MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

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A LOG

OF THE

ASCULAR CRY

RTH-EASTERN PORTION OF THE

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in botanical exchanges, is intended to

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is generally given, in parentheses, by this method the synonymy is much abbreviated. For valuable contribu

Prof. T. C. PORTER, of Lafayette College, Dr. GEORGE ENGELMANN, of St. Louis, Iowa, Messrs. [illegible]

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MISSOURI BOTANICAL GARDEN

Curtiss, North American Plants

Legit

Address

CATALOGUE

OF THE

PHÆNOGAMOUS AND VASCULAR CRYPTOGAMOUS PLANTS

OF CANADA AND THE NORTH-EASTERN PORTION OF THE UNITED STATES,

Including Virginia and Kentucky on the South, and Missouri, Iowa and Minnesota on the West.

EXPLANATIONS:—The following Catalogue, prepared especially for use in botanical exchanges, is intended to include all the Phænogams and Vascular Cryptogams of that portion of North America to which resident collectors are at present mostly confined. To illustrate the distribution of plants in this territory, carefully compiled Floras are given of the three most dissimilar sections east of the Mississippi: the first dotted column (headed C at upper left-hand corner of pages,) represents the flora of Canada; the second (headed I), that of Illinois; the third (headed V), that of Virginia. In the column headed E, the *'s indicate which plants are found also in Europe; the w's, which are found only west of the Mississippi. The Catalogue is adapted for use with the leading Manuals of Botany by the introduction of Synonyms, which are printed in Italics; but the nomenclature adopted by Prof. Gray is given precedence, and the same authority is followed in regard to natural arrangement and the citation of authors. A † refers to Gray's Manual of Botany, 2d, 3d and 4th Editions; a ‡, to same, 5th Edition; a ‖, to Chapman's Southern Flora; a §, to Wood's Botanist & Florist; a * (at right), to standard European Manuals. The Carices alone are arranged alphabetically, but numbers are affixed showing their position in Gray's arrangement. A dash denotes a repetition of the name next above (differences in inflection being understood). Varieties are preceded by the first Greek letters; when there is a var. *a*, it is considered that the specific name is merely comprehensive, or that it represents a typical form not found within these limits. When a variety was originally described as a species under the same name, the name of the original author is generally given, in parentheses; by this method the synonymy is much abbreviated. For valuable contributions to the present work, special acknowledgment is due to Prof. T. C. PORTER, of Lafayette College, Dr. GEORGE ENGELMANN, of St. Louis, JOHN MACOUN, Esq., of Belleville, Canada, and Dr. HENRI VAN HEURCK, of Antwerp.

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ALLEN H. CURTISS.

Price: 1 Copy, 20 Cents; 3 Copies, 50 Cents; 7 Copies, One Dollar.

E.C.I.V. **RANUNCULACEÆ.**
CLEMATIS
.. .. verticillaris, DC.
(*Atragene Americana*, Sims. †‖
.. ochroleuca, Ait.
.. .. Viorna, L.
.. Pitcheri, Torr. & Gray.
.. cylindrica, Sims.
(*crispa*, L.‖§
.. .. .. Virginiana, L.
ANEMONE
patens, L.:
.. *a.* Nuttalliana, (DC.)
(*Pulsatilla*—, Gray. †
.. Caroliniana, Walt.
.. parviflora, Michx.
.. multifida, DC.
.. .. cylindrica, Gray.
.. .. .. Virginiana, L.
.. .. Pennsylvanica, L.
* .. trifolia, L.?
* .. .. .. nemorosa, L.
HEPATICA
* .. .. .. triloba, Chaix.
.. .. acutiloba, DC.
THALICTRUM
.. .. .. anemonoides, Michx.
(*Anemone thalictroides*, L. §
.. .. .. dioicum, L.
.. .. purpurascens, L.
.. β. ceriferum, Austin.
.. .. .. Cornuti, L.
.. clavatum, DC.
TRAUTVETTERIA
.. .. palmata, Fisch. & Mey
ADONIS
* autumnalis, L.
RANUNCULUS
* .. .. divaricatus, Schrank.
(*aquatilis*, L., *v.*—, Gr†
* .. .. aquatilis, L., *a.* trichophyllus, (Chaix.)
* β. heterophyllus, DC.
* .. hederaceus, L.
.. .. .. multifidus. Pursh.
(*Purshii*, Richards. †‖
β. terrestris, Gray.
.. alismæfolius, Geyer.
Flammula, L.:
.. *a.* intermedius, Gray.
* .. .. β. reptans, (L.) Gray.
.. oblongifolius, Ell.
.. pusillus, Poir.
.. .. Cymbalaria, Pursh.
.. β. alpina, Torr. & Gr.
.. .. rhomboideus, Goldie.
.. .. .. abortivus, L.
.. .. β. micranthus, (Nutt.)
* .. .. .. sceleratus, L.
.. .. .. recurvatus, Poir.
.. .. .. Pennsylvanicus, L.
.. .. fascicularis, Muhl.
* .. .. .. repens, L.
* .. bulbosus, L.
* .. .. acris, L.
* .. muricatus, L.
* .. parviflorus, L.
MYOSURUS
* .. .. minimus, L.
ISOPYRUM
.. biternatum, T. & Gr.
CALTHA
* .. .. .. palustris, L.
TROLLIUS
laxus, Salisb.
COPTIS
* .. trifolia, Salisb.

HELLEBORUS
* viridis, L.
NIGELLA
* Damascena, L.
AQUILEGIA
.. .. .. Canadensis, L.
* vulgaris, L.
DELPHINIUM
.. exaltatum, Ait.
.. .. tricorne, Michx.
.. azureum, Michx.
* .. .. .. Consolida, L.
ACONITUM
.. uncinatum, L.
.. reclinatum, Gray.
ZANTHORHIZA
.. apiifolia, L'Her.
HYDRASTIS
.. .. .. Canadensis, L.
ACTÆA
.. .. spicata, L. *a.* rubra, Mx
.. .. .. alba, Bigel.
(*spicata, v.*—, Mx. †§
CIMICIFUGA
.. .. racemosa, Ell.
.. .. Americana, Michx.
MAGNOLIACEÆ.
MAGNOLIA
.. glauca, L.
.. .. acuminata, L.
macrophylla, Michx.
.. .. Umbrella, Lam.
.. Fraseri, Walt.
LIRIODENDRON
.. .. .. Tulipifera, L.
ANONACEÆ.
ASIMINA
.. .. triloba, Dunal.
MENISPERMACEÆ
COCCULUS
.. .. Carolinus, DC.
MENISPERMUM
.. .. .. Canadense, L.
CALYCOCARPUM
.. Lyoni, Nutt.
BERBERIDACEÆ.
BERBERIS
* .. vulgaris, L
.. Canadensis, Pursh.
CAULOPHYLLUM
.. .. .. thalictroides, Michx.
DIPHYLLEIA
.. cymosa, Michx.
JEFFERSONIA
.. .. .. diphylla, Pers.
PODOPHYLLUM
.. .. .. peltatum, L.
NYMPHÆACEÆ.
CABOMBA
Caroliniana, Gray.
BRASENIA
.. .. .. peltata, Pursh.
NELUMBIUM
.. .. luteum, Willd.
NYMPHÆA
.. .. .. odorata, Ait.
.. β. minor, (DC.) Sims.
.. .. tuberosa, Paine.
NUPHAR
.. .. .. advena, Ait.
* luteum, Smith.
* .. β. pumilum, (Hoppe.)
(*Kalmiana*, Pursh. †§
SARRACENIACEÆ.
SARRACENIA
.. .. .. purpurea, L.
β. heterophylla, Torr.
.. flava, L.
(*Gronovii*, Wood, *v.*—, §

PAPAVERACEÆ.
PAPAVER
* .. .. somniferum, L.
* .. dubium, L.
* argemone, L.
ARGEMONE
.. .. Mexicana, L.
STYLOPHORUM
.. diphyllum, Nutt.
(*Meconopsis*—, DC. §
CHELIDONIUM
* .. .. .. majus, L.
SANGUINARIA
.. .. .. Canadensis, L.
GLAUCIUM
* .. luteum, Scop.
FUMARIACEÆ.
ADLUMIA
.. .. cirrhosa, Raf.
DICENTRA
.. .. .. Cucullaria, DC.
.. .. Canadensis, DC.
.. .. eximea, DC.
CORYDALIS
.. .. .. glauca, Pursh.
.. flavula, Raf.
(*aurea, v.*—, Wood. §
(*aurea*, in part. †‖
.. .. aurea, Willd.
w β. occidentalis, Eng.
.. γ. micrantha, Eng.
w crystallina, Engelm.
FUMARIA
* .. .. officinalis, L.
CRUCIFERÆ.
NASTURTIUM
* .. .. .. officinale, R.Br.
* .. .. sylvestre, R.Br.
.. .. sinuatum, Nutt.
.. sessiliflorum, Nutt.
.. obtusum, Nutt.
* .. .. .. palustre, DC.
.. β. hispidum, (DC.) Gr.
.. .. .. lacustre, Gray.
(*Armoracia Americana*, Arn. §
* .. .. Armoracia, Fries.
(*Cochlearia*——, L. *
(*A. rusticiana*, Rupp. §
LEAVENWORTHIA
Michauxii, Torr.
DENTARIA
(*CARDAMINE* §)
.. .. diphylla, L.
.. maxima, Nutt.
.. heterophylla, Nutt.
.. .. .. laciniata, Muhl.
CARDAMINE
.. .. .. rhomboidea, DC.
.. .. β. purpurea, Torr.
.. .. rotundifolia, Michx.
* bellidifolia, L.
* .. pratensis, L.
* .. .. .. hirsuta, L.
* .. .. .. β. sylvatica, (Link.)
(*v. Virginica*, (Mx.) ‖
ARABIS
.. Ludoviciana, Meyer.
(*Cardamine*—, Hook. ‖
.. .. .. lyrata, L.
* .. petræa, Lam.
.. .. dentata, Torr. & Gray.
patens, Sullivant.
* .. .. .. hirsuta, Scop.
.. .. .. lævigata, DC.
β. minor, Porter.
.. .. .. Canadensis, L.
.. .. hesperidoides, Gray.
(*Iodanthus*—, T. & G†‖§

* .. perfoliata, Lam.
(*Turritis glabra*, L.*†§
.. .. Drummondii, Gray.
(*T. stricta*, Graham. †§
.. β. brachycarpa, (T. & G)
BARBAREA
* .. .. vulgaris, R.Br.
* .. β. stricta, (Andrz.)
* γ. arcuata, (Reich.)
* .. .. præcox, R.Br.
ERYSIMUM
* .. .. cheiranthoides, L.
w asperum, DC.
.. β. Arkansanum, Nutt.
* orientale, R.Br.
HESPERIS
* matronalis, L.
SISYMBRIUM
* Alliaria, Scop.
* .. .. officinale, Scop.
* .. .. Thaliana, Gaud.
(*Arabis*——, L. *§
.. .. .. canescens, Nutt.
* .. Sophia, L.
STANLEYA
w pinnatifida, Nutt.
BRASSICA
* .. .. Sinapistrum, Boissier.
(*Sinapis arvensis*, L.†§
* .. .. alba, Boissier.
(*Sinapis alba*, L. †§
* .. .. .. nigra, Boissier.
(*Sinapis nigra*, L. †§
* .. .. campestris, L.
DRABA
* .. alpina, L.
.. Canadensis, Brunet.
.. ramosissima, Desv.
.. arabisans, Michx.
* incana, L.
.. β. contorta, Ehrh.
.. .. brachycarpa, Nutt.
nemorosa, L.:
.. *a.* nemoralis, (Ehrh.)
β. lutea, (DC.)
.. cuneifolia, Nutt.
.. .. .. Caroliniana, Walt.
.. β. micrantha, (Nutt.) Gr
.. verna, L.
(*Erophila*——, L. *
ALYSSUM
* maritimum, L.
* calycinum, L.
VESICARIA
Shortii, Torr. & Gray.
CAMELINA
* .. .. .. sativa, Crantz.
SUBULARIA
* aquatica, L.
CAPSELLA
* .. .. .. Bursa-pastoris, Mœnch
THLASPI
* .. .. arvense, L.
LEPIDIUM
.. .. .. Virginicum, L.
.. .. intermedium, Gray.
* .. ruderale, L.
* .. .. campestre, L.
* Draba, L.
SENEBIERA
* .. .. didyma, Pers.
(*pinnatifida*, DC. ‖
* .. Coronopus, DC.
CAKILE
.. .. .. Americana. Nutt.
(? *maritima*, Scop. *§
(*maritima, v. æqualis*, (L'Her.) ‖

RAPHANUS
* .. Raphanistrum. L.
* sativus, L.
CAPPARIDACEÆ.
POLANISIA
.. .. graveolens, Raf.
CLEOME
pungens, Willd.
.. integrifolia, T. & Gr.
GYNANDROPSIS
.. .. pentaphylla, DC.
RESEDACEÆ.
RESEDA
* Luteola, L.
VIOLACEÆ.
SOLEA
.. .. concolor, Ging.
VIOLA
.. rotundifolia, Michx.
.. .. .. lanceolata, L.
.. .. primulæfolia, L.
.. .. .. blanda, Willd.
renifolia, Gray.
* odorata, L.
* .. palustris, L.
* .. Selkirkii, Ph., Goldie.
(*umbrosa*, Fries. *
.. .. .. cucullata, Ait.
.. .. .. β. palmata, (L.)
.. γ. cordata, (Walt.)
(*villosa*, Walt. †‖
.. .. .. sagittata, Ait.
.. .. β. ovata, (Nutt.)
.. delphinifolia, Nutt.
.. .. pedata, L.
.. β. bicolor.
canina, L.:
* .. .. .. *a.* sylvestris, (Lam.)
(*Muhlenbergii*, Tor†‖§
.. rostrata, Pursh.
.. .. .. striata, Ait.
.. .. Canadensis, L.
.. .. .. pubescens, Ait.
β. eriocarpa, Nutt.
.. γ. scabriuscula, T. & G.
.. hastata, Michx.
w Nuttallii, Pursh.
* tricolor, L.
* .. .. .. β. arvensis, (Murr.) DC
CISTACEÆ.
HELIANTHEMUM
.. .. .. Canadense, Michx.
.. corymbosum, Michx.
HUDSONIA
.. .. ericoides, L.
.. tomentosa, Nutt.
LECHEA
.. .. major, Michx.
.. thymifolia, Pursh.
Novæ-Cæsareæ, C.F. Austin.
.. .. .. minor, Lam.
DROSERACEÆ.
DROSERA
* .. .. rotundifolia, L.
* .. .. longifolia, L.
(*intermedia*, Hayne.*
.. linearis, Goldie.
.. filiformis, Raf.
HYPERICACEÆ.
ASCYRUM
.. stans, Michx.
.. .. Crux-Andreæ, L.
HYPERICUM
.. .. pyramidatum, Ait.
.. .. Kalmianum, L.
.. .. prolificum, L.
.. .. β. densiflorum, (Ph.)
adpressum, Barton.

dolabriforme, Vent.
.. .. nudiflorum, Michx.
.. sphærocarpon, Michx
.. ellipticum, Hook.
.. angulosum, Michx.
* .. .. .. perforatum, L.
.. .. .. corymbosum, Muhl.
.. .. .. mutilum, L.
.. .. β. gymnanthum, Gray.
.. .. .. Canadense, L.
.. β. major, Gray.
.. Drummondii, T. & Gr.
.. .. Sarothra, Michx.
ELODES
.. .. .. Virginica, Nutt.
.. .. petiolata, Pursh.
ELATINACEÆ.
ELATINE
.. .. Americana, Arnott.
Clintoniana, Peck.
CARYOPHYLLACEÆ
DIANTHUS
* .. .. Armeria, L.
* prolifer, L.
SAPONARIA
* .. .. .. officinalis, L.
VACCARIA
* .. .. vulgaris, Host.
(*Saponaria Vaccaria*, L. *§
SILENE
.. .. stellata, Aiton.
.. nivea, DC.
* .. inflata, Smith.
.. Pennsylvanica, Michx
.. .. .. Virginica, L.
.. regia, Sims.
rotundifolia, Nutt.
* .. .. Armeria, L.
.. .. .. antirrhina, L.
* nocturna, L.
* .. noctiflora, L.
* .. acaulis, L.
LYCHNIS
* diurna, Sibth.
(*dioica a*, L. *
* vespertina, Sibth.
(*dioica β*, L. *
(*Melandrium*—, C. & G*
* .. .. .. Githago, Lam.
(*Agrostemma*—, L. †‖
(*Githago segetum*, Df.*
ARENARIA
* .. .. serpyllifolia, L.
.. squarrosa, Michx.
(*Alsine*——, Fenzl. †‖
.. .. .. stricta, Michx.
(*Alsine Michauxii*, Fenzl. †‖
.. patula, Michx.
(*Alsine*——, Gray. †‖
w Pitcheri, Nutt.
Grœnlandica, Spreng.
(*Alsine*——, Fenzl. †
* .. .. lateriflora, L.
(*Mœhringia*——, L. †
* .. peploides, L.
(*Honkenya*—, Ehrh. †
STELLARIA
* .. .. .. media, Smith.
.. pubera, Michx.
* Holostea, L.
* .. .. longifolia, Muhl.
* .. longipes, Goldie.
* .. uliginosa, Murr.
* .. crassifolia, Ehrh.
* .. borealis, Bigel.
* β. alpestris, (Fries.)
* humifusa, Rottbœll.

