୁଷ୍ଟ କୋଷ୍ଟ କୋଷ୍ଟ କୋଷ୍ଟ. 2^o. Moluccas. Sunda Islands. Cochin-China. Ava. Ceylon. Coromandel. Kennery Forests. Salsette. Throughout the hilly, wooded parts of the Concan. Bengal, (Serampore,) &c. Fl. large, white, inodorous, R. S.; fr. Sept. and Oct. The fresh roots are almost insipid. The natives make a preserve of them, which they deem wholesome and nutritious. The dry root does not at all resemble the *Costus arabicus* of the shops. (*Roxb.*)



2. *nepalensis*, Roscoe. (*Scit.*—*Spreng. syst. c. p. p.* 8.—*C. speciosus*, β . *angustifolius*, *R. Reg.* 8, t. 665.) 2. Nepal. Fl. large, white, rose-coloured, R. S.

3. *argyrophyllus*, Wall. (*Cat.*) 2. Æstuary of the Irawaddi. Fl. large, rosy-white, R. S. Comes very near to *C. nepalensis*.

* *Costus spicatus*, Swz. 2. W. Indies.—*C. niveus*, Meyer. Essequebo.—*C. comosus*, Roscoe. 2. S. America.—*C. spiralis*, Roscoe. 2. Caracas.—*C. afer*, Ker.; B. Reg. 8, t. 683. 2. Sierra Leonia.—*C. Pisonis*, L.; B. Reg. 11, t. 899. 2. Brazil.—*C. pictus*, D. Don. 2. Mexico.

E. GLOBBEAE.

(*Globbae, Bl.*; *Endl. gen. pl.* 1, p. 222.)

GLOBBA, L. (*Spreng. syst.* 1, p. 4, No. 16;—*Endl. l. c.*)

1. *marantina*, L. (*Spreng. syst.* 1, p. 15;—*Roscoe. in trans. Linn. soc.* 8, p. 356;—*Roxb. fl. ind.* 1, p. 77; *ed. Carey.* 1, p. 74;—*Sm. exot. bot.* 2, t. 103;—*J. Grah. Cat. B. pl.* p. 211.—*Colebrookia bulbifera*, *Roxb. in asiat. res.* 11, p. 356;—*Don. hort. cant.*—*B. C.* 1, t. 100.—*Ceratanthera amomooides*, *Horn.*;—*Rumph.* 5, t. 64, f. 2.) 2. Moluccas. Rangoon, &c. Fl. slender, bright yellow, fragrant, R. S.; fr. 0.

2. *orixensis*, Roxb. (*fl. ind.* 1, p. 78; *ed. Carey.* 1, p. 75; *Corom.* 3, t. 229;—*As. res.* 11, p. 358, t. 8;—*Spreng. l. c.*) 2. Northern Circars. Travancore. Khassyia Mountains. Assam. Nepal. Fl. small, deep orange-yellow, R. S.; fr. 0.

3. *Careyana*, Roxb. (*fl. ind.* 1, p. 80; *ed. Carey.* 1, p. 77;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl.* p. 211.—*G. sessiliflora*, *Sims.*; *B. M.* 33, t. 1428, excl. syn.) 2. Rangoon. Fl. small, deep orange, August; fr. 0.

4. *expansa*, Wall. (*Cat.*;—*J. Grah. Cat. B. pl.* p. 211.) 2. Banks of the Irawaddi and Attran. Tavoy. Fl. smallish, yellow, R. S.; fr. 0.

5. *bracteolata*, Wall. 2. Pegu. Tenasserim. Fl. smallish, yellow, R. S.; fr. 0.

6. *dubia*, Wall. 2. Shivapore. Nepal. Introduced in 1821. Unknown to us.

7. *saltatoria*, Roscoe. (*Scit.*—*G. radicalis*, *Roxb. Corom.* 3, t. 230.—*G. subulata*, *Roxb. fl. ind.* 1, p. 81; *ed. Carey.* 1, p. 78;—*Spreng. l. c.*—*G. purpurea*, *Andr. B. Repos.* 10, t. 615.—*Mantisia saltatoria*, *Sims.*; *B. M.* 32, t. 1820.) 2. Chittagong. Fl. smallish, beautifully purple, with the lip deep orange-yellow, April, May and June; fr. 0.

8. *spathulata*, Roxb. (*fl. ind.* 1, p. 83; *ed. Carey.* 1, p. 80;—*Spreng. l. c.*—*Mantisia spathulata*, *Wall. in Roxb. o. c.* p. 81.) 2. Khassyia Mountains. Fl. smallish, azure, with the lip yellow, April; fr. 0.

9. *velutina*, Wall. Silhet.

* *Globba bulbifera*, Roxb. 2. Northern Circars.—*G. racemosa*, Sm. 2. Nepal.—*G. versicolor*, Sm. (*Exot. bot.* 2, t. 117, a. b. c.—*G. Hura*,



SL

Roxb.) 2. Peninsula of Malacca.—*G. pendula*, Roxb. Corom. 3, t. 228. 2. Penang.

Roscoea, Sm. (*Spreng. syst.* 1, p. 3, No. 8;—*Endl. gen. pl.* 1, p. 223; not Roxb.)

1. *purpurea*, Sm. (*Exot. bot.* 2, p. 97, t. 108;—*Hook. exot. fl.* 2, t. 144;—*Spreng. syst.* 1, p. 9;—*Royle. ill. t.* 89, f. 3.) 2. Mussooree, &c. in the Himalayas. Fl. largish, bluish-purple. Introduced in 1818, but we do not know whether it flowered.

* *Roscoea purpurea*, B. *procera*, Wall. pl. as. rar. 3, t. 242. 2. Shiva-pore Mountain.—*R. capitata*, Sm.; Wall. pl. as. rar. 3, t. 255. 2. Nepal.—*R. alpina*, Royle. ill. t. 89, f. 1. 2. Simla. Choor. Landour.—*R. lutea*, Royle. ill. t. 89, f. 2. 2. Mussooree.—*R. elatior*, Sm. 2. Nepal. Kemaon.—*R. exilis*, Sm. 2. Nepal.—*R. spicata*, Sm. 2. Nepal.—*Hornstedia Scyphus*, Retz. 2. Peninsula of Malacca.—*H. Leonurus*, Retz. 2. Peninsula of Malacca.

ORDER CCXXVI.—MARANTACEÆ, Lindl. Nat. Syst. p. 324.

THE ARROW-ROOT TRIBE.

“ While the Ginger-tribe is valued for its aromatic, heating principle, this tribe is esteemed on account of the faecula, which abounds in the rhizoma and root of both tribes, being destitute of that principle. It is, therefore, collected as a delicate article of food, from *Maranta arundinacea*, L., *M. Alloya*, Jacq., &c. in the W. Indies, and from *M. ramosissima*, Wall., in the East.” (*Lindl.*)

Phrynum, Willd. (*Spreng. syst.* 1, p. 3, No. 5;—*Endl. gen. pl.* 1, p. 226.)

1. *spicatum*, Roxb. (*fl. ind.* 1, p. 5; *ed. Carey*, 1, p. 5;—*Roscoe Scit.*;—*Spreng. syst.* 1, p. 8.) 2. Pegu. Fl. small, whitish, April and May; fr. O.

2. *imbricatum*, Roxb. (*fl. ind.* 1, p. 6; *ed. Carey*, 1, p. 6;—*Spreng. l. c.*) 2. Chittagong. Fl. small, pale rose-coloured, March and April; fr. August.

3. *parviflorum*, Roxb. (*fl. ind.* 1, p. 7; *ed. Carey*, 1, p. 7;—*Roscoe Scit.*;—*Spreng. l. c.*) 2. Khassya Mountains. Assam. Fl. very small, yellow, R. S.; fr. C. S.

4. *capitatum*, Willd. (*Spreng. l. c.*;—*Roxb. fl. ind.* 1, p. 8; *ed. Carey*, 1, p. 7;—*J. Grah. Cat. B. pl. p.* 212.—*Phyllodes placentaria*, Lour.—*Rheed. 11, t. 34.*) 2. Cochin China. Chittagong. Silhet. Assam. Fl.



small, in the morning rose-coloured, becoming purple by the evening.
R. S.; fr. C. S. In Cochin China eatables are rolled up in the leaves
and so boiled, to give them colour, and a grateful flavour. (*Lour.*)

5. *macrostachyum*, Wall. (*Cat.*) 2. Rangoon. Tavoy. Introduced in 1827.
Unknown to us.

6. *setosum*, Roscoe. (*Scit.*) Brazil.

7. *cylindricum*, Roscoe. (*Scit.*) Brazil.

MARANTA, L. (*Spreng. syst.* 1, p. 3, No. 3;—*Endl. gen. pl.* 1, p. 226.)
Arrow root.

1. *arundinacea*, L. (*Spreng. syst.* 1, p. 8;—*Roscoe Scit.*;—*Redouté Lil.* 57;—*B. M.* 49, t. 2307.—*M. arundinacea*, *Cannacori folio*, *Plum. gen.* 16.—*Mart. Cent.* 39, t. 39.—*Canna indica*, *radice alba alexipharmacæ*, *Sloane. hist.* 1, p. 253, t. 149.) *Indian Arrow Root.* 2. Tropical
S. America. Cultivated in the W. and E. Indies. Fl. middle-sized, pure
white, R. S.; fr. 0. The common Arrow-root is prepared from the roots
by maceration in water in the same manner as starch is made from
wheat, potatoes, and other farinaceous substances. (*Sims.*)

2. *ramosissima*, Wall. (*pl. as. rar.* 3, t. 286;—*J. Grah. Cat. B. pl. p.* 212.) 2. Silhet. Fl. somewhat larger than No. 1, pure white, R. S.
The tuberous roots yield an abundance of Arrow-root.

3. *dichotoma*, Wall. (*Cat.*—*Phrynum dichotomum*, *Roxb. fl. ind.* 1, p.
2;—*Carey*, 1, p. 2;—*J. Grah. Cat. B. pl. p.* 212;—*Spreng. syst.* 1,
p. 8.—*Thalia cannæformis*,—*Horst. pr. No. 3.*—*Donax Arundastrum*,
Lour.;—*Rumph.* 4, t. 7.) ମୁକ୍ତ ପାତୀ *Mookto-patee*. ପାତୀ ପାତୀ *Patee-*
patee. 2. Moluccas. Cochin China. Siam. New Hebrides. Coromandel.
Bengal. Silhet. Assam. Fl. largish, pure white, H. S.; fr. July and
August. ଶୀତଳ ପାତୀ *Seetul-patee*, 3: Mats made of the split stems of
this plant, being smooth and particularly cool and refreshing, are
well known every where in India.

4. *virgata*, Wall. (*Cat.*—*Phrynum virgatum*, *Roxb. fl. ind.* 1, p. 4;—*ed. Carey*, 1, p. 4;—*Spreng. l. c.*) 2. Mountains between Travancore
and Tinnevelly. Courtallum. Fl. smallish, pure white, the two long-
est of the inner segments yellow-margined, R. S.; fr. C. S.

5. *bicolor*, Ker. (*B. Reg.* 10, t. 786;—*Spreng. syst. c. p. p.* 5.—*B. Cab.*
IO. 921.) 2. Brazil. Has been cultivated in the garden here for many
years, without flowering.

CALATHEA, G. F. W. Meyer. (*Spreng. syst.* 1, p. 3, No. 2;—*Endl. gen.*
pl. 1, p. 227.)

1. *zebrina*, Lindl. (*Maranta Zebrina*, *Sims.*; *B. M.* 44, t. 1926;—*B.*
Reg. 5, t. 385;—*J. Grah. Cat. B. pl. p.* 212.—*Phrynum zebrinum*,
Roscoe Scit.) 2. Brazil. Fl. large, beautifully purple. Was introduced
in 1824, but we do not know, whether it flowered. Has also been
introduced into H. C. G. Fl.?

2. *flavescens*, Lindl. (*B. Reg.* 11, t. 932;—*Spreng. syst. c. p. p.* 5.) 2.
Rio Janeiro. Introduced in 1841.



CANNA, L. (*Spreng. syst. 1, p. 3, No. 1;—Endl. gen. pl. 1, p. 227.*) Indian Shot.

1. *Lamberti*, Lindl. (*B. Reg. 6, t. 470;—Spreng. syst. 1, p. 7, and p. 9.*
—*C. indica*, Ruiz and Pav.; not L.) 2. Peru. Introduced in 1841.
2. *patens*, Roscoe. (*Scit. ;—Spreng. l. c. and p. 9;—B. Reg. 7, t. 576.*)—
C. indica β . *patens*, Ait.—*C. indica*, Curt. *B. M.* 13, *t.* 454, not L.
and excl. syn.) 2. St. Helena? Fl. large, calyx pale-green; exterior
limb of the corol in three yellow-greenish segments; upper lip of the
interior limb deep red, lower lip yellow with red spots, R. S.
3. *coccinea*, Roscoe. (*Scit. ;—Spreng. syst. l. c.—C. indica* γ . *coccinea*,
Willd.—*C. rubra* (*indica* γ . *coccinea*,) *Willd.*—*C. speciosa*, major,
Hegetschweiler Com. bot. t. 1, f. 7.) 2. S. America. Fl. large; calyx
pale-red; outer limb of the corol flesh-coloured; upper lip of the inner
limb scarlet, lower lip yellow with scarlet spots. H. and R. S.;
fr. C. S.
4. *lutea*, Roscoe. (*Spreng. l. c. and p. 9;—B. M. 46, t. 2085;—J. Grah.*
Cat. B. pl. p. 211, excl. syn. B. Reg.—C. indica, β . *lutea*, Ait.) 2.
S. America? Fl. large, yellow, with large brownish-rush-coloured spots,
R. S.
5. *gigantea*, Redouté. (*Lil. 331;—B. Reg. 3, t. 206;—B. M. 49, t.*
2316;—*Spreng. l. c.* under *C. patens*.—*C. latifolia*, Roscoe;—*Spreng.*
o. c. p. 9;—J. Grah. Cat. B. pl. p. 211.) 2. S. America. Fl. very
large, scarlet, C. S.
6. *polymorpha*, Lodd. (*Bot. Cab.*) 2. S. America. Has been introduced
into the garden here. Not known to us.
7. *limbata*, Roscoe. (*Scit. ;—B. Reg. 10, t. 771;—Spreng. syst. 1, p. 9.*
—*C. auro-vittata*, Lodd. *B. Cab.*) 2. Brazil. Fl. large; calyx pale-
green; outer limb of corol pale-yellow; upper lip of the inner limb
bright scarlet with orange margins; lower lip red-spotted, Feb. and
March.
8. *speciosa*, Roscoe. (*B. M. 49, t. 2317;—B. Reg. 15, t. 1276;—J.*
Grah. Cat. B. pl. p. 211;—Spreng. syst. 1, p. 9.—C. nepalensis,
Wall. Cat. ;—J. Grah. o. c. p. 212.) 2. Nepal. Fl. large; calyx
bright-red; outer limb of the corol deep-red; upper lip of the inner
limb bright-red with yellow claws; lower lip yellow at base, red to-
wards apex, nearly the whole year; fr. C. S.
9. *indica*, L. (*Roxb. fl. ind. 1, p. 1; ed. Carey, 1, p. 1;—J. Grah. Cat. B.*
pl. p. 211; excl. syn. Ait., Roscoe, B. Cab., B. Reg., and B. M.—C. orientalis, Roscoe *Scit.*—*C. chinensis*, *Willd.*;—*Rheed.* 11, *t.* 43;
Rumph. 5, *t.* 71, *f.* 2.) কান সৰু জয়া। *Lal-surbo-juya*. 2. Common
all over India. Fl. large, bright scarlet, and fr. nearly throughout
the year.
- β . *flava*, Roxb. (*l. c.—C. orientalis*, β . *flava*, Roscoe *Scit.*) ৮৫
সৰু জয়া। *Shwet-surbo-juya*. Fl. pale-yellow. Equally common
with *a*.



10. *denudata*, Roscoe. (*Scit.*; — *Spreng. syst. c. p. p. 5.*) 2^o. Brazil. Introduced in 1821. Unknown to us.
11. *pallida*, Roscoe. (*Scit.*; — *Spreng. syst. c. p. p. 5.*) 2^o. Barbadoes. Fl. large, pale-yellow, with orange spots, nearly throughout the year; fr. C. S.
12. *pedunculata*, Roscoe. (*Scit.*; — *Spreng. syst. 1, p. 9*, excl. syn. Willd. and *c. p. p. 5*; — *B. M. 49, t. 2323.*) 2^o. Brazil? Fl. large, orange-coloured, C. S.
13. *flaccida*, Roscoe. (*Scit.*; — *Spreng. syst. 1, p. 7*, and *p. 9*; — *J. Grah. Cat. B. pl. p. 211*; — *C. Reevesii*, Lindl. *B. R. 23, 2004*; — *Satisb. icon. t. 2.*) 2^o. S. Carolina. Georgia. Fl. large, pale-yellow, C. S.
14. *glaucia*, L. (Roscoe *Scit.*; — *Sm. exot. bot. 2, t. 102*; — *Spreng. l. c.* and *p. 9*; — *Roxb. H. B. p. 1*; — *J. Grah. Cat. B. pl. p. 211.*) 2^o. S. America. Africa? Fl. large, uniformly sulphur-coloured, nearly throughout the year; fr. C. S.
15. *iridiflora*, Ruiz. and Pav. (*Spreng. syst. l. c.* and *p. 9*; — *B. M. 45, t. 1968*; — *B. Reg. 8, t. 609.*) 2^o. Peru. Fl. very large, crimson. Has been introduced into H. C. G. Fl.?
16. *discolor*, Lindl. (*B. Reg. 15, t. 1231.*) 2^o. Trinidad. Fl. large; calyx rose-coloured; outer limb of the corol yellowish dull red; upper lip of the inner limb deep scarlet, inner limb pale yellowish-red. Introduced in 1841.

* *Myrosma cannaefolia*, L. fil. 2^o. Surinam.—*M. cerosa*, Spreng. 2^o. Surinam.—*Phryniwm grandiflorum*, Roscoe. 2^o. Brazil.—*S. Parkeri*, Roscoe. 2^o. Granada.—*P. Casupo*, Roscoe. 2^o. S. America.—*S. ellipticum*, Roscoe. 2^o. Guiana.—*S. setosum*, Roscoe. 2^o. Rio Janeiro.—*Thalia dealbata*, Roscoe. 2^o. B. M. 41, t. 1690. 2^o. Carolina.—*T. geniculata*, Roscoe. 2^o. W. Indies.—*Maranta indica*, Tuss. 2^o. W. Indies.—*M. Tonchae*, Aubl. S. Guiana.—*M. lutea*, Jacq. 2^o. Caraccas.—*M. Alloya*, Jacq. 2^o. S. America.—*M. obliqua*, Rudg. 2^o. Guiana.—*M. gracilis*, Rudg. 2^o. Guiana.—*M. gibba*, Sm. 2^o. Barbadoes.—*M. sylvatica*, Roscoe. 2^o. Barbadoes.—*M. angustifolia*, Sims.; B. M. 50, t. 2398. 2^o. Peru.—*M. furcata*, Mart. S. Brazil.—*M. cristata*, Mart. 2^o. Brazil.—*M. spicata*, Aubl. S. Guiana. Brazil.—*Calathea violacea*, Lindl. B. Reg. 12, t. 961. 2^o. Brazil.—*C. longibracteata*, Lindl.; B. Reg. 12, t. 1020. 2^o. Brazil.—*C. grandifolia*, Lindl.; B. Reg. 14, t. 1210. 2^o. Rio Janeiro.—*C. macilenta*, Lindl. 2^o. Rio Janeiro.—*Canna edulis*, Ker. B. Reg. 9, t. 775. 2^o. Peru.—*C. lagunensis*, Lindl.; B. Reg. 16, t. 1311. 2^o. Mexico.—*C. Achiras*, Lindl.; B. Reg. 16, t. 1358. 2^o. Mendoza.



ORDER CCXXVII.—MUSACEÆ, Agardh.—Lindl. Nat. Syst. p. 326.

THE BANANA TRIBE.

Stemless plants, or nearly so, by Lindl. referred to 4 genera. Of these, Spreng. syst. and Loud. Hort. Brit. new edit. enumerate 12 species for S. America, and the West Indies; 10 for S. Africa; 2 for China; 1 for Madagascar; and 1 for Mauritius.—In the E. Indies have been discovered 12 species of *Musa*; and 1 of *Heliconia*;—all except *Musa nepalensis*, natives of Tropical India.—*Plantains* are well known to every-body.

A. HELICONIÆ, A. Rich. (*Endl. gen. pl. p. 228.*)

HELICONIA, L. (*Spreng. syst. I. p. 524, No. 956;—Endl. gen. pl. p. 228.*)

1. *buccinata*, Roxb. (*fl. ind. 1, p. 670; ed. Carey, 2, p. 494;—Spreng. syst. c. p. p. 109;—J. Grah. Cat. B. pl. p. 213.*—*H. indica*, Lam.; partly.—*Folium buccinatum*, Rumph. 5, t. 62, f. 2.) 2. Moluccas. Fl. largish, pale-yellow, H. S. (*Roxb.*) In the garden here it has not fl. during the last 12 years.

2. *brasiliensis*, Hook. (*Exot. fl. t. 190;—Spreng. syst. c. p. p. 109.*) 2. Brazil. Introduced in 1841.

3. *bicolor*, Benth. 2. Brazil.

B. RAVENALEÆ.

(*Uraniæ, Rich. ; Endl. gen. pl. p. 228.*)

STRELITZIA, Banks. (*Spreng. syst. I. p. 524, No. 955;—Endl. l. c.*)

1. *ovata*, Dryand. (*Spreng. syst. I. p. 833.*—*B. Reginæ*, Curt. B. M. 3, t. 119, 20, not Ait.) 2. C. G. H. Fl. very large, bright orange, with a beautifully azure nectary, G. S.; fr. 0.
2. *junccea*, Lk. (*S. parvifolia*, Dryand. β . *junccea*, B. Reg. 6, t. 516.) 2. C. G. H. Fl. very large, orange-coloured, with the nectary bluish-purple, Oct.; fr. 0.

MUSA, Tournef. (*Spreng. syst. I. p. 524, No. 954;—Endl. gen. pl. I. p. 228.*) *Plantain Tree.*

1. *paradisiaca*, L. (*Spreng. syst. I. p. 833.*—*M. paradisiaca*, β . *sapientum*, Bertol.—*M. sapientum*, Roxb. *fl. ind. 1, p. 663; ed. Carey, 2, p. 484; Coram. 3, t. 275;—J. Grah. Cat. B. pl. p. 212.*—*Rheed. 1, t. 12, 13, 14;—Rumph. 1, t. 60.*) कूला Kula. *Cultivated Plantain*. राम कूला Ram-Kula. *Wild Plantain*. Fl. large, yellowish-whitish, and fr. throughout the year. A native of the E. Indies, cultivated every where within the Tropics. The numerous varieties we have in vain tried to put into some order. The attempt made for this purpose, in Schult. tom. 8, p. 1289-92, appears to us only to have increased the confusion.

2. *rosacea*, Jacq. (*Hort. Schönbr. 4, t. 445;—Spreng. l. c. and c. p. p. 109;—B. Cab. 4, 615;—B. Reg. 9, t. 706, A. B.*—*M. ornata*, Roxb. *fl. ind. 1, p. 666; ed. Carey, 2, p. 488.*) 2. Chittagong, &c.



Cultivated at the Mauritius. Fl. large, purple yellow-white, and fr. nearly the whole year.

3. *superba*, Roxb. (*Jl. Ind.* 1, p. 667; *ed. Carey*, 2, p. 489; *Corom.* 3, t. 223;—*Spreng. o. c.* p. 833.) 2. Dindygul. Fl. large, pale-coloured, R. S.; fr. C. S.
4. *nepalensis*, Wall. (*Roxb. Jl. Ind.*; *ed. Carey*, 2, p. 492;—*Spreng. syst. c. p. 109*, under *M. glauca*.—*Schult. S. p. 1295.*) 2. Smaller Mountains of Nepal, in dense shady forests. Fl. large, yellowish. Has been cultivated for years in the garden here, without flowering. The Nepalese eat the fruit, though it contains little else than hard seeds. (*Wall.*)
5. *glauca*, Roxb. (*Jl. Ind.* 1, p. 669; *ed. Carey*, 2, p. 490;—*Spreng. syst. 1, p. 833.*) 2. Pegu. Fl. like those of No. 1, May; fr. Oct. and Nov.
6. *textilis*, Nees.—(*Schult. S. p. 1297*;—*Roxb. H. B. p. 19*.—*Musa seminifera*, var. 1, *Lour.*) *Manilla Hemp*. 2. Philippines. Has been cultivated for many years in the garden here, without flowering. The leaves yield a most valuable flax, from which some of the finest muslins are prepared.
7. *coccinea*, Andr. (*B. Repos.* 1, t. 47;—*B. M.* 38, t. 1559;—*Red. lit. t. 207-8*;—*Spreng. syst. 1, p. 833*;—*Roxb. Jl. Ind.* 1, p. 665; *ed. Carey*, 2, p. 487.) 2. China. Fl. large, scarlet, yellow-tipped, and fr. nearly the whole year. (*Roxb.*)
8. *rubra*, Wall. (not *Hortul.*) 2. In H. C. G.—Banks of the Irawaddi.?
9. *chinensis*, Swt. (*M. Cavendishii, Paxt. Bot. Mag.* 3, 51.) 2. China. In H. C. G.

RAVENALA, Adans. (*Endl. Nov. gen.* 1, p. 228.) *Traveller's tree.*

1. *madagascariensis*, Sonner. (*voy. 2, p. 223, t. 124-126*;—*Poir. enc. meth. 6, p. 80*.—*Jacq. Hort. schönbr.* 1, t. 93.—*Schult. S. p. 1299*.—*Urania speciosa*, Willd.;—*Spreng. syst. 2, p. 115.*;—*Roxb. Jl. Ind.* 2, p. 114.—*U. Madagascariensis, Räuschel.*) 5. Madagascar. Fl. large, white, inodorous, Sept. and Oct.; fr. May, June and July. While in blossom the spathes are all completely filled with clear gelatinous matter.

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- * *Heliconia Bikai*, Swz. 2. W. Indies.—*H. caribea*, Lam. 2. W. Indies.—*H. Ballia*, Rich. 2. Maranhao.—*H. humilis*, Jacq. 2. Caracas.—*H. psittacorum*, Willd. 2. W. Indies.—*H. Swartziana*, Röm. and Sch. (*H. psittacorum*, B. B. M. 14, t. 502.) 2. Jamaica.—*H. hirsuta*, Röm. and Sch. 2. S. America.—*H. pulviflora*, Lindl.; B. Reg. 19, t. 1648. S. America.—*Strelitzia augusta*, Thunb. 2. C. G. H.—*S. reginae*, Ait. 2. C. G. H.—*S. humilis*, Lk. 2. C. G. H.—*S. farinosa*, Ait. 2. C. G. H.—*Musa maculata*, Jacq. 2. Mauritius.—*M. Berteroiana*, Colla. 2. Moluccas.—*M. Balbisiana*, Colla. 2. Amboyna.—*M. acuminata*, Colla. 2. Amboyna.

ORDER CCXXVIII.—AMARYLLACEÆ. (AMARYLLIDACEÆ, Lindl.
Nat. Syst. p. 328.)

THE NARCISSUS TRIBE.

Bulbous, sometimes fibrous-rooted herbs, occasionally with a tall, cylindrical woody stem, by Lindl. referred to 67 genera. A very few are found in N. Europe, or the same parallel. These are plants of the genera *Narcissus* and *Galanthus*. As we proceed south, they increase. *Pancratium* appears on the shores of the Mediterranean; *Crinum*, in the E. Indies; *Hymenocallis* in the W. Indies. *Hæmanthus* is found for the first time with some *Crinums* on the Gold Coast. *Hippeastræ* show themselves in countless numbers in Brazil, and across the whole Continent of S. America; and finally, at the Cape of Good Hope the maximum of the order is beheld in all the beauty of *Hæmanthus*, *Crinum*, *Clivia*, *Cyrtanthus*, and *Brunswigia*. A few are found in New Holland, the most remarkable of which is *Doryanthes* (*Lindl.*) The E. Indian Amaryllaceæ amount, according to our materials to 25 species, viz. 8 of *Curculigo*; 1 of *Hypozis*; 4 of *Pancratium*; 11 of *Crinum*; and 1 of *Euryclæs*.

"One of the few monocotyledonous orders in which any poisonous properties are found. These are principally apparent in the viscid juice of the bulbs of *Hæmanthus toxicarius*, and some neighbouring species, in which the Hottentots are said to dip their arrow-heads. The bulbs of *Narcissus poeticus* have for ages been known as emetic; and it has recently been shewn that a similar power exists in *Narcissus Tazetta*, *odorus*, and *Pseudonarcissus*, as well as in *Pancratium maritimum*. DC. considers the principle found in Amaryllidaceæ analogous to that of the Squill." (*Lindl.*)

A. HYPOXIDEÆ, R. Br.;—*Endl. gen. pl.* 1, p. 173.

CURCULIGO, Gärtn. (*Spreng. syst.* 2, p. 6, No. 1207;—*Herb. amaryll.* p. 83;—*Endl. gen. pl.* 1, p. 173.—*Molineria*, *Herb. o. c.* p. 84.)

1. *orchioïdes*, Gärtn. (*fr. 1, p. 63, t. 16, f. 11*;—*Roxb. Corom.* 1, *t. 13*; *fl. ind.* 2, *p. 144*;—*J. Grah. Cat. B. pl. p. 215*;—*Spreng. syst.* 2, *p. 60*;—*Herb. o. c.* p. 83;—*B. M.* 27, *t. 1076*;—*Rheed.* 12, *t. 59*;—*Rumph.* 6, *t. 54, f. 1.*) তাল সূতা *Tal-loora*. 2. Moluccas. Coromandel. Concans. Bengal. (Serampore.) Silhet. Assam. Kemaon. Fl. smallish, yellow, more or less throughout the year.

2. *plicata*, Dryand. (*Spreng. l. c.*;—*Herb. l. c.*—*Hypoxis plicata*, *Thunb.*—*Gethyllis plicata*, *Jacq. hort. schönbr.* 1, *t. 88.*) 2. C. G. H.

3. *glabra* (*B. Reg.* 4, *t. 345*.—*Forbesia plicata*, *Ecklon. topogr.*) 2. C. G. H. Fl. smallish, yellow. Introduced in 1841.

3. *recurvata*, Dryand. (*Spreng. l. c.*;—*Roxb. fl. ind.* 2, *p. 145*;—*B. Reg.* 9, *t. 770*.—*Molineria recurvata*, *Herb. o. c.* p. 83.) 2. Coromandel. Silhet. Nepal. Fl. 9 lines in diameter, yellow, R. S.; fr. C. S.



4. *sumatrana*, Roxb. (*J. Ind.* 2, p. 146;—*B. Cab.* t. 443.—*Molineria sumatrana*, *Herb. l. c.*;—*Rumph.* 6, t. 53.) 2. Moluccas. Sumatra. Penang. Fl. like those of No. 3, March and April; fr. O.
- HYPoxis*, L. (*Spreng. syst.* 2, p. 6, *No.* 1206;—*Herb. amaryll.* p. 84;—*Endl. gen. pl.* 1, p. 174.)
1. *ovata*, Thunb. (*Spreng. o. c.* p. 59;—*Herb. l. c.*;—*B. M.* 25, t. 1010.) 2. C. G. H. Fl. 9 lines in diameter, externally green, internally yellow, June; fr. O.
 2. *stellata*, L. (*Spreng. l. c.*;—*Herb. l. c.*;—*B. M.* 18, t. 662;—*Jacq. ic. rar.* 2, t. 368;—*B. Repos.* t. 101.—*Fabricia stellata*, *Thunb.*—*Amaryllis capensis*, *L. sp. pl. p.* 420.) 2. C. G. H. Fl. very large, beautiful, scentless, yellow, with a dark-brown spot at the base of each petal, May and June; fr. O.
 3. *linearis*, Andr. (*B. Rep.* t. 171;—*Spreng. l. c.*;—*Herb. l. c.*) 2. C. G. H. Introduced in 1841.
 4. *obtusa*, Burch. (*Spreng. o. c.* p. 60;—*B. Reg.* 2, t. 159;—*Herb. l. c.*) 2. C. G. H. Fl. middle-sized, bright yellow, inodorous, May and June.
 5. *aquatica*, L. (*Spreng. l. c.*;—*Herb. l. c.*) 2. C. G. H. Introduced in 1841.

* *Curculigo latifolia*, Dryand.;—*B. M.* 46, t. 2034;—*B. Reg.* 9, t. 754. 2. Moluccas.—*C. graminifolia*, Nimmo. 2. Kandalla.—*C. ensifolia*, R. Br. 2. Tropical N. Holland.—*Hypoxis minor*, Don.; Royle, ill. t. 91, f. 3. (*H. curculigoides*, Wall. Cat.) 2. Himalayas.—*H. serrata*, L. B. M. 19, t. 709. 2. C. G. H.—*H. erecta*, L.; *B. M.* 19, t. 710. 2. C. G. H.—*H. elegans*, Andr. (*H. stellata*, β . *B. M.* 30, t. 1223) 2. C. G. H.—*H. stellipilis*, Ker.;—*B. Reg.* 8, t. 663;—*B. M.* 65, t. 3696. 2. C. G. H.—*H. marginata*, R. Br. 2. Tropical N. Holland.

B. AMARYLLÆA, *Endl. gen. pl.* 1, p. 174.

- LEUCOJUM*, L. (*Spreng. syst.* 2, p. 5, *No.* 1197;—*Endl. gen. pl.* 1, p. 175;—*Herb. amaryll.* p. 332.) *Snow-flake*.
1. *estivum*, L. (*Spreng. o. c.* p. 49;—*Herb. l. c.*;—*E. B.* 9, t. 621;—*B. M.* 30, t. 1210;—*Roxb. H. B.* p. 23.) 2. England. S. Europe. Fl. middle-sized, white, with a green spot beneath the tip of each segment, slightly fragrant when smelled closely. H. S.; fr. O.
 2. *vernus*, L. (*Spreng. l. c.*;—*Herb. l. c.*;—*B. M.* 2, t. 46.) 2. Germany. Italy. Introduced in 1819. Fl. ?
 3. *pulchellum*, Salisb. (*Parad. Lond.* t. 21.) 2. Native Country? Introduced in 1811. Fl. ?
 4. *trichophyllum*, Brot. (*Spreng. l. c.*;—*B. Reg.* 7, t. 544.—*Acis trichophyllum*, Sweet.) 2. Portugal. Barbary. Introduced in 1819. Fl. ?
 5. *autumnale*, L. (*Spreng. syst. l. c.*;—*B. M.* 24, t. 960.—*Acis autumnalis*, Salisb.) 2. S. Europe. Introduced in 1811. Fl. ?

IMHOFFIA, Herb. (*Amaryll.* p. 290.)

1. *filifolia*, Herb. (*o. c. t.* 29, *f.* 8.—*Strumaria filifolia*, *Jacq. ic. rar.* 2, *t.* 14;—*Spreng. syst.* 2, *p.* 57;—*B. Reg.* 6, *t.* 440.—*Leucocymum strumosum*, *Jacq. ic. rar.* *t.* 361; as to the plate, not to the text.) 2. C. G. H. Fl. middle-sized, white, lined with red. Introduced in 1814.

STERNBERGIA, Waldst. and Kit. (*Spreng. syst.* 2, *p.* 6, *No.* 1202;—*Endl. gen. pl.* 1, *p.* 175.)

1. *lutea*, Ker. (*Spreng. o. c. p.* 57.—*Amaryllis lutea*, *L.*; *B. M.* 9, *t.* 290.) 2. Spain. Sicily. Greece. Fl. large, yellow. Introduced in 1808. Fl. ?

HAYLOCKIA, Herb. (*Endl. gen. pl.* 1, *p.* 175.)

1. *pusilla*, Herb. (*B. Reg.* 16, *t.* 1371.) 2. Buenos Ayres. Fl. largish, pale sulphur, externally purplish spotted, internally purple streaked. Introduced in 1841. Has not fl. yet.

COOPERIA, Herb. (*Amaryll.* p. 178;—*Endl. gen. pl.* 1, *p.* 176.)

1. *Drummondiana*, Herb. (*o. c. t.* 24, *f.* 2, 5-11, *t.* 41, *f.* 16.—C. Drummondii, *Herb.*;—*B. Reg.* 22, *t.* 1835.) 2. Texas. Fl. middle-sized, white, underneath red lined, with a $4\frac{1}{2}$ inches long red, streaked tube. Introduced in 1841.

ZEPHYRANTHES, Herb. (*Amaryll.* p. 170;—*Endl. gen. pl.* 1, *p.* 176, under *Amaryllis*.)

1. *mesochloa*, Herb. (*l. c.*;—*B. Reg.* 16, *t.* 1361.) 2. Buenos Ayres. Fl. large, half green, above white, stained with red on the outside, inodorous, R. S.; fr. C. S.

2. *Atamasco*, Herb. (*o. c. p.* 171.—*Amaryllis Atamasco*, *L.*; *Spreng. syst.* 2, *p.* 49, excl. *c. p.* 132;—*Roxb. H. B.* *p.* 24;—*B. M.* 7, *t.* 239;—*B. Cab.* *t.* 1899;—*Catesb. car.* 3, *t.* 12.) 2. Carolina. Fl. large, white, in the bud outside bright red. Introduced into H. C. G. in 1798, but had not fl. up to 1814. In the garden here it has not fl.

3. *tubispatha*, Herb. (*l. c.*—*Amaryllis tubispatha*, *B. M.* 38, *t.* 1586, not L'Herit.) 2. Blue Mountains, Jamaica. Fl. large, white, green below, inodorous, and fr. R. S.

4. *carinata*, Herb. (*o. c. p.* 173;—*B. M.* 52, *t.* 2594.—*Z. grandiflora*, *B. Reg.* 11, *t.* 902, as to the flower, but not the leaves and seeds.) 2. Mexico. Fl. large, bright rose-coloured, inodorous, and fr. R. S.

5. *rosea*, Lindl. Herb. (*l. c.*;—*B. Reg.* 10, *t.* 821;—*B. M.* 52, *t.* 2537.) 2. Mountains of Cuba. Fl. much smaller than No. 4, deep rose-coloured, inodorous, and fr. R. S.

6. *sessilis*, Herb. (*o. c. p.* 175.)

- a. *verecunda*, Herb. (*l. c.*—*Z. verecunda*, *Herb.*;—*B. M.* 52, *t.* 2583;—*J. Grah Cat. B. pl.* *p.* 215.) 2. Mexico. Fl. small white, tinged with bluish outside, inodorous, and fr. R. S.

- β. *striata*, Herb. (*l. c.*—*Z. striata*, *Herb.*;—*B. M.* *t.* 2593.) 2. Mexico. Fl. small, streaked with red outside, inodorous, and fr. R. S.



candida, Herb. (*o. c. p.* 176;—*B. M.* 53, *t.* 2607.—*Amaryllis candida*, *Ker.*;—*B. Reg.* 9, *t.* 724;—*Spreng. syst.* 2, *t.* 49, not *c. p.*) 2. Peru. Buenos Ayres. Fl. largish, white, with a green tube, and a purplish spathe, inodorous, and fr. R. S.

HABRANTHUS, Herb. (*Amaryll. p.* 156;—*Endl. gen. pl.* 1, *p.* 176, under *Amaryllis*.)

1. *spathaceus*, Herb. (*o. c. p.* 160.)

$\beta.$ *angustus*, Herb. (*l. c.*—*H. angustus*, *Herb.*—*B. M.* 53, *t.* 2639.)

2. Buenos Ayres. Fl. large, deep rose-coloured, inodorous, R. S.

2. *bifidus*, Herb. (*o. c. p.* 160;—*B. M.* 52, *t.* 2597.) 2. Buenos Ayres. Fl. 2 inches long, purplish red, darker and lined with green underneath, R. S.

3. *hesperius*, Herb. (*o. c. p.* 161.)

$\alpha.$ *advena*, Herb. (*l. c.*—*Amaryllis advena*, *Ker.*;—*Spreng. syst.* 2, *p.* 53; *B. M.* 28, *t.* 1125;—*B. Reg.* 10, *t.* 849.) 2. Chili. Fl. large, red upwards, yellowish green below, inodorous, March; fr. O.

4. *gracilifolius*, Herb. (*o. c. p.* 165;—*B. M.* 51, *t.* 2464.) 2. Maldonado, S. America. Fl. largish, pale reddish-purple, with a green tube, inodorous, R. S.; fr. O.

5. *versicolor*, Herb. (*o. c. p.* 166;—*E. M.* 51, *t.* 2485.) 2. Maldonado, S. America. Fl. 2 inches, at first rosy, afterwards white, tinged with rose, inodorous, R. S.; fr. O.

6. *robustus*, Swt. (*Brit. fl. gard.* 2, *t.* 14;—*Herb. l. c.*;—*B. Cab.* *t.* 1761.—*Amaryllis tubispatha*, *L'Herit. sert. angl.* 9, not *A. Berterii*, *Spreng. syst.* 2, *p.* 49.) 2. Buenos Ayres. Fl. $3\frac{1}{2}$ inches, purplish pink, fading to white, inodorous, R. S.; fr. O.

7. *Andersonianus*, Herb. (*o. c. p.* 167.—*H. Andersonii*, *Herb.*;—*B. Reg.* 16, *t.* 1345;—*B. Cab.* *t.* 1677.) 2. Monte Video. Fl. largish, golden or copper coloured, with external brownish streaks, and a brownish-reddish bottom, R. S.; fr. O.

SPREKELIA, Heist. (*Herb. amaryll. p.* 133;—*Endl. gen. pl.* 1, *p.* 176, under *Amaryllis*.)

1. *formosissima*, Herb. (*l. c.*—*Amaryllis formosissima*, *L.*; *Spreng. syst.* 2, *p.* 50;—*B. M.* 2, *t.* 47;—*Roxb. H. B.* *p.* 24;—*J. Grah. Cat. B. pl. p.* 215.) *Jacobeum Lily*. 2. S. America. Fl. very large, crimson, inodorous, H. and R. S.; fr. O.

2. *Dathouzieæ*, Wall. 2. Perfectly white. Brazil.

HIPPEASTRUM, Herb. (*Amaryll. p.* 135;—*Endl. gen. pl.* *p.* 176, under *Amaryllis*.)

1. *aulicum*, Herb. (*l. c.*;—*B. M.* 61, *t.* 3311.—*Amaryllis aulica*, *Ker.*; *B. Reg.* 6, *t.* 444;—*Spreng. syst.* 2, *p.* 50.) 2. Rio Janeiro. Fl. very large, crimson, with the mouth of the tube green, inodorous, H. S.

$\beta.$ *platypetalum*. (*Amaryllis aulica*, var. *platypetala*, *Lindl.*; *B. Reg.* 12, *t.* 1038.) 2. Rio Janeiro, more robust, with broader petals.



- γ . *glaucophyllum*. (*Amaryllis aulica*, var. *platypetala*, *glaucophylla*, *Hook.*;—*B. M.* 57, *t.* 2983.) 2. Rio Janeiro. Leaves glaucous.
2. *calyptatum*, Herb. (*o. c. p.* 136.—*Amaryllis calyprata*, *Ker.*;—*B. Reg.* 2, *t.* 164;—*Spreng. syst.* 2, *p.* 50.) 2. Brazil. Fl. large, green tinged with faint red. Has not fl. here within our experience.
3. *psittacinum*, Herb. (*l. c.*;—*B. M.* 63, *t.* 3528.—*Amaryllis psittacina*, *Ker.*;—*B. Reg.* 3, *t.* 199;—*Spreng. syst.* 2, *p.* 50;—*J. Grah. Cat. B. pl.* *p.* 215.) 2. Brazil. Fl. large, green, streaked and margined with bright red, R. S.; fr. 0.
4. *solandraeflorum*, Herb. (*l. c.*;—*B. M.* 66, *t.* 3771.—*Amaryllis solandriæflora*, *Lindl. coll. t.* 11;—*Spreng. syst.* 2, *p.* 51.) 2. Guiana. Fl. very large, green and yellowish-white, inodorous, H. and R. S.
- β . *striatum*, Herb. (*l. c.*;—*B. M.* 52, *t.* 2573.) 2. Brazil. Fl. faintly streaked externally with red.
- γ . *conspicuum*, Herb. (*l. c.*—*Amaryllis solandriæflora*, β . *vittata*. *B. Reg.* 11, *t.* 876.) 2. Fl. 10½ inches long, on the outside faintly red, streaked, with the tube purple red, inodorous, and fr. R. S.
5. *ambiguum*, Herb. (*l. c.*)
- a. longiflorum*, Herb. (*B. M.* 64, *t.* 3542.) 2. Lima. Has been introduced into H. C. G. and, no doubt, flowered.
6. *vittatum*, Herb. (*o. c. p.* 137.—*Amaryllis vittata*, *L'Herit.*;—*B. M.* 4, *t.* 129;—*Spreng. syst.* 2, *p.* 51;—*Roxb. H. B.* *p.* 24.) 2. Lima. Fl. very large, doubly striped with dull red, March and April.
7. *reticulatum*, Herb. (*l. c.*—*Amaryllis reticulata*, *L'Herit.*;—*Spreng. syst.* 2, *p.* 53;—*B. M.* 18, *t.* 657.) 2. Brazil. Fl. very large, purplish red, reticulated with a deeper colour, star white, March.
- β . *striatifolium*, Herb. (*l. c.*—*Amaryllis reticulata*, β ;—*B. Reg.* 5, *t.* 352.—*A. reticulata*, β . *striatifolia*, *Sims.*; *B. M.* 47, *t.* 2113.) 2. Brazil. Fl. larger, paler.
8. *barbatum*, Herb. (*o. c. p.* 138, *t.* 21, *f.* 1.—*Crinum barbatum*, *L. MSS.*—*Amaryllis dubia*, *L. aman.* 8, 254, excl. syn.) 2. Surinam. Fl. large, tube green, limb with a green star. Fl.?
9. *equestre*, Herb. (*o. c. p.* 138.—*Amaryllis equestris*, *Jacq.*;—*Spreng. syst.* 2, *p.* 50, excl. syn;—*Roxb. H. B.* *p.* 24.) *Barbadoes Lily*.
- a. minus*, Herb. (*Amaryllis equestris*, *B. M.* 9, *t.* 305;—*J. Grah. Cat. B. pl.* *p.* 215, excl. *A. dubia*, *L.*—*Belladonna*, *Merian. surinam.* *t.* 22.) 2. Surinam. Fl. large, bright scarlet, with a green star, H. and R. S.; fr. R. S.
- β . *majus*, Herb. (*l. c.*—*Amaryllis equestris*, β . *major*, *B. Reg.* 3, *t.* 234.) 2. Demerara. Fl. much larger, H. and R. S.
- γ . *semiplenum*, Herb. (*l. c.*) 2. Havannah. Bahama. Fl. half-double, H. and R. S.
10. *stylosum*, Herb. (*o. c. p.* 139;—*B. M.* 49, *t.* 2278.—*Amaryllis maranensis*, *Ker.*;—*Spreng. syst.* 2, *p.* 50;—*B. Reg.* 9, *t.* 719.) 2. Maran-



ham. Fl. large, of a dull coppery flesh colour, with a greenish tube, H. and R. S.

11. *miniatum*, Herb. (*o. c. p. 403, t. 47, f. 5.*—*Amaryllis miniata*, *Ruiz and Pav.*;—*Spreng. syst. 2, 50*, excl. *c. p. p. 133.*) 2. Peru. Fl. large, miniated, the tube with six fimbriated white scales at the mouth. Introduced in 1819. Fl.?

12. *Reginæ*, Herb. (*B. M. 49*, app.—*H. regium*, *Herb. amaryll. p. 139.*—*Amaryllis Reginæ*, *L.*; *Spreng. syst. 2, p. 50*, excl. *c. p. p. 133.*;—*B. M. 13, t. 453*;—*Roxb. H. B. p. 24*;—*J. Grah. Cat. B. pl. p. 215.*) 2. Mexico. Fl. large, scarlet, with a green star, H. and R. S.

13. *bulbosum*, Herb. (*Amaryll. p. 139.*)

a. *subbarbatum*, Herb. (*l. c.*—*H. subbarbatum*, *Herb.*—*B. M. 51, t. 2475.*) 2. Rio Janeiro. Fl. large, bright scarlet, with a greenish sulphur-coloured star, H. and R. S.

β . *rutilum*, Herb. (*o. c. p. 140.*—*Amaryllis rutila*, *Ker.*; *B. Reg. 1, t. 23*;—*Spreng. syst. 2, p. 51.*) 2. Brazil. Fl. smaller, brilliant, tending to scarlet, H. and R. S.

γ . *fulgidum*, Herb. (*l. c.*—*Amaryllis fulgida*, *Ker.*;—*B. Reg. 3, t. 226*;—*Spreng. syst. 2, p. 51.*) 2. Brazil. Fl. larger, paler, R. S.

δ . *pallidum*, Herb. (*l. c.*) 2. Brazil? Fl. like those of γ , but much paler, H. and R. S.

ϵ . *Simsianum*, Herb. (*l. c.*—*Amaryllis miniata*, *Sims.*; *B. M. 45, t. 1943*; not Ruiz and Pav.) 2. Brazil. Fl. large, red-lead-coloured, H. and R. S.

ξ . *acuminatum*, Herb. (*l. c.*—*Amaryllis acuminata*, *Ker.*; *B. Reg. 7, t. 534*;—*Spreng. syst. 2, p. 53.*—*A. acuminata*, β . *longipedunculata* *Lindl.*; *B. Reg. 14, t. 1188.*) 2. Rio Janeiro. Fl. large, pale red with a green sulphur-coloured star, undulate, acuminate, H. and R. S.

η . *pulverulentum*, Herb. (*l. c.*;—*B. M. 49, t. 2273.*) 2. Rio Janeiro. Fl. large, darker, less acuminate, H. and R. S.

θ . *ignescens*, Herb. (*o. c. p. 141.*) 2. Rio Janeiro? Fl. smaller, fiery orange, H. and R. S.

i. *crocatum*, Herb. (*l. c.*—*Amaryllis crocata*, *Ker.*; *B. Reg. 1, t. 38*;—*Spreng. syst. 2, p. 53.*) 2. Brazil. Fl. smaller, and more undulate, than those of γ H. and R. S.

The hybrid or mixed Crosses of *Hippeastrum*, the names of which may be found in Herbert's Amarylliæ, p. 144, but which it appears tedious and useless to enumerate, amount, in the garden here, to 74, nearly all presented to the late Dr. Carey by the Hon'ble and Rev. Mr. Herbert, and appearing in all their beauty during the hot and the first part of the rainy season.

VALLOTA, Herb. (*Amaryll. p. 133*;—*Endl. gen. pl. 1, p. 176*, under *Amaryllis*)

1. *purpurea*, Herb. (*o. c. p. 134.*)



a. major, Herb. (*Amaryllis purpurea*, Ait.; — *Spreng. syst.* 2, p. 51; *B. M.* 35, t. 1430.) *A. elata*, *Jacq. hort. schönbr.* 1, p. 32, t. 62. — *A. speciosa*, *L'Herit.* 2, C. G. H. Fl. three inches long, of a deep uniform red colour, the outer segments greenish down the centre of their back; throat connected by 6 paler coloured subtransparent membranes. Introduced in 1819. Again introduced in March, in 1841, but has not fl. yet.

β. minor, Herb. (*Amaryllis purpurea*, *B. Reg.* 7, t. 562.) 2, C. G. H. Fl. smaller, paler. Introduced with *a.*

AMARYLLIS, Herb. (*Amaryll.* p. 275.—*Belladonna*, *Sweet*; — *Endl. gen. pl.* 1, p. 176, under *Amaryllis*.)

1. *Belladonna*, L. (*Spreng. syst.* 2, p. 51; — *Herb. l. c.*; — *B. M.* 19, t. 733; — *Roxb. II. B.* p. 24; — *J. Grah. Cat. B. pl. p. 215.*) 2, C. G. H. Fl. large, fragrant, the lower part greenish-white, upper suffused with rose colour or pale carmine, and veined. Introduced in 1808, and again in March 1841, but has not fl.

β. pallida, Herb. (*B. Reg.* 9, t. 714; — *Spreng. l. c.* — *Amaryllis pallida*, *Red. lit.* 479.) 2, C. G. H. Fl. like those of *a.* but paler. Introduced in 1821, again in March, 1841, but has not fl. yet.

2. *blanda*, Ker. (*Herb. o. c. p. 277*; — *B. M.* 35, t. 1450; — *Spreng. o. c. p. 51.*) 2, C. G. H. Fl. 4 inches, white, fading to a blush or pale rose-colour. Introduced in 1821. Again in March, 1841, but has not fl. yet.

3. *Josephinae*, Red. (*Lil.* 3, 370-372; — *Spreng. syst.* 2, p. 54. — *A. Josephiniana*, *Herb. o. c. p. 278.*)

β. substriata, Herb. (*l. c.* — *Brunsvigia Josephinæ*, γ. *B. M.* 52, t. 2578.) 2, C. G. H. Fl. nearly 4 inches, purplish-red, R. S.; but very rarely.

γ. *Griffiniana*, Herb. (*l. c.* — *Brunsvigia Josephinæ*, β. *angustifolia*, *B. Reg.* 3, t. 192-93.) 2, C. G. H. Introduced in 1820. Again introduced in March, 1841, but has not fl. yet.

4. *grandiflora*, Herb. (*o. c. p. 278*; *Brunsvigia grandiflora*, Lindl.; *B. Reg.* 16, t. 1335.) 2, C. G. H. Fl. large, flesh-coloured. Introduced in 1841.

BRUNSVIGIA, Ker. (*Herb. amaryll.* p. 280; *Endl. gen. pl.* 1, p. 176-77.)

1. *multiflora*, Heist. (*Herb. l. c.*; — *B. M.* 39, t. 1619, excl. syn. *Redoute*. — *Amaryllis orientalis*, L.; *Spreng. syst.* 2, p. 53.) 2, C. G. H. Fl. more than 2 inches long, bright scarlet, R. S.

2. *minor*, Herb. (*o. c. p. 281*; — *Lindl.*; *B. Reg.* 11, t. 954.) 2, C. G. H. Introduced in 1841.

LYCORIS, Herb. (*Amaryll.* p. 229; — *Endl. gen. pl.* 1, p. 176, under *Amaryllis*.)

1. *aurea*, Herb. (*l. c.* — *Amaryllis aurea*, Ait.; — *B. M.* 12, t. 409; — *B. Reg.* 8, t. 611; — *Spreng. syst.* 2, p. 53; — *Roxb. fl. ind.* 2, p. 140; —



Jacq. hort. schönbr. 1, 38, t. 73.) 2. China. Fl. large, yellow, Augt. and Sept.; fr. 0.

2. *radiata*, Herb. (*I. c.*)—*Amaryllis radiata*, *Ait.*;—*Spreng. syst.* 2, p. 53;—*B. Repos.* t. 95;—*B. Reg.* 7, t. 596;—*Roxb. fl. ind.* 2, p. 140.) 2. Japan. Fl. large, crimson, Augt. and Sept.; fr. 0.

NERINE, Herb. (*Amaryll.* p. 283;—*Endl. gen. pl.* 1, p. 176, under *Amaryllis*.)

1. *curvifolia*, Herb. (*I. c.*)—*Amaryllis curvifolia*, *Jacq. hort. schönbr.* 1, p. 83, t. 64;—*B. M.* 19, t. 725;—*Spreng. syst.* 2, p. 52.) 2. C. G. H. Fl. large, crimson. Introduced in 1819. Fl.? Again in March, 1841, but has not fl. yet.

2. *corusca*, Herb. (*I. c.*)—*Amaryllis corusca*, *Ker.*—*A. humilis*, β . *B. M.* 27, t. 1089.) 2. C. G. H. Fl. large, deep orange scarletish, pale underneath. Introduced in 1819. Again in March, 1841, but has not fl. yet.

3. *venusta*, Herb. (*I. c.*)—*Amaryllis venusta*, *Ker.*;—*B. M.* 27, t. 1090.) 2. C. G. H. Fl. large, poppy coloured. Introduced in 1819. Again in March, 1841, but has not fl. yet.

β . *sarniensis*, Herb. (*I. c.*)—*N. sarniensis*, *Herb. B. M.* 1849, app.—*Amaryllis sarniensis*, *L. fil.*;—*Spreng. syst.* 2, p. 52;—*B. M.* 9, t. 294;—*Roxb. H. B. p.* 24.) *Guernsey Lily*. 2. Japan, whence by a shipwreck some roots were cast on the Island of Guernsey. Here they remained for some years, and afterwards the flowers appeared in all their beauty. Fl. large, crimson. Has been cultivated for many years in the garden here, without flowering.

γ . *rosea*, Herb. (*I. c.*)—*N. rosea*, *Herb.*;—*B. M.* 47, t. 2124.) 2. C. G. H. Fl. large, deep rose-coloured. Introduced in 1819. Fl.?

4. *flexuosa*, Herb. (*I. c.*)—*Amaryllis flexuosa*, *Jacq. hort. schönbr.* 1, p. 35, t. 67;—*Spreng. syst.* 2, p. 53;—*B. Reg.* 2, t. 172.) 2. C. G. H. Fl. largish, rose-coloured. Introduced in 1819. Fl.?

5. *pulchella*, Herb. (*I. c.*;—*B. M.* 50, t. 2407)—*Amaryllis pulchella*, *Spreng. syst.* 2, p. 53.) 2. C. G. H. Fl. largish, pale rose-coloured. Introduced in 1819. Again in March, 1841, but has not fl. yet.

6. *lucida*, Burch. (*Herb. I. c. t.* 26, f. 3;—*B. M.* 47, t. 2124, annot.—*Amaryllis laticoma*, *Ker.*;—*B. Reg.* 6, t. 497.) 2. C. G. H. Introduced in 1825. Fl.?

7. *humilis*, Herb. (*I. c.*)—*Amaryllis humilis*, *Ker.*; *B. M.* 19, t. 726;—*Jacq. hort. schönbr.* 1, p. 36, t. 69.) 2. C. G. H. Fl. largish, more or less deep rose-coloured. Introduced in 1819. Fl.?

8. *undulata*, Herb. (*I. c.*)—*Amaryllis undulata*, *Jacq.*;—*Spreng. syst.* 2, p. 53;—*B. M.* 11, t. 369.) 2. C. G. H. Fl. largish, deep rose-coloured. Introduced in 1820. Again in March, 1841, but has not fl. yet.

9. *versicolor*, Herb. (*B. M.* 49, app. p. 51.) 2. A hybrid, raised from *Nerine undulata*, impregnated by *N. curvifolia*. Fl. largish, rose-



coloured, changing to bluish-purple, except the middle vein, which continues red. Introduced in 1821. Fl. ?

BUPHONE, Herb. (*Amaryll.* p. 239;—*Endl. gen. pl.* 1, p. 177, under *Brunsvigia*.)

1. *toxicaria*, Herb. (*I. c.*—*Hæmanthus toxicarius*, *Ait.*;—*B. M.* 30, *t.* 1217.—*Brunsvigia toxicaria*, *Ker.*; *B. Reg.* 7, *t.* 567.—*Amaryllis disticha*,—*L. Spreng. syst.* 2, *p.* 52.) 2. C. G. H. Fl. smallish, pale rose-coloured, R. S.
2. *ciliaris*, Herb. (*I. c.* *p.* 240.—*Brunsvigia ciliaris*, *Ker.*; *B. Reg.* 14, *t.* 1153.—*Hæmanthus ciliaris*, *Thunb.*—*Amaryllis ciliaris*, *L.*) 2. C. G. H. Fl. small, dull purple, R. S. but rare.

AMMOSCHARIS, Herb. (*Amaryll.* p. 241;—*Endl. gen. pl.* 1, *p.* 177; under *Brunsvigia*.)

1. *falcata*, Herb. (*I. c.*—*Brunsvigia falcata*, *Ker.*; *B. M.* 35, *t.* 1443.—*Amaryllis falcata*, *L'Herit.*; *Spreng. syst.* 2, *p.* 52.—*Crinum falcatum*, *Murr.*—*Hæmanthus falcatus*, *Thunb.*) 2. C. G. H. Fl. large, white, changing to deep rose-colour, R. S.; but rare.
2. *coranica*: Herb. (*I. c.*—*Amaryllis coranica*, *Burch.*;—*Spreng. syst.* 2, *p.* 52;—*B. Reg.* 2, *t.* 139.) 2. C. G. H. Fl. large, rose-coloured, May.
β. *pallida*, Herb. (*I. c.*—*Amaryllis coranica*, β. *pallida*, *Lindl.* *B. R.* 15, *t.* 1219.) 2. C. G. H. Fl. smaller, paler. Introduced in 1841.

CRINUM, L. (*Herb. amaryll.* *p.* 242;—*Endl. gen. pl.* 1, *p.* 177.)

1. *asiaticum*, Herb. (*I. c.* *p.* 243.)
 - a. *toxicarium*, Herb. (*I. c.*—C. *toxicarium*, *Roxb.* *fl. ind.* 2, *p.* 134;—*J. Grah. Cat. B. pl.* *p.* 216.—C. *asiaticum*, *L.*;—*Spreng. syst.* 2, *p.* 55;—*B. M.* 27, *t.* 1073;—*Rumph.* 6, *t.* 69.) रुड़ कार्त्तु भुरो-कानूर (Moluccas). Both Concans. Lower Bengal. Common in gardens. Fl. large, white, nearly inodorous, R. and C. S.; fr. C. S.—Root a good substitute for the Squill. (*O'Shaughnessy*.)
 - β. *bracteatum*, Herb. (*I. c.*)
 - aa. *brevifolium*, Herb. (*I. c.*—C. *brevifoliam*, *Roxb.* *fl. ind.* 2, *p.* 129.—C. *bracteatum*, *Willd.*; *Spreng. syst.* 2, *p.* 155;—*B. Reg.* 3, *t.* 179.) 2. Mauritius. Fl. large, white, faintly fragrant, H. and R. S.
 - γ. *anomalum*, Herb. (*I. c.* *p.* 244.—*Crinum anomalum*, *Herb.* *B. M.* 47, *t.* 2121, *app. p.* 5.—C. *plicatum*, *Livingstone*; *B. M.* 56, *t.* 2908.) 2. China. Fl. largish, greenish-white, R. S.
 - δ. *declinatum*, Herb. (*I. c.*—C. *declinatum*, *Herb.*; *B. M.* 48, *t.* 2231.) 2. Silhet. Fl. large, white, stained with red on the outside towards the end, the tube green, R. S.; fr. C. S.
 2. *sativum*, Roxb. (*Herb. I. c.*;—*B. M.* 47, *t.* 2121, *app. p.* 7.) 2. China. Introduced in 1809. Fl. ?
 3. *procерum*, Carey, MSS. (*Herb. o. c.* *p.* 245;—*B. M.* 53, *t.* 2684.) 2. Rangoon. Fl. very large, white, without pale red striped, the tube green, R. S.



4. *amabile*, Don. (*Spreng. syst.* 2, p. 55;—*Herb. L. c.*;—*B. M.* 39, t. 1605. *A. B.*—*C. superbum*, Roxb. *fl. ind.* 2, p. 133;—*J. Grah. Cat. B. pl.* p. 216.) ♀. A spontaneous hybrid from Sumatra. Fl. very large, white, suffused with crimson, fragrant, H. and R. S.; fr. R. S.
5. *angustum*, Roxb. (*fl. ind.* 2, p. 136;—*Spreng. syst.* 2, p. 55;—*B. M.* 50, t. 2897;—*Herb. o. c.* p. 246.—*C. amabile*, $\beta.$ *angustum*, *B. Reg. 8, t. 679.*) ♀. A spontaneous hybrid from Mauritius. Fl. very large, lake-coloured, the margins of the petals fading to white, the tube deep red, fragrant, H. and R. S.; fr. R. S.
6. *australe*, Herb. (*L. c.*)
- a. *pedunculatum*, Herb. (*R. Br. pr.* p. 297;—*Spreng. syst.* 2, p. 55;—*B. Reg. 1, t. 52.*—*C. taitense*, *Red. lil. t.* 408.—*C. australis*, *Don. cant. ed. 6, p. 83.*) ♀. Port Jackson. Introduced in 1813. Fl. ?
 - γ. *exaltatum*, Herb. (*L. c.*—*Crinum exaltatum*, *Herb.*; *B. M.* 47, t. 2121. *app. p. 5.*) ♀. Native place? Fl. large, white, R. S.
 - δ. *canaliculatum*, Herb. (*o. c. p.* 247.—*C. canaliculatum*, *Roxb. fl. ind. 2, p. 132.*—*J. Grah. Cat. B. pl. p. 215.*;—*B. M.* 47, t. 2121, *app. p. 5.*;—*Spreng. syst.* 2, p. 55.) ♀. Native place? Fl. large, white, fragrant, H. and R. S.
7. *rigidum*, Herb. (*o. c. p.* 248.)
- a. *sumatranum*, Herb. (*o. c.*—*C. sumatranum*, *Roxb. fl. ind.* 2, p. 131;—*B. Reg. 13, t. 1049.*;—*Spreng. syst.* 2, p. 54.) ♀. Sumatra. Fl. large, white, fragrant, and fr. R. S.
 - β. *macrocarpon*, Herb. (*o. c. p.* 249.—*C. macrocarpon*, *Carey.*; *B. M. 48*, under *t. 2231.*) ♀. Rangoon. Introduced in 1809. Fl. large, white, R. S.; fr. C. S. Seeds 2 inches in diameter.
8. *mauritianum*, Lodd. (*B. Cab. t.* 650;—*Herb. L. c.*) ♀. Mauritius. Fl. ?
9. *brachyanthus*, Carey. (*Spreng. syst.* 2, p. 55;—*B. M.* 47, *t. 2121, app. p. 8*, and 48, under *t. 2231.*) ♀. Tropical Australia. Fl. large, white, R. S.
10. *cruentum*, Ker. (*B. Reg. 2, t. 171.*;—*Spreng. syst.* 2, p. 54;—*Herb. o. c. p.* 250.) ♀. Mexico? Fl. very large, peach-coloured-purple, slightly scented, the tube pale-green, R. S.
11. *erubescens*, Ait. (*Spreng. syst.* 2, p. 54, excl. *c. p. p.* 133;—*Herb. o. c. p. 251.*)
- a. *ruberulum*, Herb. (*L. c.*—*C. erubescens*, *B. M.* 30, *t. 1232.*;—*Jacq. hort. schönbr.* 4, *t. 30.*—*Redouté lil. t. 27.*;—*Roxb. H. B. p. 23.*—*C. americanum*, $\beta.$ *L. sp. pl. p. 419.*) ♀. S. America. Fl. very large, beautifully blush-coloured, sweet-scented, the tube green-crimson, R. S.; fr. R. S.
 - β. *majus*, Herb. (*L. c.*) Fl. larger, white, R. S.
 - δ. *coryntinum*, Herb. (*L. c.*) ♀. Coryntine River, Dutch Guiana. Fl. white, R. S.
12. *Loddigesianum*, Herb. (*o. c. p.* 253.) ♀. Mexico. Fl. very large, purple, with a green tube. Lately introduced.

13. *americanum*, L. (*Spreng. syst.* 2, p. 54; — *Herb. o. c. t.* 254; — *L'Herit. ser. angl.* 8; — *Roxb. H. B.* p. 23. — *C. americanum*, $\beta.$ *B. M.* 26, t. 1034.) 2. S. America. Fl. large, white, fragrant, H. and R. S.; fr. R. S.
14. *Commelinii*, Jacq. (*Hort. schönbr.* 2, t. 202; — *Spreng. syst.* 2, p. 54; not Redouté. — *C. Commelinianum*, *Herb. l. c.*) 2. Native place unknown, (S. America. *Spreng.*) Fl?
15. *defixum*, Ker. (*Spreng. syst.* 2, p. 54; excl. c. p. 134. — *Herb. o. c.* p. 255. — *B. M.* 48, t. 2208. — *C. asiticum*, *Roxb. fl. ind.* 2, p. 127; — *J. Grah. Cat. B. pl.* p. 215; — *Rheed.* 11, t. 38. — *B. Radix toxicaria secunda*, *Rumph.* 6, p. 156.) অশ্ব দুর্শুন *Sookdurshun.* 2. Coromandel. Both Concans. Bengal, (Serampore,) &c. Fl. large, white, during the night fragrant, and fr. R. S.
16. *ensifolium*, Roxb. (*fl. ind.* 2, p. 129. — *Spreng. syst.* 2, p. 54; — *Herb. l. c.*; — *B. M.* 49, t. 2301.) 2. Pegu. Fl. large, white, outside and the tube purple, fragrant. H. S.
17. *ancennum*, Roxb. (*fl. ind.* 2, p. 27; — *Spreng. syst.* 2, p. 54; — *Herb. l. c.*) 2. Burma. Silhet. Nepal. Fl. large, white, H. and R. S.
 $\beta.$ *vereendum*, Herb. (*o. c. p.* 256. — *C. vereendum*, *Carey.*) 2. Native place? Introduced in 1819. Fl. H. S.
18. *humile*, Sims. (*B. M.* 53, t. 2636; — *Spreng. syst. c. p. p.* 134; — *Herb. l. c.*) 2. East Indies? Fl. large, white, with the tube pale greenish. R. S.
19. *pratense*, Herb. (*l. c.*)
 - a. *longifolium*, Herb. (*l. c.* — *C. longifolium*, *Roxb. fl. ind.* 2, p. 130; — *Spreng. syst.* 2, p. 54.) 2. Interior of Bengal. Fl. large, white, fragrant, and fr. R. S.
 - $\beta.$ *lorifolium*, Herb. (*o. c. p.* 257. — *C. lorifolium*, *Roxb. fl. ind.*; — *Spreng. syst.* 2, p. 54.) 2. Pegu. Fl. large, white, fragrant, R. S.; fr. C. S.
 - $\gamma.$ *elegans*, Herb. (*l. c.* — *C. elegans*, *Carey.*; — *B. M.* 52, t. 2592.) 2. Rangoon. Fl. large, white, fragrant, R. S.; fr. C. S.
 - $\delta.$ *venustum*, Herb. (*o. c. p.* 258. — *C. venustum*, *Carey.*) 2. Silhet. Fl. large, pure white, fragrant, R. S.
 - $\epsilon.$ *canalifolium*, Herb. (*l. c.* — *C. canalifolium*, *Carey.*) 2. Native place? Fl. large, externally pale red, R. S.
20. *erythrophyllum*, Carey. (*Herb. l. c.*; — *B. M.* 47, t. 2121, app. p. 7.) 2. Pegu. Fl. large, white, with the leaves dark blood-coloured, R. S.
21. *australicum*, Herb. (*o. c. p.* 259.)
 - a. *arenarium*, Herb. (*l. c.* — *C. arenarium*, *Herb.*; *B. M.* 49, t. 2355; — *Spreng. syst.* 2, p. 55.) 2. Water Island. Fl. large, white, with a green, faintly red-speckled tube, R. S.
 - $\beta.$ *blandum*, Herb. (*l. c.* — *C. arenarium*, $\beta.$ *blandum*, *B. M.* 52, t. 2531.) 2. Water Island. Fl. large, white, blush-coloured without, R. S.



- δ. *angustifolium*, Herb. (*I. c.*—*C. angustifolium*, *R Br. pr. p.* 297;—*Spreng. syst. 2, p. 54*, not *L. fil.*) 24. Shores of N. Holland within the Tropics. Fl.?
22. *Broussonetii*, Herb. (*B. M. 47, t. 2121*;—*Spreng. syst. 2, p. 55*.—*C. Broussonetiænum*, *Herb. o. c. p. 260*.—*Amaryllis Broussonetii*, *Rdenté fil. t. 6.*) 24. Sierra Leonæ. Fl. large, purple 5 striped, R. S.
- β. *pluriflorum*, Herb. (*I. c.*—*C. yuccæflorum*, *Salisb. par. 52.*) 24. Sierra Leonæ. Fl. conform, R. S.
- γ. *yuccæoides*, Herb. (*I. c.*—*Amaryllis yuccæoides*, *Thomps. bot. displ. t. 12.*) 24. Sierra Leonæ. Fl. conform, R. S.
23. *distichum*, Herb. (*I. c.*—*Amaryllis ornata*, *a. B. M. 31, t. 1253.*) 24. Sierra Leonæ. Fl. large, white, striped with red, R. S.
24. *petiolatum*, Herb. (*I. c.*)
- α. *spectabile*, Herb. (*I. c.*—*Amaryllis ornata*, *β. B. M. 24, t. 923.*—*A. gigantea*, *Ker.*;—*Spreng. syst. 2, p. 52*.—*Crinum giganteum*, *Andr. B. Repos. t. 169.*) 24. Tropical W. Africa. Fl. large, white-greenish, fragrant, H. and R. S.
25. *scabrum*, Herb. (*o. c. p. 262*;—*Spreng. syst. 2, p. 55*;—*B. M. 47, t. 2180*.—*C. scaberrimum*, *Hort. Soc. trans. 3, p. 195.*) 24. Rio Janeiro. Fl. large, striped with bright red, fragrant, R. S.
26. *ornatum*, Herb. (*I. c.*)
- α. *seylanicum*, Herb. (*I. c.*—*Crinum zeylanicum*, *L. syst. veg. p. 263*;—*Rozb. fl. ind. 2, p. 139*?—*J. Grah. Cat. B. pl. p. 216*.—*Amaryllis zeylanica*, *L.*.—*A. ornata*, *B. M. 29, t. 1171*.—*A. latifolia*, *Andr.*; *B. Repos. t. 478.*) 24. Ceylon. Peninsula of India. Rangoon. Bengal. Fl. large, white, streaked with purple, fragrant, with a purple tube, and fr. R. S.
- β. *Herbertianum*, Herb. (*o. c. p. 263*.—*Crinum Herbertianum*, *Wall. pl. as. rar. 2, p. 145.*) 24. Rangoon. Fl. very large, reddish, purple-striped, fragrant, R. S.
- γ. *latifolium*, Herb. (*I. c.*—*C. latifolium*, *Rozb. fl. ind. 2, p. 137*, not *B. Reg.*;—*J. Grah. Cat. B. pl. p. 216*. excl. syn. *B. M.* and *Ait.*—*Amaryllis latifolia*, *L'Herit.*;—*Spreng. syst. 2, p. 52*;—*Rheed. 11, t. 39.*) 24. Coromandel. Both Concans. Bengal. Fl. large, pale rose, almost white, faintly fragrant, with a green tube, and fr. R. S.
- ε. *speciosum*, Herb. (*o. c. p. 264*.—*C. speciosum*, *Herb.*; *B. M. 48, t. 2217*, not *Thunb.*) 24. North of Bengal. Fl. large, striped with rose, R. S.
- ζ. *moluccanum*, Herb. (*I. c.*—*C. moluccanum*, *Rozb. fl. ind 2, p. 140*;—*B. M. 49, t. 2292*;—*J. Grah. Cat. B. pl. p. 216*.—*Amaryllis moluccana*, *Ker.*;—*Spreng. syst. 2, p. 52*.—*Tulipa javanica*, *Rumph. 5, t. 105.*) 24. Moluccas. Fl. large, flesh-coloured, with white margins, R. S.
- μ. *Careyanum*, Herb. (*I. c.*—*C. Careyanum*, *Herb.*; *B. M. 51, t. 2466*.—*C. ornatum*, *Carey's MSS.*) 24. Mauritius. Fl. large, white,



stained on the outside near the apex with red, the tube greenish, R. S.

27. *brevilimbum*, Carey. (*Herb. o. c. p.* 266.—*B. M.* 47, *t.* 2121, *app. p. 7.*) 2. Tropical N. Holland. Fl. smallish, white, R. S.
28. *flaccidum*, Herb. (*l. c.*;—*B. M.* 47, *t.* 2133;—*Spreng. syst. 2.* *p.* 55, excl. *c. p. p.* 134.—*Amaryllis australasica*, Ker.; *B. Reg.* 5, *t.* 426.) 2. N. Holland. Fl. large, white, R. S.
29. *revolutum*, Herb. (*o. c. p.* 267.—*Amaryllis revoluta*, *a.* *B. Reg.* 8, *t.* 623.—*B. M.* 23, *t.* 915.) 2. C. G. H. Lately introduced.
30. *variabile*, Herb. (*o. c. p.* 268.—*Amaryllis variabilis*, *Jacq. hort. schönbr.* 4, *t.* 426.—*Amaryllis revoluta*, *β.* *B. Reg.* 8, *t.* 615.—*Crinum crassifolium*, Herb.; *B. M.* 49, *app.*) 2. C. G. H. Introduced in 1841.
31. *capense*, Herb. (*o. c. p.* 269.)
- a. princeps*, Herb. (*l. c.*—*Amaryllis capensis*, *Mill. dict. ed.* 8, *No. 12.*—*A. longifolia*, *B. M.* 18, *t.* 661.) 2. C. G. H. Fl. large, pale rose-coloured, with deeper-coloured streaks towards the middle of the petals, R. S.
- β. riparium*, Herb. (*l. c.*;—*B. M.* 53, *t.* 2688.—*Amaryllis longifolia*, *β. riparia*, *B. Reg.* 7, *p.* 546.—*A. riparia*, *Burch. Cat. MSS.*) 2. C. G. H. Fl. large, dark purple, R. S.

32. *campanulatum*, Herb. (*o. c. p.* 270;—*B. M.* 47, *t.* 2121, *app. p. 7.*—*C. aquaticum*, *Burch.*;—*B. M.* 49, *t.* 2352.) 2. C. G. H. Fl. large, rose-coloured, R. S.

33. *longiflorum*, Herb. (*o. c. p.* 271.—*C. hybridum erubescens-capense*, *Herb.*; *B. M.* 49, *t.* 2336.—*Amaryllis longifolia*, *γ. longiflora*, *B. Reg.* 4, *t.* 303.) 2. Jamaica. A scarcely spontaneous hybrid. Fl. large, white, pale-red striped, R. S.

Of hybrids or mixed Crosses of *Crinum* are cultivated in the garden here 30 varieties.

CLIVIA, Lindl.

1. *nobilis*, Lindl. (*B. Reg.* 14, *t.* 1182.—*B. Cab.* 20, *t.* 1906.) C. G. H. Sept. 1840.
- HEMANTHUS*, L. (*Spreng. syst. 2.* *p.* 6, *No. 1201*;—*Herb. amaryll.* *p. 232*;—*Endl. gen. pl. 1.* *p.* 177.)
1. *puniceus*, Jacq. (*Spreng. syst. 2.* *p.* 56;—*B. M.* 32, *t.* 1315;—*B. Cab.* *t.* 912;—*Herb. o. c. p.* 233.) 2. C. G. H. Fl. heads large, pale yellowish-red. Introduced in March, 1841. Has not fl. yet.
2. *virescens*, Herb. (*o. c. p.* 235.)
- a. pubescens*, Herb. (*l. c.*—*H. pubescens*, L.; *B. Reg.* 5, *t.* 382;—*B. Cab.* *t.* 702;—*Spreng. syst. 2.* *p.* 57, not Thunb.) 2. C. G. H. Fl. white. Introduced in March, 1841. Has not fl. yet.
- β. albiflos*, Herb. (*l. c.*—*H. albiflos*, *Jacq. hort. schönbr.* 1, *p.* 31, *t.* 59;—*B. M.* 31, *t.* 1239.—*H. pubescens*, *β. albiflos*, *B. Reg.* 12, *t.* 984.) 2. C. G. H. Fl. white. Introduced in March, 1841. Has not fl. yet.



- E. coccineus*, L. (*Spreng. syst.* 2, p. 56;—*Herb. o. c.* p. 236.)
a. *grandivalvis*, Herb. (*l. c.*—*H. coccineus*, *Ait.*; *B. M.* 27, *t.* 1075.)
q. C. G. H. Fl. bright red. Introduced in March, 1841. Has not fl. yet.
- E. tigrinus*, Jacq. (*Hort. schönbr.* 1, *p.* 29, *t.* 56;—*Spreng. syst.* 2, *p.* 56;—*B. M.* 41, *t.* 1705.—*Herb. o. c.* p. 237.) q. C. G. H. Fl. pale red. Introduced in March, 1841. Has not fl. yet.
- CYTRANTHUS*, Ait. (*Spreng. syst.* 2, *p.* 6, *No.* 1204;—*Herb. amaryll.* *p.* 128;—*Endl. gen. pl.* 1, *p.* 178.)
1. *obliquus*, Ait. (*Spreng. syst.* 2, *p.* 58;—*Herb. l. c.*;—*B. M.* 28, *t.* 1133.) q. C. G. H. Fl. yellowish, variegated with orange-red and green. Introduced in March, 1841. Has not fl. yet.
 2. *pallidus*, Sims. (*B. M.* 51, *t.* 2471;—*Herb. o. c.* p. 129.) q. C. G. H. Fl. yellowish pale-red. Introduced in March, 1841. Has not fl. yet.
 3. *collinus*, Burch. (*Spreng. syst.* 2, *p.* 58; excl. *c.* *p.* 134;—*Herb. l. c.*;—*B. Reg.* 2, *t.* 162.) q. C. G. H. Fl. scarlet. Introduced in March, 1841. Has not fl. yet.
 4. *spiralis*, Burch. (*Spreng. syst.* 2, *p.* 58;—*B. Reg.* 2, *t.* 167;—*Herb. l. c.*—*Monella spiralis*, *Herb. B. M.* 49, *app.*) q. C. G. H. Fl. orange-red, below yellow. Introduced in March, 1841. Has not fl. yet.
 5. *ventricosus*, Willd. (*Herb. l. c.*—*C. angustifolius*, *Jacq. hort. schönbr.* 1, *p.* 40, *t.* 76; not Ait.) q. C. G. H. Fl. orange-red. Introduced in March, 1841. Has not fl. yet.
 6. *striatus*, Herb. (*l. c.*—*Spreng. syst. c. p.* *p.* 134;—*B. M.* 52, *t.* 2534.) q. C. G. H. Fl. very large, red, striped with yellow. Introduced in March, 1841. Has not fl. yet.
 7. *angustifolius*, Ait. (*Spreng. syst.* 2, *p.* 58;—*Herb. l. c.*;—*B. M.* 8, *t.* 271, not Jacq.) q. C. G. H. Fl. orange-red. Introduced in March, 1841. Has not fl. yet.
 8. *odoratus*, Ker. (*B. Reg.* 6, *t.* 503;—*Spreng. syst.* 2, *p.* 58;—*Herb. l. c.*) q. C. G. H. Fl. crimson, fragrant. Introduced in March, 1841. Has not fl. yet.
- GASTRONEMA*, Herb. (*Amaryll.* *p.* 132;—*Endl. gen. pl.* 1, *p.* 178, under *Cyrtanthus*.)
1. *clavatum*, Herb. (*l. c.*;—*B. M.* 49, *t.* 2291.—*Cyrtanthus uniflorus*, *Ker.*; *B. Reg.* 2, *t.* 168;—*Spreng. syst.* 2, *p.* 58.—*Amaryllis clavata*, *L'Herit.*—*A. Pumilio*, *Ait.*;—*Spreng. o. c.* *p.* 49.) q. C. G. H. Fl. white, striped with red. Introduced in 1819. Fl. ?
- CHLIDANTHUS*, Lindl. (*Herb. amaryll.* *p.* 190;—*Endl. gen. pl.* *p.* 178.)
1. *fragrans*, Herb. (*l. c.* *t.* 27, *f.* 2;—*B. Reg.* 8, *t.* 640;—*Lindl. coll.* *t.* 34.—*Pancratium luteum*, *Poir.*—*Spreng. syst.* 2, *p.* 48.) q. Buenos Ayres. ? Fl. large, yellow, fragrant. Introduced in 1821. Fl. ?



B. NARCISSEÆ, *Endl. gen. pl. I.*, p. 178.

COBURGIA, Sweet. (*Herb. amaryll.* p. 196;—*Endl. l. c.*)

1. *incarnata*, Sweet. (*fl. gard. s. 2, t. 17*;—*Herb. l. c.*—*Pancratium incarnatum*, *Kth.*;—*Spreng. syst. 2, p. 48.*) 2. Quito, on the banks of the river Machangara. Fl. under 5 inches, crimson, with a green spot on each segment. Introduced in 1832, but has not fl. yet.

EURYCLES, Salisb. (*Herb. amaryll.* p. 227;—*Endl. gen. pl. I.*, p. 179.)

1. *amboinensis*, Salisb. (*Herb. l. c.*—*Prophys amboinensis*, *Herb.*—*B. M. 49. app.*—*Pancratium amboinense*, *L.*; *Spreng. syst. 2, p. 46*;—*B. M. 35, t. 1419.*—*Crinum nervosum*, *L'Herit.*;—*Roxb. fl. ind. 2, p. 135.*—*Cœpa silvestris*, *Rumph. 6, t. 70, f. 1.*) 2. Amboyna. Philippines. Fl. large, pure white, fragrant, May and June; fr. R. S.

CALOSTEMMA, R. Br. (*pr. p. 297*;—*Herb. amaryll.* p. 225;—*Endl. gen. pl. I.*, p. 179;—*Spreng. syst. 2, p. 5, No. 1194.*)

1. *album*, R. Br. (*o. c. p. 298*;—*Herb. o. c. p. 226*;—*Spreng. syst. 2, p. 45.*) 2. Tropical N. Holland. Fl. white. Introduced in 1819. Fl.?

PANCRATIUM, L. (*Herb. amaryll.* p. 202.—*Schizostephanium*, *Reichenb.*;—*Endl. gen. pl. I.*, p. 179, under *Pancratium.*)

1. *maritimum*, L. (*Spreng. syst. 2, p. 45*;—*B. Reg. 2, t. 161*;—*Herb. l. c.*;—*Red. lit. t. 8*;—*Fl. græc. 4, t. 309*;—*Herb. l. c. t. 34, f. 21-22*, (seeds) *Herb. l. c. t. 42, f. 7*, (anthers)—*Roxb. H. B. p. 23.*) 2. S. Europe. N. Africa. Fl. large, white, fugacious, R. S.

2. *canariense*, Ker. (*B. Reg. 2, t. 174*;—*Spreng. syst. 2, p. 46*;—*Herb. l. c.*) 2. Canaries. Fl. large, white, R. S.

3. *illyricum*, L. (*Spreng. syst. 2, p. 46*;—*B. M. 19, t. 718*;—*Herb. l. c.*—*P. malabathricum*, *Herb.*;—*Rheed. 11, t. 40.*) 2. Spain. Corsica. Sardinia. Sicily. Illyria. Fl. large, dull, white, fragrant, R. S.

4. *vereendum*, Soland. (*Spreng. syst. 2, p. 46*;—*B. Reg. 5, t. 413*;—*Herb. l. c.*—*P. biflorum* and *triflorum*, *Roxb. fl. ind. 2, p. 125-26.*) 2. India. Fl. largish, white, R. S.

5. *zeylanicum*, L. (*Spreng. syst. 2, p. 46*;—*Herb. l. c.*;—*Roxb. fl. ind. 2, p. 124*;—*J. Grah. Cat. B. pl. p. 216*;—*B. M. 52, t. 2538*;—*B. Reg. 6, t. 479*;—*Rumph 6, t. 70, f. 2.*) 2. Moluccas. Ceylon. Fl. large, pure white, faintly fragrant, R. S.

6. *longiflorum*, Banks's Herb. (*Roxb. fl. ind. 2, p. 124*;—*Herb. l. c. t. 42, f. 2.*) 2. Moluccas. Fl. large, pure white, fragrant, R. S. Extinct in our gardens.

HYMENOCALLIS, Herb. (*Amaryll.* p. 209;—*Endl. gen. pl. I.*, p. 179, under *Pancratium.*)

1. *speciosa*, Herb. (*l. c.*)

a. *longi-petiolata*, Herb. (*l. c.*—*Pancratium speciosum*, *Salisb.*;—*Spreng. syst. 2, p. 47*;—*B. M. 35, t. 1453*;—*Red. lit. t. 412*;—*J. Grah. Cat. B. pl. p. 216*.—*P. amoenum*, *Lodd. B. Cab. t. 286*; not *B. M.*) 2. W. Indies. Fl. very large, pure white, extremely fragrant, especially in the evening, and fr. R. S.



2. *amoena*, Herb. (*o. c. p. 211.*)
a. *princeps*, Herb. (*l. c.—Pancratium amoenum, Salish.*;—*Spreng. syst. 2, p. 47*;—*B. M. 36, t. 1467*.—*P. fragrans, Andr. B. Repos. t. 556*;—*Lodd. B. Cab. t. 834.*) 2. Guiana. Fl. large, pure white, fragrant, and fr. R. S.
- β. *ovata*, Herb. (*l. c.—Pancratium ovatum, Mill.*;—*Spreng. syst. 2, p. 47*;—*B. Reg. 1, t. 43.*) 2. W. Indies. Fl. large, white, and fr. R. S.
3. *caribaeum*, Herb. (*o. c. p. 212.*)
a. *princeps*, Herb. (*l. c.—Pancratium caribaeum, L.*;—*Spreng. syst. 2, p. 47*;—*B. M. 21, t. 826*.—*P. declinatum, Jacq. amer. 51, t. 102; hort. vind. 3, p. 11, t. 10*;—*Red. lit. t. 414*;—*Lodd. B. Cab. t. 558.*) 2. W. Indies. Fl. large, white, with the tube streakletted green, and fr. R. S.
- γ. *patens*, Herb. (*l. c.—Pancratium patens, Red. lit. 380 and 414. annot.; Spreng. syst. 2, p. 47.*) 2. W. Indies. Fl. large, white, and fr. R. and C. S.
4. *expansa*, Herb. (*o. c. p. 213*.—*Pancratium expansum, Sims.*; *B. M. 44, t. 1941*, excl. syn.;—*Spreng. syst. 2, p. 46.*) 2. Lima? Fl. large, white, fragrant, and fr. R. S.
5. *tenuiflora*, Herb. (*l. c.*) 2. Native place? Fl. large, white, R. S.
6. *angusta*, Herb. (*o. c. p. 214*.—*Pancratium angustum, Ker. B. Reg. 3, t. 221*;—*Spreng. syst. 2, p. 46.*) 2. Carthagena? Fl. large, white, R. S.
7. *pedalis*, Herb. (*l. c.—Pancratium pedale, Lodd. B. Cab. t. 809*;—*B. Reg. 19, t. 1641*;—*Röm. and Sch. 7, p. 916.*) 2. Native place unknown. Fl. 1 foot long, white, R. S.
8. *caymanensis*, Herb. (*l. c.—Pancratium patens, Lindl. in Hort. soc. trans. 6, 87*, not Redouté.) 2. Island of Grand Cayman. Fl. large, white, R. S.
9. *crassifolia*, Herb. (*o. c. p. 215.*) 2. E. Florida. Introduced in 1832, but has not fl.
10. *adnata*, Herb. (*l. c.*)
a. *princeps*, Herb. *l. c.—Pancratium littorale, Jacq. amer. 99, t. 179; hort. vind. 3, p. 41, t. 75*;—*Spreng. syst. 2, p. 46*;—*Rozb. H. B. p. 23*;—*J. Grah. Cat. B. pl. p. 216*.—*P. distichum, B. M. 44, t. 1879*, as to the fig. and Lee's plant.—*P. mexicanum, Hortul.* not *L.*, nor *Walt.*) 2. Mexico. Fl. large, white, and fr. R. S.
- β. *Dryandrina*, Herb. (*l. c.—P. littorale, β. B. M. 21, t. 825*;—*P. Dryandri, Ker.*;—*Spreng. syst. 2, p. 47.*) 2. S. America. Fl. large, white, and fr. R. S.
- γ. *disticha*, Herb. (*l. c.—Pancratium distichum, B. M. 44, t. 1879*, as to Herbert's plant, not the figure.) 2. S. America. Fl. large, white, and fr. R. S.
- δ. *acutifolia*, Herb. (*l. c.—Hymenocallis litoralis, δ. acutifolia, B. M. 53, t. 2621*.—*Pancratium mexicanum, B. Reg. 11, t. 940*, not of



others.—*P. acutifolium*, *Swt. hort. brit.*) 2. Mexico. Fl. large, white, and fr. R. S.

e. Staplesiana, Herb. (*l. c.*) 2. Mexico. Fl. large, white, and fr. R. S.
ll. rotata, Herb. (*o. c. p.* 217.)

a. quadriflora, Herb. *l. c.*—*Pancratium rotatum*, *B. M.* 21, *t.* 827;—
Lodd. B. Cab. *t.* 19.—*P. carolinianum*, *Catesb. carol.* with a very
bad figure) 2. Bogs of N. America. Fl. large, white, R. S.

β. disciformis, Herb. (*l. c.*—*Pancratium mexicanum*, *L.*;—*Spreng.*
syst. 2, *p.* 47, not of others.—*P. rotatum*, *a. B. M.* 27, *t.* 1082.—*P.*
disciforme, *Red. lit. t.* 155.) 2. Bogs of N. America. Fl. large,
white, R. S.

12. *Spafforthia*, Herb. (*l. c.*—*H. disticho-rotata*, *Herb. MSS.*) 2. Fl.
large, white, R. S.

13. *glauca* (*Pancratium glaucum*, *Lodd.*) C. S. 1839.

ISMENE, Herb. (*Amaryll. p.* 222;—*Endl. gen. pl. 1, p.* 179, under *Pancra-*
tium.)

1. *Amancaes*, Herb. (*l. c.*—*Pancratium Amancaes*, *Ker.*;—*B. M.* 30, *t.*
1224;—*B. Reg.* 7, *t.* 600;—*Spreng. syst.* 2, *p.* 45.—*Narcissus Aman-*
caes, *Ruiz. and Pav.*) 2. Peru. Fl. large, bright yellow. Introduced
in 1825. Fl. ?

2. *calathina*, Herb. (*B. M.* 53, *t.* 2685.—*Pancratium calathinum*, *Ker.*;—
B. Reg. 3, *t.* 215. (very bad);—*Spreng. syst.* 2, *p.* 45.—*P. calathiforme*,
Red. lit. 353.) 2. Brazil. Chili. Fl. large, white, R. S.

3. *nutans*, Herb. (*o. c. p.* 223;—*J. Grah. Cat. B. pl. p.* 216, *No.* 1526,
excl. syn. *Pancratium calathinum*.—*Pancratium nutans*, *Ker.*;—*B.*
M. 38, *t.* 1561, under the name of *P. calathinum*.) 2. S. America?
Fl. large, white, R. S. but rare.

NARCISSUS, L. (*Spreng. syst.* 2, *p.* 5, *No.* 1193;—*Herb. amaryll. p.* 316;
—*Endl. gen. pl. 1, p.* 179.)

Out of 35 species of *Narcissus*, which have been introduced into the
garden here, from 1812 to 1829, only one has flowered and continues
to do so; viz.

1. *Tazetta*, L. (*Spreng. syst.* 2, *p.* 42.—*Hermione Tazetta*, *Herb. amaryll.*
p. 321, *t.* 41, *f.* 18.) 2. S. Europe. N. Africa. Asia Minor. Fl. small-
ish, with a white limb, and a pale yellow cup. January and Feb.; fr. O.

GETHYLLIS, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1235;—*Herb. amaryll. p.* 185;
—*Endl. gen. pl. 1, p.* 179.)

1. *spiralis*, L. (*Spreng. syst.* 2, *p.* 82;—*B. M.* 27, *t.* 1088;—*Herb. l. c.*)
2. C. G. H. Fl. large, white, purplish without. Introduced in March,
1841. Has not flowered yet.

C. ANOMALAE; *Endl. gen. pl. 1, p.* 180.

ALSTRÖMERIA, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1234;—*Herb. amaryll. p.*
88;—*Endl. l. c.*)

1. *Pelegrina*, Feuill. (*Obs.—L.*;—*Spreng. o. c. p.* 80;—*B. M.* 4, *t.* 139.
A. peregrina, *Herb. o. c. p.* 91.) 2. Peru. Chili. Fl. large, externally



rose-coloured, with green tipped petals, internally with the 3 outer petals crimson in the middle, and the 3 inner dark purple spotted, and at the base yellow. Introduced in 1825. Fl.?

2. *caryophyllea*, Jacq. (*Hort. schönbr.* 4, t. 465;—*Spreng. syst.* 2, p. 80;—*Herb. l. c.*—A. Ligtu, *B. M.* 4, t. 125; not Feuill.) 2. Peru. Fl. large, delightfully fragrant, whitish-scarlet, striped. Introduced in 1822. Fl.?

3. *Simsii*, Spreng. (*Syst.* 2, p. 80.—A. Simsiana, *Herb. o. c.* p. 99.—A. pulchella, *Sims.*; *B. M.* 49, t. 2353;—*B. Reg.* 12, t. 1008;—*Hook. exot. fl.* t. 64;—*Swt. brit. fl. gard.* t. 267; not *Herb.*) 2. Chili. Fl. large, 4 outer petals deep red, 2 inner ones bright yellow, with dark orange speckles. Introduced in 1841.

4. *Hookeriana*, Spreng. (*Herb. o. c.* p. 95.—A. rosea, *Hook. exot. fl.* t. 181;—*Spreng. o. p.* p. 135; not Ruiz. and Pav.) 2. Peru. Has been introduced into H. C. G. Fl.?

5. *hirtella*, Kth. (*Spreng. syst.* 2, p. 82;—*Swt. fl. gard.* t. 228.) 2. Mexico. Has been introduced into H. C. G. Fl.?

DORYANTHES, Correa. (*R. Br. pr.* p. 298;—*Endl. gen. pl.* 1, p. 180;—*Spreng. syst.* 2, p. 7, No. 1233.)

1. *excelsa*, Correa. (*R. Br. l. c.*;—*Spreng. syst.* 2, p. 80;—*B. M.* 41, t. 1685, A. B.) 2. Port Jackson. Fl. immensely large, crimson. Introduced in 1841.

D. AGAVEAE, Endl. *gen. pl.* 1, p. 181.

AGAVE, L. (*Spreng. syst.* 2, p. 7, No. 1232;—*Herb. amaryll.* p. 127;—*Endl. l. c.*)

1. *turida*, Ait. (*Spreng. syst.* 2, p. 79;—*B. M.* 37, t. 1522; excl. most of the syn.;—*Roxb. H. B.* p. 25;—*Herb. o. c.* p. 128.) 2. N. Spain. Fl. large, green, May and June; fr. Aug. to Oct.

2. *Veræ Crucis*, Haw. 2. S. America. Introduced in 1840.

FOURCROYA, Vent. (*Endl. gen. pl.* 1, p. 181;—*Herb. amaryll.* p. 126;—*Spreng. syst.* 2, p. 79; under Agave.)

1. *tuberosa*, Haw. (*Herb. l. c.*—Agave *tuberosa*, Mill.;—*Spreng. l. c.*) 2. Tropical America. Fl. largish, greenish-white, May and June; fr. Aug. to Oct.

2. *Cantala*, Haw. (*Herb. l. c.*—Agave *Cantala*, Roxb. *fl. ind.* 2, p. 167;—*Spreng. syst.* 2, p. 79;—*J. Grah. Cat. B. pt.* p. 222.—*Alœ americana*, *Rumph.* 5, t. 94.) विवाति अबॉनास *Bilati-ananas*. 2. Moluccas? S. China? Flowers in May and June, when from 10 to 15 years old, and then from 20 to 30 feet high. (*Roxb.*)

* *Lepidra Martinezii*, Lag. 2. S. Spain.—*Carpolyza spiralis*, Salisb. (*Strumaria spiralis*, Ker.; *B. M.* 34, t. 1383.) 2. C. G. H.—*Strumaria crispa*, Ker.; *B. M.* 33, t. 1363. 2. C. G. H.—*Oporanthus exiguis*, Herb. 2. Tangiers.—*Zephyranthes minima*, Herb. 2. Buenos Ayres.—*Z. Grahamiana*, Herb. 2. Mexico.—*Habran-*

thus kermesinus, Herb. (*Amaryllis kermesina*, B. Reg. 19, t. 1638.) 2. Brazil.—*H. intermedius*, Herb. (*Amaryllis intermedia*, B. Reg. 14, t. 1148.) 2. Brazil.—*H. Bagnoldi*, Herb. B. Reg. 17, t. 1396. 2. Chili.—*H. phycelloides*, Herb.; B. Reg. 17, t. 1417. 2. Chili.—*Hippeastrum breviflorum*, Herb.; B. M. 64, t. 3549. 2. Buenos Ayres.—*Griphnia hyacinthina*, R. Br. (*Amaryllis hyacinthina*, B. Reg. 2, t. 163.) 2. S. America.—*Crinum purpurascens*, Herb. 2. Fernando del Po.—*C. Lindleyanum*, Herb. 2. Surinam.—*C. strictum*, Herb. B. M. 53, t. 2635. 2. Mexico?—*C. submersum*, Herb.; B. M. 51, t. 2463. 2. Rio Janeiro.—*C. insigne*, Herb. (*Amaryllis insignis*, B. Reg. 7, t. 579.) 2. Ceylon. Mahabaleshwar.—*Collania urceolata*, Schult. fil. (*Crinum urceolatum*, Ruiz. and Pav.) 2. Peru.—*Eustephia cyrtanthoides*, Endl. (*Amaryllis cyrtanthoides*, Sims.; B. M. 50, t. 2899.) 2. Chili.—*E. ignea*, Endl. (*Amaryllis ignea*, Ker.; B. Reg. 10, t. 809.) 2. Chili.—*E. Herbertiana*, Endl. (*Phycella Herbertiana*, Lindl. B. Reg. 16, t. 1341.) 2. Valparaiso.—*Eucrosia bicolor*, Ker.; B. Reg. 3, t. 207; B. M. 51, t. 2490. 2. S. America.—*Stenomesson flavum*, Herb.; B. M. 1849, app. (1821.); B. M. 53, t. 2641, (*Chrysiphiala flava*, Ker. (1823.) in B. Reg. 9, t. 778; Endl. gen. pl. 1, p. 178.) 2. S. America.—*S. curvidentatum*, Herb.; B. M. 53, t. 2640. 2. S. America.—*S. croceum*, Domb.; B. M. 64, t. 3615. 2. S. America.—*Coburgia fulva*, Herb.; B. Reg. 18, t. 1497; B. M. 60, t. 3221. 2. S. America.—*Eurycles australasica*, (*Pancratium australasicum*, Ker.; B. Reg. 9, t. 715.) 2. Australia.—*E. Cunninghamii*, Lindl.; B. Reg. 18, t. 1506; B. M. 62, t. 3399. 2. N. Holland.—*Tapizanthus humilis*, Herb. 2. Seville.—*Hymenocallis guianensis*, Herb. (*Pancratium guianense*, Ker.; B. Reg. 4, t. 265.) 2. Guiana.—*Ismene Macleanae*, Herb.; B. M. 65, t. 3675. 2. Lima.—*Narcissus orientalis*, L.; B. M. 24, t. 948. 2. Levant.—*N. viridiflorus*, Schousb.; B. M. 41, t. 1687. 2. N. Africa.—*N. serotinus*, L. 2. N. Africa.—*Clivia nobilis*, Lindl.; B. Reg. 14, t. 1182. (*Imatophyllum Aitonii*, Hook.; B. M. 55, t. 2856.) 2. C. G. H.—*Bomarea acutifolia*, Herb. (*Alströmeria acutifolia*, Lk. and Otto.; B. M. 58, t. 3050.) 2. Mexico.—*Agave americana*, L.; B. M. 65, t. 3654. 2. S. America.—*A. flaccida*, Haw. 2. S. America.—*A. yuccæfolia*, Willd. 2. New Spain.—*A. mexicana*, Haw. 2. Mexico.—*A. vivipara*, L. 2. S. America.—*A. Karalito*, Mill. 2. S. America.—*A. geminiflora*, Ker.; B. Reg. 14, t. 1145. (*Buonapartea juncea*, Schlecht.) 2. S. America.—*Faurcroya gigantea*, Vent.; B. M. 48, t. 2250. 2. S. America.—*F. cubensis*, Haw. 2. Cuba.—*F. rigida*, Haw. 2. S. America.—*F. madagascariensis*, Haw. 2. Madagascar.



ORDER CCXXIX.—HEMODORACEÆ. R. Br.—Lindl. Nat. Syst. p. 330;—Endl. gen. pl. 1, p. 170.

THE BLOOD-ROOT TRIBE.

Herbs, referred to about 12 genera. Of these, Spreng. syst. enumerates 12 species for New Holland; 12 for S. Africa; (10 Harvey) 4 for S. America; and 4 from N. America. One species, *Aletris litoralis*, Herb. König. is mentioned in Wall. Cat., but can scarcely be of Indian origin.

"The red colour found in the roots of *Dilatris tinctoria*, Pursh. in N. America, where it is used for dyeing, prevails in *Hæmodorum*, Sm., and *Wachendorfia*, L." DC. (*Lindl.*)

WACHENDORFIA, Burm. (*Spreng. syst.* 1, p. 127, No. 178;—*Endl. gen. pl.* 1, p. 171.)

1. *thyrsiflora*, L. (*Spreng. syst.* 1, p. 169;—*B. M.* 27, t. 1060.) 2. C. G. H. Introduced into the garden here in March 1841, but has not fl. yet.

2. *brevifolia*, Ker. (*B. M.* 29, t. 1166.) 2. C. G. H. Introduced with No. 1, and has likewise not fl. yet.

* *Hagenbachia brasiliensis*, Nees. 2. Brazil.—*Xiphidium albidum*, Lam. 2. W. Indies.—*X. coeruleum*, Aubl. 2. Guiana.—*Hæmodorum coccineum*, R. Br. 2. Tropical New Holland.

ORDER CCXXX.—BURMANNIACEÆ. Bl.—Lindl. Nat. Syst. p. 330;—*Endl. gen. pl.* 1, p. 163.

Herbs, by Lindl. referred to 5 genera. Of these, Spreng. syst. assigns 4 species to Brazil; 2 to Carolina; 2 to New Holland; (1 Indian) and 1 to S. Africa. Lindl. adds *Apteria setacea*, Nutt. for N. America. In the E. Indies have been discovered 3-4 species of *Burmannia*, (Ceylon, S. Concan; New Holland; 1 from Penang; 1 from Nepal; 1 from the Peninsula of India, Röttli.); 1 of *Gonyanthes*, (Java); and 1 of *Gymnosiphon*, (Java.) "Apteria setacea is slightly bitter, and very astringent. A similar flavour, something like that of Green Tea, is discernible in *Tripterella coerulea*. Nuttall." (*Lindl.*)

BURMANNIA, L. (*Spreng. syst.* 1, p. 125, No. 144;—*R. Br. pr. p.* 264;—*Endl. gen. pl.* 1, p. 164.)

1. *disticha*, L. (*Spreng. syst.* 1, p. 145;—*Roxb. Corom.* 3, t. 242; *fl. ind.* 2, p. 117;—*J. Grah. Cat. B. pl. p.* 228;—*Burm. zeyl.* t. 20, f. 1.—*B. distachya*, *R. Br. pr. p.* 264.) 2. Ceylon. S. Concan. New Holland. Fl. pale blue, and fr. R. S.



CSL

BURMANNIACEÆ—TACCACEÆ.

- * *Burmannia coelestis*, D. Don.; Royle ill. t. 91, f. 1. ♂ Nepal.—*B. triflora*, Roxb. Penang.—*B. flava*, Mart. Brazil.—*B. dasyantha*, Mart. Brazil.—*Gonyanthes candida*, Bl. ♂ Java.—*Gymnosiphon aphyllus*, Bl. ♂ Java.

ORDER CCXXXI.—TACCACEÆ, Lindl. Nat. Syst. p. 331;—Endl. gen. pl. p. 159.

Large, perennial, tuberous-rooted herbs, belonging to 1 genus. Of this, 7 species belong to the E. Indies, (the Concans, Silhet, Chittagong, Singapore, Penang, Java, the Moluccas). *Tacca pinnatifida* is also a native of Madagascar, New Holland, and the South Sea Islands.

"The great fleshy tuberous roots are filled with a nutritive *fæcula* resembling arrow-root, but its petioles are acrimonious. *Agardh.*" (Lindl.)

TACCA, Forst. (*Spreng. syst.* 2, p. 10, No. 1294;—*R. Br. pr. p.* 340;—*Endl. gen. pl. 1, p.* 159.

1. *pinnatifida*, Forst. (*Spreng. syst.* 2, p. 118;—*Schult. 7, p. 166*;—*R. Br. l. c.*;—*Endl. l. c.*;—*Roxb. fl. ind.* 2, p. 172;—*J. Grah. Cat. B. pl. p.* 230;—*B. Cab. t.* 692.—*T. pinnatifolia*, *Gartn. fr.* 1, p. 43, t. 14, f. 2, excl. syn. *Rheed.* and *Rumph.* 5, t. 12;—*Rumph.* 5, t. 114.) ♀. Tropical New Holland. Otaheite. Moluccas. Worlee and Parell Hills, Bombay. Throughout the Concans. Madagascar. Fl. smallish, pale green. June, July and August; fr. Oct. Root intensely bitter when raw, but yielding a great quantity of white *fæcula*, of which the best flower for confectionary, puddings, &c., is made. (*Roxb.*) In the Islands of the South Sea, where grain of every kind disappears, its place is partly supplied by *Tacca pinnatifida*. (*Schouw.*)
2. *tævis*, Roxb. (*fl. ind.* 2, p. 171;—*J. Grah. Cat. B. pl. p.* 230.) ♀. Silhet. The Concans. Fl. largish, of a dark greenish grey violet colour. H. and R. S.; fr. O.
3. *integrifolia*, Ker. (*B. M.* 36, t. 1488;—*Spreng. syst.* 2, p. 118;—*Schult. syst.* 7, p. 169;—*Roxb. Corom.* 3, t. 257.—*T. aspera*, *Roxb. fl. ind.* 2, p. 169.—*Ataccia integrifolia*, *Presl.*; *Schult. syst.* 8, p. 1653.) ♀. Chittagong. Fl. largish, of a greenish-purple and yellow colour, R. S.; fr. C. S.
4. *cristata*, Jack. ♀. Singapore. In 1841, introduced into the Governor General's garden at Barrackpore by Dr. Cantor. Fl. ?

* *T. Rafflesiana*, Jack. ♀. Singapore. Penang.—*T. montana*, Bl. Rumph. 5, t. 115. ♀. Amboyna. Java.



ORDER CCXXXII.—IRIACEÆ. (IRIDACEÆ, Lindl. Nat. Syst.

p. 332;—Endl. gen. pl. 1, p. 164.)

THE IRIS TRIBE.

Herbs, or very seldom undershrubs, by Lindl. (adding Phalocallis, Geasine, Nemostylis, Alophia, Trifurcia, and Beatonia) referred to 45 genera. Of these, according to Spreng. syst. B. M. and B. Reg. about 36 species belong to S. America, Mexico, and the W. Indies; 36 to Europe; 16 to N. America (referring Texas to Mexico); 15 to Tauria, Caucasus, and Iberia; 12 to Siberia; 11 to New Holland and Van Diemen's Land; 4 to N. Africa; 3 to Asia Minor; 2 to Persia; 2 to Japan; 2 to the Mascarenhas Islands; 1 to Madagascar; and 1 to China. 300 species have been discovered in S. Africa; (*Harvey*) and 8 in the Himalayas; viz. 6 of *Iris*; 1 of *Pardanthus*; (also a native of China) and 1 of *Crocus*.

The plants of this order are "more remarkable for their beautiful fugitive flowers, than for their utility. The rhizoma of some of them is slightly stimulating, as the violet-scented *Orris-root*, the produce of *Iris florentina*. The substance called *Saffron* is the dried stigmas of *Crocus sativus*; the colouring ingredient is a peculiar principle, to which the name Polychorite has been given. It possesses the remarkable properties of being totally destroyed by the action of the solar rays, of colouring in small quantity a large body of water, and of forming blue and green tints when treated with sulphuric and nitric acid, or with sulphate of iron. DC." (*Lindl.*)

SISYRINCHIUM, L. (*Spreng. syst.* 1, p. 127, No. 170;—*Endl. o. c.* p. 165;—not R. Br. pr. p. 160, as to the species.)

1. *micranthum*, Cav. (*Diss.* 6, p. 345, t. 191, f. 2;—*Spreng. syst.* 1, p. 167;—*B. M.* 47, t. 2116.) 2. Peru. Has been cultivated in the garden here for many years without flowering.

2. *luteum*, Fisch. (*Spreng. l. c.* under *S. convolutum*, Noce.) 2. Guiana. Introduced in 1841.

LIBERTIA, Spreng. (*Syst.* 1, p. 127, No. 174;—*Endl. gen. pl.* 1, p. 165.)

1. *formosa*, Grah. (*B. M.* 61, t. 3294;—*B. Reg.* 19, t. 1630.) 2. Island of Chiloe. Has been introduced into H. C. G. Fl.?

CIPURA, Aubl. (*Endl. gen. pl.* 1, p. 165.)

1. *paludosa*, Aubl. (*Guian.* 1, p. 38, t. 13.—*Marica Cipura*, *Gmel. syst. nat.* 118.—*M. paludosa*, *Willd.*; *Spreng. syst.* 1, p. 165;—*B. M.* 18, t. 646;—*Rozb. H. B.* p. 5.) 2. Moist Meadows. Guiana. Fl. 10 lines pure white, May and June; fr. 0.

2. *Northiana*, Lindl. (*Marica Northiana*, *Ker.*;—*Spreng. l. c.*;—*B. M.* 18, t. 654;—*J. Grah. Cat. B.* pl. p. 214.—*Moraea Northiana*, *Schneevogt.*;—*B. Repos.* t. 255.—*Ferraria elegans*, *Salisb. pr. hort.* p. 42.) 2. Island of Raza, near the mouth of Rio Janeiro. Fl. 22 lines, pale sulphur, variegated with blue, and spotted with brownish on a yellow ground, very fragrant, R. S.; fr. 0.



3. *humilis*, Humb. (*Marica humilis*, R. and Sch.; — *Spreng. syst.* 1, p. 65.) 2. New Granada. Introduced in 1841.
4. *coerulea*, Lindl. (*Marica coerulea*, Ker.; *B. Reg.* 9, t. 713; — *Spreng. l. c.*) 2. Brazil. Introduced in 1841.
5. *Sabiniana*, (*Marica Sabiniana*, Lodd. *MSS.*) 2. Tropical America. Introduced in 1841.

VIEUSSEUXIA, Roche. (*Spreng. syst.* 1, p. 126, *No.* 168; — *Endl. gen. pl.* 1, p. 165.)

1. *pavonia*, DC. (*Spreng. syst.* 1, p. 166.—*Iris pavonia*, L. *fil. suppl.* p. 98; — *Jacq. hort. schönbr.* 1, p. 6, t. 10; — *B. Repos.* t. 364.—*Moraea pavonia*, Ker.; *B. M.* 31, t. 1247.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

2. *tripetala*, (V. *tripetaloides*, DC.; — *Spr. o. c.* p. 165.—*Iris tripetala*, Thunb.; — *Jacq. ic. rar.* 2, t. 224.—*Moraea tripetala*, Ker.; *B. M.* 19, t. 732.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

MORAEA, L. (*Spreng. syst.* 1, p. 126, *No.* 166; — *Endl. gen. pl.* 1, p. 165.)
1. *ciliata*, Ker. (*Spreng. syst.* 1, p. 163; — *B. M.* 32, t. 1061.—*Iris ciliata*, Thunb.) 2. C. G. H. Introduced in 1816, and afterwards. Fl. middle-sized, pale blue, with the outer segments yellow at the base, March; fr. 0.

2. *papilionacea*, Ker. (*B. M.* 20, t. 750; — *Spreng. l. c.* — *Iris papilionacea*, Thunb.; *Jacq. coll. suppl.* 159, t. 3, f. 2.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

3. *edulis*, Ker. (*B. M.* 17, t. 613; — *Spreng. l. c.* — *Iris edulis*, Thunb.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

4. *longiflora*, Ker. (*B. M.* 19, t. 712; — *Spreng. l. c.*) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.

5. *ramosa*, Ker. (*B. M.* 20, t. 771; — *Spreng. o. c.* p. 164.—*Iris ramosa*, Thunb.—*L. ramosissima*, L. *suppl.* p. 99.) 2. C. G. H. Introduced in 1821. Fl.?

6. *tristis*, Ker. (*Spreng. l. c.* — *Iris tristis*, Thunb.; *B. M.* 16, t. 577.—*Moraea sordescens*, *Jacq. ic. rar.* 2, t. 225.—*M. tricolor*, *B. Repos.* t. 83.) 2. C. G. H. Introduced in 1816. Fl.?

7. *viscaria*, Ker. (*B. M.* 16, t. 587; — *Spreng. l. c.* — *Iris viscaria*, Thunb.) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.

8. *bituminosa*, Ker. (*B. M.* 26, t. 1045; — *Spreng. l. c.* — *Iris bituminosa*, Thunb.) 2. C. G. H. Introduced in 1814. Fl.?

9. *Gawleri*, Spreng. (*Syst. index*, p. 462.—*M. crispa*, Ker.; *B. M.* 20, t. 759; — *Spreng. syst.* 1, p. 164; — not Thunb.—*Iris crispa*, Thunb. *diss.* 36, t. 1, f. 1; — *prodri.* 12.) 2. C. G. H. Introduced in 1815. Fl.?

HOMERIA, Vent. (*Endl. gen. pl.* 1, p. 166; under *Moraea*).

1. *collina*, Swt. (*Moraea collina*, Thunb.; — *Jacq. ic. rar.* 2, t. 220; — *B. M.* 26, t. 1033; — *Spreng. syst.* 1, p. 165.—*Sisyrinchium collinum*, Cav.—*Moraea miniatia*, *B. Repos.* t. 404.) 2. C. G. H. Introduced in 1820. Fl.?



2. *flexuosa*, Swt. (*Morea flexuosa*, L.;—*B. M.* 19, t. 695.—*Ixia longifolia*, Jacq. *hort. vind.* 3, p. 47, t. 90.—*Sisyrinchium flexuosum*, Spr. *syst.* 1, p. 167.) 2. C. G. H. Introduced in 1820. Fl. ?
- IRIS, L. (*Spreng. syst.* 1, p. 126, *No.* 165;—*Endl. gen. pl.* 1, p. 166.)
1. *persica*, L. (*Spreng. syst.* 1, p. 159;—*B. M.* 1, t. 1;—*J. Grah. Cat. B. pt. p.* 214.—*Xiphium persicum*, Mill. *dict.*) *The Persian bulbous Fleur-de-luce.* 2. Persia. Introduced in 1817. Fl. ?
2. *junccea*, Poir. (*Spreng. l. c.*;—*Desf. atl.* p. 39, t. 4.) 2. N. Africa. Introduced in March, 1841; but has not fl. yet.
3. *tusitanica*, Ker. (*B. M.* 18, t. 679;—*Spreng. syst.* 1, p. 159.) 2. Portugal. Fl. large, pale yellow, variegated with bright yellow and purple, H. S. but rare; fr. O.
4. *Xiphium*, L. (*Spreng. l. c.*;—*B. M.* 18, t. 686;—*Roxb. H. B.* p. 5.) 2. Spain, Portugal. Fl. large, blue-violet, variegated with deep yellow, sweet-scented, H. S. but rare; fr. O.
5. *xiphioides*, Ehrh. (*Spreng. l. c.*;—*B. M.* 18, t. 687.) 2. Spain. Fl. larger than No. 3, purple, variegated with blue and yellow, scentless, H. S. but rare; fr. O.
6. *tenuifolia*, Pall. (*Spreng. syst.* 1, p. 160.) 2. Banks of the Wolga. Siberia. Introduced in 1818. Fl. ?
7. *ventricosa*, Pall. (*Spreng. l. c.*) 2. Siberia. Introduced in 1820. Fl. ?
8. *graminea*, Bauh. (*Spreng. l. c.*;—*Jacq. austr.* 1, p. 5, t. 2;—*B. M.* 18, t. 781.) 2. Austria. Introduced in 1818. Fl. ?
9. *verna*, Pursh. (*Spreng. l. c.*) 2. Virginia. Introduced in 1819. Fl. ?
10. *prismatica*, Pursh. (*Spreng. l. c.*;—*B. M.* 37, t. 1504.) 2. N. America. Introduced in 1819. Fl. ?
11. *sibirica*, L. (*Spreng. l. c.*;—*B. M.* 2, t. 50.) 2. Germany, Switzerland, Dauphiny, Siberia. Introduced in 1818. Fl. ?
12. *moroëides*, Ker. (*Spreng. syst.* 1, p. 160.—*Morea iridoëides*, L.; *Lam. enc.* 4, p. 274, t. 31, f. 1;—*B. M.* 19, t. 693;—*M. irioëides*, *Gürtn. fr.* 1, p. 40, t. 13, f. 2.—*Iris compressa*, *Thunb.*) 2. C. G. H. Fl. largish, white, scentless, H. S.; fr. O.
13. *Pseudacorus*, L. (*Spreng. l. c.*;—*E. B.* 9, t. 578.) 2. Ditches, pools and margins of rivers in Europe. Fl. large, yellow, the larger petals pencilled with dark purple, H. S. but rarely; fr. O.
14. *versicolor*, L. (*Spreng. l. c.*;—*B. M.* 1, t. 21.) 2. Virginia, Maryland, Pennsylvania. Introduced in 1818. Fl. ?
15. *cuprea*, Pursh. (*Spreng. l. c.*—*Iris fulva*, Ker.; *B. M.* 36, t. 1496.) 2. New Orleans. Fl. 3 inches, of a tawny or copper-colour, with purple veins, scentless, H. S. but rare; fr. O.
16. *virginica*, L. (*Spreng. syst.* 1, p. 161;—*Jacq. ic. rar.* 2, t. 223;—*B. M.* 19, t. 703.) 2. Virginia, Carolina. Introduced in 1818. Fl. ?
17. *spuria*, L. (*Spreng. l. c.*;—*I. halophila*, *B. M.* 22, t. 875.) 2. Meadows of Europe. Fl. large, deep-blue, H. S., but rare; fr. O.



18. *Güldenstüdtiana*, Lepech. (*Spreng. l. c.*—*I. ochroleuca*, *L.* ;—*B. M.* 2, t. 61.) 2. Carniola. Introduced in 1818. Fl.?
19. *nolta*, Bieb. (*Spreng. l. c.*—*I. spuria*, δ . *halophila*, *B. M.* 28, t. 1131.) 2. Caucasus. Introduced in 1819. Fl.?
20. *spathulata*, Lam. (*I. spuria*, *B. M.* 2, p. 58.) 2. Wet meadows of Germany. Introduced in 1817. Fl.?
21. *desertorum*, Güldenst. (*I. spurea* & *desertorum*, *B. M.* 37, t. 1514.) 2. Russia. Has been cultivated here since 1817, without flowering.
22. *ochroleuca*, Bieb. (*I. spuria* p. *stenogyna*, *B. M.* 37, t. 1515.) 2. Europe. Caucasus. Introduced in 1818. Fl.?
23. *germanica*, L. (*Spreng. syst.* 1, p. 161. excl. syn.—*B. M.* 18, t. 670.) 2. Europe. Introduced in 1820, but has not fl. since.
24. *florentina*, L. (*Spreng. l. c.*;—*B. M.* 18, t. 671;—*Roxb. H. B.* p. 5.) 2. Italy and other parts of S. Europe. Grows plentifully on the walls of Florence. Fl. very large, greyish-white, outer segments with a somewhat bluer tint; sides of the unguis with brownish or greenish-yellow veins. H. S.; fr. 0. The dried root, formerly used in medicine, is now confined to the manufactory of the perfumer, to whom it is known by the name of *Orris* or *Orris-root*, being used to give to certain articles, such as hair-powder, the scent of violets. (*Ker.*)
25. *pallida*, Lam. (*Spreng. l. c.*;—*B. M.* 18, t. 685.—*I. odoratissima*, *Jacq. hort. schönbr.* 1, p. 5, t. 9.) 2. Italy. Greece. Fl. very large, pale blue, suffused with a purplish tint, having a strong scent resembling that of Elder-flowers, H. S. but very rare; fr. 0.
26. *squalens*, L. (*Spreng. o. c. p.* 162; excl. syn.—*B. M.* 21, t. 787.) 2. S. Europe. Introduced in 1818. Fl.?
27. *lurida*, Ait. (*Hort. Kew.* 1, p. 68;—*B. M.* 18, t. 669.) 2. S. Europe. Fl. large, purplish-blue, variegated with yellow and brown, somewhat sweet-scented, H. S.; but rare.
28. *dichotoma*, Pall. (*Spreng. syst.* 1, p. 162;—*B. Reg.* 3, t. 28, 246.) 2. Siberia. Introduced in 1818. Fl.?
29. *subbiflora*, Brot. (*fl. lusit.* 1, p. 50;—*B. M.* 28, t. 1130,) 2. Neighbourhood of Lisbon. Introduced in 1819. Fl.?
30. *chinensis*, Curt. (*B. M.* 11, t. 373;—*Spreng. syst.* 1, p. 162;—*Roxb. fl. ind.* 1, p. 170; ed. *Carey.* 1, p. 174.) 2. China. Fl. large, lilac, pencilled with yellow, fragrant, H. S.; fr. 0.
31. *susiana*, L. (*Spreng. l. c.*;—*B. M.* 3, t. 91;—*Roxb. H. B.* p. 5.) 2. Persia. Fl. very large, pale-grey, pencilled with brown, H. S.; but rare; fr. 0.
32. *nepalensis*, Wall. (*Cat.*;—*Spreng. o. p. p.* 24;—*B. Reg.* 10, t. 818;—*Royl. ill.* t. 90, f. 2.) 2. Nepal. Kemaon. Has been introduced in H. G. G. Fl.?
33. *variegata*, L. (*Spreng. syst.* 1, p. 162;—*B. M.* 1, t. 16.) 2. Hilly pastures of Hungary. Introduced in 1819. Fl.?



34. *hungarica*, Kit. (*Spreng. l. c.*) 24. Hungary. Introduced in 1840, but has not fl. yet.

35. *pumila*, L. (*Spreng. syst. 1, p. 163;—B. M. 1, t. 9.*) 24. Germany. Hungary. Introduced in 1815. Fl.?

36. *lutescens*, Lam. (*Spreng. l. c.;—B. M. 55, t. 2861.*) 24. Germany. France. Introduced in 1822. Fl.?

HERBERTIA, Swt. (*Endl. gen. pl. 1, p. 166.*)

1. *pulchella*, Swt. (*fl. gard. t. 222.*) 24. Chile. Introduced in 1841. Has not fl. yet.

CYPRILLA, Herb. (*Endl. gen. pl. 1, p. 166.*)

1. *Herbertii*, Herb. (*Tigridia Herbertii, Sims.; B. M. 52, t. 2599.—Moraea Herbertii, Lindl.;—B. Reg. 11, t. 949;—Spr. c. p. p. 24.*) 24. Buenos Ayres. Introduced in August, 1841. Has not fl. yet.

TIGRIDIA, Juss. (*Spreng. syst. 1, p. 127, No. 175;—Endl. gen. pl. 1, p. 166.*)

1. *Pavonia*, Juss. (*Spreng. syst. 1, p. 169;—J. Grah. Cat. B. pl. p. 214.—Ferraria Tigridia, Sims.;—B. M. 15, t. 532.—F. Pavonia, L. fil.—Moraea Pavonia, Thunb.*) 24. Mexico. Peru. Fl. very large, bright-scarlet and yellow, dark purple spotted, July and Aug.; fr. O.

FERRARIA, L. (*Spreng. syst. 1, p. 127, No. 176;—Endl. gen. pl. 1, p. 166.*)

1. *undulata*, L. (*Spreng. syst. 1, p. 169;—B. M. 4, t. 144.*) 24. C. G. H. Fl. largish, very pale-yellow, with brownish curled margins, Feb. and March; fr. O.

PARDANTHUS, Ker. (*Spreng. syst. 1, p. 127, No. 169;—Endl. gen. pl. 1, p. 166.*)

1. *chinensis*, Ker. (*Spreng. syst. 1, p. 166;—J. Grah. Cat. B. pl. p. 214.—Ixia chinensis, L.;—Gartn. fr. 1, p. 40, t. 13, f. 3;—Lour.—Moraea chinensis, Thunb.;—Roxb. fl. ind. 1, p. 170; ed. Carey, 1, p. 174.—Belamcanda chinensis, DC.—Ferraria crocea, Salisb. pr. hort. 41, No. 1;—Rheed. 11, t. 37.*) *दुष्प बाहू* *Dus-bahoo.* 24. China. Japan. Cochin China. Nepal. Common in gardens. Fl. 10-12 lines, below bright-yellow, above dull-orange, with scarlet dots, scentless, R. S.; fr. C. S.

ARISTEA, Soland. (*Spreng. syst. 1, p. 126, No. 161;—Endl. gen. pl. 1, p. 167.*)

1. *capitata*, Ker. (*B. M. 17, t. 605.—A. major, Andr. B. Repos. t. 160;—Spreng. syst. 1, p. 158.—A. coerulea, Vahl.—A. capitata, Ker.; B. M. 17, t. 605.—Gladiolus capitatus, L.—Moraea coerulea, Thunb.—Ixia thrysiflora, Roche.*) 24. C. G. H. Introduced in 1820. Fl.?

WITSENIA, Thunb. (*Spreng. syst. 1, p. 125, No. 147;—Endl. gen. pl. 1, p. 167.*)

1. *corymbosa*, Ker. (*B. M. 23, t. 895;—Spreng. syst. 1, p. 147.*) 24. C. G. H. Introduced in March, 1841. Has not fl. yet.



PATERSONIA, R. Br. (*pr. p.* 303;—*Spreng. syst.* 1, *p.* 127, *No.* 172;—*Endl. gen. pl.* *p.* 167.)

1. *glauca*, R. Br. (*o. c. p.* 304;—*Spreng. syst.* 1, *p.* 168;—*B. M.* 53, *t.* 2677.) 2*q.* Port Jackson, Van Diemen's Land. Introduced in 1841.

GALAXIA, Thunb. (*Spreng. syst.* 1, *p.* 127, *No.* 171;—*Endl. gen. pl.* *4.* *p.* 167.)

1. *ovata*, Thunb. (*Spreng. syst.* 1, *p.* 167;—*Cav.* 6, *p.* 341, *t.* 189, *f.* 2.—*Jacq. ic. rar.* 2, *t.* 291;—*B. Repos.* *t.* 94;—*B. M.* 30, *t.* 1208. *a.*—*G. grandiflora*, *B. Repos.* *t.* 164.—*Ixia Galaxia*, *L. fil.*) 2*q.* C. G. H. Introduced in March, 1841, but has not fl. yet.

2. *graminea*, Thunb. (*Spreng. o. c. p.* 168;—*Cav.* 6, *p.* 341, *t.* 189, *f.* 3;—*Jacq. coll.* 2, *p.* 366, *t.* 18, *f.* 2;—*B. M.* 32, *t.* 1292.—*Ixia fugacissima*, *L. fil.*) 2*q.* C. G. H. Introduced in March, 1841, but has not fl. yet.

OVIDEA, Spreng. (*syst.* 1, *p.* 125, *No.* 148;—*Endl. gen. pl.* 1, *p.* 167; not *L.*)

1. *corymbosa*, Spreng. (*syst.* 1, *p.* 147.—*Lapeyrouisia corymbosa*, Ker.; *B. M.* 16, *t.* 595.—*Ixia corymbosa*, *L.*;—*Jacq. ic. rar.* 2, *t.* 288.—*I. crispifolia*, *B. Repos.* *t.* 35.) 2*q.* C. G. H. Introduced in March, 1841, but has not fl. yet.

BABIANA, Ker. (*Spreng. syst.* 1, *p.* 126, *No.* 157;—*Endl. gen. pl.* 1, *p.* 168.)

1. *Thunbergii*, Ker. (*Spreng. syst.* 1, *p.* 155.—*Antholyza plicata*, *Thunb.*) 2*q.* C. G. H. Introduced in 1816. Fl.?

2. *tubiflora*, Ker. (*Spreng. l. c.*—*B. tubiflora*, var. *a.* *B. M.* 22, *t.* 847.—*Gladiolus tubiflorus*, *L.*;—*Jacq. ic. rar.* 2, *t.* 266.) 2*q.* C. G. H. Introduced in 1829. Fl.?

3. *spathacea*, Ker. (*B. M.* 17, *t.* 688;—*Spreng. l. c.*—*Gladiolus spathaceus*, *Thunb.*) 2*q.* C. G. H. Introduced in 1826. Fl.?

4. *sambucina*, Ker. (*B. M.* 26, *t.* 1019;—*Spreng. l. c.*—*Gladiolus sambucus*, *Jacq.*) 2*q.* C. G. H. Introduced in 1826. Fl.?

5. *sulphurea*, Ker. (*B. M.* 26, *t.* 1053;—*Spreng. l. c.*—*Gladiolus sulphureus*, *Jacq. ic. rar.* 2, *t.* 239.—*G. plicatus*, *B. Repos.* *t.* 268, not *Thunb.*) 2*q.* C. G. H. Introduced in March, 1841, but has not fl. yet.

6. *plicata*, Ker. (*B. M.* 16, *t.* 576;—*Spreng. l. c.*—*Gladiolus fragrans*, *Jacq. hort. schönbr.* *p.* 7, *t.* 14;—*G. plicatus*, *Thunb.*, not *L.* nor *Jacq.*) 2*q.* C. G. H. Introduced in March, 1841, but has not fl. yet.

7. *stricta*, Ker. (*B. M.* 17, *t.* 621;—*Spreng. l. c.*—*Gladiolus strictus*, *Ait.*—*G. plicatus*, *L.*; excl. syn.—*Ixia villosa*, *Jacq. ic. rar.* *t.* 284.—*I. plicata*, *L. amoen. acad.* excl. syn.) 2*q.* C. G. H. Introduced in March, 1841, but has not fl. yet.

8. *villosa*, Ker. (*B. M.* 16, *t.* 583;—*Spreng. l. c.*—*Ixia villosa*, *Ait.* not *Jacq.*—*I. punicea*, *Jacq. ic. rar.* 2, *t.* 287.—*I. flabelliformis*, *Salisb. prodr. hort.* 37, *No.* 23.) 2*q.* C. G. H. Introduced in March, 1841, but has not fl. yet.



9. *rubro-cyanea*, Ker. (*B. M.* 12, *t.* 410;—*Spreng. syst.* 1, *p.* 156.—*Ixia rubro-cyanea*, *Jacq. ic. rar.* 2, *t.* 285.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
10. *disticha*, Ker. (*B. M.* 17, *t.* 626;—*Spreng. l. c.*—*Gladiolus plicatus*, *Jacq. ic. rar.* 2, *t.* 237, not of others.) 2. C. G. H. Introduced in 1816. Fl.?
11. *angustifolia*, Ker. (*Babiana stricta*, *a.* *B. M.* 17, *t.* 637.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
12. *ringens*, Ker. Herb. (*B. Reg.* 1838, *app. p.* 19.—*Spreng. syst.* 1, *p.* 155.—*Antholyza ringens*, *L.*) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
- GLADIOLUS**, Tournef. (*Spreng. syst.* 1, *p.* 126, No. 155;—*Endl. gen. pl.* 1, *p.* 168.)
1. *edulis*, Burch. (*Spreng. syst.* 1, *p.* 151;—*B. Reg.* 2, *t.* 169.) 2. S. Africa. Introduced in March, 1841, but has not fl. yet.
2. *tristis*, L. (*Spreng. l. c.*;—*B. M.* 8, *t.* 272.) 2. C. G. H. Fl. large, sulphur-coloured, shaded in particular parts, especially underneath, with very fine pencilings, Feb. and March; fr. 0.
3. *gracilis*, Jacq. (*ic. var.* 2, *t.* 246;—*Spreng. l. c.*;—*B. M.* 16, *t.* 562.) 2. C. G. H. Fl. largish, pale blue, Feb. and March; fr. 0.
4. *recurvus*, L. (*Spreng. l. c.*;—*B. M.* 16, *t.* 578, not *L. fil.* nor *Thunb.*—*G. carinatus*, *Ait.*—*G. punctatus*, *Jacq. ic. rar.* 2, *t.* 247.—*G. ringens*, *B. Repos.* *t.* 27, and *t.* 227.) 2. C. G. H. Fl. largish, having a yellow ground, so thickly beset with minute blue dots, as to give the appearance of a uniform blue, of which colour they really at last become, smelling strongly like violets or Orris-root, Feb. and March; fr. 0.
5. *angustus*, L. (*Spreng. l. c.*;—*Jacq. ic. rar.* 2;—*B. M.* 17, *t.* 602.) 2. C. G. H. Fl. largish, outside crimson, inside pale-yellow, Feb. and March; fr. 0.
6. *tenellus*, Jacq. (*ic. rar.* 2, *t.* 248;—*Spreng. l. c.*) 2. C. G. H. Introduced in 1822. Fl.?
7. *flexuosus*, Thunb. (*Diss. de. Glad.* No. 2, *t.* 1, *f.* 1;—*Spreng. syst.* 1, *p.* 152.) 2. C. G. H. Introduced in 1821. Fl.?
8. *Watsonia*, Thunb. (*Jacq. ic. rar.* 2, *t.* 333;—*Spreng. l. c.*;—*B. M.* 13, *t.* 450.) 2. C. G. H. Fl. largish, deep red, Feb. and March; fr. 0.
9. *Milleri*, Ker. (*B. M.* 17, *t.* 632;—*Spreng. l. c.*) 2. C. G. H. Fl. large, pale-yellow, after first having been quite white, Feb. and March; fr. 0.
10. *viperatus*, Ker. (*B. M.* 18, *t.* 688;—*Spreng. l. c.*—*G. alatus*, *Thunb.*;—*Jacq. ic. rar.* 2, *t.* 259, not *L.*—*G. orchidiflorus*, *B. Repos.* *t.* 241.) 2. C. G. H. Fl. largish, greenish-grey, with something of a livid hue and brown stripes, fragrant, Feb. and March; fr. 0.
11. *namaquensis*, Ker. (*B. M.* 16, *t.* 592;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p.* 214.—*G. galeatus*, *B. Repos.* *t.* 122, excl. syn.) 2. C. G. H. Introduced in 1815. Fl.?



12. *alatus*, L. (*Spreng. l. c.* not Ait. nor Jacq.—*B. M.* 16, *t.* 586.) 2.
C. G. H. Introduced in March, 1841, but has not fl. yet.
13. *hirsutus*, L. (*Spreng. l. c.*—*G. hirsutus*, β . *B. M.* 16, *t.* 574;—*Jacq. ic. rar.* 2, *t.* 250.—*G. roseus*, *B. Repos.* *t.* 11.) 2. C. G. H. Introduced in 1818. Fl. ?
14. *brevifolius*, Jacq. (*Fragm.* 3, *p.* 12, *t.* 2, *f.* 3.—*G. hirsutus* β . *B. M.* 19, *t.* 727.—*G. carneus*, *B. Repos.* *t.* 240.) 2. C. G. H. Fl. middle-sized, deep rose-coloured, marked with dark crimson lines. Fl. Feb. and March; fr. 0.
15. *versicolor*, Andr. (*B. Repos.* *t.* 19;—*Spreng. syst.* 1, *p.* 152;—*B. M.* 16, *t.* 556, γ .) 2. C. G. H. Introduced in 1815. Fl. ?
16. *carneus*, Jacq. (*ic. rar.* 2, 255;—*Spreng. l. c.*;—*B. M.* 16, *t.* 591.—*G. cuspidatus*, Andr.;—*B. Repos.* *t.* 147, not L.) 2. C. G. H. Introduced in 1824. Fl. ?
17. *cuspidatus*, L. (*Spreng. l. c.*;—*B. M.* 16, *t.* 582;—*Jacq. ic. rar.* 2, *t.* 257;—*B. Repos.* *t.* 219.—*G. undulatus*, *L. mant.*) 2. C. G. H. Introduced in 1819. Fl. ?
18. *blandus*, Ait. (*Spreng. l. c.*;—*B. M.* 17, *t.* 625;—*B. Repos.* *t.* 99, and *t.* 188.—*G. albidus*, *Jacq. ic. rar.* 2, *t.* 256.—*G. carneus*, *Roche.*) 2.
C. G. H. Introduced in March, 1841, but has not fl. yet.
19. *undulatus*, Jacq. (*ic. rar.* *t.* 251;—*Spreng. syst.* 1, *p.* 153;—*B. M.* 18, *t.* 647.) 2. C. G. H. Fl. largish, pale-yellow, with the middle nerve of its segment somewhat crimson, Feb. and March; fr. 0.
20. *floribundus*, Jacq. (*ic. rar.* 2, *t.* 254;—*Spreng. l. c.*;—*B. M.* 17, *t.* 610.—*G. grandiflorus*, *B. Repos.* *t.* 118.) 2. Introduced in 1821. Fl. ?
21. *cardinalis*, Curt. (*B. M.* 4, *t.* 135;—*Spreng. l. c.*) 2. C. G. H. Introduced in 1824. Fl. ?
22. *communis*, L. (*Spreng. l. c.*;—*B. M.* 3, *t.* 86.) Common Corn-flag. 2.
Meadows of Europe. Fl. large, rose-coloured, Feb. and March; fr. April.
23. *psittacinus*, Hook. (*B. M.* 57, *t.* 3032;—*B. Reg.* 17, *t.* 1442.) 2.
C. G. H. Introduced in March 1841, but has not fl. yet.
24. *byzantinus*, Mill. (*Spreng. syst.* 1, *p.* 153;—*B. M.* 22, *t.* 874.) 2.
Neighbourhood of Constantinople. Introduced in 1822. Fl. ?
25. *hyalinus*, Jacq. (*ic. rar.* 2, *t.* 242;—*Spreng. l. c.*) 2. C. G. H. Introduced in 1818. Fl. ?
26. *segetum*, Ker. (*B. M.* 19, *t.* 719.—*Sphaerospora segetum*, *Carey's MSS.*) 2. S. Europe. Fl. large, purple, Feb. and March; fr. April.

SYNONIA, Sweet. (*Endl. gen. pl.* 1, *p.* 168, under *Gladiolus*.)

1. *bicolor*, Sweet. (*Ixia bicolor*, Ker.; *B. M.* 15, *t.* 548.—*Sparaxis bicolor*, Ker.;—*Spreng. syst.* 1, *p.* 150.—*Gladiolus bicolor*, *Thunb.*;—*Jacq. ic. rar.* 2, *t.* 240.) 2. C. G. H. Fl. largish, yellow and blue, Feb. and March; fr. 0.



2. *galeata*, Swt. (*Sparaxis galeata*, Ker.—*Spreng. l. c.*—*Gladiolus galeatus*, Jacq. *ic. rar. 2, t. 258.*) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

ANISANTHUS, Sweet. (*Endl. gen. pl. 1, p. 168.*)

1. *Cunonia*, Sweet. (*Antholyza Cunonia*, L.;—*B. M. 10, t. 343.*—*Gladiolus Cunonia*, Gärtn. *fr. 1, p. 31, t. 11, f. 4;*—*Spreng. syst. 1, p. 152.*) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

ANTHOLYZA, L. (*Spreng. syst. 1, p. 126, No. 160;*—*Endl. gen. pl. 1, p. 168.*)

1. *aethiopica*, L. (*Spreng. syst. 1, p. 157;*—*B. M. 16, t. 561;*—*J. Grah. Cat. B. pl. p. 214.*—*A. ringens*, B. *Repos. t. 32.*—*Gladiolus aethiopicus*, Corn. *canad. t. 79.*) 2. C. G. H. Has been cultivated here for the last 12 years, without fl. or loosing its leaves. Introduced again in March, 1841.

WATSONIA, Mill. (*Spreng. syst. 1, p. 126, No. 154;*—*Endl. gen. pl. 1, p. 168.*)

1. *spicata*, Ker. (*Spreng. syst. 1, p. 150.*—*Gladiolus spicatus*, L.—*Ixia spicata*, Willd.—*I. fistulosa*, Sims.; *B. M. 15, t. 523.*) 2. C. G. H. Fl. small, greenish-white rose-coloured, Feb. and March; fr. 0.

2. *plantaginea*, Ker. (*B. M. 16, t. 553;*—*Spreng. l. c.*—*Ixia plantaginea*, Ait.—*I. triticea*, Burm. *prodr. fl. cap. 1.*) 2. C. G. H. Fl. small, blue, 3 of the segments red-tipped, Feb. and March; fr. 0.

3. *marginata*, Ker. (*Spreng. l. c.;*—*B. M. 17, t. 608.*—*Gladiolus marginatus*, Thunb.;—*Roxb. H. B. p. 25.*) 2. C. G. H. Fl. largish rose-coloured, Feb. and March; fr. 0.

4. *rosea*, Herb. Banks (*Ker.;*—*B. M. 27, t. 1072;*—*Spreng. l. c.*—*Gladiolus pyramidatus*, Andr. B. *Repos. t. 335.*) 2. C. G. H. Fl. large, rose-coloured. Feb. and March; fr. 0.

5. *brevifolia*, Ker. (*B. M. 17, t. 601;*—*Spreng. l. c.*—*Antholyza spicata*, Andr. B. *Repos. t. 56.*) 2. C. G. H. Fl. largish, tawny, Feb. and March; fr. 0.

6. *fulgida*, Salisb. (*W. iridifolia*, β . *fulgens*, B. *M. 17, t. 600.*—*Antholyza fulgens*, B. *Repos. t. 192.*) 2. C. G. H. Introduced in March 1841, but has not fl. yet.

7. *iridifolia*, Ker. (*Spreng. l. c. excl. syn. B. Repos.*—*Gladiolus iridifolius*, Jacq. *ic. rar. 2, t. 234.*) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

8. *Meriana*, Mill. (*Spreng. l. c.;*—*Antholyza Meriana*, L.; *B. M. 12, t. 418.*) 2. C. G. H. Introduced in 1825. Fl.?

9. *humilis*, Mill. (*Ker.;*—*B. M. 17, t. 631.*—*Gladiolus laccatus*, Jacq. *ic. rar. 2, t. 232.*) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

10. *aletroides*, Ker. (*Spreng. syst. 1, p. 150.*—*Gladiolus aletroïdes*, Vahl.—*Antholyza Merianella*, L.; *B. M. 13, t. 441, excl. syn.*) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.



GL

11. *roseo-alba*, Ker. (*B. M.* 15, *t.* 537;—*Spreng. syst.* 1, *p.* 151.—*Gladiolus roseo-albus*, *Jacq. hort. schönbr.* 1, *p.* 7, *t.* 13.) 2. C. G. H. Introduced in 1819. Fl.?

SPARAXIS, Ker. (*Spreng. syst.* 1, *p.* 126. *No.* 153;—*Endl. gen. pl.* 1, *p.* 168.)

1. *tricolor*, Ker. (*Spreng. syst.* 1, *p.* 149.—*Ixia tricolor*, *Curt.* 5; *B. M.* 11, *t.* 381.) 2. C. G. H.

2. *grandiflora*, Ker. (*Spreng. l. c.*—*Ixia grandiflora*, *Roche*;—*Ker.*; *B. M.* 15, *t.* 541.) 2. C. G. H. Fl. large, purple, Feb. and March; fr. 0. 3. *striatiflora*, Ker. (*B. M.* 20, *t.* 779. β .) Fl. outside purple-streaked, inside pale-yellowish, at base purple-spotted, Feb. and March.

4. *Liliago*, Ker. (*B. Reg.* 3, *t.* 258.) Introduced in March, 1841, but has not fl. yet.

5. *alba*, Fl. white, Feb. and March.

3. *bulbifera* Ker. (*Spreng. l. c.*—*Ixia bulbifera*, *L.*—*B. Repos.* *t.* 48;—*B. M.* 15, *t.* 545.) 2. C. G. H. Fl. largish, bright-yellow. Feb. and March; fr. 0.

4. *fragrans*, Ker. (*Spreng. l. c.*—*Ixia fragrans*, *Jacq. ic. rar.* 2, *t.* 272.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

5. *pendula*, Ker. (*Spreng. l. c.*—*B. Reg.* 16, *t.* 1260.—*Ixia pendula*, *Thunb.*—*Watsonia palustris*, *Pers.*) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

6. *reflexa*, Ville's MSS. 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

MONTERRETIA, DC. (*Endl. gen. pl.* 1, *p.* 168.—*Tritonia*, *Ker.*—*Spreng. syst.* 1, *p.* 126, *No.* 156.)

1. *viridis*, (*Tritonia viridis*, *Ker.*; *B. M.* 31, *t.* 1275;—*Spreng. syst.* 1, *p.* 154.—*Gladiolus viridis*, *Ait.*) 2. C. G. H. Introduced in 1819. Fl.?

2. *crispa*, (*Tritonia crispa*, *Ker.*; *B. M.* 18, *t.* 678;—*Spreng. l. c.*—*Gladiolus crispus*, *L. suppl.*) 2. C. G. H. Introduced in 1818. Fl.?

3. *rosea*, (*Tritonia rosea*, *R. Br.*;—*Spreng. l. c.*—*T. capensis*, *B. M.* 17, *t.* 618.—*Gladiolus roseus*, *Jacq. ic. rar.* 2, *t.* 261.) 2. C. G. H. Introduced in 1818. Fl.?

4. *longiflora*, (*Tritonia longiflora*, *Ker.*;—*Spreng. l. c.*—*Ixia longifolia*, *Ait.*;—*B. M.* 8, *t.* 256.—*Gladiolus longiflorus*, *L. fl. suppl.*) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

5. *striata*, (*Tritonia striata*, *Ker.*;—*Spreng. l. c.*—*Gladiolus striatus*, *Jacq.*) 2. C. G. H. Introduced in 1819. Fl.?

6. *lineata*, (*Tritonia lineata*, *Ker.*;—*Spreng. l. c.*—*Gladiolus lineatus*, *Salisb.*;—*B. M.* 14, *t.* 487.) 2. C. G. H. Fl. large, straw-coloured, more or less tinged with orange, Feb. and March; fr. 0.

7. *securigera*, Redout. (*Tritonia securigera*, *Ker.*;—*Spreng. l. c.*—*Gladiolus securiger*, *Ait.*;—*B. M.* 11, *t.* 383.) 2. C. G. H. Fl. largish, yellow, tinged with orange, Feb. and March; fr. 0.



8. *squalida*, (Tritonia squalida, Ker.;—B. M. 16, t. 581;—Spreng. l. c.—Ixia squalida, Ait.) 2^o. C. G. H. Introduced in 1820. Fl. ?
 9. *crocata*, (Tritonia crocata, Ker.—Ixia crocata, Thunb.;—B. M. 6, t. 184.) 2^o. C. G. H. Fl. large, deep-orange, with a transparent base, Feb. and March; fr. 0.
 10. *fenestrata*, (Tritonia fenestrata, Ker.;—B. M. 19, t. 704;—Spreng. l. c.—Ixia fenestrata, Jacq. ic. rar. 2, t. 289.) 2^o. C. G. H. Fl. large, bright vermillion, varying to a deep-orange colour, Feb. and March; fr. 0.
 11. *miniata*, (Tritonia miniata, Ker.; B. M. 17, t. 609;—Spreng. l. c.—Ixia miniata, Jacq. schönbr. 1, p. 10, t. 24.) 2^o. C. G. H. Fl. largish, yellow-orange, Feb. and March; fr. 0.
 12. *deusta*, (Tritonia deusta, Ker.;—B. M. 17, t. 622.—Spreng. l. c.—Ixia deusta, Ait.) 2^o. C. G. H. Fl. large, copper-coloured, Feb. and March; fr. 0.
 13. *concolor*, (Tritonia concolor, Swt.—T. longiflora, B. M. 37, t. 1502, γ.) 2^o. C. G. H. Introduced in 1816. Fl. ?
 14. *tenuiflora*, (Tritonia tenuiflora, Ker.;—T. longiflora, β. B. M. 37, t. 1502.) 2^o. C. G. H. Introduced in 1819. Fl. ?
 15. *capensis*, (Tritonia capensis, Ker. β. B. M. 37, t. 1531.) 2^o. C. G. H. Introduced in March, 1841, but has not fl. yet.
- Ixia.** L. (Spreng. syst. I, p. 126, No. 158;—Endl. gen. pl. 1, p. 169.)
1. *capillaris*, L. (Spreng. syst. I, p. 156;—B. M. 17, t. 617.) 2^o. C. G. H. Fl. middle-sized, lilac, Feb. and March; fr. 0.
 2. *aulica*, Ait. (Spreng. l. c.—I. capillaris. γ. aulica, B. M. 25, t. 1013.) 2^o. C. G. H. Fl. middle-sized, outside rose-coloured, inside crimson, Feb. and March; fr. 0.
 3. *flexuosa*, L. (Spreng. l. c.;—B. M. 17, t. 624.—I. polystachia, Burm. fl. cup. prodr. 1, var. maculata more Ixie maculate.—I. capitata, B. Repos. t. 232.) 2^o. C. G. H. Fl. middle-sized, white, with red streaks, Feb. and March; fr. 0.
β. *rubriflora*. Fl. red, Feb. and March.
 - γ. *violacea*. Fl. violet, frequently stained as in Ixia maculata, Feb. and March.
 4. *aristata*, Thunb. (Spreng. l. c.;—B. M. 16, t. 589, not Ait. nor Willd.) 2^o. C. G. H. Fl. largish, pale rose-coloured, with deep rosy streaks, Feb. and March; fr. 0.
 5. *monadelpha*, Roche. (Spreng. l. c.;—B. M. 17, t. 607.—I. columnaris, Salisb.;—Andr.; B. Repos. t. 203, 211, 213, 250.) 2^o. C. G. H. Fl. large, varying in colour from bluish-purple to purple, yellow, &c., often variegated, and generally having a large, round stain at the base more or less obsolete, and of various tints, Feb. and March; fr. 0.
 6. *columellaris*, Ker. (B. M. 17, t. 630;—Spreng. l. c.) 2^o. C. G. H. Fl. middle-sized, outside dingy purplish-white, inside very brilliant and iridescently variegated in circles, with a dark spot at the base of the



limb, having a strong scent like that of Tongo Bean, Feb. and March ; fr. 0.

7. *maculata*, L. (*Spreng. l. c.*;—*B. M.* 21, t. 789. β . *amethystina*.) 2. C. G. H. Fl. largish, pale-blue, with a dark spot at the base of the limb, Feb. and March ; fr. 0.
 β . *ochroleuca*, Ker. (*B. M.* 31, t. 1285.) 2. C. G. H. Fl. large, pale-yellow, with brownish spot at the base of the limb, Feb. and March.
8. *crateroides*, Ker. (*B. M.* 16, t. 594;—*Spreng. syst. 1*, p. 157.—*I. speciosa*, *B. Repos. t.* 186.) 2. C. G. H. Fl. largish, outside purplish-red, inside deep-crimson, Feb. and March ; fr. 0.
9. *scillaris*, Thunb. (*Spreng. l. c.*;—*B. M.* 15, t. 542. a.—*I. reflexa*, *Andr.*; *B. Repos. t.* 14.—*I. polystachia*, var. *Jacq. coll. suppl.* 159, t. 2, f. 1.) 2. C. G. H. Fl. middle-sized, deep rose-coloured, each segment with a dark purple spot, Feb. and March ; fr. 0.
10. *patens*, Ait. (*Spreng. l. c.*;—*B. M.* 15, t. 522.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
11. *leucantha*, Jacq. (*ic. rar.* 2, t. 278;—*Pers. syn.* 1, p. 48.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
12. *conica*, Salisb. (*Spreng. syst. 1*, p. 157;—*B. M.* 15, t. 539.) 2. Fl. largish, orange-coloured, Feb. and March ; fr. 0.
13. *erecta*, Berg. (*Spreng. l. c.*;—*Jacq. schönbr.* 1, p. 18;—*B. M.* 17, t. 623.—*I. polystachya*, L.;—*B. Repos. t.* 155;—not Jacq.) 2. C. G. H. Fl. middle-sized, before expanding pale-green on the outside, afterwards entirely white, Feb. and March ; fr. 0.
14. *viridiflora*, Pers. (*Syn. 1*, p. 48.—*I. maculata*, γ *viridis*, *B. M.* 16, t. 549.) 2. C. G. H. Fl. large, pale-green, with a dark purple spot at the base of the limb, Feb. and March ; fr. 0.

HESPERANTHA, Ker. (*Spreng. syst. 1*, p. 125, No. 150;—*Endl. gen. pl. 1*, p. 169.)

1. *falcata*, Ker. (*Spreng. syst. 1*, p. 148.—*Ixia falcata*, Thunb.;—*Jacq. ic. rar.* 2, t. 276;—*B. M.* 16, t. 566;—*I. cinnamomea*, *B. Repos. t.* 44, not Thunb.) 2. C. G. H. Introduced in 1818. Fl. ?
2. *cinnamomea*, Ker. (*B. M.* 26, t. 1054;—*Spreng. l. c.*—*Ixia cinnamomea*, Thunb.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
3. *pilosa*, Ker. (*B. M.* 36, t. 1475;—*Spreng. l. c.*—*Ixia pilosa*, Thunb.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

GEISSORRHIZA, Ker. (*Spreng. syst. 1*, p. 125, No. 151.—*Endl. gen. pl. 1*, p. 169.)

1. *secunda*, Ker. (*Spreng. syst. l. c.*—*Ixia secunda*, Berg.;—*Jacq. ic. rar.* 2, t. 277;—*B. M.* 17, t. 597.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
2. *obtusata*, Ker. (*B. M.* 18, t. 672;—*Spreng. syst. 1*, p. 148.—*Ixia obtusata*, Soland. in *Herb. Banks.*) 2. C. G. H. Introduced in 1818. Fl. ?



TRICHONEMA, Ker. (*Spreng. syst.* 1, p. 126, No. 152;—*Endl. gen. pl.* 1, p. 169.)

1. *Bulbocodium*, Ker. (*Spreng. syst.* 1, p. 149.—*Ixia Bulbocodium*, L.;—*B. M.* 8, t. 265;—*E. B.* 36, t. 2549.) 2. Guernsey. France. Italy. Greece. Introduced in 1819. Fl. ?
2. *purpurascens*, Swt. (*Ixia purpurascens*, *Tenor. fl. neap.* 1, 2.) 2. Italy. Introduced in August, 1841, but has not fl. yet.
3. *cruciatum*, Ker. (*Spreng. syst.* 1, p. 149;—*B. M.* 16, t. 575.—*Ixia cruciata*, *Jacq. ic. rar.* 2, t. 290.—*I. Bulbocodium*, var. 7, *Thunb.*) 2. C. G. H. Fl. smallish, deep rose-coloured, Feb. and March, but rare; fr. 0.
4. *roseum*, Ker. (*B. M.* 30, t. 1225;—*Spreng. l. c.*—*Ixia rosea*, L.—*I. campanulata*, *Lam.*) 2. C. G. H. Introduced in 1816. Fl. ?
5. *pudicum*, Ker. (*B. M.* 31, t. 1244.—*Ixia pudica*, *Soland. in Hb. Banks.*) 2. C. G. H. Introduced in 1817. Fl. ?
6. *chloroleucum*, Ker. (*Ixia chloroleuca*, *Jacq. ic. rar.* 2, t. 272;—*Pers. syn.* 1, p. 46.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
7. *caulescens*, Ker. (*B. M.* 34, t. 1392.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.
8. *speciosum*, Ker. (*B. M.* 36, t. 1476;—*Spreng. syst.* 1, p. 149.) 2. C. G. H. Introduced in March, 1841, but has not fl. yet.

SPATALANTHUS, Swt. (*Loud. hort. brit.* p. 485.)

1. *speciosus*, Swt. (*fl. gard.* t. 300.—*Trichonema monadelphum*, *Swt.*) 2. C. G. H. Introduced in 1817. Fl. ?

CROCUS, Tournef. (*Spreng. syst.* 1, p. 125, No. 146;—*Endl. gen. pl.* 1, p. 169.)

From 1815-20, thirteen species of the genus have been frequently introduced into the garden here from the Liverpool Bot. Gard., but without success. The same was the case with the *C. vernus*, Willd. introduced into H. C. G. in 1810.

* *Sisyrinchium plicatum*, Spreng. (*Marica plicata*, Ker.; *B. M.* 18, t. 655. 2. W. Indies.—*S. tenafolium*, Humb.; *B. M.* 47, t. 2117 and t. 49, t. 2313. 2. Mexico.—*S. striatum*, Cav. (*Marica striata*, Ker.; *B. M.* 19, t. 701.) 2. Mexico.—*S. iridifolium*, Humb. (*Marica iridifolia*, Ker.; *B. Reg.* 8, t. 646.) 2. Caracas.—*Cipura martinicensis*, Humb. (*Iris martinicensis*, L.; *B. M.* 12, t. 416.) 2. W. Indies.—*Marica gracilis*, Herb.; *B. M.* 66, t. 3713. 2. Brazil.—*Iris tuberosa*, L.; *B. M.* 15, t. 531. 2. Italy. Greece.—*I. triflora*, Balb. 2. Italy.—*I. foetidissima*, L.; *E. B.* 9, t. 596. 2. England. France. Spain.—*I. Swertiae*, Lam. (*I. aphylla*. γ. *B. M.* 22, t. 870.) 2. Portugal?—*Ferraria eatherosa*, Ker.; *B. M.* 20, t. 751. 2. C. G. H.—*Patersonia sericea*, R. Br.; *B. M.* 26, t. 1041. 2. Tropical New Holland.—*Bartsia gladiata*, Swt. (*Marica gladiata*, Ker.; *B. Reg.* 3, t. 229.) 2.



C. G. H.—*Witsenia Maura*, L.; B. Reg. I, t. 5, 2. C. G. H.—*Anomatheca juncea*, Ker.; 17, t. 606, 2. C. G. H.—*A. cruenta*, Lindl.; B. Reg. 16, t. 1369, 2. C. G. H.—*Melaspharula intermedia*, Swt. (M. graminea, B. M. 17, t. 615; not Rej.) 2. C. G. H.—*Phalocallis plumbea*, Herb.; B. M. 65, t. 3710. (*Cypella plumbea*, B. Reg. I, p. 24.) 2. Valparaiso.—*Diasia graminea*, DC. 2. C. G. H.

ORDER CCXXXIII.—BROMELIACEÆ, Lindl. Nat. Syst. p. 334 :
Endl. gen. pl. I, p. 181.

THE PINE-APPLE TRIBE.

Stemless or short stemmed plants, by Lindl. referred to 21 genera. All, without exception, are natives of the continent or Islands of America, whence they have migrated eastwards in such numbers, as to have established themselves as part of the present Flora of the West Coast of Africa, and some parts of the E. Indies. The most remarkable is the Ananas, which is well known for the sweetness and fine aromatic flavour of its fruit. No other species is of the same interest. They are all capable of existing in a dry air without contact with the earth; on which account they are favourites in S. American gardens, where they are suspended in the dwellings or hung to the balustrades of the balconies; situations in which they flower abundantly, filling the air with their fragrance. Ropes are made in Brazil from a species of Bromelia, called Grawatha. *Pr. Max. Trav. (Lindl.)*

ANANAS, Plum. (*Schult. syst. 8, p. LXXIII. No. 1486.*—Anamassa, *Lindl.*; *B. Reg. 13, t. 1068. app. and t. 1381;*—*Endl. gen. pl. I, p. 182.*)

1. *sativus*, Schult. (*Syst. 8, p. 1283.*—Ananassa sativa, *Lindl.* *B. Reg. 13, t. 1068. app.*—Bromelia Ananas, L., *spec. p. 408, excl. δ.*—*Willd. spec. 2, p. 7, excl. γ.*—*Lam. enc. I, p. 143, excl. ξ.*—*Lour.*;—*Spreng. syst. 2, p. 20;*—*Roxb. fl. ind. 2, p. 116;*—*J. Grah. Cat. B. pl. p. 222;*—*B. M. 38, t. 1554;*—*Rheed 11, t. 1, 2;*—*Rumph. 5, t. 81.*) अमारुस Ananas. 2. W. Indies. Domesticated in the Mascarenhas Islands, the E. Indies, Guinea, &c. Fl. small, bluish, H. S.; fr. R. and C. S. Pine-apples succeed as far north as 30° in the open air, but are plentiful in the garden of the Taj-muhul at Agra. They are so abundant in Ceylon, parts of Burma, and the Khassy Mountains, as to appear wild there, and are considered most delicious in the two latter places. It is evident, therefore how well suited the climate and soil of many parts of India are to the cultivation of the pine-apple. This is important not only on account of the fruit, but also on account of the fibre, which abounds in the leaves, as with it cloth has been manufactured as fine as some muslins. (*Royle.*)



B. striatifolia, Roxb. (*H. B.* p. 23.) 2^d. Malacca. Introduced into H. C. G. in 1800, but had not fl. up to 1814.

2. *bracteatus*, Schult. (*syst. 8.* p. 1286.—*Ananassa bracteata*, Lindl.; *B. Reg.* 13, t. 1081.) 2^d. Brazil. Has been introduced into H. C. G. Fl?

BROMELIA, L. (*Schult. syst. 8.* p. LXXII. No. 1485;—*Spreng. syst. 2.* p. 3, No. 1165;—*Endl. gen. pl. 1.* p. 182.)

1. *Karatas*, L. (*Schult. syst. 8.* p. 1274;—*Spreng. syst. 2.* p. 21;—*Jacq. amer.* 90, t. 178, f. 26; *pict. t.* 260;—*hort. vind.* 1, 31, 32, 33, t. 73, 74;—*Roxb. H. B.* p. 23.) 2^d. W. Indies. Fl. smallish, white, R. S.; fr. O.

2. *humilis*, Jacq. (*Ic. rar. t.* 60;—*Schult. o. c. p.* 1275;—*Spreng. l. c.*) 2^d. W. Indies. Lately introduced.

3. *Pinguin*, L. (*Schult. o. c. p.* 1277;—*Spreng. l. c.*;—*Lam. ill. t.* 223, f. 2.—*Ananas Pinguin*, *Gürtn. fr.* 1, p. 30, t. 11, f. 2.) 2^d. Jamaica. Barbadoes. Lately introduced.

4. *sylvestris*, Willd. (*Schult. o. c. p.* 1279;—*Spreng. o. c. p.* 22;—*B. M.* 50, t. 2392.) 2^d. Brazil. Has been introduced into H. C. G. Fl?

5. A new species, from Rio Janeiro, sent by Messrs. Loddiges and Co. in August, 1841.

BILLBERGIA, Thunb. (*Schult. syst. 8.* p. LXXI. No. 1483;—*Endl. gen. pl. 1.* p. 182;—*B. Reg.* 13, t. 1068, app.)

1. *pyramidalis*, Lindl. (*B. Reg. l. c.*;—*Schult. 8.* p. 1258.—*Bromelia pyramidalis*, Sims.; *B. M.* 42, t. 1732;—*Bromelia nudicaulis*, Ker.; *B. Reg.* 3, t. 203, excl. syn. L. and Plum;—*Spreng. syst. 2.* p. 21.) 2^d. Rocks near Rio Janeiro. Introduced in 1840, but has not fl. yet.

B. bicolor, Lindl. (*B. Reg.* 14, t. 1181;—*Schult. o. c. p.* 1259.) 2^d. S. America. Introduced in 1840, but has not fl. yet.

2. *zebrina*, Lindl. (*B. Reg.* 13, t. 1068, app.;—*Schult. o. c. p.* 1261.—*Bromelia zebrina*, Herb.; *B. M.* t. 53, t. 2686.) 2^d. Rio Janeiro. Introduced in 1840, but has not fl. yet.

3. *amoena*, Lindl. (*B. Reg.* 13, t. 1068, app.;—*Schult. o. c. p.* 1263.—*B. speciosa*, Thunb. *pl. bras.* p. 30, with a plate.—*Bromelia pallida*, Ker.; *B. Reg.* 4, t. 344;—*Spreng. syst. 2.* p. 21;—*Hook. exot. fl. t.* 41. *Tillandsia amoena*. *B. Cab. t.* 76.) 2^d. Brazil. Introduced in 1840, but has not fl. yet.

4. *iridifolia*, Lindl. (*B. Reg.* 13, t. 1068;—*Schult. o. c. p.* 1266.—*Bromelia iridifolia*, Nees. and Mart.) 2^d. Rio Janeiro. Introduced in 1840, but has not fl. yet.

PITCAIRNIA, L'Herit. (*Schult. syst. 8.* p. LXIX. No. 1480;—*Spreng. syst. 2.* p. 4, No. 1168;—*Lindl. B. Reg.* 13, t. 1068, app.;—*Endl. gen. pl. 1.* p. 183.)

1. *staminea*, Lodd. (*B. Cab. t.* 773;—*B. M.* 50, t. 2411;—*Schult. syst. 8.* p. 1240;—*Spreng. syst. 2.* p. 22.) 2^d. Brazil, near Rio Janeiro. Fl. 2 inches, bright scarlet. Introduced in August, 1841, but has not fl. yet.



2. *albiflos*, Herb. (*B. M.* 53, *t.* 2646;—*Schult. o. c. p.* 1241.) P. albi-flora, *Spr. c. p.* p. 131.) 2. Paras. Neighbourhood of Rio Janeiro. Fl. $1\frac{1}{2}$ inch, white. Introduced in August, 1841, but has not fl. yet.
3. *integrifolia*, Ker. (*B. M.* 36, *t.* 1462;—*Schult. o. c. p.* 1242;—*Spreng. syst. 2, p. 22.*) 2. W. Indies. Fl. 20 lines, bright scarlet, Aug. and Sept.; fr. 0.
4. *angustifolia*, Ait. (*B. M.* 37, *t.* 1547;—*Schult. o. c. p.* 1243;—*Spreng. t. c.* 2. St. Cruz. Fl. large, scarlet. Introduced in 1819. Fl.?
5. *bromeliæfolia*, L'Herit. (*Sert. angl. p. 7, t. 11*;—*Schult. o. c. p.* 1244;—*Spreng. t. c.*;—*B. M.* 21, *t.* 824.—*B. Reg. 12, t.* 1011;—*Roxb. H. B. p. 23.*) 2. Jamaica, in shady places among rocks and precipices. Fl. $1\frac{1}{2}$ inch, pale red, April and May; fr. 0.
6. *bracteata*, Ait. (*Schult. o. c. p.* 1245;—*Spreng. t. c.* excl syn. *P. sniphurea*;—*B. M.* 55, *t.* 13.—*P. latifolia*, *Red. lit. 2, t.* 73, 74; excl. syn.) 2. St. Vincent. Fl. largish, red. Introduced in August, 1841, but has not fl. yet.
7. *latifolia*, Ait. (*Schult. o. c. p.* 1246;—*Spreng. t. c.*;—*B. M.* 22, *t.* 856, excl. syn. Andr. and Réd, and descript.) 2. W. Indies. Fl. 3 inches, more or less deep red, H. S.; fr. 0.
8. *furfuracea*, Sims. (*B. M.* 53, *t.* 2657;—*Schult. o. c. p.* 1248, not Willd.—*P. intermedia*, *Hortul.*) 2. S. America. Fl. 3 inches, scarlet, April and May; fr. 0.
9. *ramosa*, Jacq. (*Ecl. p. 154*, among the errata;—*Schult. o. c. p.* 1247.—*P. furfuracea*, *Jacq. ecl. p. 117, t. 79*, not Willd.) 2. S. America. Fl. 2 inches, at base dirty whitish, upwards purple tinged, July and Aug.; fr. 0.
- TILLANDSIA, L. (*Schult. syst. 8, p. LXVI. No.* 1475;—*Spreng. syst. 2, p. 4, No.* 1170;—*B. Reg. 13, t.* 1068, *app.*;—*Endl. gen. pl. 1, p.* 183.)
1. *paniculata*, L. (*Schult. syst. 8, p.* 1220;—*Spreng. syst. 2, p.* 25;—*Burm. amer. ic.* 237.) 2. Arid Mountains of St. Domingo. Introduced in 1840, but has not fl. yet.
2. *acaulis*, Lindl. (*B. Reg.* 14, *t.* 1157;—*Schult. o. c. p.* 1229.) 2. Neighbourhood of Rio Janeiro. Fl. largish, white. H. and R. S.; fr. 0.
3. A new species, sent in 1840, by Messrs Loddiges and Co. 2. Rio Janeiro. Has not fl. yet.

* *Ananas semiserratus*, Schult. 2. Hotter parts of America.—*A. lucidus*, Schult. 2. S. America—*A. Sagenaria*, Schult. 2. Pernambuco.—*Bromelia chrysantha*, Jacq. 2. Caracas.—*B. fastuosa*, Lindl. 2. Mexico.—*B. paniculigera*, Swz. 2. W. Indies.—*B. ? lingulata*, L. 2. Martinique. *B. ? longifolia*, Rudge. 2. Guiana.—*Echmea floribunda*, Schult. fil. 2. Rio Janeiro.—*Billbergia cruenta*, Hook; *B. M.* 56, *t.* 2892. 2. Rio Janeiro.—*B. clavata*, Lindl. (*Bromelia melanantha*, *B. Reg. 9, t.* 766.) 2. Trinidad.—*B. oblonga*, Schult. fil. 2. Rio Janeiro.—*B. nudicaulis*, Lindl.



(*Bromelia nudicaulis*, Hook. exot. fl. t. 143.) 2. Trinidad.—*B. purpureo-rosea*, Hook.; B. M. 61, t. 3304. 2. Brazil.—*Pitcairnia Karwinskyana*, Schult. fil. 2. Mexico.—*P. flammea*, Lindl.; B. Reg. 13, t. 1092. 2. Brazil.—*P. suaveolens*, Lindl.; B. Reg. 13, t. 1069. 2. Rio Janeiro.—*P. Redouteana*, Schult. 2. St. Cruz.—*P. sulphurea*, Andr. (*P. bracteata*, β . *sulphurea*, B. M. 34, t. 1416.) 2. W. Indies.—*P. albucefolia*, Schrad. 2. W. Indies.—*Tillandsia Bartramii*, Ell. 2. Georgia.—*T. recurvata*, L. 2. Jamaica. Bahama Islands.—*T. pulchra*, Hook. exot. fl. t. 154. 2. Trinidad.—*T. coerulea*, Humb. and Bonpl. 2. Mexico.—*T. Karwinskyana*, Schult. fil. 2. Mexico.—*T. bulbosa*, Hook. exot. fl. t. 173. 2. Mexico.—*T. flexuosa*, Swz. (*T. flexuosa* γ , Lindl.; B. Reg. 9, t. 749.) 2. Jamaica.—*T. reticulata*, Sm. 2. Jamaica.—*T. nitida*, Hook. exot. fl. t. 218. 2. Jamaica.

ORDER CCXXXIV.—HYDROCHARACEÆ, Lindl. Nat. Syst. p. 335.

Floating or water plants, by Lindl. referred to 12 genera. Of these Spreng. syst. assigns 3 species to Europe, (1 also Indian); 2 to S. America; 2 to N. Holland, (1 also a native of India); 1 Egypt, (also a native of India); and 1 to N. America. In the E. Indies have been discovered 4 species of *Ottalia*; 3 of *Vallisneria*; 1 of *Hydrilla*; 1 of *Blyxa*; 1 of *Enhalus*; and 1 of *Hydrocharis*. A species of *Blyxa* has been found in Madagascar. Properties under the species.

A. ANACHARIÆ, (Anacharidæ, Endl. gen. pl. 1, p. 161.)

HYDRILLA, L. C. Rich. (Endl. l. c.)

1. *verticillata*, L. C. Rich. (*Mém d'inst.* [1811.] 2, p. 61, t. 2.—Serpicula verticillata, Lin. fil.;—Roxb. fl. ind. 3, p. 578;—J. Grah. Cat. B. pl. p. 76; not Rostcow.—Vallisneria verticillata, Roxb. fl. ind. 3, p. 751. Udora verticillata, Spreng. 1, p. 170.—Hottonia serrata, Willd.) ⊖ Coromandel. Mahableshwar. Bengal, (Serampore) and northwards to Saharunpore. Fl. small, whitish, R. S.; fr. C. S. This and similar plants are employed by the sugar-refiners of Saharunpore and Berhampore for covering the surface of their sugars, as clay is used in the W. Indies, to permit the slow percolation of water. (Roxb. Royle.)

B. VALLISNERIÆ, Endl. gen. pl. 1, p. 161.

VALLISNERIA, Michel. (Endl. l. c.)

1. *spiralis*, L. (*R. Br. pr. p. 201*;—*Wight. in Hook. bot. misc. suppl.* 23, 24.—*V. spiraloïdes*, Roxb. fl. ind. 3, p. 750;—*J. Grah. Cat. B. pl. p. 200*.—*V. Jacquiniana*, Spreng. syst. 3, p. 900.) ⊖ N. America. S. France. N. Italy. N. Holland. Coromandel. The Concans. Patna, &c. Fl. small, R. S. (Roxb.)



2. *alternifolia*, Roxb. (*fl. ind.* 3, p. 750;—*Wight. in Hook. bot. misc.* 3, p. 344, t. 11;—*J. Grah. Cat. B. pl.* p. 199.) *রসনজান্জি* *Rusnojhanji*. ⊖ Coromandel. The Concans. Bengal, (Serampore.) Silhet. Fl. very small, R. S.; fr. C. S.

BLYXA, Pet. Th. (*Gen. madagasc. No. 14*;—*L. C. Rich. in Mém. d'inst.* [1811.] 2, p. 63, t. 4, 5;—*Endl. gen. pl.* 1, p. 161.)

1. *octandra*, Rich. (*l. c.*—*Vallisneria octandra*, *Roxb. Corom.* 2, t. 165; *fl. ind.* 3, p. 752;—*Spreng. syst.* 3, p. 900; excl. syn. L.;—*J. Grah. Cat. B. pl.* p. 199.—*Saivala valisnerioïdes*, *Hb. Buch.*) *পাটা শে়ুলা* *Pata-syala*. ⊖ Coromandel. The Concans. Bengal, (Serampore.) Nepal. Fl. small, white, R. S.; fr. C. S.

C. STRATIOTES, (*Stratiotidae*, *Endl. gen. pl.* 1, p. 162.)

ENHALUS, L. C. Rich. (*Endl. l. c.*)

1. *acoroïdes*, L. C. Rich. (*l. c.*—*Stratiotes acoroïdes*, *L.*;—*Spreng. syst.* 2, p. 467;—*J. Grah. Cat. B. pl.* p. 251.—*Acorus marinus*, *Rumph.* 6, p. 191, t. 75, f. 2.) ⊖ Moluccas. The Concans. Has been introduced into H. C. G.? The whole plant has a sulphureous smell. The fruit is eatable, as well raw, as when they are roasted under hot ashes, or boiled in water, when the nuts acquire the taste of boiled chesnuts. The natives of the Moluccas make nets of the tough threads which remain after the purified leaves; these nets are said to be very durable in sea-water. (*Rumph.*)

OTTELIA, Pers. (*Syn.* 1, p. 400;—*L. C. Rich. Mém. d'inst.* [1811.]—*Endl. gen. pl.* 1, p. 162.)

1. *alismoides*, Pers. (*l. c.*;—*L. C. Rich. l. c.*—*Stratiotes alismoides*, *L.* sp. 754;—*Forsk. ag.* p. 101;—*Sm. exot. bot.* 1, p. 27, t. 15.—*Damasonium alismoides*, *R. Br. pr.* p. 344; annot.—*Damasonium indicum*, *Willd.*;—*Spreng. syst.* 2, p. 163;—*Schult. syst.* 8, p. 1593;—*Bl. en. pl. jav. fasc.* 1, p. 30;—*Roxb. Corom.* 2, t. 185; *fl. ind.* 2, p. 216;—*B. M.* 30, t. 1201;—*J. Grah. Cat. B. pl.* p. 200.—*Hymenotheca laxifolia*, *Salisb. MSS.*;—*Rheed.* 11, t. 46.) *পানী কলা* *Panee-kula*. ⊖ Sunda Islands. Ceylon. Coromandel. Bombay. The Concans. Meloon. Bengal, (Serampore.) Silhet. Assam. Nepal. Egypt. Fl. 1-2 inches in diameter, whitish, fugacious, longitudinally veined, R. S.; fr. C. S.

* *Vallisneria nana*, R. Br. ⊖ Tropical N. Holland.—*V. Physcum*, Juss. ⊖ Cochin China.—*Stratiotes aloides*, L.; E. B. 6, t. 379. ⊖ Europe.—*Boottia cordata*, Wall. pl. as. rar. 1, t. 65. Prome. Taong-Dong.—*Hydrocharis cellulosa*, Hb. Buch. Nathpur. Goruckpore. Silhet.—*Ottelia sessilis*, (Damasonium sessile, Hb. Buch.) Mahujabadab.—*O. javanica*, (Damasonium javanicum, Bl.) Java.—*O. ovalifolia*, (Damasonium ovalifolium, R. Br.) Port Jackson.—*O. tranquabaricensis*, (Damasonium tranquabaricense, Hb. Schreber.) Tranquebar.

ORDER CCXXXV.—ORCHIACEÆ, (ORCHIDACEÆ, Lindl. Nat.
Syst. p. 336.)

THE ORCHIS TRIBE.

Herbs, found in almost all parts of the world, except upon the verge of the frozen zone, and in climates remarkable for dryness. In Europe, Asia, N. America, and New Holland they are seen growing every where,—in groves, in marshes, and in meadows; in the drier parts of Africa they are either rare or unknown; at the C. G. H. they abound in similar situations as in Europe; but in the hot damp parts of the W. and E. Indies, in Madagascar, and the neighbouring islands, in the damp and humid forests of Brazil, in the warm mild parts of central America, and W. Mexico! in the damp tropical parts of India, (in Assam, on the Khassya Mountains, on the lower mountains of Nepal, &c.) these Orchideous plants flourish in the greatest variety, and profusion, no longer seeking their nutriment from the soil, but clinging to the trunks and limbs of trees, to stones, and bare rocks, where they vegetate among ferns and other shade-loving plants, in countless thousands. The number of species of this tribe is unknown, but probably is not less than 1860?" (Lindl.)

Although the last fascicle of Lindl.'s genera and species of Orchideous plants has not come to hand, it is, perhaps, not too much to say, that the number of hitherto described Indian species of this order amounts to 700, which are thus distributed among the following divisions: *Malaxiæ*, 390; *Epidendriæ*, 153; *Vandæ*, 487; *Ophydæ*, 449; *Arethuseæ*, 218; *Neottiæ*, 270; and *Cypripediæ*, 23.

"It often happens, that those productions of nature which charm the eye with their beauty, and delight the senses with their perfume, have the least relation to the wants of mankind, while the most powerful virtues or most deadly poisons are hidden beneath a mean and insignificant exterior. Thus the Orchidaceæ beyond their beauty, can scarcely be said to be of known utility, with a few exceptions. The nutritive substance called *Salep*, has been said to be prepared from the subterraneous succulent roots of *Orchis mascula* and others; but it is now known from the enquiries of Royle, to be the produce of the tubers of a species of *Eulophia*; it consists almost entirely of a chemical principle called Bassorin, (Turner, 699.) The root of *Bletia verecunda* is said to be stomachic, (*Lunan*). Some of the S. American species, such as the *Catasetums*, *Cyrtopodiums*, &c. contain a viscid juice, which being inspissated by boiling, becomes a kind of vegetable glue used for economical purposes in Brazil." (Lindl.).

A. MALAXIÆ, (Malaxideæ, Lindl. gen. and spec. orch. pl. p. 3;—Endl. gen. pl. p. 186.)

PLRUROTHALLIS, R. Br. (Lindl. o. c. p. 6.)

1. *racemiflora*, Lindl. (o. c. p. 6.—*Epidendrum racemiflorum*, Swz. pr. 125.—*Dendrobium racemiflorum*, Swz.; fl. occid. 1543;—Willd. No.



2.) ♀. Paras. Highest Mountains of Jamaica. Introduced in 1840.
Has not fl.

OCTOMERIA, Lindl. (*gen. and sp. orch. pl. p. 10.*)

1. *graminifolia*, R. Br. (*B. M. 54, t. 2764.*—*B. Cab. 19, 1891.*—*Part. Mag. 1, p. 156*, cum. fig. ad. p. 155.) Terrestr. W. Indies.

STELIS, Swz. (*Hook. exot. fl. 3, t. 158;*—*Lindl. gen. and sp. orch. pl. p. 12.*)

1. *micrantha*, Swz. ♀. Paras. Jamaica.

OBERONIA, Lindl. (*gen. and sp. orch. pl. p. 15.*)

1. *iridifolia*, Lindl. (*l. c.—Malaxis ensiformis, Sm.—Cymbidium iridifolium, Roxb. fl. ind. 3, p. 458.*) ♀. Paras. Ceylon. Khassya Mountains. Nepal. Otaheite. Fl. minute, yellow. Oct. and Nov.

LIPARIS, L. C. Rich. (*Lindl. gen. and sp. orch. pl. p. 26;*—*Endl. gen. pl. p. 189.*)

1. *bracteata*, Wall. Upper Assam. Fl. July, 1836.

2. *concinna*, Wall. do. do. Scarcely different from No. 1.

3. *aceps*, Wall. Khassya Hills.

4. *cylindrostachya*, Wall. ♀. Khassya Mountains. Has been introduced into H. C. G. Fl.?

5. *canaliculata*, Wall. Nepal.

6. *odorata*, Lindl. (*gen. and spec. orch. pl. p. 26.—Malaxis odorata, Willd.—Rheed. 12, p. 55, t. 28.*) Fl. sweet-scented, yellowish-green. Kemaon. Terrest.

OTOCNILUS, Lindl. (*Lindl. gen. and sp. orch. pl. p. 35;*—*Endl. gen. pl. p. 189.*)

1. *albus*, Lindl. ♀. Paras. Nepal. 1818. Fl. inodorous. Lip at the base yellow. Column greenish.

2. *fuscus*, Lindl. (*l. c.—Wall. pl. as. rar. 1, t. 66.*) ♀. Paras. Nepal. Fl. middle-sized, rosy-white, fragrant, January.

PHOLIDOTA, Lindl. (*gen. and sp. orch. pl. 36;*—*Endl. gen. pl. p. 190.*)

1. *imbricata*, Lindl. (*l. c.;—Hook. exot. fl. t. 138, not B. Reg. 14, t. 1213;*—*B. Reg. 21, t. 1777;*—*Lodd. B. Cab. t. 1934.*—*Cymbidium imbricatum, Roxb. fl. ind. 3, p. 460;*—*J. Grah. Cat. B. pl. p. 204,*—*Ptilocnema bracteatum, D. Don. pr. fl. nep. p. 33;*—*Rheed. 12, t. 24.*) ♀. Paras. Ceylon. Coromandel. Bombay. Chittagong. Khassya Mountains. Nepal. Fl. small, greyish-lilac. Sept. and Oct.

2. *undulata*, Wall. (*in B. Reg. 14, sub. Ph. imbricata.*) ♀. Paras. Khassya Hills. Fl. brownish, lip pale brick-coloured. Fl. white, at the base of the apex of the lip yellowish.

3. *articulata*, Lindl. (*o. c. p. 38.*) ♀. Paras. Khassya Mountains. Introduced in 1840. Has not fl.

4. *ophiocephala*, Lindl. (*B. Reg. 24, p. 34, No. 48.*) ♀. Mexico. Fl. 1841.

COELOGYNE, Lindl. (*gen. and sp. orch. pl. p. 38;*—*Endl. gen. pl. p. 190.*)

1. *flavida*, Wall. MSS. ♀. Paras. Khassya Mountains. In H. C. G. Fl.?



2. *undulata*, Wall. MSS. 2. Paras. Khassya Mountains. In H. C. G. Fl. ?
3. *fimbriata*, Lindl. (*B. Reg.* 11, t. 868.) Nepal, China. Fl. yellowish-green.
4. *barbata*, Wall. MSS. 2. Paras. Khassya Mountains. In H. C. G. Fl. ?
5. *longicaulis*, Wall. Khassya Hills. 1837.
6. *procera*, Wall. Khassya Hills. 1837.
7. *cristata*, Lindl. Nepal. 1836. Fl. white, large, scented, divaricate.
8. *decora*, Wall. MSS. 2. Paras. Khassya Mountains. In H. C. G. Fl. ?
9. *rigida*, Wall.
10. *Wallichiana*, Lindl. (*o. c. p. 43*;—*Wall. pl. as. rar.* I, t. 54;—*B. Reg.* 1838, app. p. 85;—*Past. Mag.* 6, t. 15.) 2. Paras. Khassya Mountains. Fl. large, deep rose-coloured, scentless, C. S.
11. *præcox*, Lindl. (*l. c.*—*Epidendrum præcox*, *Sm. exot. bot.* t. 97.—*Cymbidium præcox*, *Sm. in. Rees' encycl.*—*Pleione præcox*, *D. Don. pr. fl. nep. p. 37.*) 2. Paras. Fl. largish, purple, with the limb of the bellum white, C. S.
12. *maculata*, Lindl. (*l. c.*;—*Wall. pl. as. rar.* I, t. 53.) 2. Paras. Khassya Mountains. Fl. large, white, fragrant. The lip variegated with yellow and purple, C. S.
13. *interrupta*, Wall. Khassya. Is this different from the following?
14. *prolifera*, Lindl. (*B. Reg.* 3 ser, 1, p. 44.) Nepal. 1821. Fl. greenish yellow.
15. *nitida*, Lindl. (*l. c.*—*Cymbidium nitidum*, *Roxb. fl. ind.* 3, p. 459.) 2. Paras. Garow Hills. Khassya Mountains. Nepal. Fl. large, nearly white, May.
16. *ocellata*, Lindl. (*l. c.*;—*B. Reg.* 1839, app. p. 31;—*B. M.* 66, t. 3767.) 2. Paras. Khassya Mountains. Sirmore. Kemaon. Fl. large, white, lip-tinged with yellow, veined with orange, each lateral lobe having a large ocellated orange spot, and the terminal one 3 smaller spots at the base, C. S.
17. *media*, Wall. MSS. 2. Paras. Khassya Mountains. Has been introduced into H. C. G. Fl. ?
18. *elata*, Lindl. (*o. c. p. 40*;—*Wall. pl. as. rar.* 3, t. 218;—*B. Reg.* 1839, app. p. 92.) 2. Paras. Khassya Mountains. Nepal. Fl. largish, white, inodorous, C. S.
19. *ovalis*, Lindl. (*B. Reg.* 1838, app. p. 91.) 2. Paras. Nepal. Kemaon. Introduced into H. C. G. Fl. ?
20. *Gardneriana*, Lindl. (*l. c.*;—1837.—*Past. Mag.* 6, t. 73.) Fl. very large, white, immaculate.
- MEGAELINIUM*, Lindl. (*gen. and sp. orch. pl. p. 47.*)
1. *falcatum*, Lindl. (*l. c.*;—*B. Reg.* 12, t. 989.) Sierra Leona. Introduced in 1840. Has not fl.
2. *maximum*, Lindl. (*B. Reg.* 23, t. 1951.) Sierra Leona.



622

ORCHIACEAE.

SL

BOLBOPHYLLUM, Pet. Th. (*Lindl. gen. and sp. orch. pl. p. 47.*)

1. *leopardinum*, Lindl. (*o. c. p. 48.*—*Dendrobium leopardinum. Wall. tent. fl. nep. 1, p. 39, t. 28.*) 2. Paras. Chandagiri Mountain, Nepal. Fl. large, pale yellowish-green, spotted with purple. Has I believe fl. in H. C. G., not here.
2. *auricomum*, Lindl. (*o. c. p. 50.*) 2. Paras. Tavoy, Kyook-Phyoo. Introduced in 1840, but has not fl. yet.
4. *umbellatum*, Lindl. (*o. c. p. 56.*) 2. Paras. Khassy Mountains, Nepal. Fl. dull dirty-yellow, spotted with brown, 1838.
3. *Careyanum*, Spreng. (*Syst. 3, p. 732;*—*Lindl. o. c. p. 51.*—*Pleurothallis purpurea, D. Don. fl. nep. p. 33.*—*Triborchia purpurea, Lindl. coll.*—*Anisopetalum Careyanum, Hook. exot. fl. t. 149.*) 2. Paras. Nepal. Martaban. In H. C. G. 1836.
5. *flexuosum*, Wall. Khassy, 1836.
6. *fuscescens*, Wall. Upper Assam. Capt. Jenkins, 1838. Very near *B. umbellatum*, L., but distinct.
7. *cocoinum*, Batein (*Lindl. B. R. 23, No. 1964.*) Sierra Leon. 1838.
8. *serpens*, Wall. Khassy Hills. H. Inglis, 1838. Fl. June 1839. Very near *Bolbophyllum reptans*, Lindl., *Orch. p. 51.*—*Triborchia reptans*, Coll. Bot. No. 41, f. A.,
9. *recurvum*, Lindl. (*Orch. 53.*—*Triborchia pendula, Lindl. B. R. 12, 963.*) Sierra Leon.
10. *Jenkinsii*, Wall. Assam, 1840.

CIRRHOPELALUM, Lindl. (*gen. and sp. orch. pl. p. 58;*—*Endl. gen. pl. p. 191.*)

1. *Roxburghii*, Lindl. (*l. c.;*—*Wall. pl. as. rar. 1, t. 67.*—*Aerides radiatum, Roxb. fl. ind. 3, p. 476.*) 2. Paras. Soonderbuns. Fl. small, yellow, June and July. (*Roxb.*)
2. *Lindleyanum*, Wall. Comes very near to No. 1, Burma, 1828.
3. *caspitosum*, Wall. MSS. (*B. Reg. 1838, app. p. 35.*) 2. Paras. Khas-sya Mountains, 1836.
4. *cornutum*, Lindl. (*B. Reg. 1838, app. p. 75.*) 2. Paras. Khassy Mountains. Has been introduced into H. C. G. Fl.?
5. *macrophyllum*, Wall. Khassy Mountains. 1836.

TRIAS, Lindl. (*gen. and sp. orch. pl. p. 60;*—*Endl. gen. pl. 1, p. 191.*)

1. *oblonga*, Lindl. (*l. c.;*—*Wall. pl. as. rar. 1, t. 70.*) 2. Paras. Moulmein. Fl. smallish, brownish-green, with a purplish labellum, March, 1836.
2. *racemosa*, Wall. Khassy, 1836.

ERIA, Lindl. (*gen. and sp. orch. pl. p. 65;*—*Endl. gen. pl. 1, p. 192.*)

1. *paniculata*, Lindl. (*l. c.;*—*Wall. pl. as. rar. 1, t. 36.*) 2. Paras. Khas-sya Mountains, 1833.
2. *flava*, Lindl. (*o. c. p. 65.*—*Dendrobium pubescens, Hook. exot. fl. t. 124.*—*Octomeria flava, Wall.*—*O. pubescens, Spreng. syst. 4, p. 310.*) 2. Paras. Moulmein. Chappedong. Noakoti, Nepal. Khassy. 1810.



3. *pusilla*, Wall. MSS. 2. Paras. Khassy Mountains, 1836.
4. *densiflora*, Wall. 2. Paras. Khassy Mountains, 1835.
5. *clavicaulis*, Wall. Khassy, 1837.
6. *planicaulis*, Wall. MSS. 2 Paras. Khassy Mountains. In H. C. G. Fl. ?
7. *excavata*, Lindl. (o. c. p. 67;—*Wall. pl. as. rar. 2, t. 160.*) 2. Paras. Sheopore Mountains, Nepal. In H. C. G.
8. *pumila*, Lindl. (o. c. p. 68;—*B. Reg. 1838, app. p. 79.*) 2. Paras. Fl. small, membranous, slightly tinged with pink. In H. C. G.
9. *ferruginea*, Lindl. (*B. Reg. 1839, t. 35.*) 2. Paras. Khassy Mountains? In H. C. G. Fl. ?
10. *convallarioides*, Lindl. (o. c. p. 70.—*Pinalia, Lindl. orch. scel. No. 71, p. 23*, with a plate.—*Pinalia alba, Buch. MSS. in D. Don. fl. nep.*—*Octomeria spicata, D. Don. pr. fl. nep. p. 31.*—*O. convallarioides, Wall.*) 2. Paras. Nepal. Khassy Mountains. Fl. small, white, inodorous, C. S.
APORUM, Bl. (*Lindl. gen. and sp. orch. pl. p. 70;—Endl. gen. pl. 1, p. 192.*)
1. *anceps*, Lindl. (o. c. p. 71;—*B. M. 64, t. 3608.*—*Dendrobium anceps, Swz.*;—*B. Reg. 15, t. 1239;*—*Spreng. syst. 3, p. 438;*—*Roxb. fl. ind. 3, p. 487.*) 2. Paras. Soonderbuns. Fl. middle-sized, pale yellowish-green. H. S.
2. *cuspidatum*, Wall. MSS. 2. Paras. Khassy. In H. C. G. Fl. ? Like No. 1.
DENDROBIUM, Swz. (*Lindl. gen. and sp. orch. pl. p. 74.*)
1. *Pierardi*, Roxb. (fl. ind. 3, p. 482;—*Lindl. o. c. p. 79*, excl. syn. R. Br.;—*Hook. exot. fl. t. 9*;—*B. M. 52, t. 2584;*—*B. Reg. 21, t. 1756.*—*J. Grah. Cat. B. pl. p. 204.*) 2. Paras. Chappedong. Chittagong. Soonderbuns. Silhet. Fl. large, pale yellow. H. S.
3. *heterocarpum*, Wall. (*Lindl. o. c. p. 78;—Wall. pl. as. rar. 2, t. 196.*) 2. Paras. Nepal. Fl. large, pale-yellow, fragrant. H. S.
4. *chrysanthum*, Wall. (*Lindl. o. c. p. 80;—B. Reg. 15, t. 1299.*) 2. Paras. Nepal. Fl. large, intensely yellow. May.
5. *Paxtonii*, Lindl. (*B. Reg. 1839, app. p. 43.*) 2. Paras. Khassy Mountains. Fl. largish, orange-yellow, with a deep brown spot in the middle of the lip. In H. C. G.
6. *longicornu*, Lindl. (o. c. p. 80;—*B. Reg. 16, t. 1315.*) 2. Paras. Khassy Mountains. Nepal. Fl. large, with a yellow lined lip, inodorous. April.
7. *formosum*, Roxb. (fl. ind. 3, p. 485;—*Lindl. o. c. p. 81;*—*Wall. pl. as. rar. 1, t. 39;*—*B. Reg. 1839, t. 64;*—*Paxt. 6, t. 49.*) 2. Paras. Tavoy. Martaban. Khassy Mountains. Garrow Hills. Nepal. Fl. very large, pure white, sweet-scented, with the middle of the lip yellow. April and May.



623

ORCHIACEAE.

SL

8. *pulchellum*, Roxb. (*fl. ind.* 3, p. 486;—*Lindl. o. c. p.* 82.) 2. Paras. Khassya Mountains. Fl. large, pale rose-coloured, May and June.
9. *Calceolus*, Roxb. (*fl. ind.* 3, p. 488.—*D. moschatum*, *Wall.*;—*D. Don. pr. fl. nep.* p. 34;—*Lindl. o. c. p.* 82.—*Epidendrum moschatum*, *Buch. in Syme's. emb.* 3, p. 315, with a plate.—*Rumph.* 6, t. 50, f. 3.) 2. Paras. Amboyna. Pegu. Fl. very large, dull orange-coloured, slightly veined, with dull red, R. S.
10. *denudans*, D. Don. (*pr. fl. nep.* p. 34;—*Lindl. o. c. p.* 84;—*B. Reg.* 1838, *app. p.* 84.) 2. Paras. Nepal. In H. C. G. Fl.?
11. *crumenatum*, Swz. (*Lindl. o. c. p.* 88;—*Roxb. fl. ind.* 3, p. 480;—*B. Reg.* 1839, t. 22.—*Onychium crumenatum*, *Bl.*;—*Rumph.* 6, t. 47, 2.) 2. Paras. Amboyna. Java. Sumatra. Penang. Fl. large, white, rose-tipped, with the disc of the labellum yellow, R. S.
12. *densiflorum*, Wall. (*Lindl. o. c. p.* 90;—*Wall. pl. as. rar.* I, t. 40;—*Paxt.* 5, 121.—*B. M.* 62, t. 3418;—*B. Reg.* 21, t. 1828.—*Epidendrum Dumunsutta*, *Buch. in Sm. Hb.*) 2. Paras. Nepal. Fl. large, pale-yellow, with an orange-coloured lip, May.
13. *sulcatum*, Lindl. (*B. Reg.* 1838, t. 65.) 2. Paras. Khassya Mountains. Fl. largish-yellow, with a tinge of orange. Has been introduced into H. C. G.
14. *aggregatum*, Roxb. (*fl. ind.* 3, p. 477;—*Paxt. Mag.* 6, 145;—*B. Reg.* 20, t. 1695.) 2. Paras. Chappedong. Fl. large, yellow, March.
15. *bicameratum*, Lindl. (*B. Reg.* 1839, *app. p.* 59.) 2. Paras. Khassya Mountains. Fl. dull-yellow, spotted and streaked with purple. Has been introduced into H. C. G. Fl.?
16. *Jenkinsii*, Wall. (*B. Reg.* 1839, t. 37.) 2. Paras. Assam. Fl. large, yellow, March.
17. *coeruleescens*, Wall. MSS. 2. Paras. Khassya Mountains. Fl. large, bluish-purple, C. S.
18. *Gibsonii*, Paxt. (*Mag.* 6, t. 916.) 2. Paras. Khassya Mountains? In H. C. G. Fl.?
19. *candidum*, Wall. (*B. Reg.* 1838, *app. p.* 36.) 2. Paras. Khassya Mountains. Fl. white, exquisitely scented. Has been introduced into H. C. G. Fl.?
20. *stuposum*, Lindl. (*B. Reg.* 1838, *app. p.* 52.) 2. Khassya Mountains. Fl. white, a little smaller than those of the preceding species. In H. C. G.
21. *Cambridgeanum*, Paxt. (*Mag.* 6, t. 265.—*D. fimbriatum*, *Paxt. Mag.* 2, t. 172.) 2. Paras. Rangoon. Fl. middle-sized, white. In H. C. G. fl. C. S. (*Roxb.*)
22. *flavum*, Roxb. 2. Paras. Chittagong. In H. C. G. fl. Feb. and March. (*Roxb.*)
23. *pumilum*, Roxb. (*fl. ind.* 3, p. 279.) 2. Chittagong. Fl. middle-sized, yellow, inodorous. In H. C. G. fl. R. S. (*Roxb.*)



24. *elevatum*, Roxb. (*fl. ind.* 3, p. 481;—*Wall. Cat.*?) 2. Paras. Garrow Hills. Khassy Mountains? Nepal? Fl. largish, lively-yellow. In H. C. G. fl. April and May. (*Roxb.*)
25. *purpureum*, Roxb. (*fl. ind.* 3, p. 484;—*Rumph.* 6, t. 50, f. 1.) 2. Paras. Amboyna. Moulmein? Fl. small, lively-purple. In H. C. G. fl. Feb. and March. (*Roxb.*)
26. *pendulum*, Roxb. (*fl. ind.* 3, p. 484.) 2. Paras. Chittagong. In H. C. G. fl. April and May. (*Roxb.*)

B. EPIDENDREÆ.

Lindl. gen. and sp. orch. pl. p. 95;—*Endl. gen. pl.* 1, p. 193.

EPIDENDRUM, L. (*Lindl. l. c.*;—*Endl. l. c.*)

1. *fragrans*, Swz. (*Lindl. o. c.* p. 97;—*B. M.* 40, t. 1669;—*B. Cab.* t. 1039.—*E. lineatum*, *Salisb.*) 2. Paras. Jamaica. Introduced in 1840, but has not fl. yet.
2. *odoratissimum*, Lindl. (*o. c.* p. 99;—*B. Reg.* 17, t. 1415.—*Macradenia intescens*, *Lodd.* *B. Cab.*, not R. Br.—*Encyclia patens*, *Hook.*; *B. M.* 57, t. 3013.) 2. Paras. Rio Janeiro. Introduced in 1840. Has not fl.
3. *variegatum*, Hook. (*B. M.* 59, t. 3151.) 2. Paras. Rio Janeiro. Introduced in 1840. Has not fl.

CATTLEYA, Lindl. (*gen. and sp. orch. pl.* p. 166;—*Endl. gen. pl.* 1, p. 194.)

1. *Forbesii*, Lindl. (*o. c.* p. 117;—*B. Reg.* 11, t. 933;—*B. M.* 60, t. 3265.) 2. Paras. Brazil. Introduced in 1840. Has not fl.

SPATHOGLOTTIS, Bl. (*Lindl. o. c.* p. 119.)

1. *pubescens*, Lindl. (*o. c.* p. 120.) 2. Terrest. Prome. Taong-Dong. Khassy Mountains. 1836. Fl. smallish, yellowish, C. S.

BLLETIA, Ruiz, and Pav. (*Lindl. gen. and sp. orch. pl.* p. 120;—*Endl. gen. pl.* 1, p. 194.)

1. *verecunda*, R. Br. (*Lindl. o. c.* p. 121.—*Limodorum altum*, *L.*; *Jacq. icon. rar.* 3, t. 602;—*B. M.* 24, t. 930.—*L. verecundum*, *Salisb.*—*L. trifidum*, *Michx.*—*L. purpureum*, *Red.*—*Cymbidium verecundum*, *Swz.*; *Roxb.* *H. B.* p. 63.—*C. altum*, *Willd.*; *Pers.*—*Gyas verecunda*, *Salisb.*) 2. Terrest. W. Indies. Jamaica, but found only in the cooler parts of the mountains, in dry and sandy situations. Fl. beautifully light purple, middle-sized, inodorous, and fr. R. and C. S.

2. *hyacinthina*, R. Br. (*Lindl. o. c.* p. 122.—*Limodorum striatum*, *Thunb. ic. pl. jap.* t. 9, p. 28.—*Epidendrum striatum*, *Thunb. act. soc. Linn.* 2, p. 327.—*Cymbidium striatum*, *Swz.*; *Roxb.* *H. B.* p. 63.—*C. hyacinthinum*, *Sm. exot. hot.* 1, t. 60;—*B. M.* 36, t. 1492.—*Gyas humilis*, *Salisb.*) 2. Terrest. China. Japan. Fl. largish, beautifully bright-purple, inodorous, March and April; fr. O.

ARUNDINA, Bl. (*Lindl. o. c.* p. 125;—*Endl. gen. pl.* p. 195.)

1. *bambusifolia*, Lindl. (*l. c.*—*Cymbidium bambusifolium*, *Roxb. fl. ind.* 3, p. 460.—*Bletia graminifolia*, *D. Don. pr. fl. nep.* p. 29.) 2. Ter-

rest. Chittagong. Khassyia Mountains. Fl. largish, rosy, with the lip of a lively-red purple, inodorous, March and April, sometimes also May and June; fr. 0.

PHAIUS, Lour. (*Lindl. o. c. p. 126*;—*Endl. gen. pl. 1, p. 195.*)

1. *grandifolius*, Lour. (*Lindl. l. c.*—*Limodorum Tankervilleæ*, *Ait.*—*Rosb.*, *fl. ind.* 3, *p. 466*.—*L. Incarvillea*, *Per.*—*Pachyne spectabilis*, *Salisb.*—*Bletia Tankervilleæ*, *R. Br.*; *B. M.* 44, *t. 1924.*) 2. Terrest. China. Khassyia Mountains. Fl. very large, many-veined, above sulphur-coloured, densely marked with rust-coloured dots, underneath white and crystallinely micant, inodorous, the lip whitish-yellowish, variegated with rose and purple, March and April; fr. 0.
2. *Wallichii*, Lindl. (*l. c.*;—*Wall. pl. as. rar.* 2, *t. 158*.—*P. grandifolius*, *Lindl. in. Wall. Cat.* not Lour.) 2. Terrest. Khassyia Mountains. Fl. very large, brown, inodorous with lip yellowish-white, variegated with rose-colour, March; fr. 0.
3. *albus*, Lindl. (*o. c. p. 128*;—*Wall. pl. as. rar.* 2, *t. 198*;—*J. Grah. Cat. B. pl. p. 205.*) 2. Terrest. Khassyia Mountains. Fl. very large, white, sweet-scented, the lip purple-veined with a yellow disc, April and May; fr. 0.
4. *maculatus*, Lindl. (*Orch. p. 127*—*Bletia Woodfordii*, *Hook.*; *B. M.* 54, *t. 2719.*) Khassyia Mountains. 1836.

C. VANDAE.

Lindl. gen. and sp. orch. pl. p. 135;—*Endl. gen. pl. p. 195.*

MAXILLARIA, Ruiz. and Pav. (*Lindl. o. c. p. 142*;—*Endl. o. c. p. 196.*)

1. *Parkeri*, Hook. (*B. M.* 54, *t. 2729*;—*Lindl. o. c. p. 146.*) 2. Paras. Demerara. Introduced in 1840. Has not fl.
2. *picta*, Hook. (*B. M.* 59, *t. 3154*;—*Lindl. l. c.*;—*B. Reg.* 21, *t. 1802.*) 2. Paras. Organ Mountains, Brazil. Introduced in 1840. Has not fl.
3. *Harrisoniae*, Lindl. (*o. c. p. 148*;—*B. Reg.* 11, *t. 897*;—*B. M.* 56, *t. 2927.*—*Dendrobium Harrisoniae*, *Lindl.*—*Hook. exot. fl. t. 120.*—*Colax Harrisoniae*, *Lindl.*; *B. Reg.* 11, *t. 897*;—*Spreng. syst.* 3, *p. 727.*) 2. Paras. Rio Janeiro. Introduced in 1840. Has not fl.
4. *densa*, Lindl. (*B. Reg.* 21, *t. 1804.*) 2. Paras. Mexico. Introduced in 1840. Has not fl.
5. *variabilis*, Lindl. 2. Paras. Mexico.

β . *unipunctata*, Lindl. (*B. Reg.* 1838, *app. p. 23.*) 2. Paras. Vera Cruz. Fl. smallish, deep-yellow, shaded with a faint greenish tinge, Feb.; fr. 0.

BIFRNARIA, Lindl. (*o. c. p. 152*;—*Endl. gen. pl. p. 197.*)

1. *aurantiaca*, Lindl. (*B. Reg.* 22, *t. 1875*;—*B. M.* 64, *t. 3597.*) 2. Paras. Demerara. Introduced in 1840. Has not fl.

BATEMANNIA, Lindl. (*B. Reg.* 20, *t. 1714*;—*Endl. gen. pl. 1, p. 197.*)

1. *Collegii*, Lindl. (*l. c.*) 2. Paras. Demerara. Introduced in 1840. Has not fl.



DICRYPTA, Lindl. (*gen. and sp. orch. pl. p. 152*;—*Endl. gen. pl. 1, p. 198*)

1. *Baueri*, Lindl. (*l. c.*—*Heterotaxis crassifolia*, *Lindl.*; *B. Reg.* 12, *t.* 1028;—*B. Cab. t.* 1651.) 2. Paras. Jamaica. Introduced in 1840.

CATASETUM, L. C. Rich. (*Lindl. o. c. p. 155*;—*Endl. l. c.*)

1. *tridentatum*, Hook. (*Exot. fl. t.* 90, 91;—*B. M.* 52, *t.* 2559;—*Lindl. l. c.*—*C. Claveringi*, *Lodd. B. Cab. t.* 1344.) 2. Paras. Equinoctial America. Introduced in 1840. Has not fl.
2. *luridum*, Lindl. (*o. c. p. 156*;—*B. Reg.* 20, *t.* 1667;—*B. M.* 64, *t.* 3594;—*Anguloa lurida*, *Lk.*) 2. Paras. Brazil. Introduced in 1840. Has not fl.

STANHOPEA, Hook. (*Lindl. o. c. p. 157*;—*Endl. gen. pl. 1, p. 198*)

1. *grandiflora*, Lindl. (*o. c. p. 158*.—*Ceratochilus grandiflorus*, *Lodd.*—*B. Cab. t.* 1414.) 2. Paras. Trinidad. Introduced in 1840. Has not fl.
2. *oculata*, Lindl. (*l. c.*;—*B. Reg.* 21, *t.* 1800.—*Ceratochilus oculatus*, *Lodd.*; *B. Cab. t.* 1764.) 2. Paras. Mexico. Introduced in 1840. Has not fl.

GONGORA, Ruiz. and Pav. (*Lindl. o. c. p. 158*;—*Endl. gen. pl. 1, p. 199*)

1. *atropurpurea*, Hook. (*Exot. fl. t.* 178;—*Lindl. o. c. p. 159*;—*B. M.* 60, *t.* 3220.) 2. Paras. Trinidad. Introduced in 1840. Has not fl.

CYMBIDIUM, Swz. (*Lindl. o. c. p. 161*;—*Endl. gen. pl. 1, p. 199*)

1. *sinense*, Willd. (*Lindl. o. c. p. 162*;—*Roxb. H. B.*—*C. fragrans*, *Sablis.*—*Epidendrum sinense*, *Andr.*; *B. Repos.* 3, *t.* 216;—*B. M.* 23, *t.* 888.) 2. Paras. China. In H. C. G. fl. Nov. Dec. and Jan. (*Roxb.*)
2. *giganteum*, Wall. (*Lindl. o. c. p. 163*, not Swz.—*Limodorum longifolium*, *Buch.*) 2. Paras. Nepal. Khassyá Mountains. Fl. brownish-purple, margined with yellowish, March, 1836.
3. *lanceifolium*, Hook. (*Exot. fl. t.* 51;—*B. Cab.* 10, *t.* 927.—*Lindl. o. c. p. 164*.) 2. Paras. Nepal. In H. C. G. Fl.?
4. *aloifolium*, Swz. (*Lindl. o. c. p. 165*;—*Roxb. fl. ind.* 3, *p.* 458.—*J. Grah. Cat. B. pl. p. 203*.—*Epidendrum aloifolium*, *L.*—*B. M.* 11, *t.* 387.—*Aerides Borassii*, *Sm. in Rees' cycl.*—*Rheed.* 12, *t.* 8.) 2. Paras. Peninsula of India. Garrow Hills. Khassyá Mountains. Penang. Ava. Fl. large, dull purple, marked with deeper stripes, whitish-edged, somewhat sweet-scented, March and April; fr. O.
5. *pendulum*, Swz. (*Lindl. l. c.*;—*Roxb. fl. ind.* 3, *p.* 458;—*J. Grah. Cat. B. pl. p. 203*.—*C. crassifolium*, *Wall. Cat.*—*Epidendrum pendulum*, *Roxb. Corom.* 1, *t.* 44.) 2. Paras. Peninsula of India. Khassyá Mountains. Fl. striated with red and yellow. In H. C. G. fl. H. S.; fr. O.
6. *Gibsonii*, Wall. MSS. 2. Paras. Khassyá Mountains. In H. C. G. Fl.?
7. *triste*, Willd. (*Lindl. o. c. p. 167*;—*Roxb. fl. ind.* 3, *p.* 461;—*B. M.* 65, *t.* 3648.—*Paxt. Mag.* 5, *p.* 91;—*Epidendrum teres*, *Thunb.*—*E. triste*, *Forst.*—*Luisia teretifolia*, *Gaudich.*) 2. Paras. New Caledonia.



GL

- Mariaanne Islands. Japan. Nepal. Soonderbuns. Ceylon. Fl. small, pale green, inodorous. March and April; fr. rare.
8. *aphyllum*, Swz. (*Roxb. fl. ind.* 3, p. 462;—*J. Grah. Cat. B. pl.* p. 203.—*Limodorum aphyllum*, *Roxb. Corom.* 1, t. 41.) 2. Dry rocky places on the Coast of Coromandel. Fl. pale sulphur. In H. C. G. it fl. once at the beginning of the H. S. (*Roxb.*)
9. *alatum*, Roxb. (*fl. ind.* 3, p. 459.) 2. Paras. Soonderbuns. Chittagong. Fl. small, tinged with ferruginous-red. April and May. (*Roxb.*)
10. *striatum*, Wall. Khassy Mountains. 1836.
11. *inconspicuum*, Wall. Assam. 1837.
12. *longipetalum*, Wall. Khassy Mountains. 1836.
13. *Mastersii*, Wall. Khassy Mountains. 1837.
- ACROPERA*, Lindl. (*o. c. p.* 172;—*Endl. gen. pl.* 1, p. 199.)
1. *Loddigesii*, Lindl. (*l. c.*;—*B. M.* 64, t. 3563.—*Maxillaria galeata*, *Lindl. in Lodd. B. Cab.* 17, t. 1645.) 2. Paras. Mexico. Introduced in 1840. Has not fl.
- GRAMMATOPHYLLUM*, Bl. (*Lindl. o. c. p.* 173;—*Endl. gen. pl.* 1, p. 200.)
1. ? *Finlaysonianum*, Lindl. (*l. c.*) 2. Paras. Penang. Has been introduced into H. C. G. Fl. ? 1823.
- GEODORUM*, Jacks. (*Lindl. o. c. p.* 175;—*Endl. gen. pl.* 1, p. 200.)
1. *purpureum*, R. Br. (*Lindl. l. c.*—*Limodorum nutans*, *Roxb. Corom.* 1, t. 40; *fl. ind.* 3, p. 470.—*Malaxis nutans*, *Willd.*—*M. cernua*, *J. Grah. Cat. B. pl.* p. 203.) 2. Terrest. Coromandel. S. Concan. Bengal, (Serampore,) &c. Fl. largish, pale rose-coloured, inodorous, H. and R. S.; fr. C. S.
2. *dilatatum*, B. R. (*Lindl. l. c.*—*B. R.* 8, t. 675.—*B. Cab.* 18, t. 1797.—*Limodorum recurvum*, *Roxb. Corom.* 1, t. 39; *fl. ind.* 3, p. 469;—*Swz.*—*Willd.*—*Malaxi scernua*, *Willd.*—*Otandra cernua*, *Salisb.*—*Astelia cernua*, *Bl. Rheed.* 11, t. 25.) 2. Terrest. Java. Circars. Bengal, (Serampore,) &c. Fl. middle-sized, white, with a small tinge of yellow, June and July; fr. C. S.
3. *pallidum*, Dou, (*pr. fl. nep. p.* 31;—*Lindl. o. c. p.* 176, excl. syn. *Geodori candidi*, *Wall.*) 2. Terrest. Nepal.
4. *candidum*, Wall. (*Cat.* not *Limodorum candidum*, *Roxb.*) 2. Terrest. Moulmein. Fl. middle-sized, white, the lip tinged with rose, June and July; fr. Aug. and Sept. fragrant. Comes near to *G. citrinum*, but is quite distinct.)
- ? 5. *bicolor*, (*Limodorum bicolor*, *Roxb. fl. ind.* 3, p. 469.) 2. Terrest. Interior of Bengal. Fl. large, fragrant, green and pure white. In H. C. G. fl. June. (*Roxb.*)
- ? 6. *longifolium*, (*Limodorum longifolium*, *Roxb. fl. ind.* 3, p. 468.) 2. Terrest. Khassy Mountains. Fl. large, rosy. In H. C. G. fl. C. S. (*Roxb.*)
- ? 7. *ramentaceum*, (*Limodorum ramentaceum*, *Roxb. fl. ind.* 3, p. 467.) 2.



Terrest. N. Bengal. Fl. largish, greenish-pink. In H. C. G. fl. March, (Roxb.)

? 8. *bracteatum*, (Limodorum bracteatum, Roxb. fl. ind. 3, p. 466.) 2. Terrest. Garrow Hills. Fl. large, white. In H. C. G. fl. July and Aug. (Roxb.)

? 9. *plicatum*, (Limodorum plicatum, Roxb. fl. ind. 3, p. 465;—Rumph. 6, t. 52, f. 1.) 2. Terrest. Sumatra. Fl. largish, of a mixture of yellow, green, and purple. In H. C. G. fl. July and Aug. (Roxb.)

ACANTHOPHRIPPUM, Bl. (*Lindl. o. c. p. 177*;—*Endl. gen. pl. 1, p. 200*)

1. *silhetense*, Lindl. (*l. c.*) 2. Terrest. Khassy Mountains. Fl. very large, white, inodorous. Has been introduced into H. C. G. Fl. ? (The specific name ought to be altered to *khassyanum*.)

EULOPHIA, R. Br. (*Lindl. o. c. p. 180*)

1. *virens*, R. Br. (*Lindl. o. o. p. 182*;—*J. Grah. Cat. B. pl. p. 202*.—*Serapias epidendrea*, Retz.—*Limodorum virens*, Willd.;—*Roxb. Corom. I, t. 38*; *fl. ind. 3, p. 467*;—*Swz.*—*L. epidendroïdes*, Willd.—*Rheed. 12, t. 25.*) 2. Terrest. Ceylon. Coromandel. Bengal. Fl. largish, greenish-yellow-striated, C. S.

2. *fusca*, Wall. Burma. 1827. In H. C. G.

CYANOPODIUM, R. Br. (*Lindl. o. c. p. 188*;—*Endl. gen. pl. 1, p. 200*)

1. *Andersonii*, R. Br. (*Lindl. l. c.*;—*B. M. 43, t. 1800*.—*Cymbidium Andersonii*, *B. Repos. t. 651.*) 2. Terrest. W. Indies. Introduced in 1840. Has not fl.

2. *punctatum*, Lindl. (*l. c.*;—*B. M. 53, t. 3507*.—*Epidendrum punctatum*, L.) 2. Terrest. St. Domingo. Introduced in 1840. Has not fl.

CRYPTOPERA, Lindl. (*o. c. p. 189*;—*Endl. gen. pl. 1, p. 201*)

1. *flava*, Lindl. (*l. c.*;—*Royl. ill. t. 88, f. 1.*) 2. Terrest. Mussooree, 1841. Has been introduced into H. C. G. Fl. ?

2. *plicata*, Lindl. (*o. c. p. 190*) 2. Terrest. Morung Mountains, 1839. Has been introduced into H. C. G. Fl. ?

CRYPTOCHILUS, Wall. (*Lindl. o. c. p. 193*;—*Endl. gen. pl. 1, p. 202*)

1. *sanguineus*, Wall. (*Tent. fl. nep. t. 26*;—*Lindl. l. c.*) 2. Terrest. Nepal. 1816, in H. C. G. Fl. ?

BRASSIA, R. Br. (*Lindl. o. c. p. 212*;—*Endl. gen. pl. 1, p. 203*)

1. *maculata*, R. Br. (*Lindl. l. c.*;—*B. M. 41, t. 1691.*) 2. Paras. Jamaica. Introduced in 1840. Has not fl.

PHALÆNOPISTIS, Bl. (*Lindl. o. c. p. 213*;—*Endl. gen. pl. 1, p. 204*)

1. *amabilis*, Bl. (*Lindl. l. c.*.—*Epidendrum amabile*, L.—*Cymbidium amabile*, Roxb. fl. ind. 3, p. 457;—*Paxt. Mag. 7, t. 49*;—*Rumph. 6, t. 43.*) 2. Paras. Amboyna. Fl. very large, pure white, fragrant. In H. C. G. fl. April and May. (Roxb.)

VANDA, R. Br. (*Lindl. o. c. p. 215*;—*Endl. gen. pl. p. 204*)

1. *Roxburghii*, R. Br. (*Lindl. l. c.*;—*B. Reg. 6, t. 506*;—*B. M. 48, t. 2245*;—*J. Grah. Cat. B. pl. p. 204*.—*Cymbidium teselloïdes*, Roxb. fl. ind. 3, p. 463.) 2. Paras. Bengnl. (Serampore,) &c. Fl. largish,



inodorous, above checkered with yellow and dusky ferruginous purple, beneath white, H. and R. S.

2. *multiflora*, Lindl. (*o. c. p.* 216;—*coll. bot. t.* 38.—*Aërides rigidum, Sm. in Rees' cycl.*) 2. Paras. China. Nepal. Fl. smallish, yellow, with blood-coloured stains. In H. C. G. Fl.?
3. *teres*, Lindl. (*o. c. p.* 217;—*B. Reg.* 21, *t.* 1809.—*Dendrobium teres, Roxb. fl. ind. 3, p. 485.*) 2. Paras. Chittagong. Khassya Mountains. Fl. 4 inches, lively rose-coloured with a rust-coloured horn. April and May.
4. *cristata*, Lindl. Nepal. 1821.

RENANTHERA, Lour. (*Lindl. o. c. p.* 217;—*Endl. gen. pl. 1, p. 204.*)

1. *coccinea*, Lour. (*Lindl. l. c.*;—*B. Reg.* 14, *t.* 1131;—*B. M.* 57, *t. 2997.8*.—*B. R.* 21, *t.* 1809.) 2. Paras. Cochin China. 1837. Has been introduced into H. C. G. Fl.?

CAMAROTIS, Lindl. (*o. c. p.* 219;—*Endl. gen. pl. 1, p. 204.*)

1. *purpurea*, Lindl. (*o. c.* *Aërides rostratum, Roxb. fl. ind. 3, p. 474.*—*Paxt. Mag.* 7, *t.* 25.) 2. Paras. Khassya Mountains, 1836. Has been introduced into H. C. G. Fl.?

MICROPERA, Lindl. (*o. c. p.* 219;—*Endl. gen. pl. 1, p. 205.*)

1. *pullida*, Lindl. (*l. c.*;—*B. Reg.* 18, *t.* 1522, *annot.*—*Aërides pallidum, Roxb. fl. ind. 3, p. 475.*) 2. Paras. Chittagong. Khassya Mountains. Fl. small, white or pale yellowish, with a faint tinge of rose, May and June.

SACCOLABIUM, Bl. (*Lindl. o. c. p.* 220;—*Endl. gen. pl. 1, p. 205.*)

1. *micranthum*, Lindl. (*l. c.*;—*B. Reg.* 1839, *app. p. 38.*) 2. Paras. Nepal. Khassya Mountains. Bengal, (Serampore.) Fl. small, violet rose-coloured, H. S.

2. *retusum*, (*S. guttatum, Lindl. l. c.*—*Epidendrum retusum, L.*;—*Limodorum retusum, Swz.*—*Aerides retusum, Swz.*—*J. Grah. Cat. B. pl. p. 204.*—*A. guttatum, Roxb. fl. ind. 3, p. 471.*—*Sarcanthus guttatus, Lindl.*;—*B. Reg.* 17, *t.* 1443.) 2. Paras. Java. Peninsula of India. Chittagong. Dacca. Khassya Mountains. Nepal. Fl. largish, white, spotted with rose-violet, H. and R. S.

3. *rigidulum*, Wall. Khassya Mountains. 1829.

4. *carinatum*, Wall. Khassya Mountains. 1827.

5. *papillosum*, Lindl. (*l. c.*;—*B. Reg.* 18, *t.* 1552.—*Cymbidium præmorsum, Swz.*;—*Roxb. fl. ind. 3, p. 465*;—*J. Grah. Cat. B. pl. p. 203.*—*Epidendrum præmorsum, Roxb. Corom.* I, *t.* 43.—*Aërides undulatum, Sm. in Rees' cycl.*;—*Rheed.* 12, *t. 4.*) 2. Paras. The Circars. Prome. Fl. small, variegated with red and yellow, H. S.

6. *catceolare*, Lindl. (*o. c. p.* 223;—*B. M.* 38, *app. p. 75.*) 2. Paras. Khassya Mountains, Nepal. Fl. small, yellow, blotched with reddish-brown. In H. C. G.

CECOCLADES, Lindl.

1. *ampullacea*, Lindl. (*Wall. Cat.*—*Saccolabium rubrum, Lindl. l. c. p.*



222?—*Aerides ampullaceum*, Roxb. fl. ind. 3, p. 476.) 2. Paras. Moulmein, Garrow Hills. Khassy Mountains, 1836. Nepal. Fl. small, rosy, May and June. (Roxb.)

Sarcanthus, Lindl. (o. c. p. 233;—Endl. gen. pl. 1, p. 206.)

1. *oxyphyllus*, Wall. Khassy Mountains. 1837. In H. C. G. Fl.?

2. *affinis*, Wall. Khassy Mountains. 1829. In H. C. G. Fl.?

3. *juncceus*, Wall. Assam, 1840. Very near *S. teretifolius*, Lindl. B. M. 64, t. 3571.

Aerides, Lour. (Lindl. o. c. p. 238;—Endl. gen. pl. 1, p. 206.)

1. *odoratum*, Lour. (R. Br.—Lindl. o. c. p. 239.—*A. cornutum*, Roxb. fl. ind. 3, p. 472;—B. Reg. 18, t. 1485.) 2. Paras. China. Cochin China. Moulmein. Chittagong. Dacca. Khassy Mountains. Fl. large, white, with a tinge of rose, sweetly fragrant, April.

2. *affine*, Wall. (Lindl. o. c. p. 240.—*Epidendrum geniculatum*, Buch. MSS.) 2. Paras. Assam. Khassy Mountains. Nepal. Fl. large, rose-coloured, with some darker spots, H. S.

3. *refractum*, Wall. Khassy Mountains. 1833.

4. *tesellatum*, Wight. (Lindl. l. c.—*Epidendrum tesellatum*, Roxb. Corom. 1, t. 42.—*Cymbidium tesellatum*, Swz.;—Roxb. fl. ind. 3, p. 462.) 2. Paras. Circars. Fl. large, greenish-yellowish, striated, R. S. (Roxb.)

? 5. *suaveolens*, Roxb. (fl. ind. 3, p. 473.) 2. Paras. Chittagong. Fl. small, yellow, purple spotted, delightfully fragrant, H. S. (Roxb.)

? 6. *rostratum*, Roxb. (fl. ind. 3, p. 474.) 2. Paras. Forests of Silhet. Fl. rose-coloured, H. S. (Roxb.)

? 7. *multiflorum*, Roxb. (fl. ind. 3, p. 475.) 2. Paras. Silhet. Fl. largish, light purple and white, with purple dots, H. S. (Roxb.)

? 8. *uncinatum*, Roxb. (H. B. p. 63.) 2. Paras. Silhet. Fl. H. S. (Roxb.)

Calanthe, R. Br. (Lindl. o. c. p. 249;—Endl. gen. pl. 1, p. 207.)

1. *veratrifolia*, R. Br. (Lindl. o. c. p. 249;—B. Reg. 9, t. 720.—*Orchis triplicata*, Willd.—*Limodorum veratrifolium*, Willd.;—Rumph. 6, t. 52, f. 2.) 2. Terrest. Java. Indian Archipelago. Ceylon. In H. C. G. Fl.?

2. *densiflora*, Lindl. (o. c. p. 250;—B. Reg. 19, t. 1646.) 2. Terrest. Khassy Mountains. 1836. In H. C. G. Fl.?

D. OPHRYËE.

(*Ophrydeæ*, Lindl. gen. and sp. orch. pl. p. 255;—Endl. gen. pl. 1, p. 208.)

Platanthera, L. C. Rich. (Lindl. o. c. p. 284;—Endl. o. c. p. 209.)

1. *uniflora*, Lindl. (o. c. p. 295.—*Habenaria uniflora*, D. Don, pr. fl. nep. p. 25.—*Orchis uniflora*, Roxb. fl. ind. 3, p. 452.) 2. Terrest. Garrow Hills. Khassy Mountains. Nepal. Fl. small, yellow, Aug. Sept. and Oct.

Pteristylus, Bl. (Lindl. o. c. p. 297;—Endl. gen. pl. 1, p. 209.)

1. *elatus*, Wall. MSS. Assam, 1837. In H. C. G. ?



622

ORCHIDACEAE.

CSL

HABENARIA, Willd. (*Lindl. o. c. p. 306*;—*Eadl. gen. pl. 1, p. 210*.)

1. *plantaginea*, Lindl. (*o. c. p. 323*.—*Gymnadenia plantaginea*, *Lindl. in Wall. Cat.*.—*Orchis platyphyllus*, *Roxb. fl. ind. 3, p. 450*, not Willd.) 2. Terrest. Tenevelly. Travancore. Monghir. In H. C. G.
2. *platyphylla*, Spreng. (*l. c.*;—*J. Grah. Cat. B. pl. p. 201*, excl. syn. *Roxb.*.—*Orchis plantaginea*, *Roxb. Corom. 1, t. 37*; *fl. ind. 3, p. 450*.—*O. platyphyllus*, *Willd.* not *Roxb.*.—*O. Roxburghii*, *Pers.*) 2. Terrest. Circars. Vandalore. Fl. white, fragrant. In H. C. G.?
3. *commelinæfolia*, Wall. (*Lindl. o. c. p. 325*.—*Platanthera commelinæfolia* *Lindl. in Wall. Cat.*.—*Orchis commelinæfolia*, *Roxb. fl. ind. 3, p. 451*;—*J. Grah. Cat. B. pl. p. 201*) 2. Terrest. Burma. S. Concan. Bengal, (Serampore,) &c. Fl. largish, white, inodorous, July and Aug.; fr. C. S.
4. *tenuis*, Griff. 2. Terrest. Bengal, (Serampore.) Fl. small, yellow. R. S.
5. *marginata*, Coleb. MSS. (*Hook. Ex. Fl. t. 136*.—*Lindl. gen. sp. orch. p. 320*.) 2. Terrest. Bengal, (Serampore.) Fl. small, green, R. S.

SATYRIUM, Swz. (*Lindl. o. c. p. 335*;—*Eadl. gen. pl. 1, p. 211*.)

1. *cucullatum*, Thunb. (*fl. cap. ed. Schult. p. 17*;—*Lindl. o. c. p. 339*;—*B. Reg. 5, t. 416*, not Lodd.—*S. bicorne*, *Thunb. pr. p. 6*.—*Orchis bicornis*, *L.*; *B. Repos. t. 315*) 2. Terrest. Hills near Cape Town. Introduced in March, 1841. Has not fl.

E. ARETHUSÆ,

*Lindl. gen. and sp. orch. pl. p. 381.*POGONIA, Juss. (*Lindl. o. c. p. 413*;—*Eadl. gen. pl. 1, p. 218*.)

1. *juliana*, Wall. (*Lindl. o. c. p. 414*.—*Epipactis juliana*, *Roxb. fl. ind. 3, p. 453*.) 2. Terrest. Bengal, (Calcutta, Serampore,) &c. Fl. middle-sized, pale green, with a pale pink red mottled lip, June.
2. *carinata*, Lindl. (*l. c.*.—*Epipactis carinata*, *Roxb. fl. ind. 3, p. 454*;—*J. Grah. Cat. B. pl. p. 205*) 2. Terrest. Bengal, (Serampore,) &c. Fl. middle-sized, pale green with a purple veined and spotted pale greenish-yellow lip, April.
3. *plicata*, Lindl. (*o. c. p. 415*.—*Epipactis plicata*, *Roxb. fl. ind. 3, p. 454*.) 2. Terrest. Bengal, (Calcutta, Serampore,) &c. Fl. middle-sized, yellowish green, with a pale rose-coloured lip, May and June.
4. *viridiflora*, Wall. MSS. In H. C. G.
- ? 5. *trinervia*, (*Epipactis trinervia*, *Roxb. fl. ind. 3, p. 455*.) 2. Terrest. Moluccas. Has been introduced into H. C. G.?
- ? 6. *graminifolia*, (*Epipactis graminifolia*, *Roxb. fl. ind. 3, p. 456*.) 2. Terrest. Garrow Hills. Fl. middle-sized, yellow. Introduced into H. C. G. in 1812, but had not fl. in 1814.
- ? 7. *babianifolia*, (*Epipactis babianifolia*, *Roxb. H. B. p. 63*.) 2. Terrest. Garrow Hills. In H. C. G. fl. R. S. (*Roxb.*)

ANTHOGONIUM, Wall. (*Lindl. o. c. p. 425*.)