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MISSOURI BOTANICAL GARDEN

HOLOSTEUM
umbellatum, L.
CERASTIUM
vulgatum, L.
(*glomeratum*, Thuil.
viscosum, L.
(*triviale*, Link.
nutans, Raf.
β.brachypodum,Eng.
oblongifolium, Torr.
arvense, L.
quaternellum, Fenzl.
(*Mœnchia*——, §
(*Sagina erecta*, L.
(*Mœnchia*——,Ehrh.
SAGINA
procumbens, L.
apetala, L.
subulata, Wimmer.
(*Elliottii*, Fenzl. ‖
β. Smithii, Gray.
nodosa, Fenzl.
(*Spergula*——, L.
SPERGULARIA
rubra, Presl.:
α. campestris, Gray.
salina, Presl.
media, Presl.
β. macrocarpa,(Presl.
(*marina*, Cambess. §
SPERGULA
arvensis, L.
ANYCHIA
dichotoma, Michx.:
(*Paronychia Canadensis*, Wood. §
α. capillacea, (Nutt.)
β. dichotoma, (DC.)
(? *v. pumila*, Wood. §
PARONYCHIA
argyrocoma, Nutt.
dichotoma, Nutt.
SCLERANTHUS
annuus, L.
MOLLUGO
verticillata, L.
PORTULACACEÆ.
SESUVIUM
pentandrum, Ell.
PORTULACA
oleracea, L.
TALINUM
teretifolium, Pursh.
CLAYTONIA
Virginica, L.
Caroliniana, Michx.
MALVACEÆ.
ALTHÆA
officinalis, L.
MALVA
rotundifolia, L
sylvestris, L.
crispa, L.
moschata, L.
Alcea, L.
CALLIRRHOE
triangulata, Gray.
(*Malva*——, Leav. §
w digitata, Gray.
alcæoides, Gray.
(*Sida*——,Michx.§
NAPÆA
dioica, L.
MALVASTRUM
w angustum, Gray.
w coccineum, Gray.
SIDA
Napæa, Cav.
Elliottii,Torr. & Gr.
spinosa, L.
ABUTILON
Avicennæ, Gærtn.
(*Sida abutilon*, L.
MODIOLA
multifida, Mœnch.
KOSTELETZKYA
Virginica, Presl.
HIBISCUS
Moscheutos, L.
β. flavescens, Wood.
(*incanus*, Wendl. ‖
grandiflorus, Michx.
militaris, Cav.
Trionum, L.
Syriacus, L.
TILIACEÆ.
TILIA
Americana,L.
β. pubescens, (Ait.)
(*v. Walteri*, Wood. §
heterophylla, Vent.
CAMELLIACEÆ.
STUARTIA
Virginica, Cav.
pentagyna, L'Her.

GORDONIA
Lasianthus. L.
LINACEÆ.
LINUM
Virginianum, L.
β. angustifolium,Eng.
striatum, Walt.
sulcatum, Riddell.
(*Boottii*, Planchon.†‖
w rigidum, Pursh.
usitatissimum, L.
perenne, L.
GERANIACEÆ.
GERANIUM
maculatum, L.
Carolinianum, L.
dissectum, L.
columbinum, L.
pusillum, L.
Robertianum, L.
ERODIUM
cicutarium, L'Her.
FLŒRKIA
proserpinacoides,Wld
IMPATIENS
pallida, Nutt.
fulva, Nutt.
OXALIS
Acetosella, L.
violacea, L.
stricta, L.
corniculata, L.
RUTACEÆ.
ZANTHOXYLUM
Americanum, Mill.
Carolinianum, Lam.
PTELEA
trifoliata, L.
RUTA
graveolens, L.
SIMARUBACEÆ.
AILANTHUS
glandulosus, Desf.
ANACARDIACEÆ.
RHUS
typhina, L.
β. laciniata, Wood.
glabra, L.
copallina, L.
venenata, DC.
Toxicodendron, L.
β.radicans,(L.)Torr.
aromatica, Ait.
VITACEÆ.
VITIS
Labrusca, L.
æstivalis, Michx.
β.? cinerea, Engelm.
cordifolia, Michx.
riparia, Michx.
w rupestris, Scheele.
vulpina, L.
indivisa, Willd.
bipinnata, Torr.& Gr.
AMPELOPSIS
quinquefolia, Michx.
(*Vitis*——, Lam. §
RHAMNACEÆ.
BERCHEMIA
volubilis, DC.
RHAMNUS
catharticus, L.
lanceolatus, Pursh.
alnifolius, L'Her.
FRANGULA
Caroliniana, Gray.
(*Rhamnus*——, Walt.§
CEANOTHUS
Americanus, L.
ovalis, Bigel.
CELASTRACEÆ.
CELASTRUS
scandens, L.
EUONYMUS
atropurpureus, Jacq.
Americanus, L.
β. abovatus, (Nutt.)
PACHYSTIMA
Myrsinites, Raf.?
SAPINDACEÆ.
STAPHYLEA
trifolia, L.
ÆSCULUS
glabra, Willd.
flava, Ait.
β.purpurascens,Gray.
Pavia, L.
ACER
Pennsylvanicum, L.
spicatum, Lam.
saccharinum, Wang.
β.nigrum,(Mx.)Gray.
dasycarpum, Ehrh.
rubrum, L.
β. tridens, Wood.

NEGUNDO
aceroides, Mœnch.
POLYGALACEÆ.
POLYGALA
lutea, L.
ramosa, Ell.
incarnata, L.
sanguinea, L.
fastigiata, Nutt.
Nuttallii, Torr. & Gr.
Curtissii, Gray.
cruciata, L.
brevifolia, Nutt.
verticillata, L.
ambigua, Nutt.
(*verticillata, v.*—, §
Senega, L.
β. latifolia, T. & Gr.
polygama, Walt.
paucifolia, Willd.
LEGUMINOSÆ.
LUPINUS
perennis, L.
CROTALARIA
sagittalis, L.
GENISTA
tinctoria, L.
CYTISUS
scoparius, Link.
TRIFOLIUM
arvense, L.
pratense, L.
medium, L.
reflexum, L.
stoloniferum, Muhl.
repens, L.
Carolinianum, Michx.
agrarium, L.
procumbens, L.
β. minus, (Relhan.)
MELILOTUS
parviflora, Desf.
officinalis, Willd.
alba, Lam.
(*leucantha*, Koch.
MEDICAGO
sativa, L.
lupulina, L.
maculata, Willd.
denticulata, Willd.
intertexta, L.
PSORALEA
Onobrychis, Nutt.
stipulata, Torr. & Gr.
melilotoides, Michx.
floribunda, Nutt.
argophylla, Pursh.
esculenta, Pursh.
DALEA
alopecuroides, Willd.
PETALOSTEMON
violaceus, Michx.
candidus, Michx.
villosus, Nutt.
foliosus, Gray.
AMORPHA
fruticosa, L.
canescens, Nutt.
CORONILLA
varia, L.
ROBINIA
Pseudacacia, L.
viscosa, Vent.
hispida, L.
WISTARIA
frutescens, DC.
TEPHROSIA
Virginiana, Pers.
spicata, Torr & Gray.
hispidula, Pursh.
ASTRAGALUS
caryocarpus, Ker.
Mexicanus, A. DC.
Plattensis, Nutt.
β. Tennesseensis, Gr.
Canadensis, L.
Cooperi, Gray.
distortus, Torr. & Gr.
(*obcordatus*, §
alpinus, L.
Robbinsii, Gray.
w microlobus, Gray.
w gracilis, Nutt.
OXYTROPIS
campestris, DC.
w Lamberti, Pursh.
GLYCIRRHIZA
lipidota, Nutt.
ÆSCHYNOMENE
hispida, Willd.
HEDYSARUM
boreale, Nutt.

DESMODIUM
nudiflorum, DC.
acuminatum, DC.
paucifiorum, DC.
rotundifolium, DC.
β. glabratum, Gray.
ochroleucum, Curtis.
humifusum, Beck.
canescens, DC.
cuspidatum,Torr&Gr
lævigatum, DC.
β. monophyllum, Wd.
viridiflorum, Beck.
Dillenii, Darlington.
paniculatum, DC.
strictum, DC.
Canadense, DC.
Illinoiense, Gray.
sessilifolium, T. & Gr.
rigidum, DC.
ciliare, DC.
Marilandicum, Boott.
lineatum, DC.
LESPEDEZA
procumbens, Michx.
(*repens*, ‖ in part.
repens, Torr. & Gray.
(*procumbens, v.*——,§
violacea, Pers.:
α. divergens, (Pursh.)
β. sessiliflora, (Mx.)
γ.angustifolia,T.&Gr.
(*v.reticulata*,(Pers. ‖§
Stuvei, Nutt.
hirta, Ell.
capitata, Michx.
β. angustifolia, (Ell.)
STYLOSANTHES
elatior, Swartz.
VICIA
sativa, L.
β. angustifolia, (Sm.)
tetrasperma, L.
hirsuta, Koch.
Cracca, L.
Caroliniana, Walt.
Americana, Muhl.
LATHYRUS
maritimus, Bigel.
venosus, Muhl.
ochroleucus, Hook.
palustris, L.
β. myrtifolius,(Muhl.
pratensis, L.
APIOS
tuberosa, Mœnch.
PHASEOLUS
perennis, Walt.
diversifolius, Pers.
helvolus, L.
pauciflorus, Benth.
CENTROSEMA
Virginiana, Benth.
CLITORIA
Mariana, L.
AMPHICARPÆA
monoica, Nutt.
GALACTIA
glabella, Michx.
mollis, Michx.
RHYNCHOSIA
tomentosa,Torr&Gr.:
α.monophylla,T.&Gr.
(*simplicifolia*,(Ell.) §
β. volubilis, T. & Gr.
γ. erecta,Torr.&Gray.
BAPTISIA
tinctoria, R. Br.
villosa, Ell.
australis, R. Br.
leucantha, Torr.&Gr.
alba, R. Br.
leucophæa, Nutt.
CLADRASTIS
tinctoria, Raf.
CERCIS
Canadensis, L.
CASSIA
Marilandica, L.
occidentalis, L.
obtusifolia, L.
Chamæcrista, L.
nictitans, L.
GYMNOCLADUS
Canadensis, Lam.
GLEDITSCHIA
triacanthos, L.
monosperma, Walt.
DESMANTHUS
brachylobus, Benth.
SCHRANKIA
uncinata, Willd.
angustata, Torr.&Gr.

ROSACEÆ.
PRUNUS
Americana, Marhall.
maritima, Wang.
β. pygmæa, (Willd.)
Chicasa, Michx.
spinosa, L.
β. insititia, (L.)
pumila, L.
Pennsylvanica, L.
Cerasus, L.
Virginiana, L.
serotina,Ehrh.
SPIRÆA
opulifolia, L.
corymbosa, Raf.
salicifolia, L.
tomentosa, L.
lobata, Murr.
Aruncus, L.
GILLENIA
trifoliata, Mœnch.
stipulacea, Nutt.
POTERIUM
Canadense, Gray.
(*Sanguisorba*—, L.†‖
Sanguisorba, L.
ALCHEMILLA
arvensis, L.
AGRIMONIA
Eupatoria, L.
parviflora, Ait.
DRYAS
integrifolia, Vahl.
GEUM
album, Gmelin.
β. luteum, Wood.
Virginianum, L.
macrophyllum, Willd.
strictum, Ait.
vernum, Torr.&Gray.
rivale, L.
triflorum, Pursh.
radiatum,Michx.:
α. Peckii, (Ph.)Gray.
WALDSTEINIA
fragarioides, Tratt.
SIBBALDIA
procumbens, L.
(*Potentilla*—, Clair. §
POTENTILLA
Norvegica, L.
Millegrana, Engelm.
paradoxa, Nutt.
frigida, Vill.
(? *minima*, Haller. §
Canadensis, L.
β.simplex,(Mx.)T&G
argentea, L.
Pennsylvanica, L.
recta, Willd.
arguta, Pursh.
Anserina, L.
fruticosa, L.
tridentata, Ait.
palustris, Scop.
(*Comarum*——, L.
(*Comarum*, Nestl.
FRAGARIA
Virginiana, Ehrh.
β.Illinoensis,(Prince)
vesca, L.
Indica, L.
DALIBARDA
repens, L.
RUBUS
odoratus, L.
Nutkanus, Moçino.
Chamæmorus, L.
arcticus, L.
triflorus, Richards.
strigosus, Michx.
neglectus, Peck.
occidentalis, L.
villosus, Ait.
β. frondosus.
γ. humifusus.
Canadensis, L.
hispidus, L.
β. setosus, (Bigel.)
cuneifolius, Pursh.
trivialis, Michx.
ROSA
setigera, Michx.
Carolina, L.
lucida, Ehrh.
nitida, Willd.
blanda, Ait.
canina, L.
rubiginosa, L.
micrantha, Smith.
CRATÆGUS
Pyracantha, Pers.
spathulata, Michx.
cordata, Ait.

Oxyacantha, L.
apiifolia, Michx.
coccinea, L.
tomentosa, L.
β. pyrifolia, (Ait.)
γ. punctata, (Jacq.)
δ. plicata, Wood.
ε. flabellata, Wood.
ς. mollis, T. & Gr.
Crus-galli, L.
flava, Ait.
β. pubescens, Gray.
parvifolia, Ait.
PYRUS
coronaria, L.
angustifolia, Ait.
arbutifolia, L.:
α. erythrocarpa.
β. melanocarpa.
Americana, DC.
sambucifolia, Cham. & Schlecht.
AMELANCHIER
Canadensis, T.&Gr.:
α. Botryapium,T.&Gr
β. oblongifolia,T.&Gr
γ. rotundifolia,T.&Gr
δ. alnifolia, T. & Gr.
ε. oligocarpa, T.&Gr.
CALYCANTHACEÆ
CALYCANTHUS
lævigatus, Willd.
SAXIFRAGACEÆ.
RIBES
Cynosbati, L.
oxyacanthoides, L.
hirtellum, Michx.
rotundifolium, Mx.
lacustre, Poir.
prostratum, L'Her.
floridum, L.
rubrum, L.
ITEA
Virginica, L.
HYDRANGEA
arborescens, L.
PHILADELPHUS
inodorus, L.
β. grandiflorus,(Wld.
PARNASSIA
parviflora, DC.
palustris, L.
Caroliniana, Michx.
asarifolia, Vent.
ASTILBE
decandra, Don.
SAXIFRAGA
oppositifolia, L.
rivularis, L.
aizoides, L.
tricuspidata, Retz.
Aizoon, Jacq.
Virginiensis, Michx.
Pennsylvanica, L.
Forbesii, Vasey.
erosa, Pursh.
leucanthemifolia, Mx.
stellaris, L., α. comosa, Willd.
BOYKINIA
aconitifolia, Nutt.
SULLIVANTIA
Ohionis, Torr.&Gray.
HEUCHERA
villosa, Michx.
Rugellii, Shuttlew.
Americana, L.
hispida, Pursh.
pubescens, Pursh.
MITELLA
diphylla, L.
nuda, L.
TIARELLA
cordifolia, L.
CHRYSOSPLENIUM
Americanum, Schw.
CRASSULACEÆ.
PENTHORUM
sedoides, L.
TILLÆA
simplex. Nutt.
SEDUM
acre, L.
w stenopetalum, Pursh.
pulchellum, Michx.
Nevii, Gray.
ternatum, Michx.
telephioides, Michx.
Telephium, L.
Rhodiola, DC.
HAMAMELACEÆ.
HAMAMELIS
Virginica, L.
FOTHERGILLA.
alnifolia, L. f.