1. *gracile*, Wall. (*Lindl. l. c. p. 426*.) 2. Terrest. Khassya Mountains. Nepal. Fl. largish, blood-coloured, Feb.



VANILLA, Plum. (*Lindl. o. c. p. 434; Nat. syst. p. 341;—Endl. gen. pl. 1, p. 220.*)

1. *aromatica*, Swz. (*Lindl. l. c.—V. flore viridi et albo, fructu nigricante, Plum. ic. p. 183, t. 188.—Epidendrum Vanilla, L.*) 2. ◉ Brazil, near Rio Janeiro. Minaes Geraes. Has not fl. here. The dried fruit is delightfully aromatic, and used in the manufacture of chocolate, liqueurs, and various articles of confectionery. (*Lindl.*)

2. *planifolia*, Andr. (*B. Repos. t. 538;—Lindl. o. c. p. 435;—Bl. Rumphia, l. p. 197, t. 68.—V. viridiflora, Bl.—Myobroma fragans, Salisb. par. t. 82.*) 2. ◉ W. Indies. Cultivated in India. Has not fl. here.

F. NEOTTIÆ.

Lindl. Nat. Syst. p. 341; Endl. gen. pl. 1, p. 212.

GOODYERA, R. Br. (*Endl. gen. pl. 1, p. 214.*)

1. *procera*, Hook. (*Exot. fl. t. 39;—Spreng. syst. 3, p. 703.—Neottia procera, Wall.; B. Reg. 8, t. 639.*) 2. Terrest. Khassy Mountains. Nepal. Fl. smallish, white, C. S.

ZEUXINA, Lindl. (*B. Reg. 19, t. 1618. annot.;—Endl. gen. pl. 1, p. 216.*)

1. *sulcata*, Lindl. (*Wall. Cut.—Pterygodium sulcatum, Roxb. fl. ind. 3, p. 452.*) শ্বেত হুলী Shwet-hoolee. 2. Terrest. Bengal, (Serampore,) &c. Fl. small, white, and fr. C. S.

ANOECTOCYLUS, Bl. (*B. Reg. 23, t. 2010;—Endl. gen. pl. 1, p. 216.*)

1. *Roxburghii*, Lindl. (*Chrysobaphus Roxburghii, Wall.*) 2. Terrest. Khassy Mountains. Has not fl. here.

G. CYPRIPEDIAE.

Lindl. Nat. Syst. p. 341; Endl. gen. pl. 1, p. 220.

CYPripedium, L. (*Spreng. syst. 3, p. 682, No. 3044;—Lindl. l. c.*)

1. *insigne*, Wall. (*Spreng. syst. 3, p. 746;—Lindl. coll. t. 32;—Hook. exot. fl. t. 34;—B. Cab. t. 1321;—B. M. 62, t. 3412.*) 2. Terrest. Khassy Mountains. Nepal. Fl. very large, green, variegated with brownish and deep brown spots, C. S., but rare.

2. *venustum*, Wall. (*Spreng. l. c.;—B. M. 47, t. 2129;—B. Reg. 10, t. 788.*) 2. Terrest. Khassy Mountains. Fl. large, white, green-striped, here purple haired, there marked with black spots and tinged with purple, C. S., but very rare.

Unknown to us, *Malaxis?* *plicata*, Roxb. (*fl. ind. 3, p. 456.*) 2. Paras. Sumatra. Fl. very small, greenish-yellow. In H. C. G. fl. July. (*Roxb.*)

A number of other Orchiacæ have been introduced into H. C. G. chiefly from the Khassy Mountains, but we are not acquainted with their names.

* *Octomeria graminifolia*, R. Br. B. M. 54, t. 2764, 2. Terrest. W. Indies.—*O. Baueri*, Lindl. 2. Terrest. W. Indies.—*Chrysoglossum ornatum*, Bl. 2. Terrest. Java.—*Microstylis Wallichii*, Lindl. 2. Terrest. Khassy Mountains.—*Dienia congesta*, Lindl.; B. Reg. 10, t. 825. 2. Ter-



rest. Nepal. China.—*D. calycina*, Lindl. 2. Terrest. Mexico.—*D. Myurus*, Lindl. 2. Terrest. Mexico.—*Liparis purpurascens*, Lindl. 2. Bourbon. Mauritius.—*Spathoglottis plicata*, Bl. 2. Terrest. Penang. Java.—*Bletia florida*, R. Br.; B. Reg. 17, t. 1401. 2. Terrest. Trinidad.—*B. obcordata*, Lindl. 2. Terrest. Silhet.—*B. speciosa*, Kth. 2. Terrest. Mexico.—*B. villosa*, A. Rich. 2. Terrest. Mauritius.—*B. acutipetala*, Hook.; B. M. 60, t. 3217. 2. Terrest. S. Carolina.—*B. Shepherdii*, Hook.; B. M. 61, t. 3319. 2. Terrest. Jamaica.—*B. patula*, Hook.; B. M. 63, t. 3518. 2. Terrest. Hayti.—*B. Parkinsonii*, Hook.; B. M. 66, t. 3736. 2. Terrest. Mexico.—*Arundina chinensis*, Bl. 2. Terrest. Java. China.—*Phaius maculatus*, Lindl. (*Bletia Woodfordii*, Hook.; B. M. 54, t. 2719.) 2. Terrest. Nepal.—*Cytheris cordifolia*, Lindl. 2. Terrest. Khassy Mountains.—*Apaturia senilis*, Lindl. 2. Terrest. Khassy Mountains.—*Tainia speciosa*, Bl. 2. Terrest. Java.—*Peristeria elata*, Hook.; B. M. 58, t. 3116. 2. Terrest. Panama.—*P. pendula*, Hook.; B. M. 63, t. 3479. 2. Terrest. Trinidad.—*Geodorum pictum*, Lindl. 2. Terrest. Tropical N. Holland.—*G. citrinum*, Jacks. B. Repos. t. 626. 2. Terrest. Chittagong.—*Acanthophippium javanicum*, Bl. 2. Terrest. Java.—*Eulophia guineensis*, Lindl. B. Reg. 8, t. 686. 2. Terrest. Guinea.—*E. graminea*, Lindl. 2. Terrest. Singapore.—*Galeandra Baueri*, Lindl. 2. Terrest. Guiana.—*Zygopetalum Mackayi*, Hook. (*Eulophia Mackiana*, Lindl.; B. Reg. 17, t. 1433.) 2. Terrest. Brazil.—*Z. rostratum*, Hook.; B. M. 55, t. 2819. 2. Terrest. Demerara.—*Cyrtopera Woodfordii*, Lindl. (*Cyrtopodium Woodfordii*, Hook.; B. M. 43, t. 1814.) 2. Terrest. Trinidad.—*Cryptarrhena lunata*, R. Br.; B. Reg. 2, t. 153. 2. Terrest. Jamaica.—*Calanthe curculigoides*, Wall. 2. Terrest. Penang. Singapore.—*Platanthera Susanna*, Lindl.; Rumph. 5, t. 99, f. 2. 2. Terrest. Amboyna. Java. China. Nepal.—*P. robusta*, L. 2. Terrest. Prome.—*Peristylus latifolius*, Lindl. 2. Terrest. Bourbon. Mauritius.—*P. Hamiltonianus*, Lindl. 2. Terrest. Morung Hills.—*P. goodyeroides*, Lindl. 2. Terrest. Nepal.—*Calloglossum laceriferum*, Lindl. 2. Terrest. Tavoy.—*Habenaria digitata*, Lindl. 2. Terrest. Khassy Mountains.—*H. macroceras*, Spreng. B. M. 56, t. 2947. 2. Terrest. Jamaica.—*H. longicauda*, Hook.; B. M. 57, t. 2957. 2. Terrest. Demerara.—*H. leptoceras*, Hook.; B. M. 54, t. 2726. 2. Terrest. Rio Janeiro.—*H. elongata*, R. Br. 2. Terrest. Tropical N. Holland.—*H. lucida*, Wall. 2. Terrest. Rangoon.—*H. ochroleuca*, R. Br. 2. Terrest. Tropical N. Holland.—*H. gigantea*, Hook.; B. M. 62, t. 3374. 2. Terrest. Conclus. Kandalla. Nepal.—*Thelymitra canaliculata*, R. Br. 2. Terrest. Tropical N. Holland.—*Diuris alba*, R. Br. 2. Terrest. Tropical N. Holland.—*Calochilus campestris*, R. Br. 2. Tropical N. Holland.—*Microtis parviflora*, R. Br. 2. Tropical N. Holland.—*Catadelia alba*, R. Br. 2. Tropical N. Holland.—*C. carnea*, R. Br. 2. Tropical N. Holland.—*Pterostylis ophioglossa*, R. Br. 2. Terrest. Tro-



pical N. Holland.—*Cynorkis fastigiata*, Pet. Th. 2. Terrest. Mauritius.—*Satyrium amoenum*, A. Rich. 2. Terrest. Bourbon.—*S. nepalense*, D. Don. 2. Terrest. Nepal. Khassy Mountains.—*Arnottia mauritiana*, A. Rich. 2. Terrest. Mauritius.—*Crybe rosea*, Lindl. 2. Terrest. Mexico.—*Vanilla bicolor*, Lindl. 2. Demerara.—*Neottia picta*, Sims.; B. M. 38, t. 1562. 2. Terrest. Trinidad.—*N. grandiflora*, Hook.; B. M. 54, t. 2730. 2. Terrest. Rio Jaheiro.—*N. elata*, Swz.; B. M. 46, t. 2026. 2. Terrest. W. Indies.—*N. pudica*, Swz. (*Spiranthes pudica*, Lindl.; B. Reg. 7, t. 602.) 2. Terrest. China.—*N. bicolor*, Ker.; B. Reg. 10, t. 794. 2. Terrest. Trinidad.—*N. calcarea*, Swz.; B. M. 62, t. 3403. 2. Terrest. St. Domingo.—*N. aphylla*, Hook.; B. M. 55, t. 2797. 2. Terrest. Trinidad.—*N. plantaginea*, Hook. exot. fl. t. 226. 2. Terrest. Nepal.—*Groodyera discolor*, Ker.; B. R. 4, t. 271. 2. Terrest. S. America.—*Ulantha grandiflora*, Hook. (*Neottia?* *grandiflora*, Hook.; B. M. 57, t. 2956.) 2. Terrest. St. Vincent.—*Sauroglossum elatum*, Lindl.; B. Reg. 19, t. 1618. 2. Terrest. Brazil.—*Ponthieva glandulosa*, R. Br. (*Neottia glandulosa*, Sims.; B. M. 22, t. 842.) 2. Terrest. W. Indies.—*P. petiolata*, Lindl. (B. Reg. 9, t. 760.) 2. Terrest. St. Vincent.—*Pelezia spiranthoides*, Lindl.; B. Reg. 12, t. 985. 2. Terrest. W. Indies.—*Stenorhynchus orchioïdes*, Rich. (*Neottia orchioïdes*, Swz.; B. M. 26, t. 1036.) 2. Terrest. Jamaica.—*S. speciosus*, Rich. (*Neottia speciosa*, Jacq.; B. M. 34, t. 1374.) 2. Terrest. W. Indies.

ORDER CCXXXVI.—APOSTASIACEÆ, Lindl. Nat. Syst. p. 342.

East Indian perennial herbaceous plants, by Lindl. referred to 3 genera.
Properties unknown. (Lindl.)

* *Apostasia Wallichii*, R. Br. Wall. pl. as. rar. I, t. 84, 2. Terrest. Nepal.—*A. nuda*, R. Br.; Wall. pl. as. rar. I, t. 85, 2. Terrest. Penang.

ORDER CCXXXVII.—COCOACEÆ, (PALMACEÆ, Lindl. Nat. Syst. p. 343.)

THE PALM TRIBE.

" Inhabitants of the tropics of either world, they hardly range beyond 35° in the southern, or 49° in the northern hemisphere. Particular species scarcely extend beyond their own peculiar and contracted limits, on which account there are few countries favorable for their production in which some local and peculiar species are not found. The few that are dispersed



over many lands are chiefly *Cocos nucifera*, *Acrocomia sclerocarpa*, and *Borassus flabelliformis*. It is probable that the number of species thus scattered over the face of nature will be found to amount to 1000 or more. Of these, not a few love the humid banks of rivulets and streams; others occupy the shores of the ocean, and some ascend into alpine regions. Some collect into dense forests, others spring up singly in clusters over the plains, (*Martius.*) If this statement be true as to the probable number of Palms, how little can be known of their structure, seeing that not more than 175 are at this moment, (1836,) described, of which 119 are S. American, 14 African, and 42 E. Indian. The testimony of Martius is, however, confirmed by Humboldt, who also asserts that there must be an incredible number still to discover in equinoctial regions, especially if we consider how little is yet known of Africa, Asia, New Holland, and America. A different opinion is entertained by Professor Schouw of Copenhagen. He seems to consider that we are acquainted already with the greater part of the Palms; for he says, "it appears from the report of travellers that such Palm woods as those of S. America are less frequent in other parts of the world. Africa and N. Holland seem to be less favorable to this tribe, for on the Congo, Smith found only 3-4 Palms; in Guinea we know merely of the same number, and of the other Africa Palms, 6 belong to the Isles of Bourbon and France; New Holland has, in the torrid zone, three species, while Forster's *Prodromus* of the Flora of the South Sea Islands contains four." "The most northern limit of Palms is that of *Chamaerops Palmetto*, *Michx.* in N. America, in lat. 34° - 36° , and of *C. humilis*, in Europe, near Nice, in 42° - 44° N. lat. They are found in the southern hemisphere as low as 38° in New Zealand." (*Lindl.*) In S. Africa has only been found 1 species, viz. *Phoenix reclinata*, *Jacq.* (*Harvey.*) Properties under the species.

A. ARECAE.

(Arecinæ, *Mart.*;—*Endl. gen. pl. 1, p. 245.*)

CHAMÆDOREA, Willd. (*Spreng. syst. 2, p. 13, No. 1332*;—*Endl. l. c.*)

1. *gracilis*, Willd. (*Spreng. syst. 2, p. 136.*) b S. America. Has been introduced into H. C. G. Fl.?

HYOPHORBE, Gärtn. (*Endl. gen. pl. 1, p. 245.*)

1. *indica*, Gärtn. (*fr. 2, p. 186, t. 120, f. 1*;—*Mart. palm. 164, t. 143, f. 1.*—*Areca lutescens*, *Bory.*; *Spreng. syst. 2, p. 139.*—*Sublimia Commers. MSS.*) b Bourbon. Introduced in 1839. Has not fl.

OREODOXA, Willd. (*Endl. gen. pl. 1, p. 247.*)

1. *oleracea*, Endl. (*Areca oleracea*, *Jacq. amer. 278, t. 170*; *ed. pict. 135, t. 235*;—*Roeb. H. B. p. 68.*—*Euterpe caribea*, *Spreng. syst. 2, p. 140.*) *Edible Cabbage Tree.* b W. Indies. Introduced into H. C. G. in 1807, but had not fl. up to 1814. In the Serampore garden it has now been cultivated for more than 15 years, without fl. The green top of the trunk is eaten in the W. Indies, both raw and cooked.

2. *regia*, Humb. and Bonpl. (*Schult. syst. 8, p. 1491.*—*Oenocarpus*



regius, *Spreng. syst.* 2, p. 140.) 5 Cuba, in the vicinity of Havannah. Has been introduced into H. C. G. Fl.?

ARECA, L. (*Spreng. syst.* 2, p. 13, No. 1345;—*Endl. gen. pl.* 1, p. 247.)

1. *Catechu*, L. (*Spreng. syst.* 2, p. 139;—*Roxb. Corom.* 1, t. 76; *fl. ind.* 3, p. 615;—*J. Grah. Cat. B. pl. p.* 225.—A. Faufel, *Gärtn. fr.* 1, p. 19, t. 7, f. 2;—*Rheed.* 1, t. 5, 6, 7, 8;—*Rumph.* 1, t. 4.) अरु गोा. Betel-nut-palm. 5 Native place unknown. Commonly cultivated all over India. Fl. small, white, fragrant. H. S.; fr. Aug. and Sept. The Betel-nut is remarkable for its narcotic and intoxicating power. A kind of spurious Catechu is prepared from it. (*Ainslie.*)
2. *Dicksonii*, Roxb. (*fl. ind.* 3, p. 616.) 5 Mountains of Malabar. In H. C. G. Fl.? The poorer people use the nut as a substitute for the common Betel-nut; but no other part of the tree is turned to any useful purpose. (*Roxb.*)

3. *triandra*, Roxb. (*fl. ind.* 3, p. 617.) बन गोा Bun-gooa. 5 Chittagong. Fl. minute. May to January; fr. April.

4. *gracilis*, Roxb. (*fl. ind.* 3, p. 619;—*J. Grah. Cat. B. pl. p.* 225.) रम गोा Ram-gooa. 5 S. Concan. Chittagong. Silhet. In H. C. G. Fl. Feb. and March; fr. R. S.

SEAFORTHIA, R. Br. (*pr. p.* 267;—*Spreng. syst.* 2, p. 563, No. 1990;—*Endl. gen. pl.* 1, p. 247.)

1. *elegans*, R. Br. (*i. e.*;—*Spreng. syst.* 2, p. 623.) 5 Tropical N. Holland. Introduced in 1839.

HARINA, Buch. (*Mem. Wern. soc.* 5, p. 312;—*Endl. gen. pl.* 1, p. 248.)

1. *caryotooides*, Buch. (*i. e.*—*Wallichia (not D.C.) caryotooides*, Roxb. *Corom.* 3, t. 295.—*Wrightia (not R. Br.) caryotooides*, Roxb. *fl. ind.* 3, p. 621.) 5 Chittagong. Fl. R. S.; fr. C. S.

ARENGA, Labill. (*Mem. d'instit.* 4, p. 209;—*Endl. gen. pl.* 1, p. 248.)

1. *saccharifera*, Labill. (*Borassus Gomutus*, Lour.—*Saguerus Rumphii*, Roxb. *fl. ind.* 3, p. 626.—*Gomutus v.* Saguerus, Rumph. 1, t. 13.) 5 Moluccas. Sunda Islands. Cochin China. Malay Islands, &c. Fl. ♂. largish, yellow-purple, ♀ very small, H. and R. S.; fr. Feb. This palm yields sago, sugar, palm-wine, and from the black horse-hair-like fibres, surrounding the petioles of the leaves, very good cordage and cables. In Java and Baleyn, it is employed for making sugar. Its sap is boiled down to syrup, and allowed to concrete, but it always retains some degree of moisture. The best is of a yellowish-colour, the inferior kinds, called *saccharum nigrum*, which are blackish-coloured, are commonly mixed with the muscovados of the cane. The tree itself is highly desirable for cultivation in low situations near the coasts of India. One of the trees cut down in H. C. G. yielded about 150 pounds of good Sago meal. (*Roxb. Royle.*)

CARYOTA, L. (*Spreng. syst.* 2, p. 563, No. 1992;—*Endl. gen. pl.* 1, p. 248.)

1. *urens*, L. (*Spreng. syst.* 2, p. 623;—*Roxb. fl. ind.* 3, p. 625;—*J. Grah.*



Cat. B. pl. p. 226;—*Gartn. fr.* 1, p. 20, t. 7, f. 3;—*Jacq. fragm. bot.* t. 12, f. 1;—*Lam. ill.* t. 897;—*Rheed.* 1, t. 11;—*Rumph.* 1, t. 14.) 5 Moluccas. Coromandel. The Ghauts and Concans. Cultivated here. Fl. small, greenish-white, H. and R. S. This palm, where it grows in abundance, is highly valuable to the natives. It yields them, during the hot season, an immense quantity of sap. The constituents of this, as well as that of the preceding species, being such as may easily be made to undergo the fermentation process, we find that, instead of being boiled down to procure sugar, the sap is allowed to undergo the vinous fermentation, when it forms Palm-wine, often called *Toddy*. This being distilled, yields the spirit called *Arrack*, from the Arabic *Aruk*, the general term for spirit. The best trees will yield at the rate of 100 pints of sap in the 24 hours. The pith of the trunk of old trees is said to be equal to the best sago. The natives make it into bread, or boil it into thick gruel. (*Roxb. Royle.*)

2. *horrida*, Jacq. (*fragm. bot.* p. 20;—*Spreng. syst.* 2, p. 623.) 5 Caracas. Has been introduced into H. C. G. Fl.?

3. *sobolifera*, Wall. Mauritius.

B. LEPIDOCARYÆ.

(*Lepidocaryinæ*, Mart.;—*Endl. gen. pl.* 1, p. 248.)

CALAMUS, L. (*Spreng. syst.* 2, p. 3, No. 1156;—*Endl. o. c.* p. 249.) Ratan.

1. *humilis*, Roxb. (*fl. ind.* 3, p. 773.) 5 Chittagong. Introduced into H. C. G. in 1801, but had not fl. up to 1814.

2. *erectus*, Roxb. (*fl. ind.* 3, p. 774.) 5 Silhet. Introduced into H. C. G. in 1811. Fl.? The poorer natives use the seeds as a substitute for Betel-nut. (*Roxb.*)

3. *Draco*, Willd. (*Spreng. syst.* 2, p. 17;—*Schult. syst.* 8, p. 1323;—*Roxb. fl. ind.* 3, p. 774;—*Rumph.* 5, t. 58, f. 1.) L. 5 Moluccas. Sumatra. Fl. March and April. The resinous, reddish-coloured substance, called *Dragon's Blood*, is produced in the Isle of Socotra by *Dracæna Draco*; but in Sumatra and the Malay Islands, varieties of a similar substance are yielded by the Calamus *Draco*. (*Royle.*)

4. *latifolius*, Roxb. (*fl. ind.* 3, p. 775.) L. 5 Chittagong. Introduced into H. C. G. in 1801, and fl. for the first time in Nov. and Dec. 1809.

5. *rudentium*, Lour. (*Spreng. syst.* 2, p. 17;—*Schult. syst.* 8, p. 1327;—*Roxb. fl. ind.* 3, p. 776;—*J. Grah. Cat. B. pl.* p. 225;—*Rumph.* 5, t. 53.) L. 5 Moluccas. Cochin China. Introduced into H. C. G. in 1798, where after 13 years it fl. for the first time in H. S.

6. *verus*, Lour. (*Spreng. l. c.*;—*Schult. syst.* 8, p. 1323;—*Roxb. fl. ind.* 3, p. 776;—*Rumph.* 5, t. 54, f. 2.) L. 5 Moluccas. Cochin China. Introduced into H. C. G. in 1798, and began to fl. 12 years after.

7. *extensus*, Roxb. (*fl. ind.* 3, p. 777.) L. 5 Silhet. Introduced into H. C. G. in 1811. Fl.?



8. *quinquenervius*, Roxb. (*fl. ind.* 3, p. 777.) L. 5 मु Silhet. Introduced into H. C. G. in 1811. Fl. ?
9. *Rotang*, L. (*Schult. syst.* 8, p. 1322;—*Roxb. fl. ind.* 3, p. 777;—*J. Grah. Cat. B. pl.* p. 225, excl. syn. *C. petraeus*, *Lour.*—*Spreng. syst.* 2, p. 17.) बेत Bet. L. 5 मु Bengal, (Serampore.) Coromandel. S. Concan. Ram Ghaut, &c. Fl. R. S.; fr. C. S. Yields the common ratans.
10. *fasciculatus*, Roxb. (*fl. ind.* 3, p. 779.) बड़े बेत *Buro-bet*. L. 5 मु Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. The stems divested of the sheaths of the leaves are about as thick as a man's fore-finger, and employed for walking sticks, like those of *Rhapis flagelliformis*, L. (*Roxb.*)
11. *polygamus*, Roxb. (*fl. ind.* 3, p. 780.) L. 5 मु Chittagong. Introduced into H. C. G. in 1801, but had not fl. in 1814.
12. *tenuis*, Roxb. (*fl. ind.* 3, p. 780.) L. 5 मु Chittagong. Introduced into H. C. G. in 1801, but had not fl. in 1814.
13. *gracilis*, Roxb. (*fl. ind.* 3, p. 781.) L. 5 मु Chittagong. Fl. May and June, fr. C. S.
14. *monoicus*, Roxb. (*fl. ind.* 3, p. 783.) L. 5 मु Native place in India uncertain. Fl. R. S.; fr. C. S.
15. *hostilis*, Wall. MSS. In H. C. G. Native place?

Canes and ratans, the stems of different species of *Calamus*, form considerable articles of commerce. They are exported from the valleys along the foot of the Himalayas into the plains, though the species yielding them are not well known. (Royle.)

ZALACCA, Reinw. (*Endl. gen. pl.* 1, p. 249.)

1. *edulis*, Reinw. and Bl. (*Schult. syst.* 8, p. 1333, *obs.* 3;—*Wall. pl. as. rar.* 3, t. 222, 23, 24.—*Calamus Zalacca*, *Gärtn. fr.* 2, p. 267, t. 139, f. 1;—*Spreng. syst.* 2, p. 17;—*Roxb. fl. ind.* 3, p. 773.—Zalacca, *Rumph.* 5, t. 57, f. 2.) L. 5 Moluccas. Malay Islands. Sumatra. Java. Malayan Peninsula to Tenasserim, and to the shores of the rivers Saluen and Attran, in Martaban. Has been several years in the Garden here, without fl.
 2. *asamica*, Wall. MSS. In H. C. G.
- SAGUS, Gärtn. (*Endl. gen. pl.* 1, p. 230.)
1. *laxis*, Rumph. (*Amb.* 1, p. 96.—*S. inermis*, *Roxb. fl. ind.* 3, p. 623.) 5 Moluccas. Sumatra. Borneo, &c. Introduced into H. C. G. in 1798, but had not fl. up to 1814. From the pith of this palm, the *granulated sago* is prepared. *Pearl sago* is said to be granulated and bleached at Singapore, where it is brought from the islands in which the tree is grown. (Royle.)
 2. *farinifera*, Gärtn. (*fr.* 2, p. 186, t. 120, f. 3.—*S. Rumphii*, *Willd.*;—*Roxb. fl. ind.* 3, p. 623.—*S. spinosus*, *Roxb. H. B.* p. 68.—*Metroxylon Sagus*, *König.*;—*Spreng. syst.* 2, p. 138.) 5 Moluccas. Malay Islands. Peninsula of Malacca. Introduced into H. C. G. in 1798,



but had not fl. up to 1814. Like the Plantain it propagates itself by suckers from the roots of the old trees; the seeds are therefore in general abortive. The pith of this palm, the Malay Sago-palm, is the staff of life to the inhabitants of the Moluccas. (Roxb.)

C. BORASSÆ.

(*Borassineæ*, Mart.; — *Endl. gen. pl.* 1, p. 250.)

BORASSUS, L. (*Spreng. syst.* 3, p. 894, No. 3188.—*Endl. l. c.*)

1. *flabelliformis*, L. (*Spreng. syst.* 3, p. 905; — *Roxb. Corom.* 1, t. 71, 72; *fl. ind.* 3, p. 790; — *J. Grah. Cat. B. pl.* p. 226.—*Lontar*us *domestica*, *Rumph.* 1, t. 10; — *Gärtn. fr.* 1, p. 21, t. 8; — *Rheed.* ♀ 1, t. 9, ♂ 1, t. 10.) ताल गाछ Tal-gachh. *Palmyra-tree*. L. 5 Common in the islands of the Indian Archipelago, as well as in the Peninsula and southern parts of India, whence it extends northwards along the Malabar Coast, and is described as almost the only tree seen on the flatter alluvium near the sea at Guzerat. It may also occasionally be seen as far north as 30°, or near Saharanpore. (Royce.) Fl. H. S.; fr. C. S. The sap of this Palm is abundant, mild, saccharine, and demulcent. It is collected by wounding the spathe, and drunk in its recent state as a refreshing beverage. The same is the case with the sap of *Cocos nucifera*, *Arenga saccharifera*, *Caryota urens*, *Phoenix sylvestris*, &c. The fruit is eaten, and by many considered very pleasant and refreshing. The leaves are employed for making punkahs. Wood very serviceable.

LATANIA, Commers. (*Spreng. syst.* 2, p. 563, No. 1988; — *Endl. gen. pl.* 1, p. 251.)

1. *borbonica*, Lam. (*Spreng. syst.* 2, p. 623, excl. syn. *Jacq.*) 5 Bourbon. Has been introduced into H. C. G. Fl.?

BENTINCKIA, Berry. (*Endl. gen. pl.* 1, p. 251.)

1. *Condapana*, Berry. (*Roxb. fl. ind.* 3, p. 621.) 5 Mountains of Travancore. In H. C. G. fl. Junc; fr. March. (Roxb.)

D. CORYPHÆ.

(*Coryphinae*, Mart.; — *Endl. gen. pl.* 1, p. 252.)

CORYPHA, L. (*Spreng. syst.* 2, p. 13, No. 1338; — *Endl. gen. pl.* p. 252.)

1. *umbraculifera*, L. (*Spreng. syst.* 2, p. 138; — *Schult. syst.* 8, p. 1308; — *Roxb. fl. ind.* 2, p. 177; — *Gärtn. fr.* 1, p. 18, t. 7, f. 1; — *J. Grah. Cat. B. pl.* p. 224; excl. syn. *Rumph.* — *Rheed.* 3, t. 1-12, incl.) ताली Talee. L. 5 Ceylon. Moluccas. Introduced into H. C. G. in 1798, but had not fl. up to 1814. In the Serampore garden it has been cultivated for more than 25 years without fl. This is the *Talipat*, or great *Fan-palm* of Ceylon, the leaves of which are used for thatching.

2. *Utan*, Lam. (*Spreng. syst.* 2, p. 138; — *Roxb. fl. ind.* 2, p. 178.—*Taliera silvestris*, Bl.; *Schult. syst.* 8, p. 1307.—*Lontar*us *silvestris*, *Rumph.* 1, t. 11.) 5 Moluccas. Introduced into H. C. G. in 1798, but had not fl. up to 1814.



3. *Taliera*, Roxb. (*Corom.* 3, t. 255, 56; *fl. ind.* 2, p. 174.—*Taliera bengalensis*, *Spreng. syst.* 2, p. 18;—*J. Grah. Cat. B. pl.* p. 224.—*T. Tali*, *Mart.*; *Schult. syst.* 8, p. 1306.) ताली *Tara* L. ५ Bengal, but scarce about Calcutta and Serampore. Fl. March and April.; fr. Nov. and Dec. The leaves are employed by the natives to write on with their pointed steel-bodkins, and also to tie the rafters of their houses. (*Roxb.*)
4. *elata*, Roxb. (*fl. ind.* 2, p. 176.—*Taliera elata*, *Wall. MSS.*) बहुता *Bujoor*. L. ५ Bengal. Fl. March and April; fr. Oct. and Nov.
- LIVISTONA*, R. Br. (*pr. p.* 267;—*Spreng. syst.* 2, p. 13, No. 1337;—*Endl. gen. pl.* 1, p. 252.)
- ? 1. *mauritiana*, Wall. MSS. ५ Mauritius. Has been cultivated in the garden here for more than 15 years without fl.
- LICUALA*, Rumph. (*Spreng. syst.* 2, p. 3, No. 1157;—*Schult. syst.* 8, p. 1301;—*Endl. gen. pl.* 1, p. 252.)
1. *peltata*, Roxb. (*fl. ind.* 2, p. 179;—*J. Grah. Cat. B. pl.* p. 225.) ५ Chittagong. Fl. whitish, inodorous, Nov.; fr. May.
2. *spinosa*, Wurmb. (*Spreng. syst.* 2, p. 18;—*Schult. syst.* 8, p. 1301;—*Roxb. fl. ind.* 2, p. 181;—*J. Grah. Cat. B. pl.* p. 225.—*Licuala arbor*, *Rumph.* 1, t. 9.—*Corypha Licuala*, *Lam.*—*C. Pilearia*, *Lour.*) ५ Moluccas. Celebes. Cochin China. Introduced into H. G. C. in 1798, but had not fl. up to 1814.
- SABAL*, Adans. (*Spreng. syst.* 2, p. 13, No. 1333;—*Endl. gen. pl.* 1, p. 253.)
1. *Adansonii*, Guerns. (*Schult. syst.* 8, p. 1485;—*B. M.* 35, t. 1434.—*Sabal minus*, *Pers.*;—*Spreng. syst.* 2, p. 137.) ५ New Orleans. Has been introduced into H. C. G. Fl.?
2. *Hystrix*, Nutt. (*Schult. syst.* 8, p. 1487.—*Chamærops Hystrix*, *Pursh.*;—*Spreng. syst.* 2, p. 137.—*Roxb. H. B.* p. 25.) ५ E. Florida. Georgia. Introduced into H. C. G. in 1809, but had not fl. in 1814.
- CHAMÆROPS*, L. (*Spreng. syst.* 2, p. 13, No. 1336;—*Endl. gen. pl.* 1, p. 253.)
1. *humilis*, L. (*Spreng. syst.* 2, p. 137;—*Schult. syst.* 2, p. 1488;—*B. M.* 47, t. 2152;—*B. Repos.* t. 599;—*Roxb. H. B.* p. 25.—*Chamæriphes major*, *Gärtn. fr.* 1, p. 26, t. 9, f. 4.—*Phoenix humilis*, *Cav. ic.* 2, p. 12, t. 115.) ५ S. Europe. N. Africa. Fl. C. S.; fr. H. S.
2. *mitis*, Mayer. (*Roxb. H. B.* p. 25.) ५ Guiana. Introduced into H. C. G. in 1804, but had not fl. in 1814.
3. *Griffithiana*, Wall. MSS. ५ Khassya Mountains. Has not fl. in the garden here.
4. *Martiana*, Wall. (*pl. as. rar.* 3, t. 211;—५ Deyra-Dhoon. Introduced in 1810. The fruit edible. (*Wall.*)
- RHAPIS*, L. fil. (*Spreng. syst.* 2, p. 13, No. 1335;—*Endl. gen. pl.* 1, p. 253.)
1. *flabelliformis*, Ait. (*Spreng. syst.* 2, p. 137;—*Schult. syst.* 8, p. 1490. ♂.—*B. M.* 33, t. 1371.) ५ China. Japan. In H. C. G. Fl.?



PHÖENIX, L. fil. (*Spreng. syst.* 2, p. 13, No. 1339;—*Endl. gen. pl.* 1, p. 253.)

1. *dactylifera*, L. (*Spreng. syst.* 2, p. 138;—*Lam. ill. t.* 893;—*Gürtn. fr.* 1, p. 28, *t.* 9, *f.* 2;—*Roxb. fl. ind.* 3, p. 786;—*J. Grah. Cat. B. pl.* p. 224.) *Date-tree*. 5 Tropical and Middle Asia. N. Africa. Decean. Baroda. Cultivated in S. Europe. Does not thrive in Lower Bengal. In H. C. G. some male trees have lived to flower, soon after which, however, they uniformly perished. The sap of this tree is seldom employed, because the fruit is thereby injured. *Baskets* are made with the leaf-stalks.
2. *farinifera*, Roxb. (*Corom. 1, t.* 74; *fl. ind.* 3, p. 785;—*Spreng. syst.* 2, p. 138.—*P. pusilla*, *Gürtn. fr.* 1, p. 24, *t.* 9, *f.* 2.—*Lour.*) 5 Sandy hills, at a short distance from the Sea, near Coringa. Fl. Jan. and Feb.; fr. May. Its stem contains *fæcula*, which is used as food by the natives in times of famine. The *leaflets* are wrought into mats, for sleeping on, &c. The *common petioles* are split into three or four, and used to make common baskets of various kinds, which, however, are inferior to those constructed of bamboo. *Fruit* edible. (*Roxb.*)
3. *acaulis*, Buch. (*Roxb. fl. ind.* 3, p. 783;—*Spreng. syst.* 2, p. 138.) *জঙ্গলী খাজুর* *Junglee-khajoor*. 5 Behar. Fl. C. S.; fr. April and May. *Fruit* edible. (*Roxb.*)
4. *sylvestris*, Roxb. (*fl. ind.* 3, p. 787;—*J. Grah. Cat. B. pl.* p. 224.—*Elate sylvestris*, L.; *Spreng. syst.* 2, p. 141;—*Rheed.* 3, *t.* 22-25, *incl.*) *খাজুর Khajoor. Wild Date*. 5 Common all over India. Fl. March, fr. C. S. This tree yields, Palm-wine during the C. S. But free extraction destroys the appearance and fertility of the tree, the fruit of those that have been cut for drawing off the juice being very small. The mode of drawing off the juice is by removing the lower leaves and their sheaths, and cutting a notch into the pith of the tree near the top, whence it issues and is conducted by a small channel made of a bit of the Palmyra palm-leaf into a pot suspended to receive it. On the coast of Coromandel this Palm-juice is either drunk fresh from the tree, or boiled down into sugar, or fermented for distillation, when it gives out a large portion of ardent spirit, commonly called *Paria-aruk* on the coast of Coromandel. There as well as in Guzerat, and especially in Bengal, the Khajur is the only tree whose sap is much employed for boiling down to sugar, mixed more or less with the juice of the sugar-cane. At the age of from 7-10 years, when the trunk of the trees will be about 4 feet high, they begin to yield juice, and continue productive for 20 or 25 years. It is extracted from Nov. till Feb., during which period, each tree is reckoned to yield from 120 to 240 pints of juice, which averages 180 pints. Every 12 pints or pounds is boiled down to one of *Goor* or *Jagari*, and 4 of this yield one of good



powder sugar, so that the average produce of each tree is about 7 or 8 pounds of sugar annually. This date sugar is not so much esteemed as cane-sugar, and sells for about one-fourth less. (*Roxb.*) Baskets, boxes, mats and punkahs are made with the leaf-stalks.

5. *paludosa*, Roxb. (*fl. ind.* 3, p. 789.) हिंताल *Hintal*, 5 Soonderbuns, where it forms a considerable part of those impenetrable woods, which completely cover that extensive tract of country. Fl. H. S.; fr. C. S. The trunks of the smaller trees serve for making sticks. The larger ones serve for rafters to the houses of the natives, and the leaves for thatch. (*Roxb.*)

E. COCOÆM.

(*Cocoïnæ. Mart.*;—*Endl. gen. pl.* 1, p. 254.)

ELEIS, Jacq. (*Spreng. syst.* 2, p. 13, No. 1350;—*Endl. o. c.* p. 255.)

1. *guineensis*, Jacq. (*Amer. t.* 172; *ed. pict. t.* 257;—*Gärtn. fr.* 1, p. 17, *t.* 6, *f.* 2;—*Lam. ill. t.* 896;—*Spreng. syst.* 2, p. 141.) Oil Palm. 5 Guinea. W. Indies. Introduced in 1836, and thriving, though growing very slowly. Palm-oil is obtained from the fruit of this tree, which is also said to yield the best kind of Palm-wine.

Cocos, L. (*Spreag. syst.* 2, p. 14, No. 1353;—*Endl. gen. pl.* 1, p. 256.)

1. *nucifera*, L. (*Spreng. syst.* 2, p. 141;—*Roxb. fl. ind.* 3, p. 614;—*J. Grah. Cat. B. pl.* p. 225.—*Cocos nucifera*, *Gärtn. fr.* 1, p. 16, *t.* 4, 5.—*Rheed.* 1, *t.* 1-4, incl.—*Rumph.* 1, *t.* 1, 2.) नारिकेल *Narikel*, L. 5 Shores of equinoctial Asia, and its islands, &c. Fl. H. S.; fr. C. S. The root is sometimes masticated instead of the Betle-nut. In Brazil baskets are made of the small fibres. The hard case of the stem is converted into drums, and used in the construction of huts. The lower part is so hard as to take a beautiful polish, when it resembles agate. The reticulated substance at base of the leaf is formed into cradles, and, as some say, into a coarse kind of cloth. The unexpanded terminal bud is a delicate article of food. The leaves furnish thatch for dwellings, and materials for fences, buckets, and baskets; they are used for writing on, and make excellent torches; potash in abundance is yielded by their ashes. The midrib of the leaf serves for oars. The juice of the flower and stems is replete with sugar, and is fermented into excellent wine, or distilled into arrack, or the sugary part is separated as Jagary. The tree is cultivated in many parts of the Indian islands, for the sake not only of the sap and milk it yields, but for the kernel of its fruit, used both as food and for culinary purposes, and as affording a large proportion of oil which is burned in lamps throughout India, and forms also a large article of export to Europe. The fibrous and uneatable rind of the fruit is not only used to polish furniture and to scour the floors of rooms, but is manufactured into a kind of cordage, (*Koir*), which is nearly equal in strength to hemp, and which Roxburgh designates as the very best of all materials for cables, on account of its great elasticity and strength. The



sap of this as well as of other palms is found to be the simplest and easiest remedy that can be employed for removing constipation in persons of delicate habit, especially European females. (*Ainslie. Roxb. Lindl.*)

2. *flexuosa*, Mart. (*Spreng. syst. 2, p. 141.*) 5 Brazil. Has been introduced into H. C. G. Fl. ?

- * *Hyospathe elegans*, Mart. 5 Brazil.—*Leopoldinia pulchra*, Mart. Brazil.—*L. insignis*, Mart. Brazil.—*Euterpe oleracea*, Mart. Brazil.—*E. edulis*, Mart. Brazil.—*Oenocarpus Bacaba*, Mart. Guiana.—*O. minor*, Mart. Brazil.—*Areca crinita*, Bory. Mascarenhas Islands.—*A. humilis*, Willd. Amboyna.—*A. rubra*, Bory. Mascarenhas Islands.—*Plectocomia elongata*, Mart. Java.—*Ceratolobus glaucescens*, Bl. Java.—*Dæmonorops melanochates*, Bl. Java.—*Mauritia vinifera*, Mart. Bahia.—*M. flexuosa*, Mart. Essequebo.—*Lepidocaryon gracile*, Mart. Brazil.—*L. tenue*, Mart. Brazil.—*Lodoicea Sechellarum*, Labill.; B. M. 54, t. 2734-8 (incl.) Sechelles.—*Hypâne coriacea*, Gärtn. Upper Egypt. Introduced into Bombay, in 1828.—*Geonoma simplifrons*, Willd. Brazil. Caracas.—*G. acaulis*, Mart. Guiana.—*Corypha rotundifolia*, Lam. Moluccas. Cochin China.—*C. cerifera*, Arruda. S. America.—*C. dulcis*, Humb. and Bonpl. New Spain.—*C. tectorum*, Humb. and Bonpl. Caraccas. Cumana.—*C. Pumos*, Humb. and Bonpl. Mexico.—*C. maritima*, Humb. and Bonpl. Cuba.—*C. nana*, Humb. and Bonpl. Mexico.—*Licuala pumila*, Bl. Java.—*L. rotundifolia*, Bl. Java.—*Chamærops Mocini*, Humb. and Bonpl. Mexico.—*Thrinax radiata*, Lodd. Trinidad.—*Cocos campestris*, Mart. Brazil.—*C. oleracea*, Mart. Brazil.—*C. coronata*, Mart. Brazil.—*Desmoncus polyacanthus*, Mart. Brazil.—*D. orthocanthus*, Mart. Brazil.—*Bactris mitis*, Mart. Brazil.—*B. riparia*, Mart. Brazil.—*Guilielma speciosa*, Mart. Brazil.—*Acrococnia sclerocarpa*, Mart. W. Indies.—*Astrocaryon aculeatum*, Meyer. Guiana.—*A. vulgare*, Mart. Brazil.—*Attalia humiliis*, Mart. Brazil.—*A. amygdalina*, Humb. New Granada.—*Eleæis melanococca*, Gärtn. New Granada.—*Diplothemium campestre*, Mart. Brazil.—*D. littorale*, Mart. Brazil.—*Maximiliâna regia*, Mart. Brazil.—*M. insignis*, Mart. Brazil.

ORDER CCXXXVIII.—PONTEDERACEÆ. Ach. Rich.—Lindl.
Nat. Syst. p. 347.

Water or marshplants, by Lindl. referred to 4 genera. Of these, 5 species have been found in N. America; 14 in S. America Mexico, and the W. Indies; and 7 (*Pontedera*) all over the E. Indies. *Monochoria*, *Presl.* is unknown to us. Properties of no known use.



PONTEDERA, L. (*Spreng. syst.* 2, p. 5, No. 1192;—*Endl. gen. pl.* 1, p. 138.)

1. *vaginalis*, L. (*Spreng. syst.* 2, p. 42;—*Schult. syst.* 8, p. 1145;—*Bl. enum. pl. jav.* p. 32;—*Roxb. Corom.* 2, t. 110; *fl. ind.* 2, p. 121;—*J. Grah. Cat. B. pl. p.* 222, excl. syn. *Rumph.*—*Rheed.* 11, t. 44.) 2. Java. Coromandel. Concans. Bengal. (Serampore.) Tavoy. Sukanaghur. Monghir. Nepal. Fl. largish, bright-blue, R. and C. S.; fr. C. S.
2. *hastata*, L. (excl. syn. *Rheed.*;—*Spreng. l. o.*;—*Schult. syst.* 8, p. 1146;—*Bl. l. c.*;—*Lour.*;—*Roxb. Corom.* 2, t. 111; *fl. ind.* 2, p. 121;—*J. Grah. l. c.*) 2. Cochin China. Java. Coromandel. Concans. Bengal. (Serampore.) &c. Fl. largish, bright-blue-violet, R. and C. S.; fr. C. S.
3. *plantaginea*, Roxb. (*fl. ind.* 2, p. 123.) 2. Both Peninsulas of India. Bengal. (Serampore.) Silhet. Nepal. Fl. smallish, bright deep-blue, R. S.; fr. C. S.
4. *dilatata*, Buch. (*in Syme's emb. to Ava*, p. 474, with a plate;—*B. Repos.* t. 490;—*Roxb. fl. ind.* 2, p. 123;—*Spreng. l. c.*;—*Schult.* 8, p. 1147.) 2. Rangoon. Fl. pale-blue, R. and C. S.; fr. C. S.
5. *sagittata*, Roxb. (*H. B.* p. 22; *fl. ind.* 2, p. 124; not Presl.) 2. Both Peninsulas of India. Silhet. Assam. Introduced into H. C. G. in 1810.

* *Pontedera Loureiriana*, Schult. (*P. cordata*, Lour.; excl. syn.) 2. Cochin China.—*P. pauciflora*, Bl. 2. Rice-fields of Java.—*P. rotundifolia*, L. 2. Surinam.—*P. crassipes*, Mart. (*P. azurea*, Hook; B. M. 56, t. 2932, excl. syn. with the exception of *P. crassipes*.) 2. Brazil.—*P. azurea*, Swz. 2. Jamaica.—*P. ovalis*, Mart. 2. Brazil.—*P. lanceolata*, Nutt. 2. Georgia.—*P. cordifolia*, Schult. fil. 2. Brazil.—*P. belophylla*, (*P. sagittata*, Presl.; not Roxb.) 2. Mexico.—*Heteranthera oblongifolia*, Mart. 2. Brazil.

ORDER CCXXXIX.—MELANTHACEÆ. R. Br.—Lindl. Nat.
Syst. p. 347.

THE COLCHICUM TRIBE.

Herbs, by Lindl. (excluding Paridææ, and adding Ledebouria and Asagrææ) referred to 29 genera. Of these Spreng. syst. enumerates 32 species for N. America; 11 for Europe; 8 for N. Holland and the Society Islands; 3 for S. America and Mexico; 3 for N. Africa; 2 for Siberia; 1 for Caucasus; 1 for Senegal; and 2 for Japan and China. In S. Africa have been discovered 20 species (*Harvey*); and in the E. Indies 14; viz. 1 of *Tofieldia*, (Himalayas); 3 of *Anguillaria*, (1 from the Himalayas, Coro-



mandel, Prome, and N. Holland, 1 herb Heyn., 1 Spreng. (from Cochin China); 1 of *Ledebouria*, (Peninsula of India, Bundekund); 1 of *Tricyrtis*, (Himalayas); 7 of *Disporum*, (Himalayas, Khassya Mountains, Neelgherries); and 1 of *Drapiezia*. (Java.)

"This order is poisonous in every species, but more especially in the Colchicum and Veratrum. The cormus of the former is a well known acrid cathartic, narcotic, and diuretic; the latter is a nauseous, dangerous emetic. The medicinal properties of the root of Veratrum are owing to a peculiar alkaline principle called Veratrin, which acts with singular energy on the membrane of the nose, exciting violent sneezings, though taken in very minute quantity. When taken internally in very small doses, it produces excessive irritation of the mucous coat of the stomach and intestines; and a few grains are found fatal to the lower animals. Turner." (Lindl.)

ORNITHOGLOSSUM, Salisb. (*Spreng. syst. 2*, p. 14, No. 1370;—*Endl. gen.*

pl. 1, p. 135.)

1. *glaucum*, Salisb. (*Parad. p. 54*;—*Schult. syst. 8*, p. 1536.—*O. viride*, Ait.;—*Spreng. 2*, p. 147.—*Lichtensteinia levigata*, Willd.—*Cymation levigatum*, *Spreng. 2*, p. 147.—*Melanthium viride*, Thunb.; *B. M. 25, t. 994.*) 2. C. G. H. Fl. middle-sized, green, edged with brown. Introduced in March 1841. Has not fl. yet.

ANGUILLARIA, R. Br. (*pr. p. 273*;—*Spreng. syst. 2*, p. 14, No. 1368;—*Endl. gen. pl. 1, p. 136.*)

1. *indica*, R. Br. (*l. c.*;—*Spreng. syst. 2*, p. 146;—*Schult. syst. 8*, p. 1538;—*Wall. pl. as. rar. 3, t. 259*;—*J. Grah. Cat. B. pl. p. 222*, excl. syn. Roth.—*Melanthium indicum*, L.) 2. Tropical N. Holland. Coromandel. The Concans. Kandalla. Prome. Nepal. Kamaon. Fl. smallish, dark-purple, inodorous. Introduced into H. C. G. Fl.?

MELANTHIUM, L. (*Spreng. syst. 2*, p. 14, No. 1367;—*Endl. gen. pl. 1, p. 136.*)

1. *juncinum*, Jacq. (*Icon. rar. 2, t. 451*;—*Spreng. syst. 2*, p. 146;—*B. M. 16, t. 558*.—*M. triquetrum*, Thunb.;—*Schult. syst. 8*, p. 1547, 48.—*Phalangium*, *Houtt. Lin. pfl. syst. t. 80, f. 3.*) 2. C. G. H. Fl. middle-sized, whitish, each petal marked with two dark crimson spots. Introduced in March 1841. Has not fl. yet.

ANDROCYMBIUM, Willd. (*Spreng. syst. 2*, p. 14, No. 1359;—*Endl. gen. pl. 1, p. 136.*)

1. *eucomoides*, Willd. (*Spreng. syst. 2*, p. 143;—*Schult. syst. 8*, p. 1526.—*Melanthium eucomoides*, Jacq. *ic. rar. 2, t. 452*;—*B. M. 17, t. 641.*) 2. C. G. H. Fl. smallish, green. Introduced in Murch 1841. Has not fl. yet.

WURMBEA, Thunb. (*Spreng. syst. 2*, p. 15, No. 1373;—*Endl. gen. pl. 1, p. 136.*)

1. *purpurea*, Dryand. (*Spreng. syst. 2*, p. 147;—*Schult. syst. 8*, p. 1542.—*Melanthium spicatum*, *Houtt. nat. hist. 12*, p. 429, t. 85, excl. syn. Burm.;—*B. M. 19, t. 694.*) 2. C. G. H. Fl. middle-



sized, purple, with a darker petal-edge. Introduced in March 1841.
Has not fl. yet.

LEDEBOURIA, Roth. (*Spreng. syst. 2. p. 8. No. 1261;—Endl. gen. pl. 1, p. 136.*)

1. *hyacinthoides*, Schult. (*syst. 7, p. 365.—L. hyacinthina, Roth.;—Spreng. syst. 2, p. 69;—B. M. 60, t. 3226;—J. Grah. Cat. B. pl. p. 220.*—*Melanthium hyacinthinum, Heyn. MSS.*—*Erythronium indicum, Rottl.* according to Spreng.—*Anthericum hyacinthoides, Willd. MSS.*) 2. *Masulipatam*. Madras. Both Concans. Bundlecund. Fl. small, greenish-white, and base red. Has been introduced into H. C. G. Fl.? Root employed in cases of strangury and fever in horses. (Ainslie.)

BROMETRA, Salisb. (*Endl. gen. pl. 1, p. 136.*)

1. *Breyniana*, (B. columellaris, Salisb. *MSS. in Transact. hort. soc. 1, p. 330.*—*Kolbea Breyniana, Schlecht.*—*Spreng. c. p. p. 142;—Jania Breyniana, Schult. syst. 8, p. 1528.*—*Tulipa Breyniana, L.*; *Spreng. syst. 2, p. 146;—Rozb. H. B. p. 24;—B. M. 20, t. 767.*—*Melanthium uniflorum, Jaeq. ic. rar. 2, t. 450.*) 2. C. G. H. Fl. largish, deep-yellow within, crimson without, with the unguis generally of a deep crimson. Introduced in March 1841. Has not fl. yet.

COLCHICUM, Tournef (*Spreng. syst. 2, p. 14, No. 1358;—Endl. gen. pl. 1, p. 137.*)

Several species of this genus have been introduced here over and over again, but without success.

* *Helonias angustifolia*, Michx. (H. laeta β . Minor, Ker.; B. M. 37, t. 1540.) 2. Humid places in Georgia.—*H. dubia*, Michx. 2. Georgia, Florida.—*Asagrea officinalis*, Lindl.; B. Reg. 1839, t. 33. 2. Mexico.—*Veratrum Sabadilla*, Retz. 2. Mexico. W. Indies.—*Burchardia umbellata*, R. Br. 2. Port Jackson.—*Anguillaria biglandulosa*, R. Br. 2. Port Jackson.—*Schelhammera undulata*, R. Br.; B. M. 54, t. 2712. 2. Port Jackson.—*S. multiflora*, R. Br. 2. Tropical N. Holland.—*Disporum salvum*, Salisb. (*Uvularia chinensis*, Ker.; B. M. 23, t. 916.) 2. China.

ORDER CCXL.—SMILACEÆ, R. Br.—*Endl. gen. pl. 1, p. 152.*

THE SMILAX TRIBE.

Herbs or shrubs, sometimes climbing, by Endl. referred to 15 genera. Of these, about 54 species, according to Spreng. belong to N. America; 26 to S. America, Mexico, and the W. Indies; 11 to Europe; 9 to New Holland and the South Sea Islands; 3 to Japan; 3 to China; 6 to S.



Africa; 1 to the Mascarenhas; 1 to N. Africa; 1 to the Canaries; 3 to Iberia, and Caucasus; 2 to Armenia; and 2 to Siberia. In the E. Indies have been discovered 1 species of *Trillium*, (Himalayas); 1 of *Paris*, (Himalayas); 1 of *Streptopus*, (Himalayas); 4 of *Smilacina*, (Himalayas); 9 of *Polygonatum*, (Himalayas, Khassya Mountains); 27 of *Smilax*, (all over India); 4 of *Tapista*, (Himalayas, Khassya Mountains, Singapore, Ambonya); 2 of *Stemona*, (Circars, Moluccas, Cochin China, Silhet); 4 of *Teta*, (Chittagong, Penang, Banks of the Attran); 10 of *Liriope*, (Himalayas, Rangoon, Peninsula of India); and 1 of *Bulbospermum*, (Java). Properties under the species.

POLYGONATUM, Tournef. (*Endl. gen. pl.* 1, p. 154.)

1. *oppositifolium*, D. Don. (*Convallaria oppositifolia*, *Wall. as. res.* 13, p. 380, with a plate;—*B. Cab.* t. 640;—*Hook. exot. fl.* 2, t. 125;—*Spreng. syst.* 2, p. 76;—*Don. pr. fl. nep.* p. 47;—*Schult. syst.* 7, p. 298, and 8, p. 1669;—*B. M.* 63, t. 3529.) 2. Khassya Mountains. Nepal. Fl. nearly 1 inch, greenish-white, marked with 6 lines of reddish dots, C. S.; fr. 0.

SMILAX, Tournef. (*Spreng. syst.* 2, p. 9, *No.* 1272;—*Endl. gen. pl.* 1, p. 155.)

1. *Sarsaparilla*, L. (*Spreng. syst.* 2, p. 100;—*Plenck. t.* 712;—*Blackw. t.* 393.) 5. Virginia. Has been cultivated for many years in the garden here, without flowering.
2. *Roxburghiana*, Wall. (*Cat.—S. laurifolia*, *Roxb. fl. ind.* 3, p. 793, not L.) 5. Garrow Hills. Khassya Mountains. Introduced into H. C. G. in 1811, but had not fl. in 1814.
3. *retusa*, Roxb. (*fl. ind.* 3, p. 793.) 5. Bengal, (Serampore.) Fl. small, greenish-white, H. S.; fr. R. S.
4. *grandifolia*, (S. *macrophylla*, *Roxb. fl. ind.* 3, p. 793;—*J. Grah. Cat. B. pl.* p. 219, excl. syn.; not Willd.) L. 5. Concans. Deccan. Bengal. Fl. smallish, greenish-yellow, H. and R. S.; fr. Sept. and Oct.
5. *ovalifolia*, Roxb. (*fl. ind.* 3, p. 794;—*Spreng. c. p. p.* 137;—*J. Grah. Cat. B. pl.* p. 219.) कुमारिका Koomarika. L. 5. Bengal, (Serampore.) Concans. Fl. smallish, greenish, H. S.; fr. C. S.
6. *prolifera*, Roxb. (*fl. ind.* 3, p. 795.) L. 5. Bengal, (Serampore. Poorneeya.) Rajmahl. Fl. smallish, green, Feh. and March; fr. R. S.
7. *maculata*, Roxb. (*fl. ind.* 3, p. 796;—*Spreng. c. p. p.* 137;—*Royle. ill. t.* 94, f. 1.) 5. Nepal. Fl. small, white, fragrant, C. S.; fr. H. S.
8. *Bona noz*, L. (*Spreng. syst.* 2, p. 102.) 5. Carolina. Introduced into H. C. G. before 1814. Fl.?
9. *herbacea*, L. (*Spreng. l. c.*;—*B. M.* 44, t. 1920.) 2. N. America. Introduced into H. C. G. before 1814. Fl.?
10. *Pseudochina*, L.? (*Spreng. l. c.*?—*Sloane hist.* 1, p. 31, t. 143, f. 1.?—*Roxb. fl. ind.* 3, p. 792.) 5. Virginia.? Jamaica.? Garrow Hills. Introduced into H. C. G. in 1810, but had not fl. in 1814.



11. *lanceolata*, Roxb. (*fl. ind.* 3, p. 792; not *S. lanceolata*, Wall. nor Lour.) 5. Silhet. Introduced into H. C. G. in 1811, but had not fl. in 1814. Its large, tuberous roots are much used by the natives in medicine. (*Roxb.*)
12. *glabra*, Roxb. (*fl. ind.* 3, p. 792.) 5. Garrow Hills, Silhet. Introduced into H. C. G. in 1811, but had not fl. in 1814. The natives of Silhet use a decoction of the large, tuberous, fresh root for the cure of sores and syphilitic complaints. (*Roxb.*)
13. *grandis*, Wall. MSS. (*S. macrophylla*, *Roxb.* not Willd.) In H. C. G. Fl.?
14. *stipulacea*, Bojer. (*Hort. Mauritianus* 352.) Mauritius.
15. *anceps*, Willd. Mauritius. Bombay.

Genera allied to Smilaceæ.

A. ASPIDISTREÆ.

Endl. gen. pl. 1, p. 155.

ROHDEA, Roth. (*Spreng. syst.* 2, p. 10, No. 1291;—*Endl. l. c.*)

1. *japonica*, Roth. (*Spreng. syst.* 2, p. 118, excl. syn.;—*Schult. syst.* 7, p. 172.—*Orontium japonicum*, *Thunb.*;—*B. M.* 23, t. 898.) 2. Japan. Fl. small, yellowish, C. S.; fr. 0.

TUPISTRA, Ker. (*Spreng. syst.* 2, p. 10, No. 1292;—*Endl. gen. pl.* 1, p. 156.)

1. *squalida*, Ker. (*B. M.* 40, t. 1655;—*B. Reg.* 9, t. 704;—*B. Cab.* t. 515;—*Spreng. syst.* 2, p. 118.—*Rohdea Tupistra*, *Schult. syst.* 7, p. 173.) 2. Amboyna. Fl. middle-sized, pale-dingy-purplish, scentless, R. S.; fr. 0.

2. *nutans*, Wall. (*B. Reg.* 15, t. 1223;—*B. M.* 58, t. 3054.—*Rohdea nutans*, *Schult. syst.* 8, p. 1653.) 2. Khassyia Mountains. Fl. middle-sized, pale yellowish-brown, streaked with purple, Dec.; fr. 0.

? 3. *aurantiaca*, Wall. (*Cat.*) 2. Nepal. Introduced in 1830, but has not fl. yet.

4. *angustifolia*, Wall. Khassyia Mountains.

ASPIDISTRA, Ker. (*Spreng. syst.* 2, p. 174, No. 1489;—*Endl. gen. pl.* 1, p. 156.)

1. *lurida*, Ker. (*B. Reg.* 8, t. 626;—*B. Reg.* 51, t. 2499;—*Spreng. syst.* 2, p. 243.—*Macrogyné convallariæfolia*, *Lk.*) 2. China. Fl. middle-sized, greenish-dark-purple. Introduced in August, 1841.

2. *punctata*, Lindl. (*B. Reg.* 12, t. 977;—*Spreng. c. p.* p. 152.) 2. China. Fl. small, pale-green outside, dotted with purple inside. Introduced in August 1841.

B. OPHIOPOGONÆ.

Endl. gen. pl. 1, p. 156.

LIRIOPE, Lour. (*Lindl. Nat. Syst.* p. 354.—*Ophiopogon*, *Att.*;—*Spreng. syst.* 2, p. 8, No. 1260;—*Endl. l. c.*)

1. *japonica*, Lindl. (*Ophiopogon japonicus*, *Ker.*; *B. M.* 27, t. 1063;—*Spreng. syst.* 2, p. 97.—*Convallaria japonica*, *L. fil.*;—*Red. lit.* 2, t.



- 80.—*Polygonastrum compressum*, Mönch.—*Slateria japonica*, Desv.—*Flüggea japonica*, Rich.;—*Schult. syst.* 7, p. 308.) 2. Japan. China. Fl. smallish, whitish-blue, R. and C. S.
2. *spicata*, Lour. (*Ophiopogon spicatus*, Ker.; *B. Reg.* 7, t. 593;—*Spreng. l. c.*;—*B. Cab.* t. 694.—*Convallaria spicata*, Thunb.—*Flüggea spicata*, *Schult. syst.* 7, p. 309.) 2. Japan. China. Kamaon. Nepal. Khassyia Mountains. Cochin China. Fl. smallish, violet. Introduced in August 1841.
3. *latifolia*, Lindl. (*Ophiopogon latifolius*, *Wall. MSS.*) 2. Native place? In H. C. G.
4. *Wightiana*, Lindl. (*Ophiopogon Wightianus*, *Wall. MSS.*) 2. Native place? In H. C. G. *

TETA, Roxb. (*MSS. in Lamb. herb.*—*Peliosanthes*, *Spreng. syst.* 2, p. 9, No. 1274;—*Endl. gen. pl.* 1, p. 156.)

1. *viridiflora*, Roxb. (*MSS. in Lamb. herb.*; *H. B.* p. 24; *fl. ind.* 2, p. 165.—*Peliosanthes Teta*, *Andr. B. Repos.* 9, t. 605, (where Roxb's name is quoted, but rejected.) *B. M.* 32, t. 1302;—*Red. lib.* t. 415;—*Spreng. syst.* 2, p. 103;—*Schult. syst.* 7, p. 362.) 2. Chittagong. Fl. small, deep-green, inodorous, March and April; fr. July and Aug.
2. *petiolaris*, (*Peliosanthes petiolaris*, *Wall. MSS.*) In H. C. G.

C. ERIOSPERMÆ.

Endl. gen. pl. 1, p. 156

ERIOSPERMUM, Jacq. (*Spreng. syst.* 2, p. 7, No. 1227;—*Endl. l. c.*)

1. *latifolium*, Jacq. (*ic. rar.* 2, t. 420;—*Spreng. syst.* 2, p. 76;—*Schult. syst.* 7, p. 502.—*E. latifolium*, a. *B. M.* 34, t. 1382.—*Ornithogalum capense*, *L.*) 2. C. G. H. Fl. small, yellowish-white, with a mixture of green and sometimes purple, Feb.; fr. O.
2. *lanceæfolium*, Jacq. (*ic. rar.* 2, t. 421;—*Spreng. l. c.*;—*Schult. o. c.* p. 503.) 2. C. G. H. Fl. small, greenish-yellow, Feb. and March.

D. STEMONEÆ.

(Roxburghiaceæ, *Endl. gen. pl.* 1, p. 157.)

STEMONA, Lour. (Roxburghia, *W. Jones*, *Spreng. syst.* 2, p. 171, No. 1433;—*Endl. l. c.*)

1. *gloriosoides*, (Roxburghia gloriosoides, *Dryand.*; *Roxb. Corom.* 1, t. 32; *fl. ind.* 2, p. 234, excl. syn. Lour. and Rumph.?)—*Spreng. syst.* 2, p. 214;—*J. Grah. Cat. B. pl.*, p. 227.—*R. gloriosa*, *Pers.*—*B. M.* 36, t. 1500, excl. syn. Sm. and Rumph.?) 2. ~ Circar Mountains. Fl. large, greenish-white-reddish, foetid, C. S.; fr. O.
2. *tuberosa*, Lour. (Roxburghia viridiflora, *Sm. exot. bot.* 1, p. 111, t. 57;—*Roxb. H. B.* p. 28;—*Wall. pl. as. rar.* 3, t. 282.—*Ubium poly-poides*, *Rumph.* 5, t. 129.) 2. ~ Moluccas. Cochin China. Siam. Chittagong. Silhet. Fl. large, green, H. S.; fr. C. S.

* *Polygonatum verticillatum*, All. (*Convallaria verticillata*, L.;—*E. B.* 2, t. 128.) 2. Europe. Mussooree.—*P. multiflorum*, All. (*Convallaria*



multiiflora. L.;—E. B. 4, t. 279.) ♀. Europe. Mussooree.—*P. cirrhifolium*, (Convallaria cirrhifolia, Wall. Cat.) ♀. Nepal.—*P. punctatum*, (Convallaria punctata, Wall. Cat.) ♀. Nepal.—*Smilax zeylanica*, L. ♂ (Ceylon).—*S. Villandia*, Hb. Buch.; Royle t. 94, f. 2. ♂ (Morung).—*S. dentata*, Humb. Cuba.—*S. papyracea*, Duham. Cayenne.—*S. longifolia*, Rich. Cayenne.—*S. oblongata*, Swz. W. Indies.—*S. lappacea*, Humb. Caracas.—*S. acuminata*, Willd. W. Indies.—*S. syphilitica*, Humb. S. America.—*S. havanensis*, Jacq. Havana.—*S. cumanensis*, Humb. Jamaica.—*S. elliptica*, R. Br. Tropical New Holland.—*S. latifolia*, R. Br. Tropical New Holland.—*Liriopé intermedia*, Lindl.; (*Ophiopogon intermedius*, D. Don.; Royle ill. t. 96, f. 1.) ♀. Nepal.—*Teta humilis*, (Peliosanthes humilis, Andr.; B. M. 37, t. 1532.) ♀. Penang.

ORDER CCXLI.—GILLIESIACEÆ, Lindl. Nat. Syst. p. 348.

Small herbaceous plants, of 2 genera, containing but a few species, natives of Chile. "Properties unknown." (Lindl.)

* *Gilliesia graminea*, Lindl.; B. Reg. 12, t. 992; B. M. 54, t. 1716.
♀. Valparaiso.

ORDER CCXLII.—DIOSCOREACEÆ, Lindl. Nat. Syst. p. 359.

THE YAM TRIBE.

Twining shrubs, by Lindl. referred to 4 genera. Of these, Spreng. syst. enumerates 28 species for S. America, and the W. Indies, (Rajania and Dioscorea); 5 for Japan, (Rajania and Dioscorea); 4 for New Holland, (Dioscorea); 2 for N. America, (Dioscorea); and 2 for Europe and Middle Asia. In S. Africa have been discovered 3 species of Testudinaria, (Harvey), and in the E. Indies about 30 of *Dioscorea*, but of these several will undoubtedly be united on a rigid examination of authentic specimens.

The Yams, so important an article of food in all tropical countries, contain, before they are dressed, more or less acridity, which, however, generally evaporates by heat. This is particularly the case, observes Royle, with those species, that have compound leaves.

TESTUDINARIA, Salisb. (Lindl.; B. Reg. 11, t. 921;—Endl. gen. pl. p. 158, under *Dioscorea*.—Tamus, L.; Spreng. syst. 3, p. 894, No. 3187.)

1. *Elephantopus*, Burch. (Trav. 2, p. 147;—♂. B. Reg. l. c.—Tamus Elephantopus, I'Herit.; Spreng. syst. 3, p. 905;—♀. B. M. 33, t. 1847.—*Dioscorea Elephantopus*, Spreng. c. p. p. 143.) ♀. C. G. H.



Has been cultivated for several years in the garden here, without fl.—The fleshy mass of the tubers are made use of as food by the Hottentots in times of scarcity, and are hence called Hottentot's bread. (Royle.)

DIOSCOREA, Plum. (*Spreng. syst. 2, p. 15, No. 1380;—Endl. gen. pl. 1, p. 158.*) Yam.

1. *globosa*, Roxb. (*fl. ind. 3, p. 797;—J. Grah. Cat. B. pl. p. 218.*) রূপডি আলু Choopri-aloo. ২. ↗ Bengal. (Serampore), cultivated. Fl. small, white, R. S.—Most esteemed of all the yams among the Natives, as well as Europeans.

2. *alata*, L. (*Spreng. syst. 2, p. 152;—Roxb. fl. ind. 3, p. 797;—J. Grah. Cat. B. pl. p. 218, excl. syn. Rumph.—Rheed. 7, t. 38.*) থম আলু Khum-aloo. ২. ↗ Wild in both Concans. Cultivated on the coast of Coromandel and in Bengal. Fl. small, green, R. S.—Of yams it holds in Bengal the second place.

3. *purpurea*, Roxb. (*fl. ind. 3, p. 799.*) ২. ↗ Only found in a cultivated state, under the name of রুক্ত গুরাণিয়া আলু Rukto-guraniya-aloo. Fl. small, whitish, R. S. Holds the third rank among the yams.

4. *rubella*, Roxb. (*fl. ind. 3, p. 798;—Rumph. 5, t. 121.*) গুরাণিয়া আলু Guraniya-aloo. ২. ↗ Only found in a cultivated state. Fl. small, whitish, very fragrant, R. S. In the estimation of the Natives this species holds the fourth place among the yams.

5. *atropurpurea*, Roxb. (*fl. ind. 3, p. 800.*) Malacca yam. ২. ↗ Malacca. Pegu. Malay Islands. Fl. small, greenish-white, R. S. Extensively cultivated in its native place.

6. *aculeata*, L. (*Spreng. syst. 2, p. 152;—Roxb. fl. ind. 3, p. 800;—J. Grah. Cat. B. pl. p. 218, excl. most of the syn.—Rumph. 5, t. 126.*) মৌ আলু Mou-aloo. ২. ↗ Bengal, (Serampore.) Goa, &c. Fl. small, whitish, R. S. Roots about 2 pounds or more in weight, not cultivated, but dug up in the woods during the cold season, and carried for sale to the bazars. (Roxb.)

7. *fasciculata*, Roxb. (*fl. ind. 3, p. 801.*) সুসনি আলু Soosni-aloo. ২. ↗ Bengal, (Serampore.) Fl. R. S. Cultivated to a considerable extent in the vicinity of Calcutta, not only for food, but to make starch of the roots. (Roxb.)

8. *pulchella*, Roxb. (*fl. ind. 3, p. 801.*) ২. ↗ Chittagong. Fl. at the close of the R. S.

9. *crispata*, Roxb. (*fl. ind. 3, p. 802.*) ২. ↗ Interior of Bengal. Fl. small, R. S.

10. *anguina*, Roxb. (*fl. ind. 3, p. 803.*) কুকুর আলু Kookoor-aloo. ২. ↗ Bengal, Calcutta, (Serampore.) Fl. small, green, R. S.; fr. April.—Root not esteemed, though eaten by the poor when hard pressed for food. (Roxb.)

11. *nummularia*, Lam. (*Spreng. syst. 2, p. 152;—Roxb. fl. ind. 3, p. 803.*) সোর আলু Sora-aloo. ২. ↗ Bengal, Calcutta, (Serampore.) Fl. R. S. The root appears to be unfit for food. (Roxb.)



12. *glabra*, Roxb. (*fl. ind.* 3, p. 804.) 2. \curvearrowright Lower Bengal. Peninsula of India, west of the Ganges. Silhet. Sukanaghur. Introduced into H. C. G. in 1812, but had not fl. in 1814.
13. *heterophylla*, Roxb. (*fl. ind.* 3, p. 804.) 2. \curvearrowright Penang. Moluccas. Introduced into H. C. G. in 1798, and a ♂ plant fl. for the first time in Oct. and Nov. 1809.
14. *oppositifolia*, L. (*Spreng. syst.* 2, p. 154;—*Roxb. fl. ind.* 3, p. 804;—*J. Grah. Cat. B. pl.* p. 219.) 2. \curvearrowright Coromandel. Mahableshwur. The Ghauts, about Kandala. Has been introduced into H. C. G.?
15. *daemona*, Roxb. (*fl. ind.* 3, p. 805.—*Ubium silvestre*, Rumph. 5, t. 127.) ♂. \curvearrowright Goruckpore forests. Moluccas. Fl. R. S.—Root very nauseous, even after it has been boiled. (*Roxb.*)
16. *pentaphylla*, L. (*Spreng. syst.* 2, p. 151.—*Roxb. fl. ind.* 3, p. 806;—*J. Grah. Cat. B. pl.* p. 218, excl. syn. Rumph.—*Rheed* 7, t. 34, 35.) কাঁটা আলু *Kanta-aloo*. 2. \curvearrowright Bengal, (Serampore.) Monghyr. Morung. Vandalore. Silhet. Kemaon. Not cultivated, though the root is large, white, and reckoned very wholesome and palatable, and eaten by the Natives. Fl. R. S.

- * *Tamus communis*, L.; E. B. 2, t. 91. 2. England. S. Europe. Middle Asia.—*T. cretica*, L. 2. Candia.—*Dioscorea triphylla*, L. 2. \curvearrowright Moluccas. Both Concans.—*D. verticillata*, Lam. Java.—*D. bulbifera*, L., New Holland. Both Concans.—*D. sativa*, L. Moluccas. Coromandel.—*D. cirrhosa*, Lour. Cochin China.—*D. versicolor*, Buch. Assam. Monghir. Nepal. Prome. Tavoy.—*D. acutangula*, Buch. Gualpara.—*D. tomentosa*, Spreng. Travancore. Gingee.—*D. belophylla*, (D. sagittata, Royle;—not Poir.) N. India.—*D. trifoliata*, Humb. Caracas.—*D. trifida*, L. fil. Surinam.—*D. cayennensis*, Lam. Cayenne.—*D. lutea*, Meyer. Surinam.—*D. altissima*, Lam. Martinique.—*D. piperifolia*, Humb. S. America.—*D. lucida*, R. Br. Tropical N. Holland.—*D. punctata*, R. Br. Tropical N. Holland.—*D. transversa*, R. Br. Tropical N. Holland.—*Rajania quinquefolia*, L., W. Indies.—*R. cordata*, L., W. Indies.—*R. angustifolia*, Swz. St. Domingo.

ORDER CCXLIII.—LILIACEÆ. DC.—Endl. gen. pl. I, p. 139.

THE LILY TRIBE.

Scattered widely over the world, but much more abundant in temperate climates than in the tropics. Aloes are mostly found in S. Africa. One species is a native of the W. Indies, and two or three more of Arabia and the East. Dracænas, the most gigantic of the order, attain their largest size in the Canaries. Dracæna Draco is described in the Annales des



Science, 14, p. 140, as being between 70-75 feet high, 46½ feet in circumference at the base, and it was known to have been a very ancient tree in the year 1436. The northern flora comprehends for the most part the genera *Scilla*, *Hyacinthus*, *Allium* and *Ornithogalum*. In New Holland Liliaceæ form a distinctly marked feature of vegetation. (*Endl.*) In the E. Indies about 66 species seem to have been discovered, viz. 1 of *Tulipa*; 4 of *Gagea*; 2 of *Lloydia*; 4 of *Fritillaria*; 4 of *Lilium*; 1 of *Notholirion*; 1 of *Methonica*; 1 of *Polianthes*; 1 of *Funkia*; 3 of *Scilla*; 9 of *Allium*; 2 of *Asphodelus*; 1 of *Hameroallis*; 2 of *Anthericum*; 3 of *Chlorophytum*; 2 of *Chloropsis*; 4 of *Dianella*; 2 of *Rhuacophila*; 6 of *Asparagus*; and 13 of *Dracaena*.

A. TULIPÆ.

(*Tulipaceæ*, *Endl. gen. pl.* 1, p. 139.)

TULIPA, Tournef. (*Spreng. syst.* 2, p. 6, No. 1209;—*Endl. a. c. p.* 140.)

Tulip.

1. *Gesneriana*, L. (*Spreng. syst.* 2, p. 63;—*Schult. syst.* 7, p. 376;—*B. M.* 28, t. 1135;—*B. Reg.* 5, t. 380.—*Roxb. H. B.* p. 24.) Common *Tulip*. ♀. Cappadocia, whence, according to Gesner, it was introduced into Europe. Introduced into H. C. G. in 1810, but had not fl. in 1814.
2. *stellata*, Hook. (*B. M.* 54, t. 2782;—*Schult. syst.* 8, p. 1684.—*T. Clusiana*, *Wall. MSS.* not Red.) ♀. Kemaon. Fl. large, yellowish-white, H. S.

FRITILLARIA, L. (*Spreng. syst.* 2, p. 6, No. 1210;—*Endl. gen. pl.* 1, p. 140.) *Fritillary*.

1. *Meleagris*, L. (*Spreng. syst.* 2, p. 63;—*Schult. syst.* 7, p. 395;—*E. B.* 9, t. 622.) ♀. Europe, Caucasus, N. Africa. Introduced here in 1820. Fl. ?

NOTHOLIRION, Wall. MSS.

1. *roseum*, Wall. MSS. (*Fritillaria Thomsoniana*, *Royle, ill. t.* 92, f. 1. ?)
♀. Gossain Than. In H. C. G. Fl. ?

LILIMUM, L. (*Spreng. syst.* 2, p. 6, No. 1208;—*Endl. gen. pl.* 1, p. 141.) *Lily*.

1. *candidum*, L. (*Spreng. syst.* 2, p. 61;—*Schult. syst.* 7, p. 416;—*B. M.* 8, t. 278;—*Roxb. H. B.* p. 24.) ♀. Levant, Sardinia. Introduced into H. C. G. in 1799, but had not fl. in 1814.

2. *nepalense*, D. Don. (*pr. fl. nep. p.* 52;—*Spreng. syst.* 2, p. 62;—*Wall. pl. as. rar.* 3, t. 291.) ♀. Nepal. Has been introduced into H. C. G. Fl. ?

3. *giganteum*, Wall. (*Tent. fl. nep. t.* 12, 13, p. 21, excl. syn.;—*Spreng. syst. e. p. p.* 135;—*Schult. syst.* 7, p. 419.) ♀. Nepal. Has been introduced into H. C. G.

4. *Wallichianum*, Schult. (*syst.* 8, p. 1689.—*L. longiflorum*, *Wall. tent. fl. nep. t.* 29;—*D. Don. pr. fl. nep. p.* 52; not *Thunb.*) ♀. Nepal. Kemaon. Has been introduced into H. C. G. Fl. ?

Besides these, 12 species of *Lilium* have been introduced into the Serampore garden without however, producing a flower.



MEPHONICA, Herm. (*Lugd. bot. cat.* t. 689;—*Endl. gen. pl. 1*, p. 141.—*Gloriosa*, L.;—*Spreng. syst. 2*, p. 6, No. 1213.) *Gloriosa*.

1. *superba*, Lam. (*Enc. 4*, p. 133, excl. β .; *ill. t. 247, f. 1*;—*Red. lil. t. 26*.—*Gloriosa superba*, L.;—*Gärtn. 1*, p. 69, t. 18, f. 1;—*Spreng. syst. 2*, p. 65;—*Schult. syst. 7*, p. 365;—*Roxb. fl. ind. 2*, p. 143;—*B. Reg. 1*, t. 77;—*B. Repos. t. 129*;—*J. Grah. Cat. B pl. p. 221*.—*Rheed. 7*, t. 57.) अलाचंडुल *Ulatchandul*. 2. Ceylon. Coromandel. Guzerat. Concans. Mahabaleshwur. Tavoy. Bengal. (Serampore.) Morung. Fl. large, from the base to the middle first yellow, then blood-coloured, from thence to the apex blood-coloured, R. S.; fr. C. S. The root is said to be a violent poison. (*Roxb.*)

* *Tulipa suaveolens*, Roth.; B. M. 22, t. 839. 2. S. Europe.—*T. præcox*, Ten. 2. Italy.—*T. Clusiana*, Red.; B. M. 34, t. 1390. 2. Europe.—*T. sylvestris*, L.; E. B. 1, t. 63. 2. Europe.—*Gagea pygmæa*, Schult. 2. Madrid.—*Calochortus pallidus*, Schult. fil. 2. Mexico.—*C. fuscus*, Schult. fil. 2. Mexico.—*Cyclotbothra lutea*, Lindl.; B. Reg. 20, t. 1663. 2. Mexico.—*Methonica virescens*, Endl. (*Gloriosa virescens*, Lindl.; B. M. 52, t. 2539.) 2. Guinea.

B. AGAPANTHÆ.

(*Endl. gen. pl. 1*, p. 141.)

FUNKIA, Spreng. (*syst. 2*, p. 5, No. 1190;—*Endl. l. c.*)

1. *coerulea*, (T. ovata, *Spreng. syst. 2*, p. 40;—*Schult. syst. 7*, p. 421.—*Hemerocallis coerulea*, Andr. *B. Repos. 1*, t. 6;—*Vent. Malm. t. 18*;—*Red. lil. t. 106*;—*Willd. enum. p. 389*, excl. syn. *Lili cordifolia*, *Thunb.*;—B. M. 23, t. 894;—*Roxb. H. B. p. 25*.—H. coerulea β . flore violaceo, B. M. 35, t. 1433, annot.—*Bryocles ventricosa*, *Salisb. in Trans. hort. soc. 1*, p. 335.—H. japonica, β . *Willd. sp. p. 198.*) 2. Japan. China. Fl. large, violet-blue, R. S. but very rare.

2. *cordata*, J. Grah. (*Cat. B. pl. p. 217*.—F. *subcordata*, *Spreng. syst. 2*, p. 40;—*Schult. syst. 7*, p. 421.—*Hemerocallis cordata*, *Thunb. jap. p. 143*;—*Cav.*;—*Roxb. fl. ind. 2*, p. 168.—H. japonica, *Thunb. act. soc. Linn. 2*, p. 335;—*Red. lil. t. 3*.—B. M. 35, t. 1433.—H. alba. *B. Repos. t. 194*.—H. *plantaginea*, *Lam.*.—*Aletris japonica*, *Houtt. pf. syst. 11*, p. 486, t. 84, f. 2.) 2. Japan. China. Fl. very large, snow-white, sweet-scented, R. S.; fr. 0.

AGAPANTHUS, L'Herit. (*Spreng. syst. 2*, p. 5, No. 1184;—*Endl. gen. pl. 1*, p. 141.)

1. *umbellatus*, L'Herit. (*Sert. angl. 18*;—*Spreng. syst. 2*, p. 29;—*Schult. syst. 8*, p. 997;—B. M. 14, t. 500.—*Crinum africanum*, L.—*Mauhilia linearis*, *Thunb.*) 2. C. G. H. Has been introduced into H. C. G. Fl.?

2. *præcox*, Willd. (*Schult. syst. 8*, p. 998.—A. *umbellatus*, β . *præcox*, *Spreng. syst. 2*, p. 29.) 2. C. G. H. Introduced into H. C. G. Fl.?



SL

LILIACEÆ.

POLIANTHES, L. (*Spreng. syst.* 2; p. 7, No. 1225;—*Endl. gen. pl.* 1, p. 142.) *Tuberose*.

1. *tuberosa*, L. (*Spreng. syst.* 2, p. 75;—*Schult. syst.* 7, p. 625;—*Ruiz. and Pav. fl. per.* 3, p. 66.—*Lour. fl. cochinch.* 1, p. 244;—*B. Reg.* 1, t. 63;—*B. M.* 43, t. 1817;—*Roxb. fl. ind.* 2, p. 166;—*J. Grah. Cat. B. pl.* p. 217.—*Amica nocturna, Rumph.* 5, t. 98.) रुजनी गंडा *Ruju-nee-gundha*. २. No doubt a native of Mexico or S. America. Gardens in India, Ceylon and Java. Fl. large, white, fragrant, R. S.; fr. 0.
β. *plena*. Fl. double, fragrant, R. S.

This plant emits its scent most strongly after sunset, and has been observed in a sultry evening, after thunder, when the atmosphere was highly charged with electric fluid, to dart small sparks, or scintillations of lucid flame, in great abundance, from such of its flowers as were fading. (*Edinb. phil. journ.* 3, p. 415.)

- * *Funkia albo-marginata*, Hook.; *B. M.* 65, t. 3657. २. Japan.—*F. Sieboldiana*, Hook.; *B. M.* 65, t. 3663. (*F. Sieboldii, Lindl.*; *B. Reg.* 1839, t. 50.—*Hemerocallis Sieboldiana* Lodd.; *B. Cab.* t. 1869.) २. Japan.—*Milla biflora*, Cav.; *B. Reg.* 18, t. 1555. २. Mexico.—*Bessera elegans*, Schult. (*Pharium fistulosum*, Herb.; *B. Reg.* 18, t. 1546.) २. Mexico.—*Polianthes gracilis*, Lk. २. Brazil.—*P. maculata*, Mart. २. Mexico.

C. ALOËÆ.

(*Aloinæ, Endl. gen. pl.* 1, p. 143.)

SANSEVIERA, Thunb. (*Spreng. syst.* 2, p. 8, No. 1254;—*Endl. t. c.*)

1. *guineensis*, Willd. (*Spreng. syst.* 2, p. 93;—*Schult. syst.* 7, p. 355;—*B. M.* 29, t. 1180, excl. syn. Cavan.—*Aloe guineensis, Jacq.*—*Aletris guineensis, Jacq. vind.* 1, p. 36, t. 84.) २. Guinea. C. G. H. Fl. large, greenish-white, during the evening and night very fragrant, R. S., but very rare; fr. 0.
2. *Roxburghiana*, Schult. (*syst.* 7, p. 357;—*Roxb. Corom.* 2, t. 184; *fl. ind.* 2, p. 161, excl. syn. L. and Willd.;—*J. Grah. Cat. B. pl.* p. 218, excl. syn. Rheed. and Ker.) मूरबा *Moarba. Bowstring Hemp.* २. Peninsula of India. Bengal, (Serampore,) &c. Fl. middle-sized, greenish-white, somewhat fragrant, and fr. R. S. This plant yields fibres of a fine and very strong quality, fitted for bowstrings, fishing lines, as well as for cordage, which, indeed, is made from it on the Coromandel coast. Roxburgh is of opinion, that the fine fibres, called China grass, are made from this plant, which he strongly recommends as a profitable cultivation in sandy soils of S. India. (*Royle*).
3. *carnea*, Andr. (*B. Repos.* t. 361;—*Spreng. syst.* 2, p. 94;—*Schult. syst.* 7, p. 360, and 8, p. 1678;—*Red. lit. t.* 323.—*S. sarmentosa, Jacq. fragm.* p. 68, t. 102, p. 83, t. 134, f. 4.—*S. sessiliflora, Ker.*; *B. M.* 19, t. 739 and 35, t. 1431, annot.;—*Dum. Courset. herb. gen. de. l'amat.* t. 124.—*Sanseviella, Reichb. consp. regn. veg.* p. 44.) २. China.



Fl. smallish, dull rose-coloured, fragrant. Has not fl. here, though cultivated for many years.

KNIPHOFIA, Mönch. (*Endl. gen. pl. I.*, p. 143.—*Tritoma*, Ker.; —*Spreng. syst. 2*, p. 6, No. 1220.)

1. *Uvaria*, Endl. (*K. aloides*, Mönch. *meth. p. 631*.—*Tritoma Uvaria*, Ker.; *B. M. 20*, t. 758; —*Spreng. syst. 2*, p. 74; —*Schult. syst. 7*, p. 629.—*Aloë Uvaria*, *L. sp. p. 460*.—*Aletris Uvaria*, *L. Mant.*.—*Veltheimia Uvaria*, *Willd. ;—Jacq. fragm. 7*, t. 4, f. 9.) 2. C. G. H. Fl. largish, while closed red, when expanded yellow, fetid. Introduced in 1822. Fl. ?

2. *media*, Endl. (*Tritoma media*, Ker.; *B. M. 20*, t. 744; —*Spreng. l. c.*; —*Schult. syst. 7*, p. 630.—*Aletris sarmentosa*, *B. Repos. t. 54*.—*Veltheimia repens*, *B. Repos. recens. 18*, 63.—*V. sarmentosa*, *Willd.*—*V. media*, *Donn. hort. cant.*) 2. C. G. H. Fl. largish, pale-yellow, verging on orange, with violet bractes. Introduced in 1822. Fl. ?

3. *pumila*, Endl. (*Tritoma pumila*, Ker.; *B. M. 20*, t. 764; —*Spreng. l. c.*; —*Schult. l. c.*.—*Aletris pumila*, *Ait.*.—*Veltheimia pumila*, *Willd.*.—*V. abyssinica*, *Red. lil. t. 184*.) 2. C. G. H. Abyssinia. Fl. smallish,minated yellow, with bluish bractes. Introduced in 1822. Fl. ?

ALOË, Tournef. (*Spreng. syst. 2*, p. 6, No. 1218; —*Endl. gen. pl. I.*, p. 143.)

a. *APICRA*, *Schult. syst. 7*, p. 631.

1. *retusa*, L. (*Spreng. syst. 2*, p. 68, excl. syn.; —*Schult. l. c.*; —*B. M. 13*, t. 455.) 2. C. G. H. Fl. smallish, white, C. S.; fr. 0.

2. *albicans*, Haw. (*Spreng. l. c.*; —*Schult. syst. 7*, p. 636; —*B. M. 35*, t. 1452.) 2. C. G. H. Fl. smallish, greenish-white, rose-coloured, C. S., but rare; fr. 0.

3. *cymbifolia*, Schrad. (*N. Journ. 2*, B. I., S. p. 17, t. 2; —*Schult. syst. 7*, p. 637.—*A. cymbiformis*, Haw.; —*Spreng. l. c.*) 2. C. G. H. Fl. middle-sized, greenish-white, with a purplish base, C. S., but rare; fr. 0.

4. *reticulata*, Haw. (*Spreng. l. c.*; —*Schult. o. c. p. 639*.—*A. arachnoïdes* γ. *reticulata*, *B. M. 32*, t. 1314; 33, t. 1361, γ. *annot.*.—*A. Pumilio*, *Jacq. schönbr. t. 421*.) 2. C. G. H. Fl. middle-sized, white, slightly tinged with rose, C. S.; fr. 0.

5. *atrovirens*, DC. (*pl. gr. t. 51*; —*Spreng. o. c. p. 69*; —*Schult. o. c. p. 640*.—*A. arachnoïdes*, *B. M. 32*, under t. 1314. β.—*A. arachnoïdes*, β. *pumila*, *B. M. 33*, t. 1361.) 2. C. G. H. Fl. middle-sized, greenish-white, streaked with rose, C. S.; fr. 0.

6. *translucens*, Haw. (*Spreng. o. c. p. 68*, excl. syn.; —*Schult. o. c. p. 641*.—*A. arachnoïdes* δ. *translucens*; *B. M. 33*, under t. 1361; —*B. M. 33*, t. 1417, excl. syn. *Jacq.*) 2. C. G. H. Fl. smallish, greenish-white, slightly tinged with rose, C. S.; fr. 0.

7. *arachnoïdes*, Mill. (*Spreng. l. c.* excl. syn.; —*Schult. o. c. p. 642*.—*B. M. 20*, t. 756; —*D.C. pl. gr. t. 50*.—*A. arachnoïdes* α. *communis*, *B.*



- M.* 32 and 33, under *t.* 1314, 1361 and 1417.) 2. *C. G. H.* Fl. middle-sized, greenish-lilac, C. S., but rare; fr. 0.
8. *merabilis*, Haw. (*Spreng. o. c. p.* 59;—*Schult. o. c. p.* 642;—*B. M.* 30, *t.* 1354.) 2. *C. G. H.* Fl. middle-sized, greenish-white, streaked with red, C. S. but rare; fr. 0.
9. *recurva*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p.* 644;—*B. M.* 33, *t.* 1353, excl. syn. *A. tricolor a. venosa*.) 2. *C. G. H.* Fl. middle-sized, greenish-white, streaked with purple, C. S. but rare; fr. 0.
10. *attenuata*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p.* 645.—*A. Radula, B. M.* 33, *t.* 1345, not Jacq.) 2. *C. G. H.* Fl. middle-sized, greenish-white, streaked with red, in the bud greenish-rose-coloured, C. S.; fr. 0.
11. *margaritifera*, L. (*Spreng. l. c.* excl. syn.;—*Schult. o. c. p.* 648.—*A. margaritifera a. major, B. M.* 33, under *t.* 1360;—*DC. pl. gr. t.* 57, *A.*) 2. *C. G. H.* Fl. middle-sized, green, C. S.; fr. 0.
12. *minor*, Schult. (*l. c.*—*A. margaritifera*, var. *media, B. M.* 21, *t.* 815.) 2. *C. G. H.* Fl. middle-sized, greenish-white, tipped with pale rose, C. S. but rare; fr. 0.
13. *brevis*, Schult. (*o. c. p.* 649.—*A. margaritifera γ. minima, B. M.* 33, *t.* 1360, not of others.) 2. *C. G. H.* Fl. middle-sized, green, white-edged, C. S.; fr. 0.
14. *viscosa*, L. (*Spreng. o. c. p.* 70, excl. syn.;—*Schult. o. c. p.* 652;—*DC. pl. gr. t.* 16;—*B. M.* 21, *t.* 814.) 2. *C. G. H.* Fl. middle-sized, purple-streaked, greenish-white, C. S. but rare; fr. 0.
15. *tortuosa*, Haw. (*Spreng. l. c.* excl. syn.;—*Schult. o. c. p.* 655.—*A. rigida, B. M.* 33, *t.* 1337, not DC. and excl. *A. expansa, Haw.*) 2. *C. G. H.* Fl. middle-sized, greenish-white, purple-tipped, C. S. but very rare; fr. 0.
16. *imbricata*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p.* 657.—*A. spiralis, DC. pt. gr. t.* 56;—*Jacq. fragm. p.* 72, *t.* 110;—*B. M.* 35, *t.* 1455.) 2. *C. G. H.* Fl. small, pale-greenish, yellowish-tipped. Has not fl. yet.
17. *pentagona*, Jacq. (*Fragm. p.* 72, *t.* 111;—*Schult. o. c. p.* 659;—*B. M.* 33, *t.* 1338.) 2. *C. G. H.* Fl. middle-sized, green, the segments greenish-yellow, each with a green spot at the base. Has not fl. here.
β. *GASTERIA, Schult. syst. 7, p.* 660.
18. *pulchra*, Jacq. (*Hort. schönbr.* 4, *p.* 10, *t.* 419; *fragm. p.* 73, *t.* 112, *f.* 2, 3;—*Spreng. syst.* 2, *p.* 70, excl. syn.;—*Schult. o. c. p.* 660.—*A. maculata, B. M.* 20, *t.* 765;—*DC. pl. gr. t.* 91.) 2. *C. G. H.* Fl. middle-sized, with the tube rose-coloured, and the limb pale with green streaks, C. S.; fr. 0.
19. *obliqua*, Haw. (*Spreng. o. c. p.* 70, excl. syn.;—*Schult. o. c. p.* 661.—*A. Lingua, a. B. M.* 25, *t.* 979, excl. syn. Knorr. and Commel.) 2. *C. G. H.* Fl. middle-sized, at base rose-coloured, with the tube green, and the rest nearly white, C. S.; fr. 0.



20. *nigricans*, Haw. (*Spreng. o. c. p. 71*;—*Schult. o. c. p. 663*.—A. Lingua. β . *B. M.* 22, *t. 838*; 32, *t. 1322*, $\varepsilon.$) φ . C. G. H. Fl. largish, at base reddish, otherwise green, C. S.; fr. O.
21. *angulata*, Willd. (*Spreng. o. c. p. 70*, excl. syn.; *Schult. o. c. p. 667*.—A. Lingua, *B. M.* 32, *t. 1322*, $\beta.$) φ . C. G. H. Fl. largish, at base reddish, otherwise green, C. S.; fr. O.
22. *sulcata*, Salm. Dyck. (*Schult. o. c. p. 668*.—A. linguiformis, *DC. pl. gr. B. t. 68*, the first.—A. Lingua, *B. M.* 32, *t. 1322*, $\delta.$) φ . C. G. H. Fl. largish, reddish, at the middle white, at the apex bright-green, C. S.; fr. O.
23. *verrucosa*, Ait. (*Spreng. o. c. p. 71*;—*Schult. o. c. p. 672*;—*B. M. t. 837*;—*Roxb. H. B. p. 25.*) φ . C. G. H. Fl. largish, at base reddish, otherwise green, C. S.; fr. O.
24. *intermedia*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p. 673*.—A. Lingua, α . *B. M.* 32, *t. 1322.*) φ . C. G. H. Fl. largish, whitish-blood-red, greenish-tipped, C. S.; fr. O.
25. *carinata*, Mill. (*Spreng. l. c.*;—*Schult. o. c. p. 675*.—A. carinata, α . *B. M.* 33, *t. 1331*, excl. of the fig. on the right side.) φ . C. G. H. Fl. largish, at base scarlet, above it greenish, streaked with sulphur, C. S.; fr. O.
26. *nitida*, Salm. Dyck. (*Spreng. l. c.*;—*Schult. o. c. p. 677*;—*B. M. 49*, *t. 2804.*) φ . C. G. H. Fl. middle-sized, at base miniated, above it, yellowish-green, C. S.; fr. O.
27. *acinacifolia*, Jacq. (*Ecl. p. 49, t. 31*;—*Schult. o. c. p. 679*;—*B. M. 50, t. 2369.*) φ . C. G. H. Fl. $1\frac{1}{2}$ inch, with a rose-coloured tube, and a greenish limb, C. S.; fr. O.
 γ . ALOS, *Schult. syst. 7, p. 682.*
28. *acuminata*, Haw. (*Spreng. o. c. p. 71*;—*Schult. o. c. p. 685*.—A. humilis, *B. M.* 20, *t. 757*, not of others.) φ . C. G. H. Fl. 2 inches, before they expand scarlet, afterwards yellow, at the apex orange with green streaks, C. S. but very rare; fr. O.
29. *virens*, Haw. (*Spreng. o. c. p. 72*;—*Schult. o. c. p. 686*;—*B. M. 33, t. 1355.*) φ . C. G. H. Fl. $1\frac{1}{2}$ -2 inches, yellowish-scarlet, towards the apex greenish, C. S.; fr. O.
30. *prolifera*, Haw. (*Spreng. l. c.*;—*Schult. l. c.*.—A. *brevifolia*, *B. Reg. 12, t. 996.*) δ . C. G. H. Fl. $1\frac{1}{2}$ inch, yellowish-red, at apex greenish. Has not fl. here.
31. *depressa*, Haw. (*Spreng. o. c.*;—*Schult. o. c. p. 688*;—*B. M. 33, t. 1332*, excl. syn. Mill.) δ . C. G. H. Fl. 3 inches, deep scarlet, yellow-streaked, towards the apex yellowish and green-streaked, C. S. but rare; fr. O.
32. *glauca*, Mill. (*Spreng. o. c.*;—*Schult. o. c. p. 690.*) δ . C. G. H.
 β . *minor*, Haw. (A. *rhodacantha*, *B. M. 31, t. 1278*;—*DC.?*) δ . C. G. H. Fl. $1\frac{1}{2}$ inch, reddish, towards apex greenish. Has not fl. here.



33. *barbadensis*, Mill. (*Schult. o. c. p.* 693.—*A. vulgaris*, *DC. pl. gr. p.* 27;—*Spreng.* 2, *p.* 72;—*Lam. enc.* 1, *p.* 86, excl. syn. *Forsk.*—*Rheed.* 11, *t.* 3.) 5 Common in gardens in India. Fl. large, yellow, with the three inner segments at the apex somewhat orange, C. S.; fr. O. Yields the Barbadoes aloes.
34. *indica*, Royle. (*ill. p.* 390.—*A. perfoliata*, *Roxb. fl. ind.* 2, *p.* 167, excl. syn. *Rheed.* and *Willd.*;—*J. Grah. Cat. B. pl. p.* 218, excl. syn. *As. res.*) शृङ्खला ग्रीष्मी *Ghrito-koomaree*. 5 Common in dry situations in the North-west Provinces of India. Cultivated in gardens. Fl. large, red, R. S.; fr. O.
35. *variegata*, L. (*Spreng.* 2, *p.* 72;—*Schult. o. c. p.* 696;—*DC. pl. gr. t.* 21, excl. syn. *Till.*;—*B. M.* 15, *t.* 513;—*Roxb. H. B. p.* 25.) 4. C. G. H. Fl. 15-16 lines, externally reddish, internally white. Introduced into H. C. G. in 1806, but had not fl. up to 1814.
36. *serrulata*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p.* 697;—*B. M.* 34, *t.* 1415.) 5 C. G. H. Fl. 1½ inch, pale miniated flesh-coloured, towards apex green-streaked. Has not fl. here.
37. *micracantha*, Haw. (*Spreng. o. c. p.* 71;—*Schult. l. c.*;—*B. M.* 48, *t.* 2272.) 5 C. G. H. Fl. 1½ inch, rose-coloured, towards apex greenish. Has not fl. here.
38. *saponaria*, Haw. (*Schult. l. c. t.* 699.—*A. saponaria*, *a.* *B. M.* 36, *t.* 1460.) 5 C. G. H. Fl. 1½ inch, bright scarlet, with the segments at the apex sulphur-margined, C. S., but rare; fr. O.
39. *latifolia*, Haw. (*Spreng. o. c. p.* 73;—*Schult. o. c. p.* 700, excl. *B. M.* 36, *t.* 1460.—*A. saponaria* β . *latifolia*, *B. M.* 33, *t.* 1346.) 5 C. G. H. Fl. 2 inches, brigh scarlet, at apex yellowish, C. S.; fr. O.
40. *purpurascens*, Haw. (*Schult. syst.* 8, *p.* 1715; *ibid.* 7, *p.* 692, excl. *A. vera*. *Lam.*, *rubescens*, *DC.* and *officinalis* and *vacillans*, *Forsk.* *A. soccotrina*, β . *major*, *B. M.* 36, *t.* 1474.) 5 C. G. H. Fl. 1¼ inch, before expansion deep scarlet, green tipped, afterwards scarletish, white streaked, at apex green. Has not fl. here.
41. *obscura*, Mill. (*Spreng. o. c. p.* 70;—*Schult. o. c. p.* 700.—*A. picta*, *B. M.* 32, *t.* 1323;—*DC. pl. gr. t.* 97.) 5 C. G. H. Fl. 2 inches, deep scarlet, inside and towards apex greenish, C. S.; fr. O.
42. *soccotrina*, Lam. (*Spreng. o. c. p.* 73;—*Schult. o. c. p.* 701;—*DC. pl. gr. t.* 85, excl. syn. *Munting*;—*J. Grah. Cat. B. pl. p.* 218, excl. syn. —*A. perfoliata*, var. *succotrina*, *B. M.* 14, *t.* 472.) 5 Soccotora. Fl. 1½ inch, at base scarlet, in the middle pale, at apex greenish, C. S.; fr. O.
43. *plicatilis*, Mill. (*Spreng. l. c.*;—*Schult. o. c. p.* 707;—*B. M.* 13, *t.* 457.) 5 Africa. Fl. 1 inch, red, towards the apex pale yellowish-greenish. Has not fl. here.
44. *arborescens*, Mill. (*Spreng. l. c.*;—*Schult. o. c. p.* 708;—*DC. pl. gr. t.* 38;—*B. Repos. t.* 468.) 5 C. G. H. Fl. 1½ inch, scarlet, towards apex greenish, inner segments yellow, with a greenstreak. Has not fl. here.



45. *africana*, Mill. (*Spreng. l. c.*—*Schult. o. c. p. 709.*)
β. angustior, (*B. M. 51, t. 2517.*) 5 C. G. H. Fl. 2½ inches, yellow, green-tipped. Has not fl. here.
46. *ferox*, Lam. (*Spreng. l. c.*;—*Schult. o. c. p. 710*;—*DC. pl. gr. t. 32*;—*B. M. 45, t. 1975.*) 5 C. G. H. Petals 9 lines, the three outer ones reddish-white, at apex green; the inner ones white, with a longitudinal green line and a dark violet apex; the stamens long, exserted, below white, above yellow; the anthers orange, afterwards brown, C. S., but very rare; fr. 0.
47. *Commelynii*, Willd. (*Spreng. o. c. p. 74*;—*Schult. o. c. p. 712*.—A. mitriformis, *B. M. 31, t. 1270*, excl. most of the syn.) 5 C. G. H. Fl. nearly 2½ inches, scarlet, inside yellowish, C. S., but very rare; fr. 0.
48. *distans*, Haw. (*Schult. o. c. p. 714*.—A. mitriformis, *β. brevifolia*, *B. M. 33, t. 1362.*) 5 C. G. H. Fl. 2 inches, scarlet, internally and towards the apex greenish. Has not fl. here.
49. *macra*, Haw. (*Spreng. o. c. p. 73*;—*Schult. o. c. p. 703*, and 8, p. 1715.—A. rufo-cincta, *Haw.*;—*Lomatophyllum macrum*, *Lk.*; *Spreng. l. c.*;—*Schult. l. c.*) 5 Mascarenhas Islands, and not India, according to DC. Lately introduced.

(Of the genus *Aloë*, Dr. Carey's printed papers enumerate, in all, 104 species, which, from time to time were introduced into the Serampore garden; but as most of them are now dead, and we have found ourselves unable to extricate their specific names from the obscurity in which they are involved, we have thought it best to put down only such species, as have come within our own observation.)

LOMATOPHYLLUM, Willd. (*Spreng. syst. 2, p. 6*, No. 1219;—*Endl. gen. pl. 1, p. 144.*)

1. *borbonicum*, Willd. (*Spreng. syst. 2, p. 74*;—*Schult. syst. 7, p. 361*.—*Aloë purpurea*, *Lam.*—A. *marginalis*, *DC. pl. gr. t. 31*.—A. *marginata*, *Willd.*—*Dracena marginata*, *Ait.* not Dalm.—D. *dentata*, *Pers.*—*Phylloma aloiflorum*, *Ker.*; *B. M. 38, t. 1585*.—P. *borbonicum*, *Haw. suppl. pl. succ. p. 43.*) 5 Bourbon. Fl. 9 lines, yellow, outside brownish-red lined, inside and at apex greenish. Has been introduced into H. C. G. Fl. ?

YUCCA, L. (*Spreng. syst. 2, p. 5*, No. 1191;—*Endl. gen. pl. 1, p. 144.*)

1. *aloifolia*, L. (*Spreng. syst. 2, p. 41*;—*Schult. syst. 7, p. 716*;—*DC. pl. gr. t. 40*;—*Red. lil. t. 40, 402*;—*B. M. 41, t. 1700*;—*J. Grah. Cat. B. pl. p. 221.*) 5 Jamaica. Vera Cruz. Carolina. Florida. Fl. 2 inches, before they expand greenish-dark-purple, afterwards white, with a violet spot at the base, at last violet along the middle nerves. R. S.; fr. 0.

2. *Dracontia*, L. (*Spreng. l. c.*;—*Schult. l. c.*;—*Gürtn. fr. 2, p. 34, t. 85, f. 9.*) 5 S. Carolina. Introduced in 1820, but has not fl. yet.

3. *filamentosa*, L. (*Spreng. l. c.*;—*Schult. o. c. p. 718*;—*B. M. 23, t.*



662

LILIACEÆ.

GL

900;—*Red. lil. t. 227*;—*Roxb. H. B. p. 25.*) 5 Carolina, Virginia. Introduced into H. C. G. in 1799, but had not fl. up to 1814.

4. *glaucescens*, Haw. (*Schult. o. c. p. 719*.—*Y. angustifolia*, *Hortul.* not Pursh. nor Spreng.) 5 N. America. Introduced here in 1820, but has not fl.

5. *gloriosa*, L. (*Spreng. l. c.*, excl. syn.;—*Schult. o. c. p. 720*;—*Red. lil. t. 326*;—*B. M. 31, t. 1260*;—*Roxb. H. B. p. 25*;—*J. Grah. Cat. B. pl. p. 221*; not Andr.) 5 Canada, Carolina, Virginia, Peru. Fl. 1½ inch, before they expand greenish-white, afterwards mostly white, R. S.; fr. O.

* *Sansevieria longiflora*, Sims.; B. M. 53, t. 2634. 2. Country unknown.—*S. zeylanica*, Willd.; B. Reg. 2, t. 160, not Roxb. 2. Ceylon.—*S. aethiopica*, Thunb. 2. C. G. H.—*S. lanuginosa*, Willd.; Rheed. 11, t. 42. 2. Sandy places on the Malabar Coast.—*S. fulvo-cincta*, Haw. 2. Brazil.—*S. javanica*, Bl. 2. Java.—*S. flexuosa*, Bl. 2. Java.—*S. fruticosa*, Bl.; Rumph. 4, t. 35. 3 Moluccas, Java.—*Aloë Serra*, DC. 5 C. G. H.—*A. abyssinica*, Lam. 5 Abyssinia.—*A. frutescens*, Salm. Dyck. 5 C. G. H.—*A. nobilis*, Haw. 5 C. G. H.—*Yucca acaulis*, Humb. and Bonpl. 5 Caracas, Cumana.—*Y. recurva*, Salisb. 5 Georgia.—*Y. glauca*, Sims.; B. M. 53, t. 2662. 5 Carolina.

D. ASPHODELEÆ.

Endl. gen. pl. 1, p. 144.

a. *Hyacinthinae* (*Hyacintheæ*, *Endl. l. c.*)

MUSCARI, Tournef. (*Spreng. syst. 2, p. 6, No. 1216*;—*Endl. l. c.*) *Grape-Hyacinth.*

1. *moschatum*, Tournef. (*Spreng. syst. 2, p. 65*;—*Schult. syst. 7, p. 590*;—*B. M. 19, t. 734*.—*Hyacinthus Muscari*, L.) 2. Asia. Introduced into Europe before 1554. Fl. small, yellowish, fragrant, quickly fading. Introduced here in 1818. Fl.?

2. *botryoides*, Mill. (*Spreng. o. c. p. 66*;—*Schult. o. c. p. 591*).—*Hyacinthus botryoïdes*, L.—*B. M. 5, t. 157*.) 2. Middle and S. Europe. Fl. small, dark blue, strongly scented. Introduced here in 1818. Fl.?

BELLEVALLIA, Lapéyr. (*Endl. gen. pl. 1, p. 144.*)

1. *romana*, Reichb. (*fl. germ. exc. p. 105*.—*B. operculata*, Lapéyr.—*Hyacinthus romanus*, L.—*Spreng. syst. 2, p. 65*, excl. syn.;—*Schult. syst. 7, p. 587*.—*Scilla romana*, Ker.; *B. M. 27, t. 939*.) 2. S. France, Pyrenees, Italy, Sicily, Barbary. Fl. small, lower ones yellowish-brown, at base greenish, above suffused with purple, upper ones blue. Introduced in 1815. Fl.?

HYACINTHUS, L. (*Spreng. syst. 2, p. 6, No. 1215*;—*Endl. gen. pl. 1, p. 144.*)

1. *orientalis*, L. (*Spreng. syst. 2, p. 65*;—*Schult. syst. 7, p. 580*;—*B. Reg. 12, t. 995*.) 2. Levant, near Bagdad and Aleppo. Barbary, S. France. Fl. large, bright-blue, fragrant, C. S. 1840.



VELTHEMIA, Gled. (*Spreng. syst.* 2, p. 7, No. 1222;—*Endl. gen. pl.* 1, p. 144.)

1. *viridiifolia*, Jacq. (*hort. schönbr.* 1, p. 41, t. 78;—*Spreng. syst.* 2, p. 75;—*Schult. syst.* 7, p. 628;—*B. Cab.* t. 1245;—*J. Grah. Cat. B. pl.* p. 218.—*V. capensis*, *Red. lil.* t. 193.—*V. undulata*, *Mönch*.—*Aletris capensis*, *L. mant.* excl. syn. *Buxb.*;—*B. M.* 14, t. 501.) 2. C. G. H. Fl. 1½-2 inches, reddish flesh-coloured, unpleasantly smelling, R. S.; fr. 0.

UROPETALUM, Ker. (*Spreng. syst.* 2, p. 7, No. 1230;—*Endl. gen. pl.* 1, p. 144;)

1. *viride*, Ker. (*Spreng. syst.* 2, p. 78;—*Schult. syst.* 7, p. 620.—*Hyacinthus viridis*, L.—*Jacq. ic. rar.* 1, t. 66;—*Red. lil.* 5, t. 203.) 2. C. G. H. Fl. 10 lines, dark-green, inodorous. Introduced in March 1841. Has not fl. yet.

AERATRIS, Lk. (*Endl. gen. pl.* 1, p. 145.)

1. *campanulata*, Reichb. (*fl. germ. exc.* p. 106.—*Scilla campanulata*, Ait.;—*Spreng. syst.* 2, p. 66;—*Schult. syst.* 7, p. 575, and 8, p. 1708;—*Red. lil.* t. 435;—*B. M.* 4, t. 128.—*S. hyacinthoides*, *Jacq. ic. rar.* t. 65.) 2. Spain. Portugal. Fl. 6½ lines, pale-bluish, outside more intensely coloured, C. S.; fr. 0.

2. *nutans*, Reichb. (*fl. germ. exc.* p. 105.—*Scilla nutans*, Sm.;—*E. B.* 6, t. 377;—*Spreng. syst.* 2, p. 66;—*Schult. syst.* 7, p. 577, and 8, p. 1708.—*S. non scripta*, *Red. t.* 224;—*B. M.* 36, t. 1461.) 2. Europe, from England throughout E. and S. Europe. Fl. 6-10 lines, blue, sweet-scented, C. S.; fr. 0.

LACHENALIA, Jacq. (*Spreng. syst.* 2, p. 7, No. 1229;—*Endl. gen. pl.* 1, p. 145.)

1. *hyacinthoides*, Jacq. (*ic. rar.* 2, t. 382;—*Spreng. syst.* 2, p. 78;—*Schult. syst.* 7, p. 599.—*Hyacinthus orchioïdes*, *Jacq. hort. vind.* 2, t. 178.)

β. *foliis maculatis*, (L. *contaminata*, Ait.;—*B. M.* 34, t. 1401, excl. syn. L. and *Lachenalia orthopetala*, Jacq.) 2. C. G. H. Fl. small, white-reddish. Introduced in March 1841. Has not fl. yet.

2. *angustifolia*, Jacq. (*ic. rar.* 2, t. 381;—*Spreng. l. c.*;—*Schult. o. c.* p. 600;—*B. M.* 19, t. 735.) 2. C. G. H. Fl. 4 lines in diameter, white, the segments on both sides marked with a green or brown spot. Introduced in March 1841. Has not fl. yet.

3. *orchioïdes*, Ait. (*Spreng. l. c.*;—*Schult. o. c.* p. 603.—*L. orchioïdes*, γ. *B. M.* 22, t. 854, excl. syn. Jacq.—*Phormium hyacinthoides*, *L. fil. suppl.*) 2. C. G. H. Introduced in March 1814. Has not fl. yet.

4. *pallida*, Ait. (*Spreng. l. c.* excl. syn.;—*Schult. o. c.* p. 605;—*Red. lil.* t. 22;—*B. Reg.* 16, t. 1350.) 2. C. G. H. Introduced in March 1841. Has not fl. yet.

5. *pustulata*, Jacq. (*ic. rar.* 2, t. 386;—*Spreng. o. c.* p. 77;—*Schult.*



- o. c. p.* 609;—*B. M.* 21, *t.* 817.) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.
6. *violacea*, Jacq. (*ic. rar.* 2, *t.* 394;—*Spreng.* *l. c.*;—*Schult.* *o. c. p.* 610.) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.
7. *tricolor*, Thunb. (*Spreng.* *o. c. p.* 76, excl. syn. *L. luteola*, *Jacq.*;—*Schult.* *o. c. p.* 612;—*B. M.* 3, *t.* 82.) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.
8. *pendula*, Ait. (*Spreng.* *l. c.*;—*Schult.* *o. c. p.* 614;—*B. M.* 16, *t.* 690;—*J. Grah. Cat. B. pl.* *p.* 221.) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.

DRIMIA, Jacq. (*Spreng. syst.* 2, *p.* 7, *No.* 1223;—*Endl. gen. pl.* 1, *p.* 145.)

1. *lanceæfolia*, Ker. (*Spreng. syst.* 2, *p.* 75;—*Schult. syst.* 7, *p.* 594.—*Lachenalia lanceæfolia*, *Jacq.* *ic. rar.* 2, *t.* 402;—*Red. lit. t.* 59;—*B. M.* 17, *t.* 643.) 2. C. G. H. Fl. smallish, greenish, within thick-set with liver-coloured confluent dots, June; fr. 0.
2. *acuminata*, Lodd. (*B. Cab.* *t.* 1041;—*Schult. syst.* 8, *p.* 1710.) 2. C. G. H. Introduced in March, 1841. Has not fl.
3. *media*, Jacq. (*ic. rar.* 2, *t.* 375;—*Spreng. syst.* 2, *p.* 75;—*Schult. syst.* 7, *p.* 596.—*Hyacinthus medius*, *Poir.*) 2. C. G. H. Introduced in 1820. Fl. ?
4. *ciliaris*, Jacq. (*ic. rar.* 2, *t.* 377;—*Spreng.* *l. c.*;—*Schult.* *o. c. p.* 597;—*B. M.* 35, *t.* 1444.—*Hyacinthus ciliaris*, *Poir.*) 2. C. G. H. Fl. middle-sized, outside greenish, densely purplish-dotted, inside pale, June; fr. 0.
5. *elata*, Jacq. (*ic. rar.* 2, *t.* 373; *fragm.* *p.* 3, *t.* 2, *f.* 2;—*Spreng.* *l. c.*;—*Schult.* *l. c.*;—*Red. lit. t.* 430;—*B. M.* 21, *t.* 822.—*Hyacinthus elatus*, *Poir.*) 2. C. G. H. Introduced in 1820. Fl. ?
6. *undulata*, Jacq. (*ic. rar.* *t.* 376;—*Spreng.* *l. c.*;—*Schult.* *o. c. p.* 598.) 2. C. G. H. Introduced in 1820. Fl. ?

DAUBENYA, Lindl. (*B. Reg.* 21, *t.* 1813;—*Endl. gen. pl.* 1, *p.* 145.)

1. *coccinea*, Lindl. 2. C. G. H. Introduced in March, 1814. Has not fl. yet.

EUCOMIS, L'Herit. (*Spreng. syst.* 2, *p.* 7, *No.* 1226;—*Endl. gen. pl.* 1, *p.* 145.)

1. *punctata*, L'Herit. (*Sert. angl.* 18;—*Spreng. syst.* 2, *p.* 76;—*Schult. syst.* 7, *p.* 622;—*B. M.* 23, *t.* 913;—*Red. lit. t.* 208.—E. *punctata*, a. *B. M.* 37, under *t.* 1539;—*Roxb. H. B.* *p.* 24.—*Asphodelus comosus*, *Houtt. Linn. pf. syst.* 2, *p.* 381, *t.* 83.—*Ornithogalum punctatum*, *Thunb. pr.* 62.—*Basilæa punctata*, *Lam. ill. t.* 289, *f.* 2.—*Trifillaria punctata*, *Gmel.*) 2. C. G. H. Fl. $\frac{1}{2}$ inch, green, outside purplish, the inner segments whitish, R. S.; fr. 0. The whole plant has a somewhat unpleasant, heavy smell.
β. *striata*, (*B. M.* 37, *t.* 1539.—E. *striata*, *Donn. hort. cant.* 6, *p.* 86.) 2. C. G. H. Leaves purple-streaked on the back, R. S.; fr. 0.



2. *undulata*, Ait. (*Spreng. l. c.*; — *Schult. l. c.*; — *B. M.* 27, *t.* 1083.) — *E. regia*, *L'Herit. sert. angl.* 17, not Ait. and excl. syn. Dill. and L.; — *Red. lit. t.* 175, excl. syn. Dill., L., Mill., and Ait. — *Ornithogalum undulatum*, *Thunb.* — *Fritillaria longifolia*, *Hill.*; *H. Kew.* 354, *t.* 15. — *F. autumnalis*, *Mill.* — *Basilæa coronata*, *Lam.*) 2. C. G. H. Fl. 6 lines, yellowish-green, R. S.; fr. O.
- SCILLA*, L. (*Spreng. syst. 2, p. 6*, No. 1217; — *Endl. gen. pl. 1, p. 146.*)
Squill.
1. *peruviana*, L. (*Spreng. syst. 2, p. 68*; — *Schult. syst. 7, p. 558*; — *Red. lit. t.* 167; — *B. M.* 20, *t.* 749; — *Roxb. H. B.* *p.* 24. — *Ornithogalum speciosum*, *Rafin.*) 2. Algiers. Tunis. Sicily. Italy. Portugal, but not Peru. Fl. 4-5 lines, bluish-violet. Introduced into H. C. G. in 1804, but had not fl. in 1814.
2. *autumnalis*, L. (*Spreng. o. c. p. 67*; — *Schult. o. c. p. 568*; — *E. B. 2, t. 78*; — *Red. lit. t.* 317; — *B. M.* 23, *t.* 919. — *Anthericum autumnale*, *Scop.* — *Ornithogalum autumnale*, *Lam.*) 2. W. and S. Europe. N. Africa. S. Tauria. Fl. 3 lines, rose-coloured. Introduced in 1821. Fl.?
3. *bifolia*, L. (*Spreng. l. c.*, excl. syn.; — *Schult. o. c. p. 569*; — *E. B. 1, t. 24*; — *Jacq. austr. t. 117*; — *B. M.* 20, *t.* 746; — *B. Cab.* *t.* 283; — *Red. lit. t.* 254. — *Stellaris bifolia*, *Mönch.* — *Anthericum bifolium*, *Scop.* — *Ornithogalum bifolium*, *Neck.*) 2. Middle and S. Europe. Fl. 4-8 lines, blue. Introduced in 1821. Fl.?
4. *amena*, L. (*Spreng. l. c.*; — *Schult. o. c. p. 571*; — *Jacq. austr. t. 218*; — *B. M.* 10, *t.* 341; — *Red. lit. t.* 298.) 2. S. and M. Europe. Fl. 10-12 lines in diameter, bright azure. Introduced in 1821. Fl.?
5. *corymbosa*, Ker. (*Spreng. o. c. p. 66*; — *Schult. o. c. p. 574*. — *Hyacinthus corymbosus*, L.; — *B. Repos.* *t.* 345. — *Massonia corymbosa*, *B. M.* 25, *t.* 991.) 2. C. G. H. Fl. 4-5 lines, purple, with a red keel. Introduced in March, 1841. Has not fl. yet.
6. *indica*, Roxb. (*fl. ind. 2, p. 147*; — *J. Grah. Cat. B. pl. p. 220.*) 2. Common on the sandy shores of both Concans. Introduced into H. C. G. in 1800; where it fl. and fr. March and April. Here it has not fl. for the last 12 years. The taste of the root is fully as nauseous and bitter as that of the true Squill, (*Urginea maritima*, *Steinh.*) and it may be possessed of the same qualities. (*Roxb.*)
7. *coromandeliana*, Roxb. (*fl. ind. 2, p. 147.*) 2. Sand-hills on the Coromandel Coast. Introduced in 1802, into H. C. G. where it fl. and fr. April and May. Here it has not fl. for the last 12 years.

URGINEA, Steinhell. (*Endl. gen. pl. 1, p. 146.*)

1. *maritima*, Steinh. (*Ann. sc. nat.* 1834, *1, p. 321*. — *Scilla maritima*, L.; — *Spreng. syst. 2, p. 68*; — *Schult. syst. 7, p. 556*; — *Red. lit. t. 116*. — *Ornithogalum maritimum*, *Tournef.* — *O. Squilla*, *a. B. M.* 23, *t.* 918.) 2. Shores of the Mediterranean. Fl. 6-8 lines in diameter, white, tinged with green. Has been cultivated for many years in the Serampore garden, without fl.



ORNITHOGALUM, L. (*Spreng. syst. 2, p. 5, No. 1185*;—*Endl. gen. pl. 1, p. 146.*)

1. *aureum*, Curt. (*B. M. 6, t. 190*;—*Spreng. syst. 2, p. 33*;—*Schult. syst. 7, p. 508*;—*B. Cab. t. 1183*) 2. C. G. H. Introduced in 1824. Fl. ?
2. *thyrsoides*, Jacq. (*Spreng. l. c.*;—*Schult. o. c. p. 509.*) 2. C. G. H.
album, (*B. Reg. 4, t. 316*;—*Jacq. vind. 3, p. 17, t. 28*;—*B. M. 29, t. 1164*;—*Red. lit. t. 338*;—*Roxb. H. B. p. 24*;—*J. Grah. Cat. B. pl. p. 220*.—*O. arabicum*, L., as to description, but excl. syn.)
β. flavescens, (*B. Reg. 4, t. 305*;—*Jacq. ic. rar. 2, t. 437*;—*Roxb. H. B. p. 24.*) Both varieties introduced into H. C. G. in 1799, but had not fl. in 1814.
3. *arabicum*, L. (*Spreng. l. c.*;—*Schult. o. c. p. 511*;—*B. M. 19, t. 728.*) 2. S. Europe. N. Africa. Introduced in 1825. Fl. ?
4. *revolutum*, Jacq. (*hort. schönbr. 1, p. 46, t. 89*;—*Spreng. o. c. p. 31*;—*Schult. o. c. p. 513*;—*B. M. 18, t. 653*;—*B. Reg. 4, t. 315.*) 2. C. G. H. Introduced in 1831. Has not fl.
5. *taceum*, Jacq. (*ic. rar. 2, t. 344*;—*Spreng. o. c. p. 32*;—*Schult. l. c.*;—*B. M. 28, t. 1134*;—*Red. lit. t. 418.*) 2. Introduced in 1831. Has not fl.
6. *pyramidalis*, L. (*Spreng. l. c.*;—*Schult. o. c. p. 515*;—*Jacq. ic. rar. 2, t. 425*;—*Red. lit. t. 422*;—*J. Grah. Cat. B. pl. p. 220.*) 2. S. Europe. Introduced in 1832. Has not fl.
7. *latifolium*, L. (*Spreng. l. c.*;—*Schult. o. c. p. 514*;—*Jacq. ic. rar. 2, t. 424*;—*B. M. 22, t. 876.*) 2. Arabia. Egypt. Introduced in 1832. Has not fl.
8. *pyrenaicum*, L. (*Spreng. l. c.*;—*Schult. o. c. p. 517*;—*E. B. 7, t. 499*;—*Jacq. austr. t. 103.*) 2. Europe. Fl. 6 lines, whitish-green, R. S.; fr. O.
9. *caudatum*, Ait. (*Spreng. l. c.*;—*Schult. o. c. p. 520*;—*Jacq. ic. rar. 2, t. 423*;—*B. M. 21, t. 805*;—*Roxb. H. B. p. 24.*) 2. C. G. H. Fl. 4-5 lines, green, white-edged, sweet-scented, C. S.; fr. O.
10. *longibracteatum*, Jacq. (*hort. vind. t. 29*;—*Spreng. l. c.*;—*Schult. o. c. p. 521*;—*J. Grah. Cat. B. pl. p. 220.*) 2. C. G. H. Introduced in 1830. Has not fl.
11. *barbatum*, Jacq. (*hort. schönbr. 1, p. 47, t. 91*;—*Spreng. o. c. p. 31*;—*Schult. o. c. p. 524.*) 2. C. G. H. Introduced in 1830. Has not fl.
12. *juncifolium*, Jacq. (*hort. schönbr. 1, p. 46, t. 90*;—*Spreng. o. c. p. 32*;—*Schult. l. c.*) 2. C. G. H. Introduced in 1830. Has not fl.
13. *umbellatum*, L. (*Spreng. o. c. p. 30, excl. syn.*;—*Schult. o. c. p. 532*;—*E. B. 2, t. 130*;—*Red. lit. t. 143*;—*Jacq. austr. t. 343*;—*Roxb. H. B. p. 24*, excl. "India.") 2. Europe, N. Africa and America. Fl. 6-10 lines, on the back green, white-edged, inside white, R. S.; fr. O.

ALBUCA, L. (*Spreng. syst. 2, p. 4, No. 1182*;—*Endl. gen. pl. 1, p. 146.*)

1. *altissima*, Dryand. (*Spreng. syst. 2, p. 27*;—*Schult. syst. 7, p. 494.*) 2. C. G. H. Introduced in 1830. Has not fl.



2. *major*, Dryand. (*Spreng. l. c.*;—*Schult. o. c. p. 495*;—*Red. lit. t. 69*;—*B. M. 21, t. t. 804*;—*B. Cab. t. 1191*;—*Roxb. H. B. p. 24*.) 2. C. G. H. Fl. 2 inches in diameter, yellowish-green, C. S.; fr. 0.
3. *minor*, L. (*Spreng. l. c.*;—*Schult. l. c.*;—*Red. lit. t. 21*;—*B. M. 19, t. 720*;—*Roxb. H. B. p. 24*) 2. C. G. H. Fl. $1\frac{1}{2}$ inch in diameter, greenish-yellow, R. S.; fr. 0.
4. *flaccida*, Jacq. (*ic. rar. t. 2, 444*;—*Spreng. l. c.*;—*Schult. o. c. p. 496*.) 2. C. G. H. Introduced in 1830. Has not fl.
5. *caudata*, Jacq. (*ic. rar. 2, t. 442*;—*Spreng. o. c. p. 28*;—*Schult. o. c. p. 497*.) 2. C. G. H. Introduced in 1830. Has not fl.
6. *coarctata*, Dryand. (*Spreng. o. c. p. 27*;—*Schult. l. c.*) 2. C. G. H. Introduced in 1830. Has not fl.
7. *fastigiata*, Dryand. (*Spreng. o. c. p. 28*;—*Schult. o. c. p. 498*;—*B. Repos. t. 450*;—*Red. lit. t. 474*;—*B. Reg. 4, t. 277*.) 2. C. G. H. Introduced in 1830. Has not fl.
8. *selosa*, Jacq. (*ic. rar. 2, t. 440*;—*Spreng. l. c.*;—*Schult. l. c.*;—*B. M. 36, t. 1481*.) Introduced in 1830. Has not fl.
9. *aurea*, Jacq. (*ic. rar. 2, t. 441*;—*Spreng. o. c.*;—*Schult. l. c. p. 499*.) 2. C. G. H. Introduced in 1832. Has not fl.
10. *vittata*, Ker. (*Spreng. o. c.*;—*Schult. o. c. p. 500*;—*B. M. 33, t. 1829*.) 2. C. G. H. Introduced in 1832. Has not fl.
11. *fragrans*, Jacq. (*hort. schönbr. 1, p. 44, t. 84*;—*Spreng. l. c.*;—*Schult. o. c. p. 501*.) Introduced in 1832. Has not fl.

MYOGALUM, Lk. (*Handb. 1, p. 164*;—*Endl. gen. pl. 1, p. 146*.)

1. *nutans*, Lk. (*l. c.*—*Ornithogalum nutans*, L.;—*Spreng. syst. 2, p. 32*;—*Schult. syst. 7, p. 506*; *S. p. 1697*;—*E. B. 28, t. 1997*;—*Jacq. austr. t. 301*;—*B. M. 8, t. 269*;—*Red. lit. t. 253*.—*Albuca nutans*, *Reichb. fl. germ. exc. p. 110*.) 2. Europe. Asia Minor. Fl. large, greenish-white, C. S.; fr. 0.

ALLIUM, L. (*Spreng. syst. 2, p. 5, No. 1186*;—*Endl. gen. pl. p. 1, 146*.)

1. *sativa*, L. (*Spreng. syst. 1, p. 33*;—*Schult. syst. 8, p. 1000*;—*Lour. cochinch. p. 201*;—*Roxb. fl. ind. 2, p. 142*;—*J. Grah. Cat. B. pl. p. 220*.—*Porrum sativum*, *Reichb. fl. germ. exc. p. 110*.) 2. Sicily. Cultivated in gardens. Fl. small, white H. S.
2. *controversum*, Schrad. (*Schult. o. c. p. 1001*.—*A. Ophioscorodon*, Lk.;—*Spreng. l. c.*) 2. Egypt. France. Fl. small, purplish, C. S.
3. *Scorodoprasum*, L. (*Spreng. l. c.*;—*Schult. o. c. p. 1002*;—*Fl. Dan. t. 1455*.) *Rocambole*. 2. N. and M. Europe. Introduced in March, 1841. Has not fl.
4. *vineale*, L. (*Spreng. o. c. p. 33*;—*Schult. o. c. p. 1005*;—*E. B. 28, t. 1974*.) 2. Europe. Fl. small, pale-rose-coloured, with green keels, C. S.; fr. 0.
5. *proliferum*, Roxb. (*H. B. p. 24*;—*Schrad. ?*) 2. China. Introduced into H. C. G. in 1796; and there fl. C. S. (*Roxb.*)



SL

LILIACEÆ.

6. *Porrum*, L. (*Spreng. syst.*, 2, p. 34;—*Schult. o. c. p.* 1008;—*Roxb. fl. ind.* 2, p. 141;—*J. Grah. Cat. B. pl. p.* 221.—*Porrum commune*, *Reichb. fl. germ. exc. p.* 111;—*Plenck. ic. 253*;—*Blackw. ic. t. 421*) **पिरे पुरो**. *Common Leek*. 2. ♂ Native country unknown. Cultivated in gardens. Fl. small, greenish-white, or somewhat purplish, C. S.
7. *Ampeloprasum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1010;—*E. B.* 24, t. 1657;—*Red. lit. t.* 385;—*B. M.* 34, t. 1385, excl. β—*A. Ampeloprasum*, *a. B. M.* 38, t. 1560.) 2. Europe. Fl. smallish, pale purple, C. S., but rare; fr. O.
8. *ascalonicum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1023;—*Plenck. ic. t.* 258;—*Roxb. fl. ind.* 2, p. 142;—*J. Grah. Cat. B. pl. p.* 220.—*Porrum ascalonicum*, *Reichb.*) **गुन्धा** *Gundhusa. Schallot*. 2. Syria. Asia Minor. Palestine. Cultivated in gardens. Fl. small, white, with a green keel, C. S.; fr. O.
- β. *chinense*. (*A. ascalonicum*, *Lour. cochinch.* p. 202, not L.) 2. China. Bulbs small, whitish, the size of a nut. Fl. C. S.
9. *Cepa*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1024;—*Lam. ill. t.* 242, f. 2;—*Sm. fl. gr. t.* 326;—*Lour.*;—*Roxb. fl. ind.* 2, p. 142;—*J. Grah. Cat. B. pl. p.* 220.—*Porrum Cepa*, *Reichb.*) **पेयज** *Peyaj. Common Onion*. ♂ Native country unknown. Commonly cultivated. Fl. small, white, or greenish-purplish-white with a green keel, C. S.; fr. O.
10. *Schoenoprasum*, L. (*Spreng. o. c. p.* 39.—*Schult. o. c. p.* 1025;—*E. B.* 34, t. 2441.) *Chives*. 2. Europe, from Lapland to Italy. Fl. smallish, purplish-rose-coloured, C. S., but very rare.
11. *fistulosum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1029;—*B. M.* 30, t. 1230.) 2. Siberia. Altai Alps. Introduced in 1822. Has not fl.
12. *oleraceum*, L. (*Spreng. o. c. p.* 35, excl. syn;—*Schult. o. c. p.* 1037;—*E. B.* 7, t. 488.) 2. Europe. Introduced in 1822. Has not fl.
13. *carinatum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1038;—*E. B.* 24, t. 1658.—*A. foetidum*, *Lk.*—*Codonoprasum carinatum*, *Reichb.*) 2. Europe. Introduced in 1822. Has not fl.
14. *caucasicum*, Bieb. (*Spreng. o. c. p.* 1053.—*A. paniculatum*, *B. M.* 25, t. 973, excl. syn.) 2. Caucasus. Introduced in 1822. Has not fl.
15. *nutans*, L. (*Spreng. o. c. p.* 34.—*Schult. o. c. p.* 1065;—*B. M.* 28, t. 1143.) 2. Siberia. Introduced in 1822. Has not fl.
16. *glaucum*, Schrad. (*Schult. o. c. p.* 1066.—*A. senescens*, *B. M.* 29, t. 1150, not L. and excl. most of the syn.) 2. Siberia. Introduced in 1822. Has not fl.
17. *stellatum*, Ker. (*B. M.* 38, t. 1576, excl. β;—*Spreng. o. c. p.* 38.—*Schult. o. c. p.* 1088.) 2. N. America. Introduced in 1822. Has not fl.
18. *triquetrum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1111.—*B. M.* 22, t. 869.—*Red. lit. t.* 319.) 2. S. Europe. N. Africa. Fl. middle-sized, white with green keels, C. S.; but rare.



19. *Moly*, L. (*Spreng.* o. c. p. 36;—*Schult.* o. c. p. 1119;—*B. M.* 14, t. 499.) 2. S. Europe. Introduced in 1825. Has not fl.
20. *victorialis*, L. (*Spreng.* l. c.;—*Schult.* o. c. p. 1122.—*Red. lil.* t. 265;—*B. M.* 30, t. 1222.) 2. Alps of M. and S. Europe. Introduced in 1825. Has not fl.
21. *fragrans*, Vent. (*Spreng.* o. c. p. 37;—*Schult.* o. c. p. 1125;—*Red. lil.* t. 68.—*A. inodorum*, Ait.; *B. M.* 28, t. 1129, excl. syn. Michx.) 2. Virginia, Carolina, Mexico.
γ. *nepalense*, (A. *fragrans*, β. *nepalense*, *B. Reg.* 11, t. 898.) 2. Nepal. Introduced in 1840. Has not fl.
22. *striatum*, Jacq. (*ic. rar.* 2, t. 366;—*Spreng.* o. c. p. 39;—*Schult.* o. c. p. 1128;—*B. M.* 26, t. 1035, and 37, t. 1524.) 2. Canada, Carolina, Virginia, not H. C. G. Fl. 5-6 lines, white, with green keels, C. S.; fr. 0.
23. *tuberosum*, Roxb. (*H. B.* p. 24; *fl. ind.* 2, p. 141, not Rottl.) 2. Cultivated about Calcutta. In H. C. G. fl. R. S. The natives use it as an article of diet, as leeks are used in Europe. (*Roxb.*) This species, in Roxb. fl. ind. l. c. called बंग गङ्घुडीना *Bunga-ghundeeana*, is unknown to us, as well as to our oldest native gardeners, who have hitherto been unsuccessful in their endeavours to procure it from the neighbourhood, or H. C. G. It is enumerated in Wall. Cat., as “Roxb. Hb. Madr. Cultivated in the Mission garden, Tranquebar,” while Royle simply mentions it as Roxburgh’s plant. *A. tuberosum*, Rottl. (*Spreng. syst.* 2, p. 38;—*Schult.* 8, p. 1119.) differs from Roxburgh’s described in. fl. ind. l. c. by its terete scapes, two-valved spathes, obtuse sepals, and its stamens equalling the perianth.

* *Muscari maritimum*, Desf. 2. Carthage, Sicily.—*Hyacinthus spicatus*, Sm.; *B. Reg.* 22, t. 1869. 2. Zante.—*Daubenya aurea*, Lindl.; *B. Reg.* 21, t. 1813. C. G. H.—*D. fulva*, Lindl.; *B. Reg.* 21, 1839, t. 53. 2. E. Coast of Africa, or Madagascar.—*Scilla lusitanica*, L.; *B. M.* 45, t. 1999. 2. Portugal, Spain.—*S. parviflora*, Desf. 2. Algiers.—*Ornithogalum chloroleucum*, Lindl.; *B. Reg.* 22, t. 1853. 2. Valparaíso.—*Allium monspesianum*, Willd. 2. Montpellier.—*A. multiflorum*, Desf. 2. Algiers.—*A. polianthum*, Lam. 2. Nizza.—*A. segetum*, Jan. 2. Sicily.—*A. junceum*, Sm. 2. Cyprus.—*A. palustre*, Pourr. 2. Spain.—*A. pusillum*, Cyrill. 2. Sicily.—*A. oxypetalum*, Don. 2. S. Europe.—*A. asperum*, Don. 2. S. Europe.—*A. paniculatum*, L. 2. Italy.—*A. pallens*, 2. L. Smyrna.—*A. tenuiflorum*, Ten. 2. Italy.—*A. pulchellum*, Lam. 2. Italy.—*A. flavum*, L. 2. Italy.—*A. moschatum*, L. 2. Italy.—*A. lusitanicum*, Lam. 2. Portugal.—*A. suaveolens*, Jacq. 2. Italy.—*A. roseum*, L. 2. S. France.—*A. glandulosum*, Lk. and Otto. 2. Mexico.—*A. Chamomoly*, L.; *B. M.* 30, t. 1203. 2. S. Europe, N. Africa.



SL

b. Anthericinae, (Anthericæ, Endl. gen. pl. 1, p. 147.)

- ASPHODELUS*, L. (*Spreng. syst. 2*, p. 7, No. 1236;—*Endl. t. c.*) *Asphodel*,
1. *creticus*, Lam. (*Spreng. syst. 2*, p. 83, excl. syn.;—*Schult. syst. 7*, p.
485;—*Desf. ann. mus. 10*, p. 220, t. 11.) 2. *Candia*. Calabria. Introduced
in 1827. Has not fl.
2. *albus*, Willd. (*Spreng. o. c. p. 82*;—*Schult. o. c. p. 486*.—*A. ramosus*,
B. Red. lit. t. 314;—*Reichb. fl. germ. exc. 1*, p. 117, not L.) 2. Upper
Italy. Introduced in 1827. Fl. ?
3. *ramosus*, L. partly. (*Spreng. o. c. p. 83*;—*Schult. o. c. p. 487*;—
Sibth. fl. gr. t. 334;—*B. M. 21*, t. 799;—*Red. lit. A. t. 178.*) 2.
Mediterranean shores. Fl. large, white, with purple keels, Feb.; fr.
March.
4. *fistulosus*, L. (*Spreng. o. c. p. 82*;—*Schult. o. c. p. 490*;—*Red. lit.*
t. 178;—*Cav. ic. 3*, t. 102;—*Gärtn. fr. 1*, p. 68, t. 17, f. 6;—*B. M.*
25, t. 984.—*B. Cab. t. 1124.*) 2. S. Europe. Mauritius. Fl. 9 lines
in diameter, whitish, with a purplish longitudinal line, beforeexpansion
rosy-white, C. S.
5. *clavatus*, Roxb. (*fl. ind. 2*, p. 148;—*J. Grah. Cat. B. pl. p. 219*;—
Schult. o. c. p. 491.) 2. Peninsula of India. Interior of Bengal. Doab.
Kamaon. Fl. small, white, with brown keels, C. S.; fr. H. S.

ASPHODELINE, Reichb. (*fl. germ. exc. p. 116*;—*Endl. gen. pl. 1*, p. 147.)

1. *lutea*, Reichb. (*t. c.*—*Asphodelus lutens*, L.;—*Spreng. syst. 2*, p.
83;—*Schult. syst. 7*, p. 483;—*Jacq. vind. t. 77*;—*B. M. 20*, t. 773.
—*Red. lit. t. 223.*) 2. Sicily. Dalmatia. Morea. Tauria. N. Africa.
Fl. 1½-2 inches in diameter, yellow, with green keels, sweet-scented,
Feb., but rare; fr. O.
2. *tenuior*, Endl. (*Asphodelus tenuior*, Bieb.;—*B. M. 53*, t. 2626.) 2.
N. Caucasus. Introduced in 1825. Has not fl.

HEMEROCALLIS, L. (*Spreng. syst. 2*, p. 6, No. 1214;—*Endl. gen. pl. 1*,
p. 147.) *Day Lily*.

1. *flava*, L. (*Spreng. syst. 2*, p. 65;—*Schult. syst. 7*, p. 422;—*Jacq.*
vind. t. 139;—*B. M. 1*, t. 19;—*Red. lit. t. 15*, excl. β.) 2. Siberia.
Hungary. Austria. Fl. 2-3½ inches, yellow. Introduced in 1823. Has
not fl.
2. *graminea*, Andr. (*B. Repos. t. 244*;—*Schult. o. c. p. 423*.—*B. M. 22*,
t. 873.) 2. Siberia. Introduced in 1822. Has not fl.
3. *disticha*, D. Don. (*pr. fl. nep. p. 53*;—*Spreng. c. p. p. 135*;—*Schult.*
t. c.—*H. fulva*, Thunb. *jap. p. 142*, not L.) 2. Japan. Gossain Than.
Introduced in 1822. Has not fl.
4. *fulva*, L. (*Spreng. syst. 2*, p. 65;—*Schult. o. c. p. 424*;—*B. M. 2*, t.
64;—*Red. lit. t. 16*;—*Roxb. fl. ind. 2*, p. 168;—*J. Grah. Cat. B. pl.*
p. 217.) Hind: *Gool-nurgis*. 2. China. Fl. 4 inches, orange, with
deeper coloured veins, and a yellowish-greenish tube, April, May and
June; fr. O.



CYANELLA, L. (*Spreng. syst.* 2, p. 7, No. 1231;—*Endl. gen. pl.* 1, p. 148.)

1. *capensis*, L. (*Spreng. syst.* 2, p. 78;—*Schult. syst.* 7, p. 492;—*Jacq. vind.* 3, t. 35;—*B. Repos.* t. 141;—*B. M.* 16, t. 568;—*Red. lit. t.* 373.) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.

2. *lutea*, Thunb. (*Spreng. l. c.*;—*Schult. o. c.* p. 493;—*B. M.* 31, t. 1252.) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.

ANTHERICUM, L. (*Spreng. syst.* 2, p. 7, No. 1238;—*Endl. gen. pl.* 1, p. 148.)

1. *canaliculatum*, Ait. (*Schult. syst.* 7, p. 460;—*B. M.* 28, t. 1124.—*Phalangium canaliculatum*, *Poir.*—*Bulbine canaliculata*, *Spreng. syst.* 2, p. 86.) 2. C. G. H. Introduced in 1825. Has not fl.

β. *rufum*, (*B. Reg.* 11, t. 877.) 2. C. G. H. Introduced with
a. Has not fl.

2. *revolutum*, L. (*Spreng. syst.* 2, p. 84;—*Schult. o. c.* p. 462;—*B. M.* 26, t. 1044, excl. syn. *A. flexifolium*.—*Phalangium revolutum*, *Pers.*) 2. Introduced in 1825. Has not fl.

3. *graminifolium*, Willd. (*Spreng. l. c.*;—*Schult. o. c.* p. 463.—*A. undulatum*, *Jacq. ic. rar.* 2, t. 411.—*Phalangium undulatum*, *Poir.*) 2. C. G. H. Introduced in 1825. Has not fl.

4. *vespertinum*, Jacq. (*hört. schönbr.* 1, p. 44, t. 85;—*Spreng. o. c.* p. 85;—*B. M.* 26, t. 1040.—*Phalangium vespertinum*, *Poir.*) 2. C. G. H. Introduced in March, 1841. Has not fl. yet.

5. *triflorum*, Ait. (*Spreng. o. c.* p. 84;—*Schult. o. c.* p. 466.—*A. bipedunculatum*, *Jacq. coll. suppl.* 88, *ic.* 2, t. 410.—*Phalangium pedunculatum*, *Poir.*—*P. triflorum*, *Pers.* β.) 2. C. G. H. Introduced in 1825. Has not fl.

6. *Liliago*, L. (*Spreng. l. c.*;—*Schult. o. c.* p. 467;—*Jacq. vind.* 1, t. 83.—*Ornithogalum gramineum*, *Lam.*—*Phalangium Liliago*, *Schreb.*—*Red. lit. t.* 269.—*P. Liliago*. β. *minus*, *B. M.* 23, t. 914.) 2. From Norway, through the whole of Europe, to N. Africa. Fl. 6-9 lines, white, R. S.; C. S.

β. *majus*. (*Phalangium Liliago*. α. *majus*, *B. M.* 39, t. 1635.) 2. Europe. Fl. more than 1 inch in diameter, white, the segments towards the apex externally greenish, R. S; fr. C. S.

7. *ramosum*, L. (*Spreng. l. c.*;—*Schult. l. c.*;—*Jacq. austr.* t. 161.—*Phalangium ramosum*, *Lam.*;—*Red. lit. t.* 287;—*B. M.* 26, t. 1055.) 2. Temperate Europe, except England. Tauria. Fl. 3-6 lines, snow-white, R. S. but rare; fr. O.

? 8. *nepalense*, Spreng. (*c. p.* p. 135;—*Schult. o. c.* p. 468.—*Phalangium nepalense*, *Lindl. trans. hort. soc.* 6, p. 227;—*B. Reg.* 12, t. 998.) 2. Gossain Than. Introduced in 1825. Fl. ?

9. *tuberosum*, Roxb. (*Corom.* 2, t. 188; *fl. ind.* 2, p. 149;—*Spreng. syst.* 2, p. 85;—*Schult. o. c.* p. 469;—*J. Grah. Cat. B. pl.* p. 219.—*Phalangium alatum*, *Buch.*) 2. Palaveram. Vandalore. Both Concans.



- Morung Mountains, Assam. Fl. pure white, about the size and appearance of the snow-drop, R. S; fr. C. S. Tubers edible. (*J. Grah.*)
10. *Nimmonii*, J. Grah. Bombay. S. Concan.
11. *glaucum*, Ruiz. and Pav. (*Spreng. l. c.*;—*Schult. l. c.*;—*B. M.* 64, t. 3610;—*B. Cab.* t. 1580.—*Phalangium glaucum*, *Poir.*) ♀. Peruvian Andes. Introduced in 1827. Has not fl.
12. *fragrans*, Jacq. (*hort. schönbr.* 1, p. 45, t. 86;—*Spreng. o. c. p.* 83;—*Schult. o. c. p.* 470.—*Phalangium fragrans*, *Poir.*—*Albuca fugax*, *Ker.*; *B. Reg.* 4, t. 311.) ♀. C. G. H. Introduced in 1825. Has not fl.
13. *exuviatum*, Jacq. (*ic. rar.* 2, t. 415;—*Spreng. o. c.*;—*Schult. o. c. p.* 471.—*Phalangium exuviatum*, *Poir.*—*Albuca exuvia*, *B. M.* 22, t. 871.) ♀. C. G. H. Introduced in 1825. Has not fl.
14. *filiolium*, Jacq. (*ic. rar.* 2, t. 414;—*Spreng. o. c.*;—*Schult. o. c.*—*Phalangium filiolium*, *Poir.*—*Albuca filifolia*, *Ker.*; *B. Reg.* 7, t. 557.) ♀. C. G. H. Introduced in March 1841. Has not fl. yet.
15. *physodes*, Jacq. (*ic. rar.* 2, t. 418.—*Phalangium marginatum*, *Poir.* excl. *Anth. marginatum*, *Thunb.*—*Albuca physodes*, *Ker.*; *B. M.* 26, t. 1046.—*Cæsia physodes*, *Spreng. syst.* 2, p. 88. excl. syn.) ♀. C. G. H. Introduced in 1825. Has not fl.
- CZACKIA**, Andr. (*Spreng. syst.* 2, p. 8, No. 1246.—*Endl. gen. pl.* p. 148, under *Anthericum*.)
1. *Liliastrum*, Andr. (*Spreng. syst.* 2, p. 90;—*Schult. syst.* 7, p. 424.—*Hemerocallis Liliastrum*, *L. syst.* 2, p. 142.—*Anthericum Liliastrum*, *L. sp.* p. 445;—*B. M.* 9, t. 318.—*Phalangium Liliastrum*, *Pers.*;—*Red. lit.* t. 255.—*Ornithogalum liliiforme*, *Lam.*) ♀. Alps of Europe. Poland. Introduced in 1825. Has not fl.
- BULBINE**, Willd. (*Spreng. syst.* 2, p. 7, No. 1239;—*Endl. gen. pl.* 1, p. 148, under *Anthericum*)
1. *frutescens*, Willd. (*Spreng. syst.* 2, p. 85;—*Schult. syst.* 7, p. 442.—*B. caulescens*, *L. hort. cliff.*—*Anthericum frutescens*, *L.*;—*Red. lit.* t. 283;—*DC. pl. gr.* t. 14;—*B. M.* 21, t. 816.) ♀. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
2. *rostrata*, Willd. (*Spreng. l. c.*;—*Schult. l. c.*—*Anthericum rostratum*, *Jacq. ic. rar.* 2, t. 403.) ♀. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
3. *longiscapa*, Willd. (*Spreng. l. c.* excl. syn.;—*Schult. o. c. p.* 443.—*Anthericum longiscapum*, *Willd. sp.*;—*Jacq. ic. rar.* 2, t. 404;—*Red. lit.* t. 423;—*B. M.* 33, t. 1339.) ♀. C. G. H. Fl. middle-sized, yellow, C. S., but very rare; fr. 0.
4. *pugioniformis*, Lk. (*Spreng. l. c.*;—*Schult. o. c. p.* 444.—*Anthericum pugioniforme*, *Jacq. ic. rar.* 2, t. 405;—*B. Repos.* t. 386;—*B. M.* 35, t. 1454.) ♀. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
5. *annua*, Willd. (*Spreng. l. c.*;—*Schult. o. c. p.* 445.—*Anthericum annuum*, *L.*;—*DC. pl. gr.* t. 8;—*B. M.* 35, t. 1451.) ♂. C. G. H. Fl. 4-5 lines in diameter, yellow, Feb.; fr. March.



8. *præmorsa*, Spreng. (*I. c.* p. 86;—*Schult. o. c.* p. 446.—*Anthericum præmorsum*, Jacq. *ic. rar.* 2, *t.* 406.) 2. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
7. *latifolia*, Spreng. (*I. c.*;—*Schult. o. c.* p. 447.—*Anthericum latifolium*, L. *fil.*;—*Jacq. ic. rar.* 2, *t.* 408.) 2. C. G. H. Introduced in 1824. Fl. ?
8. *nutans*, Spreng. (*I. c.*;—*Schult. l. c.*—*Anthericum nutans*, Jacq. *ic. rar.* 2, *t.* 407.) 2. C. G. H. Introduced in 1824. Fl. ?
9. *alooides*, Willd. (*Spreng. l. c.*;—*Schult. o. c.* p. 448.—*B. acaulis*, L. *hort. cliff.*—*Anthericum alooides*, L. *sp.*; *Lam. ill. t.* 240, *f.* 2;—*DC. pl. gr. t.* 26;—*Red. lil. 5, t.* 283,—*B. M.* 32, *t.* 1317.—*B. Cab. t.* 996.) 2. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
10. *ciliata*, Lk. (*Spreng. l. c.*;—*Schult. o. c.* p. 450.—*Anthericum ciliatum*, L. *fil.* not Jacq.) 2. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
11. *triquetra*, Spreng. (*I. c.*;—*Schult. o. c.* p. 451.—*Anthericum triquetrum*, L. *fil.*) 2. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
- CHLOROPHYTUM**, Ker. (*Spreng. syst. 2, p. 7, No. 1241*;—*Endl. gen. pl. 1, p. 148.*)
1. *laxum*, R. Br. (*pr. p.* 277.—*Spreng. o. c.* p. 88;—*Schult. syst. 7, p. 452.*) 2. Tropical New Holland. Fl. smallish, green, R. S.; fr. C. S.
2. *inornatum*, Ker. (*B. M.* 27, *t.* 1071;—*Spreng. l. c.*;—*Schult. o. c.* p. 453.) 2. Sierra Leona. Introduced in 1827. Fl. ?
3. *Orchidastrum*, Lindl. (*B. Reg. 10, t.* 813;—*Spreng. l. c.*;—*Schult. l. c.*) 2. Sierra Leona. Introduced in 1827. Fl. ?
4. *elatum*, R. Br. (*pr. p.* 277, annot.;—*Spreng. l. c.*;—*Schult. o. c.* p. 454.—*Anthericum elatum*, Ait.—*Phalangium elatum*, Pair;—*Red. lil. t.* 191.—*Asphodelus capensis*, L.) 2. C. G. H. Introduced in 1822. Fl. ?

* *Asphodelus prolifer* Bieb. ♂ Armenia.—*A. aestivus*, Brot. 2. Portugal.—*Anthericum ramosissimum*, Schult. 2. Mexico.—*A. græcum*, L. 2. Candia. Morea.—*A. Nimmonii*, J. Grah. 2. S. Concan.—*Trichopetalum stellatum*, Lindl. (*Anthericum plumosum*, B. M. 58, *t.* 3084.) 2. Chili.—*T. gracile*, Lindl.; *B. Reg. 18, t.* 1535. 2. Chili.—*Thysanotus Banksii*, R. Br. 2. Tropical N. Holland.—*T. paniculatus*, R. Br. 2. Tropical. N. Holland.—*Cesia lateriflora*, R. Br. 2. Tropical N. Holland.—*Chloopsis acaulis*, Bl. ♂ Java.—*Trivoryne seabra*, R. Br. 2. Tropical N. Holland.—*T. anceps*, R. Br. 2. Tropical N. Holland.—*Echeandia terniflora*, Oct. 2. Mexico.—*Tulbaghia aliacea*, L.; *B. M.* 21, *t.* 806. 2. C. G. H.

c. *Asparagineæ*. (Asparagaceæ, Endl. gen. pl. 1, p. 150.)

DIANELLA, Lam. (*Spreng. syst. 2, p. 8, No. 1252*;—*Endl. l. c.*)

1. *ensifolia*, Red. (*ill. 1, t. 1*;—*Hort. Kew. ed. 2, part. 2, p.* 276, excl. syn. Mill.;—*B. M.* 34, *t.* 1404;—*Schult. syst. 7, p.* 349.—*D. nemorosa*, L.)



rosa, *Jacq. hort. schönbr.* 1, p. 49, t. 94;—*Roxb. fl. ind.* 2, p. 164, excl. syn. Rumph. and Lam.—*Dracaena ensifolia*, *Ait.*, not Haw.;—*Gärtn. fr.* 1, p. 57, t. 16, f. 4, excl. syn. Rumph. and L.? 2. Mascarenhas Islands. China. Nepal. Sumatra. Fl. 2½ lines long, greenish white, and fr. nearly throughout the year.

EUSTREPHUS, R. Br. (*pr. p.* 281;—*Spreng. syst.* 2, p. 8, No. 1256;—*Endl. gen. pl.* 1, p. 150.)

1. *latifolius*, R. Br. (*l. c.*;—*Spreng. o. c. p.* 94;—*Schult. syst.* 7, p. 316;—*B. M.* 31, t. 1245.—Luzuriaga latifolia, *Poir.*) 5 Port Jackson and tropical N. Holland. Fl. 6 lines long, lilac, C. S.; fr. O.

ASPARAGUS, L. (*Spreng. syst.* 2, p. 8, No. 1257;—*Endl. gen. pl.* 1, p. 151.)

1. *officinalis*, L. (*Spreng. o. c. p.* 96;—*Schult. syst.* 7, p. 317;—*E. B.* 5, t. 339;—*Roxb. fl. ind.* 2, p. 150;—*J. Grah. Cat. B. pl.* p. 221.) द्विलूपी *Hillooa*. Common Asparagus. 2. Europe. Cultivated. Fl. 2 lines, yellowish-green, March and April.

2. *Curillus*, Buch. (*Roxb. H. B. p.* 24;—*fl. ind.* 2, p. 152.—*A. filicinus*, *Buch.*;—*Spreng. c. p. p.* 136;—*Schult. 7, p.* 324.) 2. Suembu. Nepal. Shreenagur. Kamroop. Introduced into H. C. G. under the name of *A. Curillus*, in 1801. Fl. July; fr. January. (*Roxb.*)

3. *scandens*, Thunb. (*Schult. o. c. p.* 325;—*Red. lit. t.* 407.) 2. ↗ C. G. H. Introduced in 1821. Has not fl.

4. *racemosus*, Willd. (*Spreng. o. c. p.* 95;—*Schult. o. c. p.* 330;—*Roxb. fl. ind.* 2, p. 151.) सुत्तुली *Sutmoolee*. 5 ↗ Ceylon. Bengal. (Serampore,) &c. Fl. small, pure white, delightfully fragrant, C. S.; fr. Feb. and March.

5. *asiaticus*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 331.) 2. Asia. Introduced in 1822. Unknown to me.

6. *capensis*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 334;—*Jacq. schönbr.* 3, p. 8, t. 266.) 5 C. G. H. Introduced in 1828. Has not fl.

7. *lanceus*, Thunb. (*Schult. o. c. p.* 335.) 5 C. G. H. Introduced in 1828. Has not fl.

8. *aethiopicus*, L. (*Spreng. l. c.* excl. syn.;—*Schult. l. c.*) 2. C. G. H. Introduced in 1828. Has not fl.

9. *fulcatus*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 336.) 5 Ceylon. Introduced in 1825. Fl. ?

10. *acerosus*, Roxb. (*fl. ind.* 2, p. 150.) 2. Prome. Attran. Tavoy. Sakanaghur. Fl. small, pure white, delightfully fragrant, Sept. to Dec.; fr. Feb. and March.

11. *adscendens*, Roxb. (*fl. ind.* 2, p. 153.) 2. Rohilkund. Fl. small, pure white, Oct. and Nov.; fr. Feb. and March.

DRACENA, Vandell. (*Spreng. syst.* 2, p. 8, No. 1253;—*Endl. gen. pl.* 1, p. 151.) *Dragon Tree*.

1. *reflexa*, Lam. (*Spreng. o. c. p.* 92;—*Schult. syst.* 7, p. 340;—*Red. lit.* t. 92.) 2. St. Helena. Madagascar. Mauritius. Fl. 6 lines, yellowish green, sweet-scented, H. S.



2. *cernua*, Jacq. (*hort. schönb.* I, p. 59, t. 96;—*Spreng.* l. c.;—*Schult. o. c.* p. 341;—*Roxb. fl. ind.* 2, p. 158.—*D. reflexa*, B. *Red. lit. fol.* 92.) 5 Mauritius. Fl. 1 inch, yellowish-white, purplish-tinged, sweet-scented, H. S.
3. *terminalis*, Willd. (not Jacq.—*Bl. enum. pl. jav.* p. 10;—*Schult. o. c.* p. 343, excl. syn. *Spreng.*;—*Roxb. fl. ind.* 2, p. 156.—*Asparagus terminalis*, L.—*Terminalis alba*, *Rumph.* 4, t. 34, f. 1.) 5 Moluccas. China. Fl. 5 lines long, white, H. S.; fr. R. S.
4. *ferrea*, L. (*Spreng. o. c.* p. 90,—*Schult. o. c.* p. 344;—*B. M.* 46, t. 2053;—*Roxb. fl. ind.* 2, p. 158;—*J. Grah. Cat. B. pl.* p. 221;—*Jacq. ic. rar.* 2, t. 448;—*Red. lit.* 2, p. 90;—*Herb. gen. d. Fam.* t. 360;—*B. Cab.* t. 1224.—*Terminalis rubra*, *Rumph.* 4, p. 80, t. 34, f. 2.) 5 China. Moluccas. Penang. Fl. small, pale-purple, Dec. to March; fr. O.
5. *angustifolia*, Roxb. (*fl. ind.* 2, p. 155.—*Terminalis angustifolia*, *Rumph.* 4, t. 35.) 5 Amboyna. Fl. smallish, greenish-white, H. S.; fr. R. S.
6. *spicata*, Roxb. (*fl. ind.* 2, p. 157.) 5 Chittagong. Fl. small, pale greenish-yellow, H. S.; fr. R. S.
7. *maculata*, Roxb. (*fl. ind.* 2, p. 157.) 5 Sumatra. Fl. small, pale greenish-yellow, H. S.; fr. R. S.
8. *terniflora*, Roxb. (*fl. ind.* 2, p. 159.) 5 Silhet. Fl. small, pale, greenish-white, Jan. and Feb.; fr. Dec.
9. *atropurpurea*, Roxb. (*fl. ind.* 2, p. 160.) 5 Silhet. Fl. small, pale rose-coloured-white with deep-red, March and April; fr. Dec.
10. *esculenta*, Bojer. (*Wall. MSS.*) 5 Madagascar. Fl. small, white, C. S.; fr. O.
11. *ensiformis*, Wall. MSS. (*D. ensifolia*, *Wall. Cat.*, not Haw.) 5 Silhet. Introduced in 1840. Has not fl. yet.
12. *plicata*, Wall. MSS. 5 Native place? Introduced in 1840. Has not fl. yet.

* *Dianella odorata*, Bl.; *Rumph.* 5, p. 185, t. 73. 2. Indian gardens.—*D. coerulea*, Sims.; *B. M.* 15, t. 506. 2. Port Jackson.—*D. congesta*, R. Br. 2. Tropical N. Holland.—*D. longifolia*, R. Br.; *B. Reg.* 9, t. 734. 2. Port Jackson.—*D. laevis*, R. Br. 2. Tropical N. Holland.—*D. revoluta*, R. Br.; *B. Reg.* 13, t. 1120. 2. Tropical N. Holland, and Port Jackson.—*D. rara*, R. Br. 2. Tropical N. Holland.—*D. strumosa*, Ker.; *B. Reg.* 9, t. 751. 2. N. Holland.—*D. mauritiana*, Bl. 5 Mauritius. Cultivated in the Moluccas.—*Eustrephus angustifolius*, R. Br. 5. Tropical N. Holland.—*Geitonoplesium cymosum*, Cunningham.; *B. M.* 59, t. 3131. (Luzuriaga, (not Ruiz, and Pav.) *cymosa*, R. Br.) 5. Tropical N. Holland.—*Asparagus maritimus*, Pall. 2. Caspian Sea.—*A. tenuifolius*, Lam. 2. S. France. Italy.—*A. verticillatus*, Bieb. 2. Smyrna.—*A. umbellulatus*, Bresley. 2. Mauri-



676

LILIACEÆ—COMMELYNACÆ.

SL

tius.—*A. crispus*, Lam. 2. Mauritius.—*A. aphyllus*, L. 5 S. Europe. N. Africa.—*A. horridus*, L. 5 S. Europe.—*A. Broussoneti*, Spreng. 5 N. Africa.—*A. stipularis*, Forsk. 2. Alexandria.—*A. fasciculatus*, R. Br. Tropical N. Holland.—*A. sarmentosus*, L.; Rheed 10, t. 10. Ceylon. Deccan. Concans.—*A. volubilis*, Buch. Monghir. Goalpara. Rajmahl. Nepal. Neelgherries.—*Myrsiphyllum asparagoïdes*, Willd. 5 C. G. H.—*M. angustifolium*, Willd. 2. C. G. H.—*Cordyline cannaefolia*, R. Br. 5 Tropical N. Holland.—*C. stricta* (*Dracæna stricta* Sims; B. R. 12, t. 956.—B. M. 52, t. 2575.) 5 N. Zealand.—*C. australis*, (*Dracæna australis*, Forst.) 5 N. Holland.—*C. parviflora*, Humb. and Bonpl. 5 Mexico.—*C. stricta*, Australia.—*Dracæna Draco*, L. 5 Canaries. Socotra.—*D. marginata*, Lam. 5 Madagascar.—*D. umbaculifera*, Jacq.; B. Cab. t. 289. 5 Java. Cultivated in the Mauritius.—*D. fragrans*, Ker; B. M. 27, t. 1081. 5 Guinea.—*D. ovata*, Ker.; B. M. 29, t. 1179. 5 Sierra Leona.—*D. acuminata*, Thumb. Bourbon. Mauritius.—*D. hemichrysa*, Commers. 2. Mauritius.—*D. flabelliformis*, Bory. 5 Mauritius.—*D. Fontanesiana*, Schult. 5 Bourbon.—*D. surculosa*, Lindl.; B. Reg. 11, t. 1469. 5 Sierra Leona.—*Aphyllanthus monspeliensis*, L.; B. M. 28, t. 1132. 2. S. Europe.—*Xanthorrhœa Pumilio*, R. Br. 2. Tropical N. Holland.

ORDER CCXLIV.—COMMELYNACÆ. Lindl. Nat. Syst. p. 354.

THE SPIDER-WORT TRIBE.

Herbs, by Lindl. (excluding Hagenbachia, and adding Murdannia,) referred to 14 genera. Of these, Spreng. and Schult. enumerate about 45 species for S. America, Mexico, and the W. Indies; 15 for New Holland; 8 for N. America; 3 for Guinea; 2 for Arabia; 2 for China; and 2 for Japan. In S. Africa have been discovered about 5 species (*Harvey*); and in the E. Indies 59, viz. 12 of *Commelyna*, (all over India); 28 of *Aneilema*, (all over India.); 2 of *Pollia*, (Java.); 8 of *Tredecantia*, (all over India.); 6 of *Cyanotis*, (all over India.); 1 of *Murdannia*, (Himalayas, Khassya Mountains, Kheree Jungles.); and 2 of *Campelia*, (Java.) Properties unknown.

COMMELYNA, Dill. (*Endl. gen. pl.* 1, p. 125.—*Commelina*, *Spreng. syst.* 1, p. 128, No. 185;—*R. Br. pr. p.* 269.)

1. *salicifolia*, Roxb. (*fl. ind.* 1, p. 172; *ed. Carey*, 1, p. 176;—*Spreng. syst.* 1, p. 171.) পানী কাঞ্চু *Panee-Kanchura*. ♂ Coromandel. Bengal, (Serampore.) Fl. smallish, deep azure, and fr. R. S.
2. *bengalensis*, Forsk. (*Roxb. fl. ind.* 1, p. 171; *ed. Carey*, 1, p. 175;—*J. Grah. Cat. B. pl. p.* 223.) কাঞ্চু *Kanchura*. কনডকা *Kanuraka*.



- ◎ Peninsula of India. Bengal, (Serampore.) N. Doab, &c. Fl. small bright-blue, and fr. R. S.
3. *communis*, L. (*Spreng. o. c. p. 172*;—*Roxb. o. c. p. 171*; ed. *Carey*, 1, p. 175;—*J. Grah. Cat. B. pl. p. 223*;—*Red. lit. l. 206.*) **জটী কাঞ্চু** *Juta-Kanchura*, ◎ Peninsula of India. Bengal, (Serampore.) N. Doab &c. Fl. small, bright-blue, and fr. R. S.
4. *cæspitosa*, Roxb. (*fl. ind. 1. p. 174*; ed. *Carey*, 1, p. 178.) ◎ Chittagong. Bengal, (Serampore.) &c. Fl. small, blue, and fr. R. S.
- ANEILEMA, R. Br. (*pr. 270*;—*Spreng. syst. 1. p. 173*, and *Endl. gen. pl. 1. p. 125*, under Commelina.)
2. *nudiflorum*, R. Br. (*o. c. p. 271*, *annot.*—*Commelina nudiflora*, L. ;—*Roxb. fl. ind. 1. p. 173*; ed. *Carey*, 1, p. 177;—*Spreng. syst. 1. p. 173*;—*J. Grah. Cat. B. pl. p. 223*, excl. syn. *Aneilema nudicaule*.—*Tradescantia malabarica*, L.;—*Spreng. syst. 2. p. 115*;—*Schult. syst. 8. p. 1155*;—*J. Grah. l. c.—Rheed. 9. t. 63.*) **কাঞ্চলি Kandali**. ◎ Peninsula of India. Bengal, (Serampore.) Silhet, &c. Fl. small, blue, and fr. R. S.
1. *vaginatum*, R. Br. (*pr. p. 271*, *annot.*—*Commelina vaginata*, L.;—*Spreng. syst. 1. p. 173.*) ◎ Coromandel. Bengal, (Serampore.) Fl. small, blue, and fr. R. S.
3. *herbaceum*, Wall. (*Cat.—Commelina herbacea*, *Roxb. fl. ind. 1. p. 175*; ed. *Carey*, 1, p. 179;—*Spreng. syst. 1. p. 174.*) 2. Rangoon. Tavoy. Banks of the Attran. Travancore. Sumatra. Fl. small, bluish-white, and fr. nearly throughout the year.
4. *nanum*, (*Commelina nana*, *Roxb. fl. ind. 1. p. 173*; ed. *Carey*, 1, p. 176;—*Spreng. syst. 1. p. 174.*) ◎ Bengal, (Serampore,) &c. Fl. small, bright-blue, fr. R. and C. S.
- TRADESCANTIA, L. (*Spreng. syst. 2. p. 10*, No. 1287;—*Endl. gen. pl. 1. p. 126.*)
1. *fusca*, Lodd. (*B. Cab. t. 374*;—*Spreng. syst. 2. p. 115*;—*Schult. syst. 8. p. 1156*;—*B. Reg. 6. t. 482*;—*B. M. 49. t. 2330.*) 2. Brazil. Fl. 6 lines, blue-violet, outside paler, R. S.; fr. 0.
2. *paniculata*, Roxb. (*Corom. 2. t. 109*; *fl. ind. 2. p. 119*;—*Spreng. o. c. p. 117*;—*Schult. o. c. p. 1158.*) ◎ Moist vallies on the Coromandel coast. Fl. small, purple-blue, R. S.
3. *erecta*, Jacq. (*ic. rar. 2. t. 354*;—*Red. lit. t. 239*;—*B. M. 33. t. 1340*;—*Spreng. o. c. p. 116*.—*Schult. o. c. p. 1160.*) ◎ Mexico. Fl. 9 lines in diameter, deep-blue, R. S.; fr. C. S.
4. *crassifolia*, L. (*ic. 1. p. 54*, t. 75, *descript. p. 397*;—*Spreng. o. c. p. 116*;—*Schult. o. c. p. 1172*;—*B. M. 39. t. 1598.*) 2. New Spain. Mexico. Fl. 16 lines in diameter, purple-violet, R. S.
5. *virginica*; L. (*Spreng. syst. 2. p. 116*;—*Schult. syst. 8. p. 1173*;—*B. M. 3. t. 105*, p. 23;—*Roxb. Hort. Beng.*—*Commelina virginica*, *Roxb. Hort. Beng. p. 5.*) 2. Virginia. Fl. 6-9 lines long, violet, R. S.; fr. C. S.



6. *discolor*, L'Herit. (*Sert. angl.* p. 8, t. 12;—*Spreng. l. c.*;—*Schult. o. c.* p. 1177;—*Lam. ill. t.* 226, *f.* 2;—*B. M.* 30, *t.* 1192;—*Red. ill. t.* 168;—*Roxb. H. B.* p. 23;—*J. Grah. Cat. B. pl.* p. 223.) 2. Shores of the Mexican Gulf. Fl. small, white, soon withering, and fr. nearly throughout the year. Domesticated about Serampore.

MURDANNIA, Royle. (*ill. p.* 403.)

1. *scapiflora*, Royle. (*o. c. t.* 95, *f.* 3.—*Commelina scapiflora*, *Roxb. fl. ind. 1, p.* 175; *ed. Carey, 1, p.* 178;—*Spreng. syst. 1, p.* 173.—*Aneilema tuberosa*; *Buch. Herb.*) 2. Along the Himalayas, from the Khassy Mountains to Manma. Mussooree. Kheree Jungles. Fl. nearly 1 inch in diameter, lively blue, March and April; fr. 0.

CYANOTIS, D. Don. (*pr. fl. nep. p.* 45;—*Schult. syst. 8, p.* LXII;—*Endl. gen. pl. 1, p.* 126.)

1. *cristata*, Schult. (*syst. 8, p.* 1150.—*Tradescantia cristata*, *L.*; *Jacq. hort. vind. 2, p.* 67, *t.* 137;—*Spreng. syst. 2, p.* 116;—*B. Cab. t.* 639.—*B. M.* 35, *t.* 1435;—*J. Grah. Cat. B. pl.* p. 223.—*T. imbricata*. *Roxb. fl. ind. 2, p.* 120;—*J. Grah. l. c.*—*Commelina cristata*, *L.* *fl. zeyl.*—*Burm. ind. t. 7, f. 4.*—*Rheed. 7, t. 58.*) ◉ Java. Ceylon. Peninsula of India. Bengal, (Serampore.) &c. Fl. small, pale or dark-blue, R. S.; fr. C. S.

2. *barbata*, D. Don. (*pr. fl. nep. p.* 46;—*Schult. o. c. p.* 1153.—*Tradescantia barbata*, *Spreng. c. p. p.* 138.) 2. Nepal. Fl. small, azure, R. S.; fr. O.

3. *tuberosa*, Schult. (*l. c.*—*Tradescantia tuberosa*, *Roxb. Corom. 2, t.* 108; *fl. ind. 2, p.* 119;—*Spreng. syst. 2, p.* 115;—*J. Grah. Cat. B. pl. p.* 223.) 2. Coromandel valleys. S. Concan. Fl. small, blue-purple, R. S.; fr. O.

4. *axillaris*, Schult. (*syst. 8, p.* 1154.—*Tradescantia axillaris*, *L. Mant.*; *Spreng. l. c.*;—*Roxb. Corom. 2, t.* 107; *fl. ind. 2, p.* 118;—*J. Grah. Cat. B. pl. p.* 223.—*Commelina axillaris*, *L. sp.*—*Rheed. 10, t. 13.*) बाघनला। *Baghanula.* ◉ Java. Ceylon. Peninsula of India. Bengal, (Serampore.) Fl. largish, deep-blue, R. S.; fr. C. S.

* *Commelyna aenøfolia*, J. Grah. ◉ Kandala Jungle.—*C. Nimmoniana*, J. Grah. ◉ Malabar. Hill.—*C. tuberosa*, L. B. M. 41, *t.* 1695; 2. Mexico.—*C. gracilis*, Ruiz. and Pav.; B. M. 58, *t.* 3047. 2. Lima.—*C. africana*, L.; B. M. 35, *t.* 1431. S. Africa.—*C. cyanæa*, R. Br. Tropical N. Holland.—*C. lanceolata*, R. Br. Tropical N. Holland.—*C. ensifolia*, R. Br. Tropical N. Holland.—*C. undulata*, R. Br. Tropical N. Holland.—*Aneilema macrophyllum*, R. Br. Tropical N. Holland.—*A. giganteum*, R. Br. Tropical N. Holland.—*Pollia thrysiflora*, Endl. (*Lamprocarpus thrysiflorus*, Bl.) Java.—*Callisia monandra*, Schult. (*Tradescantia monandra*, Swz.) St. Domingo.—*Tradescantia geniculata*, Lam. 2. Mexico.—*T. undata*, Humb. and Bonpl.; B. Reg. 17, *t.* 1403. ◉ Mexico.—*T. latifolia*, Ruiz. and Pav.; B. Cab., *t.*



1300. ♂ Lima.—*T. subaspera*, Ker.; B. M. 39, t. 1597. ♀. N. America.—*T. diuretica*, Schult. fil. ♀. Brazil.—*T. Karwinskyana*, Schult. ♀. Mexico.—*T. crassula*, Lk. and Otto.; B. M. 56, t. 2985. ♀. Brazil.—*T. cirrhifera*, Mart. ♀. Mexico.—*T. rosea*, Vent.; B. Cab. t. 370. ♀. S. Carolina.—*T. commelinoides*, Schult. ♀. Mexico.—*T. caricifolia*, Hook.; B. M. 64, t. 3546. Texas.—*Campetia Zanonia*, Rich. Jamaica.—*C. mollissima*, Bl. ♀. Java.—*Dichorisandra Auletiiana*, Schult. ♀. Guiana.—*Cartouema spicatum*, R. Br. ♀. Tropical N. Holland.

ORDER CCXLV.—BUTOMACEÆ, Lindl. Nat. Syst. p. 355.

Water and marsh plants, by Lindl. referred to 3 genera. Of these, 1 species of *Hydrocleis* is a native of S. America; 1 of *Limnocharis* a native of the W. Indies; and 2 of *Butomus*, natives of the E. Indies. One of the latter is also common to Europe and N. Asia. Properties unimportant.

BUTOMUS, Tournef. (*Spreng. syst.* 2, p. 264, No. 1534;—*Endl. gen. pl.* 1, p. 129.)

1. *umbellatus*, L. (*Spreng. syst.* 2, p. 273;—*E. B.* 10, t. 651.) *Flowering Rush*. ♀. Europe. N. Asia. N. India. Loodiana. Cashmere. Fl. largish, variously shaded with rose-colour, purple and white. Introduced in 1813. Fl.? Plant acrid, formerly considered deobstruent.
2. *lanceolatus*, Roxb. (*J. Ind.* 2, p. 315;—*Royle ill.* p. 401, t. 95, f. 1;—*J. Grah. Cat. B. pl.* p. 251.—*B. latifolius*, D. Don;—*Spreng. c. p. p.* p. 157.) ♀. Tank at Chiblee in the Surat district, N. W. Provinces of India, from the Turai of Nepal, as far as Seharunpore. Fl. middle-sized, white, with the sepals pale-green outside, and rose-tipped. R. S. but very rare.

* *Limnocharis Plumieri* Rich.; B. M. 52, t. 2525. ♀. W. Indies.—*Hydrocleis Humboldtii*, Rich. (*Limnocharis Humboldtii*, B. M. 60, t. 3248;—*B. Reg.* 19, t. 1640.) ♀. S. America.

ORDER CCLVI.—ALISMACEÆ, R. Br.—Lindl. Nat. Syst. p. 355.

THE WATER PLANTAIN.

"All aquatic plants, with a lax tissue, and many with a fleshy rhizoma, which is eatable," (*Agardh.*) by Lindl. referred to 5 genera. Of these, Spreng. syst. enumerates about 12 species for N. America; 6 for Europe; 6 for S. America and the W. Indies; 1 for Guinea; 1 for Madagascar; 1



for Dahuria; 1 for China; and 1 for New Holland. In the E. Indies have been discovered 3 species of *Sagittaria*, (all over India, 1 also common to Europe and N. America); and 7 of *Alisma*, (Deyrah-Dhoon, the Khassya Mountains. Assam. Serampore. Tavoy. Nathpur. Ratangunj. Cheetam. 1 of them also common to Europe.) The rhizoma of several Alismas and Sagittarias eatable. A species of the latter is cultivated for food in China. The herbage is acrid. (*Agardh.*)

SAGITTARIA, L. (*Spreng. syst.* 2, p. 564, No. 2015;—*Endl. gen. pl.* 1, p. 128.) *Arrow-Head.*

1. *sagittifolia*, L. (*Spreng. syst.* 2, p. 632;—*E. B.* 2, t. 84;—*Gärtn. fr.* 2, p. 21, t. 84, f. 3;—*Roxb. fl. ind.* 3, p. 645.) হেতি কটি *Choto-kut.* 2. Peninsula of India. Bengal, (Serampore.) Nepal. Europe. N. America. Fl. 9 lines in diameter, pure-white, with a purplish base, Feb., March, and April; fr. April and May,
2. *obtusifolia*, L. (*Spreng. o. c.* p. 633;—*Roxb. o. c.* p. 646;—*J. Grah. Cat. B. pl.* p. 199;—*Rheed.* 11, t. 45.) বড় কটি *Buro-kut.* 2. Coromandel. Concans. Bengal, (Serampore,) &c. Fl. 3 lines long, white, R. and C. S.; fr. C. S.
3. *cordifolia*, Roxb. (*fl. ind.* 3, p. 647.—*Alisma stellatum*, *Hb. Buch.* A. ? *Hamiltonianum*, *Wall. Cat.*) 2. Bengal, (Serampore. Silhet. Assam. Deyrah-Dhoon.) Fl. small, white, R. S.; fr. C. S.

ALISMA, L. (*Spreng. syst.* 2, p. 16, No. 1391;—*Endl. gen. pl.* 1, p. 128.) *Water Plantain.*

1. *Plantago*, L. (*Spreng. syst.* 2, p. 162, excl. syn.;—*R. Br. pr.* p. 342;—*E. B.* 12, t. 837;—*A plantago aquatica*, *Gärtn. fr.* 2, p. 22, t. 84, f. 4.) 2. Europe. Deyrah-Dhoon. N. Holland. Fl. small, pale rose-coloured, R. S.; fr. O.
2. *natans*, L. (*Spreng. l. c.*;—*E. B.* 11, t. 775.) 2. Europe. N. America. Introduced in 1820. Fl. ?
3. *ranunculoides*, L. (*Spreng. l. c.*;—*E. B.* 5, t. 326.) 2. Europe. Introduced in 1820. Fl. ?
4. *parnassifolium*, L. (*Spreng. l. c.*) 2. Italy. Introduced in 1825. Fl. ?
5. *intermedium*, Griff. MSS. 2. Serampore. Fl. small, white ? R. S.; fr. C. S.

* *Sagittaria natans*, Michx. S. Carolina.—*S. lancifolia*, L.; B. M. 43, t. 1792. Jamaica. Cuba.—*S. angustifolia*, Lindl.; B. Reg. 14, t. 1141. Essequebo.—*S. acutifolia*, L. Surinam.—*S. sinensis*, Sims; B. M. 39, t. 1631. China.—*Alisma cordifolium*, L. S. America.—*A. Berterii*, Spreng. Guadeloupe.—*A. pubescens*, H. Buch. Nathpur.—*Actinocarpus minor*, R. Br. Port Jackson.—*A. Damasonium*, R. Br. (*Alisma Damasonium*, L.; E. B. 23, t. 1615.) England. France. Italy. N. Africa.



ORDER CCXLVII.—JUNCACEÆ, AGARDII. Lindl. Nat. Syst. p. 356.

THE RUSH TRIBE.

Herbs, by Lindl. (adding *Prionium*, *Susum* and *Narthecium*) referred to 14 genera. Of these Spreng. syst. enumerates 46 species for Europe; 37 for New Holland; 18 for S. America; 18 for N. America; 3 for Siberia; 3 for N. Africa; 2 for the Straits of Magellan; 2 for the Canaries; 1 for Terra del Fuego, and, adds Lindl. 2 for Melville Island. In S. Africa have been discovered 10 species (*Harvey*); and in the E. Indies 18; viz. 13 of *Juncus*. (Himalayas, 1 from Delhi, 1 from Hazaribagh, several European); 1 of *Luzula*, (Kunawur, Europe, Caucasus, Altai); 3 of *Flagellaria*, (Moluccas, Cochin China, Ceylon, both Peninsulas of India, Bengal, Java; one also a native of New Holland); and 1 of *Susum* (Java). "Only employed for mechanical purposes, as the Rush, and others, for making the bottoms of chairs, &c. the pith of the same for the wick of common candles. *Juncus effusus* is cultivated in Japan for making floor-mats. (*Thunb.*) The leaves of *Flagellaria* are said to be astringent and vulnerary." (*Lindl.*)

* *Juncus inflexus*, L. 2. Wet places of S. Europe.—*J. vaginatus*, R. Br. 2. Port Jackson.—*J. multiflorus*, Desf. 2. S. Europe. N. Africa.—*J. capitatus*, Wey. ♂ Europe.—*J. pygmaeus*, Thuill. ♂ Spain.—*J. cyprioides*, Laharpe. ♂ S. America.—*J. bufonius*, L.; E. B. 12, t. 802. ♂ Europe, Delhi.—*J. Tenageja*, Ehrh. ♂ Swamps of Italy.—*J. indicus*, Hazaribagh.—*Prionium serratum*, E. Mey. 2. C. G. H.—*Narthecium ossifragum*, Huds.; E. B. 8, t. 535. 2. Turfy places of Europe.

Genera allied to Juncaceæ:—*Endl. gen. pl.* 1, p. 131.

FLAGELLARIA, L. (*Spreng. syst.* 2, p. 15, No. 1375;—*R. Br. pr. p.* 264;—*Endl. L. c.*)

1. *indica*, L. (*Spreng.* 2, p. 149;—*Schult.* 8, p. 1492;—*R. Br. l. c.*;—*Gürtz. fr.* 1, p. 61, t. 16, f. 9;—*Red. lit. t.* 257;—*Roxb. fl. ind.* 2, p. 154;—*J. Grah. Cat. B. pl. p.* 230;—*Rheed.* 7, t. 53;—*Rumph.* 5, t. 29, f. 1.) बुन चंदूरु *Bun-chandur.* 5. Tropical New Holland. Moluccas. Cochin China. Ceylon. Both Peninsulas of India. Bengal. (Serampore.) Silhet. Fl. small, white, R. S.; fr. C. S.

* *Flagellaria minor*, Bl. 5. Java.—*Susum anthelminticum*, Bl. 2. Swampy places of Java.—*Xerotes arenaria*, R. Br. 2. Tropical N. Holland.—*X. distans*, R. Br. Tropical N. Holland.—*X. media*, R. Br. 2. Tropical N. Holland.—*X. decomposita*, R. Br. 2. Tropical N. Holland.



ORDER CCXLVIII.—PHILYDRACEÆ, Lindl. Nat. Syst. p. 357.

Herbs, natives of marshes or other wet places, belonging to 1 genus, and 2 species, both belonging to New Holland, and 1 of them also to China and Cochin China. "Properties unknown." (Lindl.)

- * *Philydrum lanuginosum*, Banks. (*Garciana cochin-chinensis*, Lour.) Tropical New Holland. S. China. Cochin China.

ORDER CCXLIX.—PANDANACEÆ, Lindl. Nat. Syst. p. 361.

(*Pandaneæ*, Endl. gen. pl. p. 242.)

Palm-like plants, by Lindl. referred to 2 genera. Of these, Spreng. syst. enumerates 8 species for the Mascarenhas Islands; 2-3 for Madagascar; 2 for New Holland; and 1 for Guinea. In the E. Indies have been found 12 species of *Pandanus*, and 4 of *Freycinetia*. The American species of this order, alluded to by Humb. in Lindl. l. c. p. 362, are unknown to us.

"The seeds of *Pandanus* are eatable. The fruit of several is also an article of food. The leaves are used for thatching and cordage. The immature fruit is reputed emmenagogue. Humb." (Lindl.)

PANDANUS, L. fil. (Spreng. 3, p. 892, No. 3158;—R. Br. pr. p. 341;—Endl. gen. pl. 1, p. 242.)

1. *odoratissimus*, L. fil. (Spreng. syst. 3, p. 897;—Roxb. Corom. 1, t. 94, 95, 96; fl. ind. 3, p. 738, excl. syn. As. res.—Lour. *cochinch.* 2, p. 603;—Rheed. 2, t. 8;—J. Grah. Cat. B. pl. p. 227. —Athrodactylis spinosa, Forst. gen. No. 75;—Rheed. 2, t. 1-5;—Rumph. 4, t. 74.) گیل Kea. ۵ Native place uncertain. Cultivated over all the warmer parts of Asia. Fl. small, delightfully fragrant. R. S.; fr. C. S. The fusiform, tough, fibrous roots are used by basket-makers to tie their work with, and on account of their softness, by the natives, as corks, (Roxb.) Matting and package bags are made of them at the Mauritius. Avenues are formed of the shrubs themselves in China, Cochin China and Mauritius, and in the two former countries elephants are fed on them. (Lour. Hardw.) The lower yellow pulpy part of the drupe, is sometimes eaten by the natives during times of scarcity and famine, the same is the case with the white base of the leaves, which is consumed raw or boiled. (Roxb.)

2. *moschatus*, Rumph. (Amb. 4, p. 147, cap. 85;—P. levis, Lam.;—Spreng. 3, p. 398.—P. inermis, Roxb. fl. ind. 3, p. 744.) ۵ Moluccas. Cochin China. Introduced into H. C. G. in 1810, but had not fl. in 1814.



- 3 *Leram*, Jones, (P. Millore, Roxb. *H. B.* p. 71.) *Nicobar Bread-fruit*. (As. Res. 3, p. 161.) 5 Nicobar Islands. Introduced into H. C. G., before 1814. Fl. ?
4. *foetidus*, Roxb. (*fl. ind.* 3, p. 742.) কেয়া কাঁটা Kea-Kanta. 5 Bengal, (Calcutta, Serampore.) Fl. small, almost as offensive as those of *Sterculia foetida*, L.; C. S.; fr. R. S. Only employed for hedges. (Roxb.)
5. *furcatus*, Roxb. (*fl. ind.* 3, p. 744;—*Spreng. syst.* 3, p. 898. excl. syn. *Rheed.* 2, t. 8.) 5 Pegu. Chittagong. Malabar, &c. Introduced into H. C. G. in 1811. Had not fl. in 1814.
6. *marginatus*, Roxb. (*H. B.* p. 71.) 5 Mauritius. Introduced in H. C. G. in 1811. Had not fl. in 1814.
7. *utilis*, Bory. (*Willd. enum. Diebr. Lexi. Nachtrag*, 5, p. 503.—*Spr. syst.* 3, p. 897.—*P. nudus*, Pet. Th.—*P. odoratissimus*, Jack, not L.) Amboyna. Cochin China. Bourbon. Mauritius.
8. *amaryllifolius*, Roxb. (*fl. ind.* 3, p. 743.) 5 Amboyna. Introduced into H. C. G. in 1798, but had not fl. in 1814. In the Serampore garden it has been cultivated for about 30 years, without fl.
9. *Candelabrum*? Pal. Beauv. (*fl. Owar. and Benin.* 1, p. 37, t. 21, and 22.—*Spr.* p. 898.) Guinea. Royal. Bot. Gard. Ceylon.
10. *edulis*, Pet. Th. (*Spreng. syst.* 3, p. 898.) 5 Madagascar. Fl. small, R. S.; fr. C. S.
11. *drupaceus*, Pet. Th. (*Poir. cycl. suppl.* 1, p. 576, *Spr.* 898.)—Mauritius ♀ fl. May 1840, fr. Sept. to Oct.

* *Pandanus utilis*, Bory. Madagascar.—*P. fascicularis*, Lam. Moluccas.—*P. caricosus*, Rumph. Moluccas.—*P. spiralis*, R. Br. Tropical New Holland.—*P. pedunculatus*, R. Br. Tropical N. Holland.—*P. palustris*, Pet. Th. Mascarenhas Islands.—*P. elegans*, Pet. Th. Mascaranhas Islands.—*P. humilis*, Rumph. Moluccas.

ORDER CCL.—CYCLANTHACEÆ, Lindl. Nat. Syst. p. 362.

Palm-like plants, by Lindl. referred to 3 genera with 11 species, all natives of S. America and the W. Indies. “ Buttons are turned from the hard albumen of *Phytelephas*, or the Tagua plant. Humb.” (Lindl.)

* *Carludovica latifolia*, Ruiz. and Pav.; B. Cab. t. 1068. (*Ludovia latifolia*, Pers.; B. M. 56, t. 2950, 51.) 5 Peru.—*C. palmatifolia*, Endl. St. Domingo.—*Cyclanthus bipartitus*, Poit. Guiana.—*C. Plumieri*, Poit. Martinico.



Genus allied to Pandanaceæ, which according to Endl. embrace the last-mentioned order.

NIPA, Thunb. (*Spreng. syst.* 3, p. 757;—*Endl. gen. pl.* 1, p. 244.) Contains only one species, viz.:—

1. *fruticans*, Thunb. (*Act. holm.* 1782, p. 231;—*Spreng. syst.* 3, p. 772;—*Lam. ill.* 3, t. 897;—*Labil. in mem. mus.* 5, p. 297, t. 21, 22;—*Roxb. fl. ind.* 3, p. 650.—Nypa, *Rumph.* 1, t. 16.—Cocos Nypa, *Lour.*) ଗୁଲଗା Goolga. 5 Moluccas, Cochin China, Soonderbans, &c. Introduced into H. C. G. in 1810. Fl.?

ORDER CCLI.—ARACEÆ, Schott.

(Aroidæ, Juss.;—Endl. gen. pl. p. 232.)

THE ARUM TRIBE.

Herbaceous plants, frequently with a fleshy cormus, or shrubs; stemless or arborescent, or climbing by means of aerial roots," (*Lindl.*) referred by Endl. to 38 genera. Of these, Spreng. *syst.* enumerates 42 species for S. America, Mexico and the W. Indies; 11 for Europe? 6 for N. America; 4 for N. Holland; 1 for Siberia; 1 for China; 3 for Japan; 1 for S. Africa; 1 for Guinea; 1 for N. Africa; 1 for Syria; and 1 for Tauria, and Caucasus. The Indian species, described by Roxb., amount to 48. Of additional species Wallich's several publications enumerate about 16, Royle's ill. 3, and J. Graham's. Cat. B. pl. p. 4, in all 71; viz. 1 of *Pistia*; 1 of *Ambrosinia*; 3 of *Cryptocoryne*; 4 of *Arisæma*; 1 of *Sauromatum*; 5 of *Typhonium*; 4 of *Pythonium*; 1 of *Amorphophallus*; 1 of *Remusatia*; 9 of *Colocasia*; 1 of *Aglaonema* (Arum. Lk.); 3 of *Homalomena* (one of these Calla occulta, *Lour.*); 13 of *Scindapsus*; 1 of *Pothos*; 2 of *Lasia*; 1 of *Dracontium*; and 2 of *Acorus*. The remaining 22 species we have not been able to adapt to Endl. and Schott's Araceous synopsis, partly from want of specimens, and partly from the inaccuracy of the descriptions. Acridity prevails in most species of the order, and is in some American ones so concentrated as to make them dangerous poisons. As, however, this principle is abstracted by cooking, drying, washing with water, and even by long cultivation, the fecula redundant in many of their under-ground stems remains, and may be rendered available as an article of diet. This is the case with a great many of our Indian Arums, well known under the common name of *Kuchoo*.

A. Aræm. (Araceæ, *Endl. gen. pl.* p. 233.)

a. Pistiæ. (Pistiacæ, *Endl. l. c.*)

PISTIA, L. (*Spreng. syst.* 3, p. 757, No. 3063;—*Endl. l. c.*)

1. *Stratiotes*, L. (*Spreng. syst.* 3, p. 772;—*Jacq. amer.* p. 234, t. 148; *ed. pict.* t. 225;—*Roxb. fl. ind.* 3, p. 131;—*J. Grah. Cat. B.* pl. p. 200. —*Tala indica*, *Lour.*;—*Rheed.* 11, t. 32;—*Rumph.* 6, t. 74.) ଟାକାପାନୀ



Takrapana. ◦ Swimming on pools of stagnant water in the Moluccas, Cochin China, Sunda Islands, Ceylon, both Peninsulas of India, Bengal. Fl. small, pale-yellow, H. and R. S.; fr. R. and C. S. (Serampore,) &c. extending as far as Saharunpore. Tropical America. In Jamaica, in hot dry weather it impregnates the water with its acrid particles to such a degree, as to give rise to the bloody flux. (*Browne, hist. of Jam.* 330.) Cut into small pieces and mixed with rice, it is given to sucklings, who greedily devour this mixture. The leaves are almost tasteless, but their acridity soon attacks the mouth and lips as much as in Arum. (*Rumph.*) The natives make them into a poultice for the piles. (*Ainslie.*)

AMBROSINIA, Bassi. (*Spreng. syst.* 3, p. 757, No. 3062;—*Endl. gen. pl.* 1, p. 233.)

1. *Roxburghiana*, (A. unilocularis, *Roxb. fl. ind.* 3, p. 493.) 2. Coromandel. Has been introduced into H. C. G.?

b. *Cryptocorynae*, (*Cryptocorynæ, Bl.*;

Endl. gen. pl. 1, p. 234.)

CRYPTOCORYNE, Fisch. (*from Wydler in Linnaea*, 5, p. 428;—*Endl. l. c.*)

1. *ciliata*, Schott. and Endl. (*Ambrosinia ciliata, Roxb. Corom.* 3, t. 262; *fl. ind.* 3, p. 491;—*Spreng. syst.* 3, p. 771.) കേരാളി Keralee. 2. Banks of rivulets, ponds, and wet places in Bengal, (Serampore.) Fl. minute, and fr. R. S. (*Roxb.*)

2. *spiralis*, Schott. and Endl. (*Ambrosinia spiralis, Roxb. fl. ind.* 3, p. 492.—*Arum spirale, Retz.*;—*Spreng. syst.* 3, p. 768;—*B. M.* 48, t. 2220;—*J. Grah. Cat. B. pl.* p. 228.) 2. Moist, sandy banks of ponds or standing sweet water, or rivers of the coast of Coromandel, of the Deccan, and the Concans. Fl. minute, and fr. R. S. (*Roxb.*)

3. *retrospiralis*, (*Ambrosinia retrospiralis, Roxb. fl. ind.* 3, p. 492.) 2. N. Bengal in moist places. Fl. minute, R. S. (*Roxb.*)

c. *Dracunculinæ*, Endl. and Schott.

Endl. gen. pl. 1, p. 234.

ARISAKMA, Mart. (*Endl. l. c.*)

1. *trifolium*, Endl. (*Arum trifolium, L.*;—*Spreng. syst.* 3, p. 769, excl. syn;—*B. M.* 24, t. 950, a.) 2. N. America, from Canada to Carolina. Introduced in 1825. Fl. ? The milk in which the acrid root has been boiled, is said to have cured consumption. (*DC.*)

2. *Dracontium*, Endl. (*Arum Dracontium, L.*;—*Spreng. l. c.*;—*B. Reg. 8, t. 668.*) 2. N. America. Introduced in 1825. Fl. ?

TYPHONIUM, Schott. (*Endl. gen. pl.* 1, p. 235.)

1. *flagelliforme*, (*Arum flagelliforme, Roxb. fl. ind.* 3, p. 502.) യാസകച്ച ഗ്രാഷകുചു. 2. Bengal, (Serampore.) Fl. minute, R. S.

? 2. *divaricatum*, (*Arum divaricatum, L.*;—*Spreng. syst.* 3, p. 768;—*Roxb. fl. ind.* 3, p. 503;—*J. Grah. Cat. B. pl.* p. 228;—*Rheed.* 11, t. 20.) 2. China. Coromandel Coast. The Concans. Bengal, (Serampore.) Fl. small, R. S.



3. *erixense*, Schott. (*Arum orixense*, *Roxb. fl. ind. 3*, p. 503;—*R. Br. pr. p. 336*;—*Spreng. syst. 3*, p. 769;—*B. Reg. 6*, t. 450;—*E. Repos. 5*, t. 356.—*A. trilobatum*, *Lour. not L.*) शेट कुछु *Ghet-kuchoo*.
2. New Holland. Cochin China. Both Peninsulas of India. Ceylon. Bengal, (Serampore,) &c. Fl. minute, R. S. the roots are exceedingly acrid, and used by the natives in poultices. (*Roxb.*)
4. *trilobatum*, Schott. (*Arum trilobatum*, *L.*;—*Spreng. l. c.*;—*Roxb. fl. ind. 3*, p. 505;—*B. M. 10*, t. 339, not *Lour.*—*Rumph. 5*, t. 110, f. 2.) 2. Moluccas. Fl. minute, R. S.
? 5. *sylvaticum*, (*Arum sylvaticum*, *Roxb. fl. ind. 3*, p. 511.) 2. Circars. Fl. minute, R. S. •

PYTHONIUM, Schott. (*Endl. gen. pl. 1*, p. 236.)

1. *bubiferum*, Schott. (*Arum bulbiferum*, *Roxb. fl. ind. 3*, p. 510;—*B. M. 46*, t. 2072, and 51, t. 2508;—*Spreng. syst. 3*, p. 770;—*J. Grah. Cat. B. pl. p. 229.*) अश्वन बेल *Umblo-bela*. 2. Peninsula of India. Bengal, (Serampore.) Fl. small, May.
2. *nepalense*, Schott. (*Thomsonia nepalensis*, *Wall. pl. as. rar. 1*, t. 99.)
2. Nepal. Has been introduced into H. C. G. Fl. ?

AMORPHOPHALLUS, Bl. (*in diar. batav. (1825.)—Endl. gen. pl. 1*, p. 236.)

1. *campanulatus*, (*Arum campanulatum*, *Roxb. H. B. p. 65*;—*Corom. 3*, t. 272; *fl. ind. 3*, p. 509;—*Spreng. syst. 3*, p. 770;—*B. M. 55*, t. 2812;—*J. Grah. Cat. B. pl. p. 228.*—*Arum Rumphii*, *Gaudich.*—*Arum zeylanicum*, *Connel. hort. v. 1*, p. 101, t. 53.—*Candarum Roxburghii*, *Schott.*—*Rheed. 11*, t. 18, 19;—*Rumph. 5*, t. 112, 113, f. 2.) डंडा *Ol.* Moluccas. Ceylon. Both Peninsulas of India. Bengal, (Calcutta, Serampore,) &c. Fl. minute, June. This species, which deserves to be called the *Telinga Potatoe*, is much cultivated in the N. Circars and about Surat, and highly esteemed for the wholesomeness and nourishing quality of the roots. A very rich soil, repeatedly ploughed, suits it best. The small tuberosities found in the large roots are employed for sets, and planted in the manner of potatoes. In twelve months they are reckoned fit to be taken up for use; the larger roots will then weigh from 4—8 or more pounds, and keep well if preserved dry. The natives employ them for food in the manner of the common yam. (*Roxb.*) In the Kainah Zilla, it is planted in May, and yields from 100—250 maunds per beegah. It sells for about a Rupee per maund. (*Kirkland.*)

d. *Caladieae*, Schott. (*Endl. gen. pl. 1*, p. 236.)

REMUSATIA, Schott. (*Endl. l. c.*)

1. *vivipara*, Schott. (*Arum viviparum*, *Roxb. fl. ind. 3*, p. 496;—*J. Grah. Cat. B. pl. p. 228.*—*Caladium viviparum*, *Nees.*—*Rheed. 12*, t. 9.) 2. Both Concans. Mussooree. Nepal. Fl. R. S.

COLOCASIA, Ray. (*Endl. gen. pl. 1*, p. 236.)

1. *antiquorum*, Schott. (*Eucolocasia*.—*Arum Colocasia*, *L.*; *Spreng. syst. 3*, p. 769;—*Roxb. fl. ind. 3*, p. 494;—*J. Grah. Cat. B. pl. p.*



328.—*A. aegypticum*, Rumph. 5, t. 109.) কুচু কুচু *Kuchoo*. 2. Greece. Asia Minor. Syria. E. Indies. Fl. R. S.

a. গুড়ি কুচু *Goori-kuchoo*.

b. আশু কুচু *Ashoo-kuchoo*.

These two varieties are cultivated in Lower Bengal, about Calcutta, Serampore, &c. Small offsets from the larger tubers are, like potatoes, planted about the beginning of the rains, in May and June, in a well laboured, friable, rich soil, not subject to inundations.

The roots of a. are taken up in Feb. and March; those of b. about the close of the year. (*Roxb.*)

γ. কালো কুচু *Kalo-kuchoo*. (Rumph. 5, t. 110, f. 1.) Leaves and petioles more or less purple-tinged. The roots never swell in the manner of the cultivated varieties, but send out numerous runners. The leaves and petioles are eaten by the natives. (*Roxb.*)

δ. চার্ড কুচু *Char-kuchoo*. Disk of the leaves marked with dark-purple or bluish clouds, not cultivated. (*Roxb.*)

ε. বন কুচু *Bun-kuchoo*. Leaves uniformly green. Not cultivated, and like δ. seldom eaten by the natives. (*Roxb.*)

2. *nymphæafolia*, Royle. (*Eucolocasia*.—*Arum nymphæifolium*, *Roxb.* fl. ind. 3, p. 495;—*J. Grah. Cat.* B. pl. p. 228.—*Caladium nymphæifolium*, *Vent.*—*Spreng. syst.* 3, p. 771;—*Rheed.* 11, t. 22.) সার কুচু *Sar-kuchoo*. 2. Both Concans, Bengal, (Serampore,) &c. Fl. R. S.

3. *esculenta*, Schott. (*Eucolocasia*.—*Arum esculentum*, L.;—*Spreng.* 3, p. 771.—*Calla calyprata*, *Roxb.* fl. ind. 3, p. 514.—*Arisarum esculentum*, *Rumph.* 5, t. 111, f. 1.) 2. Jamaica. Brazil. Amboyna. Fl. May. *Schismatoglottis Calyprata*, *Zoll & Mor.*; *wight* *ibid.* t. 205.

4. *indica*, (*Alocasia*.—*Arum indicum*, *Lour.*;—*Roxb.* fl. ind. 3, p. 498.) মান কুচু *Man-kuchoo*. 2. Various parts of India. In Bengal it is cultivated about the huts of the natives for its esculent stems and small pendulous tubers, these being very generally eaten by people of all ranks in curries, &c. (*Roxb.*) Fl. Sept. Oct. and Nov.

β. মান গিরি *Man-giri*. Petioles darker-coloured. This as well as α seldom produce ripe seeds.

? 5. *odora*, (*Arum odorum*, *Roxb.* fl. ind. 3, p. 499;—*B. Reg.* 8, t. 641.—*Caladium odoratum*, *Spreng. syst.* 3, p. 770.) 2. Pegu. Fl. very fragrant, Oct. to January; fr. March and April.

6. *fornicata*, (*Arum fornicatum*, *Roxb.* fl. ind. 3, p. 501.) সালো কুচু *Salo-kuchoo*. 2. Bengal, (Serampore.) Chittagong, &c. Fl. R. S.

7. *cucullata*, Schott. (*Arum cucullatum*, *Lour.*;—*Roxb.* fl. ind. 3, p. 501.—*Caladium cucullatum*, *Pers.*;—*Spreng. syst.* 3, p. 770.) বিষমান *Bishman*. 2. Bengal, (Serampore.) Fl. R. S.

HOMALONEMA, Schott. (*Endl. gen. pl.* 1, p. 236.)

1. *aromaticum*, Schott. (*Calla aromatica*, *Roxb.* fl. ind. 3, p. 513.—*Zantedeschia aromaticata*, *Spreng. syst.* 3, p. 765.) 2. Chittagong. Fl. C. S.



When cut, it diffuses a pleasant aromatic scent. The medicinal virtues of the root are in high estimation amongst the natives. (*Roxb.*)

? 2. *rubescens*, (*Calla rubescens*, *Roxb.* fl. ind. 3, p. 515;—*Draeunculus amboinicus*, *Rumph.* 5, t. 111, f. 2.) 2. Amboyna. Chittagong. Fl. August.

RICHARDIA, Kth. (*Endl. gen. pl.* 1, p. 238.)

1. *aethiopica*, Kth. (*Calla aethiopica*, *L.*;—*B. M.* 21, t. 832;—*Roxb. H. B.* p. 64.—*Zantedeschia aethiopica*, *Spreng. syst.* 3, p. 765.) 2. Fl. C. S.

B. CALLEE.

(*Callaceæ*, *Endl. gen. pl.* 1, p. 239.)

e. *Callinæ*, (*Calleæ*, *Endl. l. c.*)

CALLA, L. (*Endl. l. c.*)

1. *palustris*, L. (*Spreng. syst.* 3, p. 765;—*Fl. Dan.* t. 422;—*B. M.* 43, t. 1831.) 2. Swampy places of Europe. Introduced in 1822. Fl. ?

SCINDAPSUS, Schott. (*Endl. gen. pl.* 1, p. 239.)

1. *officinalis*, Schott. (*Pothos officinalis*, *Roxb.* fl. ind. 1, p. 431; *ed. Carey*, 1, p. 452;—*Spreng.* 3, p. 766.) 2. *Guj-pippul*. 2. Paras. Bengal, (Midnapore, Serampore.) Calicut. Cochin China. On Chappedong. Moulmein. Rangoon. Monghir Mountains. Fl. R. S.; fr. January. At Midnapore it is cultivated for its fruit, which cut into transverse pieces and dried, is an article of some importance in the Hindoo Materia Medica,

2. *Peepia*, Endl. (*Pothos Peepia*, *Roxb.* fl. ind. 1, p. 433; *ed. Carey*, 1, p. 454.) 2. Silhet. Fl. April and May.

3. *giganteus*, Schott. (*Pothos giganteus*, *Roxb.* fl. ind. 1, p. 434; *ed. Carey*, 1, p. 455.) 2. Singapore. Penang. Fl. Oct.; fr. 0.

4. *pertusus*, Schott. (*Pothos pertusus*, (*Roxb.* fl. ind. 1, p. 434; *ed. Carey*, 1, p. 455;—*J. Grah. Cat. B. pl.* p. 230;—*Rheed.* 12, t. 21, 22.) 2. Coromandel. S. Concans. Has not fl. here.

5. *pinnatus*, Schott. (*Pothos pinnatus*, *L.*;—*Spreng.* 3, p. 767;—*Roxb.* fl. ind. 1, p. 435; *ed. Carey*, 1, p. 456;—*Rumph.* 5, t. 183, f. 2.) 2. Forests of the Malay countries. In *H. C. G.* ?

6. *decurvifolius*, Schott. (*Pothos decurvifolius*, *Roxb.* fl. ind. 1, p. 436; *ed. Carey*, 1, p. 456;—*Wall. pl. as. rar.* 2, t. 192.) 2. Silhet. Fl. April and May; fr. R. S.

? 7. *caudatus*, (*Pothos caudatus*, *Roxb.* fl. ind. 1, p. 436.) 2. Penang. Introduced into *H. C. G.* in 1798, but had not fl. up to 1814.

? 8. *pinnatifidus*, (*Pothos pinnatifidus*, *Roxb.* fl. ind. 1, p. 437.) 2. Introduced into *H. C. G.* Fl. ?

9. *glaucus*, Schott. (*Pothos glaucus*, *Wall. pl. as. rar.* 2, t. 156.) 2. Paras. Nepal. Khassya Mountains. Has not fl. here.

f. *Orontiææ,*(Orontiaceæ, *Endl. gen. pl. 1*, p. 239.)a. *Pothoïnææ*, Schott. (*Endl. l. c.*)POTHOS, L. (*Endl. l. c.*)

1. *scandens*, L. (*Spreng. syst. 3*, p. 767;—*Roxb. fl. ind. 1*, p. 430; *ed. Carey*, 1, p. 451;—*J. Grah. Cat. B. pl. p. 229*;—*B. Reg. 16*, t. 1337;—*Rheed. 7*, t. 40;—*Rumph. 5*, t. 184, f. 2.) २. Paras. Cochin China. Moluccas. Sunda Islands. Ceylon. Both Peninsulas of India. Bengal. Nepal. Fl. April and May; fr. R. S.

LASIA, Lour. (*Endl. gen. pl. 1*, p. 239.)

1. *Loureiri*, Schott. (L. *aculeata*, *Lour.*—*Pothos Lasia*, *Roxb. fl. ind. 1*, p. 438; *ed. Carey*, 1, p. 458;—*Spreng. syst. 3*, p. 767.) कोटि वर्ष Kanta-kuchoo. २. Cochin China. Penang. Singapore. Bengal. (Serampore.) Silhet. Fl. C. S.; fr. H. S.
2. *heterophylla*, Schott. (*Pothos heterophyllum*, *Roxb. fl. ind. 1*, p. 437; *ed. Carey*, 1, p. 457;—*Spreng. syst. 3*, p. 767.) कोटि वर्ष Kanta-man. २. Bengal. (Serampore.) C. S., but rare.
β. *Dracontina*. (*Dracontieæ*, Schott.—*Endl. gen. pl. 1*, p. 240.)

DRACONTIUM, L. (*Endl. l. c.*)

1. *polyphyllum*, L. (*Spreng. syst. 3*, p. 766;—*R. Br. pr. p. 337*;—*B. Reg. 9*, t. 700;—*J. Grah. Cat. B. pl. p. 229*, excl. syn. *Rheed.* and *Rumph.*) २. Tropical N. Holland. S. America. Malabar Hill, Bombay. The Concans. Introduced in 1825. Fl.? The prepared root is supposed by the natives to possess antispasmodic virtues, and is considered a valuable remedy in asthma. It is also used in hemorrhoids. (*Ainslie.*)

γ. *Orontinææ*, (Orontieæ, Schott. ;—*Endl. gen. pl. 1*, p. 240.)ORONTIUM, L. (*Spreng. syst. 2*, p. 10, No. 1290;—*Endl. l. c.*)

1. *aquaticum*, L. (*Spreng. o. c. p. 118*;—*Schult. syst. 7*, p. 171;—*Lam. ill. t. 252*, f. 2;—*Hook. exot. fl. t. 19*;—*B. Cab. t. 402*.) २. Swampy places in N. America from Canada to Carolina. Introduced in 1822. Fl.? Acrid, but eatable by roasting. (*Lindl.*)

g. *Acorææ*, (Acoroidææ, Schott. ;—*Endl. gen. pl. 1*, p. 240.)Acoraceæ, *Lindl. Nat.**Syst. p. 365*, excl. *Tupistra* and *Aspidistra*.)ACORUS, L. (*Spreng. syst. 2*, p. 10, No. 1293;—*Endl. l. c.*)

1. *Calamus*, L. (*Spreng. o. c. p. 118*;—*Gürtn. fr. 2*, p. 27, t. 84, f. 10;—*Schult. syst. 7*, p. 173;—*E. B. 5*, t. 356;—*Roxb. fl. ind. 2*, p. 169;—*J. Grah. Cat. B. pl. p. 230*, excl. syn. *Rumph.*—*A. odoratus*, *Lam.*;—*Rheed. 11*, t. 60?) श्वेत वट Shwet-batch. Sweet Flag. २. Europe. Siberia. N. America. Japan. Common in gardens. Fl. R. S. Schultes l. c. is of opinion, that *Rheede's* plant is widely different from that of Linneus. The latter remarks, that it is the only native aromatic plant of northern climates. The root powdered might supply the place of foreign spices. It has a strong aromatic smell, and a warm, pungent,



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ARACEAE.

bitterish taste. The flavour is greatly improved by drying. The Turks candy the roots, and regard them as a preservative against contagion. In many counties in England, in which the plant abounds, it was formerly used to strew the floors of houses instead of rushes; a purpose for which its fragrant leaves made it very suitable. The aromatic principle is an essential oil, which can be obtained by distillation. The root has been employed in medicine since the time of Hippocrates. By the moderns it is successfully used in the intermittent fevers, even after bark has failed, and is certainly a very useful addition to Cinchona. It is also a useful adjunct to bitter, and stomachic infusions. Thomson (*Mat. Med.* 134) says, it is too seldom prescribed. (*Land. enc.* p. 257.)

2. *gramineus*, Ait. (*Spreng. l. c.*;—*Schult. o. c. p. 174*;—*Sm. spicil. p. 15, t. 17.*) 2. Cultivated in China. Has been cultivated here for more than 14 years, without fl.
3. *terrestris*, Spreng. (*syst. 2, p. 118*.—*Acorum terrestre, Rumph. 5, 178, t. 72.*

ARUM, Roxb. (*fl. ind. 3, p. 494.*)

1. *rapiforme*, Roxb. (*o. c. p. 497.*) 2. Pegu. Introduced in 1809, into H. C. G. where it fl. R. S. (*Roxb.*)
2. *montanum*, Roxb. (*l. c.*) 2. Mountainous forests of N. Circars, where its root is said to be employed to poison tigers. Introduced in 1808, into H. C. G. where it fl. R. S. (*Roxb.*)
3. *gracile*, Roxb. (*o. c. p. 505*;—*J. Grah. Cat. B. pl. p. 228, excl. syn. Rumph.—Rheed. 11, t. 21.*) 2. Silhet. Introduced in 1811, into H. C. G. where it fl. H. and R. S. (*Roxb.*)
4. *cuspidatum*, Roxb. (*o. c. p. 506.*) 2. Penang. Introduced in 1802, into H. C. G. where it fl. R. S. (*Roxb.*)
5. *curvatum*, Roxb. (*l. c.*) 2. Nepal. Introduced in 1804, into H. C. G. where it fl. R. S. (*Roxb.*)
6. *sessiliflorum*, Roxb. (*o. c. p. 507.*) 2. Cawnpore. Introduced in 1802, into H. C. G. where it fl. H. S. (*Roxb.*)
7. *lyratum*, Roxb. (*o. c. p. 508.*) 2. Circar Mountains. Has been introduced into H. C. G.? The roots are eaten by the natives of the Mountains, but require two or three boilings and some particular care in the dressing to render them inoffensive, and nourishing. (*Roxb.*)
8. *margaritiferum*, Roxb. (*o. c. p. 512.*) 2. Hindooosthan. Introduced into H. C. G. before 1814, where it fl. May and June. (*Roxb.*)

CALLA, Roxb. (*fl. ind. 3, p. 513.*)

1. *oblongifolia*, Roxb. (*o. c. p. 516*;—*Rumph. 5, t. 108.*) 2. Moluccas. Introduced in 1798, into H. C. G. where it fl. R. S. (*Roxb.*)
2. *picta*, Roxb. (*l. c.*) 2. Sumatra. Introduced into H. C. G. before 1814, and fl. there about the close of the R. S. (*Roxb.*)
3. *viresa*, Roxb. (*o. c. p. 517.*) 2. Chittagong. Introduced in 1810, into H. C. G. where it fl. Sept. and Oct. (*Roxb.*)



Pothos, Roxb. (*J. Ind.* 1, p. 430.)

1. *tener*, Wall. (*Roxb. J. Ind.*; ed. *Carey*, 1, p. 454, *annot* ;—*Spreng. syst.* p. 767.—*P. gracilis*, *Roxb. J. Ind.* 1, p. 433, not Rudge.—*Rumph.* 5, t. 181, f. 2?) 2. Amboyna. Has been introduced into H. C. G.?

- * *Arisarum vulgare*, Kth. 2. S. Europe, N. Africa.—*Arisoma multicarinatum*, Schott. (*Arum multicarinatum*, Wall.) 2. Nepal.—*A. tortuosum*, Schott. (*Arum tortuosum*, Wall. pl. as. rar. 2, t. 114.) 2. Nepal.—*A. erubescens*, Schott. (*Arum erubescens*, Wall. pl. as. rar. 2, t. 135.) 2. Nepal.—*A. echinatum*, Schott. (*Arum echinatum*, Wall. pl. as. rar. 2, t. 136.) 2. Nepal.—*Biarum tenuifolium*, Schott. (*Arum tenuifolium*, L.; B. M. 42, t. 2282; B. Reg. 6, t. 512.) 2. Morea, Dalmatia.—*B. gramineum*, Schott. (*Arum gramineum*, L.) 2. S. Europe.—*Arum italicum*, Lam.; B. M. 50, t. 2432. 2. S. Europe.—*A. maculatum*, L. 2. S. Europe.—*A. pictum*, L. fil. 2. Balearic Islands.—*Sauromatum pedatum*, Schott. (*Arum pedatum*, Fisch.) 2. S. America.—*S. guttatum*, Schott. (*Arum guttatum*, Wall. pl. as. rar. 2, t. 115.) 2. Nepal.—*Dracunculus crinitus*, Schott. (*Arum crinitum*, Ait.) 2. Balearic Islands.—*D. Arum*, Schott. (*Arum Dracunculus*, L.) 2. S. Europe.—*Coldocasia macrorrhiza*, Schott. (*Arum macrorrhizum*, L.) 2. Ceylon.—*C. himalensis*, Royle. 2. Himalaya.—*Caladium bicolor*, Vent.; B. M. 52, t. 2543. (*Arum bicolor*, Ait.; B. M. 21, t. 820.) 2. Brazil.—*Peltandra virginica*, Schott. (*Arum virginicum*, L.; Hook. exot. fl. t. 182.) 2. N. America.—*Xanthosoma xanthorrhizone*, Schott. (*Arum xanthorrhizon*, Willd.) 2. W. Indies?—*X. sagittafolium*, Schott. (*Caladium sagittafolium*, Vent.) 2. W. Indies.—*Aconitum helleborifolia*, Schott. (*Arum helleborifolium*, Jacq.) 2. W. Indies.—*Syngonium auritum*, Schott. (*Arum auritum*, L.) 2. W. Indies.—*Culcasia scandens*, Beauv. (*Caladium scandens*, Willd.) 2. Guinea.—*Philodendron grandifolium*, Schott. (*Arum grandifolium*, Jacq.; B. M. 53, t. 2643.) 2. Caracas. Has been introduced at Bombay.—*P. pinnatifidum*, Schott. (*Arum pinnatifidum*, Jacq.) 2. Caracas.—*P. tripartitum*, Schott. (*Arum tripartitum*, Jacq.) 2. Caracas.—*P. crassinervium*, Lindl. B. Reg. 23, t. 1918; B. M. 64, t. 3621. 2. S. America?—*Dieffenbachia Seguinum*, Schott. (*Arum Seguinum*, L.; B. M. 52, t. 2606.) 2. W. Indies.—*Aglaonema integrifolium*, Schott. (*Arum integrifolium*, Lk.) 2. Moluccas.—*Homalomena occultum*, Schott. (*Calla occulta*, Lour.) 2. Cochin China.—*Monstera cannefolia*, Schott. (*Pothos cannefolius*, Curt.; B. M. 17, t. 603.) 2. Tropical America.—*M. lingulata*, Schott. (*Arum lingulatum*, L.) 2. Jamaica.—*M. Dracontium*, Schott. (*Calla Dracontium*, Meyer.) 2. W. Indies.—*Anthurium macrophyllum*, Schott. (*Pothos macrophyllus*, Swz.; B. M. 55, t. 2801.) 2. W. Indies.—*A. crassinervium*, Schott. (*Pothos crassinervius*, Jacq.; B. M. 57, t. 2987.) 2. S. America.—*A. microphyllum*, Schott. (*Pothos microphyllus*, Hook.; B. M. 56, t. 2953.) 2. Brazil.—*A. coriaceum*,



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ARACEÆ—LEMNACEÆ.

Schott. (*Pothos coriaceus*, Grah.; *Hook. exot. fl. t. 110.*) 2. Brazil.
—*A. Harrisii*, Schott. (*Pothos Harrisii*, Grah.; *Hook. exot. fl. t. 111.*)
2. Brazil.—*A. gracile*, Lindl.; *B. Reg. 19, t. 1635*, (*Pothos gracilis*,
Rudge, not Roxb.) 2. Guiana.—*A. pentaphyllum*, Schott. (*Pothos pentaphyllus*, Willd.; *B. M. 34, t. 1375.*) 2. S. America.—*Spatho-*
phyllum lanceæfolium, Schott. (*Dracontium lanceæfolium*, Jacq.) 2. Caracas.—*Symplocarpus foetidus*, Nutt.; *B. M. 60, t. 3224*. (*Pothos foetidus*, Ait.; *B. M. 22, t. 836.*) 2. N. America.—*Acorus terrestris*,
Rumph. 5, t. 72, f. 1. 2. Moluccas. Cochin China.—*Ariopsis peltata*,
Nitmo. 2. Bombay.

ORDER CCLII.—LEMNACEÆ. Schleiden.

Comp. gen. and sp. in Mag. Nat. Hist. vol. 6, p. 259.
Endl. gen. pl. 1, p. 232.

THE DUCK-WEED TRIBE.

Minute floating plants, 5 inhabiting Europe, America, and Van Die-
man's Land, and 5 discovered in India, viz.:—

LEMNA, L. (*Spreng. syst. 2, p. 28, No. 125*;—*R. Br. pr. I, p. 345*;—
Endl. gen. pl. 1, p. 232.) Duck-weed.

1. *orbiculata*, Roxb. (*fl. ind. 3, p. 565.*) ♂ Bengal. (Calcutta, Seram-
pore,) &c. Fl. lateral, with a spathe, minute, R. and C. S.

? 2. *cruciata*, Roxb. (*o. c. p. 566.*) ♂ Bengal, under the surface of the
water in tanks, in most extensive interwoven masses. Has not been
found here, and may perhaps belong to the next genus.

3. *obcordata*, Hb. Buch. ♂ Goruckpore.

GRANTIA, Griff. (MSS.* 1838.—*Wolfia*, Horkel. Miscel. ? Schleiden comp.
gen. and sp. Lemnaceæ, in Mag. Nat. Hist. vol. 6, p. 259.) Named
by Mr. W. Griffith, in honour of J. W. Grant, Esq., of the Bengal
Civil Service, one of the best microscopical observers of the present
day.

1. *microscopica*, Griff. MSS. ♂ Calcutta. Serampore. Fl. most minute,
terminal, naked, R. and C. S.

? 2. *globosa*, Griff. MSS. (*Lemna globosa*, Roxb. *fl. ind. 3, p. 565*;—*J.*
Grah. Cat. B. pl. p. 252.) ♂ Bengal. Serampore. Bombay. Fl. R. and
C. S.

* Flos monandrus, terminalis. Spatha nulla. Anthera unilecularis. *Planta minima*,
claviformis inter Phanerogameas simplicissima. (Griffith.)

ORDER CCLIII.—TYPHACEÆ, DC. Lindl. Nat. Syst. p. 365;
Endl. gen. pl. 1, p. 241.

Marsh or ditch plants, generally inhabiting Europe and N. America. Of the genus *Sparganium*, one species is found in New Holland, another in India, and a third in Cashmere. The other genus *Typha*, contains 6 species, of which three are found in Europe and N. America, one of these also in Van Dieman's Land and India; two in the W. Indies and S. America; and one in India.

TYPHA, Tournef. (*Spreng. syst.* 3, p. 764, No. 3154;—*R. Br. pr. p.* 338;—*Endl. o. c.*) Cat's Tail.

1. *angustifolia*, L. (*Spreng. o. c. p.* 890;—*E. B. 21, t.* 1456;—*Roxb. fl. ind.* 3, p. 567;—*R. Br. l. c.*—*T. minor*, *Curt. fl. lond.* t. 169, not Sm.) राम होगला Ram-hogla. 2. Peninsula of India. Bengal, (Serampore,) N. India. Fl. R. S. Leaves used for making mats.
2. *elephantina*, Roxb. (*fl. ind.* 3, p. 566;—*J. Grah. Cat. B. pl. p.* 227.) होगला Hogla. Elephant Grass. 2. Margins of tanks and beds of rivers throughout India. Fl. R. and C. S. Elephants are fond of this grass. (*Roxb.*) It is of great importance for binding the soil on the banks of the Indus with its long tortuous roots, of which great care is taken, when the culms are cut down to make matting of. They are also tied in bundles, and used as buoys to swim with, like sedges (*Sparganium ramosum*, Swz.) in England. (*J. Grah. l. c.*) The pollen of the flowers is abundant in this as well as in the other species, and if a light is applied to it, a flash of fire is produced.

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- * *Typha minor*, Sm., (*E. B. 21, t. 1457.*) 2. England, France, Germany.—*T. latifolia*, L.; *E. B. 21, t. 1455.* 2. Europe.—*T. truxillensis*, Kth. 2. Peru.—*T. domingensis*, Pers. 2. St. Domingo.—*Sparganium ramosum*, Swz.; *E. B. 11, t. 744.* 2. Europe.—*S. natans*, L.; *E. B. 4, t. 273.* 2. Europe.—*S. simplex*, Swz.) *E. B. 11, t. 745.* 2. Europe.—*S. stoloniferum*, Hb. Buch. 2. Magahur.—*S. carinatum*, Falconer. 2. Cashmere.

ORDER CCLIV.—NAJACEÆ, (NAJADACEÆ, Lindl. Nat.
Syst. p. 366;—Endl. gen. pl. 1, p. 229.)

Water plants, by Lindl. (including *Aponogeton*? and *Spathium*) referred to 16 genera. Of these, *Spreng. syst.* enumerates 26 species for Europe, of which several are also natives of America, Africa and Asia; 6 for S. America, Mexico and the W. Indies; 6 for N. America; 8 for N. Holland and the South Sea Islands (4 also natives of Europe,); 5 of S. Africa; 2 of Arabia; and 1 of Egypt. In the E. Indies have been found 1 species of *Caulinia*?

4 of *Najas*; 1 of *Ruppia* (Soonderbuns, Griffith,); 1 of *Zannichellia*; 13 of *Potamogeton*; 4 of *Spathium*; and — of *Epigynanthus*. Royle mentions, that Röttl. herb. contains numerous specimens of *Ruppia*, under the name of *Zannichellia indica*. Perhaps this species may be the same with that of the Soonderbuns. With the Cape species of *Aponogeton* we are not acquainted. “Properties unimportant. The root of *Potamogeton natans* is said to be eaten in Siberia. *Zostera*, or Sea-wrack, is a common material for packing, or for stuffing cottager’s cushions.” (Lindl.)

NAJAS, L. (*R. Br. pr. p. 345.*)

1. *dichotoma*, Roxb. (*fl. ind. 3, p. 749.*) ⊖ Bengal. Has been introduced into H. C. G.

? 2. *indica*, Griff. MSS. (*Caulinia indica*, Willd. ? *Spreng. syst. 1, p. 20.*—*Fluvialis indica*, Pers. syn. 2, p. 530.) ⊖ Tranquebar. Serampore. Fl. R. S.

3. *seminuda*, Griff. MSS. ⊖ Serampore. Fl. R. S.

4. *heteromorpha*, Griff. MSS. ⊖ Serampore. Fl. R. S.

POTAMOGETON, L. (*Spreng. syst. 1, p. 375*, No. 566;—*R. Br. pr. p. 343*; *Endl. gen. and ph. 1, p. 231.*) Pond-weed.

1. *indicus*, Roxb. (*fl. ind. 1, p. 452*; *ed. Carey, 1, p. 471.*—*Spreng. syst. c. p. p. 48*;—*J. Grah. Cat. B. pl. p. 200.*) ⊖ Both Peninsulas of India. Bengal, (Calcutta, Serampore.) Oude, &c. Fl. small, green, Feb. and March; fr. April and May.

2. *tuberosus*, Roxb. (*fl. ind. 1, p. 452*; *ed. Carey, 1, p. 472*;—*Spreng. syst. 1, p. 499*, excl. sub. Roth.;—*J. Grah. Cat. B. pl. p. 200.*) ⊖ Peninsula of India. Bengal. (Calcutta, Serampore.) Oude. Nepal. Fl. small, green, Feb. and March; fr. April and May. Much employed in the N. W. Provinces of India in the process of purifying sugar. (Royle.)

SPATHIUM, Lour. (*Endl. gen. pl. 1, p. 267.*—*Aponogeton*, L. partly. Erroneously referred to Saururaceæ.)