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MISSOURI BOTANICAL GARDEN

E.C.I.V. LIQUIDAMBAR
.. .. Styraciflua, L.
HALORAGEÆ.
MYRIOPHYLLUM
* .. .. .. spicatum, L.
* .. .. .. verticillatum, L.
.. .. .. heterophyllum, Mx.
.. .. scabratum, Michx.
ambiguum, Nutt.:
α. natans.
β. capillaceum.
γ. limosum.
.. tenellum, Bigel.
PROSERPINACA
.. .. .. palustris, L.
.. pectinacea, Lam.
HIPPURIS
* .. .. vulgaris, L.
ONAGRACEÆ.
CIRCÆA
* .. .. .. Lutetiana, L.
* .. .. alpina, L.
GAURA
.. .. .. biennis, L.
.. .. filipes, Spach.
EPILOBIUM
* .. .. .. angustifolium, L.
.. β. canescens, Wood.
* hirsutum, L.
* .. alpinum, L.
* β. majus, Wahl.
(*v. nutans*, Wood. ?
(*alsinifolium*, Vill. *
palustre, L.:
* .. .. .. α. lineare, (Muhl.) Gr.
(*v. albiflorum*, Wood. ?
β. oliganthum, (Mx.)
.. paniculatum, Nutt.
.. .. molle, Torr.
.. .. .. coloratum, Muhl.
* .. tetragonum, L.
ŒNOTHERA
biennis, L.:
.. .. .. α. muricata, (Pursh.)
β. grandiflora, (Ait.)
γ. parviflora, (L.)
δ. cruciata.
ε. Oakesiana, (Robb.)
ς. canescens.
.. rhombipetala, Nutt.
.. .. sinuata, L.
β. minima, Wood.
.. glauca, Michx.
w Missouriensis, Sims.
w speciosa, Nutt.
.. .. fruticosa, L.
.. riparia, Nutt.
.. .. linearis, Michx.
.. chrysantha, Michx.
.. .. .. pumila, L.
w linifolia, Nutt.
serrulata, Nutt.
JUSSIÆA
.. .. decurrens, DC.
.. repens, L.
LUDWIGIA
.. .. alternifolia, L.
.. hirtella, Raf.
.. .. sphærocarpa, Ell.
.. polycarpa, Short & Peter.
.. linearis, Walt.
.. cylindrica, Ell.
* .. .. .. palustris, Ell.
(*Isnardia*——, L. *
.. arcuata, Walt.
MELASTOMACEÆ.
RHEXIA
.. .. Virginica, L.
.. Mariana, L.
.. ciliosa, Michx.
LYTHRACEÆ.
AMMANNIA
.. .. humilis, Michx.
.. latifolia, L.
.. Nuttallii, Gray.
(*Hypobrichia*–, Curt. ‖
(*Didiplis diandra*, ?
LYTHRUM
* Hyssopifolia, L.
.. .. .. alatum, Pursh.
.. lineare, L.
* .. Salicaria, L.
NESÆA
.. .. .. verticillata, H. B. K.
CUPHEA
.. .. viscosissima, Jacq.
LOASACEÆ.
MENTZELIA
.. oligosperma, Nutt.
CACTACEÆ.
OPUNTIA
.. .. vulgaris, Mill.
.. Rafinesquii, Engelm.
Missouriensis, DC.

PASSIFLORACEÆ.
PASSIFLORA
.. .. lutea, L.
.. .. incarnata, L.
CUCURBITACEÆ.
SICYOS
.. .. .. angulatus, L.
ECHINOCYSTIS
.. .. lobata, Torr. & Gray.
MELOTHRIA
.. pendula, L.
UMBELLIFERÆ.
HYDROCOTYLE
.. repanda, Pers.
.. ranunculoides, L.
.. .. .. Americana, L.
.. umbellata, L.
β. ? ambigua, Gray.
.. interrupta, Muhl.
CRANTZIA
.. lineata, Nutt.
SANICULA
.. .. .. Canadensis, L.
.. .. .. Marilandica, L.
ERYNGIUM
.. .. yuccæfolium, Michx.
.. Virginianum, Lam.
DAUCUS
* .. .. .. Carota, L.
POLYTÆNIA
.. Nuttallii, DC.
HERACLEUM
.. .. .. lanatum, Michx.
PASTINACA
* .. .. .. sativa, L.
(*Peucedanum*-, Bnth. ?
PEUCEDANUM
w fœniculaceum, Nutt.
ARCHEMORA
.. .. .. rigida, DC.
(*Peucedanum*-, Wood ?
.. β. ambigua.
TIEDEMANNIA
.. teretifolia, DC.
(*Peucedanum*-, Wood ?
ANGELICA
.. Curtisii, Buckley.
ARCHANGELICA
.. .. hirsuta, Torr. & Gray.
.. .. atropurpurea, Hoffm.
Gmelini, DC.
(*peregrina*, Nutt. † ?
CONIOSELINUM
.. .. Canadense, Torr. & Gr.
(*Selinum*——, B. & H. ?
FŒNICULUM
* .. vulgare, Gærtn.
ÆTHUSA
* .. Cynapium, L.
LIGUSTICUM
* .. Scoticum, L.
.. actæifolium, Michx.
THASPIUM
.. .. .. barbinode, Nutt.
pinnatifidum, Gray.
(*Walteri*—, Shutt. ?
.. .. .. aureum, Nutt.
(*Carum*——, Wood. ?
.. .. β. apterum, Gray.
.. .. trifoliatum, Gray.
(*Carum cordatum*, ?
.. .. β. atropurpureum, Torr. & Gray.
.. .. γ. apterum, Gray.
ZIZIA
.. .. .. integerrima, DC.
(*Pimpinella integrifolia*, (B. & H.) ?
BUPLEURUM
* .. .. rotundifolium, L.
DISCOPLEURA
.. capillacea, DC.
.. β. costata, DC.
.. Nuttallii, DC.
CARUM
* .. Carui, L.
CICUTA
.. .. .. maculata, L.
.. .. bulbifera, L.
SIUM
.. .. .. lineare, Michx.
(*Apium*——, Wood. ?
* .. latifolium, L.
Carsonii, Durand.
(*Apium*——, Wood. ?
* .. angustifolium, L.
ÆGOPODIUM
* podagraria, L.
CRYPTOTÆNIA
.. .. .. Canadensis, DC.
CHÆROPHYLLUM
.. .. procumbens, Lam.
* sativum, Lam.
(*Anthriscus Cerefolium*, Hoffm. *

OSMORRHIZA
.. .. .. longistylis, DC.
.. .. .. brevistylis, DC.
CONIUM
* .. .. maculatum, L.
EULOPHUS
.. Americanus, Nutt.
ERIGENIA
.. .. bulbosa, Nutt.
ARALIACEÆ.
ARALIA
.. .. spinosa, L.
.. .. .. racemosa, L.
.. .. hispida, Michx.
.. .. .. nudicaulis, L.
.. .. .. quinquefolia, Gray.
(*Panax*——, L. ‖
(*Ginseng*——, Wood. ?
.. .. trifolia, Gray.
(*Panax*——, L. ‖
(*Ginseng*——, Wood. ?
CORNACEÆ.
CORNUS
* .. suecica, L.
.. .. Canadensis, L.
.. .. .. florida, L.
.. .. circinata, L'Her.
.. .. .. sericea, L.
.. .. stolonifera, Michx.
.. asperifolia, Michx.
.. stricta, Lam.
.. .. .. paniculata, L'Her.
.. .. .. alternifolia, L.
NYSSA
.. .. multiflora, Wang.
.. unifiora, Walt.
CAPRIFOLIACEÆ.
LINNÆA
* .. borealis, Gronov.
SYMPHORICARPUS
.. .. occidentalis, R. Br.
.. .. racemosus, Michx.
β. pauciflorus, Robb.
.. .. vulgaris, Michx.
LONICERA
.. sempervirens, Ait.
.. grata, Ait.
.. flava, Sims.
.. .. .. parviflora, Lam.
.. β. Douglasii, (DC.)
.. hirsuta, Eaton,
.. involucrata, Banks.
.. ciliata, Muhl.
* .. cærulea, L.
.. oblongifolia, Muhl.
DIERVILLA
.. .. .. trifida, Mœnch.
TRIOSTEUM
w .. .. perfoliatum, L.
.. .. angustifolium, L.
SAMBUCUS
.. .. .. Canadensis, L.
.. .. .. pubens, Michx.
VIBURNUM
.. .. .. Lentago, L.
.. .. prunifolium, L.
nudum, L.:
.. α. Claytoni.
(*v. angustifolium*, ?
.. β. cassinoides.
.. obovatum, Walt.
.. .. .. dentatum, L.
molle, Michx.
.. .. .. pubescens, Pursh.
.. .. .. acerifolium, L.
.. pauciflorum, Pylaie.
* .. .. Opulus, L.
.. .. lantanoides, Michx.
RUBIACEÆ.
GALIUM
* .. anglicum, Huds.
* .. .. .. Aparine, L.
* Mollugo, L.
.. .. asprellum, Michx.
.. .. concinnum, Torr. & Gr
* .. .. .. trifidum, L.
β. pusillum.
.. γ. tinctorium.
δ. latifolium.
* .. .. .. triflorum, Michx.
.. .. .. pilosum, Ait.
.. β. puncticulosum, (Mx
.. .. .. circæzans, Michx.
β. montanum.
.. lanceolatum, Torr.
(*circæzans*, *v.*-, Wood. ?
.. latifolium, Michx.
* .. .. boreale, L.
* verum, L.
SPERMACOCE
.. glabra, Michx.
DIODIA
.. Virginica, L.
.. .. teres, Walt.

CEPHALANTHUS
.. .. .. occidentalis, L.
MITCHELLA
.. .. .. repens, L.
OLDENLANDIA
.. glomerata, Michx.
HOUSTONIA
(*OLDENLANDIA* † ‖)
.. .. .. purpurea, L.
.. .. β. longifolia, (Willd.)
.. γ. tenuifolia, (Nutt.)
.. δ. ciliolata, (Torr.)
.. angustifolia, Michx.
.. minima, Beck.
.. .. .. cærulea, L.
VALERIANACEÆ.
VALERIANA
.. .. pauciflora, Michx.
.. sylvatica, Richards.
.. edulis, Nutt.
FEDIA
(*VALERIANELLA* ?)
* .. olitoria, Vahl.
Fagopyrum, T. & Gr.
.. .. .. radiata, Michx.
umbilicata, Sullivant
(*radiata, v.*—, Porter.
patellaria, Sullivant.
(*radiata, v.*—, Porter.
DIPSACEÆ.
DIPSACUS
* .. .. .. sylvestris, Mill.
* Fullonum, L.
COMPOSITÆ.
VERNONIA
.. .. Noveboracensis, Willd
.. .. fasciculata, Michx.
ELEPHANTOPUS
.. .. Carolinianus, Willd.
.. tomentosus, L.
SCLEROLEPIS
.. verticillata, Cass.
LIATRIS
.. elegans, Willd.
.. .. squarrosa, Willd.
.. .. cylindracea, Michx.
.. .. .. scariosa, Willd.
.. pilosa, Willd.
.. .. .. spicata, Willd.
.. graminifolia, Willd.
.. β. dubia, Gray.
.. pycnostachya, Michx
.. odoratissima, Willd.
.. paniculata, Willd.
KUHNIA
.. .. eupatorioides, L.
EUPATORIUM
.. .. .. purpureum, L.
.. fistulosum, Barratt. ?
(*purpureum*, ‡ in part.
.. maculatum, L. ?
(*purpureum*, ‡ in part.
.. fœniculaceum, Willd.
.. hyssopifolium, L.
.. leucolepis, Torr. & Gr.
.. parviflorum, Ell.
.. .. altissimum, L.
.. album, L.
.. teucrifolium, Willd.
.. rotundifolium, L.
.. pubescens, Muhl.
.. .. sessilifolium, L.
resinosum, Torr.
.. .. .. perfoliatum, L.
.. .. serotinum, Michx.
.. .. .. ageratoides, L.
.. .. aromaticum, L.
MIKANIA
.. .. scandens, L.
CONOCLINIUM
.. .. cœlestinum, DC.
NARDOSMIA
.. palmata, Hook.
TUSSILAGO
* .. Farfara, L.
PETASITES
* vulgaris, Desf.
ADENOCAULON
bicolor, Hook.
SERICOCARPUS
.. solidagineus, Nees.
.. conyzoides, Nees.
.. tortifolius, Nees.
ASTER
.. .. .. corymbosus, Ait.
.. .. .. macrophyllus, L.
.. Radula, Ait.
.. surculosus, Michx.
.. β. gracilis, (Nutt.)
.. spectabilis, Ait.
Herveyi, Gray.
.. sericeus, Vent.
.. concolor, L.
.. .. .. patens, Ait.
.. β. phlogifolius, (Muhl

lævis, L.:
.. α. lævigatus, (Willd.)
.. .. .. β. cyaneus, (Hoffm.)
.. turbinellus, Lindl.
.. .. azureus, Lindl.
.. Shortii, Boott.
.. .. .. undulatus, L.
.. β. asperulus, (T. & G.)
.. .. .. cordifolius, L.
.. .. .. sagittifolius, Willd.
.. β. Drummondii, (Lindl
.. .. ericoides, L.
.. .. β. villosus, (Michx.)
.. .. .. multiflorus, Ait.
.. .. dumosus, L.
β. coridifolius, Wood.
.. .. .. Tradescanti, L.
.. β. fragilis, (Willd.)
.. .. .. miser, L., Ait.
.. .. .. simplex, Willd.
β. divergens, (Ait.)
.. .. .. tenuifolius, L.
β. bellidiflorus, (Willd
.. γ. distichus, Wood.
.. subasper, Lindl.
.. .. .. carneus, Nees.
.. mutabilis, Ait.
.. æstivus, Ait.
β. lætiflorus.
.. Novi-Belgii, L.
.. .. longifolius, Lam.
β. prælitus, (Poir.)
.. .. .. puniceus, L.
.. β. vimineus, (Willd.)
.. γ. glaber, Wood.
δ. firmus, Wood.
.. prenanthoides, Muhl.
.. grandiflorus, L.
.. .. oblongifolius, Nutt.
.. amethystinus, Nutt.
.. .. .. Novæ-Angliæ, L.
.. anomalus, Engelm.
.. graminifolius, Pursh.
.. .. acuminatus, Michx.
.. nemoralis, Ait.
.. .. ptarmicoides, T. & Gr.
.. flexuosus, Nutt.
.. linifolius, L.
w angustus, Torr. & Gr.
ERIGERON
* .. .. .. Canadense, L.
.. divaricatum, Michx.
* .. acre, L.
.. .. .. bellidifolium, Muhl.
.. .. .. Philadelphicum, L.
.. glabellum, Nutt.
* .. .. .. annuum, Pers.
(*Stenactis*——, Cass. *
.. .. .. strigosum, Muhl.
β. discoideum, Robb.
.. vernum, Torr. & Gray.
DIPLOPAPPUS
.. .. .. linariifolius, Hook.
.. .. .. umbellatus, T. & Gr.
.. amygdalinus, T. & Gr.
(*umbellatus, v.*——, ?
.. cornifolius, Darl.
BOLTONIA
.. .. asteroides, L'Her.
.. .. .. glastifolia, L'Her.
.. decurrens, Wood.
.. diffusa, L.'Her.
w latisquama, Gray.
BELLIS
integrifolia, Michx.
AMPHIACHYRIS
w dracunculoides, DC.
BRACHYCHÆTA
cordata, Torr. & Gray.
(*Solidago*—, Short. ‖
SOLIDAGO
.. .. squarrosa, Muhl.
.. .. bicolor, L.
.. β. concolor, Gray.
.. .. .. latifolia, L.
.. β. ciliata, (DC.)
.. Curtisii, Torr. & Gray
(*ambigua*, Ait., *v.*—, ?
.. .. .. cæsia, L.
.. virgata, Michx.
.. .. puberula, Nutt.
.. .. stricta, Ait.
.. .. speciosa, Nutt.
.. β. angustata, Gray.
.. petiolaris, Ait.
.. β. squarrulosa, T. & Gr
* .. Virga-aurea, L.
.. β. alpina, Bigel.
.. .. .. γ. humilis, (Ph.) Gr.
.. thyrsoidea, E. Meyer.
.. .. .. rigida, L.
.. Ohioensis, Riddell.
.. .. Riddellii, Frank.
.. Houghtonii, T. & Gr.