1. *chinense*, Lour. (*Aponogeton monostachys*, L. fil.;—*Spreng. syst. 2, p. 465*;—*Schult. syst. 8, p. 1591*;—*Lam. ill. t. 276, f. 1*;—*B. Rep. t. 406*;—*Roxb. Corom. 1, t. 81*; *fl. ind. 2, p. 210*;—*J. Grah. Cat. B. pl. 200.*—*Saururus nutans*, L. mant.—*Rheed. 11, t. 15.*) ~~CHINESE~~ Ghechoo. 2. S. China. Banks of the Irawaddi. Ceylon. Coromandel. Salsette. Concans. Bengal, (Serampore.) Silhet. Monghir. Fl. small, purplish-white, with blue anthers), R. S.; fr. C. S. The natives are fond of the roots, which are nearly as good as potatoes. (Roxb.)

2. *undulatum*, (Aponogeton undulatus, Roxb. *fl. ind. 2, p. 211.*) 2. Bengal. In H. C. G. fl. R. S.; fr. C. S. (Roxb.)

3. *microphyllum*, (Aponogeton microphyllus, Roxb. *fl. ind. 2, p. 211.*) 2. Bhootan Mountains. fl. R. S.; fr. C. S. (Roxb.)

* *Spathium? crispum* (Aponogeton crispus, Hb. Buch.; Thunb.?) Mu-huyadabad. Patangunj.—S. ? *echinatum*. (Aponogeton echinatus, Roxb.) Shallow fresh water all over the Circars.

ORDER CCLV.—TRIGLOCHINACEÆ (JUNCAGINACEÆ, Lindl.
Nat. Syst. p. 367.)

Marshy plants, by Lindl. referred to 4 genera. Of these Spreng. syst. enumerates 5 species for New Holland and Van Diemen's Land; 5 for S. America; 4 for Europe; 3 for N. America; and 1 for the Straits of Magellan. In S. Africa have been discovered 3 species of *Triglochin*, 2 of which are common to Europe, and in the Himalayas, *Triglochin himalense*, which, according to Royle, is scarcely to be distinguished from *T. palustre* of Europe. "Properties unknown." (Lindl.)

* *Triglochin palustre*, L.; E. B. 6, t. 366. ♂. Europe.—*T. Barrelieri*, Loisel. ♀. S. Europe. N. Africa.—*T. striatum*, Ruiz. and Pav. ♀. Undulated places of Peru.—*T. procerum*, R. Br. Tropical N. Holland.—*T. dubium*, R. Br. Tropical N. Holland.—*Scheuchzeria palustris*, L.; E. B. 26, t. 1801. ♀. Swamps of England, &c.—*Lilaea subulata*, Humb. Sides of lakes in New Granada.

ORDER CCLVI.—PANICACEÆ. (GRAMINACEÆ, Lindl. Nat.
Syst. p. 369.)

THE GRASS TRIBE.

This order is exceedingly numerous, and likely to increase in a larger ratio than the other phænogamous plants, so that the future proportion of grasses to the rest of Endogens will perhaps be as 1 to 20, or even perhaps as 1 to 16. Among the grasses there are both land and water-plants, but no marine ones. They occur in every soil, in society with others or alone, the latter in such abundance as entirely to occupy considerable districts. Sand appears to be less favourable to them, but even this has species nearly peculiar to itself. The diffusion of the order has almost no other limits than those of the whole vegetable kingdom. Species of it have been discovered on Spitzbergen, on the mountains of S. Europe, nearly to the snow-line, and on the Andes. The tropical grasses differ from the extra-tropical ones, by their greater size, some (f. ex. the bamboos) being 50-60 feet high; by their larger leaves; by their frequently separate sexes, and lastly by their softer, more downy and elegant flowers. The extra-tropical grasses on the contrary, far surpass the tropical ones in the number of individuals. That compact grassy turf, which, especially in the wilder parts of the temperate zones, in spring and summer composes the green meadows and pastures, is almost entirely wanting in the torrid zone. The grasses here do not grow crowded together, but, like other plants, more dispersed. Even



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in the southern parts of Europe, the assimilation to the warmer regions, in this respect, is by no means inconsiderable. *Donax arundinaceus*, by its height, reminds us of the bamboo; while *Saccharum Ravennæ*, *S. Tenerifæ*, *Imperata arundinacea*, *Lagurus ovata*, *Lygeum Spartum*, and the species of *Andropogon*, *Ægilops*, &c., by their separate sexes exhibit tropical characters. The grasses are also less gregarious, and meadows occur seldom in the south than in the north of Europe. (*Extr. from Schouw, in Jameson's philos. journ. April 1825, copied by Lindl.*)

What may be the amount of Indian species of grasses, hitherto discovered, it is impossible for us to state, Nees von Esenbeck's synopsis of Wight's and Royle's grasses not being procurable, and those enumerated in Wall. Cat. still remaining in the hands of R. Brown. Supposing, however, the aggregate of the former to be 200, and the latter, after abstracting common forms, to amount to 100, the sum total of discovered Indian grasses will, on reducing Griffith's gramineous collections, probably be about 1300. The collections stand thus:—

Griffith, 270 from Affghanistan; 150 from the Peninsula of India; 128 from the Khassya Mountains; 100 from Assam; 100 from Serampore; 93 from Mergui; 73 from the Mishmee Hills; and 51 from Bhootan. In all 965, but after abstracting common forms perhaps 800.

Roxb.—217.—*Royle and Wight*.—200?—*Wall. Cat.* 131, reducible perhaps to 100.

As the Indian tropical grasses are abundant, and large in foliage, so do the species which extend along the foot of the Himalayas form a grass jungle sufficiently high to conceal the elephant and rhinoceros, while in ascending, we find many of the same genera and species which are met with in proceeding from the equator to the poles. The grasses found in the plains of India, some of which are confined to the Peninsula, but many of which are as common in the northern as in the southern plains, belong to genera, of some of which a few species ascend the mountains, and are found there at considerable elevations in the rainy season of the year. The majority of these genera are Asiatic, and the greater number of their species are contained in, and some of them confined to India; but some of the genera are as characteristic of the floras of America, New Holland and Africa. In the plains of N. India there are a few species likewise found in European countries, or which belong to genera more like European than Indian forms, f. ex. the common Doob grass, (*Cynodon Dactylon*.) Among the cold weather cultivation of wheat and barley, two European species are very commonly found, viz. *Lolium temulentum*, L. (the only grass, in its normal state of a deleterious nature,) and *Avena fatua*, L. Though many of the Gramineæ found in the Himalayas belong to genera of which the greater number of species inhabit tropical situations, yet it is only in the rainy season that these occur, and the mass of the grasses, like that of the vegetation in general of these mountains, will be found to be analogous to that of European countries; and many of those very species which are most



valued as pasture grasses in England, are found forming the grassy sward of the Himalayas. The plains of India being subject to great heat, with draught at one season and heavy rains at another, cannot be expected to present any pasture grounds resembling those of the best parts of Europe; but the temperature of the cold weather months, especially in the northern provinces, being such as to be most favourable for the cultivation of the same cereal grasses as in Europe, it is not surprising that good grass is produced there, and that many Europeans prepare very excellent hay. Their rapid growth, great height, and subsequent dryness render many of the Indian grasses unfit for pasture, at the end of the year. This the inhabitants of the tracts at the base of the Himalayas, as well as those within these mountains, remedy by yearly burning down the old and dry grass, so as to allow the young blades, which immediately sprout up, to afford fodder for the cattle. But most Europeans in India prefer, or indeed only give their horses, the creeping stems and leaves of the *Dooba grass*, which is by far the most common in every part of India, and moreover flowers through the greater part of the year. In N. India it is a common practice to form lawns and pastures of moderate extent, by planting pieces of the creeping stems of this grass, which yields excellent hay in what is the spring of the year in Europe. It forms indeed three-fourths of the food of the horses and cows in the south of India. (*Royle ill. p. 415-21.*) Cattle are also fed on the grass, whether green or dry, of *Kodu* (*Paspalum scrobiculatum*, L.); *Cheena-ghas* (*Panicum miliaceum*, Willd.); *Jalgantee* (*Panicum He-lopus Trin.*); *Kungoo Panicum miliare* (*Panicum italicum*, L.); *Eurogal-gantea* (*Panicum setigerum*, Retz.); *Chhoto-jalgantee* (*Panicum repens*, Roxb.); *Shama* (*Panicum colonum*, L.); *Damra-shama* (*Panicum frumentaceum*, Roxb.); *Bujura* (*Penicillaria spicata*, Willd.); *Jooar* (*Sorghum vulgare*, Pers.); *Sorghum cernuum*, Willd.; *S. saccharatum*, Pers. Roxb.); *Makurjalee* (*Panicum ciliare*, Retz.); *Kash.* (*Saccharum spontaneum*, L.); *Andropogon Martini*, Roxb.; *Buksa* (*Rottböllia glabra*, Roxb.); *Juva* (*Hordeum hexastichon*, L.) &c.

The prevalence of particular grains in the zones and continents depends not only on climate, but is determined also by the civilization, industry and traffic of the people, and often by historical events, thus the earth may, according to Schouw, be divided into five grand tracts, distinguished by the prevalence of barley and oats, rye, wheat, maize or rice. *The two first* extend farthest to the north in Europe, constituting in the northern parts of Norway and Sweden, and in a part of Siberia and Scotland, the principal vegetable nourishment. Rye is the prevailing grain in the South of Norway and Sweden, in part of Siberia, in Denmark, and all the countries bordering on the Baltic. In the latter, another very nutritious grain, *Buck-wheat*, is very frequently cultivated. The rye tract is generally associated with the cultivation of wheat, barley there being chiefly cultivated for the manufacture of beer, and oats for supplying food for horses. The *wheat tract* comprehends the middle or the south of France,



628

PANICACEAE.

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England, part of Scotland and Germany, Hungary, the Crimea and Caucasus, as also the lands of middle Asia, where agriculture is followed. The next tract, where wheat still abounds, but no longer exclusively furnishes bread, maize and rice becoming frequent, includes Portugal, Spain, part of Mediterranean, France, Italy, Greece, the Canaries, Barbary, Egypt, Nubia, Arabia, Persia and N. India. In China and Japan rice is found to predominate. The cause of this difference between the east and the west of the old continent appears to be in the manners and peculiarities of the people. In N. America, wheat and rye grow as in Europe, but more sparingly. Maize is more reared in the new than in the old continent, and rice predominates in the southern provinces of the United States. In the torrid zone, *Maize* predominates in America, *Rice* in Asia, and both these grains in nearly the same ratio in Africa. The cause of this distribution is, without doubt, historical; for Asia is the native country of rice, and America of maize. In some situations, especially in the neighbourhood of the tropics, wheat is also met with, but always subordinate to maize and rice. In the high lands of S. America, maize grows to the height of 7200 feet above the level of the sea, but only predominates between 3000 and 6000 f. of elevation. Below 3000 it is associated with yams, manihot, batatas and plantains; while, from 6000 to 9260, the European grains abound, wheat in the lower regions, and rye and barley in the higher, along with which *Chenopodium Quino*, *Willd.*, as a nutritious plant must also be mentioned. Potatoes alone are cultivated from 9260 to 12300 feet. In the torrid zone in Africa, plantains, manihot, yams, *Arachis hypogaea*, L. and *Sorghum vulgare*, Pers. are added to the maize and rice. To the south of the Capricorn, f. ex. in S. Brazil, Buenos Ayres, Chili, C. G. H., and the temperate zone of New Holland, wheat predominates; barley, however, and rye, make their appearance in the southernmost parts of these countries, and in Van Dieman's Land, and in New Zealand, the European grains are now cultivated with success. In the Islands of the South Sea, grain of every kind disappears, its place being supplied by the Bread-fruit-tree, the Plantain and *Tacca pinatifida*, Forst. Tropical New Holland exhibits no agriculture, the inhabitants living on the produce (Sago) of various palms, and some species of *Arum*. (*Schouw. l. c.*) The Cerealia of India will be mentioned under the several species.

A. PHALARIS.

(Phalaridex, Nees; — *Lindl. Nat. Syst. p. 378.*)*PHALARIS*, L. (*Endl. gen. pl. 1, p. 81.*)1. *aquatica*, Ait. (*Spreng. syst. 1, p. 272.*) ⊕ S. Europe. Fl. Feb. and March.2. *canariensis*, L. (*Spreng. syst. 1, p. 272; — E. B. 19, t. 1310.*) *Canary-grass.* ⊕ Canaries. Seeds food for birds.*HOLCUS*, L. (*Endl. l. c.*)1. *mollis*, L. (*Spreng. syst. 1, p. 292; — E. B. 17, t. 1170.*) 24. Meadows of England and S. Europe. Fl. C. S.



2. *lanatus*, L. (*Spreng. l. c.*; — *E. B.* 17, *t.* 1169; — *fl. Dan.* *t.* 1181.) 2.
Meadows of Europe. Fl. C. S.

HIEROCHLOA, Gmel. R. Br. (*Endl. gen. pl.* 1, *p.* 81.)

1. *borealis*, Röm. and Sch. (*Spreng. syst.* 1, *p.* 247.—*Holcus odoratus*, L.; — *fl. Dan.* *t.* 963.) 2. North and middle Europe. Fl. C. S. An aromatic, sweet-scented grass.

B. PANICAE.

Nees.—*Lindl. Nat. Syst.* *p.* 378.

PASPALUM, L. (*Endl. gen. pl.* 1, *p.* 82.)

1. *stoloniferum*, Bosc. (*Spreng. syst.* 1, *p.* 248; — *Roxb. H. B.* *p.* 7.—*P. racemosum*, *Jacq. ic. rar.* *t.* 302.—*P. purpureum*, *Ruiz. and Pav.* — *Milium latifolium*, *Cav. ic. 3*, *p.* 37, *t.* 273.) 2. Peru, where it is cultivated (◎) because of the excellent fodder it yields. Fl. C. S.

2. *stoloniferum*, L. (*Spreng. syst.* 1, *p.* 246; — *Roxb. fl. ind.* 1, *p.* 278; *ed. Carey.* 1, *p.* 281.) ମ୍ଯାନା ମ୍ୟାନା. କୋର କୋର. ◎ Bengal, (Serampore,) &c. Fl. and fr. R. S. Cultivated. The seed is an article of diet with those natives, who inhabit mountains and barren parts of the country. Boiled it is as palatable as rice. (*Roxb.*)

3. *Kora*, Röm. and Sch. (*P. Kora*, *Willd. hort. berol.* *t.* 74; — *Roxb. fl. ind.* 1, *p.* 279, excl. syn. *Forst.*; *ed. Carey.* 1, *p.* 282.) କୋର କୋର. ◎ Bengal, (Serampore,) &c. Fl. and fr. R. S. Cattle are very fond of both varieties, whether green or dry.

HELOPUS, Trin. (*Eriochloa*, *Kth.*; — *Endl. gen. pl.* 1, *p.* 83.)

1. *annulatus*, Nees. (*Spreng. syst.* 1, *p.* 246.—*Milium ramosum*, *Retz.* — *Roxb. fl. ind.* 1, *p.* 315; *ed. Carey.* 1, *p.* 317.) ଚିରିଆ ଘାସ Chiriya-ghas. 2. Bengal, (Serampore.) Fl. and fr. R. S.

2. *longistylus*, Retz. (*Spreng. syst.* *p.* 245; — *Roxb. fl. ind.* 1, *p.* 279; *ed. Carey.* 1, *p.* 283; — *Rheed.* 12, *t.* 44.) 2. Bengal, (Serampore.) Peninsula of India, &c. Fl. and fr. R. S.

3. *virgatus*, L. (*Spreng. syst.* 1, *p.* 248; — *Gürtz. fr.* 2, *p.* 1, *t.* 80, *f.* 1. — *Sloane.* *t.* 69, *f.* 2.) 2. Jamaica. Fl. and fr. H. S.

4. *longifolius*, Roxb. (*fl. ind.* 1, *p.* 280; *ed. Carey.* 1, *p.* 283.) ◎ Sumatra? In *H. C. G. fl.* and fr. R. S. (*Roxb.*)

5. *filiculmis*, Nees. (*Milium filiforme*, *Roxb. fl. ind.* 1, *p.* 314; *ed. Carey.* 1, *p.* 316; not *Lag.*) କଞ୍ଜୁ କୁଣ୍ଡିଆ Kungoo-jooriya. 2. Bengal, (Serampore.) Fl. and fr. R. S.

6. *paradoxus*, Nees. (*Piptatherum paradoxum*, *Beauv.*; — *Röm. and Sch.* 2, *p.* 328.—*Milium paradoxum*, *Schrad.*; — *Scop. carn.* *No.* 83, *t.* 1; — *Schreb. gram.* 1, *p.* 50, *t.* 28, *f.* 2; — *Host. gram.* 3, *p.* 16, *t.* 23.—*Agrostis paradoxia*, L.) 2. Austria, France, Caucasus. Fl. C. S.

CORIDOCHLOA, Nees. (*Edinb. phil. journ.* 1832, *July.*)

1. *cimicina*, Nees. (*Urochloa cimicina*, *Kth.*—*Axonopus cimicinus*, *Beauv.*; *Röm. and Sch.* 2, *p.* 317.—*Panicum cimicinum*, *Retz.*; — *Roxb. fl. ind.* 1, *p.* 291; *ed. Carey.* 1, *p.* 295.—*Milium cimicinum*, L.—*Agrostis cimicina*, *Poir.*) ◎ Peninsula of India. Fl. and fr. R. S.



UROCHLOA, Beauv. (*Endl. gen. pl. 1, p. 83.*)

1. *panicoïdes*, Beauv. (*Milium sanguinale, Roxb. fl. ind. 1, p. 315; ed. Carey, 1, p. 296.—Panicum sanguinale, Burm. ind. t. 10, f. 1.*) চিত্রিচড়া *Chitrichirya*. ⊙ Bengal, (Serampore,) &c. Fl. and fr. R. S.

PANICUM, L. (*Endl. gen. pl. 1, p. 83.*)

1. *flavans*, Retz. (*Röm. and Sch. 2, p. 425;—Roxb. fl. ind. 1, p. 293; ed. Carey, 1, p. 296;—J. Grah. Cat. B. pl. p. 237.*) পেটিনুর. ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
2. *flavidum*, Retz. (*Röm. and Sch. 2, p. 426;—Spreng. syst. 1, p. 308.* —*P. brizoides, Roxb. fl. ind. 1, p. 292; ed. Carey, 1, p. 296; not Retz.*) ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
3. *repens*, Roxb. (*fl. ind. 1, p. 299; ed. Carey, 1, p. 302, scarcely L?*) ছোট জালগাঁও *Chhoto-jalyantee*. ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
4. *miliaceum*, Willd. (*Röm and Sch. 2, p. 434;—Roxb. fl. ind. 1, p. 310; ed. Carey, 1, p. 312?—J. Grah. Cat. B. pl. p. 237.*) চীন শাস *Cheeno-ghas*. ⊙ Cultivated in India. Fl. R. S.; fr. C. S.
5. *miliare*, Lam. (*Röm. and Sch. 2, p. 435;—Roxb. fl. ind. 1, p. 309; ed. Carey, 1, p. 311;—J. Grah. Cat. B. pl. p. 237.*) ⊙ Cultivated in India. Fl. R. S.; fr. C. S.
6. *miliaceoides*, Roxb. (*H. B. p. 8.*) In H. C. G. Fl. R. S.; fr. C. S. (*Roxb.*)
7. *jumentosum*, Pers. (*syn. 1, p. 83.*) 2. Guinea. Cultivated in Tropical America and India, under the name of Guinea-grass. Fl. and fr. R. and C. S.
- ? 8. *acariferum*, Trin. (*Melica latifolia, Roxb. fl. ind. 1, p. 328; ed. Carey, 1, p. 330.*) 2. Garrow Hills. Khassy Mountains. Fl. March.
9. *curvatum*, L. (*Röm. and Sch. 2, p. 442;—Roxb. fl. ind. 1, p. 288; ed. Carey, 1, p. 289.*) ⊙ Peninsula of India. Fl. R. S.; fr. C. S. (*Roxb.*)
10. *uliginosum*, Roxb. (*H. B. p. 8; fl. ind. 1, p. 308; ed. Carey, 1, p. 310;—Röm. and Sch. 2, p. 442.*) বুরুন্দি *Burundo*. ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
11. *paludosum*, Roxb. (*fl. ind. 1, p. 307; ed. Carey, 1, p. 310;—Schult. Mant.*) বুরেথী *Burethee*. কুলসুন্দি *Kulusnur*. ⊙ Circars. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
12. *trigonum*, Retz. (*Röm. and Sch. 2, p. 443;—Roxb. fl. ind. 1, p. 305; ed. Carey, 1, p. 307.*) 2. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
13. *interruptum*, Willd. (*Röm. and Sch. 2, p. 462;—Roxb. fl. ind. 1, p. 286; ed. Carey 1, p. 289.*) নুর্দুল *Nurdul*. ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
14. *patens*, L. (*Röm. and Sch. 2, p. 454;—Roxb. fl. ind. 1, p. 305; ed. Carey, 1, p. 308.*) ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.



15. *Rozburghii*, Spreng. (*syst. I.*, p. 320.—*P. tenellum*, *Roxb. fl. ind.* 1, p. 306; *ed. Carey*, 1, p. 309;—*J. Grah. Cat. B. pl.* p. 237; not Lam.) झुपि कुका *Joopi-kunka*. ◎ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
16. *corymbosum*, Roxb. (*fl. ind.* 1, p. 292; *ed. Carey*, 1, p. 295;—*Spreng. syst. I.*, p. 311.) ◎ Coromandel. In H. C. G. fl. R. S. (*Roxb.*)
17. *serrulatum*, Roxb. (*fl. ind.* 1, p. 307; *ed. Carey*, 1, p. 309;—*Spreng. syst. I.*, p. 311.) ◎ Moist vallies of India. In H. C. G. fl. R. S. (*Roxb.*)
18. *sarmentosum*, Roxb. (*fl. ind.* 1, p. 308; *ed. Carey*, 1, p. 311;—*Spreng. syst. I.*, p. 321.) 2. Sumatra. In H. C. G. fl. R. S. (*Roxb.*)
19. *asperatum*, Kth. (*P. plicatum*, *Roxb. fl. ind.* 1, p. 311; *ed. Carey*, 1, p. 313; not Lam.) ◎ Sumatra. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
20. *nepalense*, Spreng. (*syst. I.*, p. 321.—*P. nervosum*, *Roxb. fl. ind.* 1, p. 311; *ed. Carey*, 1, p. 314; not Lam.) 2. Nepal. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
21. *costatum*, Roxb. (*fl. ind.* 1, p. 312; *ed. Carey*, 1, p. 314;—*Spreng. syst. I.*, p. 311.) ◎ Mauritius. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
(*Digitaria*, Scop.;—*Spreng. syst. I.*, p. 133, No. 283.)
22. *sanguinale*, L. (*E. B.* 12, t. 849.—*Digitaria sanguinalis*, *Scop.*—*Röm.* and *Sch.* 2, p. 469.) *Polish Millet.* ◎ Cultivated in Europe, Asia, and America. Fl. C. S.; fr. Feb. Seeds boiled like rice with milk are highly esteemed in Poland and Lithuania.
23. *aegyptiacum*, Retz. (*Roxb. fl. ind.* 1, p. 289; *ed. Carey*, 1, p. 293;—*J. Grah. Cat. B. pl.* p. 237.—*P. filiforme*, *Jacq. obs.* 3, p. 8, t. 30.—*Digitaria aegyptiaca*, *Willd.*;—*Röm. and Sch.* 2, p. 471.) ◎ America, Levant, Egypt, Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
24. *filiforme*, Roxb. (*fl. ind.* 1, p. 290; *ed. Carey*, 1, p. 203; not L.? ◎ China. Fl. throughout the year, but chiefly during R. S. (*Roxb.*)
25. *commutatum*, Nees. (*P. ciliare*, *Roxb. fl. ind.* 1, p. 290; *ed. Carey*, 1, p. 293;—*J. Grah. Cat. B. pl.* p. 237, not Willd.?) माकर जानी *Makur-jalee*. ◎ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. Cattle are very fond of this grass.
26. *lineare*, L. (*Roxb. fl. ind.* 1, p. 291; *ed. Carey*, 1, p. 294; excl. syn. *Burm.*—*Digitaria linearis*, *Pers.*;—*Schult.*) ◎ China. Fl. throughout the year, but especially during the R. S. (*Roxb.*)
27. *orthum*, (*Digitaria stricta*, *Roth.*; *Röm. and Sch.* 2, p. 474.) ◎ Bengal, (Serampore,) Fl. and fr. R. S.
28. *Helopus*, Trin. (*P. hirsutum*, *Kön.*;—*Roxb. fl. ind.* 1, p. 300; *ed. Carey*, 1, p. 303; not Swz.—*P. Königii*, *Spreng. syst. I.*, p. 311.—*Oplismenus?* *hirsutus*, *Schult.*—*Setaria?* *hirsuta*, *Kth.*) जाङगी जलगंगी *Jalgantee*. ◎ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. Cattle very fond of this grass.



(*Setaria*, Beauv.—*Endl. gen. pl.* 1, p. 85, under *Pennisetum*.)

29. *verticillatum*, L. (*E. B.* 13, t. 874;—*Roxb. fl. ind.* 1, p. 301; *ed. Carey*, 1, p. 304;—*J. Grah. Cat. B. pl. p.* 237.—*Setaria verticillata*, Beauv.;—*Röm. and Sch.* 2, p. 488.) 2. Europe. Caucasus. N. America. Bengal, (Serampore,) &c. Fl. R. S., fr. C. S.
30. *helvolum*, L. (*P. glaucum*, *Roxb. fl. ind.* 1, p. 284; *ed. Carey*, 1, p. 287;—*J. Grah. Cat. B. pl. p.* 237; not L.—*Setaria helvela*, *Röm. and Sch.*—*Pennisetum helvolum*, *R. Br. pr.* 1, p. 195.) পিঙ্গি নাহি Pingi-nachhi. ◦ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
31. *geniculatum*, Horn. (*Setaria geniculata*, *Röm. and Sch.* 2, p. 491.—*Pennisetum geniculatum*, *Jacq.*) 2. W. Indies. Fl. C. S.
32. *italicum*, L. (*Roxb. fl. ind.* 1, p. 302; *ed. Carey*, 1, p. 305;—*J. Grah. Cat. B. pl. p.* 237.—*Setaria italicica*, Beauv.—*Pennisetum italicum*, *R. Br. pr.* 1, p. 195;—*Rumph.* 5, t. 75, f. 2.) কংকু Kungoo. ◦ Cultivated. Fl. R. S.; fr. C. S. Seed an article of diet among the natives.
33. *macrochaetum*, (*Setaria macrochaeta*, *Spreng. syst.* 1, p. 305.—*Pennisetum macrochaetum*, *Jacq.*) ◦ Bengal, &c. Fl. and fr. C. S.
34. *tomentosum*, Roxb. (*J. fl. ind.* 1, p. 301; *ed. Carey*, 1, p. 303.—*Setaria ? tomentosa*, *Kth.*) ◦ Peninsula of India. In H. C. G. fl. R. S. (*Roxb.*)

(*Echinochloa*, Beauv.)

35. *stagninum*, Retz. (*Roxb. fl. ind.* 1, p. 295; *ed. Carey*, 1, p. 298.—*J. Grah. Cat. B. pl. p.* 237.—*Echinochloa stagnina*, *Röm. and Schult.* 2, p. 477.) দল Dul. ◦ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
36. *Crus corvi*, L. (*Roxb. fl. ind.* 1, p. 296; *ed. Carey*, 1, p. 299;—*J. Grah. Cat. B. pl. p.* 237;—*P. Crus galli*, L.;—*E. B.* 13, t. 876.—*Echinochloa Crus corvi* and *Crus galli*, *Röm. and. Sch.* 2, p. 477-78.) ◦ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
37. *setigerum*, Retz. ? (*Roxb. fl. ind.* 1, p. 299; *ed. Carey*, 1, p. 302.—*Echinochloa setigera*, *Röm. and Sch.* 2, p. 480.) বড় জালাণ্ডি Buro-jalgantee. 2. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. Cattle are fond of it.
38. *hispidulum*, Retz. (*Röm. and Sch.* 2, p. 480;—*Roxb. fl. ind.* 1, p. 303; *ed. Carey*, 1, p. 306.) বড় শামা Buro-shama. ◦ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

OPLISMENUS, Kth. (*Endl. gen. pl.* 1, p. 84.)

1. *lanceolatus*, Kth.—(*Panicum lanceolatum*, *Retz.*—*Roxb. fl. ind.* 1, p. 294; *ed. Carey*, 1, p. 297.—*Echinochloa lanceolata*, *Röm. and Sch.* 2, p. 476.) ◦ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
2. *Burmanni*, Röm. and Sch. (*syst.* 2, p. 482.—*Orthopogon Burmanni*, *R. Br. pr.* p. 194, annot.—*Panicum Burmanni*, *Retz.*;—*Roxb. fl. ind.* 1, p. 295; *ed. Carey*, 1, p. 298;—*J. Grah. Cat. B. pl. p.* 237.—*Panicum hirtellum*, *Burm. ind.* t. 12, f. 1.—*Oplismenus Burmanni*, *Röm. and Sch.* 2, p. 482;—*Rumph.* 6, t. 5, f. 3?) ◦ Bengal, (Serampore,) &c. Fl. and fr. R. S.



3. *colonus*, Kth. (*Panicum colonum*, L.; *Röm.* and *Schult.* 2, p. 424;—*Roxb. fl. ind.* 1, p. 296; *ed. Carey*, 1, p. 299;—*J. Grah. Cat. B. pl. p.* 237.) **শামা** *Shama*. ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. Cattle are very fond of it.

4. *frumentaceus*, Roxb. (*Panicum frumentaceum*, *Roxb. fl. ind.* 1, p. 304; *ed. Carey*, 1, p. 307;—*J. Grah. Cat. B. pl. p.* 137.) **দামড়া** **শামা** *Damra-shama*. ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S. Several varieties of this grass are known to the Hindoo farmers. The seed is wholesome and nourishing, and constitutes an article of diet, particularly among the lower classes of the natives. It yields about fifty-fold in a good soil. Cattle are fond of it. (*Roxb.*)

? 5. *strictus*, Schult. (*Panicum strictum*, *Roxb. fl. ind.* 1, p. 303; *ed. Carey*, 1, p. 1, p. 306; not R. Br. nor of others.—*P. bengalense*, *Spreng. syst.* 1, p. 311.) **গঙ্গ বেণি** *Gang-bena*. ⊙ Bengal. Fl. R. S. (*Roxb.*)

STENOTAPHRUM, Trin. (*Endl. gen. pl.* 1, p. 84.)

1. *dimidiatum*, W. and A. Schrank. (*Panicum dimidiatum*, *Retz.*—*Röm.* and *Sch.* 2, p. 426;—*Roxb. fl. ind.* 1, p. 287; *ed. Carey*, 1, p. 290;—*Burm. ind.* t. 8, f. 3.—*Rothböllea complanata*, *Swz.*) ⊙ Peninsula of India. Mascarenhas Islands. Has been introduced into H. C. G.?

TRACHYS, Pers. (*syn.* 1, p. 85.—*Trachyozus*, *Reichb.*—*Endl. gen. pl.* 1, p. 85.)

1. *muricata*, Pers. (*t. c.*; where it is erroneously written "mueronata,"—*Cenchrus muricatus*, L.—*Schreb. gram.* 2, p. 69, t. 34.—*Panicum squarrosum*, *Retz.*;—*Roxb. Corom.* 3, t. 206; *fl. ind.* 1, p. 288; *ed. Carey*, 1, p. 291, excl. syn. *Burm.*;—*J. Grah. Cat. B. pl. p.* 237, excl. syn. *P. conjugatum*. *Roxb.*—*Trachystachys muricata*, *Dietr.*) ⊙ Coromandel. Has been introduced into H. C. G.?

PENICILLARIA, Swz. (*Endl. gen. pl.* 1, p. 85.)

1. *spicata*, Willd. (*Röm. and Sch.* 2, p. 498.—*Holcus spicatus*, L.;—*J. Grah. Cat. B. pl. p.* 238.—*Alopecurus typhoides*, *Gmel.*—*Pennisetum typhoideum*, Pers.—*Panicum spicatum*, *Delile*;—*Roxb. fl. ind.* 1, p. 283; *ed. Carey*, 1, p. 286.) **বজুরা** *Bujura*. ⊙ Cultivated in India, especially over the higher lands on the Coast of Coromandel. Fl. R. S.; fr. C. S. Cattle are fond of the straw, and the grain is a very essential article of food amongst the natives. (*Roxb.*)

? 2. *involucrata*, Schultes. (*Panicum involucratum*, *Roxb. fl. ind.* 1, p. 284; *ed. Carey*, 1, p. 287.) ⊙ Mountains of Coromandel. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

PENNISETUM, Rich. (*Endl. gen. pl. p.* 85.)

1. *barbatum*, Schult. (*Panicum barbatum*, *Roxb. fl. ind.* 1, p. 282; *ed. Carey*, 1, p. 285;—*Rumph.* 6, t. 7, f. 2, B.) ⊙ Moluccas. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

2. *holcoïdes*, Schult. (*Panicum holcoïdes*, *Roxb. fl. ind.* 1, p. 285; *ed. Carey*, 1, p. 288.) **শুণ্টি শাম** *Shoonti-ghas*. ⊙ Mountains of India. In H. C. G. fl. R. S.; fr. C. S.

CENCHRUS, L. (*Endl. gen. pl.* 1, p. 85.)

1. *tribuloides*, Vahl. (*Röm. and Sch.* 2, p. 253.) ◎ Virginia. Carolina.
Fl. R. S.; fr. C. S.

2. *echinatus*, Vahl. (*Röm. and Sch. l. c.—Schreb. gram.* p. 9, t. 23, f. 1.—*Gärtn. fl.* 2, t. 8, f. 3.) ◎ W. Indies. Cumana. Fl. R. S.; fr. C. S.

C. SACCHARUM, Nees.

Lindl. Nat. Syst. p. 378.

SORGHUM, Pers. (*syn. l.* p. 101.—*Trachypogon*, Nees.;—*Endl. gen. pl.* 1, p. 108.)

1. *vulgare*, Pers. (*Röm. and Sch.* 2, p. 836.—*S. commune*, Beauv.—*Holcus Sorghum*, L.—*J. Grah. Cat. B. pl.* p. 238, excl. syn. *Rumph.*—*H. Durra*, *Forsk.*—*Andropogon Sorghum*, *Brot.*—*Roxb. fl. ind.* 1, p. 269; *ed. Carey*, 1, p. 273.) ଜୀର୍ଣ୍ଣାଳ୍ପାତା ଜୋରା. ◎ Arabia. Cultivated in India. Fl. C. S.; fr. H. S. Grain much used for food. The straw is reckoned very nourishing for cattle, and is a substitute for forage for horses, when grass is not obtainable. (*J. Grah.*)

2. *bicolor*, Willd. (*Röm. and Sch.* 2, p. 837.—*Holcus bicolor*, L.—*Andropogon bicolor*, *Roxb. fl. ind.* 1, p. 268; *ed. Carey*, 1, p. 272.) କାଲୋ ଦେବଧାନ୍ କାଲୋ-ଦେବଧାନ. ◎ Cultivated in India. Fl. C. S.; fr. H. S. Grain much used for food.

3. *cernuum*, Willd. en. (*Röm. and Sch. l. c.*—*Holcus cernuus*, *Willd. sp.*—*Andropogon cernuus*, *Roxb. fl. ind.* 1, p. 270; *ed. Carey*, 1, p. 273.—*S. halepense*, Pers.—*Andropogon laxus*, *Roxb.*) ◎ Cultivated by the natives of Munipore and other mountainous districts immediately East of Bengal. In H. C. G. fl. C. S. (*Roxb.*)

4. *saccharatum*, Pers. (*Röm. and Sch. l. c.*;—*Host. gram.* 4, t. 4.—*Holcus saccharatus*, *Ardvum*.—*Andropogon saccharatus*, *Roxb. fl. ind.* 1, p. 271; *ed. Carey*, 1, p. 274;—*J. Grah. Cat. B. pl.* p. 238;—*Rumph.* 5, t. 75.) ସାଦା ଦେବଧାନ୍ ସାଦା-ଦେବଧାନ. ◎ Cultivated in India. Fl. C. S.; fr. H. S.

CHRYSTOPOGON, Host. (*Andropogon*, Nees.;—*Endl. gen. pl.* 1, p. 108, under *Andropogon*, L.)

1. *acicularis*, Host.? (*Andropogon acicularis*, *Retz.*;—*Roxb. fl. ind.* 1, p. 262; *ed. Carey*, 1, p. 266;—*J. Grah. Cat. B. pl.* p. 238.—*Raphis trivalvis*, *Lour.*;—*Rheed.* 12, t. 43;—*Rumph.* 6, t. 5, f. 1.) ଚାର କଟି ଚାରକଟି ଚାରକଟି. Moluccas. Cochin China. Sunda Islands. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. R. S.; fr. Oct. and Nov.

2. *filiformis*, (*Andropogon filiformis*, *Roxb. fl. ind.* 1, p. 256; *ed. Carey*, 1, p. 260.—*Pollinia filiformis*, *Spreng. syst.* 1, p. 238.) ◎ Bengal, (Calcutta, Serampore,) &c. Fl. C. S.; fr. H. S.

IMPERATA, Curillo. (*Endl. gen. pl.* 1, p. 107.)

1. *cylindrica*, Beauv. (I. arundinacea, *Cyril. ic. rar. fasc.* 2, t. 11;—*Röm. and Sch.* 2, p. 288;—*R. Br. pr.* 1, p. 204.—*Lagurus cylindricus*, L.—*Saccharum cylindricum*, *Lam.*;—*Roxb. fl. ind.* 1, p. 234;



ed. Carey, 1, p. 239;—J. Grah. Cat. B. pl. p. 239;—Rumph. 6, t. 7, f. 2.) ଉଲୁ Ooloo. ୨. Caucasus. New Holland. Moluccas. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. R. S; fr. C. S. In Bengal much used for thatch. (Roxb.)

SACCHARUM, L. (*Endl. gen. pl.* 1, p. 107.)

1. *spontaneum*, L. (Roxb. *fl. ind.* 1, p. 235; ed. Carey, 1, p. 240.—S. biflorum, Forsk.—Imperata spontanea, Trin.;—Röm. and Sch. 2, p. 289.) କାଶ Kash. ୨. Arabia. Peninsula of India. Bengal, (Serampore,) &c. Fl. R. S; fr. C. S. Makes good mats for various purposes, and is used to thatch houses. (Roxb.) Buffaloes are fed on this grass.
2. *fuscum*, Roxb. (*fl. ind.* 1, p. 236; ed. Carey, 1, p. 241;—Spreng. syst. 1, p. 281.) ପାଟ୍ଟି ଥଣ୍ଡି Patee-Khoree. ୨. Bengal, (Serampore.) Fl. R. S; fr. C. S. The natives make their pens of the culms of this and the next species, and use them also for screens and light fences. (Roxb.)
3. *semidecumbens*, Roxb. (*fl. ind.* 1, p. 236; ed. Carey, 1, p. 241.) ଥଣ୍ଡି Khoree. ୨. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
4. *officinarum*, L. (Spreng. syst. 1, p. 281;—Roxb. *fl. ind.* 1, p. 237; ed. Carey, 1, p. 242;—J. Grah. Cat. B. pl. p. 239;—Rumph. 5, t. 74, f. 1.) ଉକ୍ତ Ook. Sugar-Cane. Produces Sugar. Arab, Sukkur; Hind. Jaggery. ୨. E. and W. Indies. Society Islands. Fl. R. S. The juice of the sugar cane is the best antidote to arsenic. (Chisholm.)
5. *sinense*, Roxb. (*fl. ind.* 1, p. 239; ed. Carey, 1, p. 244.—S. chinense, Spreng. syst. 1, p. 281.) ୨. China. Cultivated in India. Fl. R. S.
6. *procerrimus*, Roxb. (*fl. ind.* 1, p. 243; ed. Carey, 1, p. 248;—Spreng. l. c., excl. syn.) ତେଙ୍ଗ Teng. ୨. Bengal, (Serampore.) Fl. R. S.; fr. C. S. Culms used by the natives for screens and various other economical purposes. (Roxb.)
7. *Sara*. Roxb. (*fl. ind.* 1, p. 244; ed. Carey, 1, p. 249;—Spreng. syst. 1, p. 281.) ୨. Shur. ୨. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
8. *Munja*, Roxb. (*fl. ind.* 1, p. 246; ed. Carey, 1, p. 250;—Spreng. l. c.) ୨. Hindooosthan. In H. C. G. fl. R. S.; fr. H. S. (Roxb.)
9. *canaliculatum*, Roxb. (*fl. ind.* 1, p. 246; ed. Carey, 1, p. 251.) ୨. Bengal, (Serampore.) Fl. R. S; fr. C. S.
10. *violaceum*, Tussac. (Röm. and Sch. 2, p. 285.) "Canne de Hayte." Otaheytie Cane. ୨. Cultivated in India, &c.

BATRATHERUM, Nees. (*Lindl. Nat. Syst.* p. 379.)

1. *lanceolatum*, Schult. (Andropogon lanceolatus, Roxb. *fl. ind.* 1, p. 257; ed. Carey, 1, p. 262.) ୧. Coromandel. In H. C. G. fl. C. S.; fr. H. S. (Roxb.)

LIPROGERCIS, Trin. (*Endl. gen. pl.* 1, p. 108.)

1. *serrata*, Trin. (Andropogon serratus, Retz.;—Roxb. *fl. ind.* 1, p. 253; ed. Carey, 1, p. 257;—J. Grah. Cat. B. pl. 238; not Thunb.—A. filiformis, Pers.;—Röm. and Sch. 2, p. 811; not Roxb.) ଦେତାରା Detara. ୧. Bengal. Concans. Fl. C. S; fr. H. S. Eaten by cattle. (Roxb.)



HETEROPOGON, Pers. (*syn. 2, p. 533.—Endl. gen. pl. 1, p. 108*, under *Andropogon*.)

1. *contortus*, Beauv. (*Röm. and Sch. 2, p. 836.—H. hirtus, Pers. l. c.—Andropogon contortus, L.;—R. Br. pr. 1, p. 201;—Roxb. fl. ind. 1, p. 253; ed. Carey, 1, p. 258;—J. Grah. Cat. B. pl. p. 238*, excl. syn. *Röm. and Sch.*) ◎ Peninsula of India. In *H. C. G. fl. C. S.*; fr. *H. S. (Roxb.)*
2. *tenellus*, Schult. (*Andropogon tenellus, Roxb. fl. ind 1, p. 254; ed. Carey, 1, p. 259.*) ◎ Bengal. Fl. C. S.; fr. H. S.

SPONIOPOGON, Trin. (*Endl. gen. pl. 1, p. 108*, under *Ischaemum*.)

1. *semisagittatus*, (*Ischaemum semisagittatum, Roxb. fl. ind. 1, p. 320; ed. Carey, 1, p. 322;—Spreng. syst. 1, p. 298.*) ◎ Bengal, (Serampore. Fl. and fr. C. S.)
2. *conjugatus*, (*Ischaemum conjugatum, Roxb. fl. ind. 1, p. 321; ed. Carey, 1, p. 323;—Spreng. syst. 1, p. 298;—J. Grah. Cat. B. pl. p. 239.*) ◎ Bengal, (Serampore.) Peninsula of India. Fl. and fr. C. S.
3. *geniculatus*, (*Ischaemum geniculatum, Roxb. fl. ind. 1, p. 322; ed. Carey, 1, p. 324;—Spreng. syst. 1, p. 298.*) ◎ Bengal. Fl. and fr. C. S.

VOSSEA, Wall, and Griff. (*Journ. as. soc. vol. 5, p. 572.*)

1. *procera*, Wall. and Griff. (*l. c. t. 23.—Ischaemum cuspidatum, Roxb. fl. ind. 1, p. 324; ed. Carey, 1, p. 325;—Kth. agrost. 1, p. 516.*) aquatic. ◎ Bengal, &c. Fl. and fr. C. S.

ANDROPOGON, L. (*Endl. gen. pl. 1, p. 108.*)

1. *muricatus*, Retz. (*Roxb. fl. ind. 1, p. 265; ed. Carey, 1, p. 269;—J. Grah. Cat. B. pl. p. 238.*—*Anatherum murieatum, Beauv.*;—*Röm. and Sch. 2, p. 808.*—*Phalaris Zizania, L.*) অসথম ঘাস *Khuskhus-ghas*. ৩. Bengal, Peninsula of India. (Serampore.) Fl. R. S. fr. C. S.; The fragrant roots of this grass are well known all over India, and used for making tatties, covers for palankeens, large fans, &c. The grass is used for thatching bungalows in the Deccan. (*Roxb.*)
2. *cymbarius*, L. (*Anthistiria cymbaria, Roxb. fl. ind. 1, p. 251; ed. Carey, 1, p. 255;—J. Grah. Cat. B. pl. p. 239.*—*Cymbopogon elegans, Spreng. syst. 1, p. 289.*) ৩. Coromandel Mountains. Fl. and fr. C. S. (*Roxb.*)
3. *prostratus*, L. (*Anthistiria prostrata, Willd.*;—*Roxb. fl. ind 1, p. 250; ed. Carey, 1, p. 254.*—*Cymbopogon grandulosus, Spreng. syst. 1, p. 289.*) ◎ Peninsula of India. In *H. C. G. fl. and fr. C. S.*
4. *arundinaceus*. (*Anthisteria arundinacea, Roxb. fl. ind. 1, p. 251; ed. Carey, 1, p. 256.*—*Cymbopogon arundinaceus, Schult.*) ৩. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
5. *Schoenanthus*, L. (*Roxb. fl. ind. 1, p. 274; ed. Carey, 1, p. 278;—Wall. pl. as. rar. 3, t. 280;—J. Grah. Cat. B. pl. p. 238.*—*Cymbopogon Schoenanthus, Spreng. syst. 1, c.;—Rheed. 12, t. 72.—Rumph. 5, t. 72, f. 2.*) গুঞ্জ রেণু *Guendho-bena*. Lemon-grass. ৩. Cultivated in gardens, but very seldom flowering. In the North of



Bengal large tracts of waste land are covered with this grass. (*Carey.*) The fresh leaves are much used as a substitute for tea. The white succulent centre of the leaf-bearing culms is often put into curries, to give them an agreeable flavour. (*Roxb.*) The natives of the Moluccas extract a pleasant tasting essential oil from the leaves. (*Carey.*)

6. *Martini*, Roxb. (*fl. ind.* 1, p. 277; *ed. Carey*, 1, p. 280.—*A. nardoïdes*, *Nees.*?)—A. *Calamus aromaticus*, *Roxb.* ? 2. Central India extending north as far as Delhi, and south to between the Godavary and Nagpore. In H. C. G. fl. R. S.; fr. C. S. This grass has a strong aromatic and pungent taste, so that not only the flesh of the animals (which eat it voraciously) but also the milk and butter, have a very powerful scent of it. (*General Martin.*) It yields the fragrant grass-oil of *Namaur*.
7. *Iwarancusa*, Blane. (*Roxb. fl. ind.* 1, p. 275; *ed. Carey*, 1, p. 279.) 2. Hurdwar. Kheree Pass. Fl. and fr. C. S. Comes remarkably near *A. Schoenanthus* both in habit and taste. (*Roxb.*)
8. *Nardus*, Röttl. ? (*Spreng. syst.* 1, p. 287;—*Roxb. H. B.* p. 7.) 2. Courtallum, Tinnevelly. In H. C. G. fl. R. S.; fr. C. S. Ainslie calls this grass ginger, or spice-grass, and says that the natives use its infusion as a stomachic, and occasionally prepare from it an essential oil useful in rheumatism. (*Roxb.*) It is not mentioned in Roxb. fl. ind. but it is, evident that Dr. Carey, in H. B. 1. c. took it to be *A. Iwarancusa*, Bl. which it perhaps may be.
9. *glaber*. Roxb. (*fl. ind.* 1, p. 267; *ed. Carey*, 1, p. 271;—*Spreng. syst.* 1, p. 288. 2. Elevated parts of Bengal. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
10. *punctatus*, Roxb. (*fl. ind.* 1, p. 264; *ed. Carey*, 1, p. 268;—*Spreng. syst.* 1, p. 288.) 2. Bengal, (Serampore.) Fl. C. S.; fr. H. S.
11. *Bladhii*, Retz. (*Roxb. fl. ind.* 1, p. 259; *ed. Carey*, 1, p. 263;—*Spreng.* 1, p. 286.) लोराणि *Loari*. 2. Bengal, (Serampore.) Fl. C. S.; fr. H. S.
12. *pertusus*, Willd. (*Spreng. syst.* 1, p. 286.—*R. Br. pr.* 1, p. 202;—*Roxb. fl. ind.* 1, p. 258; *ed. Carey*, 1, p. 263—*Holcus pertusus*, *Kön.*; *L. Mant.*) 2. Bengal, Peninsula of India. New Holland. Fl. C. S.; fr. H. S.
13. *scandens*, Roxb. (*fl. ind.* 1, p. 258; *ed. Carey*, 1, p. 262.—*Spreng. syst.* 1, p. 286;—*J. Grah. Cat. B. pl.* p. 238.) 2. Bengal, Peninsula of India. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
14. *trispicatus*, Schult. (*A. tristachys*, *Roxb. fl. ind.* 1, p. 257; *ed. Carey*, 1, p. 261; not *Humb.*) 2. Bengal, (Serampore.) Fl. C. S.; fr. H. S.
15. *Roxburghianus*, Schult. (*A. filiformis*, *Roxb. fl. ind.* 1, p. 256; *ed. Carey*, 1, p. 260; not *Pers.*) 2. Bengal, (Serampore.) Fl. C. S.; fr. H. S.
16. *conjugatus*, Roxb. (*fl. ind.* 1, p. 255; *ed. Carey*, 1, p. 260.—*Saccharum conjugatum*, *Spreng.* 1, p. 288.) 2. Bengal, (Serampore.) Fl. C. S.; fr. H. S.



17. *binatus*, Retz. (*Roxb. fl. ind.* 1, p. 255; *ed. Carey*, 1, p. 259.) ☺ Bengal. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

18. *miliiformis*, Schult. (*A. miliaceus*, *Roxb. fl. ind.* 1, p. 272; *ed. Carey*, 1, p. 276; not *Forsk.*) 2. Lucknow. In H. C. G. fl. during the latter part of the R. S. (*Roxb.*)

ANTHISTIRIA, L. (*Endl. gen. pl.* 1, p. 107.)

1. *ciliata*, Retz. (*Gärtn. fr.* 2, p. 465, t. 175;—*Spreng. syst.* 1, p. 54. c. p. 337;—*Roxb. fl. ind.* 1, p. 247; *ed. Carey*, 1, p. 251;—*J. Grah. Cat. B. pl.* p. 239.) ☺ In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*) This grass grows most abundantly throughout the Concane, and is commonly converted into hay for feeding horses. (*J. Grah.*)

2. *polystachya*, Roxb. (*fl. ind.* 1, p. 248; *ed. Carey*, 1, p. 252;—*Spreng. syst.* 1, p. 291.) ☺ Bengal. Fl. C. S.; fr. H. S.

3. *scandens*, Roxb. (*fl. ind.* 1, p. 248; *ed. Carey*, 1, p. 253;—*Spreng. syst.* 1, p. 291.) 2. ☺ Bengal, (Serampore.) Fl. C. S.; fr. H. S.

4. *heteroclita*, Roxb. (*fl. ind.* 1, p. 249; *ed. Carey*, 1, p. 253.—*Spreng. syst.* 1, p. 291.) ☺ Bengal, (Serampore.) Fl. and fr. C. S.

APLUDA, L. (*Endl. gen. pl.* 1, p. 108.)

1. *aristata*, L. (*Spreng. syst.* 1, p. 290;—*Roxb. fl. ind.* 1, p. 324; *ed. Carey*, 1, p. 326;—*J. Grah. Cat. B. pl.* p. 239.) ☺ खड्की *Choon-kurkee*. 2. Bengal, (Serampore.) Peninsula of India, &c. Fl. C. S.; fr. H. S.

2. *geniculata*, Roxb. (*fl. ind.* 1, p. 325; *ed. Carey*, 1, p. 327.) 2. Bengal, (Serampore.) Fl. C. S.; fr. H. S.

D. ROTTBÖLLEÆ, Nees; Lindl. *Nat. Syst.* p. 378.

ISCHAMMUM, L. (*Endl. gen. pl.* 1, p. 108.)

1. *aristatum*, L. (*Spreng. syst.* 1, p. 297.—*Roxb. fl. ind.* 1, p. 319; *ed. Carey*, 1, p. 321;—*J. Grah. Cat. B. pl.* p. 239.) मेलेंचा *Melencha*. ☺ Bengal, Peninsula of India. Fl. and fr. C. S.

2. *rugosum*, Salish. (*Stirp. rar.* 1, t. 1;—*Spreng. syst.* 1, p. 297;—*Roxb. fl. ind.* 1, p. 320; *ed. Carey*, 1, p. 322;—*J. Grah. Cat. B. pl.* p. 239.) ☺ Bengal, Peninsula of India. Fl. and fr. C. S.

HEMARURIA, R. Br. (*pr.* 1, p. 207;—*Endl. gen. pl.* 1, p. 105.)

1. *compressa*, R. Br. (*t. c.*—Rottbolla compressa, L.;—*Spreng. syst.* 1, p. 299;—*Roxb. Corom.* 2, t. 156; *fl. ind.* 1, p. 354; *ed. Carey*, 1, p. 354;—*J. Grah. Cat. B. pl.* p. 233.) पानी शिरा *Panie-shira*. 2. ☺ Borders of tanks, &c. in Bengal and the Peninsula of India.

THYRIDOSTACHYUM, Nees. (*Mnesithea*, *Kth.*;—*Endl. gen. pl.* 1, p. 105.)

1. *perforatum*, Nees. (Rottbolla perforata, *Roxb. Corom.* 2, t. 182; *fl. ind.* 1, p. 356; *ed. Carey*, 1, p. 356;—*Spreng. syst.* 1, p. 300;—*J. Grah. Cat. B. pl.* p. 234.) कक्की *Kurkheer*. 2. Bengal, Peninsula of India. Fl. R. S.

OPHIURUS, Gärtn. (*Endl. gen. pl.* 1, p. 105.)

1. *incurvotus*, Beauv. (Rottbolla incurvata, L.;—*Spreng. syst.* 1, p. 299;—*E. B.* 11, t. 760.) ☺ England. Middle Europe. Fl. C. S.



2. *corymbosus*, Gärtn. (*Carpol.* 3, p. 4.—*R. Br. pr.* p. 207.—Rottbölla *corymbosa*, *L. fl.*;—*Roxb. fl. ind.* 1, p. 355; *ed. Carey*, 1, p. 355; *Corom.* 2, t. 181.—*J. Grah. Cat. B. pl.* p. 233.—Ægilops *exaltata*, *Retz.*—Rottbölla *punctata*, *Retz.*) ◉ Peninsula of India. Tropical New Holland. Fl. R. S.

ROTTBÖLLA, L. (*Endl. gen. pl.* 1, p. 105.)

1. *exaltata*, L. (*Roxb. Corom.* 2, t. 157; *fl. ind.* 1, p. 354; *ed. Carey*, 1, p. 354;—*Spreng. syst.* 1, p. 300.—*J. Grah. Cat. B. pl.* p. 233;—*R. Br. pr.* p. 206.—Stegosia *cochinchinensis*, *Lour.* बुरुचुंडी *Buroshoonti*. ◉ Bengal, (Serampore.) Peninsula of India. New Holland. Cochin China. Fl. R. S.
2. *glabra*, Roxb. (*fl. ind.* 1, p. 353; *ed. Carey*, 1, p. 353;—*Spreng. syst.* 1, p. 300.) बाकसा *Buksa*. ◉ Bengal, (Serampore.) Fl. R. S.; fr. C. S. Cattle are fond of this grass. (*Roxb.*)

PELTOPHORUS, Beauv. (*Manisuris*, *L.*;—*Endl. gen. pl.* 1, p. 106.)

1. *granularis*, Beauv. (*Manisuris granularis*, *Swz.*;—*Spreng. syst.* 1, p. 301;—*Roxb. Corom.* 2, t. 118; *fl. ind.* 1, p. 352; *ed. Carey*, 1, p. 352;—*J. Grah. Cat. B. pl.* p. 234.) ◉ Peninsula of India. W. Indies. Tropical America, &c. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
2. *Myurus*, Beauv. (*Manisuris myurus*, *L.*;—*Roxb. Corom.* 2, t. 117; *fl. ind.* 1, p. 351; *ed. Carey*, 1, p. 352;—*Spreng. syst.* 1, p. 301.) ◉ Coromandel. Fl. R. S.

OPOPETIUM, Trin. (*Spreng. syst.* 1, p. 131, No. 246.)

1. *thomaeum*, Trin. (*Spreng. syst.* 1, p. 139.—*Nardus thomæa*, *L.*—Rottbölla *thomæa*, *Willd.*;—*Roxb. Corom.* 2, t. 132; *fl. ind.* 1, p. 357; *ed. Carey*, 1, p. 357;—*J. Grah. Cat. B. pl.* p. 234.—*R. pilosa*, *Willd.*) ◉ Peninsula of India, growing on old walls. Fl. R. S.

ZOYSIA, Willd. (*Endl. gen. pl.* 1, p. 106.)

1. *pungens*, Willd. (*Spreng. syst.* 1, p. 239;—*R. Br. pr.* p. 208.—Agrostis *Matrella*, *L.*;—*Roxb. fl. ind.* 1, p. 317; *ed. Carey*, 1, p. 319;—*J. Grah. Cat. B. pl.* p. 235.—*Matrella juncea*, *Pers.*; excl. *Agrostis juncea*, *Lam.*) 2. Bengal, (Serampore.) Peninsula of India. New Holland. C. G. H. Fl. R. S.; fr. C. S.

E. OLYREUM, Nees;—*Lindl. Nat. Syst.* p. 378.

ZEÀ, L. (*Endl. gen. pl.* 1, p. 80.)

1. *Mays*, L. (*Spreng. syst.* 1, p. 238;—*Beauv. agrost.* p. 136, t. 24, f. 3;—*Roxb. fl. ind.* 3, p. 568;—*J. Grah. Cat. B. pl.* p. 240.—Mays, *Zea*, Gärtn. fr. 1, p. 6, t. 1, f. 9.) मक्का *Mukka*. खेती *Bhoot*. Maize. Indian Corn. ◉ Tropical America. Cultivated all over India, &c. Fl. R. and C. S.; fr. C. S.

COIX, L. (*Endl. gen. pl.* 1, p. 80.)

1. *Lacrima*, L. (*Spreng. syst.* 1, p. 238.—*B. M.* 51, t. 2479;—*Roxb. fl. ind.* 3, p. 568;—*J. Grah. Cat. B. pl.* p. 240.—*Lithagrostis Lacryma Jobi*, *Tournef.*;—Gärtn. fr. 1, p. 7, t. 1, f. 10;—*Rhced.* 12, t. 70;—



- Rumph.* 5, t. 75, f. 2.) কাঁচ গড়গড় *Kanch-gurgur.* *Job's Tears.*
2. Moluccas. Sunda Islands. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
2. *barbata*, Roxb. (*fl. ind.* 3, p. 569.) কাটা গড়গড় *Canta-gurgur.* 2.
Circars. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
3. *gigantea*, Kön. (*Roxb. fl. ind.* 3, p. 570.) তাঙ্গা গড়গড় *Danga-gurgur.*
2. Circars. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
4. *aquatica*, Roxb. (*fl. ind.* 3, p. 571.) জল গড়গড় *Jul-gurgur.* 2. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
5. *heteroclita*, Roxb. (*fl. ind.* 3, p. 572.) 2. Eastern parts of Bengal.
Fl. R. S.; fr. C. S. (*Roxb.*)
6. *pumila*, Roxb. (*fl. ind.* 3, p. 572.) 2. Mauritius. Fl. R. S.; fr. C. S. (*Roxb.*)

F. PHLEUM. (Phleoideæ, Nees.; — *Lindl. Nat. syst.* p. 378.)

PHLEUM, L. (*Endl. gen. pl.* 1, p. 81.)

1. *Böhmeri*, Wib. (*Spreng. syst.* 1, p. 242.—*Phalaris phleoides*, L.;—*E. B.* 7, t. 459.) 2. Europe. Fl. C. S.
2. *alpinum*, L. (*Spreng. syst.* 1, p. 241;—*E. B.* 8, t. 519.) 2. Alps of Europe. Fl. C. S.
3. *Michelii*, All. (*Spreng. syst.* 1, p. 241;—*E. B.* 32, t. 2265.) 2. England. S. Europe. Fl. C. S.

HYGRORYZA, Nees. (*Edinb. new philos. journ. July 1833*;—*Endl. gen. pl.* 1, p. 78.)

1. *ciliata*, Nees. (t. c.—*Pharus ciliatus*, Retz.—*Leersia ciliata*, Roxb. *fl. ind.* 2, p. 207.) ⊙ Bengal, (Serampore.) Fl. Sept. Oct. and Nov.; fr. C. S.

PEROTIS, Ait. (*R. Br. pr.* p. 172;—*Spreng. syst.* 1, p. 131, No. 247.)

1. *latifolia*, Ait. (*Spreng. syst.* 1, p. 289;—*Roxb. fl. ind.* 1, p. 233; *ed. Carey*, 1, p. 238;—*J. Grah. Cat. B. pl.* p. 237,—*Harvey, gen. of S. African pl.* p. 369.—*Anthoxanthum indicum*, L.—*Saccharum spicatum*, L.—*Agrostis spiciformis*, L.—*Burm. ind.* t. 9, f. 3;—*Rheed.* 12, t. 62.) ⊙ Peninsula of India. S. Africa. Fl. R. S.

G. AGROSTIÆ. (Agrostideæ, Nees.;—*Lindl. Nat. syst.* p. 378.)

CHEATRUS, Lk. (*Endl. gen. pl.* 1, p. 90.)

1. *fasciculatus*, Lk. (*Röm. and Sch.* 2, p. 324.—*Polypogon fasciculatus*, Pers.—*P. subspicatus*; *Willd.*—*Agrostis articulata*, *Brot.*) ⊙ Spain. Portugal. Fl. Feb.

POLYPOGON, Desf. (*Endl. gen. pl.* 1, p. 90.)

1. *monspeliensis*, Desf. (*Röm. and Sch.* 2, p. 325.—*Phleum monspeliense*, *Kol. gram.* p. 57; excl. syn.—*Alopecurus monspeliensis*, L.—*Agrostis panicea*, *Willd.*;—*E. B.* 24, t. 1704.) ⊙ England. France. Italy. Spain. Caucasus. Fl. Feb.
2. *maritimus*, DC. (*Cat. hort. monspel.* (1813.) p. 134;—*Röm. and Sch.* 2, p. 325.—*Phleum crinitum*, Roxb. *fl. ind.* 1, p. 313; *ed. Carey*, 1, p. 316.) ⊙ N. India. Nepal. Fl. C. S.; fr. H. S.



SPOROBOLUS, R. Br. (*pr. p. 170 ;—Endl. gen. pl. 1, p. 89.*)

1. *diander*, R. Br. (*l. c. annot.—Agrostis diandra, Retz. ;—Röm. and Sch. 2, p. 367 ;—Roxb. fl. ind. 1, p. 317 ; ed. Carey, 1, p. 319.*—*Vilfa diandra, Trin.*) বেণি যোনি *Bena-yoni*. ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
2. *tenacissimus*, Beauv. (*Agrostis tenacissima, Willd. ;—Röm. and Sch. 2, p. 369 ;—Roxb. fl. ind. 1, p. 316 ; ed. Carey, 1, p. 318.*—*Vilfa diandra, H. and B.*; not *Trin.*) পানী দুর্বা *Panee-doorba*. ♀. Peninsula of India. Bengal, (Serampore.) W. Indies. Fl. R. S.; fr. C. S.

GASTRIDIUM, Beauv. (*Endl. gen. pl. 1, p. 89.*)

1. *australe*, Beauv. (*Röm. and Sch. 2, p. 342.*—*Milium lendigerum, Schreb.* ;—*E. B. 16, t. 1107.*—*Agrostis australis, L.*) ⊙ Shores of the Mediterranean. Fl. Feb.

AGROSTIS, L. (*Endl. gen. pl. 1, p. 89.*)

1. *stolonifera*, L. (*E. B. 22, t. 1532?*) ♀. Greece. S. Europe. N. America. Fl. Feb. and March.
2. *diffusa*, Host. (*Gram. 4, p. 32, t. 55 ;—Röm. and Sch. 2, p. 344.*) ♀. Meadows and river banks of Europe. Fl. Feb.

H. STIPÆ, Nees. (*Lindl. Nat. Syst. p. 378.*)

CHÆTARIA, Beauv. (*Lindl. Nat. Syst. p. 381.*)

1. *Hystriz*, Beauv. (*Aristida Hystrix, L. ;—Spreng. syst. 1, p. 267 ;—Roxb. fl. ind. 1, p. 350 ; ed. Carey, 1, p. 351 ;—J. Grah. Cat. B. pl. p. 285.*) ♀. Peninsula of India. Fl. R. S.

I. ORYZÆ, Nees. (*Lindl. Nat. Syst. p. 378.*)

ORYZA, L. (*Endl. gen. pl. 1, p. 78.*)

1. *sativa*, L. (*Mill. ill. t. 19 ;—Lam. ill. t. 264 ;—Spreng. syst. 2, p. 136 ;—Roxb. fl. ind. 2, p. 200 ;—J. Grah. Cat. B. pl. p. 235 ;—Görn. fr. 2, p. 5, t. 80, f. 5.*) ♂. ধান *Dhan*. Rice. ⊙ Cultivated. Fl. R. S.; fr. C. S.

POTAMOCHLOA, Griff. (*Journ. as. soc. vol. 5, p. 571.*)

1. *Retzii*, Griff. (*l. c. t. 24.*—*Pharus aristatus, Retz.*—*Leersia aristata, Roxb. fl. ind. 2, p. 207 ;—J. Grah. Cat. B. pl. p. 235.*—*Zizania? aristata, Kth.*—*Hygroryza aristata, Nses.*; *Edinb. n. philos. journ. July 1833*;—*Rheed. 10, t. 12.*) জঙ্গলী দাল *Junglee-dal*. ⊙ Margins of tanks, lakes, &c. Bengal, (Serampore.) Peninsula of India. Fl. R. S.; fr. C. S.

K. PAPPOPHOREÆ, Kth. (*Lindl. Nat. Syst. p. 378.*)

POMMEREULLA, L. fil. (*Spreng. syst. 1, p. 136, No. 332.*)

1. *Cornucopiae*, L. (*Spreng. syst. 1, p. 328 ;—Roxb. Corom. 2, t. 131 ; fl. ind. 1, p. 331 ; ed. Carey, 1, p. 332.*) ⊙ Coromandel. Has been introduced into H. C. G. ?

L. CHLORIÆ, (Chlorideæ. Nees.;—*Lindl. Nat. Syst. p. 378.*)

CHLORIS, Swz. (*Endl. gen. pl. 1, p. 93.*)

1. *barbata*, Swz. (*Röm. and Sch. 2, p. 608 ;—Jacq. ecl. gram. fasc. 1, p. 10, t. 8 ;—Roxb. fl. ind. 1, p. 329 ; ed. Carey, 1, p. 331 ;—J. Grah.*



Cat. B. pl. p. 234.—*Andropogon barbatus*, *L. mant.*—*Rheed.* 12, t. 51.) २। Peninsula of India. Bengal, (Serampore,) &c. Fl. and fr. throughout the year.

CYNODON, Rich. (*Endl. gen. pl.* 1, p. 92.)

1. *Dactylon*, Pers. (*Röm. and Sch.* 2, p. 400;—*R. Br. pr.* p. 187.—*Panicum Dactylon*, *L.*;—*E. B.* 12, t. 850;—*Roxb. fl. ind.* 1, p. 289; *ed. Carey*, 1, p. 292;—*J. Grah. Cat. B. pl. p. 236*) দুর্বা। *Doorba*. २। England. S. Europe. Caucasus. S. Africa. New Holland. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. and fr. throughout the year. This most valuable grass forms three-fourths of the sole food of horses and cows in India. (*Roxb.*)
2. *filiformis*, (*Cynodon elongatus*, *Trin.*;—*Röm. and Sch. mant.*—*Digitaria elongata*, *Spreng. syst.* 1, p. 171.—*Aira filiformis*, *Kön.*;—*Roxb. fl. ind.* 1, p. 326; *ed. Carey*, 1, p. 328;—*J. Grah. Cat. B. pl. p. 235*) ছাঁটি পিঠে নটী। *Chhoto-pine-nutee*. ⊖ Peninsula of India. Bengal, (Serampore,) Fl. R. S.

MICROCHLOA, R. Br. (*pr. p. 208.*)

1. *setacea*, R. Br. (*l. c.*—*Nardus indica*, *L.*—*Rottbölla setacea*, *Roxb. Corom.* 2, t. 132; *fl. ind.* 1, p. 357; *ed. Carey*, 1, p. 357;—*J. Grah. Cat. B. pl. p. 233.*) ⊖ Peninsula of India, on old walls. Fl. R. S.

DACTYLOCTENIUM, Willd. (*Endl. gen. pl.* 1, p. 93.)

1. *egyptiacum*, Beauv. (*Röm. and Sch.* 2, p. 583.—*Cynosurus aegyptius*, *L.*; *Willd. excl. syn. Pluk.*—*Eleusine aegyptiaca* *Pers.*; *excl. syn. Lam.*;—*Roxb. fl. ind.* 1, p. 344; *ed. Carey*, 1, p. 345;—*J. Grah. Cat. B. pl. p. 235*;—*Rheed.* 12, t. 69;—*Rumph.* 6, t. 4, f. 1.) মাকড় জাণী। *Makur-jalee*. ⊖ Tropical America. Africa. Moluccas. Both Peninsulas of India. Bengal, (Serampore,) Fl. and fr. nearly throughout the year. Cattle are fond of this grass. (*Roxb.*)

ACRACHNE, Wight. and Arn. (*Lindl. Nat. syst.* p. 381.)

1. *verticillata*, W. and A. (*Eleusine verticillata*, *Roxb. fl. ind.* 1, p. 346; *ed. Carey*, 1, p. 346;—*Spreng. syst.* 1, p. 351.) ⊖ Peninsula of India. Fl. R. S.

ELEUSINE, Gärtn. (*Endl. gen. pl.* 1, p. 93.)

1. *Coracana*, Gärtn. (*fr.* 1, p. 8, t. 1, f. 11;—*Lam. ill.* 1, p. 203, t. 48, f. 1;—*Röm. and Sch.* 2, p. 581;—*Roxb. fl. ind.* 1, p. 342; *ed. Carey*, 1, p. 343;—*J. Grah. Cat. B. pl. p. 235*—*Cynosurus Coracanus*, *L.*—*Rheed.* 12, t. 78;—*Rumph.* 5, t. 76, f. 2.) মুরুয়া। *Murooa*. ⊖ Cultivated. Fl. R. S.; fr. C. S.
2. *stricta*, Roxb. (*fl. ind.* 1, p. 343; *ed. Carey*, 1, p. 344.) Hind. *Rag-gee*. ⊖ Cultivated. Fl. R. S.; fr. C. S. This is still more cultivated than the last, and differs from it only in having the spikes straight, being generally of a larger size, and more productive. The great weight of the seed when full grown, bends the spikes down into a horizontal direction. A variety of this grows to a still larger size, with a greater number of straight spikes. (*Roxb.*)



3. *indica*, Gärtn. (*fr. I.* p. 8.—*Röm. and Sch. 2.* p. 582, excl. syn. Rheed.;—*Roxb. fl. ind. I.* p. 345; *ed. Carey, I.* p. 346;—*J. Grah. Cat. B. pl. p. 235*, excl. syn. Rheed. and Rumph.—*Cynosurus indicus*, L.—*Panicum compressum*. *Forsk.*—*Burm. zeyl. t. 47, f. 1.*) अंग औंकुरा Mal-ankura. ◉ Ceylon. Peninsula of India. Bengal, (Serampore,) &c. Egypt. W. Indies. Fl. and fr. nearly throughout the year.
4. *calycina*, Roxb. (*fl. ind. I.* p. 346; *ed. Carey, I.* p. 347;—*Spreng. syst. 1.* p. 351.) ◉ Coromandel. Fl. R. S.; fr. C. S.

LEPTOCHLOA, Beauv. (*Endl. gen. pl. 1.* p. 93.)

1. *domingensis*, Lk. (*Poa domingensis*, Pers.;—*Röm. and Sch. 2.* p. 558.) 2. St. Domingo. Fl. R. S.; fr. C. S.

M. AVENEÆ, Nees.;—(*Lindl. Nat. Syst. p. 378.*)

CORYNEPHORUS, Beauv. (*Endl. gen. pl. 1.* p. 95.)

1. *canescens*, Beauv. (*Röm. and Sch. 2.* p. 688.—*Aira canescens*, L.;—*E. B. 17, t. 1190.*) 2. Europe. Fl. C. S.

DESCHAMPSIA, Beauv. (*Endl. gen. pl. 1.* p. 95.)

1. *cæspitosa*, Beauv. (*Röm. and Sch. 2.* p. 685.—*Aira cæspitosa*, L.;—*E. B. 21, t. 1453.*) 2. Europe. Fl. C. S.

AIRA, L. (*Endl. gen. pl. 1.* p. 96.)

1. *flexuosa*, L. (*Röm. and Sch. 2.* p. 678;—*E. B. 22, t. 1519.*) 2. Europe. America. Fl. R. S.

2. *caryophyllea*, L. (*Röm. and Sch. 2.* p. 681;—*E. B. 12, t. 812.*) ◉ Europe. Fl. Feb.

LAGURUS, L. (*Endl. gen. pl. 1.* p. 96.)

1. *ovatus*, L. (*Röm. and Sch. 2.* p. 401;—*E. B. 19, t. 1834.*) ◉ S. and W. Europe. Shores of W. Asia. Fl. Feb.

TRISETUM, Pers. (*Endl. gen. pl. 1.* p. 96.)

1. *pubescens*, Röm. and Sch. (*syst. 2.* p. 662.—*Avena pubescens*, L.;—*E. B. 23, t. 1640.*) 2. Europe. Fl. C. S.

AVENA, L. (*Endl. gen. pl. 1.* p. 96.)

1. *præcox*, Beauv. (*Röm. and Sch. 2.* p. 667.—*Aira præcox*, L.;—*E. B. 18, t. 1296.*) ◉ Europe. Fl. Feb.

2. *sativa*, L. (*Röm. and Sch. 2.* p. 668;—*Host. gram. 2, t. 59*;—*Roxb. H. B. p. 9.*) Common Oats. ◉ Juan Fernandez? Cultivated. Fl. and fr. C. S.

3. *orientalis*, Schreb. (*Röm. and Sch. 2.* p. 669;—*Host. gram. 3, t. 44.*) ◉ Hungary. Austria. Cultivated. Fl. Feb.

4. *fatica*, L. (*Röm. and Sch. 2.* p. 669;—*E. B. 31, t. 2221.*) ◉ Europe. N. W. India. Fl. Feb. and March.

N. ARUNDEÆ. (Arundineæ, Nees.;—*Lindl. Nat. Syst. p. 378.*)

DONAX, Beauv. (*Endl. gen. p. 1.* p. 91; under Arundo.)

1. *arundinaceus*, Beauv. (*Röm. and Sch. 2.* p. 600.—*Arundo Donax*, L.)

2. *versicolor*. (Arundo versicolor, Mill. *dict. No. 3.*) *Gardener's gard.* 2. France. Italy. Spain. Portugal. Has been cultivated here for many years, without fl.



SL

PANICACEAE.

AMPHIDONAX, Ness. (*Lindl. Nat. syst. add. p. 449, No. 79*;—*Endl. gen. pl. 1, p. 91.*)

1. *bengalensis*, Ness. (*Lindl. l. c.*—*Arundo bengalensis, Retz*;—*Roxb. fl. ind. 1, p. 348*; *ed. Carey, 1, p. 349.*—*Donax bengalensis, Beauv.*;—*Röm. and Sch. 2, p. 600.*—*Aira bengalensis, Gmel.*) गाँव चम गब-नुल. २. Bengal, (Serampore.) Fl. R. and C. S.; fr. C. S.
2. *Karka*, Lindl. (*Nat. Syst. p. 382.*—*Arundo Karka, Retz*;—*Roxb. fl. ind. 1, p. 347*; *ed. Carey, 1, p. 348*;—*J. Grah. Cat. B. pl. p. 236.*—*A. Roxburghii, Kth.*—*Trichoön Karka, Roth.*;—*Röm. and Sch. 2, p. 382.*—*Calamagrostis Karka, Gmel.*) नज नुल दर्मा Durma. ३. Peninsula of India. Bengal. (Serampore.) &c. Fl. R. and C. S.; fr. C. S. The common Durma-mats are made of the stalks, split open. Vessels from the port of Calcutta are generally damaged with them. (Roxb.)
3. *bifaria*, Lindl. (*l. c.*—*Arundo bifaria, Retz*;—*Roxb. fl. ind. 1, p. 347*; *ed. Carey, 1, p. 347.*) अनन उनुल. ४. Circars. Bengal, (Serampore.) Fl. R. and C. S.; fr. C. S.

5. *Arundo gigantea*, W. Hamilt. (*Roxb. H. B. p. 8.*) Introduced into H. C. G. in 1809, where it flowered R. and C. S.; fr. C. S. (Roxb.)

O. TRITICEAE, Nees.:—(*Lindl. Nat. Syst. p. 378.*)

HORDIUM, L. (*Endl. gen. pl. 1, p. 104.*)

1. *vulgare*, L. (*Röm. and Sch. 2, t. 791*;—*Roxb. H. B. p. 9.*) Spring Barley. ♂ Native place unknown. Fl. C. S.; fr. Feb. and March.
2. *hexastichon*, L. (*Röm. and Sch. l. c.*;—*Host. gram. 3, t. 35*;—*Gärtn. fr. 2, p. 10, t. 81, f. 3*;—*Roxb. fl. ind. 1, p. 358*; *ed. Carey, 1, p. 358*;—*J. Grah. Cat. B. pl. p. 234.*) षष्ठि जुवो Common Barley. ♂ Native place unknown. Much cultivated in India. Fl. C. S.; fr. Feb. and March.
3. *jubatum*, L. (*Röm. and Sch. 2, p. 792.*) ♂. N. America. Fl. C. S.
4. *distichon*, L. (*Röm. and Sch. 2, p. 793*;—*Gärtn. fr. 2, p. 10*;—*Host. gram. 3, t. 36.*—*Zeocritum distichon, Beauv.*) ♂ Tartary. Much cultivated in Europe. Fl. C. S.; fr. Feb. and March.
5. *maritimum*, L. (*Röm. and Sch. l. c.*;—*E. B. 28, t. 1971.*) ♂ Europe. Fl. C. S.

6. *maritimum*, With. (*Röm. and Sch. 2, p. 795*;—*E. B. 17, t. 1205.*) ♂ Shores of Europe and W. Asia. Fl. C. S.

LOLIUM, L. (*Endl. gen. pl. 1, p. 103.*)

1. *temulentum*, L. (*Röm. and Sch. 2, p. 749*;—*E. B. 16, t. 1124.*) Bearded Darnel. ♂ Europe. Fl. Feb. and March. The seeds of this grass are reported to be intoxicating to men, beasts, and birds, and even to bring on convulsions and death. (Sm.)

TRITICUM, L. (*Endl. gen. pl. 1, p. 103.*)

1. *Spelta*, L. (*Röm. and Sch. 2, p. 767*;—*Host. gram. 3, t. 30.*) ♂ Native place unknown. Fl. Feb.



2. *vulgare*, Vill. (*Spreng. syst.* I., p. 323.) *Common Wheat.* ◊ Native place unknown.

a. *œstivum*, (T. *œstivum*, *Lag.* ;—*Röm. and Sch.* 2, p. 761 ;—*Host. gram.* 3, t. 26 ;—*Roxb. fl. ind.* I., p. 359 ; *ed. Carey*, I., p. 359 ;—*J. Grah. Cat. B. pl. p. 234.*) ፩ Gom. Fl. C. S.; fr. Feb. and March.

β. *hybernum*, (T. *hybernum*, *Lag.* ;—*Röm. and Sch.* 2, p. 763 ;—*Host. gram.* 3, t. 26, f. 8 ;—*Gürtn. fr.* 2, p. 8, t. 81, f. 1 ;—*Roxb. l. c.*) Fl. C. S.; fr. Feb. and March.

Two varieties of α. and as many of β. are cultivated in N. India during the cold season.

3. *campestre*, Kit. (*Röm. and Sch.* 2, p. 769.—*Secale sylvestre*, *Host.* 4, t. 2.) ◊ Hungary. Fl. Feb.

ÆGILOPS, L. (*Endl. gen. pl.* I., p. 104.)

1. *ovatus*, L. (*Röm. and Sch.* 2, p. 771 ;—*Gürtn. fr.* 2, p. 467, t. 175 ;—*Host. gram.* 2, t. 5 ;—*Sibth. and Sm. fl. gr.* I., p. 74, t. 93.) ◊ S. Europe. Fl. Feb. and March.

2. *triuncialis*, L. (*Röm. and Sch.* 2, p. 772 ;—*Schreb. gram.* p. 80, t. 10, f. 1.) ◊ S. Europe. Levant. Fl. Feb. and March.

SECALE, L. (*Endl. gen. pl.* I., p. 103.)

1. *cereale*, L. (*Röm. and Sch.* 2, p. 773 ;—*Gürtn. fr.* 2, p. 9, t. 81, f. 2.) Rye. ◊ Native place unknown. Fl. Feb. and March.

ELYMUS, L. (*Endl. gen. pl.* I., p. 103.)

1. *geniculatus*, L. (*Amoen.* 7, p. 192, t. 2, f. 5 ;—*Röm. and Sch.* 2, p. 774 ;—*E. B.* 23, t. 1586.) ፩ Shores of England, near Gravesend. Fl. C. S.

2. *glaucifolius*. Mühlens. (*Röm. and Sch.* 2, p. 776.) ፩ Virginia. Pennsylvania. Fl. C. S.

P. FESTUCEÆ, Nees. ;—(*Lindl. Nat. Syst.* p. 378.)

POA, L. (*Endl. gen. pl.* I., p. 98, comprehending *Eragrostis*, *Beauv.*)

1. *nutans*, Kön. (*Röm. and Sch.* 2, p. 568 ;—*Roxb. fl. ind.* I., p. 335 ; *ed. Carey*, I., p. 336.) ◊ Coromandel. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

2. *diarrhena*, Röm. and Sch. (P. *diandra*, *Roxb. fl. ind.* I., p. 336 ; *ed. Carey*, I., p. 337 ; not R. Br.) ◊ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

3. *viscosa*, Retz. (*Röm. and Sch.* 2, p. 564 ;—*Roxb. fl. ind.* I., p. 336 ; *ed. Carey*, I., p. 337 ;—*J. Grah. Cat. B. pl. p. 236.*) ◊ Bengal, (Serampore.) Peninsula of India, &c. It is covered with a tenacious resinous substance, having a very pleasant balsamic scent. (*J. Grah.*)

4. *plumosa*, Retz. (*Röm. and Sch.* 2, p. 552.—*Roxb. fl. ind.* I., p. 337 ; *ed. Carey*, I., p. 338 ;—*J. Grah. Cat. B. pl. p. 236.* ;—*Rheed.* 12, t. 41 ;—*Rumph.* 6, t. 4, f. 3.) ◊ Moluccas. Peninsula of India. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

5. *elegantula*, Kth. (*Poa elegans*, *Roxb. fl. ind.* I., p. 330 ; *ed. Carey*, I., p. 339 ; not *Poir.*) ◊ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.



SL

PANICACRE.

6. *unioloides*, Retz. (*Röm. and Sch.* 2, p. 567;—*Roxb. fl. ind.* 1, p. 339; ed. *Carey*, 1, p. 340;—*J. Grah. Cat. B. pl.* p. 236; excl. syn. except Roxb's.—*Uniola indica*, *Spreng. syst.* 1, p. 349.) কোর্ণি *Konee*. ⊖ Peninsula of India. Bengal, (Serampore.) Fl. and fr. C. S.
7. *Roxburghiana*, Schult. (*P. tortuosa*, *Spreng. syst.* 1, p. 345.—*P. flexuosa*, *Roxb. fl. ind.* 1, p. 339; ed. *Carey*, 1, p. 340, not L.) ⊖ Bengal, (Serampore.) Fl. and fr. C. S.
8. *paniculata*, Roxb. (*fl. ind.* 1, p. 340; ed. *Carey*, 1, p. 341.) ⊖ Bengal, (Serampore.) Fl. and fr. C. S.
9. *gangetica*, Roxb. (*fl. ind.* 1, p. 340; ed. *Carey*, 1, p. 341;—*Spreng. syst.* 1, p. 345.) ⊖ Bengal, (Serampore.) &c. Fl. and fr. C. S.
10. *annua*, L. (*Röm. and Sch.* 2, p. 535;—*E. B.* 24, t. 1720) ⊖ Europe. N. Africa. Caucasus. Fl. C. S.; fr. H. S. This grass and No. 12, are almost the only grasses in England that will thrive in grass plats in towns and small confined situations.
11. *pratensis*, L. (*Röm. and Sch.* 2, p. 532;—*E. B.* 15, t. 1073.) 2. Europe. Caucasus. Fl. C. S. One of the best pasture grasses, especially in moist soils.
12. *trivialis*, L. (*Röm. and Sch.* 2, p. 534;—*E. B.* 15, t. 1072.) 2. Europe. Caucasus. Fl. C. S.
13. *nemoralis*, L. (*Röm. and Sch.* 2, p. 545;—*E. B.* 18, t. 1265.) 2. Europe. Fl. C. S.
14. *digitata*, R. Br. (pr. p. 182;—*Röm. and Sch.* 2, p. 574.) ⊖ Port Jackson. Fl. C. S.
15. *cylindrica*, Roxb. (*fl. ind.* 1, p. 334; ed. *Carey*, 1, p. 335;—*Spreng. syst.* 1, p. 347.—*Megastachya cylindrica*, *Röm. and Sch. mant.*) ⊖ Canton. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
16. *tenella*, L. (*Roxb. fl. ind.* 1, p. 337; ed. *Carey*, 1, p. 338;—*J. Grah. Cat. B. pl.* p. 236, excl. syn.—*Eragrostis tenella*, *Beauv.*;—*Röm. and Schult.* 2, p. 576.) ⊖ Peninsula of India. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
17. *punctata*, L. (*Röm. and Sch.* 2, p. 568;—*Roxb. fl. ind.* 1, p. 338; ed. *Carey*, 1, p. 339.—*Eragrostis punctata*, *Röm. and Sch. mant.*) টোন। জিনিয়া। *Tanajiniya*. ⊖ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
18. *multiflora*, Roxb. (*fl. ind.* 1, p. 338; ed. *Carey*, 1, p. 340.—*Eragrostis multiflora*, *Trin.*) ⊖ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
19. *cynosuroides*, Retz. (*Roxb. fl. ind.* 1, p. 333; ed. *Carey*, 1, p. 334;—*J. Grah. Cat. B. pl.* p. excl. syn. *Rheed.*—*Eragrostis cynosuroides*, *Röm. and Sch.*—*Uniola bipinnata*, *L. sp.* p. 104.—*Briza bipinnata*, *L. amoena*, *acad.* 4, p. 450.) কুশ। *Koosh*. 2. Peninsula of India. Bengal, (Serampore.) Egypt, &c. Fl. R. S.; fr. C. S. Used by the Brahmins in their religious ceremonies.
20. *chinensis*, Retz. (*Spreng. syst.* 1, p. 338;—*Roxb. fl. ind.* 1, p. 332; ed. *Carey*, 1, p. 333;—*J. Grah. Cat. B. pl.* p. 236.) বড় পিঁয়ি রচি।



Buro-pini-nutee. ♂ Peninsula of India. Bengal, (Serampore.) China.
Fl. R. S.; fr. C. S.

BRIZA, L. (*Endl. gen. pl.* 1, p. 99.)

1. *maxima*, L. (*Röm. and Sch.* 2, p. 521;—*E. B.* 10, t. 357.) ♂ S. Europe. Fl. C. S.
2. *geniculata*, Thunb. (*Röm. and Sch.* 2, p. 520.) ♂ C. G. H. Fl. C. S.
3. *virens*, L. (*Röm. and Sch.* l. c.) ♂ S. France. Spain. Levant. Fl. C. S.
4. *minor*, L. (*Röm. and Sch.* 2, p. 519;—*E. B.* 19, t. 1316.) ♂ England. S. Europe. Fl. C. S.

MELICA, L. (*Endl. gen. pl.* 1, p. 100.)

1. *uniflora*, Retz. (*Röm. and Sch.* 2, p. 524;—*E. B.* 15, t. 1058.) ♀ Europe. Fl. C. S.

DACTYLIS, L. (*Endl. gen. pl.* 1, p. 100.)

1. *glaucescens*, Willd. (*Röm. and Sch.* 2, p. 626.) ♀ Venice. Fl. G. S.

LAMARCKIA, Mönch. (*Endl. gen. pl.* 1, p. 101.)

1. *aurea*, Mönch. (*Chrysurus cynosuroides*, Pers.;—*Röm. and Sch.* 2, p. 806.—*Cynosurus aureus*, L.;—*Sm. and Sibth. fl. gr.* 1, p. 62, t. 79;—*Host. gram.* 3, t. 4.) ♂ Italy. S. France. Spain. Fl. C. S.

CYNOSURUS, L. (*Endl. gen. pl.* p. 100.)

1. *echinatus*, L. (*Pers. syn.* 1, p. 86;—*E. B.* 19, t. 1333.—*Chrysurus echinatus*, Beauv.;—*Röm. and Sch.* 2, p. 806.) ♂ England. S. Europe. Levant. Caucasus. Fl. Feb.

BRACHYPODIUM, Rom. and Sch. (*syst.* 2, p. 45.)

1. *tenellum*, Rom. and Sch. (*syst.* 2, p. 745.—*Triticum tenellum*, Lam. ♂ S. Europe. Fl. C. S.

VULPIA, Gmel. Lk.

1. *bromoïdes*, Lk. (*Mygalurus bromoïdes*, Lk.—*Festuca bromoides*, L.;—*E. B.* 20, t. 1411;—*Röm. and Sch.* 2, p. 725.) ♂ S. and W. Europe. Fl. Feb. and March.
2. *Myurus*, Lk. (*Mygalurus caudatus*, Lk.—*Festuca Myurus*, L.;—*Röm. and Sch.* 2, p. 726;—*E. B.* 20, t. 1412.) ♂ Europe. Fl. Feb. and March.
3. *uniglumis*, Lk. (*Mygalurus uniglumis*, Lk.—*Festuca uniglumis*, Sm.;—*E. B.* 20, t. 1430;—*Röm. and Sch.* 2, p. 728.) ♂ Shores of England and France. Fl. Feb. and March.

FESTUCA, L. (*Endl. gen. pl.* 1, p. 101.)

1. *ovina*, L. (*Röm. and Sch.* 2, p. 714;—*E. B.* 9, t. 585.) ♀ Europe. Fl. C. S.
2. *flavescens*, Bellard. (*Röm. and Sch.* 2, p. 722.) ♀ Alps of Piedmont. Fl. C. S.
3. *rubra*, L. (*Röm. and Sch.* 2, p. 724;—*E. B.* 29, t. 2056.) ♀ Europe. Fl. C. S.



BROMUS, L. (*Endl. gen. pl.* 1, p. 101.)

1. *secalinus*, L. (*Röm. and Sch.* 2, p. 633;—*E. B.* 17, t. 1171.) ◎ Europe, Caucasus. Fl. C. S.
2. *lanceolatus*, Roth. (*Röm. and Sch.* 2, p. 639.) ◎ Canaries. Fl. C. S.
3. *longiflorus*, Willd. (*Röm. and Sch.* 2, p. 645.) ♀. Native place unknown. Fl. C. S.
4. *sterilis*, L. (*Röm. and Sch.* 2, p. 647;—*E. B.* 15, t. 1030.) ◎ England. S. Europe, Caucasus. Fl. C. S.
5. *matritensis*, L. (*Röm. and Sch.* 2, p. 648.—*B. diandrus*, *Curt.*;—*E. B.* 14, t. 1006.) ◎ S. Europe. Tauria. N. Africa. Fl. C. S.
6. *maximus*, Desf. (*Röm. and Sch.* 2, p. 652.—*B. matritensis*, *Cav. ic.* *rar.* VI, p. 67; not *1*.) ◎ Madrid. Fl. C. S.

Q. BAMBUSEM, Nees.; (*Lindl. Nat. syst.* p. 378.)

BEESHA, Rheed. (*Endl. gen. pl.* 1, p. 103.)

1. *Rheedii*, Kth. (*Gram.* 141;—*Agrost.* 484.—*B. baccifera*, *Kth. syn. pl. aquinoct.* 1, p. 253;—*Schult.* 8, p. 1336.—*Melocanna bambu-* *soides*, *Trin.*;—*Spreng. syst.* 2, p. 113, excl. syn. *Lour.*;—*J. Grah. Cat. B. pl.* p. 240.—*Bambusa baccifera*, *Roxb. Corom.* 3, t. 243; *fl. ind.* 2, p. 197.—*Rheed.* 5, t. 60.) बिष बांश *Bish-bansh*, ५ Peninsula of India. Chittagong Mountains. Fl. R. S.; fr. C. S.

DENDROCALAMUS, Nees. (*Lindl. Nat. Syst.* p. 383.—*Endl. gen. pl.* 1, p. 103, *annot.* under *Bambusa*.)

1. *Balcooa*. (*Bambusa Balcooa*, *Roxb. fl. ind.* 2, p. 196.) ५ Bengal, (Serampore.) Fl. R. S.; but very seldom. On account of its size and strength, it is reckoned by the bamboo workmen the very best sort for building the houses of the natives, for scaffolding, &c., especially after it has been long immersed in water. (*Roxb.*)
 - a. धूलि बांश *Dhooli-bansh*. Large variety.
 - β. बालकु बांश *Balko-bansh*. पलू बांश *Puloo-bansh*. Smaller variety.
2. *Tulda*, (*Bambusa Tulda*, *Roxb. fl. ind.* 2, p. 193.) तुलदा बांश *Tulda-bansh*. ५ Bengal, (Serampore.) Fl. May. This species, the most common in Bengal, is much esteemed by the natives, though considered inferior to No. 1, like which it is treated and used in the same manner. The young thick shoots are, when about two feet high, tender and commonly used for pickle. (*Roxb.*)
 - β. पीय बांश *Peea-bansh*. A larger variety used chiefly for scaffolding and building the better and larger sorts of native houses. It differs from *Tulda-bansh* by its greater length and thickness of the joints.

γ. बाशिनि बांश *Bashini-bansh*. Has a larger cavity, and is used chiefly for making baskets.

3. *strictus* (*Bambusa stricta*, *Roxb. Corom.* 1, t. 80; *fl. ind.* 2, p. 193;—*Schult.* 8, p. 1339.—*Nastus strictus*, *Sm. in Rees' cyc.*) ५ Coromandel. Fl. H. S. Smaller than the other species, but on account of its great strength, solidity and straightness, much more fit for a variety of uses. The natives make staffs to their spears, &c., of it. (*Roxb.*)



BAMBUSA, Schult. (*Endl. gen. pl.* 1, p. 102.)

1. *arundinacea*, Willd. (*Schult. syst.* 8, p. 1340;—*Roxb. Corom.* 1, t. 79; *fl. ind.* 2, p. 191, and *J. Grah. Cat. pl.* p. 239, excl. syn. *Rheed.*—*Bambos arundinacea*, *Retz.*—*Arundo Bambos*, *L. sp.* p. 120, partly.—*Nastus arundinaceus*, *Sm.* in *Rees' cyclo.* excl. syn. *Rheed.*—*Arundarbor vasaria* s. *Bulu Java*. *Rumph.* 4, p. 8.) ৰাষ্ট্ৰ বাঁশ *Bansh*. ৫ Mountains of India. Fl. H. S. Use—the same as of the preceding species. In Mysore and S. Concan the seeds are gathered for food by the poorer classes. (*Buch.*)
2. *spinosa*, Roxb. (*fl. ind.* 2, p. 198;—*Schult. syst.* 8, p. 1342.—*Arundo arbor*, *L. zeyl.* p. 47.—*A. Bambos*, *L. spec. in Burm. ind.* p. 30.—*Ily*, *Rheed.* 1, t. 16.—*Arundarbor spinosa*, *Rumph.* 4, t. 2.) ৰেছৱাৰ বাঁশ *Beohoor-bansh*. ৫ Bengal, (Calcutta, Serampore,) &c. Fl. June. Grows to a pretty large size, has a smaller cavity than any of the other bamboos, is strong, and consequently adapted for various purposes. (*Roxb.*)
3. *nana*, Roxb. (*fl. ind.* 2, p. 199.) ৫ China. Was introduced into H. C. G. in 1794, but had not fl. up to 1814; makes beautiful close hedges. (*Roxb.*)
4. *gigantea*, Wall. (*Rep.*) L. ৫ Burma. Has been cultivated for years in H. C. G. Fl.?

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- * *Degraphis arundinacea*, Trin. (*Phalaris arundinacea*, *L.*; E. B. 6, t. 402.) ৩. Europe.—*Anthoxanthum odoratum*, *L.*; E. B. 9, t. 647. ৩. Europe.—*Panicum spectabile*, Nees. A gigantic, tender fodder-grass. Brazil.—*Setaria germanica*, Beauv. ০ S. Europe. Cultivated as food for horses in Germany and Hungary.—*Orthopogon hirtellus*, R. Br. ০ Cultivated as fodder in low and marshy lands of Jamaica.—*Ratzeburgia pulcherrima*, Kth. Wall. pl. as. rar. 3, p. 273. Burma.—*Lygeum Spartum*, *L.* ৩. Spain, used for making ropes, baskets, nets, &c. *Alopecurus pratensis*, *L.*; E. B. 11, t. 759. ৩. Europe. Excellent meadow-grass.—*A. geniculatus*, *L.*; E. B. 18, t. 1250. ৩. Europe.—*Phleum pratense*, *L.*; E. B. 15, t. 1076. ৩. Europe. Good meadow-grass.—*Ammophila arenaria*, Lk. *Arundo arenaria*, *L.*; E. B. 8, t. 520. ৩. Europe. Used to fix shore-sands against winds and tides.—*Glyceria fluitans*, R. Br. (*Poa fluitans*, *L.*; E. B. 22, t. 1520.) ৩. Europe. A floating grass, greedily eaten by horses and cattle.—*Hydrochloa aquatica*, Hartm. (*Poa aquatica*, *L.*; E. B. 19, t. 1315.) ৩. Europe. A good pasture grass forming in England the chief winter's fodder.—*Poa abyssinica*, Ait. ০ Grown as a bread-corn in Abyssinia, and furnishes the *teff* bread, that made from wheat being used only by the superior ranks. The dough is allowed to turn sour, and by generating carbonic gas, answers instead of yeast, it is then baked into circular cakes, which are white, spongy, of a hot disagreeable sourish taste, but light of digestion. The same bread, well



toasted, and infused in water for some days, furnishes the *houz*, or common beer of the country. (*Loud.*)—*Elymus arenarius* L.; E. B. 24, t. 1672. ♀. Europe. Prevents by its matted roots the shifting of loose sand thrown up by the tides.—*Lolium perenne*, L.; E. B. 5, t. 315. Rye-grass ♀. ♂ Europe. The annual sort well adapted for producing a bulky crop of hay.—*Centotheca lappacea*, Desv. Coromandel.—*Windsoria quinquefida*, Lindl. ♀. Pennsylvania. A very good fodder grass.

ORDER. CCLVII.—CYPERACEÆ. R. Br.—Lindl. Nat. Syst. p. 384.

THE SEDGE TRIBE.

" Plants resembling much those of the last tribe in appearance, though essentially distinguished by many important points of structure. Found in marshes, ditches, and running streams, in meadows, and on heaths, in groves and forests, in the blowing sands of the sea-shore, on the tops of mountains, from the Arctic to the Antarctic circle, wherever phænogamous vegetation can exist. Humboldt remarks, that in Lapland Cyperaceæ are equal to Gramineæ, but that thence, from the temperate zone to the equator, in the northern hemisphere, the proportion of Cyperaceæ to Gramineæ very much diminishes. As we approach the line, the character of the order also changes. Carex, Scirpus, Schaeus, and their allies, cease to form the principal mass of the order, their room being usurped by Cyperus, Kyllinga, Mariscus, and the like genera, comparatively unknown in northern regions, or at least not forming any marked feature in the vegetation." (Lindl.)

The number of Indian Cyperaceæ, by Nees von Esenbeck, described from Lindley's, Royle's, Wallich's, and Wight's Herbaria, amount to 233 species, including nearly all Roxburgh's, viz. 54 of *Cyperus*; 5 of *Papyrus*; 5 of *Mariscus*; 5 of *Kyllinga*; 1 of *Curtoisia*; 1 of *Remirea*; 1 of *Anosporum*; 1 of *Hemicarpha*; 2 of *Lipocarpha*; 1 of *Hypolytrum*; 3 of *Fuirena*; 1 of *Dichostylis*; 4 of *Abildgaardia*; 1 of *Chaetocyperus*; 1 of *Echinolytrum*; 21 of *Imbristyliis*; 14 *Trichelostylis*; 13 of *Isolepis*; 1 of *Eleogiton*; 1 of *Malacochate*; 1 of *Hymenochæte*; 2 of *Eriophorum*; 7 of *Scirpus*; 2 of *Eleogenus*; 3 of *Eleocharis*; 5 of *Lamnochloa*; 1 of *Rhynchospora*; 1 of *Morisia*; 1 of *Haplostylis*; 2 of *Cephaloschoenus*; 13 of *Scleria*; 1 of *Cobresia*; 1 of *Cylindropus*; 2 of *Hypoporum*; 1 of *Diplacrum*; 1 of *Trilepis*; 50 (52 Boott.) of *Carex*; and 1 of *Uncinia*.—(*Contributions to Indian Botany, by R. Wight. Lond. 1834, p. 69-129 incl.*) Griffith's herbarium comprehends of Cyperaceæ, 80 species from Serampore; 73 from Affghanistan; 70 from Mergui; 50 from Assam; 30 from the Khassy Mountains; 22 from the Mishmee Hills; 20 from Bootan. How many among these may be new forms, we have had no means of ascertaining.



The Cyperaceæ, though so nearly allied to Panicaceæ, differ from them much in utility, inasmuch as the order contains but few plants, which are of any importance, and of these the value depends upon the presence of mucilage and fecula in the roots of a few species, accompanied in others with a little bitterness, and some aromatic principle. (Royle.)

A. CYPERÆ, Nees.

(Wight's contrib. p. 69.)

CYPERUS, L. (Nees in Wight's contrib. t. c.—Endl. gen. pl. 1, p. 119.)

1. *pygmaeus*, Vahl. (Röm. and Sch. 2, p. 174;—Rottb. gram. t. 14, f. 4, 5?—Wight's contrib. p. 72.—C. diffusus, Roxb. fl. ind. 1, p. 188; ed. Carey, 1, p. 193; not Vahl.—C. Mulen-pulu, Schult. mant. 2, p. 99.—C. squarrosus, Roxb. fl. ind. 1, p. 190; ed. Carey, 1, p. 194;—J. Grah. Cat. B. pt. p. 231; not Rottb.—Rheed. 12, t. 54.) जालमूती
Jalmootee. ◎ Peninsula of India. Ava. Bengal, (Serampore,) &c. Fl. and fr. R. S.
2. *pumilus*, L. (Amoen. 4, p. 302, excl. syn. Pluk.;—Röm. and Sch. 2, p. 188; excl. all the syn. except that of L.—Wight's contrib. p. 74;—Roxb. fl. ind. 1, p. 193; ed. Carey, 1, p. 197.—Pluk. t. 191, f. 3; not t. 192, f. 3.) ◎ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
3. *pulvinatus*, Nees and Mey. (Wight's contrib. p. 74.—C. punctatus, Roxb. fl. ind. 1, p. 193; ed. Carey, 1, p. 197.—Pluk. t. 191, f. 3; not t. 192, f. 3.) ◎ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
4. *sanguinolentus*, Vahl. (Röm. and Sch. 2, p. 208;—Wight. contrib. p. 75.—C. pumilus, Gürtn. fr. 1, p. 9, t. 2, f. 2, excl. syn.—C. cruentus, Roxb. fl. ind. 1, p. 196; ed. Carey, 1, p. 200; excl. syn. Rottb. and Willd.—Retz. obs. 5, p. 13;—J. Grah. Cat. B. pt. p. 231.—C. pumilus, Rottb. gram. p. 29, t. 9, f. 4, excl. syn. L.—C. ater, Vahl.;—Röm. and Sch. 2, p. 190.—C. Eragrostis, Vahl. Röm. and Sch. 2, p. 190.) ◎ Nepal. Nathpur. Bengal, (Serampore.) The Conean. Fl. and fr. R. S.
5. *inundatus*, Roxb. (fl. ind. 1, p. 201; ed. Carey, 1, p. 205;—Wight. contrib. p. 76.—J. Grah. Cat. B. pt. p. 231, excl. syn. Rheed.—C. procerus, Roxb. fl. ind. 1, p. 203; ed. Carey, 1, p. 206, not Roth.—C. Bacha, Buch.) ओड़ि पाते. ◎ Peninsula of India. Bengal. Fl. R. S.; fr. C. S. Found in great abundance on the low banks of the Hooghly and rivulets near Calcutta, (Serampore,) &c. Where the tide rises high over it, it thrives most luxuriantly, and helps much to bind, and protect the banks from the rapidity of the water. (Roxb.)
6. *compressus*, L. (Röm. and Sch. 2, p. 182;—Wight. contrib. p. 76;—Rottb. gram. p. 27, t. 9, f. 3;—Roxb. fl. ind. 1, p. 194; ed. Carey, 1, p. 198, excl. syn. Pluk.—J. Grah. Cat. B. pt. p. 231.—C. conglomeratus, Willd. en suppl. p. 5; not sp. pl.—Sloane jam. 1, t. 76, f. 1.—

- Pluk.* t. 417, f. 2.) ছেঁচা। *Chooncha.* ☺ W. Indies. Peninsula of India. Bengal, (Serampore,) &c. Fl. and fr. R. S.
7. *niveus*, Retz. (*Röm. and Sch.* 2, p. 169;—*Wight. contrib.* p. 78;—*Roxb. fl. ind.* 1, p. 191; *ed. Carey*, 1, p. 195.) ☺ Bengal, (Serampore.) Midnapore. Monghir. Kemaon. Fl. R. S.; fr. C. S.
8. *aristatus*, Rottb. (*Gram.* p. 23, t. 6, f. 1;—*Röm. and Sch.* 2, p. 221;—*Wight. contrib.* p. 78;—*Roxb. fl. ind.* 1, p. 190; *ed. Carey*, 1, p. 194.—*Schult. mant.* 2, p. 128.) ☺ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
9. *angustifolius*, Buch. (*Wight. contrib.* p. 79.) ☺ Bengal, (Serampore.) Fl. and fr. R. S.
10. *castaneus*, Willd. (*Röm. and Sch.* 2, p. 177;—*Wight. contrib.* p. 79;—*Roxb. fl. ind. ind.* 1, p. 195; *ed. Carey*, 1, p. 199.) ☺ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
11. *articulatus*, L. (*Wight. contrib.* p. 80.)
 a. (C. *articulatus*, Vahl.—H. and Kth. nov. gen. and sp. p. 184.) ♀. W. Indies. Peru. Guinea. Mauritius. Peninsula of India. Kamaon.
 β. *niloticus*, (C. *niloticus*, Forsk.;—*Röm. and Sch.* 2, p. 164.—C. *nudus*, Roxb. *fl. ind.* 1, p. 187; *ed. Carey*, 1, p. 191.—C. *gymnos*. *Röm. and Sch. mant.* 2, p. 97.) ♀. Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
12. *seminudus*, Roxb. (*fl. ind.* 1, p. 187; *ed. Carey*, 1, p. 191;—*Wight. contrib.* p. 80.—C. *Konigii*, Vahl. *en.* 2, p. 302.) গোল মুথী Golmethee. ♀. Bengal, (Serampore.) Fl. and fr. R. S.
13. *hexastachyus*, Rottb. (*Wight. contrib.* p. 81.)
 a. *communis*, Nees. (C. *hexastachyus*, *Spreng.*;—*Rottb. gram.* p. 28, t. 14, f. 2.—C. *rotundus*, L.;—*Roxb. fl. ind.* 1, p. 197; *ed. Carey*, 1, p. 201;—*J. Grah. Cat. B. pt.* p. 231;—*R. Br. pr.* p. 216;—*Rumph.* 6, t. 1, f. 1, and t. 1, f. 2.) মুথো. ♀. Arabia. Ceylon. Peninsula of India. Bengal, (Serampore.) Kemaon. Java. China. Manilla. New Holland. Fl. and fr. R. S. Roots tuberous, sold in the bazaars, and used by perfumers on account of their fragrance. Cattle eat the grass. Hogs are remarkably fond of the root. In medicine it is used as a tonic and stimulant, and has been employed in the treatment of cholera. (*Hardw.*)
 β. *pendulus*, Nees. (*Wight. contrib.* p. 82.—C. *tuberosus*, *Roxb. fl. ind.* 1, p. 199; *ed. Carey*, 1, p. 203, excl. syn.) ♀. Bengal, (Serampore,) &c. Fl. and fr. R. S.
14. *pertensis*, Roxb. (*fl. ind.* 1, p. 198; *ed. Carey*, 1, p. 202;—*Wight. contrib.* p. 83.) নাগর মুথী Nagur-moothee. ♀. Bengal, (Serampore.) Fl. and fr. R. S. Roots tuberous, aromatic, employed for perfuming the hair.
15. *exaltatus*, Retz. (*Wight. contrib.* p. 34.—C. *fastigiatus*, *Rottb. gram.* p. 32, t. 7, f. 2;—*Röm. and Sch.* 2, p. 220.—C. *alopecuroides*, *Roxb. fl. ind.* 1, p. 208; *ed. Carey*, 1, p. 211, excl. syn.; not *Rottb.*;—*J. Grah.*



- Cat. B. pl. p. 232, excl. syn.)* 4. Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
16. *Roxburghii*, Nees. (*Wight. contrib. p. 84*.—*C. elatus*, *Roxb. fl. ind. 1*, *p. 204*; *ed. Carey*, *1*, *p. 207*, excl. syn.;—*J. Grah. Cat. B. pl. p. 232*.) गोल मलुंगा *Gol-molunga*. 4. Peninsula of India. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
17. *racemosus*, Retz. (*Röm. and Sch. 2*, *p. 241*;—*Wight. contrib. p. 85*.—*C. digitatus*, *Roxb. fl. ind. 1*, *p. 205*; *ed. Carey*, *1*, *p. 209*; not Royle.) 4. Peninsula of India. Penang. Bengal, (Serampore.) Fl. and fr. C. S.
18. *dubius*, Rottb. (*ic. p. 20, t. 4, f. 5*;—*Wight. contrib. p. 85*;—*Roxb. fl. ind. 1*, *p. 188*; *ed. Carey*, *1*, *p. 192*;—*J. Grah. Cat. B. pl. p. 232*.—*C. kyllingoides* *Vahl*;—*Röm. and Sch. 2*, *p. 173*; excl. syn. *Pursh*.—*Rumph. 6, t. 2, f. 1*.) छोटे गोथुबी *Chhoto-gothoobee*. 4. Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
19. *venustus*, R. Br. (*pr. 1*, *p. 217*;—*Wight. contrib. p. 86*.—*C. alopecuroides* *Kön.*; in *R. Br.*—*Rheed. 12, t. 42*.) 4. Peninsula of India. Bengal, (Serampore.) Java. New Holland. Fl. R. S.; fr. C. S.
20. *verticillatus*, Roxb. (*fl. ind. 1*, *p. 206*; *ed. Carey*, *1*, *p. 209*, excl. syn.;—*Wight. contrib. p. 87*.) बरीथी *Burethee*. 4. Peninsula of India. Bengal, (Serampore.) Nepal. Fl. and fr. R. S.
21. *Iria*, L. (*Wight. contrib. p. 87*;—*Roxb. fl. ind. 1*, *p. 201*; *ed. Carey*, *1*, *p. 204*;—*J. Grah. Cat. B. pl. p. 232*.—*C. Santonici*, *Rottb. gram. p. 41, t. 9, f. 1*.—*Rheed. 12, t. 56*.) बड़े छूचे *Buro-chhooncha*. 4. Peninsula of India. Bengal, (Serampore.) Nepal. Manilla. Macao. Fl. and fr. R. S.
22. *diformis*, L. (*Wight. contrib. p. 88*;—*Röm. and Sch. 2*, *p. 193*;—*Mant. 2*, *p. 110*.—*Rottb. gram. p. 24, t. 9, f. 2*;—*Roxb. fl. ind. 1*, *p. 195*; *ed. Carey*, *1*, *p. 199*;—*J. Grah. Cat. B. pl. p. 232*.—*C. protractus*, *Del.*) बेहुआ *Behooaa*. ◎ Peninsula of India. Ceylon. Bengal, (Serampore.) New Holland. Mauritius. Egypt. Greece. Lombardy. Manilla. China. Fl. and fr. R. S.
23. *distans*, L. (*Wight. contrib. p. 88*;—*Jacq. ic. var. 2, t. 299*;—*Röm. and Sch. 2*, *p. 216*;—*Roxb. fl. ind. 1*, *p. 207*; *ed. Carey*, *1*, *p. 210*.—*J. Grah. Cat. B. pl. p. 232*.—*C. elatus*, *Rottb. gram. p. 37, t. 10*.—*C. laxus*, *Vahl*.—*Röm. and Sch. 2*, *p. 217*.) पानी मलुंगा *Panee-Mulunga*. 4. Peninsula of India. Bengal, (Serampore.) St. Cruz. Benin. Fl. and fr. R. S.
- PAPYRUS**, Lk. (Nees in *Wight. contrib. p. 69*;—*Endl. gen. pl. 1*, *p. 119*, under *Cyperus*.)
1. *Pangorei*, Nees. (*Wight. contrib. p. 88*.—*Cyperus Pangorei*, *Rottb. gram. p. 31, t. 7, f. 3*;—*J. Grah. Cat. B. pl. p. 232*; not *Roxb.*—*C. tegetum*, *Roxb. fl. ind. 1*, *p. 208*; *ed. Carey*, *1*, *p. 211*.) मादूर कठी *Madoor-katee*. 4. Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S. Those elegant, useful, durable, large mats so common



SL

CYPERACEÆ.

on the floors of rooms in and about Calcutta, are made of the culm of this plant. When green, they are split into three or four pieces, which on drying contract so much as to bring the margins in contact, or to overlap each other. In this state they are wove. (*Roxb.*)

2. *tegetiformis*, Arn. (*Wight. contrib.* p. 89, *annot.*—*Cyperus tegetiformis*, *Roxb. H. B.* p. 6.—*C. nudus*, *Roxb. fl. ind.* 1, p. 209, not p. 187; *ed. Carey*, 1, p. 212, not p. 191; excl. the Bengal name.)
কচকচিয়া *Kuchkuchiya*. 2. Bengal, (Serampore.) Fl. and fr. R. S.

3. *dehisces*, Nees. (*Wight. contrib.* p. 89.—*Cyperus corymbosus*, *Hb. Heyne*, partly, not *Rottb.*—*C. Pangorei*, *Roxb. fl. ind.* 1, p. 202; *ed. Carey*, 1, p. 206, excl. syn.) চামাটী পাটী *Chumatee-patree*. 2. Peninsula of India. Bengal, (Serampore) Fl. R. S.; fr. C. S. Very common on the banks of the Hooghly, where it helps much to bind and protect the banks.

MARISCUS, Vahl. (*Wight. contrib.* p. 69;—*Endl. gen. pl.* 1, p. 119, under *Cyperus*.)

1. *cyperinus*, Vahl. (*Wight. contrib.* p. 90;—*Röm. and Sch.* 2, p. 298.—*M. Sieberianus*, *Nees. in Sieb. herb. maurit.* 2, n. 3. partly.—*Kyllinga cyperina*, *Retz.*—*K. umbellata*, *Roxb. fl. ind.* 1, p. 182; *ed. Carey*, 1, p. 186, excl. syn *L.*, *Rottb.*, and *Vahl*.—*J. Grah. Cat. B. pl.* p. 232.—*Rheed.* 12, t. 63.) বড় গোথুবী *Buro-gothoojee*. 2. Peninsula of India. Bengal, (Serampore.) *Mauritius*. China. Ascension. Fl. and fr. R. S.
2. *dilutus*, Nees. (*Wight. contrib.* p. 90.—*Cyperus dilutus*, *Vahl.*;—*Röm. and Sch.* 2, p. 214.—*C. compactus*, *Retz.*;—*Röm. and Sch.* 2, p. 165.—*C. congestus*, *Poir.*—*C. spinulosus*, *Roxb. fl. ind.* 1, p. 203; *ed. Carey*, 1, p. 207.) 2. Both Peninsulas of India. Bengal, (Serampore.) Fl. and fr. R. S.

KYLLINGA, L. (*Wight. contrib.* p. 69;—*Endl. gen. pl.* 1, p. 119, under *Cyperus*)

1. *monocephala*, L. (*Wight. contrib.* p. 91;—*Röm. and Sch.* 2, p. 236;—*Roxb. fl. ind.* 1, p. 180; *ed. Carey*, 1, p. 185;—*Rottb. gram.* p. 13, t. 4, f. 4;—*J. Grah. Cat. B. pl.* p. 232.—*Thryocephalon nemorale*, *Forst.*—*Rheed.* 12, t. 53;—*Rumph.* 6, t. 8, f. 2.) শ্঵েত গোথুবী *Shwet-gothoojee*. 2. Both Peninsulas of India. Bengal, (Serampore.) Nepal. Moluccas. China. New Holland. Roots fragrant and aromatic. Fl. and fr. R. S.

2. *triceps*, L. (*Wight. contrib.* p. 91;—*Rottb. gram.* p. 14, t. 6;—*Röm. and Sch.* 2, p. 238, with most syn.—*Roxb. fl. ind.* 1, p. 181; *ed. Carey*, 1, p. 186;—*J. Grah. Cat. B. pl.* p. 232;—*Rheed.* 12, t. 52.) 2. Both Peninsulas of India. Bengal, (Serampore.) Fl. and fr. R. S.

COURTOISIA, Nees. (*Wight. contrib.* p. 69.—*Endl. gen. pl.* 1, p. 119, under *Cyperus*)

1. *cyperoides*, Nees. (*Wight. contrib.* p. 92.—*Kyllinga cyperoides*, *Roxb. fl. ind.* 1, p. 182; *ed. Carey*, 1, p. 187;—*J. Grah. Cat. B. pl.* p. 232.) 2. ? Peninsula of India. Has been introduced in H. C. G.?

*B. HYPOLYTREA*, Nees.

(Wight. contrib. p. 69.)

ANOSPORUM, Nees. (Wight. contrib. p. 70;—Endl. gen. pl. 1, p. 117.)

1. *monocephalum*, Nees. (Wight. contrib. 92.—*Cyperus monocephalus*, Roxb. fl. ind. 1, p. 188; ed. Carey, 1, p. 193;—*J. Grah. Cat. B. pl. p. 232.*) গোথুবী Gothoobee. ◎ Bengal, (Serampore.) Fl. and fr. R. S.

C. SCIRPES, Nees.

(Wight. contrib. p. 70.)

ABILDGAARDIA, Vahl. (Wight. contrib. p. 70;—Endl. gen. pl. 1, p. 119, under *Cyperus*.)

1. *Rottbolliana*, Nees. (Wight. contrib. p. 95.—*Cyperus monastachyus*, Rottb. gram. p. 18, t. 13, f. 3.—*Scirpus schoenoides*, Kön.;—Roxb. fl. ind. 1, p. 221; ed. Carey, 1, p. 223, excl. syn. Retz.) মুড়শাড়ি Moormoori. ◎ Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.

FIMBRISTYLLIS, Vahl. (Wight. contrib. p. 70;—Endl. gen. pl. 1, p. 117.)

1. *schoenoides*, Vahl. (Wight. contrib. p. 97;—*Röm. and Sch.* 2, p. 93.—*Scirpus bispicatus*, Kön.;—Roxb. fl. ind. 1, p. 220; ed. Carey, 1, p. 223.) কেশুরী মলংগা Keshuree-mulunga. ◎ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
2. *ferruginea*, Vahl. (Wight. contrib. p. 97.—*Scirpus tristachyos*, Roxb. fl. ind. 1, p. 221; ed. Carey, 1, p. 224; excl. syn.) ◎ Bengal, (Serampore.) Fl. and fr. R. S.

3. *Røyeniana*, Nees. (Wight. contrib. p. 99.)

$\beta.$ *microstachya*, Nees. (o. c. p. 100.—*F. glauca*, Vahl.;—*Röm. and Sch.* 2, p. 96.—*Scirpus diphylloides*, Roxb. ? fl. ind. 1, p. 227; ed. Carey, 1, p. 230, excl. syn.) তালনুরু Talnuroo. ◎ Soonderbuns. Fl. and fr. R. S.

$\gamma.$ *procumbens*, Nees. (o. c. p. 99.—*Scirpus miliaceus*, Roxb. fl. ind. 1, p. 227; ed. Carey, 1, p. 231, excl. syn.) ◎ Bengal, (Serampore.) Fl. and fr. R. S.

4. *pallescens*, Nees. (Wight. contrib. p. 101.—*Scirpus dichotomus*, Rottb. gram. p. 57, t. 13, f. 1.—*S. dichotomus*. $\beta.$ *villosus*, Röm. and Sch. 2, p. 95.—*S. bisumbellatus*, Forsk.—*S. pallescens*, Roxb. ? fl. ind. 1, p. 229; ed. Carey, 1, p. 233.) ◎ Fl. and fr. R. S.

5. *aestivalis*, Vahl. (Wight. contrib. p. 102;—*Röm. and Sch.* 2, p. 596.—*Scirpus aestivalis*, Retz.—Roxb. fl. ind. 1, p. 227; ed. Carey, 1, p. 230, excl. observ. Wall.) ◎ Bengal, (Serampore.) Peninsula of India. Ceylon. Nepal. Banks of the Irawaddy.

TRICHELOSTYLLIS, Lestiboudois. (Wight. contrib. p. 70;—Endl. gen. pl. 1, p. 118, under *Fimbristylis*.)

1. *tenella*, Nees. (Wight. contrib. p. 103.—*Scirpus tenellus*, Roxb. fl. ind. 1, p. 225; ed. Carey, 1, p. 227.) ◎ Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.



226

CYPERACEAE.

SL

2. *complanata*, Nees. (*Wight. contrib. I. c.*)
a. One leaf of the involucre equalling the umbel. (*Scirpus complanatus*, *Vahl*; — *Rom. and Sch. 2*, p. 119; *mant. 2*, p. 56, under *Fimbristylis autumnalis*.)
b. One or other of the involucral leaves longer than the umbel. (*Fimbristylis complanata*, *Lk. hort. ber. 1*, p. 292, excl. most syn. *Isolepis Willdenowii*, *Röm. and Sch. 2*, p. 120.—*Scirpus anceps*, *Wild. berl. mag. 2*, p. 288, t. 8, f. 2.—*Cyperus complanatus*, *Willd.*, excl. syn. *Retz.*)
γ. Involucre shorter than the umbel. (*Fimbristylis autumnalis, var. indica*, *Roth. nov. sp. pl. 1*, p. 26.—*Scirpus complanatus*, *Retz.*; — *Roxb. fl. ind. 1*, p. 226; *ed. Carey, 1*, p. 228, excl. syn. *Vahl*; — *J. Grah. Cat. B. pl. p. 233*.—*Scirpus anceps*, *Roxb. fl. ind. 1*, p. 230; *ed. Carey, 1*, p. 234.) **কুরাতিয়া ঘৰাণী** *Kuratiya-yuvanee*. ◎ Bengal, (Serampore.) Fl. and fr. R. S.
3. *miliacea*, Nees. (*Wight. contrib. p. 103*.—*Fimbristylis miliacea*, *Vahl*; — *Röm. and Sch. 2*, p. 93; *mant. 2*, p. 63, (excl. syn. *Roxb.*) and p. 475; *mant. 3*, p. 530.—*F. bengalensis*, *Röm. and Sch. 2*, p. 94; *mant. 3*, p. 530.—*Scirpus miliaceus*, *Roth. gram. p. 57, t. 5, f. 2*; — *Burm. fl. ind. t. 9, f. 2*.—*Scirpus bengalensis*, *Pers.*.—*S. tetragonus*, *Poir.*; — *Röm. and Sch. 2*, p. 138; — *Roxb. fl. ind. 1*, p. 228; *ed. Carey, 1*, p. 232, partly; — *J. Grah. Cat. B. pl. p. 233*.) **বড় ঘৰাণী** *Buro-yuvanee*. ◎ Bengal, (Serampore.) Fl. and fr. R. S.
4. *tetragona*, Nees. (*Wight. contrib. p. 104*.—*Scirpus tetragonus*, *Roxb. fl. ind. 1*, p. 228; *ed. Carey, 1*, p. 232, partly.) ◎ Bengal, (Serampore.) Fl. and fr. R. S.
5. *quinquangularis*, Nees. (*Wight. contrib. p. 104*.—*Scirpus quinquangularis*, *Vahl*; — *Röm. and Sch. 2*, p. 145; — *Roxb. fl. ind. 1*, p. 229; *ed. Carey, 1*, p. 233.) ◎ Bengal, (Serampore.) Fl. and fr. R. S.
ISOLEPIS, R. Br. (*Wight. contrib. p. 70*; — *Endl. gen. pl. 1*, p. 118.)
1. *squarrosa*, Vahl. (*En. 2*, p. 259; — *Wight. contrib. p. 106*; — *Röm. and Sch. 2*, p. 111.—*Scirpus squarrosum*, *L.*; — *Roth. gram. p. 49, t. 1, f. 5*; — *Roxb. fl. ind. 1*, p. 222; *ed. Carey, 1*, p. 224; — *J. Grah. Cat. B. pl. p. 233*.—*S. chinensis*, *Osb. iter. p. 220*; — *Rheed. 12, t. 38*) **ছুঁচ মুর্মুরি** *Chhoonchoo-moormoori*. ◎ Bengal, (Serampore.) Fl. and fr. R. S.
2. *setacea*, R. Br. (*pr. p. 222*; — *Wight. contrib. p. 107*.—*Scirpus setaceus*, *L.*; — *Sm. E. B. 24, t. 1693*; — *Host. gram. austr. 3*, p. 44, t. 65.) ◎ Bengal, (Serampore.) Nepal. New Holland. Europe. Fl. and fr. C. S.
3. *supina*, R. Br. (*o. c. p. 221*; — *Wight. contrib. p. 107*; —*Scirpus supinus*, *L.*; — *Schrad. fl. germ. 1*, p. 38, t. 1, f. 1; — *Host. gram. austr. 3*, t. 64; — *Roxb. fl. ind. 1*, p. 217; *ed. Carey, 1*, p. 119; — *S. lateralis*, *Retz. obs. 4*, p. 12, and 5, p. 16.) ◎ Bengal, (Serampore.) &c. Nepal. New Holland. Europe. Fl. and fr. R. S.



4. *prolongata*, Nees. (*Wight. contrib.* p. 108;—*Scirpus prolongatus*, *Poir.*;—*Röm. and Sch.* 2, p. 131.—*S. subarticulatus*, *Roxb. fl. ind.* 1, p. 215; *ed. Carey*, 1, p. 217.) ፩ Bengal, (Serampore.) Peninsula of India, Nepal, &c. Fl. and fr. R. S.
5. *articulata*, Nees. (*Wight. contrib.* p. 108.—*Scirpus articulatus*, *L.*;—*Rottb. gram.* p. 45;—*Roxb. fl. ind.* 1, p. 214; *ed. Carey*, 1, p. 217;—*J. Grah. Cat. B. pl.* p. 233.—*S. fistulosus*, *Forst?*) ପଟପାଟି ଚେକା *Putputi-chencika*. ፩ Bengal, (Serampore,) &c. Fl. and fr. R. S.
6. *incurvata*, Nees. (*Wight. contrib.* p. 108;—*Scirpus incurvatus*, *Roxb. fl. ind.* 1, p. 214; *ed. Carey*, 1, p. 216.—*S. articulatus*, *B. tenuis*, *Roth. nov. pl. sp.* p. 26.) ፩ Bengal, (Serampore.) Fl. and fr. R. S.
- HYMENOCERATE, Beauv. (*Wight. contrib.* p. 71;—*Endl. gen. pl.* 1, p. 118, under *Scirpus*.)

- SCIRPUS, L. (*Wight. contrib.* p. 71;—*Endl. gen. pl.* 1, p. 118.)
1. *junciformis*, Nees. (*Wight. contrib.* p. 112;—*S. juncoïdes*, *Roxb. fl. ind.* 1, p. 216; *ed. Carey*, 1, p. 218.) ፩ Bengal, (Serampore,) &c. Fl. and fr. R. S.
2. *Kysoor*, Roxb. (*fl. ind.* 1, p. 230; *ed. Carey*, 1, p. 235;—*J. Grah. Cat. B. pl.* p. 133.) କେଶାର୍ଦୀ କେଶାର୍ କେଶାର. ፩ Bengal, (Serampore,) &c. Fl. and fr. R. S.
- ELEOGENUS, Nees. (*Wight. contrib.* p. 71.—*Endl. gen. pl.* 1, p. 118, under *Scirpus*.)

1. *capitatus*, Nees. (*Wight. contrib.* p. 112.—*Eleocharis capitata*, *R. Br. pr.* p. 225;—*Röm. and Sch.* 2, p. 153.—*Scirpus capitatus*, *Willd.*;—*Humb. and Kth. nov. gen. and sp. pl.* 1, p. 181;—*Roxb. fl. ind.* 1, p. 215; *ed. Carey*, 1, p. 218.—*S. caribaeus*, *Rottb. gram.* p. 46, t. 15, f. 3.) ፩ Bengal, (Serampore.) Peninsula of India. New Holland. Rio Janeiro, &c. Fl. and fr. R. S.

- LIMNOCHLOA, Beauv. (*Wight. contrib.* p. 71;—*Endl. gen. pl.* 1, p. 118, under *Scirpus*.)

1. *plantaginea*, Nees. (*Wight. contrib.* p. 114.—*Scirpus plantagineus*, *Rottb. gram.* p. 45, t. 15, f. 2;—*Roxb. fl. ind.* 1, p. 212; *ed. Carey*, 1, p. 214.—*Eleocharis plantaginea*, *Röm. and Sch.* 2, p. 150.) ଚେକା *Chenchka*. ፩ Bengal, (Serampore.) Peninsula of India. Ceylon. Fl. and fr. R. S.
- β. bulbifera*, Nees. (*Scirpus tuberosus*, *Roxb. fl. ind.* 1, p. 210; *ed. Carey*, 1, p. 213.) ፩ China. Fl. Sept., in H. C. G. (*Roxb.*) Root tuberous, eatable, both raw and boiled.
2. *tumida*, Nees. (*Wight. contrib.* p. 114.—*Scirpus tumidus*, *Roxb. fl. ind.* 1, p. 212; *ed. Carey*, 1, p. 215.) ፩ Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.



328

CYPERACEAE.

SL

3. acutangula, Nees. (*Wight. contrib.* p. 114.—*Scirpus acutangulus*, Roxb. *Jl. Ind.* 1, p. 213; *ed. Carey*, 1, p. 216.) 2. Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.

D. SCLERIÆ, Nees.

(*Wight. contrib.* p. 71.)

SCLERIA, Berg. (*Wight. contrib. t. c. and p.* 116;—*Endl. gen. pl.* 1, p. 112.)

1. *lithosperma*, Willd. (*Wight. contrib.* p. 117;—*Roxb. Jl. Ind.* 3, p. 574;—*J. Grah. Cat. B. pl.* p. 233.—*S. tenuis*, Retz. *obs.* 4, p. 13.—*Willd.*—*Scirpus lithospermus*, L.—*Rheed.* 12, t. 48.) 2. Bengal, (Serampore.) Peninsula of India. Ceylon. Fl. and fr. R. S.

2. *tessellata*, Willd. (*Wight. contrib.* p. 118.—*Scleria biflora*, Roxb. *Jl. Ind.* 3, p. 573.) 2. Bengal, (Serampore.) Peninsula of India. Ceylon. Nepal. Fl. and fr. R. S.

E. CARICEÆ, Nees.

(*Wight. contrib.* p. 72.)

CAREX, Mich. (*Wight. contrib. t. c. and p.* 119-20;—*Endl. gen. pl.* 1, p. 110.)

1. *cyperoides*, L. (*Spreng. syst.* 3, p. 808, *No.* 23.) 2. Siberia. Introduced in 1817.

2. *stellulata*, Gooden. (*Spreng. o. c. p.* 809, *No.* 45;—*E. B.* 12, *t.* 806.) 2. Europe. Introduced in 1817.

3. *foena*, Willd. (*Spreng. o. c. p.* 810, *No.* 49.) 2. N. America. Introduced in 1820.

4. *muricata*, L. (*Spreng. o. c. No.* 51;—*E. B.* 16, *t.* 1097.) 2. Europe. Introduced in 1817.

5. *ovalis*, Gooden. (*E. B.* 5, *t.* 306.) 2. Europe. Introduced in 1820.

6. *arenaria*, L. (*Spreng. syst.* 3, p. 812, *No.* 69;—*E. B.* 13, *t.* 928.) 2. Europe. Introduced in 1820.

7. *vulpina*, L. (*Spreng. o. c. p.* 813, *No.* 82;—*E. B.* 5, *t.* 307.) 2. Europe. Introduced in 1817.

8. *alpina*, Swz. (*Spreng. o. c. p.* 815, *No.* 112.) 2. Lapland. Introduced in 1820.

9. *Oderi*, Ehrh. (*Spreng. o. c. p.* 819, under *C. flava*,—*E. B.* 25, *t.* 1773.) 2. Europe. Introduced in 1817.

10. *pendula*, Gooden. (*Spreng. o. c. p.* 824, under *C. maxima*.—*E. B.* 33, *t.* 2315.) 2. Europe. Introduced in 1820.

11. *riparia*, Gooden. (*Spreng. o. c. p.* 828, *No.* 252;—*E. B.* 9, *t.* 579.) 2. Europe. Introduced in 1820.

* *Cyperus pleuranthus*, Nees. Coromandel.—*C. tortuosus*, Roxb. Circars.

—*C. polystachyus*, Rottb. Peninsula of India. N. Holland, &c.—*C.*

alopucroides, Rottb. not Roxb. Himalayas.—*C. pectiniformis*, Röm.

and Sch. Coromandel.—*C. Haspan*, Rottb. Peninsula of India, &c.—

C. bulbosus, Vahl. Coromandel.—*C. tenuiflorus*, Rottb. (*C. incurvatus*, Roxb.) Peninsula of India.—*C. procerus*, Roth. (*C. tenuiflorus*



Roxb.) Peninsula of India.—*C. canescens*, Vahl. excl. syn. Rheed. Peninsula of India.—*Papyrus elatus*, Nees. Ceylon.—*Remirea Wightiana*, Wall. Peninsula of India.—*Hemicarpa Isolepis*, Nees. Peninsula of India.—*Lipocarpa lœvigata*, Nees. Peninsula of India.—*L. triceps*, Nees. Coromandel.—*Hypolytrum giganteum*, Wall. Both Peninsulas of India.—*Fuirena ciliaris*, Roxb. Coromandel, &c.—*F. pentagona*, W. and A. Peninsula of India.—*Dichostylis Micheliana*, Nees. Nepal. Asia Minor. South Europe.—*Abildgaardia tristachya*, Vahl. Peninsula of India.—*Chætocyperus Limnocharis*, Nees. Coromandel.—*Echinolytrum dipsaceum*, Desv. Peninsula of India.—*Fimbristylis argentea*, Vahl. Peninsula of India.—*Isolepis barbata*, R. Br. Peninsula of India. Nepal, &c.—*Eleogiton curvulus*, Nees. Peninsula of India.—*Malacochæte pectinata*, Nees. Peninsula of India.—*Eriophorum arundinaceum*, Wall. Penang.—*E. comosum*, Wall. Nepal.—*Rhynchospora chinensis*, Nees. and Meyen. China. Nepal.—*Morisia Wallichii*, Nees. Nepal.—*Haplostylis Meyenii*, Nees. China. Ceylon.—*Cephaloschoenus articulatus*, Nees. Peninsula of India.—*Hypoporum pergracile*, Nees. Silhet.—*Corbesia laxa*, Nees. Nepal.—*Trilepis Royleana*, Nees. Himalayas.—*Carex indica*, Willd. Nepal.—*Uncinia Nepalensis*, Nees. Himalayas.—*U. jamaicensis*, Pers. Jamaica.

ORDER CCLVIII.—DESVAUXIACEÆ, Lindl. Nat. Syst. p. 386.

Small herbs, by Lindl. referred to 2 genera of 12 species, all natives of New Holland and Van Diemen's Land. Properties unknown.

* *Desvauxia exserta*, R. Br. Tropical New Holland.—*D. Banksii*, R. Br. Tropical New Holland.—*D. pusilla*, R. Br. Tropical New Holland.

ORDER CCLIX.—RESTIACEÆ, R. Br.—Lindl. Nat. Syst. p. 386.

Herbs or undershrubs, by Nees von Essenbeck referred to 18, by Lindl. to 19 genera. Of these, according to R. Br., Harvey and Spreng., 60 species are natives of S. Africa; 47 of New Holland and Van Diemen's Land; 1 of S. America, (*Lyginia montivida*, Spreng.); and 1 of Tranquebar. (*Restio articulatus*, Retz. Spreng.) The latter is not mentioned by either Roxb., Wall. or Royle. "Properties none, except that the tough wiry stems of some species are manufactured into baskets and brooms." (Lindl.) *Restio tectorum*, Thunb. is employed at the C. G. H., both in town and country, for thatching, and sometimes whole huts are



730

RESTIACEÆ—ERIOCAULONEÆ.

CSL

built of it. A roof thatched with it will last twenty or thirty years, and it is said would last much longer, if the S. E. wind did not blow dirt into it, which causes it to rot. It seems well worthy of introduction into India, where the thatch is of so perishable a nature." (Royle.) It has been introduced in Dapooree, where it is much used for thatching houses. (Dr. Lush.)

ELEOGLA, Thunb. (*Endl. gen. pl. 1, p. 122.*)

1. juncea, Thunb. (*Spreng. syst. 1, p. 362.—E. thrysifera, Pers. syn. 2, p. 607.—Restio thrysifer, Rottb. enc. bot. 6, p. 177;—Lam. ill. t. 804.*) 2. C. G. H. Fl. C. S. fr. 0.

WILDENOWIA, Thunb. (*Endl. gen. pl. 1, p. 121.*)

1. teres, Thunb. (*Spreng. syst. 1, p. 188.—Thunb. in act. holm. 1790, p. 28, t. 2, f. 2;—J. Grah. Cat. B. pl. p. 231.*) 2. C. G. H. Used for making brooms. Fl. C. S.; but rarely.

* *Leptocarpus elatior*, R. Br. Tropical N. Holland.—*L. ramosus*, R. Br. Tropical New Holland.—*L. spathaceus*, R. Br. Tropical New Holland.—*Restio tropicus*, R. Br. Tropical New Holland.

SUB-ORDER.—ERIOCAULONEÆ, L. C. Rich., Lindl. Nat. Syst. p. 387.

Herbs, by Lindl. (excl. *Leucocephala*, Roxb.) referred to 3 or 5 genera. Of these, according to Spreng. syst. 14 are natives of S. America; 11 of New Holland; 5 of N. America; 1 of the Mascarenhas Islands; 1 of Madagascar; and 1 of Scotland. In the E. Indies have been discovered 19 species of *Eriocaulon*, 17 of which are described by Martius in Wall. pl. as. rar. 3, p. 27-29; (Bengal, Peninsula of India, Moulmein, Tavoy, Monghir, Assam, Khassya Mountains, Nepal); 1 (*E. quadrangulare*, Lour.) in Cochin China; and 1 (*E. Sollyanum*, Royle) in Cashmere. "Properties unknown." (Lindl.)

ERIOCAULON, Gronov. (*Endl. gen. pl. 1, p. 123;—Mart. I. c.*)

1. quinquangulare, L. (*Mart. o. c. p. 28;—Röm. and Sch. 2, p. 862;—Burm. fl. ind. p. 30;—J. Grah. Cat. B. pl. p. 230;—Leucocephala graminifolia, Roxb. fl. ind. 3, p. 612.*) ॐ Gooree. ⊖ Bengal, (Serampore,) Peninsula of India. Fl. and fr. R. S.

2. sexangulare, L. (*Mart. I. c.;—Burm. fl. ind. p. 30, t. 9, f. 4;—Röm. and Sch. 2, p. 863;—J. Grah. Cat. B. pl. p. 231.—E. minimum, Lam.—Leucocephala spathacea, Roxb. fl. ind. 3, p. 613.*) ⊖ Bengal, (Serampore,) Peninsula of India. Fl. and fr. R. S.

3. argenteum, Mart. (*I. c.*) ⊖ Bengal, (Serampore,) &c. Fl. and fr. R. S.

4. setaceum L. (*Mart. o. c. p. 29;—Röm. and Sch. 2, p. 863;—J. Grah. Cat. B. pl. p. 230;—Rheed. 12, t. 58.*) ⊖ Bengal, (Serampore,) Peninsula of India, Ceylon, &c. Fl and fr. R. S.



5. *melaleucum*, Mart. ? (*o. c. p.* 29.) ♂ Bengal, (Serampore.) Fl. and fr. R. S.

Besides these, 7 other species have been collected in the neighbourhood of Serampore, by the native gardeners attached to the garden. They have all flowered and seeded, but are as yet undetermined.

* *Eriocaulon pallidum*, R. Br. Tropical New Holland.—*E. fistulosum*, R. Br. Tropical New Holland.—*E. deustum*, R. Br. Tropical New Holland.—*E. Wallichianum*, Mart. (Wall. pl. as. rar. 3, t. 249.) Tavoy.—*E. Brownianum*, Mart. (Wall. pl. as. rar. 3, t. 248.) Silhet. Kandalla.—*E. cristatum*, Mart. Khassa Mountains.—*Tonina fluvialis*, Aubl. Guiana.

ORDER CCLX.—XYRIDACEÆ, Lindl. Nat. Syst. p. 388.

Herbs, by Lindl. referred to two genera. Of these, R. Br., Harvey, and Spreng. enumerate 15 for New Holland and Van Diemen's Land, of which one also is common to India; 7 for S. America; 5 for N. America; 1 for Sierra Leon; 1 for S. Africa; and 1 for Madagascar. In the E. Indies, have been discovered 6 species of *Xyris*, 5 of which are described by Martius in Wall. pl. as. rar. 3, p. 29 and 30; and one (*X. anceps*, Lam.), according to Spreng. a native of Malabar. Properties unimportant.

Xyris, L. (*Endl. gen. pl.* 1, p. 124;—*Mart. o. c. p.* 29.)

1. *indica*, L. (*Mart. o. c. p.* 30;—*Roxb. fl. ind.* 1, p. 179; *ed. Carey*, 1, p. 183;—*J. Grah. Cat. B. pl. p.* 223;—*Rheed.* 9, t. 71.) मार्वीदूबी *Dabee-doobee*. ♂ Bengal, (Serampore.) S. Concan. Coromandel. Fl. Nov. and Dec.; fr. January and Feb. “The natives of Bengal esteem it a plant of great value, because they think it an easy, speedy, and certain cure for the troublesome eruption called ring-worms.” (*Hon'ble. John Hyde in a letter to Roxb.*) “This accords with what Rheede says of it, vol. 9, p. 139. Foliorum succus cum aceto mixtus impetigini resistit. Folia cum radice oleo incocta, contra lepram sumuntur.” (*Roxb.*)

* *Xyris pauciflora*, Willd. ♀. Both Peninsulas of India. Silhet. Nepal. Tropical New Holland.—*X. schoenoides*, Mart. Nepal.—*X. lappacea*, Heyne. Coromandel.—*X. robusta*, Mart. Silhet.—*X. complanata*, R. Br. Tropical New Holland.—*X. scabra*, R. Br. Tropical New Holland.—*X. levis*, R. Br. Tropical New Holland.—*X. denticulata*, R. Br. Tropical New Holland.—*Abolboda pulchella*, Humb. Banks of the Orinocco.—*A. imberbis*, Humb. Guiana.

SL



732

RAFFLESIACEÆ—CYTINACEÆ—BALANOPHORACEÆ—CYNOMORIACEÆ.

CSL

CLASS 4TH.

RHIZANTHÆ.

Lindl. Nat. Syst. p. 389.

ORDER CCLXI.—RAFFLESIACEÆ, Endl.;—Lindl. Nat. Syst. p. 392.

Stemless parasitical plants, by Lindl. referred to 4 genera; “natives of the E. Indies, and probably all astringent.” (Endl.)

ORDER CCLXII.—CYTINACEÆ, Lindl. Nat. Syst. p. 392.

Parasitical herbaceous plants, by Lindl. referred to 5 genera. Of these, Spreng. enumerates 3 species from S. Africa; 1 from S. Europe. Apodanthes, Poit. is probably a native of Guiana. Properties unimportant.

ORDER CCLXIII.—BALANOPHORACEÆ, Lindl. Nat. Syst.

Leafless parasitical plants, by Lindl. referred to 4 genera. Of these, Spreng. enumerates 3 species for S. America and the W. Indies, and 1 for the New Hebrides. In the E. Indies, according to Wall. Cat., have been discovered 4 species of Balanophora, viz. *B. dioica*, R. Br. (*B. elongata*, Bl.?) Nepal, Java?; *B. indica*, Wall. Peninsula of India; *B. typhina*, Wall. Prome. Taong-Dong, and *B. gigantea*, Wall. which, perhaps, may form a new genus, *Sarcocordylis*, Wall. Taong-Dong. “Properties unknown.” (Lindl.)

ORDER CCLXIV.—CYNOMORIACEÆ, Lindl. Nat. Syst. p. 394.

Leafless parasitical plants, by Lindl. referred to 3 genera. Properties unimportant.



CLASS 5TH.

ACROGENÆ.

Lindl. Nat. Syst. p. 395, or Flowerless Plants.

A. FILICALES, Lindl. Nat. Syst. p. 397.—Filices of others.

THE FERN FAMILY.

Leafy plants, producing a rhizoma, which creeps below or upon the surface of the earth, or rises into the air like the trunk of a tree. (*Lindl.*) They differ much from all living plants, and come nearest to the flowering classes by Cycadaceæ. They prevail chiefly where there is a certain degree of moisture; hence they are abundant in insular situations, in the forests of tropical countries, as well as on the mountains of northern latitudes. In the E. Indies they have been found in the greatest abundance in the Malayan Peninsula, the Khassy Mountains, the Mishmee Hills, Bootan, Nepal, the Himalayas, Mergui, and the west coast of the Peninsula of India. In Royle's collection there are about 80 species, obtained mostly from the tract of the Himalayas, between the Ganges and Sutlej rivers, and only 1 species from the plains of India, that is *Asplenium radiatum*, Sw., which is found at Saharunpore and Delhi. The only other fern Royle found in the plains was *Cheilarethes farinosa*, Kaulf.; but even this only near the Rajmahal hills, where there are also a few other species. About Serampore have been discovered only 20 species, growing in ditches, on old walls, trees, &c. although moisture here is considerable throughout the greater part of the year. Wall. Cat. excluding exotics, contains about 430 species, viz. 22 of *Acrostichum*; 95 of *Polypodium*; 2 of *Hemionitis*; 12 of *Grammitis*; 2 of *Antrophyum*; 5 of *Meniscium*; 2 of *Tenitis*; 3 of *Notholaena*; 1 of *Matonia*; 62 of *Aspidium*, 58 of *Asplenium*; 1 of *Allantodia*; 34 of *Pteris*; 7 of *Cheilanthes*; 1 of *Cryptogramma*; 18 of *Lindsea*; 3 of *Vittaria*; 9 of *Adiantum*; 1 of *Woodwardia*; 2 of *Blechnum*; 8 of *Lomaria*; 3 of *Cyathea*; 1 of *Sphaeropteris*; 9 of *Alsophila*; 3 of *Dicksonia*; 30 of *Davallia*; 3 of *Gleichenia*; 1 of *Ceratopteris*; 8 of *Hymenophyllum*; 5 of *Trichomanes*; 3 of *Osmunda*; 1 of *Angiopteris*; 1 of *Schizæa*; 7 of *Lygodium*; 1 of *Ophioglossum*; 1 of *Helminthostachys*; 2 of *Botrychiun*; 1 of *Actinostachys*; and 2 of *Arthrobotrys*.—Many of these are natives of the Indian Archipelago, but by far the greater part have been collected on the Malayan Peninsula, the Khassy Mountains, Nepal, and the Himalayas.

The properties of the fern-family are upon the whole unimportant.

Lindley thinking it not inexpedient to consider ferns as a collection of genera equivalent to the alliances of Flowering Plants, has divided them into the following natural orders: *Polypodiaceæ*, *Gleicheniaceæ*, *Osmundaceæ*, *Danæaceæ*, and *Ophioglossaceæ*.



ORDER CCLXV.—POLYPODIACEÆ, R. Br.—Lindl. Nat. Syst. p. 400.

ACROSTICHUM, L. (*Endl. gen. pl. 1, p. 59.*)

1. *emarginatum*, Roxb. (*H. B. p. 75.*) 2. Bengal. Introduced into H. C. G. in 1796. Fl. ? (*Roxb.*)

POLYPODIUM, L. (*Endl. gen. pl. 1, p. 60.*)

1. *pertusum*, Roxb. (*H. B. p. 75.*)—*Niphobolus pertusus*, *Spreng. syst. 4, p. 44.*) 2. Soonderbuns. Fl. R. S.

2. *glabrum*, Roxb. (*H. B. p. 75.*) চিতুয়া বোড়া *Chitooa-bora*, 2. Paras. Bengal, (Serampore.) Fl. R. S.

3. *quercifolium*, L. (*Spreng. syst. 4, p. 49;*—*R. Br. pr. p. 147;*—*Roxb. H. B. p. 75;*—*J. Grah. Cat. B. pl. p. 241;*—*Rheed. 12, t. 11;*—*Rumph. 6, t. 36.*) গুরুৱা *Guroor*. 2. Paras. Bengal, (Serampore.) Peninsula of India. Moluccas. New Holland, &c. Fl. R. S.

4. *proliferum*, Roxb. (*H. B. (1814), p. 75*; not Kaulf.) দাপু *Dapoo*. 2. Bengal, (Serampore.) Khassy Mountains. Oude. Nepal. Fl. R. S.

5. *excavatum*, Roxb. (*H. B. (1814), p. 75*; not Bory.—*Rumph. 6, t. 35, f. 1.*) 2. Moluccas. (*Roxb.*) Fl. ?

6. *semisagittatum*, Roxb. (*H. B. p. 75.*) 2. Soonderbuns. Has been introduced into H. C. G. (*Roxb.*) Fl. ?

7. *mucronatum*, Roxb. (*H. B. 75.*) 2. Silhet. Introduced into H. C. G. in 1811. (*Roxb.*) Fl. ?

8. *lucidum*, Roxb. (*H. B. p. 75.*) 2. Nepal. Introduced into H. C. G. by Buch. (*Roxb.*) Fl. ?

9. *tenerum*, Roxb. (*H. B. p. 75.*) 2. Silhet. Introduced into H. C. G. in 1811. (*Roxb.*) Fl. ?

10. *Phyllitidis*, L. (*Spreng. syst. 4, p. 47;*—*Roxb. H. B. p. 75.*) 2. Chittagong. Introduced into H. C. G. by Buch. (*Roxb.*) Fl. ?

11. *sophoroïdes*, Roxb. (*H. B. p. 75.*) 2. Moluccas. Introduced into H. C. G. in 1798. Fl. R. S. (*Roxb.*)

HEMIONITIS, L. (*Endl. gen. pl. 1, p. 59.*)

1. *cordifolia*, Roxb. (*H. B. p. 75.*)—*H. cordata*, *Hook. and Grev. ic. filic. 1, t. 64.*) চাকুল্যা *Chakoolya*. 2. Bengal, (Serampore.) Rangoon. Fl. R. S.

NOTHOLEMA, R. Br. (*Endl. gen. pl. 1, p. 60.*)

1. *piloselloides*, Kaulf. (*Spreng. syst. 4, p. 42.*)—*Pteris piloselloides*, L.;—*Roxb. H. B. p. 75;*—*Rheed. 12, t. 29.*) 2. Paras. Bengal, (Serampore.) Chittagong. Penang. Singapore. Tenasserim. Khassy Mountains. Courtallum. Fl. R. S.

ASPIDITIUM, L. (*Endl. gen. pl. 1, p. 62.*)

1. *unitum*, Swz. (*Spreng. syst. 4, p. 103*, excl. syn.—*Polypodium unitum*, Roxb. *H. B. p. 75.*) পানকাকুল *Pankakrool*. 2. Bengal, (Serampore.) Fl. R. S.

2. *flagelliferum*, Wall. (*Cat.*—*Polypodium flagelliferum*, Roxb. *H. B. p. 75.*) 2. Bengal. Fl. R. S.

ASPLENIUM, L. (*Endl. gen. pl. 1, p. 61.*)

1. *Nidus*, L. (*Spreng. syst. 4, p. 80*;—*R. Br. pr. p. 150*;—*Roxb. H. B. p. 75*;—*B. M. 58, t. 3101.*) 2. Paras. Amboyna. Introduced into H. C. G. in 1798. (*Roxb.*) Fl. ?
2. *bipinnatum*, Roxb. (*H. B. p. 75.*) 5. Introduced into H. C. G. in 1798. (*Roxb.*) Fl. ?

PTERIS, L. (*Endl. gen. pl. 1, p. 61.*)

1. *graminifolia*, Roxb. (*H. B. p. 75.*) 2. Paras. Silhet. Introduced into H. C. G. in 1811. (*Roxb.*) Fl. ?
2. *angustifolia*, Swz. (*Roxb. H. B. p. 75.*)—*Tænitis angustifolia*, *Spreng. syst. 4, p. 42.*) 2. Paras. Soonderbuns. Introduced into H. C. G. in 1796. Fl. R. S. (*Roxb.*)
3. *vittata*, L. (*Spreng. syst. 4, p. 71*;—*Roxb. H. B. p. 75.*) 2. Soonderbuns. Introduced into H. C. G. in 1795. Fl. R. S. (*Roxb.*)
4. *amplectens*, Wall. (*Cat.—P. amplexicaulis*, *Roxb. H. B. p. 75.*) 2. Bengal. Banks of the Irawaddi. Mountains of Ava. Fl. R. S. (*Roxb.*)
5. *dimidiata*, Willd. (*Spreng. syst. 4, p. 73*;—*Roxb. H. B. p. 75.*) 2. Silhet. Introduced into H. C. G. in 1811. Fl. R. S. (*Roxb.*)
6. *esculenta*, Forst. (*Spreng. syst. 4, p. 77*;—*R. Br. pr. p. 154*;—*Roxb. H. B. p. 75.*) 2. New Holland. Van Diemen's Land. Introduced into H. C. G. in 1811. (*Roxb.*) Fl. ?

CHEILANTHES, Swz. (*Endl. gen. pl. 1, p. 60.*)

1. *farinosa*, Kaulf. (*Hook. and Grev. ic. filic. 2, t. 134.*—*C. dealbata*, Don, not Pursh.) 2. Khassya Mountains. Fl. C. S.

LINDSEYA, Sm. (*Endl. gen. pl. 1, p. 62.*)

1. *odorata*, Roxb. (*H. B. p. 76.*) 2. Garrow Hills. Fl. R. S. (*Roxb.*)

ADIANTUM, L. (*Endl. gen. pl. 1, p. 61.*)

1. *lunulatum*, N. L. Burm. (*Spreng. syst. 4, p. 110*;—*Hook. and Grev. 1, t. 104*;—*J. Grah. Cat. B. pl. p. 242.*—*Pteris lunulata*, *Retz.*;—*Roxb. H. B. p. 75*;—*Rheed. 12, t. 40.*) 2. Both Peninsulas of India. Nepal. Java. Philippines. Mexico. Brazil. Fl. C. S.
2. *caudatum*, L. (*Spreng. syst. 4, p. 111*;—*Roxb. H. B. p. 76.*) 2. E. Indies. Introduced into H. C. G. by H. T. Colebrooke. (*Roxb.*) Fl. ?

LOMARIA, Willd. (*Endl. gen. pl. 1, p. 61.*)

1. *scandens*, Willd. (*Spreng. syst. 4, p. 64*;—*J. Grah. Cat. B. pl. p. 241*, excl. syn. Rumph and Burm.—*Pteris scandens*, *Roxb. H. B. p. 75.*) 2. Both Peninsulas of India. Khassya Mountains. Moluccas. Fl. R. S. (*Roxb.*)

SPHEGOPTERIS, Bernh. (*Endl. gen. pl. 1, p. 63.*)

1. *barbata*, Wall. (*pl. as. rar. 1, t. 48.*) 2. Nepal. Has been introduced into H. C. G. ?

DAVALLIA, Sm. (*Endl. gen. pl. 1, p. 63.*)

1. *parallela*, Wall. (*Cat.—D. multiflora*, *Roxb. H. B. p. 75.*) 2. Bengal, (Serampore.) Fl. R. S.



36

POLYPODIACEÆ—GLEICHENIACEÆ—OSMUNDACEÆ.

GSL

2. *pilosa*, Roxb. (*H. B.* p. 75.) 2. Bengal. Has been introduced into H. C. G. (*Roxb.*) Fl.?

3. *angustifolia*, Roxb. (*H. B.* p. 75.) 2. New South Wales. Has been introduced into H. C. G. (*Roxb.*) Fl.?

* *Acrostichum flagelliferum*, Wall. (Hook. and Grev. 1, t. 23.—Rheed. 12, t. 19.) Khassya Mountains. Chappedong. Peninsula of India.—*A. aureum*, L. Penang. Singapore. Æstuaries of the Hooghly.—*Polypodium Horsfieldii*, R. Br. Mountains of Penang.—*P. tridactylum*, Wall. Khassya Mountains.—*P. Wallichii*, R. Br. (Hook. and Grev. 2, t. 168-9.—*Hemionitis hastata*, R. Br. Courtallum.—*Antrophyum reticulatum*, Kaulf. Penang.—*Meniscium triphyllum*, Swz. Khassya Mountains. Singapore.—*Tenitis blechnoides*, Swz. Penang. Tavoy.—*Aspidium alatum*, Wall. (Hook. and Grav. 2, t. 84.) Khassya Mountains.—*A. coadunatum*, Wall. (Hook. and Grev. 2, t. 202.) Khassya Mountains.—*Asplenium multicaule*, Wall. Khassya Mountains.—*A. fraxinifolium*, Wall. Penang.—*Altantodia Brunonianæ*, Wall. pl. as. rar. 1, t. 52. Mahableshwur.—*Pteris semipinnata*, L. Khassya Mountains.—*P. longifolia*, L. Banks of the Irawaddi.—*Cheilanthes micrantha*, Wall. Khassya Mountains.—*Vittaria elongata*, Swz. Soonderbuns.—*Blechnum orientale*, L. Singapore.—*Davallia tenuifolia*, Swz. Khassya Mountains.—*D. pedata*, Sm. Khassya Mountains.

ORDER CCLXVI.—GLEICHENIACEÆ, Lindl. Nat. Syst. p. 401.

CERATOPTERIS, Brongn. (*Endl. gen. pl.* 1, p. 64.)

1. *thalictroides*, Brongn. (*Pteris succulenta*, Roxb. *H. H.* p. 75.) 2. Bengal. Fl. R. S. (*Roxb.*)

* *Gleichenia Hermanni*, R. Br. (Hook. and Grev. 1, t. 14.—Rumph. 6, t. 38.) 2. Ceylon. Nepal. New Holland. Khassya Mountains, &c.—*Hymenophyllum serpens*, Wall. Khassya Mountains.—*Trichomanes rigidum*, Wall. Singapore.

ORDER CCLXVII.—OSMUNDACEÆ, R. Br.—Lindl. Nat. Syst. p. 402.

LYGODIUM, Swz. (*Endl. gen. pl.* 1, p. 65.)

1. *microphyllum*, R. Br. (*pr. p.* 162;—*Ugena microphylla*, Cav. *ic.* 6, p. 76, t. 595, f. 2.) 2. Khassya Mountains. Fl. R. S.



2. *circinatum*, Swz. (*Spreng. syst.* 4, p. 29;—*Rumph.* 6, t. 33.) 2. (Khassy Mountains. Fl. C. S.)
3. *flexuosum*, Swz. (*Spreng. syst.* 4, p. 29;—*J. Grah. Cat. B. pl. p. 242.*—*Ophioglossum flexuosum*, L.;—*Roxb. H. B.* p. 75;—*Rheed. 12, t. 32.*) छुट्टिराज् Bhootraj. 2. (Bengal, (Serampore.) Peninsula of India. Fl. R. S.)
4. *longifolium*, Swz. (Khassy Mountains.)

* *Lygodium pinnatifidum*, Swz. 2. (The Ghauts and Concans. Maha-bleshwur.—*L. dichotomum*, Swz. Penang. Singapore.—*L. japonicum*, Swz. Khassy Mountains, &c.—*Schizaea dichotoma*, Swz. Singapore.)

ORDER CCLXVIII.—DANÆACEÆ, Agardh;—Lindl. Nat.
Syst. p. 402.

- * *Danæa alata*, Sm. W. Indies.—*D. nodosa*, Sm. W. Indies.—*D. simplicifolia*, Rudg. Guiana.—*Marattia alata*, Sm. Jamaica.—*M. fraxinea*, Sm. Mauritius.—*Kaulfussia assamica*, Griff. Upper Assam.

ORDER CCLXIX.—OPHIOGLOSSACEÆ, Lindl. Nat. Syst. p. 402.

OPHIOGLOSSUM, L. (*Endl. gen. pl.* 1, p. 66.)

1. *reticulatum*, L. (*Sp. pl.* p. 1518;—*Spreng. syst.* 4, p. 22;—*Hook. and Grev.* 1, t. 20.—O. *cordatum* and *reticulatum*, *Plum. fil.* p. 141, t. 164.—O. *cordifolium*, *Roxb. H. B.* p. 75.) अकरीर Ekteer. 2. (Bengal, (Serampore.) Mauritius. Bourbon. St. Domingo. Jamaica. Guiana. Fl. R. S.)
2. *filiforme*, Roxb. (*H. B.* p. 75;—*Rheed.* 12, t. 34.) 2. (Bengal. Peninsula of India. (Serampore.) Fl. R. S.)
3. *pendulum*, L. (*Spreng. syst.* 4, p. 22;—*J. Grah. Cat. B. pl. p. 243;*—*Hook. and Grev.* 1, t. 19;—*Rumph.* 6, t. 37, f. 3.) 2. (Paras. Moluccas. Mauritius. Khassy Mountains. Fl. R. S.)

HELMINTOSTACHYS, Kaulf. (*Endl. gen. pl.* 1, p. 66.)

1. *taciniata*, (H. *dulcis*, Kaulf.;—*Spreng. syst.* 4, p. 22.—*Ophioglossum laciniatum*, *Rumph.* 6, t. 68, f. 3.—*Botrychium celianicum*, Swz.;—*J. Grah. Cat. B. pl. p. 243.*—*Osmunda celianica*, L.;—*Roxb. H. B.* p. 75.) अकरीर Ekbeer. 2. (Bengal. (Serampore.) Peninsula of India. Moluccas. Fl. R. S.)

Ophioglossum moluccanum, Schlecht. (*Hook. and Grev.* p. 45.—*Rumph.* 6, t. 68, f. 2.) Moluccas. Mauritius. Peninsula of India.



B. Lycopodales, *Lindl. Nat. Syst.* p. 402.

ORDER CCLXX.—LYCOPODIACEÆ, DC.:—*Lindl. Nat. Syst.*
p. 403.

THE CLUB-MOSS TRIBE.

Usually moss-like plants, with creeping stems and imbricated leaves, or stemless plants, with erect subulate leaves, and a solid cormus. (*Lindl.*) They are most abundant in damp hot situations in the tropics, but are also natives of even the north of Europe, where whole tracts are found covered with *Lycopodium alpinum* and *selaginoides*, L. The genera usually included in the order are *Lycopodium*, *Psilotum*, and *Isoetes*. Of the first of these, Wall. Cat. enumerates 30 species, chiefly discovered in Nepal, the Khassyia Mountains, the Neelgherries, Courtallum, Penang, and Singapore; of the second, 2 (Nepal, Singapore); and of the third, only 1, (Peninsula of India.)

The thecae of *Lycopodium* contain an inodorous powder, which is used externally to cover excoriations, especially of new-born children. The powder is very inflammable, and used in fireworks. A decoction of *L. clavatum* and *L. Selago*, L. excites vomiting. The latter is prescribed in Russia as a purgative and emetic, but only in small doses, as it otherwise brings on convulsions.

Lycopodium, L. (*Endl. gen. pl.* 1, p. 69.)

1. *Hookeri*, Wall. (*Hook. and Grev.* 2, t. 85.) 2. Nepal. Fl. R. S.
2. *Wildenowii*, Desv. (*Spreng. syst.* 4, p. 19.—*L. plumosum*, Roxb. *H. B.* p. 75; not L.) 2. Paras. Penang. Fl. R. S.
3. *cernuum*, L. (*Spreng. syst.* 4, p. 15;—*J. Grah. Cat. B. pl.* p. 243;—excl. syn.) 2. Penang. Singapore. Concans. Khassyia Mountains. Fl. R. S.
4. *Phlegmaria*, L. (*Spreng. syst.* 4, p. 12;—*Roxb. H. B.* p. 75;—*J. Grah. Cat. B. pl.* p. 243;—*Rheed.* 12, t. 14;—*Rumph.* 6, t. 41, f. 1.) *সৈতাহার* *Seetahar*. 2. Paras. Bengal, (Serampore.) Soonderbuns. Penang. Singapore. Khassyia Mountains. The Ghauts. S. Concan. Fl. R. S.
5. *imbricatum*, Roxb. (*H. B.* p. 75.) *হাতাজোড়া* *Hatajora*. 2. w. Bengal, (Serampore.) Fl. R. S.
6. *aristatum*, Roxb. (*H. B.* (1814), p. 75; not Humb.—*Dill. musc.* t. 66, f. 7.) 2. Paras. China. Introduced in H. C. G. in 1812. (Roxb.) Fl.?

Isoetes, L. (*Endl. gen. pl.* 1, p. 69.)

1. *capsularis*, Roxb. (*H. B.* p. 75.) 2. Bengal, (Serampore.) Fl. C. S.
Is this identical with *I. coromandelina*, L., and *I. indica*, Hb. Russ.?

* *Lycopodium canaliculatum*, L. The Concans.—*L. complanatum*, L. Courtallum. Dindygul.—*L. ornithopodioides*, L. Courtallum.—*L. palidum*, Hook and Grev. Courtallum.—*L. circinale*, L. Behar.—*L.*



tenellum, Desv. Mussooree. Khassy Mountains.—*L. subulifolium*, Hook. and Grev. Nepal.—*L. pulcherrimum*, Hook. and Grev. Nepal.—*L. serratum*, Thunb. Nepal.—*L. Hamiltonii*, Spreng. (*L. obtusifolium*, Buch.) Nepal.—*Psilotum triquetrum*, Swz. Mauritius. Nepal.—*Isoëtes lacustris*, L.; E. B. 16, t. 1084. Europe.

ORDER CCLXXI.—MARSILEACEÆ, R. Br.;—Lindl. Nat. Syst.
p. 404.

THE PEPPERWORT TRIBE.

Creeping plants, by Lindl. referred to 2 genera, both of which are inhabitants of ditches or inundated places, in various parts of the world. They do not appear to be affected by climate so much as by situation, whence they have been detected in various parts of Europe, Asia, Africa, America and New Holland, chiefly, however, in temperate latitudes. Properties unknown. (Lindl.) One of the genera, *Pilularia*, contains but a single species: *P. globulifera*, L.; E. B. 8, t. 521. The other, *Marsilea*, has several representatives. In India there appear, according to Royle, to be three distinct species: *M. aegyptiaca*, Willd., which is found in the Peninsula of India, as well as in Egypt, and which appears to be *M. erosa*, Willd.;—*M. coromandelina*, N. L. Burm.; (*M. minuta*, Lam.) a species apparently peculiar to the most southern part of the Indian Peninsula; and

MARSILEA, L. (Endl. gen. pl. 1, p. 68.)

1. *quadrifolia*, L. (Spreng. syst. 4, p. 8;—Roxb. H. B. p. 75;—J. Grah. Cat. B. pt. p. 243.) *হৃষি শাক* Soosni-shak. 24. \sim Europe. N. Africa. Mascarenhas Islands. New Holland. Bengal. (Serampore.) Peninsula of India. Fl. C. S.

* *M. hirsuta*, R. Br. Tropical New Holland.—*M. biloba*, Willd. S. Africa.

ORDER CCLXXII.—SALVINIACEÆ, Bartl.;—Lindl. Nat. Syst.
p. 405.

Floating plants with rooting stems, by Lindl. referred to 2 genera. Of *Azolla*, 1 species has been found in S. America, down even to the Straits of Magellan; 1 in Portorico; 1 in Carolina and Canada; 2 in New Holland and Van Diemen's Land, and 1 to the eastward of Bengal, and in Behar. The latter, according to Royle, appears to be nearly allied to, if not identical with, *A. pinnata*, R. Br. The second genus, *Salvinia*, has



CSL

SALVINIACEÆ—BRYACEÆ.

1 species in Europe and N. America; 2 in S. America; 1 in Cuba; and 4 in the E. Indies, one of which is also common to Europe and N. America.

Salvinia, Mich. (*Endl. gen. pl.* 1, p. 67.)

1. *imbricata*, Roxb. (*H. B.* p. 75.) পানা Pana. ♂ Bengal. In H. C. G. fl. R. S. (*Roxb.*)
2. *cucullata*, Roxb. (*I. c.*) ইন্দুর কানী পানা Indoor-kanee-pana. ♂ Bengal, (Calcutta.) In H. C. G. fl. R. S. (*Roxb.*)
3. *verticillata*, Roxb. (*I. c.*) তেলকি পানা Oolki-pana. ♂ Bengal. In H. C. G. fl. R. S. (*Roxb.*)

* *Salvinia natans*, All. ♂ Europe. N. America. Goruckpare. Cashmere.

— *Azolla pinnata*, R. Br. Port Jackson.—*A. rubra*, R. Br. Port Jackson. Van Diemen's Land.

C. Muscales, *Lindl. Nat. Syst.* p. 406.

ORDER CCLXXIII.—BRYACEÆ, Lindl. *Nat. Syst.* p. 407.

(Musci, Juss.)

THE MOSS TRIBE.

Erect or creeping, terrestrial or aquatic, cellular plants, (*Lindl.*) abundant only in temperate climates, though also found within the tropics. From India, (especially Nepal) Dr. Hooker has according to Wall. Cat. examined and named 109 species, viz. 5 of *Gymnostomum*; 1 of *Grimmia*; 1 of *Orthodon*; 2 of *Orthotrichum*; 1 of *Sclerothecium*; 4 of *Syrrhopodon*; 1 of *Calymperes*; 1 of *Zygodon*; 4 of *Didymodon*; 6 of *Dicranum*; 1 of *Trematodon*; 4 of *Tortula*; 16 of *Bryum*; 2 of *Brychymenium*; 1 of *Funaria*; 1 of *Bartramia*; 6 of *Polytrichum*; 1 of *Lyellia*; 3 of *Fissidens*; 17 of *Hypnum*; 7 of *Leskeia*; 18 of *Neckera*; 2 of *Hoohera*; and 4 of *Pterogonium*. In Royle's collection are about 55 species, almost all from Mussooree, several of which are identical with those of Wall. Cat. During a journey into Upper Assam, in 1835 and 1836, Mr. W. Griffith collected, chiefly on the Khassya Hills, 143 species of Musci, by himself, fully described in *M'Clelland's Journal of Natural History, Calcutta*, 1842, Nos. 8 and 9, and forming about $\frac{1}{4}$ th of the whole number (1,324) contained in Bridel's *Bryologia universalis*. "Some idea," says the author, "may be formed of the probable great number of species that remain to be found, when I mention, that the whole of the Hill collection was formed between the 8th October and the 20th of November, and that the most interesting portions of the Hills to the eastward of the route mentioned were not visited." Of the 143 species, 1 belongs to *Sphagnum*; 6 to *Polytrichum*; 1 to *Diphyscium*; 7 to



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Gymnostomum; 1 to *Orthodon*; 5 to *Orthotrichum*; 1 to *Schlotheimia*; 3 to *Weissia*; 3 to *Barbula*; 3 to *Grimmia*; 2 to *Trematodon*; 13 to *Dicranum*; 10 to *Fissidens*; 4 to *Didymodon*; 2 to *Fumaria*; 3 to *Bartramia*; 3 to *Brachymenium*; 7 to *Bryum*; 4 to *Pterogonium*; 20 to *Neckera*; 1 to *Daltonia*; 1 of *Anhydrium* (a new genus); 3 of *Pleurozypus* (a new genus); 4 of *Hookera*; 7 of *Leskia*; and 28 of *Hypnum*. According to the abstract, given in the Proceedings of the Linnean Society, before which latter Mr. Griffith's paper was read, his "collection contains *Sphagnum obtusifolium*, *Polytrichum urnigerum*, and *alooides*, *Weissia Templetoni*, *Dicranum scoparium*, and *glaucum*, *Bartramia fontana*, and several others familiar to the European muscologist; but the far greater number of the species, have not been previously described." Properties insignificant.

BARBULA, Hedw. (*Endl. gen. pl.* 1, p. 52.)

1. *indica*, Brid. (*Bryol. univers.* 1, p. 544;—*Griff. o. c. p. 490*.—*Tortula indica*, *Hook. musc. exot.* p. 7, 185.) 2. Serampore. Fl. R. S.

FISSIDENS, Hedw.

1. *bryoides*, Hedw. (*Griff. o. c. p. 502*.—*Hypnum bryoides*, L.;—*E. B. 9, t. 625.*) 2. Serampore. Fl. R. S.

ORDER CCLXXIV—MARCHANTIACEÆ, Lindl. Nat. Syst. p. 412.

(Hepaticæ, Juss.)

THE LIVER-WORT TRIBE.

Plants growing on the earth or trees, in damp places, all over the world, except where excessive dryness prevails. In India they are but imperfectly known, so that out of 237 species enumerated by Sprengel only 25 Indian ones have been named by Lehmann, according to Wall. Cat., viz. 5 of *Marchantia*; 1 of *Grimaldia*; 2 of *Plagiochasma*; 4 of *Fimbriaria*; 1 of *Dumontiera*; 1 of *Riecia*; 10 of *Jungermannia*; and 1 of *Blandovia*; all, with 4 exceptions, natives of Nepal, and the Khassya Mountains.—Royle adds to the above *Marchantia polymorpha*, L. and *Jungermannia scorpioides*, Nees.—Griffith's collection of Marchantiaceæ on the Khassya Hills and in Assam amounts to 48 species. Properties "unknown." (Lindl.)

* *Marchantia polymorpha*, L. Europe. Himalayas.—*M. androgyna*, L. Europe. Nepal.



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CHARACEÆ—AGARICACEÆ.

D. Charales, Lindl. Nat. Syst. p. 441.

ORDER CCLXXV.—CHARACEÆ, Rich. and Kth.;—Lindl. Nat. Syst. p. 415.

Aquatic plants, always submersed, referred to 3 genera. Of these have been discovered in India about 13 species of *Chara*. Properties unknown.

CHARA, L. (*Endl. gen. pl.* 1, p. 7.)

1. *verticillata*, Roxb. (*fl. ind.* 3, p. 563.) ♂ Bengal. (Serampore.) Fl. C. and H. S.
2. *involucrata*, Roxb. (*o. c. p.* 565.) ♂ Bengal, (Serampore, Calcutta.) Fl. C. and H. S.
3. *furcata*, Roxb. (*fl. ind.* 3, p. 564.) ♂ Bengal, (Serampore, Calcutta.) Fl. R. S.

* *Chara foetida*, Buch. Bangri.—*C. spiralis*, Buch. Bangri.—*C. hispida*, L. (E. B. 7, t. 463.) Europe. India.—*C. polyclados*, D. Don. Nepal.—*C. zeylanica*, Willd. Tranquebar.—*C. setosa*, Willd. Peninsula of India.—*C. corallina*, Willd. Peninsula of India.—*C. filamentosa*, Rottl. Peninsula of India.—*C. foliolosa*, Rottl. Peninsula of India.—*C. polyphylla*, Rottl. Peninsula of India.

E. Fungales, Lindl. Nat. Syst. p. 418.

ORDER CCLXXVI.—AGARICACEÆ, (FUNGACEÆ, Lindl. Nat. Syst. p. 419.)

THE MUSHROOM TRIBE.

Mushrooms, Puff Balls and Mildews are found growing in the earth, or upon decayed animal or vegetable substances, and scarcely ever upon living bodies of either kingdom, in which respect they differ from Lichens, which commonly grow upon the living bark of trees. They are as remarkable for the rapidity of their growth, which frequently takes place during the night, as for their perishable nature and the short space of time (only a few hours,) that some of them require to vegetate in, and to attain perfection. Their geographical distribution is but little understood; in fact, the *Fungi* themselves of most countries, are but little known, from the difficulty of preserving specimens; so that in many instances, if not completely examined, and described, or drawn on the spot, it is in vain to remedy the deficiency from the contents of an herbarium. Those of tropical countries are almost unknown; only 25 are enumerated by Humboldt and Bonpland from S. America, and only 10 (and these European species) by R. Brown, as found in New Holland. None are mentioned in Roxburgh's. *flor. ind.*



or in Wall. ? Cat., and in Royle's collection there are only about 40 species from the Himalayas. These have been examined by D. Don., who finds as in Lichens, that the majority have the closest resemblance to European species, but, from the perishable nature of the specimens, their identification is difficult. (Royle.)

"Fungi are important either as food or as poison, or as parasites destructive to the plants upon which they grow. As food, the most valuable are *Agaricus campestris*, or common mushroom, the various species of *Helvella* or Morel, and *Tuber* or Truffle.—It is necessary to exercise the utmost care in employing Fungi as food. L. C. Richard, though no one was better acquainted with the distinctions of Fungi, would never eat any except such as had been raised in gardens in mushroom beds." (Lindl.)

AGARICUS, L. (*Endl. gen. pl.* 1, p. 40.)

1. *campestris*, L. (*Spreng. syst.* 4, p. 446.—*Grev. cryp.* fl. 161.—A.

edulis, *Bull. champ.* t. 134 and 514.) ⊙ Serampore, &c.

LYCOPERDON, L. (*Spreng. syst.* 4, p. 378, No. 3500.) *Puff Ball.*

1. *prutense*, Pers. (*Spreng. syst.* 4, p. 523;—*Bull. herb.* 435. 2,) ⊙ Serampore.

ORDER CCLXXVII.—PARMELIACEÆ, (LICHENACEÆ, Lindl.

Nat. Syst. p. 426.)

THE LICHEN TRIBE.

Perennial plants, often spreading over the surface of the earth, or rocks or trees in dry places, in the form of a lobed and foliaceous, or hard and crustaceous, or leprous substance, called a Thallus. (Lindl.) Féé estimates the number actually known either in herbaria or in books, at 2,400. It has been remarked that the same species are found in very different parts of the world, and that the lichens of Europe, for example, differ little from those of N. America. This is observed, says Royle, in a very remarkable manner, in the comparatively few lichens collected by him in the Himalayas, almost the whole of which are pronounced by D. Don, who has examined them, to be identical with European species. Roxb. passes over this order entirely, and Wall. enumerates only 4 species, borrowed from Buch.'s Herbarium. The amount of Lichens in Griffith's Collection we do not know, but judging from his botanical completeness generally, it must be considerable. Among Royle's Lichens are mentioned *Usnea florida*, Ach. (Lichen floridus, L.;—E. B. 13, t. 872.)—*U. barbata*, Ach. (Lichen barbatus, L.;—E. B. 4, t. 258, f. 2.)—*Borrera ciliaris*, Ach. (Lichen ciliaris, L.;—E. B. 19, t. 1352.)—*B. furfuracea*, Ach. (Lichen furfuraceus, L.;—E. B. 14, t. 984.)—*Roccella fuciformis*, Ach. (Lichen fuciformis, L.;—E. B. 11, t. 728.)—*Ramalina farinacea*, Ach. (Lichen farinaceus, L.;—E. B. 13, t.



889.)—*Gyrophora murina*, Ach. ? (*Lichen murinus*, Ach. ;—E. B. 35, t. 2486.)—*Peltidea canina*, Ach. (*Lichen caninus*, L. ;—E. B. 32, t. 2299.)—*Parmelia perlata*; Ach. (*Lichen perlatus*, L. ;—E. B. 5 t. 341.)—*P. caperata*, Ach. (*Lichen caperatus*, L. ;—E. B. 10, t. 654.)—*P. physodes*, Ach. (*Lichen physodes*, L. ;—E. B. 2, t. 126.)—*Sticta pulmonaria*, Ach. (*Lichen pulmonarius*, L. ;—E. B. 8, t. 572.)—*S. serobiculata*, Ach. (*Lichen scrobiculatus*, L. ;—E. B. 7, t. 497.)—*Stereocaulon paschale*, Ach. (*Lichen paschalis*, L. ;—E. B. 4, t. 282.) &c.

Lichens have been remarked by DC. to possess two distinct classes of characters, the one rendering them fit for being employed as dyes after maceration in urine, the other making them nutritive and medicinally useful to men. Of those used in dyeing, the principal crustaceous kinds are *Lecanora Parella*, Ach. (E. B. 11, t. 727. Orseille de terre, or Perelle d'Auvergne of the French.)—*L. tartarea*, Ach. (E. B. 3, t. 156. When sold to the Dyers, it appears in form of a purple powder, called Cudbear, a corruption of Cuthbert, the name of its inventor.)—*L. Hæmatomma*, Ach. (E. B. 7, t. 486.)—*L. atra*, Ach. (E. B. 14, t. 949.)—*Variolaria lactea*, Ach. (E. B. 34, t. 2410.)—*Urceolaria scruposa*, Ach. (E. B. 4, t. 266.)—*U. cinerea*, Ach. (E. B. 25, t. 1751.)—*Isidium Westringii*, Ach. (E. B. 31, t. 2204.)—*Lepraria chlorina*, Ach. ;—E. B. 29, t. 2038. Of the foliaceous species : *Parmelia sazatilis*, Ach. (E. B. 9, t. 603.)—*P. omphalodes*, Ach. (E. B. 9, t. 604.)—*P. encausta*, Ach. (E. B. 29, t. 2049.)—*P. conspersa*, Ach. (E. B. 30, t. 2097.)—*P. parietina*, Ach. (E. B. 3, t. 194.)—*Sticta pulmonaria*, Ach. (E. B. 8, t. 572.)—*Solorina crocea*, Ach. (E. B. 7, t. 498.)—*Gyrophora deusta*, Ach. ; E. B. 35, t. 2483.—*G. pustulata*, Ach. (E. B. 18, t. 1283) ;—but the most important are : *Roccella tinctoria*, Ach. (E. B. 3, t. 211.) and *R. fuciformis*, Ach. (E. B. 11, t. 728.) the dye of which is so largely used by manufacturers under the name of Orchall, or Archill, or Orseille des Canaries. The nutritive properties of Lichens probably depend upon the presence of an amylaceous substance analogous to gelatine, which, according to Berzelius, exists in the form of pure starch or amylaceous fibre, to the amount of 80-8 per cent. in *Cetraria islandica*, Ach. (E. B. 19, t. 1330,) which is the common Iceland Moss. Other Mosses, f. ex. *Cetraria nivalis*, Ach. (E. B. 28, t. 1994.)—*Sticta pulmonaria*, Ach. and *Alectoria usneoides*, Ach. will all answer the same purpose. The Reindeer Moss, which forms the winter food of that animal, is *Cladonia rangiferina*, Hoffm. (E. B. 3, t. 173.) *Borrera* ? *Ashneh*, Royle, by the Natives called Chulcheleera, is commonly employed as a dye in India. (Lindl. and Royle.)



ORDER CCLXXVIII.—FUCACEÆ, (ALGACEÆ, Lindl. Nat. Syst.
p. 430.—*Algæ*, Juss.)

THE SEA-WEED TRIBE.

Of these leafless, flowerless water-plants, Wall. Cat. only enumerates, 2 Indian species, borrowed from Buch. Herb. Royle mentions none, but says, that Röttler's Herb. contains a few species of *Conferva*, collected from the neighbourhood of Tranquebar. A general account of this order will be found in Lindl. l. c.

F I N I S.



CSL

INDICES.

The words in Capitals, denote the Natural Families. The words in Small Capitals, represent the Genera. The names in Roman, have reference to the Species. The names printed in Italic, indicate the Varieties.



CSL

Index

OF

ORDERS, GENERA AND SPECIES.

	<i>Page.</i>		<i>Page.</i>
ABELMOSCHUS , <i>esculentus</i> ,	118	ACACIA , <i>odoratissima</i> ,	261
<i>moschatus</i> ,	119	<i>elata</i> ,	ib.
<i>crinitus</i> ,	ib.	<i>Kalkora</i> ,	ib.
<i>cancellatus</i> ,	ib.	<i>Sirissa</i> ,	ib.
<i>angulosus</i> ,	ib.	<i>froudosa</i> ,	ib.
<i>rugosus</i> ,	ib.	<i>glaucha</i> ,	262
<i>ficulneus</i> ,	ib.	<i>tomentosa</i> ,	ib.
<i>tetraphyllus</i> ,	ib.	<i>horrida</i> ,	ib.
<i>strictus</i> ,	ib.	<i>tortuosa</i> ,	ib.
<i>chinensis</i> ,	ib.	<i>arabica</i> ,	ib.
<i>pungens</i> ,	ib.	<i>vera</i> ,	ib.
<i>pentaphyllus</i> ,	ib.	<i>leucophlaea</i> ,	ib.
<i>Manihot</i> ,	120	<i>pennata</i> ,	263
<i>theoides</i> ,	ib.	<i>rugata</i> ,	ib.
ABILDGAARDIA , <i>Rottboliana</i> ,	725	<i>Buchananiana</i> ,	ib.
ABROMA , <i>augustum</i> ,	108	<i>cæsia</i> ,	ib.
ABRUS , <i>precatorius</i> ,	228	<i>Intsia</i> ,	ib.
<i>erythrospermus</i> ,	ib.	<i>semicordata</i> ,	ib.
<i>leucospermus</i> ,	ib.	<i>diluta</i> ,	ib.
<i>melanospermus</i> ,	ib.	<i>Cavalum</i> ,	ib.
<i>pusillus</i> ,	ib.	<i>herbacea</i> ,	ib.
ABUTILON , <i>polyandrum</i> ,	114	<i>M. miamensis</i> ,	ib.
<i>periplocifolium</i> ,	ib.	<i>M. altissima</i> ,	ib.
<i>crispum</i> ,	ib.	ACALYPSA , <i>ciliata</i> ,	159
<i>indicum</i> ,	ib.	<i>indica</i> ,	160
<i>populifolium</i> ,	ib.	<i>chinensis</i> ,	ib.
<i>asiaticum</i> ,	ib.	<i>conferta</i> ,	ib.
<i>graveolens</i> ,	ib.	<i>cylindrica</i> ,	ib.
<i>tomentosum</i> ,	ib.	204.—ACANTHACEÆ. THE JUSTICIA TRIBE ,	493
<i>Avicennæ</i> ,	ib.	<i>Justicia</i> <i>silhetense</i> ,	629
<i>auritum</i> ,	116	ACANTHOPHRIPPUM , <i>leucostachys</i> ,	487
<i>molle</i> ,	ib.	57.—ACERACEÆ. THE SYCAMORE TRIBE ,	92
<i>striatum</i> ,	ib.	<i>Acer</i> , <i>oblongum</i> ,	ib.
ACACIA , <i>Catechu</i> ,	259	<i>lævigatum</i> ,	ib.
<i>Suma</i> ,	260	ACHANIA , <i>Malvaviscus</i> ,	115
<i>Sundra</i> ,	ib.	<i>pilosa</i> ,	116
<i>ferruginea</i> ,	ib.	ACHRAS , <i>Sapota</i> ,	339
<i>latronum</i> ,	ib.	ACHYRANTHES , <i>aspera</i> ,	318
<i>modesta</i> ,	ib.	ACRYOPHORUS , <i>hispidus</i> ,	429
<i>dumosa</i> ,	ib.	<i>maculatus</i> ,	ib.
<i>lophantha</i> ,	ib.	<i>monocephalus</i> ,	ib.
<i>stipulata</i> ,	ib.	ACORUS , <i>Calamus</i> ,	689
<i>Smithiana</i> ,	ib.	<i>gramineus</i> ,	ib.
<i>arborea</i> ,	261	<i>terrestris</i> ,	ib.
<i>amara</i> ,	ib.	ACROANNE , <i>verticillata</i> ,	712
<i>mollis</i> ,	ib.	Acrogenæ ,	733-745
<i>fruticosa</i> ,	ib.	ACROPERA , <i>Loddigesii</i> ,	628
<i>myriophylla</i> ,	ib.		
<i>Wightii</i> ,	ib.		



Index of Orders, Genera and Species.

SL

	<i>Page.</i>		<i>Page.</i>
<i>ACROSTICHUM</i> , <i>emarginatum</i> ,	734	<i>AIRA</i> , <i>flexuosa</i> ,	713
<i>ACTINOPHORA</i> , <i>fragrans</i> ,	109	<i>caryophyllea</i> ,	ib.
<i>ADAMIA</i> , <i>cyanæa</i> ,	267	<i>AJUGA</i> , <i>bracteosa</i> ,	464
<i>ADANSONIA</i> , <i>digitata</i> ,	106	<i>repens</i> ,	ib.
<i>ADENANTHERA</i> , <i>pavonina</i> ,	259	<i>ALAFIA</i> , <i>Thouarsii</i> ,	533
<i>falcata</i> ,	ib.	21.— <i>ALANGIACEÆ</i> ,	40
<i>ADENOSMA</i> , <i>uliginosa</i> ,	482	<i>ALANGEUM</i> , <i>decapetalum</i> ,	ib.
<i>ADHATODA</i> , <i>Betonica</i> ,	488	<i>ALBUCA</i> , <i>altissima</i> ,	606
<i>ramosissima</i> ,	ib.	<i>major</i> ,	667
<i>Vasica</i> ,	ib.	<i>minor</i> ,	ib.
<i>corynostachya</i> ,	489	<i>flaccida</i> ,	ib.
<i>ADIANTUM</i> , <i>lunulatum</i> ,	735	<i>caudata</i> ,	ib.
<i>caudatum</i> ,	ib.	<i>coarctata</i> ,	ib.
<i>ÆGIALITIS</i> , <i>rotundifolia</i> ,	439	<i>fastigiata</i> ,	ib.
<i>ÆGICERAS</i> , <i>fragrans</i> ,	336	<i>setosa</i> ,	ib.
<i>ÆGINETIA</i> , <i>indica</i> ,	496	<i>aurea</i> ,	ib.
<i>pedunculata</i> ,	ib.	<i>vittata</i> ,	ib.
<i>ÆRUA</i> , <i>lanata</i> ,	317	<i>fragrans</i> ,	ib.
<i>javanica</i> ,	ib.	<i>ALDROVANDA</i> , <i>vesiculosa</i> ,	79
<i>Monsoniae</i> ,	ib.	<i>ALEURITES</i> , <i>triloba</i> ,	159
<i>scandens</i> ,	ib.	<i>ALRHAGI</i> , <i>Maurorum</i> ,	224
<i>ESCHYNANTHUS</i> , <i>parasiticus</i> ,	480	256.— <i>ALISMACEÆ</i> . THE WATER PLANTAIN,	679, 680
59.— <i>ASCULACEÆ</i> . THE HORSE-CHESTNUT TRIBE,	97	<i>ALISMA</i> , <i>Plantago</i> ,	680
<i>ÆTHELELEMA</i> , <i>reniforme</i> ,	486	<i>natans</i> ,	ib.
<i>AÉRIDES</i> , <i>odoratum</i> ,	631	<i>ranunculoides</i> ,	ib.
<i>affine</i> ,	ib.	<i>parnassifolium</i> ,	ib.
<i>refractum</i> ,	ib.	<i>intermedium</i> ,	ib.
<i>tesellatum</i> ,	ib.	<i>ALLAMANDA</i> , <i>cathartica</i> ,	523
<i>suaveoleens</i> ,	ib.	<i>ALLIUM</i> , <i>sativum</i> ,	667
<i>rostratum</i> ,	ib.	<i>controversum</i> ,	ib.
<i>multiflorum</i> ,	ib.	<i>Scorodoprasum</i> ,	ib.
<i>uncinatum</i> ,	ib.	<i>vineale</i> ,	ib.
<i>AETHUSA</i> , <i>Cynapium</i> ,	22	<i>proliferum</i> ,	ib.
<i>AGAPANTHUS</i> , <i>umbellatus</i> ,	655	<i>Porrum</i> ,	668
<i>præcox</i> ,	ib.	<i>Ampeloprasum</i> ,	ib.
276.— <i>AGARICACEÆ</i> . THE MUSHROOM TRIBE,	742, 743	<i>ascalonicum</i> ,	ib.
<i>AGARICUS</i> , <i>campestris</i> ,	743	<i>chinense</i> ,	ib.
<i>AGATHOPHYLLUM</i> , <i>aromaticum</i> ,	309	<i>Cepa</i> ,	ib.
<i>AGATHOTES</i> , <i>Cherayta</i> ,	519	<i>Schoenoprasum</i> ,	ib.
<i>ACATI</i> , <i>grandiflorum</i> ,	216	<i>fistulosum</i> ,	ib.
<i>albiflorum</i> ,	217	<i>oleraceum</i> ,	ib.
<i>coccineum</i> ,	ib.	<i>carinatum</i> ,	ib.
<i>variegatum</i> ,	ib.	<i>caucasicum</i> ,	ib.
<i>coccineo-plenum</i> ,	ib.	<i>nutans</i> ,	ib.
<i>AGAVE</i> , <i>lurida</i> ,	597	<i>glaucum</i> ,	ib.
<i>Veræ Crucis</i> ,	ib.	<i>stellatum</i> ,	ib.
<i>AGERATUM</i> , <i>conyzoides</i> ,	406	<i>triquetrum</i> ,	ib.
<i>cordifolium</i> ,	ib.	<i>Moly</i> ,	669
<i>AGLAIA</i> , <i>odorata</i> ,	136	<i>victorialis</i> ,	ib.
<i>midnaporensis</i> ,	ib.	<i>fragrans</i> ,	ib.
<i>AGRAPHIS</i> , <i>campanulata</i> ,	663	<i>striatum</i> ,	ib.
<i>nutans</i> ,	ib.	<i>tuberosum</i> ,	ib.
<i>ACRIMONIA</i> , <i>nepalensis</i> ,	196	<i>ALLMANNIA</i> , <i>nodiflora</i> ,	315
<i>AGROSTEMMA</i> , <i>Githago</i> ,	177	<i>ALOE</i> , <i>retusa</i> ,	657
<i>ACROSTIS</i> , <i>stolonifera</i> ,	711	<i>albicans</i> ,	ib.
<i>diffusa</i> ,	ib.	<i>cymbifolia</i> ,	ib.
<i>AGYNEIA</i> , <i>puber</i> ,	155	<i>reticulata</i> ,	ib.
<i>ALANTUS</i> , <i>excelsus</i> ,	186	<i>atrovirens</i> ,	ib.
<i>glandulosus</i> ,	ib.	<i>translucens</i> ,	ib.
		<i>mirabilis</i> ,	668



TS
SL

Index of Orders, Genera and Species.

iii

	Page.		Page.
ALOE, recurva, ...	658	ALSTONIA, venenata,	526
attenuata, ...	ib.	spectabilis, ...	ib.
margaritifera, ...	ib.	ALSTRÖMERIA, Pelegrina,	596
minor, ...	ib.	caryophyllea, ...	597
brevis, ...	ib.	Simsii,	ib.
viscosa, ...	ib.	Hookeriana, ...	ib.
tortuosa, ...	ib.	hirtella, ...	ib.
imbricata, ...	ib.	ALTERNANTHERA, sessilis, ...	318
pentagona, ...	ib.	ALTHÆA, rosea,	112
pulchra, ...	ib.	ALYSICARPUS, monilifer, ...	224
obliqua, ...	ib.	vaginalis,	ib.
nigricans, ...	659	bupleurifolius, ...	ib.
angulata, ...	ib.	styracifolius,	ib.
sulcata,	ib.	Heyrianus, ...	225
verrucosa, ...	ib.	ALYSSUM, campestre,	68
intermedia, ...	ib.	ALYXXIA, stellata,	532
carinata, ...	ib.	Gynopogon,	ib.
nitida, ...	ib.	Moonii,	ib.
acinacifolia, ...	ib.	150.—AMARANTACEÆ. THE	
acuminata, ...	ib.	AMARANT TRIBE, ...	314-319
virens, ...	ib.	AMARANTUS, tenuifolius,	315
prolifera, ...	ib.	polygonoides,	ib.
depressa, ...	ib.	polygamus,	ib.
glauca,	ib.	Blitum,	ib.
<i>minor,</i> ...	ib.	tristis,	ib.
barbadensis, ...	600	campestris,	ib.
indica, ...	ib.	polystachys,	ib.
variegata,	ib.	viridis,	316
serrulata,	ib.	lividus,	ib.
micraeaantha,	ib.	oleraceus,	ib.
saponaria,	ib.	<i>viridis,</i>	ib.
latifolia,	ib.	<i>reber,</i>	ib.
purpurascens, ...	ib.	<i>albus,</i>	ib.
obscura,	ib.	<i>giganteus,</i>	ib.
succotrina,	ib.	gangeticus,	ib.
plicatilis,	ib.	lanceolatus,	ib.
arborescens, ...	ib.	atropurporcus,	ib.
africana,	ib.	tricolor,	ib.
<i>angustior,</i> ...	ib.	melancholicus,	ib.
ferox,	ib.	fasciatus,	ib.
Commelynæ, ...	ib.	hybridus,	317
distans,	ib.	frumentaceus,	ib.
macra,	ib.	retroflexus,	ib.
ALOYSIA, citriodora,	471	caudatus,	ib.
ALPINIA, Galanga,	570	paniculatus,	ib.
<i>Allinghas,</i>	ib.	hypochondriacus,	ib.
<i>bracteata,</i>	571	spinulosus,	ib.
<i>malaccensis,</i>	ib.	228.—AMARYLLACEÆ. THE	
<i>aurantiaca,</i>	ib.	NARCISSUS TRIBE, ...	580-598
<i>nutans,</i>	ib.	AMARYLLIS, Belladonna,	586
<i>mutica,</i>	ib.	<i>pallida,</i>	ib.
<i>calcarata,</i>	ib.	<i>blanda,</i>	ib.
<i>Roscoœana,</i>	ib.	<i>Josephinæ,</i>	ib.
<i>spicata,</i>	ib.	<i>subvestriata,</i>	ib.
91.—AL SINACEÆ. THE CHICK-		<i>Griffithiana,</i>	ib.
WEED TRIBE,	177, 178	grandiflora,	ib.
ALSODEIA, bengalensis, ...	77	AMEREOBA, indica,	424
<i>Roxburghii,</i>	ib.	odorata,	ib.
ALSTONIA, scholaris, ...	526	<i>ambracea,</i>	ib.
<i>macrophylla,</i>	ib.	moschata,	ib.
<i>neriifolia,</i>	ib.	AMBROSIA, abrotanifolia, ...	413



SL

Index of Orders, Genera and Species.

	Page.		Page.
AMBROSIA , elatior,	413	ANDROPOGON , cymbarinus,	706
trifida,	ib.	prostratus,	ib.
AMBROSINA , Roxburghiana,	685	arundinaceus,	ib.
AMELETIA , indica,	130	Schoenanthus,	ib.
rotundifolia,	ib.	Martini,	707
AMHERSTIA , nobilis,	247	Iwarancusa,	ib.
AMMANNIA , vesicatoria,	130	nardus,	ib.
indica,	ib.	glaber,	ib.
multiflora,	ib.	punctatus,	ib.
AMMOCHARIS , falcatia,	588	Bladhii,	ib.
coranica,	ib.	pertusus,	ib.
pallida,	ib.	scandens,	ib.
AMOMUM , cardamomum,	567	trispicatus,	ib.
angustifolium,	ib.	Roxburghianus,	ib.
aculeatum,	ib.	conjugatus,	ib.
maximum,	ib.	binatus,	708
dealbatum,	ib.	miliiformis,	ib.
subulatum,	ib.	ANDROSACE , nana,	335
aromaticum,	568	ANELEMA , nudiflorum,	677
sericeum,	ib.	vaginatum,	ib.
corynostrachyum,	ib.	herbaceum,	ib.
AMOORA , Rohituka,	134	nanum,	ib.
cucullata,	ib.	ANETRUM , Sowa,	22
polystachya,	ib.	graneolens,	ib.
AMORpha , fruticosa,	216	segetum,	ib.
fragrans,	ib.	ANISANTHUS , Cononia,	609
AMORPHOPHALLUS , campanula-		ANISEIA , calycina,	362
tus,	686	ANISOCHILOS , carnosum,	450
AMPELYGONUM , chinense,	325	ANISOMELES , ovata,	460
AMPHILOPHIUM , Mutisia,	478	malabarica,	ib.
AMPHIDONAX , bengalensis,	714	ANNESLEA , fragrans,	91
Karka,	ib.	ANODA , hastata,	115
bifaria,	ib.	Dilleniana,	ib.
Arundo gigantea,	ib.	triangularis,	ib.
105.— S. O. AMYGDALÆ.		acerifolia,	ib.
THE ALMOND TRIBE,	199-201	ANOECTOCNUS , Roxburghii,	633
AMYGDALUS , Persica,	200	ANOGEISSUS , latifolius,	38
cordifolia,	ib.	acuminatus,	ib.
113.— AMYRIDACEÆ.	269	8.— ANONACEÆ. THE CUSTARD APPLE TRIBE.	13-17
114.— ANACARDIACEÆ.		ANONA , squamosa,	14
THE CASHEW TRIBE,	269-276	reticulata,	ib.
ANACARDIUM , occidentale,	270	muificata,	ib.
ANAGALLIS , arvensis,	335	Cherimolia,	ib.
coerulea,	ib.	Surissa,	ib.
coerulea,	ib.	ANOSPORUM , monocephalum,	725
ANAMIRTA , coccus,	329	ANTHEMIS , arvensis,	417
ANANAS , sativus,	614	ANTHERICUM , canaliculatum,	671
striatifolia,	615	rufum,	ib.
bracteatus,	ib.	revolutum,	ib.
ANCHUSA , paniculata,	443	graminifolium,	ib.
undulata,	ib.	vespertinum,	ib.
officinalis,	ib.	triflorum,	ib.
ANCISTROCLADUS , extensus,	171	Lilago,	ib.
ANCISTROLOBUS , carnens,	89	majus,	ib.
ANDA , Gomesii,	159	ramosum,	ib.
ANDROCYMBIUM , euconeoides,	646	nepalense,	ib.
ANDROGRAPHIS , paniculata,	493	tuberosum,	ib.
echioides,	ib.	Nimmonii,	672
Lamarckiana,	ib.	glaucum,	ib.
Linnaeana,	ib.	fragrans,	ib.
ANDROPOGON , muricatus,	706		



Index of Orders, Genera and Species.

v

CSL

	<i>Page.</i>		<i>Page.</i>
ANTHERICUM, exuviatum,	672	ARDUINA, bispinosa,	530
filifolium,	ib.	ARECA, Catechu,	637
physodes,	ib.	Dicksonii,	ib.
ANTHISTIRIA, ciliata,	708	triandra,	ib.
polystachys,	ib.	gracilis,	ib.
scandens,	ib.	ARENARIA, serpyllifolia, ...	178
heteroclita,	ib.	ARENOA, saccharifera,	637
ANTHOGONIUM, gracile,	632	ARGEMONE, mexicana, ...	6
ANTHOLYZA, aethiopica, ...	609	ARGYREIA, speciosa,	351
ANTHRISCUS, vulgaris,	23	zeylanica,	ib.
Cerefolium,	ib.	splendens,	ib.
ANTIARIAS, toxicaria,	282	cuneata,	ib.
ANTIRRHINUM, sempervirens,	499	laurifolia,	ib.
majus,	ib.	argentea,	352
siculum,	ib.	multiflora,	ib.
Orontium,	ib.	malabarica,	ib.
indicum,	ib.	Wallichii,	ib.
grandiflorum,	ib.	capitata,	ib.
ANTIRRHOEA, verticillata, ...	387	setosa,	ib.
APARICA, Hamones,	430	aggregata,	ib.
10.—APIACEÆ. THE CELERY TRIBE,	19-23	cymosa,	ib.
APIUM, graveolens,	20	acuta,	ib.
APLOTAXIS, circoides, ...	424	floribunda,	ib.
carthamoïdes,	ib.	ARISEMA, triphyllum, ...	685
AFLUDA, aristata,	708	Dracontium,	ib.
geniculata,	ib.	ARISTEA, capitata,	605
213.—APOCYNACEÆ, ...	522-533	149.—ARISTOLOCHIACEÆ.	
APORUM, anceps,	623	THE BIRTHWORT TRIBE,	312-314
cuspidatum,	ib.	ARISTOLOCHIA, anguicida,	313
236.—APOSTASIACEÆ, ...	635	indica,	ib.
142.—AQUILLARIACEÆ. THE AGALLOCHUM TRIBE, ...	305, 306	acuminata,	ib.
AQUILARIA, Agallocha,	305	saccata,	ib.
AQUILEGIA, vulgaris, ...	4	odoratissima,	ib.
ARABIS, verna,	67	labiosa,	ib.
Thaliana,	ib.	cymbifera,	ib.
251.—ARACEÆ. THE ARUM TRIBE,	684-692	bracteata,	ib.
ARACHIS, hypogea,	243	Clematitis,	314
ARAUCARIA, excelsa,	557	foetens,	ib.
Cunninghamia,	ib.	brasiliensis,	ib.
ARDISIA, colorata,	336	ARMENIACA, vulgaris, ...	200
lanceolata,	ib.	ARTABOTRYS, odoratissimus, ...	15
paniculata,	ib.	densiflorus,	16
floribunda,	337	ARTEMISIA, scoparia,	419
humilis,	ib.	parviflora,	ib.
pedunculosa,	ib.	paniculiformis,	ib.
nereifolia,	ib.	Abrotanum,	420
nutans,	ib.	vulgaris,	ib.
oxyantha,	ib.	indica,	ib.
crenulata,	ib.	grata,	ib.
odontophylla,	ib.	lactiflora,	ib.
mollis,	ib.	carvifolia,	ib.
hymenandra,	ib.	ARTHROSTEMMA, lineatum,	44
glandulosa,	ib.	ARTOCARPUS, integrifolius,	289
citrifolia,	ib.	Lacoocha,	290
nana,	ib.	Chaplasha,	ib.
pubigera,	ib.	echinatus,	ib.
glaucescens,	ib.	incisus,	ib.
Candolliana,	ib.	<i>incisus</i> ,	ib.
		<i>communis</i> ,	ib.
		hirsutus,	ib.
		serratus,	ib.



CSL

Index of Orders, Genera and Species.

	<i>Page.</i>		<i>Page.</i>
ARTOCARPUS, angustifolius,	290	AVERrhoa, Carambola,	191
ARUM, rapiforme,	690	<i>acida</i> ,	ib.
montanum,	ib.	<i>dulcis</i> ,	ib.
gracile,	ib.	Bilimbi,	ib.
cuspidatum,	ib.	AVICENNIA, tomentosa,	473
curvatum,	ib.	AZADIRACHTA, indica,	133
sessiliflorum,	ib.		
lyratum,	ib.	BABIANA, Thunbergii,	607
margaritiferum,	ib.	<i>tubiflora</i> ,	ib.
ARUNDINA, bambusifolia,	625	<i>spathacea</i> ,	ib.
215.—ASCLEPIACEÆ,	533-545	<i>sambucina</i> ,	ib.
ASCLEPIAS, curassavica,	539	<i>sulphurea</i> ,	ib.
ASPARAGUS, officinalis,	674	<i>plicata</i> ,	ib.
Curillus,	ib.	<i>stricta</i> ,	ib.
scandens,	ib.	<i>villosa</i> ,	ib.
racemosus,	ib.	<i>rubro-cyanæa</i> ,	ib.
asiaticus,	ib.	<i>disticha</i> ,	ib.
capensis,	ib.	<i>angustifolia</i> ,	ib.
lanceus,	ib.	<i>ringens</i> ,	ib.
aethiopicus,	ib.	BACCAUREA, Pierardi,	95
falcatus,	ib.	<i>dulcis</i> ,	ib.
acerosus,	ib.	BADULA, Barthesia,	335
adscendens,	ib.	BALANITES, ægyptiaca,	31
ASPERUGO, procumbens,	444	<i>indica</i> ,	32
ASPERULA, arvensis,	399	263.—BALANOPHORACEÆ,	732
ASPHEODELINE, lutes,	670	BALLOTA, hispanica,	461
tenuior,	ib.	133.—BALSAMACEÆ,	301
ASFRODELUS, creticus,	ib.	100.—BALSAMINACEÆ,	189, 190
albus,	ib.	BALSAMODENDRON, Berryanum,	149
ramosus,	ib.	<i>Roxburghianum</i> ,	150
fistulosus,	ib.	<i>Agallocha</i> ,	ib.
clavatus,	ib.	BAMEUSA, arundinacea,	719
ASPIDISTRA, lurida,	649	<i>spinosa</i> ,	ib.
punctata,	ib.	<i>nana</i> ,	ib.
ASPIDIUM, unitum,	734	<i>gigantea</i> ,	ib.
flagelliferum,	ib.	BANISTERIA, laurifolia,	171
ASPLENIUM, Nidus,	735	<i>periplocæfolia</i> ,	ib.
bipinnatum,	ib.	BARBULA, indica,	741
ASTER, spectabilis,	408	BARLERIA, hirsuta,	485
Amellus,	ib.	<i>polytricha</i> ,	ib.
<i>latifolius</i> ,	ib.	<i>cerules</i> ,	ib.
fragilis,	ib.	<i>dichotoma</i> ,	ib.
dumosus,	ib.	<i>ciliata</i> ,	ib.
cyaneus,	ib.	<i>cristata</i> ,	ib.
ASTEACANTHA, longifolia,	485	<i>Prionitis</i> ,	486
ASTEROGYNE, coriacea,	348	<i>obovata</i> ,	ib.
ASTRAGALUS, scorpioides,	217	<i>bispinosa</i> ,	ib.
hamosus,	ib.	25.—BARRINGTONIEÆ,	
baeticus,	ib.	S. O.	51, 52
ASTRANTIA, helleborifolia,	20	BARRINGTONIA, speciosa,	51
ASTRAPÆA, Wallachii,	108	<i>racemosa</i> ,	ib.
ASTYSTARIA, coronandeliana,	484	<i>acutangula</i> ,	ib.
ATALANTIA, monophylla,	138	BASELLA, cordifolia,	322
pubigera,	ib.	<i>rubra</i> ,	ib.
135.—ATHEROSPERMACEÆ,	302	<i>alba</i> ,	ib.
ATRIPLEX, hortensis,	322	BASSIA, longifolia,	341
AUKUBA, japonica,	53	<i>latifolia</i> ,	342
AVENA, præcox,	713	<i>butyracea</i> ,	ib.
sativa,	ib.	BATATAS, edulis,	353
orientalis,	ib.	<i>erythrorrhiza</i> ,	ib.
fatua,	ib.	<i>leucorrhiza</i> ,	ib.



Index of Orders, Genera and Species.

	Page.		Page.
BATATAS, paniculata,	353	BIGNONIA, undulata,	476
pentaphylla,	354	capreolata,	ib.
cissoides,	ib.	equinoctialis,	ib.
viscosa,	ib.	crucigera,	ib.
BATEMANIA, Colleyi,	626	suaveolens,	ib.
BATIS, spinosa,	291	chelonoides,	ib.
fruticosa,	ib.	multijuga,	ib.
aurantiaca,	ib.	adenophylla,	ib.
BATRATHERUM, lanceolatum,	705	amoena,	ib.
BAUHINIA, porrecta,	253	suberosa,	ib.
malabarica,	ib.	xylocarpa,	477
acuminata,	ib.	fimbriata,	ib.
tomentosa,	ib.	cauliflora,	ib.
racemosa,	ib.	venusta,	ib.
microphylla,	ib.	gracilis,	ib.
variegata,	ib.	viridiflora,	ib.
purpurascens,	ib.	echinata,	ib.
caudata,	ib.	BILLARDIERA, scandens,	31
purpurea,	254	BILLBERGIA, pyramidalis,	615
triandra,	ib.	bicolor,	ib.
retusa,	ib.	zebrina,	ib.
Vahlia,	ib.	amoena,	ib.
BEAUMONTIA, grandiflora,	524	iridifolia,	ib.
BRESHA Rheddi,	718	BIOPHYTUM, sensitivum,	191
36.—BEGONIACEÆ,	65, 66	BISCUTELLA, ciliata,	69
BEGONIA, humilis,	65	50.—BIXACEÆ. THE ARNOT-	
nitida,	ib.	TO TRIBE,	85
argyrostigma,	ib.	Bixa, Orellana,	ib.
papillosa,	ib.	caribœa,	ib.
reniformis,	ib.	indica,	ib.
malabarica,	ib.	BLACKWELLIA, spiralis,	64
laciñata,	ib.	scutida,	ib.
porrecta,	ib.	propinqua,	ib.
heracleifolia,	ib.	cochininchinensis,	ib.
BELLEVALLIA, romana,	662	BLAINVILLEA, latifolia,	411
BELLIS, perennis,	408	BLEPHARIS, boerhaaviaefolia,	486
BRILSCHMIDIA, Roxburghiana,	309	maderaspatensis,	487
BENINCASA, cerifera,	57	BLETTIA, verecunda,	625
BENTINCKIA, Condapani,	640	hyacinthina,	ib.
BENZOIN, odoriferum,	309	BLITUM, virgatum,	320
BHAMOSTRA, Breyniana,	647	capitatum,	ib.
14.—BERBERACEÆ. THE		BLUMEA, pubiflora,	410
BERRY TRIBE,	26, 27	bifoliata,	ib.
BERBERIS, asiatica,	26	lacera,	ib.
Leschenaultii,	ib.	laciñata,	ib.
aristata,	27	balsamifera,	ib.
BERCHEMIA, floribunda,	146	alata,	ib.
BERGERA, Königii,	139	aurita,	ib.
BERGIA, verticillata,	99	BLYXA, octandra,	618
ammannoides,	ib.	BOERHAAVIA, erecta,	328
BERRYA, Ammonilla,	128	rosea,	ib.
BETA, vulgaris,	320	alba,	ib.
bengalensis,	321	repanda,	ib.
116.—BETULACEÆ. THE		BÖHMELIA, salicifolia,	281
BIRCH TRIBE,	278	interrupta,	ib.
BIDENS, trifida,	415	BOLBOPHYLLUM, leopardinum,	622
pilosa,	ib.	auricomum,	ib.
sundaica,	416	umbellatum,	ib.
BIPRENARIA, aurantiaca,	626	Careyatum,	ib.
202.—BIGNONIACEÆ. THE		flexuosum,	ib.
TRUMPET FLOWER TRIBE,	475-479	fuscescens,	ib.



SL

	Page.		Page.
BOLEOPHYLLUM, coccinum,	622	BRIZA, geniculata,	717
serpens,	ib.	virens,	ib.
recurvum,	ib.	minor,	ib.
Jenkinsii,	ib.	233.—BROMELIACEÆ. THE	
BOMBAX, Ceiba,	106	PINE APPLE TREE,	614-617
BONNAYA, serrata,	503	BROMELIA, Karatas,	615
reptans,	ib.	humilis,	ib.
veronicaefolia,	ib.	Pinguin,	ib.
verbenaefolia,	ib.	sylvestris,	ib.
grandiflora,	504	A new species,	ib.
oppositifolia,	ib.	BROMUS, secalinus,	718
tenuifolia,	ib.	lanceolatus,	ib.
hyssopoides,	ib.	longiflorus,	ib.
parviflora,	ib.	sterilis,	ib.
rotundifolia,	ib.	matritensis,	ib.
integrigolia,	ib.	maximus,	ib.
196.—BORAGINACEÆ. THE		BROSIMUM, Alicastrum,	291
BORAGE TRIBE,	442-447	utile,	ib.
BORAGO, officinalis,	442	BROTHEROA, trinervata,	416
BORASSUS, flabelliformis,	640	BROUSSONETIA, papyrifera,	284
BORKHAUSIA, alpina,	431	BROWALLIA, demissa,	500
rubra,	ib.	elata,	ib.
fœtidæ,	ib.	albiflora,	ib.
BOSWELLIA, serrata,	148	BROWNLOWIA, elata,	129
BOUCEROSIA, umbellata,	536	BRUCEA, sumatrana,	185
crenulata,	ib.	inolis,	ib.
BOUSSINGAUTIA, baselloides,	322	BRUGUIERA, Rheedii,	41
BRACHYPODUM, tenellum,	717	parviflora,	ib.
BRACHYSTELMA, tuberosum,	535	BRUNTELSIA, undulata,	500
BRACHYTERUM, scandens,	240	americana,	ib.
BRASSIA, maculata,	629	189.—BRUNONIA CEÆ,	436
37.—BRASSICACEÆ. THE		BRUNSVIGIA, multiflora,	586
CABBAGE TRIBE,	66-73	minor,	ib.
BRASSICA, oleraceæ,	70	273.—BRYACEÆ. THE MOSS	
acephala,	ib.	TRIBE,	740
ramosa,	ib.	BERONIA, laciniosa,	55
vulgaris,	ib.	BUCHANANIA, latifolia,	272
quercifolia,	ib.	angustifolia,	ib.
sabellicæ,	ib.	lanceolata,	273
bullata,	ib.	BUCKLANDIA, populea,	53
major,	ib.	BUDDEA, diversifolia,	506
gemmifera,	ib.	paniculata,	ib.
capitata,	ib.	Neenda,	ib.
depressa,	ib.	madagascariensis,	ib.
sphaerica,	ib.	BUFFONIA, annua,	178
obovata,	ib.	BULBINE, frutescens,	672
elliptica,	ib.	rostrata,	ib.
conica,	ib.	longiscapa,	ib.
rubra,	ib.	pugioniformis,	ib.
caulo-rapa,	ib.	annua,	ib.
botrytis,	ib.	primorsa,	673
cauliflora,	71	latifolia,	ib.
asparagoïdes,	ib.	nutans,	ib.
campestris,	ib.	alooides,	ib.
Rapa,	ib.	ciliata,	ib.
Napus,	ib.	triquetra,	ib.
Erucastrum,	ib.	BUNIAS, Eruca,	72
160.—BREXIACEÆ,	332	BUPHONE, toxicaria,	588
BREXIA, madagascariensis,	ib.	ciliaris,	ib.
spinosa,	ib.	BUPHTHALMUM, salicifolium,	411
BRIZA, maxima,	717	BURCHELLIA, capensis,	377

Bengaluru 268



76
SL

Index of Orders, Genera and Species.

ix

	<i>Page.</i>		<i>Page.</i>
230.—BURMANNIACEÆ, <i>Burmanniaceæ</i> , ...	599, 600	CALDASIA, <i>heterophylla</i> , ...	365
<i>Burmannia</i> , <i>disticha</i> , ...	599	CALENDULA, <i>officinalis</i> , ...	423
82.—BURSERACEÆ, ...	148-150	<i>stellata</i> , ...	ib.
<i>Butea</i> , <i>frondosa</i> , ...	238	CALICARPA, <i>arborescens</i> , ...	467
<i>superba</i> , ...	239	<i>purpurea</i> , ...	ib.
<i>parviflora</i> , ...	ib.	<i>lanceolaria</i> , ...	ib.
<i>sericophylla</i> , ...	ib.	<i>Heynii</i> , ...	ib.
<i>Buteræa</i> , <i>ulmifolia</i> , ...	ib.	<i>Reevesii</i> , ...	ib.
245.—BUTOMACEÆ, ...	679	<i>macrophylla</i> , ...	ib.
<i>Butomus</i> , <i>umbellatus</i> , ...	ib.	<i>villosa</i> , ...	ib.
<i>lanceolatus</i> , ...	ib.	<i>incana</i> , ...	ib.
<i>Büttnera</i> , <i>herbacea</i> , ...	109	<i>cana</i> , ...	ib.
<i>pilosa</i> , ...	ib.	<i>dentata</i> , ...	ib.
<i>aspera</i> , ...	ib.	CALLIOSPIS, <i>tinctoria</i> , ...	315
<i>catalpaefolia</i> , ...	ib.	<i>Atkinsoniana</i> , ...	ib.
<i>carthagagenensis</i> , ...	ib.	CALLISTEMON, <i>linearis</i> , ...	45
<i>Buxus</i> , <i>chinensis</i> , ...	152	<i>lophanthus</i> , ...	46
<i>balearica</i> , ...	ib.	CALLISTEPHUS, <i>chinensis</i> , ...	408
<i>sempervirens</i> , ...	ib.	137.—CALLITRICHACEÆ, ...	302
33.—CACTACEÆ. THE INDIAN		CALONYCTION, <i>speciosum</i> , ...	355
FIG TRIBE, ...	60-64	<i>Roxburghii</i> , ...	ib.
CÆSALPINIA, <i>paniculata</i> , ...	244	<i>muricatum</i> , ...	ib.
<i>Sappan</i> , ...	ib.	<i>grandiflorum</i> , ...	ib.
<i>digyna</i> , ...	ib.	CALOPHYLLUM, <i>Inophyllum</i> , ...	87
<i>mimosoides</i> , ...	ib.	<i>polyanthum</i> , ...	ib.
<i>sepiaria</i> , ...	ib.	<i>angustifolium</i> , ...	ib.
<i>resupinata</i> , ...	245	<i>Tacamahaca</i> , ...	ib.
<i>tortuosa</i> , ...	ib.	CALOSANTHES, <i>indica</i> , ...	478
<i>Coriaria</i> , ...	ib.	CALOSTEMMA, <i>album</i> , ...	594
CÆSALPIA, <i>axillaries</i> , ...	411	CALOTROPIS, <i>gigantea</i> , ...	540
CAILLEA, <i>cineræa</i> , ...	259	<i>tlacuca</i> , ...	ib.
CAJANUS, <i>indicus</i> , ...	236	<i>alba</i> , ...	ib.
<i>flavus</i> , ...	ib.	<i>procera</i> , ...	ib.
<i>bicolor</i> , ...	ib.	<i>herbacea</i> , ...	ib.
CAKILE, <i>maritima</i> , ...	69	CALPICARPUM, <i>Roxburghii</i> , ...	531
CALLA, L. <i>palustris</i> , ...	688	109.—CALYCANTHACEÆ. THE	
CALLA, Roxb. <i>oblongifolia</i> , ...	690	CAROLINA ALLSPICE TRIBE, ...	266
<i>picta</i> , ...	ib.	CALYCANTHUS, <i>præcox</i> , ...	ib.
<i>virosa</i> , ...	ib.	185.—CALYCERACEÆ, ...	400
CALAMUS, <i>humilis</i> , ...	638	CALYSTEGIA, <i>hederacea</i> , ...	362
<i>erectus</i> , ...	ib.	CAMAROTIS, <i>purpurea</i> , ...	630
<i>Draco</i> , ...	ib.	CAMBESSEDEA, <i>oppositifolia</i> , ...	272
<i>latifolius</i> , ...	ib.	CAMELINA, <i>sativa</i> , ...	69
<i>rudentium</i> , ...	ib.	CAMELLIA, <i>Kissi</i> , ...	91
<i>verus</i> , ...	ib.	<i>caudata</i> , ...	ib.
<i>extensus</i> , ...	ib.	176.—CAMPANULACEÆ. THE	
<i>quinquenervius</i> , ...	639	CAMPANULA TRIBE, ...	368-371
<i>Rotang</i> , ...	ib.	CAMPANULA, <i>lacinata</i> , ...	369
<i>fasciculatus</i> , ...	ib.	<i>Medium</i> , ...	ib.
<i>polygamus</i> , ...	ib.	<i>divergens</i> , ...	ib.
<i>tenuis</i> , ...	ib.	<i>glomerata</i> , ...	ib.
<i>gracilis</i> , ...	ib.	<i>Trachelium</i> , ...	ib.
<i>monoicus</i> , ...	ib.	<i>rapunculoides</i> , ...	370
<i>hostilis</i> , ...	ib.	<i>bononiensis</i> , ...	ib.
CALANDRINIA, <i>speciosa</i> , ...	174	<i>rotundifolia</i> , ...	ib.
CALANTHE, <i>veratrifolia</i> , ...	631	<i>pulla</i> , ...	ib.
<i>densiflora</i> , ...	ib.	<i>Erinus</i> , ...	ib.
CALATHEA, <i>zebrina</i> , ...	575	<i>drabæfolia</i> , ...	ib.
<i>flavescens</i> , ...	ib.	<i>fragilis</i> , ...	ib.
CALCOULARIA, <i>pinnata</i> , ...	497	<i>peregrina</i> , ...	ib.
		<i>Rapunculus</i> , ...	ib.



SL

Index of Orders, Genera and Species.

	<i>Page.</i>		<i>Page.</i>
CAMPANULA, patula,	370	CAPPARIS, aphylla,	75
CAMPHORA, officinarum,	308	CAPSSELLA, Bursa pastoris,	68
glandulifera, ...	ib.	CAPSICUM, grossum,	510
orrecta,	ib.	annuum,	ib.
CANARIUM, commune, ...	148	frutescens,	ib.
strictum,	149	flavum,	ib.
bengalense,	ib.	fastigiatum,	ib.
nigrum,	ib.	Chamæcerasus,	ib.
sylvestre,	ib.	baccatum,	ib.
CANAVALLA, gladiata,	234	CARALLIA, lucida,	42
<i>erythrosperma, flore</i>		lanceolata,	ib.
<i>rubro,</i>	ib.	garcinifolia,	ib.
<i>erythrosperma, flore</i>		CARALLUMA, adscendens,	535
<i>albo,</i>	ib.	fimbriata,	ib.
<i>leucospermum,</i>	ib.	CARDAMOMUS, hirsuta,	67
<i>spodiisperma,</i>	235	CARDANTHERA, triflora,	ib.
<i>viresa,</i>	ib.	CARDIOSPERMUM, Halicacabum,	93
<i>obtusifolia,</i>	ib.	canescens,	ib.
<i>obcordata,</i>	ib.	CARDUUS, nutans,	426
<i>mollis,</i>	ib.	tenuiflorus,	ib.
<i>incana,</i>	ib.	arabis,	ib.
<i>bracteata,</i>	ib.	CAREYA, herbacea,	51
52.—CANELLACEÆ, ...	88	sphœrica,	52
CANELLA, alba,	ib.	arborea,	ib.
CANNA, Lamberti,	576	CAREX, cyperoides,	728
<i>patens,</i>	ib.	stellulata,	ib.
<i>coccinea,</i>	ib.	foena,	ib.
<i>lutea,</i>	ib.	muricata,	ib.
<i>gigantea,</i>	ib.	ovalis,	ib.
<i>polymorpha,</i>	ib.	arenaria,	ib.
<i>limbata,</i>	ib.	vulpina,	ib.
<i>speciosa,</i>	ib.	alptua,	ib.
<i>indica,</i>	ib.	Oderi,	ib.
<i>flava,</i>	ib.	pendula,	ib.
<i>denudata,</i>	577	riparia,	ib.
<i>pallida,</i>	ib.	CARICA, Papaya,	83
<i>pedunculata,</i>	ib.	CARISSA, Carandas,	529
<i>flaccida,</i>	ib.	diffusa,	ib.
<i>glauca,</i>	ib.	villosa,	530
<i>iridiflora,</i>	ib.	ovata,	ib.
<i>discolor,</i>	ib.	CARRichtERA, Vellæ,	72
CANNABIS, sativa,	282	CARTHAMUS, tinctorius,	425
CANSORA, diffusa,	520	53.—CARYOCARACEÆ,	88, 89
<i>decussata,</i>	ib.	CARYOTA, urens,	637
<i>justicioides,</i>	ib.	horrida,	ib.
<i>pusilla,</i>	ib.	sobolifera,	ib.
CANTHAROSPERMUM, pauciflorum,	236	CASEARIA, Vareca,	78
CANTHUM, parviflorum,	388	glomerata,	ib.
<i>parvifolium,</i>	ib.	Canzizala,	ib.
<i>angustifolium,</i>	389	glabra,	ib.
<i>recurvum,</i>	ib.	tomentosa,	ib.
<i>floribundum,</i>	ib.	lanuginosa,	ib.
<i>chinense,</i>	ib.	CASSIA, bicapsularis,	248
<i>longifolium,</i>	ib.	Sophora,	ib.
38.—CAPPARIDACEÆ. THE		<i>purpurea,</i>	ib.
CAFER TRIBE,	73-75	<i>Corymbosa,</i>	249
CAPPARIS, brevispina,	74	<i>alata,</i>	ib.
<i>Heyniana,</i>	ib.	<i>obtusa,</i>	ib.
<i>acrophylla,</i>	ib.	<i>elongata,</i>	ib.
<i>horrida,</i>	ib.	<i>florida,</i>	ib.
<i>sepiaria,</i>	75	<i>Berryana,</i>	ib.



CSL

Index of Orders, Genera and Species.

xii

	Page.		Page.
<i>CASSIA</i> , <i>glaucia</i> ,	249	86.— <i>CELASTRACEÆ</i> ,	165-167
<i>suffruticosa</i> ,	250	<i>CELASTRUS</i> , <i>paniculata</i> ,	166
<i>auriculata</i> ,	ib.	<i>Wallichiana</i> ,	ib.
<i>biflora</i> ,	ib.	<i>montana</i> ,	ib.
<i>aversiflora</i> ,	ib.	<i>emarginata</i> ,	ib.
<i>mariandica</i> ,	ib.	<i>dependens</i> ,	ib.
<i>ligustrina</i> ,	ib.	<i>trigyna</i> ,	ib.
<i>frondosa</i> ,	ib.	<i>monosperma</i> ,	ib.
<i>australis</i> ,	ib.	<i>robusta</i> ,	ib.
<i>aurata</i> ,	ib.	<i>rufa</i> ,	ib.
<i>hirsuta</i> ,	ib.	<i>stylosa</i> ,	ib.
<i>occidentalis</i> ,	ib.	<i>buxifolia</i> ,	ib.
<i>Tora</i> ,	ib.	<i>pyracantha</i> ,	ib.
<i>diffusa</i> ,	251	<i>oblonga</i> ,	167
<i>erecta</i> ,	ib.	<i>pallida</i> ,	ib.
<i>Absus</i> ,	ib.	<i>tristyla</i> ,	ib.
<i>Chamæcrista</i> ,	ib.	<i>fascicularis</i> ,	ib.
<i>Burmanni</i> ,	ib.	<i>CELOSIA</i> , <i>argentea</i> ,	318
<i>nictitans</i> ,	ib.	<i>cristata</i> ,	ib.
<i>Wallichiana</i> ,	ib.	<i>comosa</i> ,	ib.
<i>Telfairiana</i> ,	ib.	<i>cernua</i> ,	ib.
<i>angustissima</i> ,	ib.	<i>CELSIA</i> , <i>coromandeliana</i> ,	497
<i>pumila</i> ,	ib.	<i>cretica</i> ,	ib.
<i>Leschenaultiana</i> ,	ib.	<i>CELTIS</i> , <i>australis</i> ,	293
<i>tenella</i> ,	ib.	<i>occidentalis</i> ,	ib.
<i>Kleinii</i> ,	ib.	<i>CENCHRUS</i> , <i>tribuloides</i> ,	704
<i>exigua</i> ,	ib.	<i>echinatus</i> ,	ib.
<i>palmata</i> ,	ib.	<i>CENTAUREA</i> , <i>glastifolia</i> ,	424
<i>fulgens</i> ,	ib.	<i>macrocephala</i> ,	ib.
<i>CASSINE</i> , <i>barbara</i> ,	347	<i>alba</i> ,	ib.
<i>CASSYTA</i> , <i>filiformis</i> ,	312	<i>amara</i> ,	ib.
146.— <i>CASSYTHACEÆ</i> ,	311, 312	<i>bracteata</i> ,	ib.
<i>CASTANEA</i> , <i>indica</i> ,	276	<i>Jacea</i> ,	ib.
<i>vesca</i> ,	ib.	<i>nigra</i> ,	425
<i>chinensis</i> ,	277	<i>phrygia</i> ,	ib.
<i>Roxburghii</i> ,	ib.	<i>Cyanus</i> ,	ib.
<i>tribuloides</i> ,	ib.	<i>paniculata</i> ,	ib.
<i>CASTANOSPERMUM</i> , <i>australe</i> ,	255	<i>melitensis</i> ,	ib.
125.— <i>CASUARINACEÆ</i> ,	297	<i>sphærocephala</i> ,	ib.
<i>CASUARINA</i> , <i>equisetifolia</i> ,	ib.	<i>CENTRANTHERA</i> , <i>hispida</i> ,	507
<i>modiflora</i> ,	ib.	<i>humifusa</i> ,	508
<i>muricata</i> ,	ib.	<i>CENTRANTHERUM</i> , <i>intermedium</i> ,	405
<i>torulosa</i> ,	ib.	<i>CENTRANTHUS</i> , <i>tuber</i> ,	435
<i>distyla</i> ,	ib.	<i>Calcitrapa</i> ,	436
<i>CATALPA</i> , <i>syringæfolia</i> ,	478	<i>CENTROSTACHYS</i> , <i>aquatica</i> ,	319
<i>CATASETUM</i> , <i>tridentatum</i> ,	627	<i>CENTUNGULUS</i> , <i>minimus</i> ,	335
<i>lutidum</i> ,	ib.	<i>CEPHALANTHUS</i> , <i>nauclœoides</i> ,	394
<i>CATHARTOCARPUS</i> , <i>Fistula</i> ,	247	<i>CERASTIUM</i> , <i>dichotomum</i> ,	178
<i>rhombifolius</i> ,	248	<i>vulgatum</i> ,	ib.
<i>nodosus</i> ,	ib.	<i>cordifolium</i> ,	ib.
<i>javanicus</i> ,	ib.	<i>CERASUS</i> , <i>Puddum</i> ,	200
<i>marginatus</i> ,	ib.	<i>triflora</i> ,	ib.
<i>brasiliannus</i> ,	ib.	<i>nepalensis</i> ,	ib.
<i>bacillaris</i> ,	ib.	<i>caroliniana</i> ,	ib.
<i>CATTELEYA</i> , <i>Forbesii</i> ,	625	<i>CERATOGONUM</i> , <i>atriplicifolium</i> ,	326
<i>CAVALLIUM</i> , <i>urens</i> ,	104	<i>CERATONIA</i> , <i>siliqua</i> ,	146
<i>cosmosum</i> ,	ib.	120.-S. O. <i>CERATOPHYLLÆ</i> ,	293
76.— <i>CEDRELACEÆ</i> . THE		<i>verticillatum</i> ,	ib.
TOON TREE TRIBE,	136, 137	<i>CERATOPOTERIS</i> , <i>thalictroides</i> ,	736
<i>CEDRELA</i> , <i>Toona</i> ,	ib.	<i>CERBERA</i> , <i>Odallam</i> ,	531
<i>CEDRONELLA</i> , <i>triphylla</i> ,	459	<i>Manghas</i> ,	ib.