.. .. sempervirens, L.
elliptica, Ait.
.. .. neglecta, Torr. & Gray.
.. .. patula, Muhl.
.. .. .. arguta, Ait.
.. .. .. β. juncea, (Ait.)
.. γ. scabrella, Gray.
.. Boottii, Hook.
.. .. Muhlenbergii, T. & Gr.
linoides, Solander.
.. .. altissima, L.
.. .. ulmifolia, Muhl.
.. Drummondii, T. & Gr.
.. pilosa, Walt.
.. odora, Ait.
.. tortifolia, Ell.
.. .. .. nemoralis, Ait.
.. radula, Nutt.
Shortii, Torr. & Gray.
.. Missouriensis, Nutt.
rupestris, Raf.
.. .. .. Canadensis, L.
β. procera, (Ell.)
γ. scabra.
.. .. .. serotina, Ait.
.. .. .. gigantea, Ait.
.. .. .. lanceolata, L.
.. .. tenuifolia, Pursh.
BIGELOVIA
.. nudata, DC.
CHRYSOPSIS
.. graminifolia, Nutt.
falcata, Ell.
.. gossypina, Nutt.
.. Mariana, Nutt.
.. villosa, Nutt.
GRINDELIA
w squarrosa, Dunal.
w inuloides, Willd.
INULA
* .. .. .. Helenium, L.
PLUCHEA
.. camphorata, DC.
.. .. fœtida, DC.
.. bifrons, DC.
BACCHARIS
.. halimifolia, L.
.. glomeruliflora, Pers.
POLYMNIA
.. .. .. Canadensis, L.
.. β. discoidea, Gray.
.. .. Uvedalia, L.
CHRYSOGONUM
.. .. Virginianum, L.
SILPHIUM
.. laciniatum, L.
.. .. .. terebinthinaceum, L.
β. pinnatifidum, (Ell.)
.. trifoliatum, L.
.. Asteriscus, L.
.. Radula, Nutt.
.. integrifolium, Michx.
β. læve, Gray.
.. γ. ternatum, Wood.
.. .. perfoliatum, L.
PARTHENIUM
.. .. integrifolium, L.
IVA
.. frutescens, L.
.. ciliata, Willd.
xanthiifolia, Nutt.
AMBROSIA
.. bidentata, Michx.
.. .. .. trifida, L.
.. β. integrifolia, (Muhl.
.. .. .. artemisiæfolia, L.
.. psilostachya, DC.
XANTHIUM
* .. .. .. strumarium, L.
β. Canadense, (Mill.)
.. γ. echinatum, (Murr.)
* .. .. spinosum, L.
TETRAGONOTHECA
.. helianthoides, L.
ECLIPTA
.. .. procumbens, Michx.
(*erecta*, L. ‖ ; *alba*, ?
.. β. brachypoda, (Mx.)
BORRICHIA
.. frutescens, DC.
HELIOPSIS
lævis, Pers.
.. .. .. β. scabra.
γ. gracilis.
ECHINACEA
.. .. purpurea, Mœnch.
.. angustifolia, DC.
RUDBECKIA
.. .. .. laciniata, L.
.. subtomentosa, Pursh.
.. .. triloba, L.
.. speciosa, Wenderoth.
.. .. fulgida, Ait.
.. .. .. hirta, L.

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LEPACHYS
.. .. pinnata, Torr. & Gr.
HELIANTHUS
.. .. annuus, L.
w lenticularis, Dougl.
.. .. angustifolius, L.
w orgyalis, DC.
.. .. atrorubens, L.
.. rigidus, Desf.
.. lætiflorus, Pers.
.. occidentalis, Ridd.
cinereus, Torr. & Gr.:
a. Sullivantii, T. & Gr.
.. mollis, Lam.
.. .. microcephalus, T. & Gr
.. lævigatus, Torr. & Gr.
(*longifolius*, ♀
.. .. .. giganteus, L.
β. ambiguus, Gray.
.. grosse-serratus, Mart.
.. .. tomentosus, Michx.
.. .. .. strumosus, L.
β. mollis, Gray.
.. .. .. divaricatus, L.
.. *β.* scaberrimus, Wood.
.. hirsutus, Raf.
β. pubescens, (Hook.)
.. tracheliifolius, Willd.
.. .. .. decapetalus, L.
.. *β.* frondosus, Gray.
.. .. .. doronicoides, Lam.
.. tuberosus, L.
ACTINOMERIS
.. .. .. squarrosa, Nutt.
.. helianthoides, Nutt.
COREOPSIS
rosea, Nutt.
.. .. auriculata, L.
.. .. .. lanceolata, L.
w grandiflora, Nutt.
tinctoria, Nutt.
.. senifolia, Michx.
.. .. *β.* stellata, (Nutt.)
.. delphinifolia, Lam.
.. verticillata, L.
.. palmata, Nutt.
.. .. .. tripteris, L.
.. aristosa, Michx.
.. *β.* mutica, Gray.
w *γ.* involucrata, (Nutt)
.. .. .. trichosperma, Michx.
.. .. .. discoidea, Torr. & Gr.
bidentoides, Nutt.
BIDENS
.. .. .. frondosa, L.
* .. .. .. connata, Muhl.
.. *β.* petiolata, (Nutt.)
.. *γ.* comosa, Gray.
* .. .. .. cernua, L.
.. .. .. chrysanthemoides, Michx.
.. .. Beckii, Torr.
.. .. bipinnata, L.
VERBESINA
.. .. Siegesbeckia, Michx.
.. Virginica, L.
DYSODIA
.. chrysanthemoides, Lag
HYMENOPAPPUS
.. scabiosæus, L'Her.
w tenuifolius, Pursh.
ACTINELLA
scaposa, Nutt.:
.. *a.* glabra, Gray.
HELENIUM
.. .. .. autumnale, L.
LEPTOPODA
.. brachypoda, Torr & Gr
(*Helenium*—, Wood. ♀
BALDWINIA
.. uniflora, Nutt.
MARSHALLIA
.. latifolia, Pursh.
GALINSOGA
* parviflora, Cav.
MARUTA
* .. .. .. Cotula, DC.
(*Anthemis*——, L. *♀
ANTHEMIS
* arvensis, L.
* nobilis, L.
ACHILLEA
* .. .. .. Millefolium, L.
* Ptarmica, L.
LEUCANTHEMUM
* .. .. .. vulgare, Lam.
(*Chrysanthemum Leucanthemum*, L. *†
β. tubuliflorum, Ten.
* .. Parthenium, Godron.
(*Matricaria*—, L. *†
(*Pyrethrum*—, Sm. *
MATRICARIA
* inodora, L.
* .. discoidea, DC.

TANACETUM
* .. .. vulgare, L.
.. *β.* crispum, Gray.
.. Huronense, Nutt.
ARTEMISIA
.. dracunculoides, Ph.
* borealis, Pallas.
.. .. Canadensis, Michx.
.. .. .. caudata, Michx.
.. Ludoviciana, Nutt.
.. *β.* gnaphalodes, Gray.
* .. *α.* vulgaris, L.
.. .. biennis, Willd.
* .. Absinthium, L.
frigida, Willd.
GNAPHALIUM
.. decurrens, Ives.
.. .. .. polycephalum, Michx
* .. .. uliginosum, L.
.. .. purpureum, L.
* supinum, Villars.
ANTENNARIA
* .. .. .. margaritacea, R. Br.
.. .. .. plantaginifolia, Hook
.. *β.* monocephala, Gray
* .. .. dioica, Gærtn.?
FILAGO
* .. Germanica, L.
ERECHTHITES
.. .. .. hieracifolia, Raf.
CACALIA
.. suaveolens, L.
.. .. reniformis, Muhl.
.. .. atriplicifolia, L.
.. .. tuberosa, Nutt.
SENECIO
* .. .. vulgaris, L.
.. lobatus, Pers.
* palustris, Hook.
.. .. .. aureus, L.
.. *β.* obovatus, (Muhl.)
.. .. .. *γ.* Balsamitæ, (Willd)
δ. lanceolatus, Oakes.
.. *ε.* gracilis, (Pursh.)
ς. discoideus, (Pursh.)
.. Elliottii, Torr. & Gr.
(*obovatus*, Ell. ♀
.. tomentosus, Michx.
Pseudo-Arnica, Less.
ARNICA
mollis, Hook.
.. nudicaulis, Ell.
CENTAUREA
* .. .. Cyanus, L.
* .. nigra, L.
* .. Calcitrapa, L.
.. Americana, Nutt.
CNICUS
* .. benedictus, L.
CIRSIUM
* .. .. .. lanceolatum, Scop.
(*Carduus* ——, L.*
.. .. Pitcheri, Torr. & Gray.
undulatum, Spreng.
.. .. .. discolor, Spreng.
.. .. .. altissimum, Spreng.
.. Virginianum, Michx.
.. *β.* filipendulum, (Eng.
.. .. .. muticum, Michx.
.. .. pumilum, Spreng.
.. horridulum, Michx.
* .. .. arvense, Scop.
(*Carduus*—, Curtis.*
CARDUUS
* .. nutans, L.
ONOPORDON
* .. .. acanthium, L.
LAPPA
officinalis, All.:
(*Arctium Lappa*, L.*
* .. .. .. *α.* major, (Gærtn.)
* *β.* tomentosa, (Lam.)
* *γ.* minor, (DC.)
LAMPSANA
* .. communis, L.
CICHORIUM
* .. .. .. Intybus, L.
APOGON
w humilis, Ell.
KRIGIA
.. .. Virginica, Willd.
β. dichotoma, (Nutt.)
CYNTHIA
.. .. .. Virginica, Don.
.. Dandelion, DC.
LEONTODON
* .. autumnale, L.
TRAGOPOGON
* porrifolius, L.
TROXIMON
.. cuspidatum, Pursh.
HIERACIUM
.. .. Canadense, Michx.
* .. murorum, L.

.. .. .. scabrum, Michx.
.. longipilum, Torr.
.. .. Gronovii, L.
.. .. venosum, L.
.. *β.* subcaulescens, Gr.
.. .. paniculatum, L.
NABALUS
.. .. .. albus, Hook.
.. *β.* Serpentaria, (Hook.
.. .. .. altissimus, Hook.
.. Fraseri, DC.
.. *β.* integrifolius, Gray.
nanus, DC.
Boottii, DC.
.. virgatus, DC.
.. .. racemosus, Hook.
.. asper, Torr. & Gray.
.. crepidineus, DC.
LYGODESMIA
juncea, Don.
CHONDRILLA
* .. juncea, L.
CREPIS
* virens, L., *α.* diffusa.
.. runcinata, Torr. & Gr.
PYRRHOPAPPUS
.. Carolinianus, DC.
w grandiflorus, Nutt.
TARAXACUM
* .. .. .. Dens-leonis, Desf.
LACTUCA
.. .. .. Canadensis, L.
(*elongata*, Muhl. † ‖
.. .. .. *β.* integrifolia, (Bigel.
.. .. .. *γ.* sanguinea, (Bigel.)
* Scariola, L.
MULGEDIUM
pulchellum, Nutt.
.. .. acuminatum, DC.
(*Floridanum, v.*——, ♀
.. .. .. Floridanum, DC.
.. .. .. leucophæum, DC.
SONCHUS
* .. .. .. oleraceus, L.
* .. .. .. asper, Vill.
* .. .. arvensis, L.

LOBELIACEÆ.
LOBELIA
.. .. .. cardinalis, L.
β. integerrima, Wood.
γ. candida, Wood.
.. .. .. syphilitica, L.
.. .. puberula, Michx.
.. leptostachys, A. DC.
.. glandulosa, Walt.
.. amœna, Michx.
.. .. .. inflata, L.
.. .. .. spicata, Lam.
.. Nuttallii, Rœm. & S.
.. .. Kalmii, L.
Canbyi, Gray.
.. paludosa, Nutt.
* .. Dortmanna, L.

CAMPANULACEÆ.
CAMPANULA
* .. rotundifolia, L.
* .. .. .. *β.* linifolia, (Lam.)
.. .. .. aparinoides, Pursh.
.. divaricata, Michx.
.. .. .. Americana, L.
* glomerata, L.
* rapunculoides, L.
* medium, L.
SPECULARIA
.. .. .. perfoliata, A. DC.
w leptocarpa, Nutt.

ERICACEÆ.
GAYLUSSACEA
.. brachycera, Gray.
.. .. dumosa, Torr. & Gr.
.. *β.* hirtella.
.. frondosa, Torr. & Gr.
.. .. .. resinosa, Torr. & Gr.
VACCINIUM
* .. Oxycoccus, L.
(*Oxycoccus palustris*, Pers. *♀
* .. .. .. macrocarpon, Ait.
(*Oxycoccus*—, Pers.*♀
.. erythrocarpon, Mx.
(*Oxycoccus*——, Ell. ♀
* .. Vitis-Idæa, L.
.. .. stamineum, L.
.. .. arboreum, Marshall.
* .. uliginosum, L.
.. cæspitosum, Michx.
ovalifolium, Smith.
myrtilloides, Hook.
.. .. Pennsylvanicum, Lam
β. angustifolium, (Ait.
(*v. alpinum*, Wood. ♀
γ. nigrum, Wood.
.. tenellum, Ait.
.. Canadense, Kalm.
.. .. .. vacillans, Solander.

corymbosum, L.:
.. .. *α.* glabrum.
.. *β.* amœnum.
γ. pallidum.
.. *δ.* atrococcum.
CHIOGENES
.. hispidula, Torr. & Gr.
ARCTOSTAPHYLOS
* .. .. Uva-ursi, Spreng.
(*Arbutus*——, L. *
* alpina, Spreng.
EPIGÆA
.. .. repens, L.
GAULTHERIA
.. .. procumbens, L.
LEUCOTHOE
.. axillaris, Don.
(*Andromeda*—, Lam. ♀
.. Catesbæi, Gray.
(*Andromeda*—, Walt. ♀
.. recurva, Buckley.
.. racemosa, Gray.
(*Andromeda* —, L. ♀
CASSANDRA
* .. .. calyculata, Don.
(*Andromeda*——, L.*♀
CASSIOPE
* .. hypnoides, Don.
ANDROMEDA
* .. polifolia, L.
.. floribunda, Pursh.
.. Mariana, L.
.. ligustrina, Muhl.
OXYDENDRUM
.. arboreum, DC.
CLETHRA
.. alnifolia, L.
.. acuminata, Michx.
ERICA
* cinerea, L.
CALLUNA
* .. vulgaris, Salisb.
PHYLLODOCE
* taxifolia, Salisb.
(*Menziesia*—, Robb. ♀
(*cærulea*, Bab. *
KALMIA
.. latifolia, L.
.. .. augustifolia, L.
.. glauca, Ait.
β. rosmarinifolia, Ph.
.. hirsuta, Walt.
MENZIESIA
ferruginea, Smith.:
.. *α.* globularis, (Salisb.)
AZALEA
.. arborescens, Pursh.
(*Rhododendron*—, T. ‖
.. viscosa, L.
(*R. viscosa*, Torr. ‖
.. *β.* glauca, Gray.
(*v. hispida*, (Pursh.)♀
γ. nitida.
.. .. nudiflora, L.
(*R. nudiflora*, Torr. ‖
.. calendulacea, Michx.
(*R. calendulacea*, T. ‖
RHODODENDRON
.. .. maximum, L.
.. Catawbiense, Michx.
* Lapponicum, Wahl.
RHODORA
.. Canadensis, L.
LEDUM
* .. latifolium, Ait.
LOISELEURIA
* .. procumbens, Desv.
LEIOPHYLLUM
.. buxifolium, Ell.
PYROLA
* .. .. .. rotundifolia, L.
β. incarnata, (Hook.)
γ. asarifolia, (Michx.)
δ. uliginosa, (T. & Gr.)
.. .. elliptica, Nutt.
.. chlorantha, Swartz.
oxypetala, Austin.
* .. .. secunda, L.
.. *β.* pumila, Paine.
* .. minor, L.
MONESES
* .. uniflora, Gray.
(*grandiflora*, Sal. *♀
(*Pyrola uniflora*, L. *
CHIMAPHILA
* .. .. umbellata, Nutt.
.. .. maculata, Pursh.
PTEROSPORA
.. Andromedea Nutt.
SCHWEINITZIA
.. odorata, Ell.
MONOTROPA
.. .. .. uniflora, L.
* .. .. Hypopitys, L.
.. *β.* lanuginosa, (Mx.)