SL

Index of Orders, Genera and Species.

	<i>Page.</i>		<i>Page.</i>
CERRERA, parviflora,	... 531	CHENOPODIUM, ficiifolium,	321
CERCIS, canadensis,	255	hybridum,	ib.
CEREUS, multangularis,	... 61	Quinoa,	ib.
peruvianus,	ib.	Botrys,	ib.
monstrosus,	ib.	ambrosioides,	ib.
hexagonus,	ib.	laciniatum,	... 322
tetragonus,	ib.	CHICKRASSIA, tabularis,	137
speciosissimum,	ib.	CHIOCOCCA, racemosa,	389
repandus,	ib.	66.—CHLENACEÆ,	401
columnaris,	ib.	CHLIDANTHUS, fragrans,	593
grandiflorus,	ib.	CHLORIS, barbata,	311
triangularis,	ib.	CHLOROPHYTUM, laxum,	... 673
reptans,	ib.	inornatum,	ib.
setosus,	ib.	Orchidastrum,	ib.
phyllandoïdes,	ib.	élatum,	ib.
truncatus,	ib.	CHLOROXYLON, Swietenia,	... 137
Ackermannii,	ib.	CHORIPETALUM, aurantiacum,	338
ovatus,	ib.	Reevesianum,	ib.
decorus,	ib.	CHRYSANTHEMUM, foenicula-	ceum,
nycticallus,	ib.	... 419	
CERINTHA, major,	... 442	bipinnatifidum,	ib.
CERIOPS, Roxburghianus,	41	segetum,	ib.
CERIOPEGIA, lucida,	... 534	Roxburghii,	ib.
junccea,	ib.	carinatum,	ib.
Lushii,	ib.	108.—CHRYSOBALANACEÆ.	
elegans,	ib.	The Cocoa-Plum Tribe,	265, 266
sphenantha,	ib.	CHRYSOBALANUS, Iaco,	265
bulbosa,	ib.	CHRYSOPHYLLUM, Cainito,	... 340
Stephanotis,	... 535	macrophyllum,	ib.
tuberosa,	ib.	Roxburghii,	ib.
stapeliaeformis,	ib.	oblongum,	341
Vicaryi	ib.	CHRYSOPTERON, acicularis,	... 704
210.—CESTRACEÆ,	518, 519	filiformis,	ib.
CESTRUM, foetidissimum,	... 518	CHRYSOPSIS, mariana,	... 409
laurifolium,	ib.	CHRYSOSTEMMA, Tripteris,	415
81.—CHAILLETIACEÆ,	... 148	CHRYSSEIS, californica,	... 6
CHAMMOOREA, gracilis,	636	crocea,	ib.
CHAMÉROS, humiliis,	... 641	CICCA, disticha,	... 153
mitis,	ib.	CIGER,	226
Griffithiana,	ib.	CICHORIUM, Intybus,	... 428
Martiana,	ib.	Endivia,	ib.
275.—CHARACEÆ,	... 742	Cosmia,	ib.
CHARA, verticillata,	ib.	sativa,	ib.
involuta,	ib.	181.—CINCHONACEÆ	THE
furcata,	ib.	COFFEE TRIBE,	373-396
CHASALIA, Boryana,	... 393	CIPURA, paludosa,	601
CHÆTARIA, Hystrix,	711	Northiana,	ib.
CHÆTURUS, fasciculatus,	... 710	humilis,	ib.
CHEILANTHES, furiosa,	785	coerulea,	... 602
CHEIRANTHUS, cheiri,	... 67	Sabiniana,	ib.
CHELIDONIUM, majus,	6	CIRENOPTALUM, Roxburghii,	... 622
laciniatum,	ib.	Lindleyanum,	ib.
151.—CHENOPodiACEÆ.		cæspitosum,	ib.
THE Goosefoot Tribe,	319-322	cornutum,	ib.
CHENOPodium, urbicum,	... 321	macrophyllum,	ib.
rubrum,	ib.	CIRSIUM, lanceolatum,	426
murale,	ib.	horridulum,	ib.
album,	ib.	CISSAMPELOS, convolvulacea,	330
album,	ib.	mauritiana,	ib.
viride,	ib.	67.—CISTACEÆ.	THE RO-
purpureum,	ib.	ROSE TRIBE,	101, 102



CSL

Index of Orders, Genera and Species.

xiii

	Page.
78.—CITRACEÆ. THE CITRON	
Tribe, ...	138-143
CITRULLUS, Cucurbita, ...	55
Colocynthis, ...	56
CITRUS, decumana, ...	141
Aurantium, ...	142
Bergamia, ...	ib.
<i>Pati-neboo</i> , ...	ib.
<i>Kagnjee-neboo</i> , ...	ib.
<i>Gora-neboo</i> , ...	ib.
<i>Cheena-gora-neboo</i> , ...	ib.
<i>Kamuralee-neboo</i> , ...	ib.
<i>Rungpore-neboo</i> , ...	ib.
<i>Taba-neboo</i> , ...	ib.
<i>Arabian Lime</i> , ...	ib.
Limetta, ...	ib.
Limonum, ...	ib.
medica, ...	ib.
madurensis, ...	143
CLARKIA, pulchella, ...	33
elegans, ...	ib.
CLAUSENA, bana, ...	140
suffruticosa, ...	ib.
heptaphylla, ...	ib.
sumatrana, ...	ib.
punctata, ...	ib.
CLAVIA, ornata, ...	339
CLAYTONIA, perfoliata, ...	174
CLEMATIS, Flammula, ...	2
Gouriana, ...	ib.
Vitalba, ...	ib.
Wightiana, ...	ib.
grata, ...	ib.
cylindrica, ...	ib.
Viorna, ...	ib.
reticulata, ...	ib.
integrifolia, ...	ib.
ochroleuca, ...	ib.
florida, ...	ib.
Viticella, ...	ib.
CLEOME, monophylla, ...	73
heptaphylla, ...	ib.
CLEODENDRON, Siphonanthus, ...	465
hastatum, ...	ib.
phlomoides, ...	ib.
<i>rubrum</i> , ...	ib.
inerme, ...	ib.
neriifolium, ...	ib.
<i>lanceolatum</i> , ...	ib.
heterophyllum, ...	ib.
emirnense, ...	ib.
nutans, ...	ib.
viscosum, ...	ib.
velutinum, ...	466
squamatum, ...	ib.
dentatum, ...	ib.
Buchananii, ...	ib.
urticæfolium, ...	ib.
paniculatum, ...	ib.
fragrans, ...	ib.
plenum, ...	ib.

	Page.
CLERODENDRON, glandulosum, ...	466
<i>deflexum</i> , ...	ib.
<i>serratum</i> , ...	ib.
<i>farinosum</i> , ...	ib.
<i>odoratum</i> , ...	ib.
<i>albiflorum</i> , ...	ib.
<i>herbaceum</i> , ...	ib.
<i>Madæera</i> , ...	467
<i>trichotomum</i> , ...	ib.
<i>roseum</i> , ...	ib.
<i>aculeatum</i> , ...	ib.
CLITORIA, heterophylla, ...	213
<i>ternatae</i> , ...	ib.
<i>albiflora</i> , ...	ib.
<i>virginiana</i> , ...	ib.
<i>brasiliiana</i> , ...	ib.
<i>Plumieri</i> , ...	ib.
<i>macrophylla</i> , ...	ib.
CLIVIA, nobilis, ...	592
CLUYTIA, semperflorens, ...	155
<i>oblongifolia</i> , ...	ib.
<i>collina</i> , ...	ib.
<i>patula</i> , ...	ib.
CLYPEA, hernandifolia, ...	330
<i>glabra</i> , ...	ib.
CLYPEOLA, Jonthlaspi, ...	68
CNEMIDOSTACHYS, Chamælea, ...	161
CNICUS, benedictus, ...	425
CNIDIUM, diffusum, ...	22
173.—COBÆACEÆ, ...	366
COBURGIA, incarnata, ...	594
COCCINIA, grandis, ...	59
COCCOLOBA, uvifera, ...	326
<i>crispata</i> , ...	ib.
<i>pubescens</i> , ...	ib.
<i>excoriata</i> , ...	ib.
COCCEULUS, cordifolius, ...	330
<i>crispus</i> , ...	ib.
<i>acuminatus</i> , ...	331
<i>vilosus</i> , ...	ib.
<i>incanus</i> , ...	ib.
<i>tomentosus</i> , ...	ib.
<i>hexagynus</i> , ...	ib.
<i>triandrus</i> , ...	ib.
<i>palmatus</i> , ...	ib.
<i>laurifolius</i> , ...	ib.
<i>calophyllus</i> , ...	ib.
<i>megaspermus</i> , ...	ib.
COCHLEARIA, Armoracia, ...	68
<i>anglica</i> , ...	ib.
<i>danica</i> , ...	ib.
<i>officinalis</i> , ...	ib.
COPHOSPERMUM, Gossypium, ...	91
237.—COCOACEÆ. THE PALM	
Tribe, ...	635-644
COCOS, nucifera, ...	643
<i>flexuosa</i> , ...	644
CODIUM, chrysosticton, ...	157
<i>medium</i> , ...	ib.
<i>crispum</i> , ...	ib.
<i>latifolium</i> , ...	158



SL

Index of Orders, Genera and Species.

	Page.	Page.	
CODIUM, <i>viride</i> , ...	158	COMMELINA, <i>salicifolia</i> , ...	676
COLLOGYNE, <i>flavida</i> , ...	620	<i>bengalensis</i> , ...	ib.
undulata,	621	<i>communis</i> , ...	677
fimbriata,	ib.	<i>cœspitosa</i> , ...	ib.
barbata,	ib.	COMMERSONIA, ...	107
longicaulis,	ib.	<i>echinata</i> , ...	ib.
procern,	ib.	CONGEA, <i>pentandra</i> , ...	469
cristata,	ib.	<i>azurea</i> , ...	470
decora,	ib.	107.—CONNARACEÆ, ...	264, 265
rigida,	ib.	CONNARUS, <i>paniculatus</i> ,	265
Wallichiana,	ib.	<i>nitidus</i> , ...	ib.
præcox,	ib.	<i>igneus</i> , ...	ib.
maculata,	ib.	COENOCEPHALUS, <i>naucleiflorus</i> , ...	283
interrupta,	ib.	<i>globulifer</i> , ...	ib.
prolifera,	ib.	171.—CONVOLVULACEÆ. THE	
nitida,	ib.	BINDWEED TRIBE, ...	350-365
ocellata,	ib.	CONVOLVULUS, <i>tricolor</i> , ...	362
media,	ib.	<i>siculus</i> , ...	ib.
elata,	ib.	<i>arvensis</i> , ...	ib.
ovalis,	ib.	<i>bryonisæfolius</i> , ...	ib.
Gardneriana,	ib.	<i>macrocarpus</i> , ...	ib.
COFFEA, <i>arabica</i> , ...	392	<i>parviflorus</i> , ...	ib.
<i>mauritiana</i> ,	ib.	CONYZA, <i>angustifolia</i> , ...	409
<i>bengaleensis</i> ,	ib.	<i>piumatifida</i> , ...	ib.
COIX, <i>Lacrima</i> , ...	709	<i>repanda</i> , ...	ib.
barbata,	ib.	<i>lanceolaria</i> , ...	ib.
gigantea,	ib.	<i>diffusa</i> , ...	ib.
aquatica,	ib.	<i>stricta</i> , ...	410
heteroclita,	ib.	COOKIA, <i>punctata</i> , ...	140
pumila,	ib.	COOPERIA, <i>Drummondiana</i> ,	582
COLCHICUM, ...	647	CORTIS, <i>Teeta</i> , ...	3
COLDENIA, <i>procumbens</i> , ...	445	CORCHARIUS, <i>fascicularis</i> ,	126
COLEA, <i>mauritiana</i> , ...	476	<i>trilocularis</i> , ...	ib.
COLEBROOKIA, <i>oppositifolia</i> , ...	452	<i>olitorius</i> , ...	ib.
<i>ternifolia</i> ,	ib.	<i>acutangulus</i> , ...	127
COLEUS, <i>barbatus</i> ,	449	<i>capsularis</i> , ...	ib.
<i>ambonicus</i> ,	450	195.—CORDIACEÆ, ...	439-441
<i>scutellarioïdes</i> ,	ib.	CORDIA, <i>orientalis</i> , ...	440
COLLOMIA, <i>linearis</i> , ...	365	<i>Sebestena</i> , ...	ib.
COLOCASIA, <i>antiquorum</i> ,	686	<i>latifolia</i> , ...	ib.
<i>nymphæifolia</i> ,	687	<i>Myxa</i> , ...	ib.
<i>esculenta</i> ,	ib.	<i>polygama</i> , ...	441
<i>indica</i> ,	ib.	<i>monoica</i> , ...	ib.
<i>odora</i> ,	ib.	<i>prionodes</i> , ...	ib.
<i>fornicata</i> ,	ib.	<i>grandis</i> , ...	ib.
<i>cucullata</i> ,	ib.	<i>angustifolia</i> , ...	ib.
COLUBRINA, <i>asiatica</i> , ...	147	<i>Gerascanthus</i> , ...	ib.
<i>nepalensis</i> ,	ib.	<i>tectoræfolia</i> , ...	ib.
<i>macrophylla</i> , ...	ib.	CORIANDRUM, <i>sativum</i> , ...	23
COLVILLEA, <i>racemosa</i> , ...	245	102.—CORIARIACEÆ, ...	192, 193
COLQUHOUNIA, <i>coccinea</i> ,	462	CORIARIA, <i>nepalensis</i> , ...	192
20.—COMBRETACEÆ. THE		CORIDACHLOA, <i>cimicina</i> , ...	699
MYROBALAN TRIBE, ...	35-40	29.—CORNACEÆ. THE Dog-	
COMBRETUM, <i>ovalifolium</i> , ...	39	WOOD TRIBE, ...	53
<i>rotundifolium</i> , ...	ib.	CORYDALIS, <i>capnoides</i> , ...	7
<i>costatum</i> ,	ib.	<i>lutea</i> , ...	ib.
<i>acuminatum</i> ,	ib.	<i>glauca</i> , ...	ib.
<i>chinense</i> ,	ib.	<i>claviculata</i> , ...	ib.
<i>extensum</i> ,	ib.	<i>aurea</i> , ...	ib.
244.—COMMELYNACEÆ. THE		CORYNEPHERUS, <i>canescens</i> , ...	713
SPIDER-WORT TRIBE, ...	676-679	CORYNOCARPUS, <i>levigatus</i> , ...	338



CSL

Index of Orders, Genera and Species.

xv

	Page.		Page.
CORYPHA, umbraculifera,	640	CRINUM, <i>venustum</i> ,	590
Utam,	ib.	<i>canalifolium</i> , ...	ib.
Taliera,	641	<i>erythrophyllum</i> , ...	ib.
elata,	ib.	<i>australasicum</i> , ...	ib.
COSCINUM, <i>fenestratum</i> ,	332	<i>arenarium</i> , ...	ib.
COSMOS, <i>bipinnatus</i> ,	416	<i>blandum</i> , ...	ib.
<i>sulphureus</i> ,	ib.	<i>angustifolium</i> , ...	591
COSMOSТИGMA, <i>racemosum</i> ,	537	Broussonetii, ...	ib.
COSIGNIA, <i>borbonica</i> ,	96	<i>pluriflorum</i> , ...	ib.
COSTUS, <i>speciosus</i> ,	572	<i>yuccaeoides</i> , ...	ib.
<i>nepalensis</i> ,	573	distichum,	ib.
<i>argyrophyllus</i> , ...	ib.	petiolatum, ...	ib.
COURTOISIA, <i>cyperoides</i> ,	724	<i>spectabile</i> , ...	ib.
CRAMBA, <i>hispanica</i> ,	72	scabrum, ...	ib.
112.—CRASSULACEÆ. THE HOUSE-LEEK TRIBE,	267, 268	ornatum,	ib.
CRATEZUS, <i>crenulata</i> ,	198	<i>zeylanicum</i> , ...	ib.
CRATEZVA, <i>Roxburghii</i> ,	74	<i>Herbertianum</i> , ...	ib.
<i>Nurvala</i> ,	ib.	<i>latifolium</i> , ...	ib.
<i>obovata</i> ,	ib.	<i>speciosum</i> , ...	ib.
CREMACEPHALUM, <i>cernuum</i> ,	421	<i>molecum</i> , ...	ib.
CREPIS, <i>pulchra</i> ,	431	<i>Careyanum</i> , ...	ib.
CRESCENTIA, <i>Cujete</i> ,	478	<i>brevilimbum</i> , ...	592
<i>elata</i> ,	ib.	<i>flaccidum</i> , ...	ib.
CRESSA, <i>indica</i> ,	363	<i>revolutum</i> , ...	ib.
CRINUM, <i>asiaticum</i> ,	588	<i>variabile</i> , ...	ib.
<i>toxicarium</i> , ...	ib.	<i>capense</i> , ...	ib.
<i>bracteatum</i> ,	ib.	<i>princeps</i> , ...	ib.
<i>brevifolium</i> ,	ib.	<i>riparium</i> , ...	ib.
<i>anomatum</i> ,	ib.	<i>Campanulatum</i> , ...	ib.
<i>declinatum</i> , ...	ib.	<i>longiflorum</i> , ...	ib.
<i>sinicum</i> ,	ib.	CROSSANDRA, <i>infundibuliformis</i> ,	487
<i>procерum</i> ,	ib.	<i>aurantiaca</i> , ...	ib.
<i>amabile</i> ,	589	CROSSOSTEPIUM, <i>artemisioides</i> ,	420
<i>augustum</i> ,	ib.	CROTALARIA, <i>alata</i> ,	205
<i>australe</i> ,	ib.	<i>parviflora</i> , ...	ib.
<i>pedunculatum</i> ,	ib.	<i>sagittalis</i> , ...	ib.
<i>ealatum</i> ,	ib.	<i>Wightiana</i> , ...	ib.
<i>canaliculatum</i> ,	ib.	<i>anthylloides</i> , ...	205
<i>rigidum</i> ,	ib.	<i>birta</i> , ...	ib.
<i>sumatranum</i> , ...	ib.	<i>montana</i> , ...	206
<i>macrocarpon</i> ,	ib.	<i>fulva</i> , ...	ib.
<i>mauritianum</i> ,	ib.	<i>paniculata</i> , ...	ib.
<i>brachyandrum</i> ,	ib.	<i>ramosissima</i> , ...	ib.
<i>cruentum</i> ,	ib.	<i>pulcherrima</i> , ...	ib.
<i>crubescens</i> ,	ib.	<i>juncea</i> , ...	ib.
<i>rubribum</i> , ...	ib.	<i>tetragona</i> , ...	ib.
<i>majus</i> ,	ib.	<i>sericea</i> , ...	ib.
<i>coryntinum</i> , ...	ib.	<i>retusa</i> , ...	ib.
Loddigesianum,	ib.	<i>verrucosa</i> , ...	ib.
<i>americanum</i> ,	590	<i>semperflorens</i> , ...	207
Commelinæ,	ib.	<i>evolvuloides</i> , ...	ib.
<i>defixum</i> ,	ib.	<i>prostrata</i> , ...	ib.
<i>ensifolium</i> ,	ib.	<i>Trifoliastrom</i> , ...	ib.
<i>amoenum</i> ,	ib.	<i>laburnifolia</i> , ...	ib.
<i>vereцundum</i> ,	ib.	<i>arborescens</i> , ...	ib.
<i>humile</i> ,	ib.	<i>uncinella</i> , ...	ib.
<i>pratense</i> ,	ib.	<i>bracteata</i> , ...	ib.
<i>longifolium</i> , ...	ib.	<i>striata</i> , ...	ib.
<i>lorifolium</i> , ...	ib.	<i>Brownæi</i> , ...	ib.
<i>telegans</i> ,	ib.	<i>incana</i> , ...	ib.
		<i>argentea</i> , ...	ib.



SL

Index of Orders, Genera and Species.

	<i>Page.</i>		<i>Page.</i>
<i>CROTALARIA</i> , pulchella,	207	<i>CURCUMA</i> , ferruginea,	563
purpurea,	208	latifolia,	564
quinquefolia,	ib.	leucorrhiza,	ib.
<i>CROTON</i> , polyandra,	156	ornata,	ib.
drupacea,	ib.	rubescens,	ib.
oblongifolia,	ib.	xanthorrhiza,	ib.
Joufra,	ib.	<i>Zedoaria</i> ,	ib.
Tiglium,	ib.	Amada,	ib.
bicolor,	157	cordata,	565
urophylla,	ib.	grandiflora,	ib.
micradenia,	ib.	longa,	ib.
iliciodora,	ib.	montana,	ib.
lævigata,	ib.	parviflora,	ib.
<i>CROTONASTER</i> , affine,	198	petiolata,	ib.
obovatum,	ib.	plicata,	ib.
<i>CROZOPHORA</i> , plicata,	156	reclinata,	ib.
<i>CRUCIANELLA</i> , angustifolia,	399	strobilina,	ib.
<i>CRYPTOCARYA</i> , floribunda,	309	viridiflora,	ib.
<i>CRYPTOCHILUS</i> , sanguineus,	629	<i>Roscocana</i> ,	ib.
<i>CRYPTOTEPIS</i> , reticulata,	544	<i>CURVEMBRIA</i> ,	202, 203
elegans,	545	170.— <i>CUSCUTACEÆ</i> ,	349, 350
<i>CRYPTOPHRAGMUM</i> , venustum,	488	<i>CUSCATA</i> , reflexa,	349
<i>CRYPTOSTEGIA</i> , grandiflora,	544	sulcata,	ib.
<i>CUCUBALUS</i> , bacciferus,	176	capitata,	ib.
<i>CUOUMIS</i> , Melo,	58	aggregata,	ib.
Momordica,	ib.	<i>CYAMOPSIS</i> , psoraloides,	210
sativus,	ib.	<i>CYANELLA</i> , capensis,	671
utilissimus,	ib.	lutea,	ib.
pubescens,	59	<i>CYANOSPERMUM</i> , tomentosum,	236
turbanatus,	ib.	<i>CYANOTIS</i> , cristata,	678
trigonus,	ib.	barbata,	ib.
integrifolios,	ib.	tuberosa,	ib.
31.— <i>CUCURBITACEÆ</i> . THE		axillaris	ib.
GOURD TRIBE,	54-59	221.— <i>CYCADACEÆ</i> ,	554, 555
<i>CUCURBITA</i> , maxima,	59	<i>CYCAS</i> , circinalis,	ib.
<i>CUMINUM</i> , Cuminum,	23	revoluta,	555
<i>CUNNINGHAMIA</i> , sinensis,	557	sphaerica,	ib.
110.— <i>CUNONIACEÆ</i> ,	266	<i>CYCLAMEN</i> , persicum,	335
<i>CUPANIA</i> , canescens,	94	250.— <i>CYCLATHACEÆ</i> ,	683, 684
levis,	ib.	<i>CYCLIA</i> , Burmanni,	... 330
Roxburghii,	ib.	<i>CYDONIA</i> , vulgaris,	199
sapida,	ib.	japonica,	ib.
Madagascariensis,	ib.	<i>CYLISTA</i> , scariosa,	236
alternifolia,	ib.	<i>CYMARIA</i> , elongata,	464
<i>CUPHEA</i> , ligustrina,	130	<i>CYMBIDIUM</i> , sinense,	627
<i>CUPRESSUS</i> , sempervirens,	558	giganteum	ib.
torulosa,	ib.	lancifolium,	ib.
australis,	ib.	aloifolium,	ib.
fastigiata,	ib.	pendulum,	ib.
<i>CURANGA</i> , amara,	503	Gibsonii,	ib.
<i>CURCULIO</i> , orchioïdes,	580	triste,	ib.
plicata,	ib.	aphyllum,	628
recurvata,	ib.	alatum,	ib.
sumatrana,	ib.	striatum,	ib.
<i>CURCUMA</i> , æruginosa,	563	inconspicuum,	ib.
angustifolia,	ib.	longipetalum,	ib.
aromatica,	ib.	Mastersii,	ib.
attenuata,	ib.	<i>CYMINOSMA</i> , pedunculata,	183
cæsia,	ib.	Reevesii,	ib.
comosa,	ib.	<i>CYNANCHUM</i> , paniciflorum,	541
elata,	ib.	<i>CYNARA</i> , scolymus,	426



CSL

Index of Orders, Genera and Species.

xvii

	Page.		Page.
CYNODON, Dactylon,	712	DAHLIA, variabilis,	711
CYNOGLOSSUM, diffusum,	443	coccinea,	ib.
furcatum,	ib.	DALBERGIA, ooejensis,	240
marifolium,	ib.	latifolia,	ib.
canescens,	ib.	sissoo,	241
Falconerianum,	444	emarginata,	ib.
CYNOMETRA, caulinflora,	252	frondosa,	ib.
264.—CYNOMORIACEÆ,	732	paniculata,	ib.
CYNOSURUS, echinatus,	717	zeylanica,	ib.
CYPILLA, Herbertii,	605	robusta,	ib.
257.—CYPERACEÆ. THE SEDGE TRIBE,	720-729	marginata,	ib.
CYPERUS, pygmaeus,	721	sympathetica,	ib.
pumilus,	ib.	tamarindifolia,	ib.
pulvinatus,	ib.	rimosa,	ib.
sanguinolentus,	ib.	stipulacea,	ib.
inundatus,	ib.	reniformis,	ib.
compressus,	ib.	spinosa,	ib.
niveus,	722	glauca,	ib.
aristatus,	ib.	pulchra,	242
angustifolius,	ib.	DALECHAMPIA, madagascariensis,	161
castaneus,	ib.	DALHOUSIËA, bracteata,	247
articulatus,	ib.	DAMMARA, orientalis,	557
<i>niloticus</i> ,	ib.	268.—DANÆACEÆ,	737
seminadus,	ib.	DAPHNE, viridiflora,	304
hexastachyus,	ib.	<i>indica</i> ,	305
<i>communis</i> ,	ib.	DARLINGTONIA, brachyloba,	258
<i>pendulus</i> ,	ib.	DASYLOMA, bengalense,	22
pertenue,	ib.	<i>glaucum</i> ,	ib.
exaltatus,	ib.	126.—DATISCACEÆ,	297
Roxburghii,	723	DATISCA, cannabina,	ib.
racemosus,	ib.	Datura, alba,	515
dubius,	ib.	<i>Metel</i> ,	ib.
venustus,	ib.	<i>fastuosa</i> ,	ib.
verticillatus,	ib.	<i>ferox</i> ,	ib.
Iris,	ib.	<i>Stramonium</i> ,	ib.
distormis,	ib.	<i>Tatula</i> ,	ib.
distans,	ib.	<i>inermis</i> ,	516
CYPHIA, bulbosa,	372	<i>suaveolens</i> ,	ib.
CYPripedium, insigne,	633	DAUBENYA, coccinea,	664
<i>venustum</i> ,	ib.	DAUCUS, Carota,	23
203.—CYRTANDRACEÆ,	480	<i>sativa</i> ,	ib.
CYTOPIERA, flava,	629	DAVALLIA, parallela,	735
<i>plicata</i> ,	ib.	<i>pilosa</i> ,	736
CYTOPODIUM, Andersonii,	ib.	<i>angustifolia</i> ,	ib.
<i>punctatum</i> ,	ib.	DECANEURUM, grande,	405
262.—CYTINACEÆ,	732	<i>fimbriliiferum</i> ,	ib.
CYTRANTHUS, obliquus,	593	DEERLINGIA, indica,	315
<i>pallidus</i> ,	ib.	<i>staminea</i> ,	ib.
<i>collinus</i> ,	ib.	<i>tetragyna</i> ,	ib.
<i>spiralis</i> ,	ib.	DELIMA, hebecarpa,	18
<i>ventricosus</i> ,	ib.	<i>odorata</i> ,	ib.
<i>striatus</i> ,	ib.	DELPHINIUM, Ajacis,	4
<i>angustifolius</i> ,	ib.	<i>Consolida</i> ,	ib.
<i>odoros</i> ,	ib.	<i>Oliverianum</i> ,	ib.
CZACKIA, Liliastrum,	672	DENDROBIUM, Pierardi,	623
DACRYDIUM, elatum,	559	<i>heterocarpum</i> ,	ib.
DEMIAS, extensa,	541	<i>chrysanthum</i> ,	ib.
DACTYLIS, glaucescens,	717	<i>Paxtonii</i> ,	ib.
DACTYLOCENTRIUM, segyptiacum,	712	<i>longicornu</i> ,	ib.
		<i>formosum</i> ,	ib.
		<i>pulchellum</i> ,	624



	Page.		Page.
DENDROBIUM, Calceolus,	624	DIANTHUS, Armeria,	... 175
denudans,	... ib.	barbatus,	... ib.
crumenatum,	... ib.	Carthusianorum,	... ib.
densiflorum,	... ib.	chinensis,	... ib.
sulcatum,	... ib.	pratensis,	... ib.
aggregatum,	... ib.	Caryophyllus,	... ib.
bicameratum,	... ib.	pienius,	... ib.
Jenkinsii,	... ib.	hyssopifolius,	... ib.
cœrulescens,	... ib.	petraeus,	... ib.
Gibsonii,	... ib.	superbus,	... ib.
candidum,	... ib.	DICERMA, pulchellum,	... 223
stuposum,	... ib.	DICLIPTERA, bupleuroides,	492
Cambridgeanum,	ib.	Roxburghiana,	... ib.
flavum,	... ib.	DICROCEPHALA, latifolia,	409
pumilum,	... ib.	DICRYPTEA, Baueri,	... 627
clavatum,	... 625	DIGERA, muricata,	... 314
purpureum,	... ib.	DILIVARIA, ilicifolia,	... 487
pendulum,	... ib.	9.—DILLENIACEÆ,	17-19
DENDROCALAMUS, Balcooa,	718	DILLENIЯ, speciosa,	... 18
Tulda,	... ib.	scabrella,	... ib.
strictus,	... ib.	pentagyna,	... ib.
DENTELLA, repens,	383	augusta,	... ib.
DESCHAMPSIA, cæspitosa,	713	pilosa,	... ib.
DESMANTHUS, natans,	258	DIMORPHOTHECA, hybrida,	419
triquetrus,	... ib.	142.—DIOSCOREACEÆ. THE	
virgatus,	... ib.	YAM TRIBE,	... 651-653
punctatus,	259	DIOSCOREA, globosa,	... 652
DESMOCHÈTA, atropurpurea,	319	alata,	... ib.
velutina,	... ib.	purpurea,	... ib.
DESMODIUM, umbellatum,	221	rubella,	... ib.
congestum,	... ib.	atropurpurea,	... ib.
cephalotes,	... ib.	aculeata,	... ib.
triquetrum,	... ib.	fasciculata,	... ib.
alatum,	... ib.	pulchella,	... ib.
latifolium,	... ib.	crispata,	... ib.
collinum,	... ib.	anguina,	... ib.
gangeticum,	... ib.	nummularia,	... ib.
diffusum,	222	glabra,	... 653
quinquangulatum,	ib.	heterophylla,	... ib.
recurvatum,	... ib.	oppositifolia,	... ib.
elongatum,	... ib.	dæmona,	... ib.
canescens,	... ib.	pentaphylla,	... ib.
paniculatum,	ib.	167.—DIOSPYRACEÆ.—	
viticinum,	... ib.	EBENACEÆ. THE EBONY	
nutans,	... ib.	TRIBE,	... 343-346
tuberosum,	... ib.	DIOSPYROS, tomentosa,	... 343
ancistrocarpon,	ib.	Chloroxylon, —	344
gyrans,	... ib.	cordifolia, —	... ib.
gyroïdes,	223	sylvatica,	... ib.
polycarpum,	... ib.	reticulata,	... ib.
triflorum,	... ib.	Ebenaster, —	ib.
heterophyllum,	... ib.	Sapota,	... ib.
parvifolium,	... ib.	ramiflora,	... ib.
orbiculatum,	... ib.	Melanoxylon,	... ib.
barbatum,	... ib.	montana,	... ib.
divergens,	... ib.	discolor,	... 345
patens,	... ib.	stricta,	... ib.
Hardwickianum,	... ib.	vaccinoides,	... ib.
258.—DESVAUXIACEÆ,	729	Embryopteris,	... ib.
DIANELLA, ensifolia,	... 673	racemosæ,	... ib.
DIANTHUS, prolifer,	175	Kaki,	... ib.



	<i>Page.</i>		<i>Page.</i>
DIOSPYROS, nigricans,	345	DRACÉNA, esculenta,	675
grandifolia,	ib.	ensiformis,	ib.
heterophylla,	ib.	plicata,	ib.
calycina,	ib.	DRACOCEPHALUM, Moldavica,	459
grata,	ib.	roseum,	ib.
DIPLOAPPUS, trinervius,	408	Ruyschiana,	ib.
187.—DIPSACEÆ. THE SCABIOSA TRIBE,	433, 434	DRACONTIUM, polypodium,	689
DIPSACUS, sylvestris,	434	DRIMIA, lanceæfolia,	664
inermis,	ib.	acuminata,	ib.
DIPTERACANTHUS, ciliatus,	483	media,	ib.
dejectus,	ib.	ciliaris,	ib.
patulus,	ib.	elata,	ib.
suffruticosus,	ib.	undulata,	ib.
72.—DIPTEROCARPACEÆ.		43.—DROSERACEÆ. THE SUN-DEW TRIBE,	79
THE CAMPHOR TREE TRIBE,	123-126	DROSERA, Burmanni,	ib.
DIPTEROCARPUS, laevis,	125	DUABANGA, sonneratiioides,	132
angustifolius,	ib.	DURANTA, Plumieri,	471
incanus,	ib.	Ellisia,	ib.
alatus,	ib.	DURIO, zibethenus,	105
DISCHEMA, glaucum,	566	DYSOPHYLLA, quadrifolia,	451
DISCHIDIA, bengalensis,	538	verticillata,	452
DISTERPHANUS, populifolius,	406	Auricularia,	ib.
DODONÆA, Burmanniana,	96	DYBOXYLUM, multijugum,	135
dioeca,	ib.	ECHALTJUM, piscidium,	525
DOLICHOS, glutinosus,	231	ECHINACEA, purpurea,	414
uniflorus,	232	ECHINOPS, echinatus,	424
falcatus,	ib.	ECHINOCACTUS, Ottonis,	61
pilosus,	ib.	Eyriesii,	ib.
sinensis,	ib.	cornigerus,	ib.
ecremocarpus,	ib.	ECHITES, apoxys,	522
orthocarpus,	ib.	cymosa,	523
leucospermus,	ib.	lisianthiflora,	ib.
phaeospermus,	ib.	caryophyllata,	ib.
melanospermus,	ib.	paniculata,	ib.
vexillatus,	ib.	ECHIUM, vulgare,	442
unguiculatus,	ib.	violaceum,	443
gangeticus,	ib.	plantagineum,	ib.
phaseoloïdes,	233	EDWARDSIA, mollis,	204
hexandrus,	ib.	maderaspatana,	205
azureus,	ib.	ERETIA, serrata,	445
DOMBEYA, palmata,	107	lævis,	ib.
angulata,	ib.	aspera,	ib.
acutangula,	ib.	internodis,	446
astrapœoides,	ib.	Subria,	ib.
DONAX, arundinaceus,	713	buxifolia,	ib.
versicolor,	ib.	graveolens,	ib.
DOPATRIUM, nudicaule,	503	139.—ELÆAGNACEÆ. THE OLEASTER TRIBE,	303, 304
juncineum,	ib.	ELÆAGNUS, triflora,	304
DORSTENIA, Contrayerva,	289	conferta,	ib.
DORYANTHES, excelsa,	597	dulcis,	ib.
DRABA, muralis,	68	parvifolia,	ib.
DRACÉNA, reflexa,	674	ferruginea,	ib.
cernua,	675	Elæis, guineensis,	643
terminalis,	ib.	71.—ELÆOCARPACEÆ, 122, 123	
ferrea,	ib.	ELÆOCARPUS, prinoides,	123
angustifolia,	ib.	lanceæfolius,	ib.
spicata,	ib.	robustus,	ib.
maculata,	ib.	lucidus,	ib.
terniflora,	ib.		
atropurpurea,	ib.		



SL

Index of Orders, Genera and Species.

	<i>Page.</i>		<i>Page.</i>
ELAEOCARPUS, longifolius,	123	ERIA, pumila,	623
integritifolius,	ib.	ferruginea,	ib.
ELAEOCOMA, Vernicia,...	159	coavalariooides,...	ib.
vertucosa,	ib.	161.—ERICACEÆ. THE BEATH	
ELAEODENDRON, glaucum,	167	TRIBE,	333
63.—ELATINACEÆ. THE WATER-PEPPER TRIBE,	99	ERIOBOTRYA, japonica,...	198
ELEGIA, juncea,	730	259.—S. O. ERIOCAULONEÆ,	
ELEOGENUS, capitatus,	727	ERIOCAULON, quinquangulare,	730
ELEPHANTOPUS, scaber,	406	sexangulare,	ib.
ELETARIA, Cardamomum,	568	argenteum,	ib.
punicea,	ib.	setaceum,	ib.
costata,	ib.	melaleucum,	731
linguiformis,	ib.	ERIOLÉNA, Candolii,	108
ELEUSINE, Coracana,	712	Wallichii,	ib.
stricta,	ib.	ERIOPHILA, vulgaris,	68
ELYMUS, geniculatus,	715	ERIOSPERMUM, latifolium,	650
glaucescens,	ib.	lanceæfolium,	ib.
ELYTRARIA, crenata,	482	ERODIUM, cicutarium,	187
EMBESIA, Ribes,	337	moschatum,	188
villoso,	338	grainum,	ib.
nutans,	ib.	ERUCA, sativa,	72
robusta,	ib.	ERUCARIA, crassifolia,	ib.
EMBLICA, officinalis,	153	ERVUM, Lens,	226
EMEX, spinosus,	327	hirsutum,	ib.
EMILIA, sonchifolia,	421	tetraspermum,	ib.
sagittata,	422	ERYCIBE, paniculata,	441
84.—EMPETRACEÆ. THE CROWBERRY TRIBE,	165	ERYTHRACANTHUS, racemosus,	482
Endogena, et seq.	561	ERYTHRAEA, centaorioides,	520
ENGELHARDTIA, Roxburghiana,	296	ERYTHRINA, Crista galli,	237
ENHALUS, acorooides,	618	herbacea,	ib.
ENHYDRA, Hingcha,	416	resupinata,	ib.
ENTADA, Parsætha,	256	caffra,	ib.
polystachya,	ib.	arborescens,	ib.
163.—EPACRIDACEÆ,	334	indica,	ib.
EPICARPUS, orientalis,	291	stricta,	ib.
EPICHARIS, exarillata,	135	suberosa,	ib.
mollis,	ib.	sublobata,	ib.
EPICHYSIANTHUS, macrophyllus,	523	ovalifolia,	ib.
EPIDENDRUM, fragrans,	625	glaucia,	ib.
odoratissimum,...	ib.	ERYTHROPSIS, Roxburghiana,	104
variegatum,	ib.	88.—S. O. ERYTHROXYLEÆ,	
224.—EQUISETACEÆ. THE HORSE-TAIL TRIBE,	560	171, 172	
EQUISETUM, debile,	ib.	ERYTHROXYLON, monogynum,	172
ERANTHEMUM, nervosum,	489	hypericifolium,	ib.
strictum,	490	longifolium,	ib.
suffruticosum,	ib.	laurifolium,	ib.
erenulatum,	ib.	13.—ESCALLONIACEÆ,	26
racemosum,	ib.	ETHULIA, conyxoïdes,	405
palatiferum,	ib.	indica,	ib.
diantherum,	ib.	EUCOMIS, punctata,	664
barlerioides,	ib.	striata,	ib.
ERIA, paniculata,	622	undulata,	665
flava,	ib.	EUGENIA, bracteata,	47
pusilla,	623	Michelii,	ib.
densiflora,	ib.	Jambos,	ib.
clavicaulis,	ib.	aquea,	ib.
planicaulis,	ib.	rhodocarpa,	ib.
excavata,	ib.	leucocarpa,	ib.
		lanceæfolia,	ib.
		malaccensis,	ib.



	Page.
<i>EUGENIA</i> , <i>purpurea</i> ,	48
<i>ternifolia</i> ,	ib.
<i>amplexicaulis</i> ,	ib.
<i>alba</i> ,	ib.
<i>polypetala</i> ,	ib.
<i>laurifolia</i> ,	ib.
<i>caryophyllata</i> ,	ib.
<i>claviflora</i> ,	ib.
<i>oblate</i> ,	ib.
<i>pulchella</i> ,	ib.
<i>myrtifolia</i> ,	ib.
<i>oleina</i> ,	49
<i>Jamabolana</i> ,	ib.
<i>caryophyllifolia</i> ,	ib.
<i>fruticosa</i> ,	ib.
<i>balsamea</i> ,	ib.
<i>operculata</i> ,	ib.
<i>tetragona</i> ,	ib.
<i>rubens</i> ,	ib.
<i>inophylla</i> ,	ib.
<i>grandis</i> ,	ib.
<i>lonchophylla</i> ,	ib.
<i>acuminata</i> ,	ib.
<i>brachiata</i> ,	50
<i>venusta</i> ,	ib.
<i>macrocarpa</i> ,	ib.
<i>EULOPHIA</i> , <i>virens</i> ,	629
<i>fusca</i> ,	ib.
<i>EUONYMUS</i> , <i>Hamiltonianus</i> ,	165
<i>glaber</i> ,	ib.
<i>grossus</i> ,	ib.
<i>echinatus</i> ,	ib.
<i>buillatus</i> ,	166
<i>grandiflorus</i> ,	ib.
<i>EUPATORIUM</i> , <i>atriplicifolium</i> ,	407
<i>triplinerve</i> ,	ib.
<i>cannabinum</i> ,	ib.
83.— <i>EUPHORBIACEÆ</i> . THE EUPHORBIUM TRIBE,	151—164
<i>EUPHORIA</i> , <i>Ligularia</i> ,	161
<i>Nivilia</i> ,	162
<i>bupleurifolia</i> ,	ib.
<i>trigona</i> ,	ib.
<i>Bojeri</i> ,	ib.
<i>splendens</i> ,	ib.
<i>hoyæfolia</i> ,	ib.
<i>antiquorum</i> ,	ib.
<i>arborescens</i> ,	ib.
<i>lactea</i> ,	ib.
<i>lophogona</i> ,	ib.
<i>Tiraculli</i> ,	ib.
<i>pyrifolia</i> ,	ib.
<i>mellifera</i> ,	163
<i>maculata</i> ,	ib.
<i>picta</i> ,	ib.
<i>uniflora</i> ,	ib.
<i>parviflora</i> ,	ib.
<i>linearis</i> ,	ib.
<i>Peplis</i> ,	ib.
<i>punicæa</i> ,	ib.
<i>Chamaesyce</i> ,	ib.
<i>EUPHORBIA</i> , <i>sessiliflora</i> ,	163
<i>acaulis</i> ,	ib.
<i>peitata</i> ,	ib.
<i>prunifolia</i> ,	ib.
<i>hirta</i> ,	ib.
<i>thymifolia</i> ,	ib.
<i>prolifera</i> ,	ib.
<i>exigua</i> ,	ib.
<i>dracunculoides</i> ,	164
<i>EURYA</i> , <i>pasciculata</i> ,	91
<i>EURYALE</i> , <i>ferox</i> ,	8
<i>EURYCLES</i> , <i>amboinensis</i> ,	594
<i>EUSTREPHUS</i> , <i>latifolius</i> ,	674
<i>EVOLVULUS</i> , <i>alsinoïdes</i> ,	363
<i>pilosus</i> ,	ib.
<i>EXACUM</i> , <i>tetragonum</i> ,	520
<i>pedunculatum</i> ,	ib.
<i>carinatum</i> ,	521
<i>teres</i> ,	ib.
<i>EXOCERARIA</i> , <i>Agallocha</i> ,	161
106.— <i>FABACEÆ</i> . THE BEAN TRIBE,	201—264
<i>FAGOPYRUM</i> , <i>esculentum</i> ,	326
<i>tataricum</i> ,	ib.
<i>cymosum</i> ,	ib.
<i>FAGREÆ</i> , <i>obovata</i> ,	545
<i>FALCONERIA</i> , <i>Wallichiana</i> ,	295
<i>FARSETIA</i> , <i>cheiranthifolia</i> ,	68
<i>FEDIA</i> , <i>Cornucopiae</i> ,	435
<i>FELICIA</i> , <i>tenella</i> ,	408
<i>FERONIA</i> , <i>Elephantum</i> ,	141
<i>FERRARIA</i> , <i>undulata</i> ,	605
<i>FESTUCA</i> , <i>ovina</i> ,	717
<i>flavescens</i> ,	ib.
<i>rubra</i> ,	ib.
<i>FICUS</i> , <i>Carica</i> ,	284
<i>triloba</i> ,	ib.
<i>caricoïdes</i> ,	285
<i>virgata</i> ,	ib.
<i>urophylla</i> ,	ib.
<i>denticulata</i> ,	ib.
<i>rubescens</i> ,	ib.
<i>humilis</i> ,	ib.
<i>repens</i> ,	ib.
<i>pisifera</i> ,	ib.
<i>radicans</i> ,	ib.
<i>diadema</i> ,	ib.
<i>albinervis</i> ,	ib.
<i>scabrida</i> ,	ib.
<i>mangifolia</i> ,	ib.
<i>anabatos</i> ,	286
<i>Gooleree</i> ,	ib.
<i>Wassa</i> ,	ib.
<i>indica</i> ,	ib.
<i>elastica</i> ,	ib.
<i>laccifera</i> ,	287
<i>religiosa</i> ,	ib.
<i>Rumphii</i> ,	ib.
<i>Tsielda</i> ,	ib.
<i>venosa</i> ,	ib.



Index of Orders, Genera and Species.

CSL

	Page.		Page.
<i>FICUS</i> , racemifera,	287	<i>FENICULUM</i> , vulgare,	22
rapiformis,	ib.	Panamori,	ib.
excelsa,	ib.	<i>FETIDIA</i> , mauritiana,	52
vagans,	ib.	85.— <i>FOUQUIERACEÆ</i> ,	165
Blumii,	ib.	<i>FOURECROYA</i> , tuberosa,	597
nitida,	288	Cantala,	ib.
polycarpa,	ib.	<i>FRAGARIA</i> , vesca,	196
Roxburghii,	ib.	<i>sylvestris</i> ,	ib.
lanceolata,	ib.	<i>hortensis</i> ,	ib.
glomerata,	ib.	elatior,	ib.
Cunia,	ib.	chilensis,	ib.
congesta,	ib.	indica,	ib.
oppositifolia,	ib.	Roxburghii,	ib.
Daemonum,	289	<i>FRANCISCEA</i> , uniflora,	500
Ampelos,	ib.	18.— <i>FRANCOACEÆ</i> ,	32
Benamina,	ib.	<i>FRANCOA</i> , ramosa,	ib.
artocarpifolia,	ib.	44.— <i>FRANKENIACEÆ</i> ,	80
<i>FILAGO</i> , prostrata,	421	<i>FRAXINUS</i> , excelsior,	548
<i>FIMBRISTYLIS</i> , schenoides,	725	chinensis,	ib.
ferruginea,	ib.	<i>FRITILLARIA</i> , Meleagris,	654
Royeniana,	ib.	278.— <i>FUCACEÆ</i> , (ALGACEÆ,	
<i>microstachya</i> ,	ib.	Lindl.)	745
<i>procumbens</i> ,	ib.	2.—S. O. <i>FUMARIEÆ</i> . THE	
<i>pallescens</i> ,	ib.	FUMITORY TRIBE,	7
<i>æstivalis</i> ,	ib.	<i>FUMARIA</i> , parviflora,	ib.
<i>FIRMIANA</i> , platanifolia,	104	officinalis,	ib.
<i>villosa</i> ,	105	<i>FUNKIA</i> , corulea,	655
<i>guttata</i> ,	ib.	cordata,	ib.
<i>lanceæfolia</i> ,	ib.	<i>GAGNEBINA</i> , Richardiana,	257
<i>acerifolia</i> ,	ib.	<i>GALAXIA</i> , ovata,	606
<i>pallens</i> ,	ib.	graminea,	ib.
<i>campanulata</i> ,	ib.	184.— <i>GALIACEÆ</i> . THE MAD-	
<i>ornata</i> ,	ib.	DER TRIBE,	399, 400
<i>FISSIDENS</i> , bryoides,	741	<i>GALIUM</i> , anglicum,	399
47.— <i>FLACOURTIACEÆ</i> ,	83, 84	tricornе,	ib.
<i>FLACOURTIA</i> , Ramontchi,	83	Aparine,	400
<i>sapida</i> ,	ib.	<i>GANITRUS</i> , sphaericus,	123
<i>sepiaria</i> ,	84	51.— <i>GARCINIACEÆ</i> (CLUSI-	
<i>inermis</i> ,	ib.	ACEÆ, Lindl.) THE MANGOS-	
<i>cataphracta</i> ,	ib.	TEEN TRIBE,	86-88
<i>ferox</i> ,	ib.	<i>GARCINIA</i> , Mangostana,	86
<i>obcordata</i> ,	ib.	cornea,	ib.
<i>cordifolia</i> ,	ib.	Kydiana,	ib.
<i>rotundifolia</i> ,	ib.	pedunculata,	ib.
<i>Campbelliana</i> ,	ib.	paniculata,	87
<i>FLAGELLARIA</i> , indica,	681	purpurea,	ib.
<i>FLEMINGIA</i> , stricta,	228	<i>lanceæfolia</i> ,	ib.
<i>congesta</i> ,	229	Roxburghii,	ib.
<i>semialata</i> ,	ib.	dioeca,	ib.
<i>procumbens</i> ,	ib.	orrecta,	ib.
<i>prostrata</i> ,	ib.	<i>GARDENIA</i> , florida,	377
<i>nana</i> ,	ib.	plena,	378
<i>lineata</i> ,	ib.	<i>ovalifolia</i>	ib.
<i>strobilifera</i> ,	ib.	radicans,	ib.
<i>bracteata</i> ,	ib.	coronaria,	ib.
<i>Chappar</i> ,	ib.	carinata,	ib.
<i>FLINDERSIA</i> , amboinensis,	137	enneandra,	ib.
australis,	ib.	latifolia,	ib.
<i>FLUGGEA</i> , Leucopyrus,	152	lucida,	ib.
retusa,	ib.	gummifera,	ib.
virosa,	ib.		



CSL

Index of Orders, Genera and Species.

xxiii

	<i>Page.</i>		<i>Page.</i>
GARDENIA, chinensis,	379	GEUM, chilense,	196
Thunbergia,	ib.	rivale,	ib.
Rothmannia,	ib.	urbanum,	ib.
macrocarpa,	ib.	GILLA, achilleæfolia,	365
amoena,	380	capitata,	ib.
turgida,	ib.	241.—GILLIESIACEÆ,	651
campanulata,	ib.	GINORIA, americana,	131
densa,	ib.	GISNERIA, pharnaceoides,	324
obtusifolia,	ib.	GLADIOLUS, edulis,	607
GARDNERA, ovata,	545	tristis,	ib.
GARUGA, pinnata,	150	gracilis,	ib.
GASTRIDIUM, australe,	711	recurvus,	ib.
GASTROCHILUS, pulcherrimus,	571	angustus,	ib.
longiflorus,	572	tenellus,	ib.
Jenkinsii,	ib.	flexuosus,	ib.
affinis,	ib.	Watsonia,	ib.
GASTRONEMA, clavatum,	593	Milleri,	ib.
GAGDICAUDIA, guaranitica,	170	viperatus,	ib.
GEISSORRHIZA, secunda,	612	namaquensis,	ib.
obtusata,	ib.	alatus,	608
GELONIUM, bifarium,	158	hirsutus,	ib.
lanceolatum,	ib.	brevifolius,	ib.
fasciculatum,	ib.	versicolor,	ib.
GENDARUSSA, vulgaris,	489	carneus,	ib.
bisaria,	ib.	cuspidiatus,	ib.
decussata,	ib.	blandus,	ib.
ventricosa,	ib.	undulatus,	ib.
orixensis,	ib.	floribundus,	ib.
Neesiana,	ib.	cardinalis,	ib.
quadrisaria,	ib.	communis,	ib.
micrantha,	ib.	psittacinus,	ib.
furcata,	ib.	byzantinus,	ib.
vasculosa,	ib.	hyalinus,	ib.
ptychostoma,	ib.	segetum,	ib.
GENIOSPORUM, strobiliferum,	449	GLAUCIUM, corniculatum,	6
211.—GENTIANACEÆ. THE GENTIAN TRIBE,	519-521	phænicium,	ib.
GEODROMUS, purpureum,	628	GLEBITSCHIA, triacanthos,	243
dilatatum,	ib.	sinensis,	ib.
palidum,	ib.	266.—GLEICHENIACEÆ,	736
candidum,	ib.	GLINUS, dictamnoïdes,	65
bicolor,	ib.	GLOBEA, marantina,	573
longifolium,	ib.	orixensis,	ib.
ramentaceum,	ib.	Careyana,	ib.
bracteatum,	629	expansa,	ib.
plicatum,	ib.	bracteolata,	ib.
GEOPHILA, reniformis,	394	dubia,	ib.
99.—GERANIACEÆ. THE GERANIUM TRIBE,	186-189	saltatoria,	ib.
GERANIUM, nepalense,	187	spathulata,	ib.
rotundifolium,	ib.	velutina,	ib.
columbinum,	ib.	191.—GLOBULARIACEÆ,	438
dissectum,	ib.	GLOCHIDION, multiloculare,	152
lucidum,	ib.	lanceolarium,	153
Robertianum,	ib.	nitidum,	ib.
GERARDIA, delphinifolia,	507	sinicum,	ib.
GEROPOGON, glaber,	430	hirsutum,	ib.
206.—GESNERACEÆ,	494, 495	pinnatum,	ib.
GESNERIA, verticillata,	495	GLOSSOSTYLIS, avensis,	507
GETHYSILLIS, spiralis,	596	GLOXINIA, caulescens,	495
GETONIA, butans,	38	speciosa,	ib.
		GLYCYNE, labialis,	214
		debilis,	ib.



SL

Index of Orders, Genera and Species.

	<i>Page.</i>		<i>Page.</i>
GLYCINE, <i>dilecta</i> ,	214	GREWIA, <i>sclerophylla</i> ,	128
GLYCOMIS, <i>arborea</i> ,	139	occidentalis,	ib.
<i>pentaphylla</i> ,	ib.	sepiaria,	ib.
<i>tetraphylla</i> ,	ib.	umbellata,	ib.
<i>oxyphylla</i> ,	ib.	paniculata,	ib.
GNAPHALIUM, <i>indicum</i> ,	421	asiatica,	ib.
Roxburghianum,	ib.	sapida,	ib.
220.—GNETACEÆ, ...	553, 554	ulmifolia,	ib.
GNETUM, <i>Gnemon</i> ,	553	humilis,	ib.
<i>scandens</i> ,	554	microstemma,	ib.
GOLDFUSSIA, <i>lamiifolia</i> ,	484	denticulata,	ib.
<i>glomerata</i> ,	ib.	floribunda,	ib.
<i>anisophylla</i> ,	ib.	GRISELIA, <i>tomentosa</i> ,	131
<i>isophylla</i> ,	ib.	12.—GROSSULACEÆ. THE	
GOMPHANDRA, <i>axillaris</i> ,	31	CURRANT TRIBE,	25, 26
GOMPHIA, <i>angustifolia</i> , ...	181	GRUMILEA, <i>Reevesii</i> ,	392
GOMPHOCARPUS, <i>fruticosus</i> ,	539	GUAIACUM, <i>officinale</i> ,	184
GOMPHOSTEMMA, <i>lucidum</i> ,	463	GUATTERIA, <i>longifolia</i> ,	16
<i>melissæfolium</i> ,	ib.	cerasoides,	ib.
GOMPHRENA, <i>globosa</i> , ...	318	suberosa,	ib.
<i>kermesina</i> ,	ib.	villosa,	ib.
<i>alba</i> ,	ib.	sesquipedalis,	ib.
<i>decumbens</i> ,	ib.	Badiajamba,	ib.
GONOORA, <i>atropurpurea</i> , ...	627	fasciculata,	ib.
179.—GOODENIACEÆ, ...	372	GUAZUMA, <i>tomentosum</i> ,	108
GOODYERA, <i>procera</i> ,	633	GUETTARDA, <i>speciosa</i> ,	387
GORDONIA, <i>integrifolia</i> ,	91	GUEVINA, <i>Avellana</i> ,	306
<i>floribunda</i> ,	ib.	GUILANDINA, <i>Bonduc</i> ,	244
GOSSAMPINUS, <i>Rumphii</i> ,	105	GUIZOTIA, <i>abyssinica</i> ,	414
GOSSEYPIUM, <i>acuminatum</i> ,	120	GURUA, <i>obovata</i> ,	544
<i>obtusifolium</i> ,	121	GYMNEMA, <i>sylvestre</i> ,	538
<i>herbaceum</i> ,	ib.	<i>acuminatum</i> ,	ib.
<i>daccancense</i> ,	ib.	<i>tingens</i> ,	ib.
<i>berarensis</i> ,	ib.	<i>nepalense</i> ,	ib.
<i>chinense</i> ,	ib.	GYMNOCLADUS, <i>canadensis</i> ,	244
<i>cavnporensis</i> ,	ib.	CLASS 2d.— <i>Gymnospermæ</i> ,	
<i>arboreum</i> ,	ib.	<i>et seq.</i> ,	553
<i>religiosum</i> ,	ib.	GYNANDROPSIS, <i>pentaphylla</i> ,	73
<i>hirsutum</i> ,	ib.	GYNURA, <i>sermentosa</i> ,	421
<i>barbadense</i> ,	ib.	<i>purpurascens</i> ,	ib.
<i>vitifolium</i> ,	ib.	<i>bicolor</i> ,	ib.
GONANIA, <i>leptostachya</i> ,	147	<i>nepalensis</i> ,	ib.
<i>madagascariensis</i> ,	ib.	GYPSOPHILA, <i>viscosa</i> ,	175
GOVANIA, <i>nivea</i> ,	164	<i>repens</i> ,	ib.
GRAMMATOPHYLLUM, <i>Finlaysonianum</i> ,	628	<i>muralis</i> ,	ib.
GRANGEA, <i>maderaspatica</i> ,	409	<i>Vaccaria</i> ,	ib.
GRANTIA, <i>microscopica</i> ,	692	GYROCARPUS, <i>asiaticus</i> ,	311
<i>globosa</i> ,	ib.	HABENARIA, <i>plantaginea</i> ,	632
GRAPTOPHYLLUM, <i>hortense</i> ,	488	<i>platyphylla</i> ,	ib.
<i>lurido-sanguineum</i> ,	ib.	<i>commelinæfolia</i> ,	ib.
GREVILLEA, <i>robusta</i> ,	306	<i>tenuis</i> ,	ib.
GREWIA, <i>orientalis</i> ,	127	<i>marginata</i> ,	ib.
<i>laevigata</i> ,	ib.	HABRANTHUS, <i>spathaceus</i> ,	583
<i>columnaris</i> ,	ib.	<i>angustus</i> ,	ib.
<i>trichodes</i> ,	ib.	<i>bifidus</i> ,	ib.
<i>polygama</i> ,	ib.	<i>hesperius</i> ,	ib.
<i>pilosæ</i> ,	ib.	<i>advena</i> ,	ib.
<i>abutilifolia</i> ,	128	<i>gracilifolius</i> ,	ib.
<i>viminea</i> ,	ib.	<i>versicolor</i> ,	ib.
<i>oppositifolia</i> ,	ib.	<i>robustus</i> ,	ib.



CSL

Index of Orders, Genera and Species.

xxv

	Page.		Page.
HABRANTHUS, Andersonianus,	583	HEDYOTIS, <i>paniculata</i> ,	384
HÆMANTHUS, puniceus,	592	pumila,	ib.
<i>virescens</i> ,	ib.	Burmanniana,	ib.
<i>pubescens</i> , ...	ib.	<i>meizonantha</i> ,	ib.
<i>albiflos</i> ,	ib.	Heynii,	ib.
<i>coccineus</i> , ...	593	dichotoma,	ib.
<i>grandivalvis</i> , ...	ib.	HEDYNOIS, <i>cretica</i> ,	428
<i>tigrinus</i> , ...	ib.	polymorpha,	ib.
HÆMATOSPERMUM, <i>nerifolium</i> ,	157	HEDYSARUM, <i>coronarium</i> ,	224
HÆMATOXYLON, <i>campechianum</i> ,	246	HELIANTHEMUM, <i>erioaulon</i> ,	101
229.—HÆMODORACEÆ. THE BLOOD-ROOT TRIBE,	599	inconspicuum,	ib.
19.—S. O. HALORAGEÆ,	35	ægyptiacum,	ib.
28.—HAMAMELIACEÆ. THE WITCH-HAZEL TRIBE,	53	HELIANTHUS, <i>annuus</i> ,	415
HAMELIA, <i>patens</i> ,	385	ovatus,	ib.
HAMILTONIA, <i>suaveolens</i> ,	387	multiflorus,	ib.
<i>azurea</i> , ...	ib.	tuberosus,	ib.
HAPALOSIA, <i>Löflingiae</i> ,	180	HELICHRYSUM, <i>bracteatum</i> ,	421
HARDWICKIA, <i>binata</i> ,	246	HELICONIA, <i>buccinata</i> ,	578
<i>pinna</i> ,	ib.	brasiliensis,	ib.
HARINA, <i>caryotooides</i> ,	637	bicolor,	ib.
HARPULLIA, <i>cupanioides</i> ,	95	HELICTERES, <i>hirsuta</i> ,	103
HAYLOCKIA, <i>pusilla</i> ,	582	angustifolia,	ib.
HEBENSTREITIA, <i>fruticosa</i> ,	474	elongata,	ib.
HEDROMA, <i>nepalense</i> ,	457	virgata,	ib.
11.—HEDERACEÆ. THE IVY TRIBE,	24, 25	pulchra,	ib.
HEDERA, <i>palmata</i> ,	25	HELIOPHILA, <i>arabiooides</i> ,	73
<i>heterophylla</i> ,	ib.	stricta,	ib.
HEDYCHIUM, <i>coronarium</i> ,	568	HELIOPSIS, <i>lævis</i> ,	414
<i>lutescens</i> , ...	569	HELIOTROPIUM, <i>peruvianum</i> ,	444
<i>angustifolium</i> ,	ib.	<i>curassavicum</i> ,	ib.
<i>elatum</i> ,	ib.	parviflorum,	ib.
<i>coccineum</i> ,	ib.	<i>coromandelianum</i> ,	ib.
<i>gracile</i> ,	ib.	supinum,	ib.
<i>flavum</i> ,	ib.	<i>brevifolium</i> ,	445
<i>flavescens</i> ,	ib.	Roxburghianum,	ib.
<i>speciosum</i> ,	ib.	HELOPS, <i>annulatus</i> ,	699
<i>villosum</i> ,	ib.	longiflorus,	ib.
<i>ellipticum</i> ,	ib.	virgatus,	ib.
<i>spicatum</i> ,	ib.	longifolius,	ib.
<i>thyrsiforme</i> ,	ib.	filiculmis,	ib.
<i>giganteum</i> ,	570	paradoxus,	ib.
<i>acuminatum</i> ,	ib.	HELOSCIADIUM, <i>Heyneanum</i> ,	21
<i>gardnerianum</i> ,	ib.	HEMARHTRIA, <i>compressa</i> ,	708
<i>latifolium</i> ,	ib.	HEMEROCALLIS, <i>flava</i> ,	670
<i>gratum</i> ,	ib.	<i>graminea</i> ,	ib.
<i>trilobum</i> ,	ib.	<i>disticha</i> ,	ib.
<i>tenuiflorum</i> ,	ib.	<i>fulva</i> ,	ib.
<i>Roscoei</i> ,	ib.	HEMIADELPHIS, <i>polysperma</i> ,	483
<i>formosum</i> ,	ib.	HEMIDESMUS, <i>indicus</i> ,	544
<i>fastigiatum</i> ,	ib.	HEMIONITIS, <i>cordifolia</i> ,	734
<i>densiflorum</i> ,	ib.	118.—HENSLoviACEÆ,	279
<i>barbatum</i> ,	ib.	HERBERTIA, <i>pulchella</i> ,	605
<i>candidum</i> ,	ib.	HERITIERA, <i>minor</i> ,	103
HEDYOTIS, <i>lineata</i> ,	383	<i>litoralis</i> ,	ib.
<i>scandens</i> ,	ib.	<i>macrophylla</i> ,	ib.
<i>hispida</i> ,	ib.	<i>acuminata</i> ,	ib.
<i>villosa</i> ,	ib.	HERMANNIA, <i>albaefolia</i> ,	110
<i>racemosa</i> ,	384	<i>scordifolia</i> ,	ib.
		141.—HERNANDIACEÆ,	305
		HERNANDIA, <i>ovigera</i> ,	ib.
		HERPESTRIS, <i>Monnieria</i> ,	502



	Page.		Page.
HERPESTIS, sessiliflora, ...	502	HIPPEASTRUM, calyptatum, ...	584
HESPERANTHA, falcata, ...	612	psittacinum, ...	ib.
cinnamomea, ...	ib.	solandraeflorum, ...	ib.
pilosa, ...	ib.	striatum, ...	ib.
HESPERIS, pulchella, ...	69	conspicuum, ...	ib.
HETEROPOGON, contortus, ...	706	ambiguum, ...	ib.
tenellus, ...	ib.	longiflorum, ...	ib.
HETEROPTERIS, argentea, ...	171	vittatum, ...	ib.
HETEROSPERMUM, pinnatum, ...	416	reticulatum, ...	ib.
HEWITTIA, bicolor, ...	362	striatifolium, ...	ib.
HEYLANDIA, latibrosa, ...	205	barbatum, ...	ib.
HEYNEA, trijuga, ...	125	equestris, ...	ib.
quinquejuga, ...	ib.	minus, ...	ib.
HEXACENTRIS, coccinea, ...	482	majus, ...	ib.
HIBISCUS, vesicarius, ...	116	semiplenum, ...	ib.
Trionum,	ib.	stylosum, ...	ib.
surrattensis, ...	ib.	miniatum, ...	585
furcatus, ...	ib.	Reginae, ...	ib.
bifurcatus, ...	ib.	bulbosum, ...	ib.
Lindleyi,	ib.	subbarbatum,	ib.
radiatus,	ib.	rutileum, ...	ib.
aculeatus,	ib.	fulgidum, ...	ib.
Lampas,	ib.	pallidum,	ib.
lunarifolius,	ib.	Simsianum, ...	ib.
Rossi sinensis, ...	ib.	acuminatum, ...	ib.
<i>rubro-plenus</i> , ...	117	puleverulentum,	ib.
<i>flavo-plenus</i> ,	ib.	ignescens, ...	ib.
<i>carneo-plenus</i> ,	ib.	crocatum, ...	ib.
<i>luteo-plenus</i> , ...	ib.	86.—S.O. HIPPOCRATEÆ, 167-169	
<i>variegato-plenus</i> ,	ib.	HIPPOCRATEA, indica, ...	168
liliiflorus,	ib.	obtusifolia, ...	ib.
<i>ruber</i> ,	ib.	arborea, ...	ib.
<i>luteus</i> , ...	ib.	viminea, ...	ib.
Genevii,	ib.	HIFTAGE, Madablotia, ...	170
syriacus,	ib.	obtusifolia, ...	ib.
<i>pallido-roseus</i> ,	ib.	HIREA, indica, ...	ib.
<i>roseo-plenus</i> ,	ib.	nutans, ...	ib.
<i>albo-plenus</i> ,	ib.	hirsuta, ...	ib.
panduriformis, ...	ib.	nepalensis, ...	ib.
cannabinus,	ib.	HOLAKHENA, antidyserterica, ...	524
vitifolius,	ib.	pubescens, ...	ib.
truncatus,	ib.	HOLCUS, mollis, ...	698
scandens,	ib.	lanatus, ...	699
Patersonii,	ib.	HOLIGARNA, longifolia, ...	271
heterophyllus, ...	118	racemosa, ...	ib.
diversifolius,	ib.	HOLMSKJOLDIA, sanguinea, ...	462
mutabilis,	ib.	HOLOSTEMMA, Rheedianum, ...	541
<i>plenus</i> ,	ib.	34.—HOMALIACEÆ, ...	64
collinus,	ib.	HOMALONEMA, aromaticum, ...	687
hirtus,	ib.	rubescens, ...	688
<i>albiflorus</i> , ...	ib.	HOMERIA, collina, ...	602
micranthus,	ib.	flexuosa, ...	603
palustris,	ib.	HOREA, odorata, ...	125
Sabdariffa,	ib.	faginea, ...	ib.
HIERACIUM, Pilosella, ...	432	HORDEUM, vulgare, ...	714
glomeratum,	ib.	hexastichon, ...	ib.
subaudum,	ib.	jubatum, ...	ib.
HIEROCHLOA, borealis, ...	699	distichon, ...	ib.
HIPPEASTRUM, aulicum,	583	murinum, ...	ib.
<i>platypetalum</i> ,	ib.	maritimum, ...	ib.
<i>glaucocephalum</i> ,	584	HOUTTUYNIA, cordata, ...	298



CSL

Index of Orders, Genera and Species.

xxvii

	Page.		Page.
HOVENIA, dulcis,	147	HYMENODICTYON, thyrsiflorum,	376
HOYA, pendula,	536	HYMENOPTRAMIS, brachiata,	472
<i>Rheedii</i> ,	ib.	HYOPHORBE, indica,	636
linearis,	ib.	HYOSCYAMUS, niger,	517
fusca,	ib.	<i>agrestis</i> , ...	ib.
pallida,	ib.	<i>albus</i> , ...	ib.
carnosa,	ib.	<i>canariensis</i> , ...	ib.
lanceolata,	ib.	HYOSERIS, microcephala,	428
<i>Pottsii</i> ,	ib.	<i>radiata</i> , ...	ib.
<i>viridiflora</i> ,	537	HYPOCHÆRIS, glabra,	429
65.—HUGONIACEÆ,	101	<i>radicata</i> , ...	ib.
HUGONIA, Mystax,	ib.	HYPOËSTES, purpurea,	492
77.—HUMIRIACEÆ,	138	HYPOXIS, ovata,	581
HUNTERIA, corymbosa,	532	<i>stellata</i> ,	ib.
HURA, crepitans,	161	<i>linearis</i> , ...	ib.
HUTCHINIA procumbens,	68	<i>obtusa</i> , ...	ib.
HYACINTHUS, orientalis,	662	<i>aquatica</i> , ...	ib.
HYALOSTEMMA, Roxburghianum,	16	HYPTIANTHERA, stricta,	382
HYDNOCARPUS, inebrians,	84	HYPTIS, pectinata,	450
<i>odoratus</i> ,	ib.	<i>radiata</i> , ...	ib.
HYDRANGEA, Hortensia,	267	HYSSOPUS, officinalis,	457
HYDRILLA, verticillata,	617		
HYDROCERA, triflora,	189	IBERIS, umbellata,	69
234.—HYDROCHARACEÆ,	617, 618	<i>amara</i> , ...	ib.
HYDROCOTYLE, asiatica,	20	<i>odorata</i> , ...	ib.
<i>rotundifolia</i> ,	ib.	<i>Lagascana</i> , ...	ib.
174.—HYDROLEACEÆ,	366	<i>violacea</i> , ...	ib.
HYDROLEA, zeylanica,	ib.	ICHNOCARPUS, frutescens,	523
194.—HYDROPHYLACEÆ.		<i>fragrans</i> , ...	ib.
THE WATERLEAF TRIBE,	439	ICICA, bengalensis,	149
HYDROPHYLAX, maritima,	395	ILEX, excelsa,	347
HYGROPHILA, obovata,	483	168.—ILICEACEÆ. THE HOLLY TRIBE,	347, 348
<i>radicans</i> ,	ib.	93.—ILLECEBRACEÆ. THE KNOT-GRASS TRIBE,	179, 180
HYGRYZA, ciliata,	710	ILLICIUM, florianum,	... 13
HYMENÆA, Courbaril,	252	145.—ILLIGERACEÆ,	311
HYMENOCALIS, speciosa,	594	IMBERICARIA, Commersonii,	341
<i>longi-petiolaria</i> ,	ib.	IMBROFIA, filifolia,	582
<i>amoena</i> ,	595	IMPATIENS, Balsamina,	189
<i>princeps</i> ,	ib.	<i>sylvestris</i> , ...	ib.
<i>ovata</i> ,	ib.	<i>hortensis</i> , ...	ib.
<i>caribæa</i> ,	ib.	<i>tripetala</i> , ...	ib.
<i>princeps</i> ,	ib.	IMPERATA, cylindrica,	704
<i>palens</i> ,	ib.	INDIGOFERA, linifolia,	211
<i>expansa</i> ,	ib.	<i>albiflora</i> , ...	ib.
<i>tenniflora</i> ,	ib.	<i>glandulosa</i> , ...	ib.
<i>angusta</i> ,	ib.	<i>enneaphylla</i> , ...	ib.
<i>pedalis</i> ,	ib.	<i>uniflora</i> , ...	ib.
<i>caymanensis</i> ,	ib.	<i>pentaphylla</i> , ...	ib.
<i>crassifolia</i> ,	ib.	<i>viscosa</i> , ...	ib.
<i>adnata</i> ,	ib.	<i>argentea</i> , ...	212
<i>princeps</i> ,	ib.	<i>paucifolia</i> , ...	ib.
<i>Dryandrina</i> ,	ib.	<i>tinctoria</i> , ...	ib.
<i>disticha</i> ,	ib.	<i>cœrulea</i> , ...	ib.
<i>acutifolia</i> ,	ib.	<i>polygonata</i> , ...	ib.
<i>Staplesiana</i> ,	596	<i>pulchella</i> , ...	ib.
<i>rotata</i> ,	ib.	<i>atropurpurea</i> , ...	ib.
<i>quadriflora</i> ,	ib.	<i>violacea</i> , ...	ib.
<i>disciformis</i> ,	ib.	<i>elliptica</i> , ...	ib.
<i>Spoofforthiae</i> ,	ib.	<i>arborea</i> , ...	ib.
<i>glaucia</i> ,	ib.		
HYMENOCHATE, grossa,	727		



SL

Index of Orders, Genera and Species.

	Page.		Page.
INDIGOFERA, uncinata,	212	IPOMEA, mucronata,	361
Dosua,	ib.	palmata,	ib.
trita,	ib.	Pes tigridis,	ib.
flaccida,	213	rubra,	ib.
hirsuta,	ib.	vitifolia,	ib.
Brunonianæ,	ib.	tuberosa,	ib.
INGA, dulcis,	257	hepaticifolia,	ib.
Unguis cati,	ib.	Buchananii,	ib.
xylocarpa,	ib.	lactea,	ib.
bigemina,	258	232.—IRIACEÆ.	THE IRIS
umbellata,	ib.	TRIBE,	601-614
Kawahurunee,	ib.	IRIS, persica,	603
Kæringa,	ib.	junccea,	ib.
umbrosa,	ib.	lusitanica,	ib.
anomala,	ib.	Xiphium,	ib.
madagascariensis,	ib.	xiphioïdes,	ib.
fasciculata,	ib.	tenuifolia,	ib.
INOCARPIUS, edulis,	305	ventricosa,	ib.
INTSIA, madagascariensis,	252	graminea,	ib.
polyandra,	ib.	verna,	ib.
INULA, Helenium,	410	prismaticæ,	ib.
IONIDIUM, sufruticosum,	77	sibirica,	ib.
IPOMEA, reptans,	355	moraoides,	ib.
Pes capræ,	356	Pseudacorus,	ib.
repens,	ib.	versicolor,	ib.
gangetica,	ib.	cuprea,	ib.
tridentata,	ib.	virginica,	ib.
fliformis,	ib.	spuria,	ib.
Turpethum,	357	Güldenstädtsiana,	604
lactea,	ib.	notha,	ib.
straminea,	ib.	spathulata,	ib.
pileata,	ib.	desertorum,	ib.
atropurpurea,	ib.	ochroleuca,	ib.
barbata,	ib.	germanica,	ib.
hispida,	ib.	floreætina,	ib.
leucantha,	ib.	pallida,	ib.
polyanthes,	ib.	squalens,	ib.
ochracea,	358	lurida,	ib.
sidæfolia,	ib.	dichotoma,	ib.
staphylina,	ib.	subbiflora,	ib.
cymosa,	ib.	chinensis,	ib.
pilosa,	ib.	susiana,	ib.
striata,	ib.	nepalensis,	ib.
carnea,	ib.	variegata,	ib.
corymbosa,	ib.	hungarica,	605
cordifolia,	ib.	pumila,	ib.
obscura,	359	lutescens,	ib.
stipulacea,	ib.	ISATIS, tinctoria,	70
platanifolia,	ib.	lusitanica,	ib.
pilosa,	ib.	ISEPMUM, aristatum,	708
dentata,	ib.	rugosum,	ib.
Wightii,	ib.	ISMENE, Amancaës,	596
lacunosa,	ib.	calathina,	ib.
macrorrhiza,	ib.	nutans,	ib.
rubra,	360	IsoëTES, capsularis,	738
trichophora,	ib.	ISOLEPIS, squarrosa,	726
coptica,	ib.	setacea,	ib.
heptaphylla,	ib.	supina,	ib.
tuberculata,	ib.	prolongata,	727
pedata,	ib.	articulata,	ib.
sinuata,	361	incurvata,	ib.



CSL

Index of Orders, Genera and Species.

xxix

	Page.		Page.
<i>ISOPYRUM</i> , <i>fumarioïdes</i> ,	3	<i>JASMINUM</i> , <i>aristatum</i> ,	550
<i>ISORA</i> , <i>corylifolia</i> ,	102	<i>bracteatum</i> ,	ib.
<i>ITEA</i> , <i>virginica</i> ,	26	<i>bifarium</i> ,	ib.
<i>IXIA</i> , <i>capillaris</i> ,	611	<i>latifolium</i> ,	ib.
<i>aulica</i> ,	ib.	<i>arborescens</i> ,	551
<i>flexuosa</i> ,	ib.	<i>angustifolium</i> ,	ib.
<i>rubriflora</i> ,	ib.	<i>simplicifolium</i> ,	ib.
<i>violacea</i> ,	ib.	<i>gracile</i> ,	ib.
<i>aristata</i> ,	ib.	<i>syringaefolium</i> ,	ib.
<i>monadelpha</i> ,	ib.	<i>ligustrifolium</i> ,	ib.
<i>columellaris</i> ,	ib.	<i>attenuatum</i> ,	ib.
<i>maculata</i> ,	612	<i>lanceæfolium</i> ,	ib.
<i>ochroleuca</i> ,	ib.	<i>auriculatum</i> ,	ib.
<i>crateroides</i> ,	ib.	<i>azoricum</i> ,	ib.
<i>scillaris</i> ,	ib.	<i>lonchophyllum</i> ,	ib.
<i>patens</i> ,	ib.	<i>paniculatum</i> ,	ib.
<i>leucantha</i> ,	ib.	<i>dispermum</i> ,	552
<i>conica</i> ,	ib.	<i>fruticans</i> ,	ib.
<i>erecta</i> ,	ib.	<i>odoratissimum</i> ,	ib.
<i>viridiflora</i> ,	ib.	<i>heterophyllum</i> ,	ib.
<i>IXORA</i> , <i>coccinea</i> ,	389	<i>macrophyllum</i> ,	ib.
<i>Bhanduka</i> ,	ib.	<i>caudatum</i> ,	ib.
<i>stricta</i> ,	ib.	<i>grandiflorum</i> ,	ib.
<i>incarnata</i> ,	390	<i>plenum</i> ,	ib.
<i>alba</i> ,	ib.	<i>chrysanthemum</i> ,	ib.
<i>lanceolata</i> ,	ib.	<i>pubigerum</i> ,	ib.
<i>Notoniiana</i> ,	ib.	<i>approximatum</i> ,	ib.
<i>rosea</i> ,	ib.	<i>calycinum</i> ,	ib.
<i>cuneifolia</i> ,	ib.	<i>molle</i> ,	ib.
<i>barbata</i> ,	ib.	<i>JATROPHA</i> , <i>panduræfolia</i> ,	158
<i>undulata</i> ,	ib.	<i>Curcas</i> ,	ib.
<i>acuminata</i> ,	ib.	<i>multifida</i> ,	159
<i>parviflora</i> ,	ib.	<i>glandulifera</i> ,	ib.
<i>brachiata</i> ,	391	<i>carnosa</i> ,	ib.
<i>villosa</i> ,	ib.	<i>JOBNIA</i> , <i>Wightii</i> ,	ib.
<i>Colebrookii</i> ,	ib.	<i>JOLLIPIA</i> , <i>africana</i> ,	59
<i>erythrostylis</i> ,	ib.	<i>JONESIA</i> , <i>Asoca</i> ,	246
<i>subsessilis</i> ,	ib.	<i>scandens</i> ,	247
<i>opaca</i> ,	ib.	<i>JOSINIA</i> , <i>buxifolia</i> ,	46
<i>pallens</i> ,	ib.	124.— <i>JUGLANDACEÆ</i> . THE	
<i>fasciculata</i> ,	ib.	<i>WALNUT TRIBE</i> ,	296
<i>longiflora</i> ,	ib.	<i>JUGLANS regia</i> ,	ib.
<i>JACQUEMONTIA</i> , <i>bastigera</i> ,	363	247.— <i>JUNCACEÆ</i> . THE RUSH	
<i>JACQUINIA</i> , <i>ruscifolia</i> ,	339	TRIBE,	681
<i>JANIPHA</i> , <i>Yuquilla</i> ,	158	<i>JUNIPERUS</i> , <i>communis</i> ,	558
<i>Manihot</i> ,	ib.	<i>chinensis</i> ,	ib.
219.— <i>JASMINACEÆ</i> . THE		<i>aquatica</i> ,	ib.
JASMINE TRIBE,	549-553	<i>cernua</i> ,	ib.
<i>JASMINUM</i> , <i>Sambac</i> ,	549	<i>cæsia</i> ,	ib.
<i>simplex</i> ,	ib.	<i>patens</i> ,	ib.
<i>duplex</i> ,	550	<i>bermudiana</i> ,	ib.
<i>plenum</i> ,	ib.	<i>barbadensis</i> ,	ib.
<i>scandens</i> ,	ib.	<i>Sabina</i> ,	559
<i>elongatum</i> ,	ib.	<i>JURINEA</i> , <i>alata</i> ,	426
<i>hirsutum</i> ,	ib.	<i>JUSSIEUA</i> , <i>repens</i> ,	33
<i>laurifolium</i> ,	ib.	<i>villosa</i> ,	ib.
<i>glandulosum</i> ,	ib.	<i>JUSTICIA</i> , <i>Ecbolium</i> ,	490
<i>coarctatum</i> ,	ib.	<i>dentata</i> ,	ib.
<i>trinerve</i> ,	ib.	<i>calycotricha</i> ,	ib.
<i>stenopetalum</i> ,	ib.	<i>KALANCHOË</i> , <i>acutiflora</i> ,	268



SL

Index of Orders, Genera and Species.

	Page.		Page.
KALANCHOË, <i>laciniata</i> , ...	268	LACHENALIA, <i>tricolor</i> , ...	664
<i>heterophylla</i> , ...	ib.	<i>pendula</i> , ...	ib.
<i>teretifolia</i> , ...	ib.	127.—LACISTEMACEÆ,	298
<i>varians</i> , ...	ib.	LAUTUCA, <i>sativa</i> ,	... 430
KÄMFFERA, <i>Gálanga</i> , ...	566	<i>Heyneana</i> , ...	ib.
<i>rotunda</i> , ...	ib.	LAGASCA, <i>mollis</i> ,	... 406
<i>Roxburghiana</i> , ...	ib.	LAGENARIA, <i>vulgaris</i> , ...	57
<i>angustifolia</i> , ...	ib.	LAGERSTRÖMIA, <i>indica</i> ,	... 131
<i>pandurata</i> , ...	ib.	<i>rosea</i> , ...	ib.
<i>ovalifolia</i> , ...	ib.	<i>lilacina</i> , ...	ib.
<i>marginata</i> , ...	ib.	<i>alba</i> , ...	ib.
<i>candida</i> , ...	567	<i>parviflora</i> , ...	ib.
<i>Roseoeana</i> , ...	ib.	<i>Reginæ</i> , ...	ib.
<i>parviflora</i> , ...	ib.	<i>macrocarpa</i> , ...	132
KANDELIA, <i>Rheedii</i> , ...	41	<i>elegans</i> , ...	ib.
KARIYA, <i>umbellata</i> , ...	55	LAGUNEA, <i>lobata</i> ,	... 115
KAYEA, <i>floribunda</i> , ...	88	LAGURUS, <i>ovatus</i> ,	... 713
KENNEDYA, <i>monophylla</i> , ...	228	LAMARCKIA, <i>aurea</i> ,	... 717
<i>longeracemosa</i> , ...	ib.	197.—LAMIACEÆ. THE MINT	
<i>prostrata</i> , ...	ib.	TRIBE,	... 447-464
KERIA, <i>japonica</i> , ...	197	LAMPSANA, <i>communis</i> ,	... 428
<i>plena</i> , ...	ib.	<i>grandiflora</i> , ...	ib.
KLEINHOVIA, <i>Hospita</i> , ...	109	LANSIUM, <i>domesticum</i> ,	... 135
KNIPHOFIA, <i>Uvaria</i> , ...	657	LANTANA, <i>acutata</i> ,	... 472
<i>media</i> , ...	ib.	<i>nivea</i> ,	... ib.
<i>pumila</i> , ...	ib.	<i>mutabilis</i> , ...	ib.
KNOXIA, <i>corymbosa</i> , ...	395	<i>odorata</i> , ...	ib.
<i>laevis</i> , ...	ib.	<i>trifolia</i> , ...	ib.
KÖLREUTERA, <i>paniculata</i> , ...	96	<i>indica</i> , ...	ib.
KONIGA, <i>maritima</i> , ...	68	<i>Gogchana</i> , ...	ib.
61.—KRAMERIACEÆ,	98, 99	<i>canescens</i> , ...	ib.
KHUBERA, <i>leptophylla</i> , ...	23	<i>Selloviana</i> , ...	ib.
KURRIMIA, <i>macrophylla</i> , ...	167	LAPPA, <i>tomentosa</i> ,	... 426
KYDIA, <i>calycina</i> , ...	108	<i>minor</i> , ...	ib.
<i>fraterna</i> , ...	ib.	159.—LARDIZABALACEÆ,	332
KYLLINGA, <i>monocephala</i> , ...	724	LATANIA, <i>borbónica</i> ,	... 640
<i>triceps</i> , ...	ib.	LATHYRUS, <i>palustris</i> ,	... 227
LABLAS, <i>vulgare</i> , ...	233	<i>Aphaca</i> , ...	ib.
<i>dumetorum</i> , ...	ib.	<i>Nissolia</i> , ...	ib.
<i>sepiarium</i> , ...	ib.	<i>sativus</i> , ...	ib.
<i>Annapa</i> , ...	ib.	<i>annuus</i> , ...	ib.
<i>albiflorum</i> , ...	ib.	<i>hirsutus</i> , ...	ib.
<i>rubriflorum</i> , ...	ib.	<i>odoratus</i> , ...	ib.
<i>purpurascens</i> , ...	ib.	<i>tingitanus</i> , ...	ib.
<i>purpureum</i> , ...	ib.	<i>articulatus</i> , ...	ib.
<i>culturatum</i> , ...	ib.	<i>cornutus</i> , ...	ib.
<i>rectum</i> , ...	234	144.—LAURACEÆ. THE CIN-	
<i>falcatum minus</i> , ...	ib.	NAMON TRIBE, ...	306-311
<i>falcatum majus</i> , ...	ib.	LAURUS, <i>dobilis</i> ,	... 310
<i>gladiatum, flore albo</i> , ...	ib.	LAVANDULA, <i>spica</i> ,	... 450
<i>gladiatum, flore pur-</i>		LAWSONIA, <i>alba</i> ,	... 131
<i>pureo</i> , ...	ib.	LECONTEA, <i>Bojeriana</i> ,	... 388
<i>macrocarpum</i> , ...	ib.	26.—LECYTHIDACEÆ,	... 52
LACHENALIA, <i>hyacinthoides</i> , ...	663	LESDEBOURIA, <i>hyacurthoides</i> ,	647
<i>foliis maculatis</i> , ...	ib.	LEEA, <i>macrophylla</i> ,	... 29
<i>angustifolia</i> , ...	ib.	<i>crispa</i> , ...	ib.
<i>orchioïdes</i> , ...	ib.	<i>robusta</i> , ...	ib.
<i>pallida</i> , ...	ib.	<i>hirta</i> , ...	30
<i>pustulata</i> , ...	ib.	<i>Staphylia</i> , ...	ib.
<i>violacea</i> , ...	664	<i>sambucina</i> , ...	ib.
		<i>parallelæ</i> , ...	ib.



CSL

Index of Orders, Genera and Species.

xxxii

	<i>Page.</i>		<i>Page.</i>
LEEA, sanguinea,	30	LIMNOPHILA, albiflora,	502
252.—LEMNACEÆ. THE DUCK-WEED TRIBE,	692	LIMONIA, acidissima,	139
LEMNA, orbiculata,	692	angulata,	ib.
cruciata,	ib.	caudata,	ib.
obcordata,	ib.	grata,	ib.
LEONOTIS, nepetæfolia,	462	alternans,	ib.
Leonurus,	ib.	64.—LINACEÆ. THE FLAX TRIBE,	100, 101
LEONTODON, hastilis,	429	LINARIA, ramosissinia,	498
caucasicus,	430	triphylla,	ib.
LEONURUS, Cardiaca,	459	vulgaris,	ib.
villosum,	ib.	spartea,	ib.
sibiricus,	460	juncea,	ib.
LEPIDAGATHIS, fasciculata,	486	bipartita,	ib.
hyalina,	ib.	purpurea,	ib.
ustulata,	ib.	LINDENBERGIA, ruderalis,	501
cristata,	ib.	LINDSEA, odorata,	735
LEPIDIUM, glastifolium,	70	LINOCIERA, dichotoma,	547
sativum,	ib.	ramiflora,	548
campestre,	ib.	macrophylla,	ib.
ruderale,	ib.	purpurea,	ib.
incisum,	ib.	LINOSTOMA, decandrum,	305
LEPIDOSTACHYS, Roxburghii,	278	LINUM, gallicum,	100
LEPTOCARPAE, Löselii,	67	luteolum,	ib.
LEPTADENIA, spartea,	538	narbonense,	ib.
LEPTODERMIS, lanceolata,	387	usitatissimum,	ib.
LESPEDEZA, juncea,	224	angustifolium,	ib.
LEUCANTHEMUM, vulgare,	418	bicolor,	ib.
LEUCAS, mollissima,	461	catharticum,	ib.
pilosa,	ib.	tetracynum,	ib.
procumbens,	ib.	trigynum,	ib.
stelligera,	ib.	LIPARIS, bracteata,	620
aspera,	ib.	concinna,	ib.
cephalotes,	ib.	anceps,	ib.
martinicensis,	ib.	cylindrostachya,	ib.
linifolia,	462	canaliculata,	ib.
Leucojum, aestivum,	581	odorata,	ib.
vernun,	ib.	LIFEACERCIS, serrata,	705
pulchellum,	ib.	LIRIOPE, japonica,	649
trichophyllum,	ib.	spicata,	650
autumnale,	ib.	latifolia,	ib.
LIBERTIA, formosa,	601	Wightiana,	ib.
LICUALA, peltata,	641	LITHOSPERMUM, arvense,	442
spinosa,	ib.	tenuiflorum,	ib.
LIGUSTRUM, japonicum,	548	LIVISTONA, mauritiana,	641
243.—LILIACEÆ. THE LILY TRIBE,	653-676	32.—LOASACEÆ,	60
LILIU, candidam,	654	175.—LOBELIACEÆ,	367, 368
nepalense,	ib.	LOBELIA, persicifolia,	367
giganteum,	ib.	zeylanica,	ib.
Wallichianum,	ib.	triangulata,	ib.
104.—LIMNANTHACEÆ,	193	eurostos,	ib.
LIMNOCHLOA, plantaginea,	727	LOCHENNIA, supina,	109
bulbifera,	ib.	corchorifolia,	ib.
tumida,	ib.	216.—LAGANIACEÆ,	545
acutangula,	728	Lomaria, scandens,	735
LIMNOPHILA, heterophylla,	502	LOMATOPHYLLUM, borbonicum,	661
gratioloides,	ib.	LONAS, inodora,	419
myriophyloides,	ib.	183.—LONICERACEÆ. THE HONEY-SUCKLE TRIBE,	397-399
Roxburghii,	ib.	LONICERA, Periclymenum,	397
racemosa,	ib.	semperflorens,	ib.



SL

	Page.		Page.
LONICERA, minor,	397	74.— LYTHRACEÆ. THE LOOSESTRIFE TRIBE,	129-132
macrantha, ...	ib.	LYTHRUM, Salicaria,	... 130
japonica, ...	ib.	virgatum, ...	ib.
Leschenaultii, ...	398	 	
LOPEZIA, racemosa,	34	MABA, buxifolia,	... 246
LOPHOSPERMUM, erubescens,	499	MACARANIA, Roxburghii,	159
30.— LORANTHACEÆ,	53	MACHLIS, hemisphaerica,	... 420
LORANTHUS, longiflorus,	54	MACLURA, tinctoria,	... 290
globosus, ...	ib.	Calcar galli, ...	291
LORENTEA, humifusa, ...	406	MADIA, sativa, ...	417
LOTUS, ornithopodioides,	210	MESA, ramentacea, ...	338
peregrinus, ...	ib.	nemoralis, ...	ib.
jacobaeus, ...	ib.	lanceolata, ...	ib.
diffusus, ...	ib.	argentea, ...	ib.
odoratus, ...	ib.	macrophylla, ...	ib.
LOUREA, Vespertilionis,	220	6.— MAGNOLIACEÆ,	11-13
LOXONIA, alata,	480	MAGNOLIA, obovata,	... 12
LUCULIA, gratissima, ...	375	discolor, ...	ib.
LUCUMA, mammosa,	340	conspicua, ...	ib.
LUDWIGIA, parviflora, ...	34	MALACHRA, capitata, ...	112
prostrata, ...	ib.	heptaphylla, ...	ib.
LUCCA, pentandra,	56	MALCOLMIA, maritima, ...	69
amara, ...	ib.	africana, ...	ib.
factida, ...	ib.	MALLEA, Rothii,	... 134
amara, ...	57	integerima, ...	ib.
clavata, ...	ib.	88.— MALPIGHIACEÆ. THE BARBADOES CHERRY TRIBE,	169-171
graveolens, ...	ib.	MALPIGIA, coccifera, ...	170
LUMNITZERA, racemosa, ...	39	punicifolia, ...	ib.
littorea, ...	ib.	glabra, ...	ib.
LUPINUS, pilosus,	208	70.— MALVACEÆ. THE MALLOW TRIBE,	111-122
varius, ...	ib.	MALVA, americana,	... 111
luteus, ...	ib.	polystachys, ...	ib.
LUVUNGA, scandens,	140	hispanica, ...	ib.
LYCHNIS, Viscaria,	177	stipulacea, ...	112
Cœli rosa,	ib.	mauritiana, ...	ib.
dioeca, ...	ib.	rotundifolia, ...	ib.
indica, ...	ib.	verticillata, ...	ib.
LYCIUM, afrum,	509	caroliniana, ...	ib.
barbarum, ...	ib.	MAMMEA, americana,	... 87
LYCOFERDON, pratense,	743	MAMILLARIA, simplex,	61
LYCOPERSICUM, esculentum,	513	pusilla, ...	ib.
cerasiforme, ...	ib.	stellata, ...	ib.
Humboldtiæ, ...	ib.	coronaria, ...	ib.
270.— LYCOPODIACEÆ. THE CLUB-MOSS TRIBE,	738, 739	flavescens, ...	ib.
LYCOPodium, Hookeri,	738	MANETTIA, cordifolia,	... 376
Wildenowii, ...	ib.	226.— MARANTACEÆ. THE ARROW-ROOT TRIBE,	574-577
cernuum, ...	ib.	MARANTA, arundinacea,	... 575
Phlegmaria, ...	ib.	ramosissima, ...	ib.
imbricatum, ...	ib.	dichotoma, ...	ib.
aristatum, ...	ib.	virgata, ...	ib.
LYCOPSIS, arvensis,	443	bicolor, ...	ib.
LYCORUS, exaltatus,	453	54.— MARCGRAVIACEÆ,	89
LYCORIS, aurea,	586	274.— MARCHANTIACEÆ. THE LIVER-WORT TRIBE,	741
radiata, ...	587	MARIGNIA, obtusifolia,	150
LYGODIUM, microphyllum,	736	MARISCUS, cyperinus,	... 724
circinatum, ...	737	dilutus, ...	ib.
flexuosum, ...	ib.		
longifolium, ...	ib.		
182.— LYGODYSODEACEÆ,	396		



Index of Orders, Genera and Species.

xxxiii

SL

	<i>Page.</i>		<i>Page.</i>
MARJORANA, hortensis,	... 456	MELILOTUS, arvensis,	... 210
MARRUBIUM, supinum,	461	<i>albiflora</i> , ...	ib.
<i>vulgare</i> ,	... ib.	<i>sulcata</i> ,	... ib.
MASDENIA, tinctoria, ...	537	MELISSA, Acinos,	... 457
<i>tenacissima</i> ,	... ib.	<i>repens</i> ,	... ib.
<i>Genevii</i> ,	... ib.	<i>officinalis</i> ,	... ib.
271.—MARSILEACEÆ. THE PEPPER-WORT TRIBE,	... 789	MELOCHIA, pyramidata,	... 109
MARSILEA, quadrifolia, ...	ib.	MELODINUS, monogynus,	530
MARTYNIA, diandra,	... 475	23.—MEMECYLACEÆ,	42, 43
MARUTA, Cotula,	... 417	MEMECYLON, ramiflorum,	... ib.
<i>fusca</i> ,	... ib.	<i>capitellatum</i> ,	... ib.
MATHIOLA, annua,	... 67	158.—MENISPERMACEÆ. THE COCCULUS TRIBE,	329-332
<i>longipetalum</i> ,	... ib.	MENISPERMUM, canadense,	... 331
<i>parviflora</i> ,	... ib.	MENTHA, sylvestris,	... 452
186.—MATRICARIACEÆ, 400-433		<i>vulgaris</i> ,	... ib.
MATRICARIA, suaveolens,	... 418	<i>viridis</i> ,	... ib.
MAURANDYA, Barclayana,	499	<i>piperita</i> ,	... 453
<i>semperflorens</i> ,	... ib.	<i>arvensis</i> ,	... ib.
<i>antirrhiniflora</i> , ...	ib.	<i>vulgaris</i> ,	... ib.
MAXILLARIA, Parkeri,	... 626	MERCURIALIS, annua,	160
<i>picta</i> ,	... ib.	MERIANDRA, strobilifera,	... 453
<i>Harrisoniae</i> ,	... ib.	<i>bengalensis</i> ,	... ib.
<i>densa</i> ,	... ib.	METHONICA, superba,	... 655
<i>variabilis</i> ,	... ib.	METROSIDEROS, verus,	46
<i>unipunctata</i> ,	ib.	MEYENIA, Hawtayneana,	... 482
MEDICAGO, circinata, ...	208	<i>albiflora</i> ,	... ib.
<i>radiata</i> ,	... ib.	MEZONEURUM, cacullatum,	... 245
<i>sativa</i> ,	... ib.	<i>enneaphyllum</i> ,	... ib.
<i>apiculata</i> ,	... ib.	<i>sumatranum</i> ,	... ib.
<i>denticulata</i> ,	... ib.	MICHELLA, Dolisopa,	11
<i>Terebellum</i> ,	... ib.	Champaca,	... 12
<i>maculata</i> ,	... 209	Kisop,	... ib.
<i>ciliaris</i> ,	... ib.	aurantiaca,	... ib.
MEDINILLA, erythrophylla,	44	fuscata,	... ib.
MEGACLINIUM, falcatum,	... 621	oblonga,	... ib.
<i>maximum</i> ,	... ib.	MICROGLOSSA, sessilifolia,	408
MEIZOTROPIS, buteæformis,	... 239	MICROMELUM, integerrimum,	... 140
MELALEUCA, Cajuputi,	45	MICROPERA, pallida,	... 630
Leucadendron,	... ib.	MICRORRHYNCHUS, asplenifo-	
<i>nodosum</i> ,	... ib.	lii,	... 431
24.—MELASTOMACEÆ,	43-45	MICROTROPIS, garcinifolia,	... 167
MELASTOMA, malabathricum,	... 43	MILLETTIA, elliptica,	... 240
<i>amoenum</i> ,	... 44	piscidia,	... ib.
MELANORHÆA, usitatissima,	... 273	58.-S. O. MILLINGTONIEÆ, 96, 97	
239.—MELANTHACEÆ. THE COLCHICUM TRIBE,	... 645-647	MILNEA, edulis,	... 134
MELANTHIUM, junceum,	... 646	MIMOSA, sensitiva,	... 256
MELHANIA, Hamiltoniana,	107	pudica,	... 257
75.—MELIACEÆ. THE BEAD-TREE TRIBE,	... 132-136	hamata,	... ib.
MELIA, composita,	... 133	asperata,	... ib.
<i>robusta</i> ,	... ib.	rubicaulis,	... ib.
<i>Azedarach</i> ,	... ib.	mutabilis,	... ib.
<i>Bukayun</i> ,	... ib.	MIMOSOPS, Elengi,	... 341
MELICA, uniflora,	... 717	Kauki,	... ib.
MELIOGCCA, bijuga,	... 96	hexandrus,	... ib.
MELILOTUS, officinalis,	... 209	Erythroxylon,	... ib.
<i>leucantha</i> ,	... ib.	MINUARTIA, dichotoma,	178
<i>parviflora</i> ,	... ib.	MIRABILIS, Jalapa,	... 328
<i>italica</i> ,	... 210	<i>kermesina</i> ,	... ib.
		<i>kermesino-alba</i> ,	... ib.
		<i>alba</i> ,	... ib.



	Page.		Page.
MIRABILIS, <i>flava</i> ,	328	42.—MORINGACEÆ. THE HORSE	
<i>flavo-alba</i> , ...	ib.	RADISH-TREE TRIBE, ...	78, 79
<i>longiflora</i> , ...	ib.	MORINGA, <i>pterygosperma</i> ,	78
MOACURRA, <i>geloniooides</i> ,	148	<i>rubriflora</i> , ...	79
MODECCA, <i>palmata</i> ,	81	MORUS, <i>alba</i> ,	283
<i>dubia</i> ,	82	<i>nigra</i> , ...	ib.
<i>trilobata</i> ,	ib.	<i>atropurpurea</i> , ...	ib.
<i>furfuracea</i> ,	ib.	<i>rubra</i> , ...	ib.
<i>extensa</i> ,	ib.	<i>indica</i> , ...	ib.
MOLLUCO, <i>pentaphylla</i> , ...	180	<i>tatarica</i> , ...	284
<i>triphylla</i> ,	ib.	<i>paniculata</i> , ...	ib.
<i>Spergula</i> ,	ib.	<i>serrata</i> , ...	ib.
MOMORDICA, <i>Charantia</i> ,	56	<i>multicaulis</i> ,	ib.
<i>muricata</i> ,	ib.	<i>scandens</i> , ...	ib.
<i>dioeca</i> ,	ib.	<i>bifaria</i> , ...	ib.
<i>cochininchinensis</i> ,	ib.	MOSCHOSMA, <i>polystachya</i> ,	449
MONARDA, <i>fistulosa</i> ,	456	MUCUNA, <i>monosperma</i> ,	235
<i>punctata</i> ,	ib.	<i>atropurpurea</i> , ...	ib.
MONARRHENUS, <i>salicifolius</i> ,	410	<i>gigantea</i> , ...	ib.
MONETIA, <i>tetracantha</i> ,	348	<i>pruritus</i> , ...	ib.
134.—MONIMIACEÆ,	302	<i>utilis</i> , ...	ib.
MONOCÉEA, <i>rugosa</i> ,	122	<i>capitata</i> , ...	236
<i>Roxburghii</i> ,	ib.	<i>nivea</i> , ...	ib.
MONOCYCLIS, <i>robusta</i> ,	135	<i>imbricata</i> , ...	ib.
MONOLOPHUS, <i>secundus</i> ,	372	<i>bracteata</i> , ...	ib.
<i>linearis</i> ,	ib.	MUKJA, <i>scabrella</i> , ...	55
<i>elegans</i> ,	ib.	MUNRONIA, <i>Wallichii</i> ,	133
MONSONIA, <i>pilosa</i> ,	187	MURDANNIA, <i>scapiflora</i> ,	678
<i>speciosa</i> ,	ib.	MURRAYA, <i>exotica</i> ,	139
MONTBRETIA, <i>viridis</i> ,	610	<i>paniculata</i> , ...	140
<i>crispa</i> ,	ib.	<i>sumatrana</i> , ...	ib.
<i>rosea</i> ,	ib.	MURUCUÍA, <i>ocellata</i> ,	81
<i>longiflora</i> ,	ib.	227.—MUSACEÆ. THE BANANA	
<i>striata</i> ,	ib.	TRIBE, ...	578, 579
<i>lineata</i> ,	ib.	MUSA, <i>paradisiaca</i> ,	578
<i>securigera</i> ,	ib.	<i>rosacea</i> , ...	ib.
<i>squalida</i> ,	611	<i>superba</i> , ...	579
<i>crocata</i> ,	ib.	<i>nepalensis</i> , ...	ib.
<i>fenestrata</i> ,	ib.	<i>glaucia</i> , ...	ib.
<i>miniata</i> ,	ib.	<i>textilis</i> , ...	ib.
<i>deusta</i> ,	ib.	<i>coccinea</i> , ...	ib.
<i>concolor</i> ,	ib.	<i>rubra</i> , ...	ib.
<i>tenuiflora</i> ,	ib.	<i>chinensis</i> , ...	ib.
<i>capensis</i> ,	ib.	MUSCARI, <i>moschatum</i> ,	662
MONTEZUMA, <i>speciosissima</i> ,	106	<i>botryoides</i> , ...	ib.
MORÆA, <i>ciliata</i> ,	602	MUSSÆNDÀ, <i>frondosa</i> ,	377
<i>papilionacea</i> ,	ib.	<i>corymbosa</i> , ...	ib.
<i>edulis</i> ,	ib.	<i>macrophylla</i> , ...	ib.
<i>longiflora</i> ,	ib.	MYAGRUM, <i>perfoliatum</i> ,	70
<i>ramosa</i> ,	ib.	MYOGALUM, <i>nutans</i> ,	667
<i>tristis</i> ,	ib.	MYONIMA, <i>obovata</i> ,	387
<i>viscaria</i> ,	ib.	<i>multiflora</i> , ...	ib.
<i>bituminosa</i> ,	ib.	199.—MYOPORACEÆ,	474
<i>Gawleri</i> ,	ib.	MYOPORUM, <i>acuminatum</i> ,	ib.
MORINDA, <i>citrifolia</i> ,	385	<i>debile</i> , ...	ib.
<i>tinctoria</i> ,	386	MYOSOTIS, <i>arvensis</i> ,	443
<i>bracteata</i> ,	ib.	123.—MYRICACEÆ. THE GALE	
<i>exserta</i> ,	ib.	TRIBE, ...	295, 296
<i>multiflora</i> ,	ib.	MYRICA, <i>integrifolia</i> ,	295
<i>angustifolia</i> ,	ib.	<i>sapida</i> , ...	ib.
<i>vagans</i> ,	ib.	MYRIOGYNE, <i>minuta</i> ,	420



64
SL

Index of Orders, Genera and Species.

XXXV

	Page.		Page.
MYROGYNE, <i>lanuginosa</i> ,	420	NEPHELIUM, <i>Lichi</i> ,	95
MYRIONEURON, <i>nutans</i> ,	396	<i>rimosum</i> ,	ib.
MYRIOPHYLLUM, <i>verticillatum</i> ,	35	<i>lappaceum</i> ,	ib.
<i>indicum</i> ,	ib.	<i>Longan</i> ,	ib.
<i>tetrandrum</i> ,	ib.	<i>rubrum</i> ,	ib.
<i>tuberculatum</i> ,	ib.	<i>verticillatum</i> ,	ib.
5.—MYRISTICACEÆ. THE NUTMEG TRIBE,	10, 11	<i>variabile</i> ,	ib.
MYRISTICA, <i>moschata</i> ,	10	NERINE, <i>curvifolia</i> ,	587
<i>tomentosa</i> ,	ib.	<i>corusca</i> ,	ib.
<i>peltata</i> ,	ib.	<i>venusta</i> ,	ib.
<i>spicata</i> ,	ib.	<i>sarniensis</i> ,	ib.
<i>parviflora</i> ,	11	<i>rosea</i> ,	ib.
165.—MYRSINACEÆ,	335-339	<i>flexuosa</i> ,	ib.
MYRSINE, <i>bifaria</i> ,	336	<i>pulchella</i> ,	ib.
<i>semiserrata</i> ,	ib.	<i>lucida</i> ,	ib.
<i>capitellata</i> ,	ib.	<i>humilis</i> ,	ib.
<i>melanophleos</i> ,	ib.	<i>undulata</i> ,	ib.
25.—MYRTACEÆ. THE MYRTLE TRIBE,	45-51	<i>versicolor</i> ,	ib.
MYRTUS, <i>communis</i> ,	46	NERIUM, <i>odorum</i> ,	524
<i>tomentosa</i> ,	ib.	<i>albo-simplex</i> ,	ib.
<i>melastomoides</i> ,	47	<i>roseolo-simplex</i> ,	ib.
254.—NAJACEÆ,	693-695	<i>roseo-plenum</i> ,	525
NAJAS, <i>dichotoma</i> ,	694	<i>albo-plenum</i> ,	ib.
<i>indica</i> ,	ib.	NESAEA, <i>triflora</i> ,	130
<i>seminuda</i> ,	ib.	<i>octandra</i> ,	ib.
<i>heteromorpha</i> ,	ib.	<i>myrtifolia</i> ,	ib.
NANDINA, <i>domestica</i> ,	27	NEUROCARPUM, <i>erectum</i> ,	213
NAPÆA, <i>lævis</i> ,	114	31.—S. O. NHANDIROBEÆ,	60
NARAVELIA, <i>Zeylanica</i> ,	2	NICANDRA, <i>physaloides</i> ,	514
NARCISSUS, <i>Tazetta</i> ,	596	NICOTIANA, <i>Tabacum</i> ,	516
NARDOSTACHYS, <i>Jatamansi</i> ,	435	<i>paniculata</i> ,	ib.
NASTURTIUM, <i>officinale</i> ,	67	<i>fruticosa</i> ,	ib.
<i>coronopifolium</i> ,	ib.	<i>rustica</i> ,	ib.
NAUCLEA, <i>undulata</i> ,	374	<i>plumbaginifolia</i> ,	ib.
<i>coadunata</i> ,	ib.	<i>bonariensis</i> ,	ib.
<i>macrophylla</i> ,	375	<i>quadrivalvis</i> ,	ib.
<i>ovalifolia</i> ,	ib.	<i>glutinosa</i> ,	ib.
<i>Cadamba</i> ,	ib.	NIEBUHRIA, <i>linifolia</i> ,	74
<i>parvifolia</i> ,	ib.	<i>oblongifolia</i> ,	ib.
<i>cordifolia</i> ,	ib.	NIGELLA, <i>sativa</i> ,	4
<i>sessilifructus</i> ,	ib.	<i>indica</i> ,	ib.
<i>scandens</i> ,	ib.	<i>hispanica</i> ,	ib.
<i>capitellata</i> ,	ib.	<i>orientalis</i> ,	ib.
NEGUNDO, <i>fraxinifolium</i> ,	92	<i>damascena</i> ,	ib.
NELITRIS, <i>paniculata</i> ,	46	NIPA, <i>fruticans</i> ,	684
NELSONIA, <i>tomentosa</i> ,	482	169.—NOLANACEÆ,	348, 349
<i>lamifolia</i> ,	ib.	NOLANA, <i>triplicifolia</i> ,	348
4.—NELUMBIACEÆ. THE SAKRED BEAN TRIBE,	9	<i>prostrata</i> ,	ib.
NELUMBINUM, <i>speciosum</i> ,	ib.	<i>paradoxa</i> ,	ib.
<i>rubrum</i> ,	ib.	<i>tenella</i> ,	349
<i>album</i> ,	ib.	NORONHIA, <i>emarginata</i> ,	548
148.—NEPENTHACEÆ. THE PITCHER-PLANT TRIBE,	312	NORYSCA, <i>chinensis</i> ,	90
NEPENTHES, <i>distillatoria</i> ,	ib.	<i>cernua</i> ,	ib.
NEPETA, <i>rudereralis</i> ,	458	<i>patula</i> ,	ib.
<i>ciliaris</i> ,	459	NOTHOLÄNA, <i>piloselloides</i> ,	734
<i>madagascariensis</i> ,	ib.	NOTHOLIRION, <i>roseum</i> ,	654
		NOTOBASIS, <i>syriaca</i> ,	426
		NOTOCERAS, <i>hispanicum</i> ,	67
		NOTONIA, <i>grandiflora</i> ,	422
		<i>crassissima</i> ,	ib.
		NYCTANTHES, <i>Arbor tristis</i> ,	552



	Page.
3.—NYMPHÆACEÆ. THE WATER-LILY TRIBE,	8, 9
<i>Nymphaea, pubescens</i> , ...	8
<i>rubra</i> , ...	ib.
<i>rosea</i> , ...	ib.
<i>versicolor</i> , ...	ib.
<i>edulis</i> , ...	ib.
<i>stellata</i> , ...	9
<i>major</i> , ...	ib.
157.—NYCTAGINACEÆ. THE MARVEL-OF-PERU TRIBE,	328, 229
OBERONIA, <i>graminifolia</i> , ...	620
94.—OCHNACEÆ, ...	180, 181
OCHNA, <i>squarrosa</i> , ...	181
<i>stripulacea</i> , ...	ib.
OCHROMA, <i>Lagopus</i> , ...	105
OCHROSIA, <i>borbonica</i> , ...	532
OCIMUM, <i>canum</i> , ...	448
<i>Basilicum</i> , ...	ib.
<i>pilosum</i> , ...	ib.
<i>anisatum</i> , ...	448
<i>glabratum</i> , ...	ib.
<i>thyrsiflorum</i> , ...	ib.
<i>gratissimum</i> , ...	ib.
<i>adscendens</i> , ...	ib.
<i>sanctum</i> , ...	ib.
<i>villosum</i> , ...	ib.
<i>mieranthum</i> , ...	ib.
<i>inodorum</i> , ...	449
OCOTEA, <i>glaucescens</i> , ...	308
<i>lanceolaria</i> , ...	309
<i>mollis</i> , ...	ib.
ODINA, Wodier, ...	275
19.—ENOTHERACEÆ. THE EVENING PRIMROSE TRIBE,	32-34
ENOOTHERA, <i>bienne</i> , ...	32
<i>bienne</i> , ...	ib.
<i>grandiflora</i> , ...	ib.
<i>muricata</i> , ...	33
<i>Simsiana</i> , ...	ib.
<i>longiflora</i> , ...	ib.
<i>sinuata</i> , ...	ib.
<i>purpurea</i> , ...	ib.
<i>Romanzowii</i> , ...	ib.
<i>Lindleyi</i> , ...	ib.
<i>tetrapetala</i> , ...	ib.
<i>fruticosa</i> , ...	ib.
<i>vera</i> , ...	ib.
<i>ambigua</i> , ...	ib.
<i>Phyllopus</i> , ...	ib.
<i>incana</i> , ...	ib.
<i>Fraseri</i> , ...	ib.
<i>rosea</i> , ...	ib.
OENANTHE, <i>Phellandrium</i> , ...	21
<i>stolonifera</i> , ...	ib.
17.—OLACACEÆ,	31, 32
OLAX, <i>scandens</i> , ...	31
<i>imbricata</i> , ...	ib.
<i>phoenicarpa</i> , ...	ib.
218.—OLEACEÆ. THE OLIVE TRIBE,	547-549
OLEA, <i>sativa</i> , ...	546
<i>lancea</i> , ...	ib.
<i>capensis</i> , ...	ib.
<i>undulata</i> , ...	547
<i>fragrans</i> , ...	ib.
<i>rubra</i> , ...	ib.
<i>chrysophylla</i> , ...	ib.
<i>grandiflora</i> , ...	ib.
<i>attenuata</i> , ...	ib.
<i>clavata</i> , ...	ib.
<i>robusta</i> , ...	ib.
<i>glandulifera</i> , ...	ib.
<i>Roxburghiana</i> , ...	ib.
<i>dioica</i> , ...	ib.
<i>acuminata</i> , ...	ib.
<i>verrucosa</i> , ...	ib.
<i>grata</i> , ...	ib.
<i>myrtifolia</i> , ...	ib.
OMPHALOBIA, <i>Schotia</i> , ...	252
ONOPORDON, <i>Acanthum</i> , ...	425
269.—OPHIOGLOSSACEÆ,	737
OPHIOGLOSSUM, <i>reticulatum</i> , ...	ib.
<i>filiforme</i> , ...	ib.
<i>pendulum</i> , ...	ib.
OPHIOXYLOX, <i>serpentinum</i> , ...	532
<i>magus</i> , ...	ib.
OPHIURUS, <i>incurvatus</i> , ...	708
<i>corymbosus</i> , ...	709
OPLISMENUS, <i>lanceolatus</i> , ...	702
<i>Burmanni</i> , ...	ib.
<i>colonus</i> , ...	703
<i>fumentaceus</i> , ...	ib.
<i>strictus</i> , ...	ib.
OPUNTIA, <i>cylindrica</i> , ...	62
<i>curassavica</i> , ...	ib.
<i>spinosissima</i> , ...	ib.
<i>Dillenii</i> , ...	ib.
<i>Roxburghiana</i> , ...	ib.
<i>Tuna</i> , ...	ib.
<i>elatior</i> , ...	ib.
<i>nigricans</i> , ...	63
<i>triacantha</i> , ...	ib.
<i>cochinillifera</i> , ...	ib.
<i>Ficus indica</i> , ...	ib.
<i>tomentosa</i> , ...	ib.
<i>rubescens</i> , ...	ib.
<i>vulgaris</i> , ...	ib.
<i>brasiliensis</i> , ...	ib.
<i>leucantha</i> , ...	ib.
235.—ORCHIACEÆ. THE ORCHIS TRIBE,	619-635
OREODIXIA, <i>oleracea</i> , ...	636
<i>regia</i> , ...	ib.
ORIGANUM, <i>vulgare</i> , ...	456
ORMOCARPUM, <i>sennoides</i> , ...	219
ORMOSIA, <i>dasycarpa</i> , ...	205
<i>robusta</i> , ...	ib.
ORNITHOGALUM, <i>aureum</i> , ...	666
<i>thyrsoides</i> , ...	ib.



Index of Orders, Genera and Species.

xxvii

765
SL

	<i>Page.</i>		<i>Page.</i>
ORNITHOGALUM, <i>album</i> ,	666	PANAX, <i>digitata</i> ,	25
<i>flavescens</i> , ...	ib.	<i>palmata</i> ,	ib.
<i>arabicum</i> ,	ib.	PANCRATIUM, <i>maritimum</i> ,	594
<i>revolutum</i> ,	ib.	<i>canariense</i> ,	ib.
<i>lacteum</i> ,	ib.	<i>illyricum</i> ,	ib.
<i>pyramidalis</i> ,	ib.	<i>vere cundum</i> ,	ib.
<i>latifolium</i> ,	ib.	<i>zeylanicum</i> ,	ib.
<i>pyrenaicum</i> ,	ib.	<i>longilorum</i> ,	ib.
<i>caudatum</i> ,	ib.	249.—PANDANACEÆ,	682, 683
<i>longibracteatum</i> ,	ib.	PANDANUS, <i>odoratissimus</i> ,	682
<i>barbatum</i> ,	ib.	<i>moschatus</i> ,	ib.
<i>juncifolium</i> ,	ib.	<i>Leram</i> ,	683
<i>umbellatum</i> ,	ib.	<i>fetidus</i> ,	ib.
ORNITHOGLOSSUM, <i>glaucum</i> ,	646	<i>furcatus</i> ,	ib.
ORNITHOPUS, <i>perpusillus</i> ,	219	<i>marginatus</i> ,	ib.
ORNUS, <i>europea</i> ,	548	<i>utilis</i> ,	ib.
<i>floribunda</i> ,	ib.	<i>amarillyfolius</i> ,	ib.
207.—OROBANCHACEÆ,	496	<i>Candelabrum</i> ,	ib.
OROBANCHE, <i>indica</i> ,	496	<i>edulis</i> ,	ib.
<i>acaulis</i> ,	ib.	<i>drupaceus</i> ,	ib.
ORONTIUM, <i>aquaticum</i> ,	689	48.—PANGIACEÆ,	84, 85
<i>Acoriæ</i> ,	ib.	256.—PANICACEÆ. THE GRASS	
OROPETIUM, <i>thomæum</i> ,	709	TRIBE,	695-720
ORTHOSEPIPHON, <i>incurvus</i> ,	449	PANICUM, <i>fluitans</i> ,	700
<i>stamineus</i> ,	ib.	<i>flavidum</i> ,	ib.
ORTHOSTEMMA, <i>roseum</i> ,	384	<i>repens</i> ,	ib.
ORYZA, <i>sativa</i> ,	711	<i>miliaceum</i> ,	ib.
OSBECKIA, <i>aspera</i> ,	44	<i>miliare</i> ,	ib.
267.—OSMUNDACEÆ,	736, 737	<i>miliaceoides</i> ,	ib.
OTOCILHUS, <i>albus</i> ,	620	<i>jumentosum</i> ,	ib.
<i>fuscus</i> ,	ib.	<i>acariferum</i> ,	ib.
OTTELIA, <i>alismoides</i> ,	618	<i>curvatum</i> ,	ib.
OUTEA, <i>bijuga</i> ,	252	<i>uliginosum</i> ,	ib.
OVIDEA, <i>corymbosa</i> ,	606	<i>paludosum</i> ,	ib.
101.—OXALIDACEÆ. THE		<i>trigonum</i> ,	ib.
WOOD-SORREL TRIBE,	190-192	<i>interruptum</i> ,	ib.
OXALIS, <i>corniculata</i> ,	191	<i>patens</i> ,	ib.
<i>rosacea</i> ,	ib.	<i>Roxburghii</i> ,	701
<i>tetraphylla</i> ,	ib.	<i>corymbosum</i> ,	ib.
<i>violacea</i> ,	ib.	<i>serrulatum</i> ,	ib.
<i>cernua</i> ,	ib.	<i>sarmentosum</i> ,	ib.
<i>variabilis</i> ,	192	<i>asperatum</i> ,	ib.
<i>albiflora</i> ,	ib.	<i>nepalense</i> ,	ib.
<i>rosea</i> ,	ib.	<i>costatum</i> ,	ib.
<i>Bowiei</i> ,	ib.	<i>sanguinale</i> ,	ib.
<i>Deppii</i> ,	ib.	<i>egyptiacum</i> ,	ib.
<i>floribunda</i> ,	ib.	<i>filiforme</i> ,	ib.
OXYANTHUS, <i>hirsutus</i> ,	380	<i>commutatum</i> ,	ib.
OXYBAPHUS, <i>viscosus</i> ,	328	<i>lineare</i> ,	ib.
OYSPORA, <i>vagans</i> ,	44	<i>orthum</i> ,	ib.
OXYSTELMA, <i>esculentum</i> ,	541	<i>Helopus</i> ,	ib.
PACHYLEPIS, <i>cupressoides</i> ,	558	<i>verticillatum</i> ,	702
<i>juniperoides</i> ,	ib.	<i>helvolum</i> ,	ib.
PACHYRRHIZOS, <i>angulatus</i> ,	234	<i>geniculatum</i> ,	ib.
FEDERIA, <i>fœtidia</i> ,	388	<i>italicum</i> ,	ib.
Panax, <i>aculeata</i> ,	24	<i>macrochaetum</i> ,	ib.
<i>cochleata</i> ,	ib.	<i>tomentosum</i> ,	ib.
<i>fragrans</i> ,	ib.	<i>stagninum</i> ,	ib.
<i>fruticosa</i> ,	ib.	<i>Crus corvi</i> ,	ib.
		<i>setigerum</i> ,	ib.
		<i>hispidulum</i> ,	ib.



	Page.		Page.
2.—PAPAVERACEÆ. THE POPPY TRIBE,	5-7	PAVETTA, caffra,	392
PAPAVER, hybridum,	5	PAVIA, indica,	97
Argemone,	ib.	khassiana,	ib.
dubium,	ib.	PAVONIA, Columella,	115
Rhoeas,	ib.	odorata,	ib.
somniferum,	ib.	rosea,	ib.
nigrum,	ib.	zeylanica,	ib.
album,	ib.	201.—PÉDALIACEÆ. THE OIL-SEED TRIBE,	474, 475
46.—PAPAYACEÆ. THE PAPAW TRIBE,	82, 83	PEDALIUM, Murex,	475
PAPYRUS, Pangorei,	723	PEDILANTHUS, tithymaloides,	164
tegetiformis,	724	carinatus,	ib.
dehiscens,	ib.	PELARGONIUM, melananthum,	188
PARAMIGNYA, citrifolia,	140	astragalifolium,	ib.
PARATROPIA, digitata,	25	zonale,	ib.
umbraculifera,	ib.	inquinans,	ib.
PARDANTHUS, chinensis,	605	primulinum,	ib.
PARITIUM, tiliaceum,	120	peltatum,	ib.
tortuosum,	ib.	cucullatum,	ib.
macrophyllum,	ib.	vitifolium,	ib.
tricuspe,	ib.	capitatum,	ib.
Bealii,	ib.	Radula,	ib.
PARKIA, biglandulosa,	257	balsameum,	ib.
Roxburghii,	ib.	147.—PENEACEÆ,	312
PARKINSONIA, aculeata,	246	PENICILLARIA, spicata,	703
277.—PARMELIACEÆ. THE LICHEN TRIBE,	743, 744	involutata,	ib.
43.—S. O. PARNASSIEÆ,	80	PENNISETUM, barbatum,	ib.
PARSONIA, spiralis,	524	holcooides,	ib.
PASPALUM, stoloniferum, Bosc.	699	PENTALINON, suberectum,	523
stoloniferum, L.	ib.	PENTAFETES, phænices,	ib.
Kora,	ib.	albiflora,	ib.
45.—PASSIFLORACEÆ. THE PASSION-FLOWER TRIBE,	80-82	PENTASACME, candata,	542
PASSIFLORA, minima,	80	PENTATROPIS, microphylla,	540
suberosa,	ib.	PENTSTEMON, campanulatus,	501
biflora,	81	rosens,	ib.
serratifolia,	ib.	PEPLIDIUM, diandrum,	503
quadrangularis,	ib.	PERESKIA, aculeata,	63
alata,	ib.	Bleo,	ib.
laurifolia,	ib.	PERGULARIA, odoratissima,	537
racemosa,	ib.	minor,	ib.
coeruleo-racemosa,	ib.	pallida,	538
incarnata,	ib.	PERILLA, ocimoides,	452
edulis,	ib.	PERIPLOCA, græca,	544
coerulea,	ib.	PERISTROPHE, tinctoria,	492
foetida,	ib.	speciosa,	ib.
chinensis,	ib.	bicalyculata,	ib.
Mayana,	ib.	albiflora,	ib.
phœnicea,	ib.	lanceolaria,	ib.
holosericæ,	ib.	pulchella,	ib.
kermesina,	ib.	PERISTYLUS, elatus,	631
PASTINACA, sativa,	22	PSROTIS, latifolia,	710
sylvestris,	ib.	PERSEA, gratissima,	309
edulis,	ib.	PETALIDIUM, barlerioïdes,	483
PATERSONIA, glauca,	606	155.—PETIVERIACEÆ,	327
PAULLINIA, carthaginensis,	93	PETIVERIA, aliacea,	ib.
PAVETTA, indica,	391	PETREA, volubilis,	471
tomentosa,	392	PETROSELINUM, sativum,	21
longiflora,	ib.	segetum,	ib.

GSL
Page



766
SL

Index of Orders, Genera and Species.

xxxix

	Page.		Page.
PHENIX, farinifera,	642	PIMENTA, vulgaris,	47
acaulis,	ib.	actis,	ib.
sylvestris,	ib.	PIMPINELLA, Anisum,	21
paludosa,	643	involuta,	ib.
PHÆOMERIA, magnifica,	572	222.—PINACEÆ. THE FIR	
PHALMOPSIS, amabilis,	629	TRIBE,	555-559
PHARBITIS, purpurea,	354	205.—PINGUICULACEÆ,	494
purpurea,	ib.	PINUS, longifolia,	556
violacea,	ib.	Deodara,	557
elata,	ib.	sinensis,	ib.
varia,	ib.	130.—PIPERACEÆ. THE PEPPER TRIBE,	299-300
lescantha,	ib.	Piper, Chaba,	299
Nil,	ib.	nigrum,	ib.
coeruleoensis,	355	trioicum,	ib.
hederacea,	ib.	longum,	ib.
diversifolia,	ib.	Betle,	ib.
27.—PHILADELPHACEÆ. THE SYRINGA TRIBE,	52	sylvaticum,	300
PHILADELPHUS, coronarius,	ib.	cuneifolium,	ib.
248.—PHLYDRACEÆ,	682	reptans,	ib.
PHLEBOCHITON, extensus,	275	sarmentosum,	ib.
PHLEUM, Böhmeri,	710	peepuloides,	ib.
alpinum,	ib.	elusifolium,	ib.
Michelii,	ib.	pereskiaefolium,	ib.
PHLOGACANTHUS, curviflorus,	487	magnoliæfolium,	ib.
thyrsidorus,	ib.	PISONIA, villosa,	328
guttatus,	ib.	aculeata,	329
asperulus,	ib.	mitis,	ib.
PHOBEROS, chinensis,	84	PISTACIA, vera,	273
Roxburghii,	ib.	Terebinthus,	ib.
PHOLIDOTA, imbricata,	620	Lentiscus,	274
undulata,	ib.	PISUM, sativum,	226
articulata,	ib.	macrocarpum,	227
ophiocephala,	ib.	quadratum,	ib.
PHOTINIA, bengalensis,	198	agreste,	ib.
eugenifolia,	ib.	PITCAIRNIA, staminea,	615
PHYRNİUM, spicatum,	574	albiflora,	616
imbricatum,	ib.	integrifolia,	ib.
parviflorum,	ib.	angustifolia,	ib.
capitatum,	ib.	bromeliæfolia,	ib.
macrostachyum,	575	bracteata,	ib.
setosum,	ib.	latifolia,	ib.
cylindricum,	ib.	furfuracea,	ib.
PHYSALIS, somnifera,	513	ramosa,	ib.
flexuosa,	514	16.—PITTOSPORACEÆ.	30, 31
peruviana,	ib.	PITTOSFORUM, ferrugineum,	30
pubescens,	ib.	verticillatum,	ib.
Alkekengi,	ib.	Tobira,	ib.
minima,	ib.	190.—PLANTAGINACEÆ. THE RIB GRASS TRIBE,	436, 437
angulata,	ib.	PLANTAGO, major,	436
PHYSIANTHUS, albens,	542	asiatica,	437
153.—PHYTOLACCACEÆ. THE VIRGINIAN POKE TRIBE,	323, 324	media,	ib.
PHYTOLACCA, decandra,	323	virginica,	ib.
octandra,	ib.	lanceolata,	ib.
acinosa,	ib.	Lagopus,	ib.
dioeca,	ib.	maritima,	ib.
PHYTEUMA, orbiculare,	369	Coronopus,	ib.
PICRIDIUM, tingitanum,	431	amplexicaulis,	ib.
vulgare,	ib.	vaginata,	ib.
PIDDINGTONIA, begoniæfolia,	367	Cynops,	ib.



SL

Index of Orders, Genera and Species.

	<i>Page.</i>		<i>Page.</i>
PLANTAGO, <i>Psyllium</i> , ...	437	POIVREA, <i>Roxburghii</i> , ...	38
<i>stricta</i> , ...	ib.	<i>pilosa</i> , ...	ib.
<i>Ispaghula</i> , ...	ib.	<i>coccinea</i> , ...	39
<i>pumila</i> , ...	ib.	POLANISIA, <i>Chelidonii</i> , ...	74
132.—PLATANACEÆ, ...	301	<i>icosandra</i> , ...	ib.
PLATANTHERA, <i>uniflora</i> , ...	631	172.—POLEMONIACEÆ. THE GREEK VALERIAN TRIBE, ...	365, 366
PLATYSTEMMA, <i>violetoides</i> , ...	480	POLEMONIUM, <i>caruleum</i> , ...	365
PLECTRANTHUS, <i>secundus</i> , ...	449	<i>mexicanum</i> , ...	ib.
<i>parviflorus</i> , ...	ib.	POLIANTHES, <i>tuberosa</i> , ...	656
<i>rugosus</i> , ...	ib.	<i>plena</i> , ...	ib.
PLEUROTHALLIS, <i>racemiflora</i> , ...	619	POLYCYEMA, <i>pentaphyllum</i> , ...	141
PLUCHEA, <i>indica</i> , ...	410	60.—POLYGALACEÆ. THE MILK-WORT TRIBE, ...	97, 98
PLUKENETIA, <i>corniculata</i> , ...	160	POLYGALA, <i>myrtifolia</i> , ...	98
193.—PLUMBAGINACEÆ, ...	438	<i>telephioïdes</i> , ...	ib.
PLUMBAGO, <i>zealandica</i> , ...	438	<i>ciliata</i> , ...	ib.
<i>rosea</i> , ...	439	<i>minor</i> , ...	ib.
<i>capensis</i> , ...	ib.	154.—POLYGONACEÆ. THE BUCK-WHEAT TRIBE, ...	324-327
PLUMIERIA, <i>rubra</i> , ...	527	POLYGONATUM, <i>oppositifolium</i> , ...	648
<i>alba</i> , ...	528	POLYGONUM, <i>orientale</i> , ...	324
<i>acuminata</i> , ...	ib.	<i>pilosum</i> , ...	ib.
POA, <i>nutans</i> , ...	715	<i>nutans</i> , ...	ib.
<i>diarrhena</i> , ...	ib.	<i>tomentosum</i> , ...	ib.
<i>viscosa</i> , ...	ib.	<i>lanigerum</i> , ...	325
<i>plumosa</i> , ...	ib.	<i>barbatum</i> , ...	ib.
<i>elegantula</i> , ...	ib.	<i>glabrum</i> , ...	ib.
<i>unioloides</i> , ...	716	<i>tenellum</i> , ...	ib.
<i>Roxburghiana</i> , ...	ib.	<i>rivulare</i> , ...	ib.
<i>paniculata</i> , ...	ib.	<i>flaccidum</i> , ...	ib.
<i>gaungetica</i> , ...	ib.	<i>horridum</i> , ...	ib.
<i>annua</i> , ...	ib.	<i>perfoliatum</i> , ...	ib.
<i>pratensis</i> , ...	ib.	<i>herniarioïdes</i> , ...	ib.
<i>trivialis</i> , ...	ib.	<i>aviculare</i> , ...	ib.
<i>nemoralis</i> , ...	ib.	265.—POLYPODIACEÆ, ...	734-736
<i>digitata</i> , ...	ib.	POLYPODIUM, <i>pertusum</i> , ...	734
<i>cylindrica</i> , ...	ib.	<i>glabrum</i> , ...	ib.
<i>tenella</i> , ...	ib.	<i>quercifolium</i> , ...	ib.
<i>punctata</i> , ...	ib.	<i>proliferum</i> , ...	ib.
<i>multiflora</i> , ...	ib.	<i>excavatum</i> , ...	ib.
<i>cynosuroides</i> , ...	ib.	<i>semisagittatum</i> , ...	ib.
<i>chinensis</i> , ...	ib.	<i>muconatum</i> , ...	ib.
PODOCARPUS, <i>polystachys</i> , ...	559	<i>lucidum</i> , ...	ib.
<i>elongatus</i> , ...	ib.	<i>tenerum</i> , ...	ib.
<i>chinensis</i> , ...	ib.	<i>Phyllitidis</i> , ...	ib.
<i>cupressinus</i> , ...	ib.	<i>sophoroïdes</i> , ...	ib.
PODOSPERMUM, <i>iacinatum</i> , ...	430	POLYGONUM, <i>monspeliensis</i> , ...	710
136.—PODISTEMACEÆ, ...	302	<i>maritimus</i> , ...	ib.
POGONIA, <i>juliana</i> , ...	632	105.—S. O.—POMEÆ. THE AP- PLE TRIBE, ...	197-199
<i>carinata</i> , ...	ib.	POMMEREULLA, <i>Cornucopia</i> , ...	711
<i>plicata</i> , ...	ib.	PONGAMIA, <i>glabra</i> , ...	239
<i>viridiflora</i> , ...	ib.	<i>marginata</i> , ...	ib.
<i>trinervia</i> , ...	ib.	<i>uliginosa</i> , ...	ib.
<i>graminifolia</i> , ...	ib.	<i>sericea</i> , ...	240
<i>babianifolia</i> , ...	ib.	<i>heterocarpa</i> , ...	ib.
POGOSTEMON, <i>plectranthoides</i> , ...	451	PONGATIUS, <i>indicum</i> , ...	371
POINCIANA, <i>pulcherrima</i> , ...	245	238.—PONTEDERACEÆ, ...	644, 645
<i>bicolor</i> , ...	ib.	PONTEDERA, <i>vaginalis</i> , ...	645
<i>concolor</i> , ...	ib.	<i>hastata</i> , ...	ib.
<i>elata</i> , ...	ib.		
<i>regia</i> , ...	ib.		
<i>Gilliesii</i> , ...	ib.		
POINSETTIA, <i>pulcherrima</i> , ...	164		



CSL

Index of Orders, Genera and Species.

xli

	<i>Page.</i>		<i>Page.</i>																																																																				
PONTEDERA, plantaginea,	645	PSYCHOTRIA, obtusifolia,	392																																																																				
dilatata,	ib.	sphaerocarpa,	393																																																																				
sagittata,	ib.	stipulacea,	ib.																																																																				
PORANA, volubilis,	363	adenophylla,	ib.																																																																				
racemosa,	ib.	bicornis,	ib.																																																																				
paniculata,	ib.	daphnoïdes,	ib.																																																																				
grandiflora,	ib.	PTARMICA, vulgaris,	417																																																																				
89.—PORTULACACEÆ. THE PURSLANE TRIBE,	172-174	PTELEA, trifoliata,	186																																																																				
PORTULACA, oleracea,	173	PTERIS, graminifolia,	735																																																																				
quadrifida,	ib.	angustifolia,	ib.																																																																				
meridiana,	ib.	vittata,	ib.																																																																				
pilosæ,	ib.	amplectens,	ib.																																																																				
linifolia,	ib.	dimidiata,	ib.																																																																				
PORTULACARIA, afra,	174	esculenta,	ib.																																																																				
217.—POTALIACEÆ,	546	PTEROCARPUS, santalinus,	242																																																																				
POTAMOCHLOA, Retzii,	711	indicus,	ib.																																																																				
POTAMOGTHON, indicus,	694	Marsupium,	ib.																																																																				
tuberosus,	ib.	dalbergioïdes,	ib.																																																																				
POTENTILLA, reptans,	196	Draco,	ib.																																																																				
argentea,	ib.	PTEROFRERMUM, suberifolium,	107																																																																				
micropetala,	ib.	Heynianum,	ib.																																																																				
rupestris,	ib.	acerifolium,	ib.																																																																				
verna,	ib.	aceroides,	ib.																																																																				
POTERIUM, caudatum,	201	lanceæfolium,	ib.																																																																				
Sanguisorba,	ib.	semisagittatum,	ib.																																																																				
POTHOS, scandens,	689	PTERYGOTA, Roxburghii,	103																																																																				
POUPARTIA, borbonica,	144	PTYCHNOTIS, Ajowan,	21																																																																				
POUZOZIA, pentandra,	281	PUNICA, Granatum,	50																																																																				
zeylanica,	ib.	flore-pleno,	ib.																																																																				
PREMNA, esculenta,	467	nana,	ib.																																																																				
barbata,	468	PUPALIA, prostrata,	319																																																																				
latifolia,	ib.	PUTRANJIVA, Roxburghii,	296																																																																				
longifolia,	ib.	PYRETHRUM, maritimum,	418																																																																				
herbacea,	ib.	Parthenitum,	ib.																																																																				
procumbens,	ib.	Myconis,	ib.																																																																				
spinosa,	ib.	indicum,	ib.																																																																				
hircina,	ib.	plenum,	ib.																																																																				
scandens,	ib.	sinense,	ib.																																																																				
grandifolia,	ib.	purple,	ib.																																																																				
cordifolia,	ib.	changeable-white,	ib.																																																																				
laevis,	ib.	rose-coloured,	ib.																																																																				
coriacea,	ib.	golden-yellow,	ib.																																																																				
164.—PRIMULACEÆ. THE PRIMROSE TRIBE,	334, 335	quilled-white,	ib.	prolifera,	135	superb-white,	419	PRINSEPIA, utilis,	265	quilled-pink,	ib.	PRIOTROPIS, cytisoides,	208	PYRUS, communis,	198	PROCRIS, punctata,	281	sativa,	ib.	PROSOPIS, spicigera,	259	sinensis,	ib.	dulcis,	ib.	Malus,	199	143.—PROTEACEÆ...	306	spectabilis,	ib.	PRUNUS, domestica,	200	indica,	ib.	PSEUDARTHRIA, viscosa,	214	lanuginosa,	ib.	PSIADIA, arguta,	408	PYTHONIUM, bulbiferum,	686	PSILOTICHUM, ferrugineum,	318	nepalense,	ib.	PSOPHOCARPUS, tetragonolobus,	234	QUAMOCPLIT, phoeniceum,	353	PSORALEA, corylifolia,	211	coccineum,	ib.	PSYCHOTRIA, undata,	392	hederifolium,	ib.	laurifolia,	ib.	pennatum,	ib.			rubrum,	ib.			album,	ib.
quilled-white,	ib.																																																																						
prolifera,	135	superb-white,	419																																																																				
PRINSEPIA, utilis,	265	quilled-pink,	ib.																																																																				
PRIOTROPIS, cytisoides,	208	PYRUS, communis,	198																																																																				
PROCRIS, punctata,	281	sativa,	ib.																																																																				
PROSOPIS, spicigera,	259	sinensis,	ib.																																																																				
dulcis,	ib.	Malus,	199																																																																				
143.—PROTEACEÆ...	306	spectabilis,	ib.																																																																				
PRUNUS, domestica,	200	indica,	ib.																																																																				
PSEUDARTHRIA, viscosa,	214	lanuginosa,	ib.																																																																				
PSIADIA, arguta,	408	PYTHONIUM, bulbiferum,	686																																																																				
PSILOTICHUM, ferrugineum,	318	nepalense,	ib.																																																																				
PSOPHOCARPUS, tetragonolobus,	234	QUAMOCPLIT, phoeniceum,	353																																																																				
PSORALEA, corylifolia,	211	coccineum,	ib.																																																																				
PSYCHOTRIA, undata,	392	hederifolium,	ib.																																																																				
laurifolia,	ib.	pennatum,	ib.																																																																				
		rubrum,	ib.																																																																				
		album,	ib.																																																																				



	Page.		Page.
QUASSIA, amara,	181	RHAGADIOLUS, edulis,	428
115.— QUERCACEÆ. THE NUT TRIBE,	276-278	80.— RHAMNACEÆ. THE BUCKTHORN TRIBE,	144-147
QUERCUS, Phellos,	277	RHAMNUS, virgatus,	146
fenestrata,	ib.	incanus,	ib.
lanceæfolia,	ib.	RHAPHIDOSPORA, glabra,	493
lappacea,	ib.	Königiana,	ib.
turbinate,	ib.	Careyana,	ib.
spicata,	ib.	RHAPHIOLEPIS, indica,	198
semiserrata,	ib.	RHAPHISTEMMA, pulchellum,	541
prinodes	ib.	RHAPIS, flabelliformis,	641
pedunculata,	ib.	RHIPSALIS, salicornoides,	63
QUISQUALIS, indica,	39	4.— Rhizanthæ.,	732
QUIVISA, heterophylla,	133	22.— RHIZOPHORACEÆ. THE MANGROVE TRIBE,	40-42
261.— RAFFLESIACEÆ.	732	RHIZOPHORA, mucronata,	41
RANDIA, Intifolia,	380	conjugata,	ib.
dumetorum,	ib.	RHODODENDRON, arboreum,	333
longispina,	ib.	Rhus, glabra,	274
notans,	381	succedanea,	ib.
floribunda,	ib.	verniciifera,	ib.
longiflora,	ib.	venenata,	ib.
fasciculata,	ib.	Bucki-amela,	ib.
rigida,	ib.	copallina,	ib.
uliginosa,	ib.	radicans,	ib.
armata,	ib.	Toxicodendron,	ib.
decussata,	ib.	lucida,	275
cuneata,	ib.	paniculata,	ib.
polysperma,	382	laevigata,	ib.
scandens,	ib.	parviflora,	ib.
1.— RANUNCULACEÆ. THE CROW-FOOT TRIBE,	1-4	zanzibariensis,	ib.
RANUNCULUS, sceleratus,	3	caustica,	ib.
bulbosus,	ib.	RHYNOCHOSIA, medicaginea,	228
arvensis,	ib.	RIBES, Grossularia,	26
muricatus,	ib.	RICHARDIA, aethiopica,	688
nodiflorus,	ib.	RICINUS, communis,	158
RAPHANUS, sativus,	72	dicoccus,	ib.
radicula,	ib.	Mappa,	ib.
niger,	ib.	RICOTIA, sœgyptiacæ,	67
Raphanistrum,	ib.	RIEDLEIA, borbonica,	109
maritimus,	ib.	guazumæfolia,	ib.
caudatus,	ib.	RIVEA, tiliæfolia,	350
RAUWOLFIA, canescens,	532	ornata,	351
RAVENALA, madagascariensis,	579	Bona nox,	ib.
68.— REAUMURIACEÆ.	102	RIVINA, laevis,	323
RECTEMBRIAE,	203	ROBINIA, Pseudacacia,	216
REMUSATIA, vivipara,	686	ROHDEA, japonica,	649
RENANTHERA, coccinea...	630	KOMERIA, hybrida,	6
39.— RESEDACEÆ. THE MIGNONETTE TRIBE,	75, 76	RONDELLETTIA, odorata,	384
RESEDA, Luteola,	75	105.— ROSACEÆ. THE ROSE TRIBE,	193-197
virescens,	ib.	Rosa, involucrata,	194
odorata,	76	carolina,	ib.
Phyteuma,	ib.	damascena,	ib.
lutea,	ib.	centifolia,	ib.
alba,	ib.	muscosa,	ib.
259.— RESTIACEÆ.	729, 730	rubiginosa,	ib.
214.— RETZIACEÆ.	533	micrantha,	ib.
RETZIA, pilosa,	ib.	canina,	ib.
RHAGADIOLUS, stellatus,	428	Bourboniana,	ib.
		indica,	ib.



CSL

Index of Orders, Genera and Species.

xliii

	Page.		Page.
<i>ROSA</i> , <i>semperflorens</i> ,	194	<i>RUNGEA</i> , <i>parviflora</i> ,	491
<i>microphylla</i> ,	ib.	<i>repens</i> ,	492
<i>multiflora</i> ,	ib.	<i>RUSSELIA</i> , <i>floribunda</i> ,	501
<i>carnea</i> ,	ib.	<i>junccea</i> ,	ib.
<i>moschata</i> ,	195	96.— <i>RUTACEÆ</i> . THE RUE TRIBE,	182, 183
<i>nepalensis</i> ,	ib.	<i>RUTA</i> , <i>angustifolia</i> ,	182
<i>sinica</i> ,	ib.	<i>albiflora</i> ,	ib.
<i>Banksiae</i> ,	ib.	<i>SABAL</i> , <i>Adansoniæ</i> ,	641
<i>albo-plena</i> ,	ib.	<i>Hystrix</i> ,	ib.
<i>luteo-plena</i> ,	ib.	<i>SABIA</i> , <i>lanceolata</i> ,	269
<i>ROSCOA</i> , <i>purpurea</i> ,	574	<i>limoniacea</i> ,	ib.
<i>ROSMARINUS</i> , <i>officinalis</i> ,	456	<i>SACCHARUM</i> , <i>spontaneum</i> ,	705
<i>ROSTELLARIA</i> , <i>procumbens</i> ,	488	<i>fuscum</i> ,	ib.
<i>quinquangularis</i> ,	ib.	<i>semidecumbens</i> ,	ib.
<i>glaberrima</i> ,	ib.	<i>officinarum</i> ,	ib.
<i>Vahlii</i> ,	ib.	<i>sinense</i> ,	ib.
<i>mollissima</i> ,	ib.	<i>procerum</i> ,	ib.
<i>graminea</i> ,	ib.	<i>Sara</i> ,	ib.
<i>ROTALA</i> , <i>Roxburghiana</i> ,	129	<i>Munja</i> ,	ib.
<i>ROTHIA</i> , <i>trifoliata</i> ,	209	<i>canaliculatum</i> ,	ib.
<i>ROTBÖLLA</i> , <i>exaltata</i> ,	709	<i>violaceum</i> ,	ib.
<i>glabra</i> ,	ib.	<i>SACCOLABIUM</i> , <i>micranthum</i> ,	630
<i>ROTTLERA</i> , <i>tinctoria</i> ,	157	<i>retusum</i> ,	ib.
<i>tetracocca</i> ,	ib.	<i>rigidulum</i> ,	ib.
<i>peltata</i> ,	ib.	<i>carinatum</i> ,	ib.
<i>ferruginea</i> ,	ib.	<i>papillosum</i> ,	ib.
<i>alba</i> ,	ib.	<i>calceolare</i> ,	ib.
<i>laccifera</i> ,	ib.	<i>SACCOSTOMA</i> , <i>urticafolium</i> ,	449
<i>barbata</i> ,	ib.	<i>SAGERETIA</i> , <i>oppositifolia</i> ,	146
<i>ROUREA</i> , <i>Sookurhoontee</i> ,	265	<i>hamosa</i> ,	ib.
<i>ROYNSIA</i> , <i>suaveolens</i> ,	75	<i>SAGINA</i> , <i>apetala</i> ,	178
<i>ROYENA</i> , <i>villosa</i> ,	345	<i>SAGITTARIA</i> , <i>sagittifolia</i> ,	680
<i>ROYLEA</i> , <i>elegans</i> ,	461	<i>obtusifolia</i> ,	ib.
<i>RUBENTIA</i> , <i>olivina</i> ,	167	<i>cordifolia</i> ,	ib.
<i>RUBIA</i> , <i>cordifolia</i> ,	399	<i>SAGUS</i> , <i>lævis</i> ,	639
<i>RUBUS</i> , <i>rosefolius</i> ,	195	<i>farinifera</i> ,	ib.
<i>coronarius</i> ,	ib.	<i>SALACIA</i> , <i>prinoides</i> ,	168
<i>gracilis</i> ,	ib.	<i>Roxburghii</i> ,	ib.
<i>Gowreephul</i> ,	ib.	<i>longifolia</i> ,	ib.
<i>Wallichianus</i> ,	ib.	<i>celastrifolia</i> ,	ib.
<i>lasiocarpus</i> ,	ib.	131.— <i>SALICACEÆ</i> . THE WILLOW TRIBE,	300, 301
<i>Roxburghianus</i> ,	ib.	<i>SALICORNIA</i> , <i>brachiata</i> ,	320
<i>ellipticus</i> ,	ib.	<i>indica</i> ,	ib.
<i>rugosus</i> ,	ib.	<i>SALISBURIA</i> , <i>adiantifolia</i> ,	560
<i>hexagynus</i> ,	ib.	<i>SALIX</i> , <i>babylonica</i> ,	301
<i>RUDBECKIA</i> , <i>digitata</i> ,	414	<i>tetrasperma</i> ,	ib.
<i>triloba</i> ,	415	<i>SALMALIA</i> , <i>malabarica</i> ,	106
<i>hirta</i> ,	ib.	<i>insignis</i> ,	ib.
<i>spathulata</i> ,	ib.	<i>SALOMONIA</i> , <i>cantonensis</i> ,	98
<i>RUELLIA</i> , <i>sarmentosa</i> ,	484	<i>SALSOLA</i> , <i>indica</i> ,	322
<i>hirta</i> ,	ib.	<i>nudiflora</i> ,	ib.
<i>comosa</i> ,	ib.	192.— <i>SALVADORACEÆ</i> ,	438
<i>cernua</i> ,	ib.	<i> SALVIA</i> , <i>officinalis</i> ,	454
<i>maculata</i> ,	ib.	<i>aurea</i> ,	ib.
<i>RUIZIA</i> , <i>lobata</i> ,	107	<i>africana</i> ,	ib.
<i>RUMEX</i> , <i>sanguineus</i> ,	326	<i>nubicola</i> ,	ib.
<i>pulcher</i> ,	ib.	<i>Horminum</i> ,	ib.
<i>Wallichianus</i> ,	ib.	<i>syriaca</i> ,	ib.
<i>vesicularius</i> ,	ib.		
<i>Acetosa</i> ,	327		
<i>Acetosella</i> ,	ib.		



SL

Index of Orders, Genera and Species.

	<i>Page.</i>		<i>Page.</i>
SALVIA, <i>Sclarea</i> , ...	454	129.—SAURURACEÆ, ...	298, 299
<i>lanata</i> , ...	ib.	40.—S. O. SAUVAGESIEÆ, ...	77
<i>pratensis</i> , ...	ib.	111.—SAXIFRAGACEÆ. THE SAXIFRAGE TRIBE, ...	267
<i>lusitanica</i> , ...	455	<i>Saxifraga, ligulata</i> , ...	ib.
<i>Verbenaca</i> , ...	ib.	<i>Scabiosa, stellata</i> , ...	434
<i>clandestina</i> , ...	ib.	<i>atropurpurea</i> , ...	ib.
<i>hispanica</i> , ...	ib.	180.—SCAEVOLACEÆ, ...	372, 373
<i>spendens</i> , ...	ib.	Scævola, <i>Taccada</i> , ...	372
<i>coccinea</i> , ...	ib.	SCANDIX, <i>Pecten Veneris</i> , ...	23
<i>lyrata</i> , ...	ib.	117.—SCEPACEÆ, ...	278
<i>plebeia</i> , ...	ib.	SCINNUS, <i>terebinthifolius</i> , ...	275
<i>verticillata</i> , ...	ib.	SCHIZANDREÆ, ...	17
<i>nepfolia</i> , ...	ib.	SCHIZANTHUS, <i>pinnatus</i> , ...	500
272.—SALVINIACEÆ, ...	739, 740	SCHLEICHERA, <i>trijuga</i> , ...	95
SALVINIA, <i>imbricata</i> , ...	740	SCHMIDELIA, <i>serrata</i> , ...	93
<i>cucullata</i> , ...	ib.	<i>aporetica</i> , ...	ib.
<i>verticillata</i> , ...	ib.	<i>glabra</i> , ...	ib.
SAMBUCUS, <i>Ebulus</i> , ...	398	<i>villosa</i> , ...	ib.
<i>nigra</i> , ...	ib.	<i>dentata</i> , ...	ib.
41.—SAMYDACEÆ, ...	78	SCHOTIA, <i>speciosa</i> , ...	252
SANDORICUM, <i>indicum</i> , ...	135	SCHREBERA, <i>swietenioides</i> , ...	478
105.—S. O. SANGUISORBÆ. THE BURNET TRIBE, ...	201	SCILLA, <i>peruviana</i> , ...	665
SANSEVIERIA, <i>guineensis</i> , ...	656	<i>autumnalis</i> , ...	ib.
<i>Roxburghiana</i> , ...	ib.	<i>bifolia</i> , ...	ib.
<i>carnes</i> , ...	ib.	<i>anæna</i> , ...	ib.
138.—SANTALACEÆ. THE		<i>corymbosa</i> , ...	ib.
SANDERS-WOOD TRIBE, ...	303	<i>indica</i> , ...	ib.
SANTALUM, <i>album</i> , ...	ib.	<i>coromandeliana</i> , ...	ib.
58.—SAPINDACEÆ. THE SOAP TREE TRIBE, ...	92-96	SCINDAPSUS, <i>officinalis</i> , ...	688
SAPINDUS, <i>Saponaria</i> , ...	93	<i>Peepla</i> , ...	ib.
<i>laurifolius</i> , ...	ib.	<i>giganteus</i> , ...	ib.
<i>emarginatus</i> , ...	94	<i>pertusus</i> , ...	ib.
<i>detergens</i> , ...	ib.	<i>pinnatus</i> , ...	ib.
<i>rubiginosus</i> , ...	ib.	<i>decurvivus</i> , ...	ib.
<i>polyphyllus</i> , ...	ib.	<i>caudatus</i> , ...	ib.
<i>undulatus</i> , ...	ib.	<i>pinnatifidus</i> , ...	ib.
<i>acuminatus</i> , ...	ib.	<i>glaucus</i> , ...	ib.
<i>fruticosus</i> , ...	ib.	SCIODAPHYLLUM, <i>pulchrum</i> , ...	25
<i>Danura</i> , ...	ib.	SCIRPUS, <i>junciformis</i> , ...	727
<i>angustifolius</i> , ...	ib.	<i>Kysoor</i> , ...	ib.
SAPIUM, <i>indicum</i> , ...	161	156.—SCLERANTHACEÆ, ...	327
<i>baccatum</i> , ...	ib.	SCLERANTHUS, <i>annuus</i> , ...	ib.
SAPONARIA, <i>officinalis</i> , ...	175	SCLERARIA, <i>lithosperma</i> , ...	728
166.—SAPOTACEÆ. THE SAP-		<i>tessellata</i> , ...	ib.
PODILLA TRIBE, ...	339-343	SCLEROSTYLIS, <i>atalanticoides</i> , ...	139
SARCANTHUS, <i>oxyphyllus</i> , ...	631	SCOLYMBUS, <i>maculatus</i> , ...	427
<i>affinis</i> , ...	ib.	SCOPARIA, <i>dulcis</i> , ...	507
<i>junceus</i> , ...	ib.	SCORZONERA, <i>hispanica</i> , ...	430
SARCOCOCCE, <i>pruniformis</i> , ...	152	208.—SCROPHULARIACEÆ.	
<i>latifolia</i> , ...	ib.	THE FIGWORT TRIBE, ...	496-508
<i>angustifolia</i> , ...	ib.	SCUTELLARIA, <i>discolor</i> , ...	458
SARCOLOBUS, <i>globosus</i> , ...	538	<i>indica</i> , ...	ib.
<i>carinatus</i> ...	ib.	<i>rivularis</i> , ...	ib.
SARCOSTEMMA, <i>acidum</i> , ...	542	<i>scandens</i> , ...	ib.
SASSAFRAS, <i>officinarum</i> , ...	309	SCUTIA, <i>indica</i> , ...	146
SATUREIA, <i>hortensis</i> , ...	457	SEAFORTHIA, <i>elegans</i> , ...	637
SATYRIUM, <i>cucullatum</i> , ...	632	SECALE, <i>cereale</i> , ...	715
SAURAUA, <i>fasciculata</i> , ...	91	SECAMONE, <i>emetica</i> , ...	542
<i>Roxburghii</i> , ...	ib.	SECURIDACA, <i>scandens</i> , ...	98
		SECURINEGA, <i>borbonica</i> , ...	152



Index of Orders, Genera and Species.

xlv

69
SL

	<i>Page.</i>		<i>Page.</i>
200.—SELAGINACEÆ, ...	474	SILENE, cretica,	176
SEMECARPUS, Anacardium, ...	271	stricta,	ib.
Cassuvium, ...	ib.	noctiflora,	ib.
cuneifolius, ...	ib.	bupleuroides, Armeria,	177
acuminatus, ...	ib.	SILYBUM, marianum,	425
odoratus,	ib.	SINapis, nigra,	71
humilis, ...	ib.	lævigata,	ib.
SENEBIERA, pinnatifida,	69	integrigifolia,	ib.
SENECIO, vulgaris,	422	brassicata,	ib.
SEPTAS, capensis,	268	arvensis,	ib.
SERIOLA, ætnensis,	429	orientalis,	ib.
SERISSA, foetida,	395	alba,	ib.
plena,	ib.	dissecta,	ib.
SESAMUM, indicum,	475	foliosa,	ib.
majus,	ib.	dichotoma,	ib.
SESDANIA, cægyptiaca,	216	glaуca,	ib.
bicolor,	ib.	ramosa,	ib.
concolor,	ib.	trilocularis,	ib.
aculeata,	ib.	cuneifolia	ib.
procumbens,	ib.	rugosa, erysimoides,	72
uliginosa,	ib.	divaricata,	ib.
SESVIUM, repens,	323	patens,	ib.
Wightianum, ...	ib.	pusilla,	ib.
SHERARDIA, arvensis,	399	SIOJA, sanguinaria,	93
SHUTERIA, involucrata, ...	214	SISON, Amomum,	21
SIDA, angustifolia,	112	SISYMBRUM, officinale,	69
acuta,	113	Columnae,	ib.
alba,	ib.	pannonicum,	ib.
carpinifolia,	ib.	bursifolium,	ib.
jamaicensis,	ib.	fugax,	ib.
microphylla,	ib.	SISYRINCHIUM, micranthum,	601
cuneifolia,	ib.	luteum,	ib.
rhombifolia,	ib.	SKINNERIA, cæspitosa, ...	362
rhomboidea,	ib.	SLEVOGTIA, verticillata,	520
retusa,	ib.	240.—SMILACEÆ. THE SMILAX TRIBE, ...	647-651
humilis,	ib.	SMILAX, Sarsaparilla,	648
cordifolia,	ib.	Roxburghiana, ...	ib.
truncatea,	ib.	retusa,	ib.
nervosa,	ib.	grandifolia,	ib.
SIDEROXYLON, inerme,	342	ovalifolia,	ib.
regium,	ib.	prolifera,	ib.
SIEGESBECKIA, orientalis,	412	maculata,	ib.
90.—SILENACEÆ. THE DIANTHUS TRIBE, ...	174-177	Bona nox,	ib.
SILENE, inflata,	176	herbacea,	ib.
oblongifolia,	ib.	Pseudochina,	ib.
apetala,	ib.	lanceolata,	649
viscosa,	ib.	glabra,	ib.
conica,	ib.	grandis,	ib.
anglica,	ib.	stipulacea,	ib.
lusitanica,	ib.	anceps,	ib.
gallica,	ib.	SMITHIA, sensitiva,	220
quinquevulnera,	ib.	SOJA, hispida,	231
nocturna,	ib.	leucosperma,	ib.
vespertina,	ib.	209.—SOLANACEÆ. THE NIGHTSHADE TRIBE, ...	508-518
colorata,	ib.	SOLANDRA, grandiflora,	515
obtusifolia,	ib.	viridiflora,	ib.
pendula,	ib.	SOLANUM, tuberosum,	510
inaperta,	ib.	macrocarpon,	ib.
linifolia,	ib.	æthiopicum,	ib.
antirrhina,	ib.		



	Page.		Page.
SOLANUM, <i>Pseudocapsicum</i> , ...	510	SPATHODEA, <i>serrulata</i> , ...	477
<i>nodiflorum</i> , ...	ib.	SPATHOGLOTTIS, <i>pubescent</i> , ...	625
<i>nigrum</i> , ...	511	SPECULARIA, <i>Speculum</i> , ...	370
<i>incertum</i> , ...	ib.	<i>hybrida</i> , ...	371
<i>rubrum</i> , ...	ib.	SPERGULA, <i>arvensis</i> , ...	180
<i>erythropyrenum</i> , ...	ib.	<i>pentandra</i> , ...	ib.
<i>melanopyrenum</i> , ...	ib.	SPERGULARIA, <i>rubra</i> , ...	ib.
<i>verbascifolium</i> , ...	ib.	SPERMACOCE, <i>tenuior</i> , ...	394
<i>auriculatum</i> , ...	ib.	<i>hispida</i> , ...	ib.
<i>brysimum</i> , ...	ib.	<i>articularis</i> , ...	395
<i>spirale</i> , ...	ib.	<i>semierecta</i> , ...	ib.
<i>decendentatum</i> , ...	ib.	<i>costata</i> , ...	ib.
<i>torvum</i> , ...	ib.	SPHÆRANTHUS, <i>birtus</i> , ...	409
<i>Melongena</i> , ...	512	<i>mollius</i> , ...	ib.
<i>sodomeum</i> , ...	ib.	SPHÆROPTERIS, <i>barbata</i> , ...	735
<i>marginatum</i> , ...	ib.	SPHÆROSACME, <i>fragrans</i> , ...	135
<i>campechiense</i> , ...	ib.	SPHÆROSTEMA, <i>propinquum</i> , ...	17
<i>indicum</i> , ...	ib.	<i>grandiflorum</i> , ...	ib.
<i>ferox</i> , ...	ib.	SPHENOCARPUS, <i>grandiflorus</i> , ...	12
<i>trilobatum</i> , ...	513	177.—SPHENOCLEACEÆ, ...	371
<i>Jacquinii</i> , ...	ib.	212.—SPIGELIACEÆ. THE	
<i>pentapetaloides</i> , ...	ib.	WORMSEED TRIBE, ...	522
SOLIDAGO, <i>canadensis</i> , ...	409	SPILANTHES, <i>acmella</i> , ...	416
SOLLYA, <i>heterophylla</i> , ...	31	<i>oleracea</i> , ...	ib.
SONCHUS, <i>orizensis</i> , ...	432	SPINACIA, <i>oleracea</i> , ...	320
<i>ciliatus</i> , ...	ib.	<i>tetrandra</i> , ...	ib.
SONNERATIA, <i>maculata</i> , ...	44	SPIREA, <i>Roxburghiana</i> , ...	197
SONNENATIA, <i>acida</i> , ...	50	<i>Filipendula</i> , ...	ib.
<i>apetala</i> , ...	ib.	SPODIOPOGON, <i>semisagittatus</i> , ...	706
SOPHORA, <i>glauxa</i> , ...	204	<i>conjugatus</i> , ...	ib.
<i>tomentosa</i> , ...	ib.	<i>geniculatus</i> , ...	ib.
<i>occidentalis</i> , ...	ib.	70.—SPONDIACEÆ. THE	
SORGHUM, <i>vulgare</i> , ...	704	HOGPLUM TRIBE, ...	143, 144
<i>bicolor</i> , ...	ib.	SPONDIAS, <i>lutea</i> , ...	143
<i>cernuum</i> , ...	ib.	<i>mangifera</i> , ...	ib.
<i>saccharatum</i> , ...	ib.	<i>acuminata</i> , ...	144
SORINDEIA, <i>madagascariensis</i> , ...	150	<i>longifolia</i> , ...	ib.
<i>attenuata</i> , ...	ib.	<i>axillaris</i> , ...	ib.
SOUTHWELLIA, <i>Balanghas</i> , ...	104	<i>dulcis</i> , ...	ib.
<i>coccinea</i> , ...	ib.	SPONIA, <i>orientalis</i> , ...	294
<i>angustifolia</i> , ...	ib.	<i>tetrandra</i> , ...	ib.
<i>parviflora</i> , ...	ib.	SPOROBOLUS, <i>diander</i> , ...	711
SOYMIDA, <i>febrifuga</i> , ...	137	<i>tenacissimus</i> , ...	ib.
SPARAXIS, <i>tricolor</i> , ...	610	SPREKELIA, <i>formosissima</i> , ...	583
<i>grandiflora</i> ,	ib.	<i>Dalhousiae</i> , ...	ib.
<i>Liliago</i> , ...	ib.	STACHYS, <i>densiflora</i> , ...	460
<i>alba</i> , ...	ib.	<i>Betonica</i> , ...	ib.
<i>bulbifera</i> , ...	ib.	<i>germanica</i> , ...	ib.
<i>fragrans</i> , ...	ib.	<i>sericea</i> , ...	ib.
<i>pendula</i> , ...	ib.	<i>annua</i> , ...	ib.
<i>reflexa</i> , ...	ib.	STACHYTARPHETA, <i>jamaicensis</i> , ...	471
SPARTIUM, <i>juncinum</i> , ...	208	<i>urticæfolia</i> , ...	ib.
SPATALANTHUS, <i>speciosus</i> , ...	613	<i>orubica</i> , ...	ib.
SPATHIUM, <i>chinense</i> , ...	694	<i>mutabilis</i> , ...	ib.
<i>undulatum</i> , ...	ib.	STANHOPEA, <i>grandiflora</i> , ...	627
<i>microphyllum</i> , ...	ib.	<i>oculata</i> , ...	ib.
SPATHODEA, <i>uncinata</i> , ...	477	STAPELIA, <i>Asterias</i> , ...	535
<i>Rhedi</i> , ...	ib.	<i>revoluta</i> , ...	ib.
<i>Roxburghii</i> , ...	ib.	<i>variegata</i> , ...	ib.
<i>crispa</i> , ...	ib.	87.—STAPHYLEACEÆ. THE	
<i>stipulata</i> , ...	ib.	BLADDER-NUT TRIBE, ...	169



	Page.		Page.
STAUNTONIA, latifolia, ...	332	TACCA, pinnatifida,	600
STAUROGYNE, argentea, ...	493	levis,	ib.
STELIS, micrantha, ...	620	integrifolia,	ib.
STELLARIA, media, ...	178	cristata,	ib.
triandra, ...	ib.	TAGETES, patula,	416
STEMODIA, viscosa, ...	501	erecta,	417
STEMONA, gloriosa, ...	650	TALAUMA, pumila,	12
tuberosa, ...	ib.	TALINUM, cuneifolium,	174
STENACTIS, annua, ...	408	reflexum,	ib.
STENOTAPHRUM, dimidiatum, ...	703	92.—TAMARICACEÆ. THE	
69.—STERCULIACEÆ, 102-111		TAMARISK TRIBE, ...	178, 179
STERCULIA, foetida, ...	103	TAMARINDUS, indica,	247
STERNERGIA, lutea, ...	582	oxycarpa,	ib.
STEVIA, Eupatoria, ...	406	melicarpa,	ib.
paniculata, ...	407	rhodocarpa, ...	ib.
STIGMATOPHYLLUM, aristatum, ...	171	TAMARIX, gallica,	179
STILLINGIA, sebifera, ...	161	indica,	ib.
STRELITZIA, ovata, ...	578	dioeca,	ib.
junccea, ...	ib.	TANACETUM, vulgare, ...	420
STREPTIUM, asperum, ...	471	TANGUINIA, venenifera,	532
STRIGA, densiflora, ...	505	TARAXACUM, Dens leonis,	430
lutea, ...	ib.	223.—TAXACEÆ. THE YEW	
euphrasioides, ...	506	TRIBE, ...	559, 560
STROBILANTHUS, scabra, ...	484	TAXUS, baccata,	559
callosa,	ib.	latifolia,	ib.
Sabiniana, ...	ib.	TECOMA, australis,	477
auriculata,	ib.	jasminoïdes,	ib.
laevigata,	ib.	capensis,	478
elegans,	ib.	grandiflora,	ib.
STROPHANTHUS, dichotomus, ...	525	radicans,	ib.
178.—STYLDIACEÆ, 371, 372		minor,	ib.
STYLDIUM, Swz. tenellum, ...	372	TECTONA, grandis,	470
STYLDIUM, R. Br. begonifolium, 40		ternifolia,	ib.
barbatum, ...	ib.	TESSEDALEA, budicala,	68
STYLOCORYNA, Webera, ...	377	TELEKIA, cordifolia,	411
odorata,	ib.	TEPHROSIA, suberosa,	214
attenuata,	ib.	fruticosa,	ib.
coriacea,	ib.	candida,	ib.
STYLODISCUS, trifoliatus,	160	macrophylla,	ib.
STYLOSANTHES, mucronata, ...	219	ferruginea,	215
167.—S. O. STYRACEÆ, 346, 347		racemosa,	ib.
STYRAX, serrulatus,	347	toxicaria,	ib.
Benzoin,	ib.	ochroleuca,	ib.
103.—SURIANACEÆ, ...	193	tinctoria,	ib.
SUTHERLANDIA, frutescens,	217	senticosa,	ib.
SWIETENIA, Mahagoni, ...	137	coccinea,	ib.
SYMPHOREMA, involucratum,	470	incana,	ib.
polyandrum,	ib.	villosa,	ib.
SYMPLOCOS, ferruginea, ...	346	diffusa,	ib.
spicata,	ib.	purpurea,	ib.
racemosa,	ib.	spinosa,	216
pulcherrima,	ib.	urophyla,	ib.
TABERNAMONTANA, coronaria,	527	TERMINALIA, angustifolia,	36
plena,	ib.	Catappa,	ib.
recurva,	ib.	procera,	ib.
crispa,	ib.	bialata,	ib.
dichotoma,	ib.	Bellerica,	ib.
micrantha,	ib.	moluccana,	37
rugosa,	ib.	Chebula,	ib.
231.—TACCACEÆ,	600	citrina,	ib.
		Fatrea,	ib.



	Page.		Page.
TERMINALIA, Berryi,	37	TILLANDSIA, acaulis,	616
Arjuna,	ib.	TODDALIA, aculeata,	186
crenulata,	ib.	floribunda,	ib.
glabra,	ib.	capparidea,	ib.
tomentosa,	38	TOLFIS, barbata,	428
coriacea,	ib.	altissima,	ib.
paniculata,	ib.	TORDYLIUM, officinale,	22
gangetica,	ib.	TORENTIA, asiatica,	505
56.—TERNSTRÖMIACEÆ, 90, 91		cordifolia,	ib.
TESTUDINARIA, Elephantopus,	651	TORILIS, Anthriscus,	23
TETA, viridiflora,	650	TOURNFORTIA, viridiflora,	445
petiolaris,	ib.	TOXOCARPUS, laurifolius,	542
TETRACERA, Rheedii,	17	TRACHELIMUM, cœruleum,	371
152.—TETRAGONIACEÆ, 322, 323		TRACHYLOBIUM, Lamarckianum,	253
TETRAGONIA, expansa,	323	TRACHYS, muricata,	703
TETRANTHES, lanceæfolia,	309	TRADescANTIA, fuscata,	677
Roxburghii,	ib.	paniculata,	ib.
opetala,	ib.	erecta,	ib.
laurifolia,	310	crassifolia,	ib.
monopetala,	ib.	virginica,	ib.
glauca,	ib.	discolor,	678
nitida,	ib.	TRAGIA, cannabina,	160
macrophylla,	ib.	Mercurialis,	ib.
quadriflora,	ib.	involucrata,	ib.
fruticosa,	ib.	colorata,	ib.
glabra,	ib.	TRAGOPOGON, porrifolius,	430
foliosa,	ib.	19.—S. O. TRAPEÆ. THE WATER	
TEUCRIUM, Leucosceptrum,	463	NUT TRIBE,	34, 35
stoloniferum,	ib.	TRAPa, hispinoSA,	25
Botrys,	ib.	quadrispinosa,	ib.
THALICTRUM, foliolosum,	3	TRIANTHEMA, crystallinum,	173
flexuosum,	ib.	obcordatum,	ib.
THEA, chinensis,	91	rubellum,	ib.
Bohea,	ib.	viridulum,	ib.
THEOBROMA, Cacao,	108	deandrum,	ib.
THESPERIA, populnea,	120	TRIAS, oblonga,	622
polulneoides,	ib.	racemosa,	ib.
THEVETIA, nereifolia,	531	TRIBULUS, lanuginosus,	ib.
THIBAUDIA, variegata,	334	cistoides,	ib.
vaccinacea,	ib.	TRICHODESMa, indicum,	444
setigera,	ib.	zeylanicum,	ib.
THLASPI, arvene,	68	spinulosum,	ib.
THRINCIA, hirta,	429	TRICHOLEPIS, radicans,	424
hispida,	ib.	TRICHONEMA, Bulbocodium,	613
maroccana,	ib.	purpurascens,	ib.
THUNBERGIA, grandiflora,	481	cruciatum,	ib.
fragrans,	ib.	roscum,	ib.
alata,	ib.	pudicum,	ib.
angulata,	482	chloroleucum,	ib.
THUJA, occidentalis,	557	caulescens,	ib.
orientalis,	ib.	speciosum,	ib.
sphæroidea,	ib.	TRICHOPUS, piperifolius,	314
140.—THYMELACEÆ. THE		TRICHOSANTHES, anguina,	57
MEZEREUM TRIBE,	304, 305	cucumerina,	ib.
THYMUS, vulgaris,	457	lobata,	58
THYRIDOSTACHYUM, perforatum,	708	dioeca,	ib.
TIARIUM, indicum,	445	cordata,	ib.
TIGRIDIA, Pavonia,	605	bracteata,	ib.
73.—TILIACEÆ. THE LINDEN		heteroclita,	ib.
TRIBE,	126-129	TRIDAX, procumbens,	417
TILLANDSIA, paniculata,	616	TRIFOLIUM, incarnatum,	210



Index of Orders, Genera and Species.

	Page.		Page.
TRIFOLIUM, arvense, ...	210	URARIA, picta, ...	220
lappaceum, ...	ib.	crinita,	ib.
alexandrinum, ...	ib.	lagopodioides,	ib.
stellatum, ...	ib.	alopecuroides,	ib.
strictum, ...	ib.	hamosa,	ib.
Michelianum,	ib.	styracifolia,	ib.
spinulosum, ...	ib.	floribunda,	221
resupinatum, ...	ib.	cordifolia,	ib.
TRIGONELLA, cerulea, ...	209	campanulata,	ib.
Foenum græcum, ...	ib.	retrofracta,	ib.
corniculata, ...	ib.	URCEOLA, elastică,	527
ornithopodioides, ...	ib.	URENA, lobata,	112
255.—TRIGLOCHINACEÆ, ...	695	sinuata,	ib.
36.—S. O. TRIGONIË, ...	169	repanda,	ib.
TRIPHACA, africana, ...	103	speciosa,	ib.
TRIPHASIA, trifoliata,	138	rigida,	ib.
TRIPINNA, africana, ...	479	macrocarpa,	ib.
TRISTANIA, megaphylla,	45	URGINEA, maritima,	665
TRIUMPETTA, angulata, ...	127	UROCHLOA, panicoides,	700
rotundifolia,	ib.	UROPELALUM, viride,	663
anna,	ib.	120.—URTICACEÆ. THE NET-	
trilocularis,	ib.	THE TRIBE,	279-292
100.—S. O. TROPÆOLEÆ. THE		URTICA, smilacifolia,	279
NASTURTIUM TRIBE,	190	scabrella,	280
TROPÆOLUM, majus, ...	ib.	macrostachya,	ib.
TROPHIS, aspera, ...	291	penduliflora,	ib.
TULIPA, Gesneriana, ...	654	viminea,	ib.
stellata,	ib.	blanda,	ib.
TUPA, Feuillei,	367	parviflora,	ib.
TUPistra, squalida,	649	tuberosa,	ib.
nutans,	ib.	dioeca,	ib.
aurantiaca,	ib.	urens,	ib.
angustifolia,	ib.	pilulifera,	ib.
49.—TURNERACEÆ, ...	85	suffruticosa,	ib.
TURNERA, ulmifolia,	ib.	decumana,	ib.
angustifolia,	ib.	pulcherrima,	ib.
trioniflora,	ib.	bicolor,	ib.
TURPINIA, pomifera, ...	169	nivea,	ib.
TURRITIS, glabra, ...	67	crenulata,	ib.
TYLOPHORA, tenuissima,	539	involucrata,	281
vomitoria,	ib.	heterophylla,	ib.
253.—TYPHACEÆ, ...	693	photeinophylla,	ib.
TYPHA, angustifolia, ...	ib.	URTICULARIA, reticulata,	494
elephantina,	ib.	nivea,	ib.
TYPHONIUM, flagelliforme,	685	cerulea,	ib.
divaricatum,	ib.	stellaris,	ib.
orixense,	686	fasciculata,	ib.
trilobatum,	ib.	diantha,	ib.
sylvaticum,	ib.	UVARIA, odorata,	14
121.—ULMACEÆ. THE ELM		grandiflora,	ib.
TRIBE,	293, 294	macrophylla,	15
ULMUS, integrifolia,	293	bicolor,	ib.
virgata,	ib.	ventricosa,	ib.
UNONA, discolor,	15	bracteata,	ib.
longiflora,	ib.	tripetala,	ib.
undulata,	ib.	elongata,	ib.
dumosa,	ib.	heterocarpa,	ib.
DASYMASCHALA, ...	ib.	VASCHELLIA, Farnesiana,	264
levigata,	ib.	162.—VACCINIACEÆ. THE	
penduliflora,	ib.	BILBERRY TRIBE,	333, 334



Index of Orders, Genera and Species.

SL

	Page.		Page.
VACCINIUM, Sprengelii,	333	VIBURNUM, punctatum,	398
secundum,	ib.	Colebrookianum,	ib.
Schmidianum,	ib.	cotinifolium,	ib.
188.—VALERIANACEÆ. THE VALERIAN TRIBE,	434-436	adenophyllum,	ib.
VALERIANELLA, olitoria,	435	VICARYA, cristata,	544
uncinata,	ib.	VICIA, Faba,	226
coronata,	ib.	equina,	ib.
VALLARIS, pergularius,	524	onobrychioides,	ib.
dichotomus,	ib.	atropurpurea,	ib.
VALLOTA, purpurea,	585	sativa,	ib.
major,	586	VIOLA, indica,	411
minor,	ib.	subintegra,	ib.
VALLISNERIA, spiralis,	617	VIESSUXIA, pavonia,	602
alternifolia,	618	tripetala,	ib.
VANDA, Roxburghii,	629	VILLARIA, indica,	521
multiflora,	630	cristata,	ib.
teres,	ib.	VINCA, major,	526
cristata,	ib.	herbacea,	ib.
VANDELLIA, crustacea,	504	rosea,	ib.
Roxburghii,	ib.	albiflora,	ib.
varians,	505	40.—VIOLACEÆ. THE VIOLET TRIBE,	76, 77
miltiflora,	ib.	VIOLA, cucullata,	76
VANGUERIA, edulis,	386	Roxburghiana,	ib.
spinosa,	ib.	odorata,	ib.
macrophylla,	ib.	serpens,	ib.
VANILLA, aromaticæ,	633	distant,	77
planifolia,	ib.	tricolor,	ib.
VATERIA, indica,	124	VISENIA, velutina,	109
lanceæfolia,	ib.	15.—VITACEÆ. THE VINE TRIBE,	27-30
VATICA, robusta,	ib.	VITEX, trifolia,	468
Tumbuggaia,	125	Negundo,	469
VELTHEIMIA, viridifolia,	663	heterophylla,	ib.
VENTILAGO, maderaspatana,	146	incisa,	ib.
VERBASCUM, Thapsus...	497	arborea,	ib.
indicum,	ib.	Leucoxylon,	ib.
maeranthum,	ib.	saligna,	ib.
australe,	ib.	alata,	ib.
pulverulentum,	ib.	altissima,	ib.
198.—VERBENACEÆ. THE VERVAIN TRIBE,	464-473	Haynga,	ib.
VERBENA, L. bonariensis,	471	VITIS, quadrangularis,	27
officinalis,	ib.	palida,	28
VERBENA, L. Aubletii,	472	cordata,	ib.
chamædrifolia,...	ib.	glauca,	ib.
sororia,	ib.	adnata,	ib.
VERNOMIA, cinerea,	405	pentagona,	ib.
aspera,	ib.	carnosa,	ib.
multiflora,	ib.	elongata,	ib.
vagans,	ib.	angustifolia,	ib.
volkameriaeæfolia,	ib.	lanceolaria,	ib.
anthelmintica,	ib.	pedata,	ib.
VERONICA, foliosa,	506	auriculata,	29
maritima,	ib.	serulata,	ib.
spuria,	ib.	vinifera,	ib.
elatior,	ib.	latifolia,	ib.
hybrida,	ib.	lanata,	ib.
longifolia,	ib.	indica,	ib.
Anagallis,	507	parvifolia,	ib.
glandulosæ-pubescentes,	ib.	glandulosa,	ib.
agrestis,	ib.	VITMANNIA, africana,	147



SL 72

Index of Orders, Genera and Species.

	Page.		Page.
62.—VOCHYACEÆ,	99	XIMENIA, americana,	31
VOSSIA, procera,	706	Xylocarpus, Granatum,	136
VULPIA, bromoidea,	717	Xylophylla, angustifolia,	155
Myurus,	ib.	latifolia,	ib.
uniglumis,	ib.	elongata,	ib.
WACHENDORFIA, thyrsiflora,	599	260.—XYRIDACEÆ,	731
brevifolia,	ib.	XYRIS, indica,	ib.
WAHLENBERGIA, capensis,	369	YOUNGIA, procumbens,	432
hederacea,	ib.	acaulis,	ib.
dehisces,	ib.	linifolia,	ib.
cernua,	ib.	YUCCA, aloifolia,	661
bispidula,	ib.	Draconis,	ib.
WALLICHIA, spectabilis,	108	filamentosa,	ib.
WALSURA, piscidis,	135	glaucescens,	662
WALTHERIA, indica,	110	gloriosa,	ib.
WATSONIA, spicata,	609	ZACINTHIA, verrucosa,	431
plantaginea,	ib.	ZALACCA, edulis,	639
marginata,	ib.	asamica,	ib.
rosa,	ib.	ZAMIA, longifolia,	554
brevifolia,	ib.	horrida,	ib.
fulgida,	ib.	ZANONIA, clavigera,	60
iridifolia,	ib.	ZAPANIA, nodiflora,	472
Meriana,	ib.	ZEA, Mays,	709
humilis,	ib.	ZEPHYRANTHES, mesochloa,	582
aletroides,	ib.	Atamasco,	ib.
roseo-alba,	ib.	tubispatha,	ib.
WEDELIA, calendulacea,	414	carinata,	ib.
WIGANDIA, urens,	366	rosa,	ib.
WILDEOWIA, teres,	730	sessilis,	ib.
WILLUGBEEA, edulis,	532	vere cunda,	ib.
WENDLANDIA, exserta,	383	striata,	ib.
tinctoria,	ib.	candida,	583
paniculata,	ib.	ZEUXINA, sulcata,	633
7.—WINTERACEÆ. THE WINTER'S BARK TRIBE,	13	225.—ZINGIBERACEÆ. THE GINGER TRIBE,	561-574
WISTARIA, siensis,	228	ZINGIBER, officinale,	561
WOLLASTONIA, biflora,	414	Zerumbet,	562
scabriuscula,	ib.	Cassumunar,	ib.
WORMIA, dentata,	18	lignatum,	ib.
WRIGHTIA, antidyserterica,	525	roseum,	ib.
tinctoria,	ib.	pardocheilum,	ib.
tomentosa,	ib.	rubens,	ib.
mollissima,	526	squarrosum,	ib.
coccinea,	ib.	panduratum,	ib.
WURMBEA, purpurea,	646	chrysanthum,	ib.
XANTHIUM, orientale,	413	barbatum,	ib.
XANTHOPHYLLUM, vires,	98	capitatum,	ib.
98.—XANTHOXYLACEÆ, 184-116		elatum,	563
XANTHOXYLON, triphyllum,	185	ZINNIA, tenuiflora,	413
limonifolium,	ib.	multiflora,	ib.
alatum,	ib.	pauciflora,	ib.
nitidum,	ib.	hybrida,	ib.
Rhetsa,	ib.	elegans,	ib.
Budrunga,	ib.	<i>violacea</i> ,	ib.
violaceum,	ib.	<i>coccinea</i> ,	ib.
undulatum,	ib.	ZORNIA, angustifolia,	219
obovatum,	ib.	ZOYSIA, pungens,	709
XEROGLOTTIS, fragrans,	164	97.—ZYGOPHYLLACEÆ. THE BEAN-CAPER TRIBE,	183, 184
XIMENESIA, encelioides,	416	*	



Index of Orders, Genera and Species.

GSL

	Page.		Page.
Zizyphus, rugosa,	... 144	Zizyphus, nitida,	... 145
glabrata, ...	145	vulgaris, ...	ib.
Xylopyrus, ...	ib.	Lotus, ...	ib.
Jujuba, ...	ib.	Roxburghiana, ...	146
fructu oblongo, ...	ib.	glabra, ...	ib.
mammularia, ...	ib.	Incurva, ...	ib.
Oenoplia, ...	ib.	flexuosa, ...	ib.
albens, ...	ib.		



CSL³

Index

OF

THE BENGALEE NAMES OF PLANTS

IN THIS VOLUME.

অথৱাট Ukhrot 159	296.	আদা বণি Ada-burni 502.
অগুর Ugoor 305.		আদ্রুক Aurdruk 561.
অঙ্গুরের গাছ Ungoorer-gachh 29.		আনাৰ Anar 50.
অচ Uch 386.		আম Am 272.
অডুৰ Urur 236.		আমড়া Amra 143.
অনন্ত মূল Ununto-mool 544.		আম্লকুকা Amclouka 29.
অন্ত মূল Unto-mool 539.		আম্রুল Amrool 48, 191.
অনান্নাস Anannas 614.		আমাদা Amada 564.
অপাঙ্গ Upang 319.		আমলি Amla 247.
অমল কুচ Umul-koochi 244.		আমুৱা Amoora 134.
অম্বল বেল Umblo-bale 686.		আম্বুহলী Ambo-huldee 565.
অৱুস Urus 511.		আমলা Amla 153.
অলাটচান্দ Ulatchandal 655.		আলকশী Alkushee 235.
অশেক Ushok 246.		অলগোসা Algosa 349.
অশ্ব গুঁড়া Ushwa-gunda 514.		আশফুল Ashphul 95.
অশ্বথ Ushwuth 287.		আশ্বোৱা Ashshoura 139.
অকন্দ Akundo 540.		আশান Ashan 38.
আকাশ বলী Akash-bullee 312.		অশু কচু Ashoo-kuchoo 687.
আকুশ Aukush 157.		[740.]
আগমকি Agumuki 55.		ইন্দ্ৰ কানি পানা Indoor kanee-pana
আর্জুনি Arjooni 37.		ইসফুল Issufgool 437.
আটকে কলায় Atke-kulay 243.		ইশ্বৰ মূল Ishwar-mool 313.
আতা Ata 14.		
আতমোড়া Antumora 102.		
আদা Ada 561.		
		উক Ook 705.
		উচন্তি Oohchunti 406.



INDEX OF THE

SL

ଓচ্ছা Oochhya 56.

ଓদ্ধ জাতি Oodoo-jati 490.

ଓলকি পানা Oolki-pana 740.

ଓলট কম্বল Oolut-kumbul 108.

ଓলু Ooloo 705.

একত্তির Ekteer 737.

একবীর Ekbeer 737.

এলাইচ Elaich 568.

এলাচী Elachee 568.

ওড়চাকা Orchaka 50.

ওজ Ol 686.

ওৰা চাঁপা Ouva-champa 12.

ককজঞ্চা Kokojongha 30.

কুকী Kurkkee 708.

কুন্দা নটি Kunka-nuti 316.

কুণ্ডিয়া Kungiya 469.

কংডু Kungoo 702

কংডুজুড়িয়া Kungoo-jooriya 699.

কংডুয়া Kungooya 112.

কুচকচিয়া Kuchkuchiya 724.

কচু Kuchoo 687.

কঞ্জ লতা Kunju-lata 537.

কুরিলা Kurila 224.

কন্টকারি Knatu-karee 513.

কদম Kudum 375.

কদু Kodoo 57.

কথবেল Kuthbel 141.

কনক চাঁপা Kunuk-champa 181.

কনকচাম্পা Kunuk-champa 107.

কনুড়কা Kanuraka 676.

কমলানেবু Kumla-neboo 142.

কুরঞ্জা Kurunja 239.

কুরম্চা Kurumcha 529.

কুরলা Kurula 56.

কুরাটোয়া যুবানী Kuratiya-yuvanee 726.

কুরেতা Kureta 113.

কুর্পুর Kurpoor 308, 502.

কুমুরঞ্জ Kumurunga 191.

কুলকসন্দা Kulkushunda 220.

কুলমী লতা Kulmee-luta 351.

কুলমী শাক Kulmee-shak 355.

কুলমু Kulumbo 331.

কুলশন্দু Kulusnur 700.

কুলা Kula 578.

কৌওয়া Kaoa 392.

কাঁকুড়া Kankoor 58

কাঁখরা Kankhra 366.

কাঁচ গড়গড়া Kanch-gurgur 710.

কাঁটা গড়গড়া Kanta-gurgur 710.

কাঁটা আলু Kanta-aloo 653.

কাঁটা কুচু Kanta-kuchoo 689.

কাঁটা কুলিকা Kanta-koolika 485.

কাঁটা গুড় কামাই Kanta-goor-kamaei 75.

কাঁটা জাতি Kanta-jati 486.

কাঁটা নটি Kanta-nuti 317.

কাঁটা মান Kanta-man 689.

কাঁটাল Kantal 289.

কাঁকড়া Kankra 41.

কাক ডুমুর Kaku-doomoor 289.

কাখড়া Kakhura 564.

কাগজিনেবু Kagujee-neboo 142.

কাঙড়া Kanchura 676.

কাঙঞ্জন Kanchun 253.

কাঠ গোলাৰ Kat-golab 194.

কাঠ শিম Kat-shim 235.

কাঠ শোলা Kat-sola 219.



BENGALEE NAMES OF PLANTS.

SL

কুকুর আলু Kookoor-aloo 652.
কুকুর চিতা Kookoor-chita 309.
কুকুর চোরা Kookoor-choora 391.
কুকুরজিহ্বা Kookoor-jihva 30.
কুচড়ি Koochuri 520.
কুচি কাটা Kooche-kanta 257.
কুচিলা Koochila 530.
কুচিলা লতা Koochila-luta 530.
কুদালিয়া Kooldaliya 223.
কুন্দ Koondo 550.
কুন্দু রুমী Koondoo-roomee 274.
কুমড়া Koomra 57.
কুমারিকা Koomarika 648.
কুলগাছ Koolgachh 145.
কুলঞ্জন Koolunjun 570.
কুলথ কুলায় Kooltho-kulay 232.
কুলি বেগুন Kooli-begoon 512.
কুশ Koosh 716.
কুষ্ট Koost 572.
কুসুম Koosoom 425.
ক্রিপা Kripa 39.
কিশ্মু কেলী Kishmo-keli 328.
ক্ৰিষ্ণচূড়া Krishno-choora 245.
ক্ৰিষ্ণ তিল Krishno-til 475.
ক্ৰিষ্ণতুলসী Krishno-tulsee 448.
কেও Keo 572.
কেৱড়া Keora 50.
কেয়া Kea 682.
কেয়া কাটা Kea-kanta 683.
কেৱালি Keralee 685.
কেলি কদম্ব Keli-kudum 375.
কেশ রাজ Kesho-raj 414.
কেশুরী মুলংগু Keshuree-mulunga 725.
কান রাজ Kan-raj 253.
কানালা Kanala 73.

কান্দলি Kanduli 677.
কাপাস Kapas 121.
কাফুরি মুরিচ Kaphuri-murich 510.
কামুরালি নেবু Kamuralee-neboo 142.
কামিনী Kaminee 139, 140.
কারুণ ফুল Karun-phul 140.
কুলা Kula 578.
কাল কচু Kalo-kuchoo 687.
কাল কপুরু Kalo-kurpoor 502.
কালকস্তুরী Kal-kustnree 119.
কাল কালকাশুনা Kalo-kalkasoonda 248.
কালকাশুনা Kalkasoonda 248.
কাল কুঁচ Kaloo-koonch 228.
কালকেরা Kalokera 74.
কাল জাম Kalo-jam 49.
কালজিরা Kalojira 4.
কাল খাঁটা Kalo-jhantee 490.
কাটো তুলসী Kalo-tulsee 448.
কাল দেবধান Kalo-debdhan 704.
কাল ধূতুরা Kalo-dhootoora 515.
কাল মুগ Kalo-moog 230.
কাল মেঘ Kalo-megh 493.
কাল শিম Kalo-shim 235.
কাল হুলী Kalo-huldee 563.
কালা Kala 482.
কালী খাঁপ Kalee-jhamp 735.
কাশ Kash 705.
কুঁচ Koonch 228.
কুন্দুরু Koonduroo 148.
কেশুরি Keshoori 411.
কেশাড় Keshar 727.
কেসারা দাম Kesara-dam 33.
কোক বৰান্দি Kokburadee 455.
কোকশিম Koksim 497.
কোর্নেবু Korna-neboo 142.



INDEX OF THE

SL

- કોડુ Kodu 699.
કોડુ Kodu 699.
કોની Konee 716.
કોપી Kopi 70.
- થએર ગાછ Khuera-ghach 260.
ખર્ડી Khoree 705.
ખમ આલૂ Khum-aloo 652.
ખરુબજ ખરુબજ Khur-buj 58.
ખસખસ હાસ Khuskhus-ghas 706.
ખજૂર Khajoor 642.
ખજૂર ચર્દી Khajoor-churi 462.
ખમાચ Khamach 236.
ખૂદી ઓકડી Khoodi-okra 156.
ખૂદી જામ Khoodi-jam 295.
ખેત પાપડી Khet-papra 180.
ખેસારી Khesaree 227.
ખેત પાપડી Khet-papra 384.
- ગજ પિપ્પળ Guj-pippul 688.
ગંજા Gunja 282.
ગર્ડગોળાલિયા Gur-goaliya 28.
ગરિયારિ Guniaree 468.
ગંધુન Gundhun 668.
ગંધાલી Gundhalee 388.
ગંધો બેના Gundho-bena 706.
ગંધો ભાદાલી Gundo-bhdedee 384 388
ગંધો માલતી Gundho-malutee 523.
ગંધો રસ Gundho-ruso 489.
ગંધા રાજ Gundha-raj 378.
ગંધલ રુંગન Gundhol-rungun 391.
ગંધારી Gumbharee 470.
ગમ Gom 715.
ગ્યાયશ્વર્થ Guyashwuth 287.
ગોન Goran 41.
- ગરાનિયા આલૂ Guraniya-aloo 652.
ગરડુ Guroor 734.
ગલ કિરિંગી Gulphiringee 526.
ગાં બેના Gang-bena 703.
ગાજર Gajur 28.
ગાડોબણ્ણા Gado-bunya 173.
ગાદા પૂર્ણા Gada-poorna 328.
ગંધાલી Gundhalee 388.
ગાબ Gab 345.
ગારિનુલ Gab-nul 714.
ગાર કળાઈ Gari-kulay 231.
ગારુડુ Garoodoo 98.
ગિમા Gimai 520.
ગિલા ગાછ Gila-gachh 256.
ગુગ્ગળ Googkul 150.
ગુર્ડાલ શિમ Goordal-shim 233.
ગુર્ડિ કચુ Goori-kuchoo 687.
ગુર્ડિ શિઓરા Goori-shiora 285.
ગુયા Gooia 637.
ગુયા બાબળા Gooya-babula 264.
ગુર્રી Gooree 730.
ગુલગા Goolga 684.
ગુલ દાઉદી Gooldaoodee 418.
ગુલા ચીન Goola-cheen 528.
ગુલા તુલસી Goolal-tulsee 448.
ગુલાસરુફ Goolasruph 100.
ગુલંગું Gooluncha 330.
ગેંગ્વા Gengwa 161.
ગૈચિ શિમ Gychi-shim 234.
ગોયાલિયા અતા Goaliya-luta 28.
ગોડા નેબુ Gora-neboo 142.
ગોખૂર Gokhoor 184.
ગોટ બેગુન Goto-begoon 511.
ગોથુબી Gothobee 725.
ગોધ બેગુન Godh-begoon 513.

SL
75
vii

BENGALI NAMES OF PLANTS.

- গোবরা Gobura 460.
গোবরা নটি Gobura-nuti 316.
গোবরিয়া চাঁপা Goburiya-champa 528.
গোরক্ষ চাকুল্যা Gorukhya-chakoolya 220.
গোরক্ষি Gorkhee 511.
গোল কাকড়া Golkankra 56.
গোল খয়রা Gol-khyra 112.
গোল মরিচ Gol-murich 299.
গোল মলঙা Gol-molunga 723.
গোল মেথি Golmethee 722.
গোলাব জাম Golab-jam 47.
গৌরীকুল Goowreephul 195.

ঘাস কচু Ghas-kuchoo 685.
ঘি নালিতা পাটি Ghi-nalita-pat 127.
ঘিরি শাক Ghimi-shak 180.
ঘীমটি নটি Gheenti-nutee 315
ঘেচু Ghechoo 694.
ঘেট কচু Ghet-kuchoo 686.
ঘোড়া মুগ Ghora-moog 230.
ঘোল মহুনি Ghol-muhunee 315.
গ্রাতকুমারী Gheet-koomaree 360.

চই Chui 299.
চনা Chuna 226.
চন্দন Chundun 303.
চন্দন বেতু Chundun-betoo 321.
চন্দুর মূলী Chundur-molee 280.
চন্দ্র মুলিকা Chundo-moolika 418.
চন্দ্ৰ মূলা Chundro-moola 566.
চন্দ্ৰা Chundra 532.
চাঁপা Champa 12.
চাঁপা নটি Champa-nuti 315.
চাকুনা Chakunda 251.
চাকুল্যা Chakoolya 734.

চাঢ় কচু Char-kuchoo 687.
চামচিকী Cham-chikee 220.
চামাটি পাটি Chumatee-patee 724.
চারিকোনা শিম Chari-kona-shim 234.
চালিতা Chalita 18.
চিক্রাশি Chickrasee 137.
চিচিঙা Chichinga 57.
চিরিয়া ঘাস Chiriya-ghas 699.
চিতা Chita 438.
চিতুয়া বোঢ়া Chitoon-bora 734.
চিতু চিতুয়া Chitri-chiryaa 700.
চিন ঘাস Cheeno-ghas 700.
চীনা গোড়ানেবু Cheena-gora-neboo 142.
চীনা নারঞ্জি Cheena-narungee 138.
চিরতা Chirata 519.
চুঁচা Chooncha 722.
চুক পালং Chook-palung 326.
চুন খড়কী Choona-khurkee 708.
চুপড়িজালু Choopri-aloo 652.
চেঁচকা Chenchka 727.
চেরু নটি Cheroo-nuti 315.
চেলাটি পিল্লি Chelat-pipul 161.
চোর কাঁটা Chor-kanta 704.

ছাগল খুড়ি Chhagul-khoori 356.
ছাগল নদী Chhagul-nudi 409.
ছাগল পটপটি Chhagul-putputee 164.
ছাগল পাটি Chhagul-patee 541.
ছাগল বাঁটি Chhagul-bantee 541.
ছাগল বাটী Chhagul-batee 2.
ছাতিন Chhatin 526.
ছায়া Chhaya 317.
ছুঁচ মূড়মুড়ি Chhooncho-moormoori 726.
ছেটি আকন্দ Chhoto-akundo 541.
ছেটি ওকড়া Chhoto-okra 472.



INDEX OF THE

SL

ছোট কট Chhoto-kut 680.
 ছোট কল্প Chhoto-kalpa 444.
 ছোট কিরাতা Chhoto-kirata 520.
 ছোট কেরুই Chhoto-keruee 163.
 ছোট কোকশিম Chhoto-koksim 405.
 ছোট গেংদা Chhoto-gonda 416.
 ছোট গোথুবি Chhoto-gothoobee 723.
 ছোট চাঁদ Chhoto-chand 532.
 ছোট জাম Chhoto-jam 49.
 ছোট জালগান্টি Chhoto-jalgantee 700.
 ছোট ঝঞ্জন Chhoto-jhunjhun 207.
 ছোট ঝাঁজি Chhoto-jhanjee 494.
 ছোট দ্বিভুজা Chhoto-doodhee-luta 538.
 ছোট নীল পদা Chhoto-neelpudmo 9.
 ছোট পান চুলি Chhoto-pan-choolee 521.
 ছোট পিণে নটী Chhoto-pine-nutee 712.
 ছোট ফুটিকা Chhoto-phootika 44. [352.
 ছোট বিচ তাড়কা Chhoto-bich-taruka
 ছোট মটুর Chhoto-mutur 227.
 ছোট মন্দা Chhoto-munda 54.
 ছোট মস্তুর Chhoto-muscor 226.
 ছোট মেচ্ছেতা Chhoto-mechheta 483.
 ছোট রুক্তকম্বল Chhoto-rukto-kumbul 8.
 ছোট দুনিয়া Chhoto-looniya 173.
 ছোট শৰ্ধি Chhoto-sundhi 8. [shim 234.
 ছোট সাদামাথনশিম Chhoto-sada-makhun.
 ছোট হলকসা Chhoto-hulkusa 461.

জগন্মুন Jugan-mudun 489.
 জঙ্গলী আদ্রুক Junglee-adruk 562.
 জঙ্গলী খাজুর Junglee-khajoor 642.
 জঙ্গলী দাল Junglee-dal 711.
 জঙ্গলী পাট Junglee-pat 126.
 জঙ্গলী বাদাম Junglee-badam 104.
 জঙ্গলী মটুর Junglee-mutur 227.

জঙ্গলী হুলী Junglee-huldee 563.
 জুটা কাঙড়া Juta-kanchura 677.
 জটা সালপানী Juta-salpanee 224.
 জুহু পালঞ্জ Judoo-palung 320.
 জুবসন Juvasn 224.
 জুবা Juva 116.
 জুয়ন্টি Juyuntee 216.
 জয়পাল Jypal 156.
 জুরুদ কুলমী Jurud-kulmee 362.
 জুল গুর্গুর Jul-gurgur 710.
 জুলপাই Julpai 123.
 জুল পাপড়া Julpapra 180.
 জাতি Jatee 552.
 জামুর Jambo 47.
 জায়ফুল Juyphul 10.
 জারুল Jarool 131.
 জালগান্টি Jalgantee 701.
 জালমুটী Jalmootee 721.
 জিল Jiol 275.
 জীবন Jeebun 294.
 জীয়া শিম Jeea-shim 233.
 জীল মুরিচ Jeel-murich 371.
 জুই Jooi 392.
 জুই Jooin 551.
 জুই পানা Jooin-pana 490.
 জুপি কঞ্জা Joopi-kunka 701.
 জুম Joom 150.
 জুয়ার Jowar 704.
 জ্যৈষ্ঠী Jytree 10.
 যজ্ঞ তুয়ার Juguya-doomoer 288.
 যব Juvo 714.

ঝঞ্জনী আঁকুরী Jhaunjhunee-ankuree 226.
 ঝাউতি Jhaco 179.
 ঝিঙ্গা Jhinga 56.

CL
16

BENGALEE NAMES OF PLANTS.

টাকাপানা Takapana	684.	তিত লাটি Tita-laco	57
টানা জিনিয়া Tanajiniya	716.	তিস্তুড়ী Tin-tooree	247.
টাকীওপড়া Tikee-opra	109	তিল Til	475.
ঠাকুরি কুলায় Takuri-kulay	232.	তিলিয়াকুরা Tiliyakura	331.
ডঙ্কানি Dunkuni	520.	তুত Toot	283.
ডাঙ্গা গড়গড় Dunga-gurgur	710.	তুন Toon	137.
ডালিম Dalim	50.	তুন তুনি নটি Toon-tooni-nuti	316.
ডুমুর Doomoor	284.	তুলসী Tulsee	448.
ডেফুল Dephul	290.	তেওড়ী Teooree	357.
চালকদুর্মী Dal-kulmee	355.	তেকাটা সিজ Tekata-sij	162.
চোলসমুড়িয়া Tolsumoodhiya	29.	তেঙ্গ Teng	705.
তুমক Tumak	516.	তেপুরিয়া Tepuriya	514.
তুমাল Tumal	343.	তেলাকুচা Tela-koocha	59.
তুরমজ Turmuz	56.	তেওড়া তোরা Teora	227.
তুলদা বাঁশ Tulda-bansh	718.	তেলাঙ্গা চীমা Talanga-chena	131.
তাৰা Tara	641.	ত্ৰিকাটা জাতি Trikanta-jatee	348.
তাৰানেৰু Taba-neboo	142.	ত্ৰিব্ৰত Trivrit	357.
তাৱু Taro	571.	থুলকুড়ী Thul-kooree	20.
তাৱুক Taruko	571.	থুলপুদ্ম Thul-pudmo	118.
তাৰামণি Taramuni	395.	দই Doi	50.
তালগাছ Tal-gachh	640.	দুইয়া খইয়া Duiya-khuiya	319.
তালনুৰু Tal-nuroo	725.	দুন্টী Duntee	156.
তাল হোৱা Tal-loora	580.	দুৰমা Durma	714.
তালী Talee	640.	দুল Dul	702.
তিক চামা Tik-chama	431.	দুশ বাহু Dus-bahoo	605.
তিক বুমা Tik-booma	424.	দাদ মাৰী Dad.mari	130.
তিক্তোৱা Tikto-raj	134.	দাহু মৰ্দুন Dadoo-murdun	249.
তিক্ত শাক Tikto-shak	74	দানা Dana	420.
তিত ধুন্দুল Tito-dhoondool	57.	দানুৱা Danoora	94.
তিত কঞ্জা Tit-kunga	587.	দাপু Dapoo	734.
তিত পাট Tit-pat	127.	দাবীছবি Dabee-doobee	731.
		দামড়া শামা Damra-shama	703.
		দাল Dal	236.



INDEX OF THE

SL

ଦାଲ୍ଚିନୀ ଗାଛ Dalchini-gachh 307.
 ଦୁଦିଆ କଳମୀ Doodiya-kulmee 355.
 ଦୂଧ ପିଟଳୀ ଶିମ୍ Doodh-pituli-shim 234.
 ଦୂଧ ଲତା Doodh-lata 541.
 ଦୁଫହରିଆଁ Doophariya 107.
 ଦୁପାଟୀ ଲତା Dopatee-lata 356.
 ଦୁର୍ବା ଦୂରବ୍ବା Doorba 712.
 ଦୁଲାଳ ଚିପା Doolal-champa 568.
 ଦୁଲି ଚିପା Doole-champa 12.
 ଦେତାରା Detara 705.
 ଦେବ କାଞ୍ଚନ Deva-kanchun 254.
 ଦେବଦାରୀ Debdaree 16.
 ଦେବଦାରୁ Debдарoo 557.
 ଦୋପାଟୀ Dopatee 189.
 ଦୋମୁଟୀ Domootee 189.
 ଦୋସରା ଶାକ Dosura-shak 65.
 ଧନିଚା Dunicha 216.
 ଧନ୍ୟା Dhunya 23.
 ଧର୍ଦ୍ଦର୍ଦ୍ଦରୀ Dhub 131.
 ଧାୟି ଫୁଲ Daee-phool 131.
 ଧାନ୍ଦି [510.]
 ଧାନ୍ଦି ଅଙ୍କା ସରିଚ୍ଛି Dhan-lungka-murich
 ଧୁତ୍ରାରା Dhootora 515.
 ଧୁମ୍ଦୂଳ୍ଲା Dhoondool 56.
 ଧୁଜି ବାଣୀ Dhyooli-bansh 718.
 ଧେନୀ Dhena 28.
 ଧେନ୍ରୋସ Dhenroos 118.
 ନର୍ଦୂଳା Nardul 700.
 ନର୍ତ୍ତି Nuree 153.
 ନଫୁଟକୀ Nuphutkee 93.
 ନବାରୀ Nubaree 153.
 ନଲ୍ Nul 714.
 ନାଗକୁଶର Nagkushur 87.

ନାଗଦନା Nag-dana 420.
 ନାଗ ଫୁଲୀ Naga-phoolee 444.
 ନାଗଫେନା Nag-phena 62.
 ନାଗବୁଲା Nag-bula 113.
 ନାଗବାର୍ଜାଳା Nag-barjala 113.
 ନାଗର ମୁଥୀ Nagur-moothee 722.
 ନାଜକ Najuk 257.
 ନାଟୀ Nata 244.
 ନାଟୀ କୁରୁଞ୍ଜୀ Nata-kurunja 244.
 ନାର୍ତ୍ତିସିଜ Nara-sij 162.
 ନାମତି Namuti 409.
 ନାରୁଙ୍ଗୀ Narungee 142.
 ନାରିକେଳୀ Narikel 643.
 ନାରିକେଳୀ କୁଳ୍ଳା Narikee-kool 145.
 ନାସା ଭାଗୀ Nasa-bhaga 492.
 ନିମ Nim 133.
 ନିମୁକ୍ତା Nimooka 330.
 ନିରମୁଲୀ Nirmmulee 530.
 ନିଶିନ୍ଦା Nishinda 469.
 ନୀଳ୍ Neel 212.
 ନୀଳ ଆପରାଜିତା Neel-uparajita 213.
 ନୀଳ କଳମୀ Neel-kulmee 354.
 ନୀଳ ଝାଙ୍ଗି Neel-jhanjee 494.
 ନୀଳ ଲତା Neel-luta 481.
 ହନ୍ଦେଡାରୀ Noonbora 77.
 ହରିଆଁ Nooriya 317.
 ନୋନା Nona 14.
 ନୋଆ ଲତା Noa-luta 240.
 ନୌକା Nouka 645.
 ପାଞ୍ଚ ଶିମ୍ Panch-shim 234.
 ପଟମାଟି ଚେଚକା Putputi-chenchka 727.
 ପଦମ ଗୁଲୁଙ୍ଗୁ Pudmo-gooluncha 331.
 ପରାମୁଲ୍ଲା Puramool 482.
 ପରୁଁ Puroo 668.



BENGALI NAMES OF PLANTS.

SL
xi

পুরুষ Puroos 136.

পুরাণ Pulash 239.

পুরু বাশ Puloo-bansh 718.

পাট Pat 126.

পাটলি Patulee 476.

পাটা শেয়ালা Pata-seyala 618.

পাটী Patee 721.

পাটী খড়ি Patee-khoree 705.

পাতুর চূর Pathur-choor 450.

পাতী পাতী Patee-Patee 575.

পাতি নেবু Pati-nebo 142.

পানকাকুল Pankakrool 734.

পানতোরালি Pantorasee 21.

পানমহৱি Pan-muhoree 22,

পানশিউলি Pan-shiooli 154.

পান Pan 299.

পানা Pana 740.

পানিয়ালা Paneyala 84.

পানি কুলা Panee-kula 618.

পানি কুলা Panee-kula 452.

পানি কাঞ্চুরা Panee-kanchura 676.

পানি জুমা Panee-juma 301.

পানি দুর্ব Panee-doorba 711.

পানি নাজুক Panee-najuk 258.

পানিফল Panee-phul 35.

পানি মুরিচ Panee-murich 325.

পানি মুলঙা Panee-mulunga 723.

পানি শিরা Panee-shira 708.

পানিসাডা Panee-sara 128.

পানী লতা Panee-lata 240.

পারুল Parool 476.

পালক জুই Paluka-jooi 390.

পালঞ্চ শাক Palung-shak 321.

পালিতা মান্দার Palita-mundar 237.

পিপুল Pipool 299.

পিঙি বাছি Pingi-nachhi 702.

পিটলি Pitulee 279.

পিটলি জামাই পুলি শিম Pitulee-jamai-puli-shim 234.

পিডিঙ্গ Piring 209.

পিনিম Pinish 320.

পিপিরি সারা Pipiri-sara 281.

পিপুল Pippul 287.

পীয়া বাশ Peea-bansh 718.

পিয়াশাল Piyashal 38.

পির আলু Pir-aloo 381.

পীত শাল Peet-sal 242.

পীপুলি ঝঞ্জন Peepooli-jhunjhun 206.

পুঁথি Punkha 384.

পুদিনা Poodina 452.

পুন্নাগ Poon-nag 157.

পুরাগ চাঁপা Poonnag-champa 571.

পুঁই শাক Pooin-shak 322.

পেপিয়া Pepiya 83.

পেয়াজ Peyaj 668.

পেটারি Petaree 114.

পেটিনড় Petinur 700.

পেয়ারা Peyara 46.

পোরেশ Poresh 120.

পোরেশ পিলুল Poresh-pippal 120.

পোস্ত Posto 5.

ফুলসা Phulsa 128.

ফিরকি টগুর Phirki-tugur 527.

ফুঁচি Phoontee 58.

ফুল কোপি Phool-kopi 71.

ফুল শোজা Phool-sola 219.

বক Buko 216.

বকম Bukum 244.



INDEX OF THE

SL

- বুকুল Bukul 341.
 বঙ্গ শিল্পা Bunga-ghundeena 669.
 বচ Buch 562.
 বজুরা Bujura 703.
 বজুর Bujoor 641.
 বট But 286.
 বড় কঞ্জি Bura-kungi 114.
 বড় কটি Buro-kut 680.
 বড় কুল্পা Buro-kulpa 444.
 বড় কানুর বড় Buro-kanoor 588.
 বড় কুকুর চিতা Buro-kookoor-chita 310.
 বড় কুন্দ Buro-koondo 551.
 বড় কেরুই Buro-keruee 163.
 বড় কেশতি Buro-keshuti 406.
 বড় কেশুরিয়া Buro-keshoreya 727.
 বড় কোকশিম Buro-koksima 410.
 বড় গেঁদা Buro-genda 417.
 বড় গোথুবি Buro-gothoobee 724.
 বড় চনা Buro-chuna 226.
 বড় চালি Buro-chali 16.
 বড় ছুঁচা Buro-chhooncha 723.
 বড় যবান্বী Buro-yuvanee 726.
 বড় জালগান্টা Buro-jalgantee 702.
 বড় ঝাঁঝি Buro-jhanjee 494.
 বড় টুগুর Bura-tugur 527.
 বড় নীল পদ্ম Buro-neel-pudmo 9.
 বড়ন্দ Burundo 700.
 বড় পান চুলী Buro-pan-choolee 521.
 বড় পানী মুরিচ Buro-panee-murich 324.
 বড় ফুটিকা Buro-phootika 43.
 বড় বয়র Buro-byar 145.
 বড় বহুৱাৰি Buro-buhooari 440.
 বড় বেত Buro-bet 639.
 বড় বেল Buro-bel 550.
 বড় মন্দা Buro-munda 54.
- বড় মস্তুর Buro-mosoor 226.
 বড় মাকাল Buro-makal 58.
 বড় মেথি Buro-methee 209.
 বড় ঘোয়ান Buro-joan 21.
 বড় রুক্ত কহুল Buro-rukto-kumbul 8.
 বড় রাই Buro-rai 71.
 বড় রিঠা Buro-ritha 94.
 বড় বুরিয়া Buro-leoniya 173.
 বড় বয়র Burn-byar 145.
 বড় সংধি Buro-sundhi 8. [shim 234].
 বড় শাদা মাথাম শিম Buro-sada-makhun.
 বড় শামা Buro-shama 702.
 বড় শালপানী Buro-salpanee 229.
 বড় শালুক Buro-shaluk 8.
 বড় শুণ্ঠী Buro-shoonti 709.
 বড় শোঙ্গ Bursunga 139.
 বড় শেলকান্টা Buro-shelkanta 6.
 বড় হুলকসা Buro-hulkusa 461.
 বন অচ Bun-uch 386.
 বন আদা Bun-ada 562.
 বন ওকড়া Bun-okra 112-127-413.
 বন কচু Bun kuchoo 687.
 বন কুলমী Bun kulmee 358.
 বন কুলায় Bun-kulay 214.
 বন কাকাৰা Bun-kaca 392.
 বন কাপাস Bun-kapas 117.
 বন গুমক Bun-gumuk 59.
 বন গাব Bun-gab 344.
 বন গুোৱা Bun-grooa 637.
 বন চাঁড়াল Bun-charal 222.
 বন চাঁদুড় Bun-chandur 681.
 বন চালিতা Bun-chalita 29.
 বন চিচিঙ্গা Bun-chichinga 58.
 বন ঘোজোন Bunjoan 22.
 বন জাম Bun-jam 337,

SL
XVII

BENGALI NAMES OF PLANTS.

- বন তেপুরিয়া Bun-tepuriya 514.
 বন তুলসী Bun-tulsee 448.
 বন নটি Bun-nuti 317.
 বন বানুরঙ্গা Bunnaranga 158.
 বন বারাঙ্গী Bun-narangee 191.
 বন বীল Bun-neel 215.
 বন পটোল Bun-putol 57, 58.
 বন পালংগ Bun-palung 326, 432.
 বন পিরিঙ Bun-piring 209.
 বন মল্লিকা Bun-mullika 549.
 বন মেথি Bun-methee 209.
 বন ঝঁঝঁ Bun-jooen 465.
 অন বৰ্বতি Bun-burbuti 230.
 বন রাঈ Bun-rai 72,
 বন রাজ Bun-raj 253.
 বন লবঙ্গা Buu-lubunga 34.
 বন শিম Bun-shim 233.
 বন সফেদ পুঁই Bun-suied-pooin 322.
 বন শুলকা Bun-sulpha 7.
 বন হুলী Bun-huldee 563.
 বড় পিনি নটি Buro-pinee-nutee 716.
 বৰ্বতি Burbuti 232.
 বয়ুর Byur 145.
 বসুরাই গোজাৰ Busuray-golab 194.
 বৰীথি Burethee 723.
 বৱেথি Burethee 700.
 বৰা Bula 120.
 বহুৱা Bahura 36 37.
 বছুৱাৱি Buhoori 441.
 বাঁশ Bansh 719.
 বাঁশ পাট লটি Bans-pata-nuti 316. [316
 বাঁশ পাট লাল লটি Bansh-pata-lal-nuti
 বাঁশিনি বাঁশ Bashini-bansh 718.
 বাকস Bakus 488.
 বাকসা Buxsa 709.

- বাকারুম Bukarjun 133.
 বাঘ আঁকড়া Bagh-ankra 40.
 বাঘ আচড়া Baghachura 328.
 বাঘলতা Baghaluta 331.
 বাঘনখো শিম Baghonuko-shim 234.
 বাঘনলা Baghnula 678.
 বাঘ ভেরাঙ্গা Bagh-bharanda 158.
 বাঙ্গড়া Bangra 414.
 বাঙ্গালি এলাচ Bangali-elachee 567.
 বাড়ালা Baryala 113.
 বাতাবি নেবু Batavi-neboo 142.
 বাদাম Badam 36.
 বানুর কুয়ায় Banur-kuiay 236.
 বানুর লাঠি Banur-lati 247.
 বানুর লাঠি গাছ Banur-lati-gachh 247.
 বাবুলা Babula 262.
 বাবুই তুলসী Babooi-tulsee 447.
 বামন হাটি Bamun-hatee 465.
 বালকু বাঁশ Balko-bansh 718.
 বাসন্তী Basuntee 170.
 বিচ তাড়কা Bich-taruka 351.
 বিছাটি Biehhutee 160.
 বিনা Bina 473.
 বিল বঞ্জন Bil-jhunjhun 206.
 বিল নালিতা Bil-nalita 126.
 বিলপাটি Bil-pata 109.
 বিলরাই Bil-rai 72.
 বিলজতা Beel-luta 451.
 বিলাতি আনাঙ্গাস Bilati-anannas 597.
 বিলাতি আমড়া Bilati-amra 144.
 বিলাতি আলু Bilati-aloo 510.
 বিলাতি পিতৰি সিঙ্গ Bilati-pitursilli 21.
 বিলাতি মেঁদী Bilati-mendee 46.
 বিলিম্বি Bilimbi 191.
 বিশ Bish 2.



INDEX OF THE

SL

বিশ বাঁশ Bish-bansh 718.

বিষমান Bishman 687.

বুইচ Bocinch 83.

বুট কলায় Boot-kolay 226.

বুরিগোপান Boorigopana 483.

বেগপুড়া Beg-poora 142.

বেগুন Begoon 512.

বেত Bet 639.

বেত রঞ্জ Bet-rung 492.

বেতু শ্বাক Bettoo-shak 321.

বেনা Bina 473.

বেনা যোনি Bena-yoni 711.

বেল Bel 550.

বেল Bel 141.

বেহুড় বাঁশ Behoor-bansh 719.

বেহুয়া Behooa 723.

ভাকুড় Byakoor 512.

ভাঙ্গড়া Bhangra 211.

ভাট Bhant 466.

ভাট শোলা Bhat-sola 219.

ভুই কোমড়া Bhooin-koomra 356.

ভুই কুমড়া Bhooin-koomra 58, 354.

ভুই ওকড়া Bhooin-okra 472.

ভুই চাঁপা Bhooin-champa 566.

ভুই জাম Bhooin-jam 468.

ভুই ডালিম Bhooin-dalim 51.

ভুই ডুমুর Bhooin-doomoor 285.

ভুই পাট Bhooin-pat 383.

ভূত ভেরুবী Bhoot-bheruvee 468.

ভূতসা Bhoo-tulsee 455.

ভুট Bhoot 709.

ভূমি নিম Bhoomi-nim 503.

ভুট্টোজ Bhootraj 737.

ভেরুণা Bherunda 158.

ভেলা Bhela 271.

ভোরা Bhora 41.

মক্কা Mukka 709.

মটুর Mutur 226.

মথুরা Muthurta 467.

মদুন নির্বিবি Mudun-nirbishi 566.

মুনা Muna 207.

মুচা Moicha 31.

মুনা Muyna 386.

মুসিনা Musina 100.

মুহুবুরি বচ Muhuburee-buch 562.

মহাতিতা Mahatita 493.

মুহুয়া Muhoa 342.

মাকড় জালী Makur-jalee 701 712.

মাখন শিম Makhun-shim 234.

মাথাল Makhal 56.

মাছুর কাটী Madoor-katee 723.

মাদুবী Madhubee 170.

মাধুত্তে লতা Madhutte-lata 170.

মান কচ Man-kuchoo 687.

মান গিরি Man-giri 687.

মারুয়া Murooa 712.

মার্হতা তিগা Marhata-tiga 416.

মাল আকড়া Mal-aukura 713.

মালা Mala 55.

মালাকা আমরুল Malaka-amrool 48.

মালাকা ঝাঁজি Malaka-jhanji 79.

মাষ কলায় Mash-kaloy 231.

মাশানী Mashanee 214.

মিটা কামরুঙা Mita-kamrunga 191.

মিটানেবু Mita-neboo 142.

মুক্ত জুড়ি Mookto-joori 160.

মুক্ত পাতী Mookto-patee 575.

মুগানী Moogancee 231.



SL
lxv

BENGALI NAMES OF PLANTS.

- মুঝফলী Moong-phullee 243.
মুট Moot 231.
মুড় মুড়ী Moormoori 725.
মুখ Mootho 722.
মুন্দী Mundee 409.
মুর্বা Moorba 656.
মূলা Moola 72.
মেণ্ডি Mendi 131.
মেডাডু Meradoo 98.
মেলেঞ্চা Melencha. 708.
মেষ্টা Mesta 118.
মেষ্টাপাট Mestapato 117.
মৈনা Myna 699.
মোনসা সিজ Munsa-sij 161.
মোমচীনা Mom-chena 161.
মৌরঙ্গ এলাচী Morung-elachee 568.
মৌ আলু Mou-aloo 652.

রক্ত করবী Rukto-kurubee 524.
রক্ত কাঞ্চন Rukto-kanchun 253.
রক্ত কামলতা Rukto-kamaluta 353. [652.
রক্ত গুরাণীয়া আলু Rukto-guraniya-aloo
রক্ত চন্দন Rukto-chundun 242.
রক্ত চন্দন Rukto-chundun 259.
রক্ত চিতা Rukto-chita 439.
রক্ত পদ্মা Rukto-pudmo 9.
রক্ত পিট Rukto-pita 146.
রক্ত পঁই Rukto-pooin 322.
রক্ত বন পঁই Rukto-bun-pooin 322.
রক্ত শিম Rukto-shim 233.
রক্ত শিমুল Rukto-shimool 106.
রক্ত সেলেঞ্জি Rukto-shelenchi 318.
রঞ্জন Rungun 389.
রঞ্জপুর বেবু Rungpore-neboo 142.
রঞ্জ মাখুন শিম Rung-makhun-shim 234.
রজনী গুঞ্জ Rujunce-gundha 656.
রসন বঁজি Rusonjhanji 618.
রশন Rushoon 667.
রাধনী Radhunee 21.
রাখাল ফুল Rakhal-phul 93.
রাখাল সশা Rakhalusa 55.
রাঙ্গা শাক Ranga-shak 316.
রাম কুলা Ram-kula 578.
রাম গুআঁ Ram-gooa 637.
রাম তরুষ Ramturay 118.
রাম তিল Ramtil 414.
রাম তুলসী Ram-tulsee 448.
রাম বেগুন Ram-begoon 513.
রাম হোগলা Ram-hogla 693.
রিঠা Ritha 94.
রীটা Reeta 263.
রুমী মস্তকী Roomee-mastuki 274.
রোহণ Rohuna 137.

লঞ্চাসিজ Lunka-sij 162.
লটকন Lutkun 85.
লতা মহুরি Luta-muhoori 314.
লবঙ্গা Luvunga 48.
লবঙ্গা-লতা Luvanga-luta 140.
লবান Luban 148.
লাও Lao 57.
লাঙ্গলি লতা Languli-luta 361.
লাল কামলতা Lal-kamaluta 353.
লাল কেশুরীয়া Lal-keshooreeya 99.
লাল গুল মকমুল Lal-gool-mukmul 318.
লাল চাঁপা নটি Lal-champa-nutee 315.
লাল ঝাঁটি Lal-jhaco 179.
লাল নটি Lal-nutee 316.
লাল পদ্মা করবী Lal-pudmo-kurubee 525.
লাল পেয়ারা Lal-peyara 46.



INDEX OF THE

SL

- ଲାଲ୍ ମର୍ଜାଳା Lal-maryala 113.
ଲାଲ୍ ବିଛଟ୍ଟା Lal-bichhutee 281.
ଲାଲ୍ ବେହୁ Lal-betoo 321.
ଲାଲ୍ ବୋମ୍ ଲଙ୍କା Lal-bumlunka 33.
ଲାଲ୍ ମୁର୍ଗୀ Lal-meorga 318.
ଲାଲ୍ ଲଙ୍କା ମରିଚ Lal-lungka-murich 510.
ଲାଲ୍ ସକରକର ଆଲୁ Lal-shukarkundo-aloo
353.
ଲାଲ୍ ସର୍ ଜୟା Lal-surbo-jaya 576.
ଲାଲ୍ ସାକ Lal-shak 316.
ଲାଲ୍ ସାବନୀ Lal-sabunee 173.
ଲାଲ୍ ଷୂର୍ଗମୁଣ୍ଡି Lal-soorgumunee 118.
ଲାହୋରୀସବୁ Lahoree-suboo 67.
ଲିଚି Lichi 95.
ଲୋଧ୍ Lodh 346.
ଲୋର୍ଦ୍ଦି Loari 707.
- ଶକୁର ଆଲୁ Shukur-aloo 234.
ଶକୁର ଜଟା Sunkur-juta 220.
ଶଜିନା Sujina 78.
ଶଟ୍ଟୀ Shutee 564.
ଶତମୂଳୀ Sutmoolee 674.
ଶମ Sun 206.
ଶଦି ମଦି Shudi-Mudi 422.
ଶମୀ Shumee 259.
ଶରୁ Shur 705.
ଶାଡା ଗାଛ Shara-gachh 292.
ଶାଦା ଜ୍ଵା Suda-juva 117,
ଶାଦା ଜାତି Sada-jati 485.
ଶାଦା ଝାନ୍ଜି Sada-jhanjee 494. [shim234]
ଶାଦା ଜାଲାଇ ପାଞ୍ଜି ଶିମ୍ Sada-jamai-puli-
ଶାଦା ନାଟି Sada-nuti 316.
ଶାଦା ବୁଡି Shada-boori 542.
ଶାଦା ହାଜର ମନୀ Sada-hajur-muni 154.
ଶାଦା ହୂର୍ହଭିଯା Shada-Hoorhooriya 73.
- ଶାନ୍ଚି Shanchi 318.
ଶମା Shama 703.
ଶାଲଗ୍ରମ Shalgrum 71.
ଶାଇ କାଟା Shai-kanta 260.
ଶାଲ ଶାଇ ବାବଲା Salsain-bubula 262.
ଶାଲାଇ Salai 148
ଶିଙ୍ଗାହାର Singahar 553.
ଶିବଜୁଲ୍ Shibjhol 93.
ଶିମ ବାତାଜୀ Shim-batrajee 232.
ଶିରିଶ Sireesh 261.
ଶିଶୁ Sissoo 241.
ଶିତଙ୍ଗ ପାଟା Sectul-patee 575.
ଶୁଟୀ ଘାସ Shoouti-ghas 703.
ଶୁଠୁ Sooutho 562.
ଶୁତ୍ରିୟା ମୁକ୍ତି Shooriya-mookti 415.
ଶୁକର ଟଟୀ Sookur-toontee 265.
ଶୁଲଫା Soolpha 22.
ଶେଷତ୍ତା Sheora 292.
ଶୋନାଲୁ Sonaloo 247.
ଶୋମ ଲତା Shom-luta 542.
ଶ୍ୟାକୁଳ Shya-kool 145.
ଶ୍ୟାମୀ ଲତା Shyama-luta 523.
ଶ୍ୱେତ ଅପାରାଜିତା Shwet-uparajita 213.
ଶ୍ୱେତ ଆକନ୍ଦ Shwet-akundo 540.
ଶ୍ୱେତ ବଚ Shwet-buch 689.
ଶ୍ୱେତ କରୁବୀ Shwet-kurubee 524.
ଶ୍ୱେତ କାମଲତା Shwet-kamalata 353.
ଶ୍ୱେତ କୁଂଚ Shwet-koonch 228.
ଶ୍ୱେତ କେରୁଇ Shwet-keruee 163.
ଶ୍ୱେତ ଗୋଥୁବୀ Shwet-gotheobee 724.
ଶ୍ୱେତ ପଦ୍ମମୁରିଚି Shwet-pudmo 9. [525]
ଶ୍ୱେତ ପଦ୍ମ କରୁବୀ Shwet-pudmo-kurubee
ଶ୍ୱେତ ପାନୀମରିଚ Shwet-panee-murich 325.
ଶ୍ୱେତ ପୂର୍ଣ୍ଣା Shwet-poorna 328.
ଶ୍ୱେତ ବସନ୍ତ Shwet-busunto 461.