GALACINEÆ.
GALAX
.. aphylla, L.

AQUIFOLIACEÆ.
ILEX
.. opaca, Ait.
.. Cassine, L.
.. myrtifolia, Walt.
.. Dahoon, Walt.
.. .. decidua, Walt.
.. monticola, Gray.
(*Amelanchier, v.*—, ♀
mollis, Gray.
(*Prinos pubescens*, Mx ♀
Amelanchier, Curtis.
.. .. .. verticillata, Gray.
(*Prinos*——, L. ♀
.. lævigata, Gray.
(*Prinos*——, Pursh. ♀
.. glabra, Gray.
(*Prinos*——, L. ♀
NEMOPANTHES
.. .. Canadensis, DC.

EBENACEÆ.
DIOSPYROS
.. .. Virginiana, L.

SAPOTACEÆ.
BUMELIA.
.. .. lycioides, Gærtn.
.. lanuginosa, Pers.

STYRACACEÆ.
STYRAX
.. grandifolia, Ait.
.. pulverulenta, Michx.
.. Americana, Lam.
HALESIA
.. tetraptera, L.
SYMPLOCOS
.. tinctoria, L'Her.

PLANTAGINACEÆ
PLANTAGO
* .. .. .. major, L.
Kamtschatica, Cham.
.. sparsiflora, Michx.
.. .. cordata, Lam.
* .. maritima, L.
.. *β.* juncoides, (Lam.)
* .. .. .. lanceolata, L.
.. .. Virginica, L.
.. pusilla, Nutt.
.. heterophylla, Nutt.
Patagonica, Jacq.:
.. *α.* gnaphalioides (Nutt
.. *β.* aristata, (Michx.)
LITTORELLA
* .. lacustris, L.

PLUMBAGINACEÆ
STATICE
.. .. Limonium, L., *α.* Caroliniana, (Walt.)

PRIMULACEÆ.
PRIMULA
* .. farinosa, L.
.. Mistassinica, Michx.
ANDROSACE
.. occidentalis, Pursh.
DODECATHEON
.. .. Meadia, L.
.. *β.* Frenchii, Vasey.
TRIENTALIS
.. .. Americana, Pursh.
LYSIMACHIA
* .. .. thyrsiflora, L.
(*Naumburgia*——, Reich. †
.. .. .. stricta, Ait.
β. producta, Gray.
.. .. .. quadrifolia, L.
.. .. .. ciliata, L.
.. radicans, Hook.
lanceolata, Walt.:
(*ciliata*, ‖ in part.
.. .. .. *α.* hybrida, (Michx.)
β. heterophylla, (Mx.)
.. .. *γ.* angustifolia, (Lam)
.. .. longifolia, Pursh.
* nummularia, L.
GLAUX
* .. maritima, L.
ANAGALLIS
* .. .. arvensis, L.
CENTUNCULUS
* .. minimus, L.
SAMOLUS
.. .. .. Valerandi, L., *α.* Americanus, Gray.
(*floribundus*, Kunth. ‖
HOTTONIA
.. .. inflata, Ell.

LENTIBULACEÆ.
UTRICULARIA
.. .. inflata, Walt.
.. .. .. vulgaris, L., *α.* Americana, Gray.

* .. minor, L.
.. clandestina, Nutt.
* .. .. intermedia, Hayne.
.. striata, Le Conte.
Robbinsii, Wood.
.. biflora, Lam.
.. .. .. gibba, L.
.. purpurea, Walt.?
resupinata, Greene.
.. .. .. cornuta, Michx.
.. subalata, L.
PINGUICULA
* .. vulgaris, L.

BIGNONIACEÆ.
BIGNONIA
.. .. capreolata, L.
TECOMA
.. .. radicans, Juss.
CATALPA
.. .. bignonioides, Walt.
MARTYNIA
.. proboscidea, Glox.

OROBANCHACEÆ.
EPIPHEGUS
.. .. Virginiana, Bart.
ORABANCHE
* minor, L.
CONOPHOLIS
.. .. Americana, Wallroth.
PHELIPÆA
.. Ludoviciana, Don.
APHYLLON
.. .. .. uniflorum, Torr. & Gr.
.. fasciculatam, T. & Gr.

SCROPHULARIACEÆ
VERBASCUM
* .. .. .. Thapsus, L.
* .. .. .. Blattaria, L.
* .. Lychnitis, L.
LINARIA
.. .. Canadensis, Spreng.
* .. .. .. vulgaris, Miller.
β. Peloria, Wood.
* genistifolia, Miller.
* .. Elatine, Miller.
ANTIRRHINUM
* .. Orontium, L.
* majus, L.
SCROPHULARIA
* .. .. .. nodosa, L.
COLLINSIA
.. verna, Nutt.
parviflora, Dougl.
w violacea, Nutt.
CHELONE
.. .. .. glabra, L.
β. purpurea, Wood.
PENSTEMON.
.. .. .. pubescens, Solander.
.. .. Digitalis, Nutt.
.. grandiflorus, Fraser.
MIMULUS
.. .. .. ringens, L.
.. .. alatus, Ait.
.. .. Jamesii, Torr.
CONOBEA
.. multifida, Benth.
HERPESTIS
.. rotundifolia, Pursh.
.. amplexicaulis, Pursh.
.. Monniera, H. B. K.
GRATIOLA
.. .. .. Virginiana, L.
.. .. sphærocarpa, Ell.
viscosa, Schw.
.. .. aurea, Muhl.
.. pilosa, Michx.
ILYSANTHES
.. .. .. gratioloides, Benth.
MICRANTHEMUM
.. Nuttallii, Gray.
(*orbiculatum*, Mx. ♀‖
(*Hemianthus micranthemoides*, Nutt. †
LIMOSELLA
aquatica, L., *α.* tenuifolia, (Nutt.)
SYNTHYRIS
.. Houghtoniana, Benth
VERONICA
.. .. .. Virginica, L.
* .. .. .. Anagallis, L.
.. .. .. Americana, Schw.
* chamædrys, L.
* .. .. scutellata, L.
.. *β.* tomentosa, Macoun
* .. .. officinalis, L.
* alpina, L.
* .. .. .. serpyllifolia, L.
* .. .. .. peregrina, L.
* .. .. .. arvensis, L.
* .. .. agrestis, L.
* Buxbaumii, Tenore.
* hederæfolia, L.

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E.C.I.V. BUCHNERA
.. .. Americana, L.
SEYMERIA
.. macrophylla, Nutt.
GERARDIA
.. .. .. purpurea, L.
.. maritima, Raf.
.. aspera, Dougl.
.. .. .. tenuifolia, Vahl.
Skinneriana, Wood.
.. .. setacea, Walt.
.. .. .. flava, L.
(*Dasystoma*–, Wood. ?
(*D. pubescens*, Benth. ‖
.. .. .. quercifolia, Pursh.
(*Dasystoma*–, Bnth. ‖ ?
.. .. .. integrifolia, Gray.
(*Dasystoma*–, Wood. ?
.. grandiflora, Benth.
(*Dasystoma*–, Wood. ?
.. .. .. pedicularia, L.
(*Dasystoma*–, Bnth. ‖ ?
.. auriculata, Michx.
(*Otophylla Michauxii*, Benth, ‖
CASTILLEIA
.. .. .. coccinea, Spreng.
* .. pallida, Kunth.
(*septentrionalis*, Lindl
.. sessiliflora, Pursh.
SCHWALBEA
.. Americana, L.
EUPHRASIA
officinalis, L.:
.. α. pusilla, (Godet.)
RHINANTHUS
* .. Christa-galli, L.
PEDICULARIS
.. .. .. Canadensis, L.
.. .. .. lanceolata, Michx.
MELAMPYRUM
.. .. Americanum, Michx.
(*pratense*, L.*v.*–, Bth. ?
ACANTHACEÆ.
DIANTHERA
.. .. .. Americana, L.
RUELLIA
.. .. ciliosa, Pursh.
(*Dipteracanthus ciliosus*, Nees. † ‖
.. .. strepens, L.
(*D. strepens*, Nees. † ‖
β. micranthus, Gray.
VERBENACEÆ.
VERBENA
.. .. .. angustifolia, Michx.
.. .. .. hastata, L.
.. .. .. urticifolia, L.
.. stricta, Vent.
* .. .. officinalis, L.
.. bracteosa, Michx.
.. Aubletia, L.
LIPPIA
.. .. lanceolata, Michx.
(*nodiflora*, Michx. ‖ ?
CALLICARPA
.. Americana, L.
PHRYMA
.. .. .. Leptostachya, L.
LABIATÆ.
AJUGA
* reptans, L.
TEUCRIUM
.. .. .. Canadense, L.
TRICHOSTEMA
.. .. dichotomum, L.
.. lineare, Nutt.
ISANTHUS
.. .. .. cæruleus, Michx.
MENTHA
* .. rotundifolia, L.
* .. .. .. viridis, L.
* sylvestris, L.
* .. .. .. piperita, L.
* β. subhirsuta, Benth.
* aquatica, L.
* β. glabrata, Benth.
(*citrata*, Ehrh. *
* γ. crispa, Benth.
* .. sativa, L.
* arvensis, L.
.. .. Canadensis, L.
β. glabrata, Benth.
(*v. borealis*, (Michx.) ?
LYCOPUS
.. .. .. Virginicus, L.
β. pumilus, (Vahl.)
γ. macrophyllus.
* .. Europæus, L.
β. sessilifolius, Gray.
γ. integrifolius, Gray.
(*v. rubellus*, (Mœnch ?
δ. angustifolius, (Nutt
.. .. .. ε. sinuatus, (Ell.)
ς. exaltatus, (Ell.)

PERILLA
* ocimoides, L., α. crispa
CUNILA
.. .. Mariana, L.
HYSSOPUS
* .. officinalis, L.
PYCNANTHEMUM
.. aristatum, Michx.
.. β. hyssopifolium, Gr.
.. Tullia, Benth.
(*incanum, v.*–, Chapm ‖
.. .. incanum, Michx.
clinopodioides, T. & G.
Torreyi, Benth.
.. pilosum, Nutt.
.. muticum, Pers.
w dealbatum, T. & Gr.
.. .. .. lanceolatum, Pursh.
.. .. linifolium, Pursh.
.. montanum, Michx.
ORIGANUM
* vulgare, L.
THYMUS
* Serpyllum, L.
SATUREIA
* .. .. hortensis, L.
CALAMINTHA
* .. Nepeta, Link.
glabella, Benth.
.. .. β. Nuttallii, Gray.
(*v. diversifolia*, ?
* .. .. Clinopodium, Benth.
(*Clinopodium, vulgare*, L.*
DICERANDRA
.. linearifolia, Benth.
MELISSA
* .. officinalis, L.
HEDEOMA
.. .. .. pulegioides, Pers.
.. .. hispida, Pursh.
COLLINSONIA
.. .. .. Canadensis, L.
SALVIA
w trichostemoides, Ph.
* Sclarea, L.
.. .. lyrata, L.
.. urticifolia, L.
w azurea, Lam.
MONARDA
.. didyma, L.
.. .. .. fistulosa, L.
.. Bradburiana, Beck.
.. .. punctata, L.
BLEPHILIA
.. .. ciliata, Raf.
.. .. hirsuta, Benth.
LOPHANTHUS
.. .. .. nepetoides, Benth.
.. .. scrophulariæfolius, Benth.
anisatus, Benth.
NEPETA
* .. .. .. Cataria, L.
* .. .. .. Glechoma, Benth.
(*Glech. hederacea*, L.*
DRACOCEPHALUM
.. .. parviflorum, Nutt.
CEDRONELLA
.. cordata, Benth.
SYNANDRA
.. grandiflora, Nutt.
PHYSOSTEGIA
.. .. .. Virginiana, Benth.
intermedia, Gray.
BRUNELLA
* .. .. .. vulgaris, L.
(*Prunella*——, L.*
SCUTELLARIA
.. .. versicolor, Nutt.
.. rugosa, Wood.
.. saxatilis, Riddell.
.. canescens, Nutt.
.. .. serrata, Andrews.
.. pilosa, Michx.
.. integrifolia, L.
.. .. nervosa, Pursh.
.. .. .. parvula, Michx.
* .. .. .. galericulata, L.
.. .. .. lateriflora, L.
MARRUBIUM
* .. .. .. vulgare, L.
GALEOPSIS
* .. Tetrahit, L.
* β. grandiflora, Gray.
* Ladanum, L.
STACHYS
* arvensis, L.
* .. palustris, L.
.. .. .. β. aspera, (Michx.) Gr.
.. γ. glabra, (Rid.) Gr.
.. δ. cordata, (Rid.) Gr.
.. .. hyssopifolia, Michx.
BETONICA
* officinalis, L.

LEONURUS
* .. .. .. Cardiaca, L.
* Marrubiastrum, L.
LAMIUM
* .. .. amplexicaule, L.
* purpureum, L.
* album, L.
BALLOTA
* nigra, L.
PHLOMIS
* tuberosa, L.
BORRAGINACEÆ.
ECHIUM
* .. .. vulgare, L.
LYCOPSIS
* .. arvensis, L.
(*Anchusa*——, Bieb.*
SYMPHYTUM
* .. .. officinale, L.
ONOSMODIUM
.. .. Virginianum, DC.
.. .. .. Carolinianum, DC.
.. molle, Michx.
LITHOSPERMUM
* .. .. .. arvense, L.
.. angustifolium, Mx.
* .. officinale, L.
.. .. latifolium, Michx.
.. .. .. hirtum, Lehm.
.. .. .. canescens, Lehm.
.. .. longiflorum, Spreng.
MERTENSIA
.. .. Virginica, DC.
* .. maritima, Don.
.. paniculata, Don.
MYOSOTIS
* .. palustris, With.
* .. β. laxa, (Lehm.) Gr.
* .. arvensis, Hoffm.
(*intermedia*, Link. *
.. .. .. verna, Nutt.
* versicolor, Pers.
ECHINOSPERMUM
* .. .. Lappula, Lehm.
w Redowskii, Lehm.
CYNOGLOSSUM
* .. .. .. officinale, L.
.. .. .. Virginicum, L.
.. .. .. Morisoni, DC.
HELIOTROPIUM
* Europæum, L.
.. .. Curassavicum, L.
w tenellum, Torr.
HELIOPHYTUM
.. Indicum, DC.
HYDROPHYLLACEÆ
HYDROPHYLLUM
.. .. macrophyllum, Nutt.
.. .. .. Virginicum, L.
.. .. .. Canadense, L.
.. .. .. appendiculatum, Mx.
NEMOPHILA
.. microcalyx, Fisch & M
ELLISIA
.. .. Nyctelea, L.
.. ambigua, Nutt.
PHACELIA
.. bipinnatifida, Michx.
.. .. Purshii, Buckley.
(*Cosmanthus*–, Wood ?
.. fimbriata, Michx.
(*Cosmanthus*—, Mx. ?
.. parviflora, Pursh.
.. Franklinii, Gray.
HYDROLEA
.. affinis, Gray.
(*quadrivalvis*, † non Wlt
POLEMONIACEÆ.
POLEMONIUM
.. .. reptans, L.
* cæruleum, L.
PHLOX
.. .. paniculata, L.
.. .. β. acuminata, (Pursh)
.. .. maculata, L.
.. .. Carolina, L.
β. ovata, (L.) Benth.
γ. nitida, (Ph.) Benth.
.. .. glaberrima, L.
.. .. .. pilosa, L.
.. .. procumbens, Lehm.
(*Walteri*, Chapm. ‖
(*amœna*, Sims.
.. .. reptans, Michx.
.. .. .. divaricata, L.
.. bifida, Beck.
stellaria, Gray.
.. .. subulata, L.
COLLOMIA
.. gracilis, Dougl.
DIAPENSIA
* Lapponica, L.
PYXIDANTHERA
.. barbulata, Michx.
(*Diapensia*—, Ell. ?

CONVOLVULACEÆ.
QUAMOCLIT
.. .. Coccinea, Mœnch.
vulgaris, Choisy.
IPOMŒA
.. .. .. purpurea, Lam.
(*Pharbitis*—, Wood. ?
(*P. hispida*, Choisy. ‖
.. .. Nil, Roth.
(*P. Nil*, Choisy. ‖ ?
.. .. lacunosa, L.
.. .. pandurata, Meyer.
CONVOLVULUS
* .. .. .. arvensis, L.
CALYSTEGIA
* .. .. .. sepium, R. Br.
(*Convolvulus*—, L. *
.. β. pubescens, Gray.
(*v. Catesbyana*, (Ph.) ‖ ?
.. .. .. spithamæa, Pursh.
BONAMIA
.. humistrata, Gray.
(*Stylisma*—, Chapm ‖ ?
(*S. evolvuloides*, Ch'y. †
.. aquatica, Gray.
(*Stylisma*—, Chapm. ‖
.. .. Pickeringii, Gray.
EVOLVULUS
w argenteus, Pursh.
DICHONDRA
.. repens, Forst, α. Carolinensis, (Mx.) Ch'y.
CUSCUTA
* Epilinum, Weihe.
.. tenuiflora, Engelm.
.. .. inflexa, Engelm.
(*umbrosa*, Beyrich. †
.. decora, Choisy.
arvensis, Beyrich.:
.. α. pentagona, (Eng.)
.. β. microcalyx, (Eng.)
.. chlorocarpa, Engelm.
.. .. .. Gronovii, Willd.
.. rostrata, Shuttl.
compacta, Juss.:
.. .. α. coronata, (Beyrich)
.. β. adpressa, (Engelm.)
.. glomerata, Choisy.
SOLANACEÆ.
SOLANUM
* .. .. .. Dulcamara, L.
* .. .. .. nigrum, L.
.. .. Carolinense, L.
.. Virginianum, L.
w rostratum, Drum.
PHYSALIS
.. grandiflora, Hook.
.. Philadelphica, Lam.
(*angulata, v.*—, Gr. †
.. .. angulata, L.
.. .. pubescens, L.
.. .. .. viscosa, L.
Pennsylvanica, L.
.. .. β. lanceolata, (Mx.)
* Alkekengi, L.
NICANDRA
* .. .. .. physaloides, Gærtn.
LYCIUM
* .. vulgare, Dunal.
(*Barbarum*, L *?
HYOSCYAMUS
* .. .. niger, L.
DATURA
* .. .. .. Stramonium, L.
.. Tatula, L.
(*Stramonium, v.*—, † ‖ ?
NICOTIANA
* .. .. rustica, L.
GENTIANACEÆ.
SABBATIA
.. paniculata, Pursh.
.. lanceolata, Torr. & Gr.
.. brachiata, Ell.
.. .. angularis, Pursh.
.. calycosa, Pursh.
.. stellaris, Pursh.
(*gracilis, v.*—, Wood. ?
.. gracilis, Salisb.
.. chloroides, Pursh.
ERYTHRÆA
* Centaurium, Pers.
ramosissima, Pers.:
* .. α. pulchella, Griseb.
(*v. Muhlenbergii*, ?
* .. spicata, Pers.
FRASERA
.. Carolinensis, Walt.
HALENIA
.. deflexa, Griseb.
GENTIANA
.. .. .. quinqueflora, Lam.
.. β. occidentalis, Gray.
(*v. parviflora*, Wood. ?
.. acuta, Michx.

.. .. .. crinita, Frœl.
* .. .. detonsa, Fries.
.. .. ochroleuca, Frœl.
.. .. alba, Muhl.
.. .. .. Andrewsii, Griseb.
.. .. Saponaria, L.
.. β. linearis, (Frœl.)
.. puberula, Michx.
.. augustifolia, Michx.
PLEUROGYNE
.. rotata, Griseb.
BARTONIA
.. tenella, Muhl.
.. verna, Muhl.
OBOLARIA
.. .. Virginica, L.
MENYANTHES
* .. .. trifoliata, L.
LIMNANTHEMUM
.. .. lacunosum, Griseb.
.. trachyspermum, Gr.
LOGANIACEÆ.
GELSEMIUM
.. sempervirens, Ait.
POLYPREMUM
.. procumbens, L.
SPIGELIA
.. .. Marilandica, L.
MITREOLA
.. petiolata, Torr. & Gr.
.. sessilifolia, Torr. & Gr.
APOCYNACEÆ.
AMSONIA
.. .. Tabernæmontana, Wt
FORSTERONIA
.. .. difformis, A. DC.
VINCA
* minor, L.
APOCYNUM
.. .. .. androsæmifolium, L.
cannabinum, L.:
.. α. glaberrimum, DC.
.. .. β. pubescens, (Br.) DC
.. γ. hypericifolium, (Ait
ASCLEPIADACEÆ.
ASCLEPIAS
.. .. .. Cornuti, Decaisne.
.. Sullivantii, Eugelm.
.. .. .. phytolaccoides, Pursh
.. .. .. purpurascens, L.
.. .. variegata, L.
β. nivea, (L.) Wood. ?
.. ovalifolia, Decaisne.
.. .. .. quadrifolia, Jacq.
.. perennis, Walt.
(*parviflora*, Pursh. †
.. .. incarnata, L.
.. .. β. pulchra, (Willd.)
.. .. obtusifolia, Michx.
.. Meadii, Torr.
.. rubra, L.
.. paupercula, Michx.
.. .. .. tuberosa, L.
.. .. .. verticillata, L.
ACERATES
.. .. viridiflora, Ell.
.. lanuginosa, Decaisne.
(*monocephala*, Laph. †
.. longifolia, Ell.
w angustifolia, Decaisne
.. paniculata, Decaisne.
ENSLENIA
.. albida, Nutt.
VINCETOXICUM
* nigrum, Mœnch.
GONOLOBUS
.. .. lævis, Michx.
(*macrophyllus*, Mx. † ‖
.. obliquus, R. Br.
(*hirsutus*, † non Mx.
.. hirsutus, Michx.
PERIPLOCA
* Græca, L.
OLEACEÆ.
LIGUSTRUM
* .. vulgare, L.
OLEA
.. Americana, L.
CHIONANTHUS
.. Virginica, L.
FRAXINUS
.. .. .. Americana, L.
.. .. pubescens, Lam.
.. .. viridis, Michx, f.
.. .. sambucifolia, Lam.
.. quadrangulata, Mx.
.. platycarpa, Michx.
FORESTIERA
.. acuminata, Poir.
ARISTOLOCHIACEÆ
ASARUM
.. .. .. Canadense, L.
.. Virginicum, L.
.. arifolium, Michx.

ARISTOLOCHIA
.. .. Serpentaria, L.
.. Sipho, L'Her.
.. tomentosa, Sims.
NYCTAGINACEÆ.
ABRONIA
w fragrans, Nutt.
OXYBAPHUS
.. nyctagineus, Sweet.
w angustifolius, Sweet.
PHYTOLACCACEÆ
PHYTOLACCA
.. .. .. decandra, L.
CHENOPODIACEÆ.
CYCLOLOMA
.. platyphyllum, Moq.
CHENOPODIUM
* polyspermum, L.
* .. .. .. album, L.
* β. viride, (L.)
γ. Boscianum, (Moq.)
* .. .. glaucum, L.
* .. .. urbicum, L.
* β. rhombifolium, Moq
* .. .. murale, L.
* .. .. .. hybridum, L.
* .. .. Botrys, L.
* .. .. .. ambrosioides, L.
.. .. β. anthelminticum, (L.
* multifidum, L.
(*Roubieva*—, Moq. *† ?
BLITUM
maritimum, Nutt.
* .. .. capitatum, L.
* Bonus-Henricus, Rch.
(*Chenopodium*—, L. *
ATRIPLEX
patula, L.:
* .. .. .. α. hastata, (L.) Gray.
* .. β. littoralis, (L.) Gray.
.. arenaria, Nutt.
(*Obione*——, Moq. † ‖
* rosea, L.
CORISPERMUM
* .. .. hyssopifolium, L.
SALICORNIA
* .. .. herbacea, L.
.. Virginica, L.
(*mucronata*, Lag., Big †
.. fruticosa, L., α. ambigua, (Mx.) Gray.
SUÆDA
* .. .. .. maritima, Dumortier.
(*Chenopodina*–, Mq. † ?
SALSOLA
* .. .. Kali, L.
AMARANTACEÆ.
AMARANTUS
.. hypochondriacus, L.
.. paniculatus, L.
* .. .. retroflexus, L.
* .. β. chlorostachys, Gr.
.. .. .. γ. hybridus, (L.) Gr.
* .. .. .. albus, L.
.. .. spinosus, L.
.. lividus, L.
(*Euxolus*——, Raf. † ?
.. pumilus, Raf.
(*Euxolus*——, Raf. † ?
* viridis, L.
(*E. deflexus*, † non Raf.
MONTELIA
.. .. tamariscina, Gray.
(*Acnida*——, Wood. ?
.. β. concatenata, Gray.
ACNIDA
.. cannabina, L.
IRESINE
.. celosioides, L.
FRŒLICHIA
.. Floridana, Moquin.
POLYGONACEÆ.
POLYGONUM
* .. viviparum, L.
.. .. .. orientale, L.
Careyi, Olney.
.. .. .. Pennsylvanicum, L.
.. .. .. incarnatum, Ell.
(*nodosum*, Pers., *v.*—, †
lapathifolium, Ait.:
* α. incanum, Koch.
.. persicarioides, Koch.
* .. .. .. Persicaria, L.
* .. .. .. Hydropiper, L.
.. .. .. acre, H. B. K.
.. .. .. hydropiperoides, Mx.
amphibium, L.:
* .. .. α. aquaticum, Willd.
* .. .. β. terrestre, Willd.
.. Hartwrightii, Gray.
.. .. .. Virginianum, L.
.. .. articulatum, L.
(*Polygonella articulata*, Meisner. ‖ ?

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MISSOURI BOTANICAL GARDEN

* .. .. .. aviculare, L.
.. .. .. β. erectum, (L.) Roth.
* .. .. .. maritimum, L.
(*aviculare, v. littorale*, Link. †||
.. .. ramosissimum, Mx.
.. .. .. tenue, Michx.
.. .. arifolium, L.
.. .. .. sagittatum, L.
* .. .. .. Convolvulus, L.
.. .. .. cilinode, Michx.
* .. .. .. dumetorum, L.
β. scandens, (L.)
FAGOPYRUM
* .. .. .. esculentum, Mœnch.
(*Polyg. Fagopyrum*, L.*
OXYRIA
* digyna, Campd.
(*reniformis*, Hook. *?
RUMEX
* Patientia, L.
.. .. orbiculatus, Gray.
(*Hydrolapathum*, Huds., *v. Americanus*, Gray. †
(*Hydr. v. orbiculatus*, ?
.. Brittanica, L.
(*altissimus*, Wood. ?
.. .. salicifolius, Weinm.
.. .. .. verticillatus, L.
* .. .. .. crispus, L.
* .. .. .. obtusifolius, L.
* .. conglomeratus, Murr.
(*acutus*, Smith. *
* .. .. sanguineus, L.
* .. .. .. maritimus, L.
.. Engelmanni, Ledeb.
* .. Acetosa, L.
* .. .. .. Acetosella, L.
BRUNNICHIA
.. cirrhosa, Banks.
ERIOGONUM
.. tomentosum, Michx.
LAURACEÆ.
PERSEA
.. Carolinensis, Nees.
SASSAFRAS
.. .. .. officinale, Nees.
LINDERA
.. .. .. Benzoin, Meisner.
(*Benzoin odoriferum*, Nees. † ?
.. melissæfolia, Blume.
(*Benzoin*——, Nees. †||
TETRANTHERA
.. geniculata, Nees.
THYMELEACEÆ.
DIRCA
.. .. .. palustris, L.
ELÆAGNACEÆ.
SHEPHERDIA
.. .. Canadensis, Nutt.
w argentea, Nutt.
ELÆAGNUS
w argentea, Pursh.
SANTALACEÆ.
COMANDRA
.. .. .. umbellata, Nutt.
.. livida, Richardson.
PYRULARIA
.. oleifera, Gray.
(*pubera*, Michx. ?
LORANTHACEÆ.
ARCEUTHOBIUM
pusillum, Peck.
(*Oxycedri*, Bieber, *v. abigenium*, Wood. ?
PHORADENDRON
.. flavescens, Nutt.
SAURURACEÆ.
SAURURUS
.. .. .. cernuus, L.
CERATOPHYLLACEÆ
CERATOPHYLLUM
demersum, L.:
* .. .. .. α. commune, Gray.
β. echinatum, Gray.
CALLITRICHACEÆ
CALLITRICHE
.. Austini, Engelm.
* .. .. .. verna, L.
.. β. brevifolia, (Pursh.)
(*v. terrestris*, Gray. †||
.. heterophylla, Pursh.
β. brevifolia, (Pursh.)
γ. linearis, (Pursh.)
* .. .. autumnalis, L.
PODOSTEMACEÆ.
PODOSTEMON
.. ceratophyllus, Michx.
EUPHORBIACEÆ.
EUPHORBIA
.. .. .. polygonifolia, L.
.. .. Geyeri, Engelm.
w petaloidea, Engelm.
.. serpens, H. B. K.
(*herniarioides*, Nutt. †
serpyllifolia, Pers.
.. .. glyptosperma, Eng.
.. .. .. maculata, L.
.. humistrata, Engelm.
.. .. hypericifolia, L.
w marginata, Pursh.
.. .. .. corollata, L.
.. .. dentata, Michx.
.. heterophylla, L.
(*cyathophora*, Jacq. †||
.. Ipecacuanhæ, L.
.. Darlingtonii, Gray.
* platyphylla, L.
.. .. .. obtusata, Pursh.
dictyosperma, F. & M.
(*Arkansana*, Eng. & Gr
* .. .. Helioscopia, L.
* Esula, L.
* .. Cyparissias, L.
* .. Peplus, L.
.. .. .. commutata, Engelm.
(*Ohiotica*, St. & Hoch. ?
* .. Lathyris, L.
JATROPHA
.. urens, L., α. stimulosa, J. Muller.
(*Cnidoscolus stimulosus*, Gray. †||
STILLINGIA
.. sylvatica, L.
ACALYPHA
.. .. .. Virginica, L.
.. .. β. intermedia, J. Mull.
.. .. γ. gracilens, (Gray.)
(*v. gracillenta*, Wood. ?
Caroliniana, Walt.
TRAGIA
.. innocua, Walt.
(*urens*, L. †||
.. urticæfolia, Michx.
macrocarpa, Willd.
CROTON
.. .. glandulosus, L.
.. capitatus, Michx.
.. monanthogynus, Mx.
CROTONOPSIS
.. .. linearis, Michx.
PHYLLANTHUS
.. .. Carolinensis, Walt.
PACHYSANDRA
.. procumbens, Michx.
EMPETRACEÆ.
EMPETRUM
* .. nigrum, L.
COREMA
.. Conradii, Torrey.
URTICACEÆ.
ULMUS
.. .. .. fulva, Micheli.
.. .. .. Americana, L., Willd.
.. .. racemosa, Thomas.
.. .. alata, Michx.
PLANERA
aquatica, Gmelin.
CELTIS
.. .. .. occidentalis, L.
.. β. pumila, (Pursh.)
.. γ. crassifolia, (Lam.)
.. Mississippiensis, Bosc
(*occidentalis, v. integrifolia*, (Nutt.) ||?
MORUS
.. .. rubra, L.
* alba, L.
BROUSSONETIA
papyrifera, Vent.
URTICA
.. .. .. gracilis, Ait.
(*procera*, Willd. ?
* dioica, L.
* .. .. urens, L.
chamædryoides, Ph.
(*purpurascens*, Nutt. †
LAPORTEA
.. .. .. Canadensis, Gaudich.
PILEA
.. .. .. pumila, Gray.
BŒHMERIA
.. .. .. cylindrica, Willd.
.. β. lateriflora, (Muhl.)
PARIETARIA
.. .. .. Pennsylvanica, Muhl.
CANNABIS
* .. .. .. sativa, L.
HUMULUS
* .. .. .. Lupulus, L.
PLATANACEÆ.
PLATANUS
.. .. .. occidentalis, L.
JUGLANDACEÆ.
JUGLANS
.. .. .. cinerea, L.
.. .. .. nigra, L.
CARYA
.. olivæformis, Nutt.
.. .. .. alba, Nutt.
.. microcarpa, Nutt.
.. .. sulcata, Nutt.
.. .. tomentosa, Nutt.
.. .. porcina, Nutt.
(*glabra* Torr. †||
.. .. .. amara, Nutt.
CUPULIFERÆ.
QUERCUS
.. .. .. alba, L.
.. .. obtusiloba, Michx.
(*stellata*, Wang.
.. .. .. macrocarpa, Michx.
β. olivæformis, (Mx.)
.. .. .. bicolor, Willd.
(*Prinus v. discolor*, Michx. f. †||
.. .. Prinus, L.
.. .. β. monticola, Michx.
.. .. .. γ. acuminata, Michx.
(*Castanea*, Muhl. †||
.. .. δ. humilis, Marshall.
(*prinoides*, Willd. †||
(*v. prinoides*, Wood. ?
.. virens, Ait.
.. cinerea, Michx.
.. Phellos, L.
.. .. imbricaria, Michx.
.. aquatica, Catesby.
.. .. nigra, L.
.. tridentata, Engelm.
w quinqueloba, Engelm.
.. Leana, Nutt.
heterophylla, Michx.
triloba, Michx.
.. .. ilicifolia, Wang.
.. .. falcata, Michx.
.. .. .. coccinea, Wang.
.. .. .. β. tinctoria, (Bartr.)
.. γ. ambigua, Gray.
.. .. rubra, L.
.. β. runcinata, Engelm.
.. .. palustris, Du Roi.
CASTANEA
.. .. versa, L., α. Americana, Michx.
.. pumila, Michx.
FAGUS
.. .. .. ferruginea, Ait.
CORYLUS
.. .. .. Americana, Walt.
.. .. rostrata, Ait.
OSTRYA
.. .. .. Virginica, Willd.
CARPINUS
.. .. .. Americana, Michx.
MYRICACEÆ.
MYRICA
* .. .. Gale, L.
.. .. cerifera, L.
β. Carolinensis, Wood.
COMPTONIA
.. .. .. asplenifolia, Ait.
BETULACEÆ.
BETULA
.. .. .. lenta, L.
.. lutea, Michx. f.
(*excelsa*, † || non Ait.
* .. alba, L., α. populifolia, (Ait.) Spach.
.. .. papyracea, Ait.
β. minor, Tuckerman.
.. .. .. nigra, L.
.. .. pumila, L.
glandulosa, Michx.
(*nana*, † non L.
β. rotundifolia, (Spach
ALNUS
* .. .. viridis, DC.
* .. incana, Willd.
β. glauca, Ait.
.. serrulata, Ait.
maritima, Muhl.
SALICACEÆ.
SALIX
.. .. candida, Willd.
.. .. tristis, Ait.
β. microphylla, Gray.
.. .. .. humilis, Marshall.
.. .. discolor, Muhl.
.. β. ? eriocephala, (Mx.) †
.. .. sericea, Marshall.
(*petiolaris, v.*——, ?
.. .. .. petiolaris, Smith.
* .. purpurea, L.
* .. viminalis, L.
* β. Smithiana, (Willd.)
.. .. cordata, Muhl.
β. rigida, (Muhl.)
γ. myricoides, (Muhl.)
.. .. δ. angustata, (Pursh.)
.. .. livida, Wahl., α. occidentalis, Gray.
(*rostrata*, Richards. †
(*vagans, v.*——, Wood. ?
chlorophylla, Anders.
(*phylicifolia*, † non L.
.. .. lucida, Muhl.
(? *pentandra*, L. *
.. .. .. nigra, Marshall.
β. falcata, (Pursh.) Gr.
γ. amygdaloides, And.
fragilis, L.:
* .. .. .. α. decipiens, (Hoffm.)
* β. Russelliana, (Sm.)
* γ. viridis, (Fries.)
alba, L.:
* .. .. α. vitellina, (Sm. & Bor.
* β. cærulea, (Sm.)
.. .. longifolia, Muhl.
* .. .. myrtilloides, L.
(*pedicellaris*, Pursh. †
Cutleri, Tuckerman.
(*Uva-Ursi*, Pursh. †
argyrocarpa, Anders.
(*repens*, † non L.
* herbacea, L.
POPULUS
.. .. tremuloides, Michx.
.. .. .. grandidentata, Michx
.. .. heterophylla, L.
.. .. .. monilifera, Ait.
(*Canadensis*, Mx. f. ?
.. .. angulata, Ait.
.. .. balsamifera, L.
.. β. candicans, (Ait.)
CONIFERÆ.
PINUS
.. Tæda, L.
.. rigida, Miller.
.. pungens, Michx.
.. inops, Ait.
.. .. Banksiana, Lambert.
(*Hudsonica*, Poir. ?
.. .. mitis, Michx.
.. .. resinosa, Ait.
.. .. .. Strobus, L.
ABIES
.. .. nigra, Poir.
.. alba, Michx.
.. .. Canadensis, Michx.
.. balsamea, Marshall.
.. Fraseri, Pursh.
LARIX
.. .. Americana, Michx.
THUJA
.. .. .. occidentalis, L.
CUPRESSUS
.. .. thyoides, L.
TAXODIUM
.. .. distichum, Richard.
JUNIPERUS
* .. .. communis, L.
* β. alpina, L.
(*nana*, Willd.*
.. .. .. Virginiana, L.
.. Sabina, L., α. procumbens, Pursh.
(*Virginiana, v. humilis*, Hook. †
TAXUS
.. baccata, L., α. Canadensis, (Willd.) Gray
ARACEÆ.
ARISÆMA
.. .. .. triphyllum, Torr.
.. .. Dracontium, Schott.
PELTANDRA
.. .. .. Virginica, Raf.
CALLA
* .. palustris, L.
SYMPLOCARPUS
.. .. .. fœtidus, Salisb.
ORONTIUM
.. .. aquaticum, L.
ACORUS
* .. .. .. Calamus, L.
LEMNACEÆ.
LEMNA
* .. .. trisulca, L.
Torreyi, Austin.
(*Valdiviana*, Phil.
.. perpusilla, Torr.
β. trinervis, Austin.
.. paucicostata, Hegelm
* .. .. .. minor, L.
.. β. obscura, Austin.
γ. orbiculata, Austin.
* .. .. .. polyrrhiza, L.
WOLFFIA
.. .. Columbiana, Karsten.
.. Brasiliensis, Weddell.
TYPHACEÆ.
TYPHA
* .. .. .. latifolia, L.
* angustifolia, L.
SPARGANIUM
.. .. eurycarpum, Engelm.
* .. simplex, Hudson.
.. β. Nuttallii, Engelm.
.. .. .. γ. androcladum, Eng.
(*ramosum*, †||non Hud.
* δ. fluitans, (Fr.) Eng.
(*v. natans*, Wood. ?
* .. .. ε. angustifolium, (Mx)
(*natans*, L., *v. affine*, (Schn.) Fries. * †
* .. .. minimum, Bauhin, Fr.
(*angustifolium*, † non Michx.
NAIADACEÆ.
NAIAS
* major, All.
* .. .. .. flexilis, Rostk.
(*Caulinia*——, Willd. *
Indica, Cham., *v.* gracillima, Braun.
ZANNICHELLIA
* .. .. .. palustris, L.
β. pedunculata, Gray.
ZOSTERA
* .. .. marina, L.
RUPPIA
* .. .. maritima, L.
POTAMOGETON
* .. .. natans, L.
* β. prolixus, Koch.
Oakesianus, Robbins.
.. .. .. Claytonii, Tuckerm.
(*heterophyllus*, † || in part, non Schreb.
.. .. Vaseyi, Robbins.
.. .. Spirillus, Tuckerman.
.. .. hybridus, Michx.
β. spicatus, Engelm.
γ. diversifolius, Wood.
* .. .. rufescens, Schrader.
obrutus, Wood.
(*rufescens*, ‡ in part.
.. .. lonchites, Tuckerman
(*fluitans*, ||? non Roth.
pulcher, Tuckerman.
.. amplifolius, Tuckerm.
gramineus, L.
(*heterophyllus*, Schreb †|| in part.
* α. graminifolius, Fr.
* .. .. β. heterophyllus, Fr.
γ. ? spathulæformis, R.
.. δ. ? myriophyllus, Rob.
* .. .. lucens, L.
.. β. minor, Nolte.
γ. ? Connecticutensis, Robbins.
* .. prælongus, Wulfen.
* .. .. .. perfoliatus, L.
.. β. lanceolatus, Rob.
* crispus, L.
* .. compressus, L.
* .. obtusifolius, Mert. & K
Niagarensis, Tuckerm
(*pauciflorus, v.*—, Gr. †
.. .. .. pauciflorus, Pursh.
* .. .. pusillus, L.
* β. major, Fries.
(*mucronatus*, Schrad.*
* .. γ. vulgaris, Fries.
* δ. tenuissimus, Mert.
ε. ? gemmiparus, Rob.
Tuckermani, Rob.
* .. .. .. pectinatus, L.
.. Robbinsii, Oakes.
ALISMACEÆ.
TRIGLOCHIN
* .. .. palustre, L.
* .. .. .. maritimum, L.
β. elatum, (Nutt.) Gr.
.. triandrum, Michx.
SCHEUCHZERIA
* .. .. palustris, L.
ALISMA
Plantago, L.:
.. .. .. α. Americanum.
ECHINODORUS
.. parvulus, Engelm.
.. rostratus, Engelm.
.. radicans, Engelm.
SAGITTARIA
.. lancifolia, L.
(*falcata*, Pursh. † ||
variabilis, Engelm.:
.. α. obtusa, (Wld.) Eng.
.. β. latifolia, (Wld.) Eng
.. .. .. γ. hastata, (Ph.) Eng.
.. δ. diversifolia, Eng.
.. ε. angustifolia, Eng.
ς. gracilis, (Ph.) Eng.
.. η. pubescens, (Muhl.)
.. calycina, Engelm.
w β. fluitans, Engelm.
γ. spongiosa, Engelm.
.. .. .. heterophylla, Pursh.
β. elliptica, Engelm.
γ. rigida, (Ph.) Eng.
δ. angustifolia, Eng.
.. .. .. graminea, Michx.
(*simplex*, †|| non Ph.
.. pusilla, Nutt.
HYDROCHARIDACEÆ
LIMNOBIUM
.. .. Spongia, Richard.
ANACHARIS
* .. .. .. Canadensis, Planch.
VALLISNERIA
* .. .. .. spiralis, L.
BURMANNIACEÆ.
BURMANNIA
.. biflora, L.
ORCHIDACEÆ.
ORCHIS
.. .. spectabilis, L.
HABENARIA
(*ORCHIS* ? *)
(*PLATANTHERA* &
(*GYMNADENIA* † ||*
.. .. .. tridentata, Hook.
(*O.*—, Muhl. *G.*—, Lindl.
.. integra, Spreng.
(*O.*——, Nutt.
(*G. flava*, Lindley.
.. nivea, Spreng.
(*O.*—, Baldw. *G.*—, G & E
.. .. .. virescens, Spreng.
(*O. flava*, L. *P. flava*, Gr
* .. .. .. viridis, Br., α. bracteata, (Br.) Reich.
(*O. bracteata*, Muhl.
(*P. bracteata*, Torr.
* .. .. hyperborea, R. Br.
(*O.*—, Wld. *P.*—, Lindl.
.. .. dilatata, Gray.
(*O.*—, Ph. *P.*—, Lindl.
.. rotundifolia, Richards
(*O.*—, Ph. *P.*—, Lindl.
* .. obtusata, Richards.
(*O.*—. Ph. *P.*—, Lindl.
.. .. Hookeri, Torr.
(*O.*—, Wood. *P.*—, Lindl
β. oblongifolia, Paine.
.. .. orbiculata, Torr.
(*O.*—, Ph. *P.*—, Lindl.
.. cristata, R. Br.
(*O.*—, Mx. *P.*—, Lindl.
.. .. ciliaris, R. Br.
(*O.*—, L. *P.*—, Lindl.
.. .. blephariglottis, Hook
(*O.*—, Willd. *P.*—, Lindl
β. holopetala, Gray.
.. .. leucophæa, Gray.
(*O.*——, Nutt.
.. .. .. lacera, R. Br.
(*O.*—, Mx. *P.*—, Gr.
.. .. .. psycodes, Gray.
(*O.*——, L.
.. .. fimbriata, R. Br.
(*P.*——, Lindl.
(*O. grandiflora*, Bigel.
.. .. peramœna, Gray.
GOODYERA
* .. .. repens, R. Br.
.. .. .. pubescens, R. Br.
Menziesii, Lindl.
SPIRANTHES
.. .. latifolia, Torr.
* .. Romanzoviana, Cham
(*cernua*, † in part.
.. .. .. cernua, Richard.
gramineа, Lindl.:
α. Walteri, Gray.
(*tortilis*, Willd. ||
.. .. .. gracilis, Bigel.
simplex, Gray.
LISTERA
* .. cordata, R. Br.
.. australis, Lindl.
.. .. convallarioides, Hook.
ARETHUSA
.. .. .. bulbosa, L.
POGONIA
.. .. .. ophioglossoides, Nutt.
.. .. pendula, Lindl.
.. divaricata, R. Br.
.. verticillata, Nutt.
affinis, C. F. Austin.
CALOPOGON
.. .. .. pulchellus, R. Br.
CALYPSO
* .. borealis, Salisb.
TIPULARIA
.. discolor, Nutt.
BLETIA
aphylla, Nutt.
MICROSTYLIS
* .. .. monophyllos, Lindl.
.. .. .. ophioglossoides, Nutt.
LIPARIS
.. .. .. liliifolia, Richard.
* .. .. Lœselii, Richard.

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MISSOURI BOTANICAL GARDEN

CORALLORHIZA
innata, R. Br.
odontorhiza, Nutt.
multiflora, Nutt.
Macræi, Gray.
APLECTRUM
hyemale, Nutt.
CYPRIPEDIUM
arietinum, R. Br.
candidum, Muhl.
passerinum, Rich.
parviflorum, Salisb.
pubescens, Willd.
spectabile, Swartz.
acaule. Ait.

AMARYLLIDACEÆ
AMARYLLIS
Atamasco, L.
PANCRATIUM
rotatum, Ker.
AGAVE
Virginica, L.
HYPOXYS
erecta, L.

HÆMODORACEÆ
LACNANTHES
tinctoria, Ell.
LOPHIOLA
aurea, Ker.
ALETRIS
farinosa, L.
aurea, Walt.

BROMELIACEÆ.
TILLANDSIA
usneoides, L.

IRIDACEÆ.
IRIS
versicolor, L.
Virginica, L.
cuprea, Pursh.
verna, L.
cristata, Ait.
lacustris, Nutt.
PARDANTHUS
Chinensis, Ker.
SISYRINCHIUM
* Bermudiana, L.
β. anceps, (Cav.)
γ.mucronatum,(Mx)

DIOSCOREACEÆ.
DIOSCOREA
villosa, L.

SMILACEÆ.
SMILAX
Walteri, Pursh.
rotundifolia, L.
β.quadrangularis,Gr
glauca, Walt.
sarsaparilla, L.
tamnoides, L.
hispida, Muhl.
Pseudo-China, L.
lanceolata, L.
laurifolia, L.
herbacea, L.
(*Coprosmanthus* —, Kunth. ‖
β.pulverulenta,(Mx)
γ.peduncularis.(Ml.)
(*C.*——, Kunth. ‖
lasioneuron, Hook.
tamnifolia, Michx.
(*C.*——, Kunth. ‖

LILIACEÆ.
TRILLIUM
sessile, L.
recurvatum, Beck.
grandiflorum,Salisb.
erectum, L.
β. album, Pursh.
γ. declinatum, Gray.
cernuum, L.
β. atrorubens,Wood.
stylosum, Nutt.
nivale, Riddell.
erythrocarpum, Mx.
MEDEOLA
Virginica, L.
MELANTHIUM
Virginicum, L.
ZYGADENUS
glaberrimus, Michx.
glaucus, Nutt.
leimanthoides,Gray.
STENANTHIUM
angustifolium,Gray.
(*Veratrum*–,Pursh.
VERATRUM
viride, Ait.
parviflorum, Michx.
Woodii, Robbins.
AMIANTHIUM
muscætoxicum, Gr.
XEROPHYLLUM
aspho leloides, Nutt.

HELONIAS
bullata, L.
CHAMÆLIRIUM
luteum, Gray.
TOFIELDIA
* palustris, Hudson.
glutinosa, Willd.
pubens, Ait.
UVULARIA
grandiflora, Smith.
perfoliata, L.
flava, Smith.
sessilifolia, L.
puberula, Michx.
PROSARTES
lanuginosa, Don.
STREPTOPUS
* amplexifolius, DC.
roseus, Michx.
CLINTONIA
borealis, Raf.
umbellata, Torr.
CONVALLARIA
* majalis, L.
SMILACINA
racemosa, Desf.
* stellata, Desf.
trifolia, Desf.
bifolia, Ker. :
(*Majanthemum*——, DC. *
α. Canadensis,Gray.
POLYGONATUM
biflorum, Ell.
giganteum,Dietrich.
(*biflorum, v.*——,
latifolium, Desf.
(*biflorum, v.*——,
ASPARAGUS
* officinalis, L.
LILIUM
Philadelphicum, L.
Catesbæi, Walt.
Canadense, L.
superbum, L.
ERYTHRONIUM
Americanum,Smith.
albidum, Nutt.
w propullans, Gray.
ORNITHOGALUM
* umbellatum, L.
SCILLA
Fraseri, Gray.
(*esculenta*, Ker.
ALLIUM
tricoccum, Ait.
cernuum, Roth.
stellatum, Nutt.
(*cernuum, v.*——,
* Schœnoprasum, L.
* vineale, L.
Canadense, Kalm.
w mutabile, Michx.
w reticulatum, Sims.
striatum, Jacq.
MUSCARI
* botryoides, Mill.
* racemosum, Mill.
HEMEROCALLIS
* fulva, L.
YUCCA
filamentosa, L.
w angustifolia, Pursh.
NARTHECIUM
ossifragum, Huds. :
α.Americanum,Gray

JUNCACEÆ.
LUZULA
* pilosa, Willd.
parviflora, Desv. :
α. melanocarpa, Gr.
* campestris, DC.
β. bulbosa, Wood.
* arcuata, Meyer.
* spicata, Desv.
JUNCUS
* effusus, L.
* β.conglomeratus,(L)
* filiformis, L.
Smithii, Engelm.
* Balticus, Dethard.
setaceus, Rostk.
Rœmerianus,Scheele
(*maritimus*,†‖nonSm
* maritimus, Sm.
* stygius, L.
* trifidus, L.
marginatus, Rostk.
β. paucicapitatus,E.
γ.biflorus,(Ell.)Eng.
repens, Michx.
(*Cephaloxys flabellata*, Desv. ‖
* bufonius, L.
β.fasciculatus, Eng.

* Gerardi, Loisel.
(*bulbosus*,L.,*v.*–,Gr.†
* tenuis, Willd.
β.secundus, Engelm.
dichotomus, Ell.
Greenii, Oakes & Tk.
Vaseyi, Engelm.
pelocarpus,E.Meyer
(*Conradi*, Tuck. †‖
β. subtilis, Engelm.
* articulatus, L.
(*lamprocarpus*, Ehr*
β. obtusatus, Eng.
alpinus, Villars. :
* α. insignis, Fries.
(*articulatus, v.*—, ?
(*articulatus, v. pelocarpus*, Gray. †
militaris, Bigel.
acuminatus,Michx. :
α. debilis, (Gr.) Eng.
β. robustus,Engelm.
γ. longissimus,Engelm.
(*acuminatus*, Michx.
(*paradoxus*, E. Mey.
(*fraternus*, Kunth.
nodosus, L.
β.megacephalus,Tor
brachycarpus, Eng.
β.? Wolfii, Wood.
scirpoides, Lam. :
α.macrostemon,Eng.
β. echinatus, Eng.
γ.polycephalus,Eng.
Canadensis, J.Gay. :
α.longicaudatus,Eng
(*paradoxus*, † ‖ non E. Meyer.
β.subcaudatus,Eng.
γ.brachycephalus, E.
δ. coarctatus, Eng.
(*acuminatus*,†nonMx
asper, Engelm.

PONTEDEREACEÆ
PONTEDERIA
cordata, L.
β.angustifolia,Gray.
HETERANTHERA
reniformis,R. & Pav.
limosa, Vahl.
SCHOLLERA
graminea, Willd.

COMMELYNACEÆ
COMMELYNA
erecta, L.
Virginica, L.
Cayennensis, Rich.
(*agraria*,Kunth. †
TRADESCANTIA
Virginica, L.
pilosa, Lehm.
rosea, Vent.

XYRIDACEÆ.
MAYACA
Michauxii,S.&Endl.
XYRIS
flexuosa,Muhl. Chap
(*bulbosa*, Kunth. †
β. pusilla, Gray.
torta, Smith.
Caroliniana, Walt.
fimbriata, Ell.

ERIOCAULONACEÆ
ERIOCAULON
decangulare, L.
gnaphalodes,Michx.
* septangulare ,With.
PÆPALANTHUS
flavidus, Kunth.
LACHNOCAULON
Michauxii, Kunth.

CYPERACEÆ.
CYPERUS
* flavescens, L.
diandrus, Torr.
β.castaneus, (Big.)
γ.pauciflorus, Wood.
Nuttallii, Torr.
β.minimus, (Nutt.)
flavicomus, Michx.
erythrorhizos, Muhl.
inflexus, Muhl.
acuminatus, Torr.
virens, Michx.
compressus, L.
* fuscus, L.
dentatus, Torr.
rotundus,L.,α.Hydra
phymatodes, Muhl.
strigosus, L.
Michauxianus,Schul
Engelmanni, Steud.
Schweinitzii, Torr.
Grayii, Torr.
filiculmis, Vahl.

Lancastriensis, T. C. Porter.
ovularis, Torr.
retrofractus, Torr.
KYLLINGIA
pumila, Michx.
DULICHIUM
spathaceum, Pers.
FUIRENA
squarrosa, Michx.
β. pumila, Torr.
LIPOCARPHA
maculata, Torr.
HEMICARPHA
subsquarrosa, Nees.
β.Drummondii,(Nees
ELEOCHARIS
Robbinsii, Oakes.
equisetoides, Torr.
quadrangulata,R.Br
tuberculosa, R.Br.
simplex, Torr.
obtusa, Shultes.
olivacea, Torr.
* ovata, R. Br.
* palustris, R. Br.
β.glaucescens, (Wld.
γ. calva, (Torr.)
compressa, Sulliv.
rostellata, Torr.
intermedia,Schultes.
microcarpa, Torr. :
α. filiculmis, Torr.
tenuis, Schultes.
melanocarpa, Torr.
tricostata, Torr.
* acicularis, R. Br.
pygmæa, Torr.
(*pusillus*,(Vahl.) ?
SCIRPUS
* pauciflorus, Lightf.
(*Eleocharis*–,Link.*
(*Bæothryon*, Ehrh.*
* cæspitosus, L.
(*Eleocharis*–,Link.*
Clintonii, Gray.
planifolius, Muhl.
subterminalis,Torr.
β.terrestris, Paine.
* pungens, Vahl.
Olneyi, Gray.
Torreyi, Olney.
Canbyi, Gray.
(*leptolepis*,Chap. ‖?
validus, Vahl.
(*lacustris*, †‖ non L.
debilis, Pursh.
Smithii, Gray.
supinus,L.,α.Hallii.
* maritimus, L.
β.macrostachyos,Mx
fluviatilis, Gray.
* sylvaticus, L.
microcarpus, Presl.
atrovirens, Muhl.
(*sylvaticus,v.*—, Gr.†
polyphyllus,Vahl.
lineatus, Michx.
Eriophorum, Mx. :
α.cyperinus,(Kth)Gr
β. laxus, Gray.
ERIOPHORUM
* alpinum, L.
* vaginatum, L.
* russeolum, Fries.
Virginicum, L.
β. album, Gray.
(*v. confertissimum*, ?
* polystachyon, L.
gracile,Koch.,α.paucinervium, Eng.
FIMBRISTYLIS
spadicea,Vahl.α.castanea, Gray.
laxa, Vahl.
autumnalis,Rœm&S
(*Trichelostylis*——, Chapm. ‖?
capillaris, Gray.
(*Trichelostylis*——,?
(*Isolepis*——,R.&S.‖
congesta, Torr.
(*argentea*, Vahl. ?
TRICHELOSTYLIS
borealis, Wood.
DICHROMENA
leucocephala, Michx
latifolia, Baldwin.
RHYNCHOSPORA
scirpoides, Gray.
(*Psilocarya*-,Tor.†‖?
nitens, Gray.
plumosa, Ell.
cymosa, Nutt.
Torreyana, Gray.

inexpansa,Vahl.
* fusca, Rœm.&Schultes.
gracilenta, Gray.
pallida, M. A. Curtis.
* alba, Vahl.
capillacea, Torr.
Knieskernii, Carey.
glomerata, Vahl.
β. paniculata, (Gray.)
cephalantha, Torr.
corniculata, Gray.
(*Ceratoschœnus*——, Nees. † ‖
(*C. longirostris*, (Ell.)?
macrostachya, Torr.
(*C.*——, Gray. †‖
CLADIUM
mariscoides, Torr.
SCLERIA
triglomerata, Michx.
oligantha, Ell.
(*leptoculmis*, Wood. ?
reticularis, Michx.
laxa. Torr.
pauciflora, Muhl.
β. glabra, Chapm.
verticillata, Muhl.
CAREX
adusta, Boott. non † 42
β. argyrantha, (Tuck.)
æstivalis, Curtis. 81
alata, Torr. 45
alopecoidea,Tuck. 19
* alpina, Swartz. 63
aperta, Boott. 50
* aquatilis, Wahl. 48
arctata, Boott. 106
* arenaria, L. 12[a]
arida, Schw.&Torr. 38
* aristata, R.Br. 124
(*atherodes*, Spreng.*
* atrata, L. 62
aurea, Nutt. 65
Backii, Boott. 9
Barrattii, Schw.&T.57
(*flacca*, †‖ non Schreb.
Bebbii, Olney. 44[a]
Bellavilla, Dewey.132[a]
borealis, Olney. 49[a]
bromoides, Schk. 10
bullata, Schk. 147
* Buxbaumii, Wahl. 61
* canescens,L.in part. 31
* β. vitilis, (Fr.) Carey.
(*v. alpicola*, Wahl.*
* capillaris, L. 109
* capitata, L. 3
Careyana, Torr. 85
cephaloidea,Dew.Bt.22
cephalophora,Muhl. 23
β. angustifolia, Boott.
* chordorhiza, Ehrh. 27
comosa, Boott. 126
conjuncta, Boott. 18
(*vulpina*, † non L.
conoidea, Schk. 75
Crawei, Dewey. 71
crinita, Lam. 55
β. morbida, Carey.
cristata, Schw. 41
(*lagopodioides, v.*—, †
β. mirabilis, (Dew.)Bt.
(*festucacea, v.*——, †
crus-corvi,Shuttlew. 16
Davisii,Schw.&Torr.78
debilis, Michx. 108
β. pubera, Carey.
decomposita, Muhl. 14
Deweyana, Schw. 33
(*Deweyi*, Schk. ?
digitalis, Willd. 88
* disticha, Huds. 12
eburnea, Boott. 92
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LEERSIA
.. .. Virginica, Willd.
* .. .. .. oryzoides, Swartz.
.. .. lenticularis,Michx.

ZIZANIA
.. .. .. aquatica, L.
.. miliacea, Michx.

ALOPECURUS
* .. .. pratensis, L.
* .. .. geniculatus, L.
.. .. aristulatus, Michx.

PHLEUM
* .. .. .. pratense, L.
* alpinum, L.

CRYPSIS
* schœnoides, Lam.

VILFA
(*SPOROBOLUS*,☖)
.. .. aspera, Beauv.
(*S. asper*, Kunth. ☖
.. .. .. vaginæflora, Torr.
cuspidata, Torr.
.. Virginica, Beauv.
(*S. Virginicus*,Kth. ‖☖

SPOROBOLUS
.. junceus, Kunth.
.. .. heterolepis, Gray.
.. .. cryptandrus, Gray.
compressus, Kunth.
serotinus, Gray.

AGROSTIS
.. clata, Trin.
.. .. .. perennans, Tuckerm.
(*scabra, v.*—,Wood. ☖
.. .. .. scabra, Willd.
β. montana, Tuckerm.
γ. orcophila, (Trin.)
* canina, L.
• β. alpina, Oakes.
.. γ. rupestris, (All.)
* .. .. .. vulgaris, With.
* .. .. .. alba, L.

POLYPOGON
* Monspeliensis, Desf.

CINNA
.. .. .. arundinacea, L.
* .. .. β. pendula,(Trin.)Gr.
(*Blyttia suaveolens*,Fr*

MUHLENBERGIA
.. sobolifera, Trin.
.. .. glomerata, Trin:
.. .. .. Mexicana, Trin.
β.filiformis, (Muhl.)
.. γ.purpurea, Wood.
.. .. .. sylvatica, Torr. & Gr.
β. vulpina, Wood.
.. .. Willdenovii, Trin.
.. .. diffusa, Scheber.
.. capillaris, Kunth.

BRACHYELYTRUM
.. .. .. aristatum, Beauv.
(*Muhlenbergia*–,Pers☖
β. Engelmanni, Gray.

CALAMAGROSTIS
.. .. Canadensis, Beauv.
* .. Langsdorffii, Trin.
* .. stricta, Trin.
* .. Lapponica, Trin.
confinis, Nutt.
.. Nuttalliana, Steud.
(*coarctata*, Torr. †‖
purpurascens, R.Br.
Porteri, Gray.
Pickeringii, Gray.
brevipilis, Gray.
.. longifolia, Hook.
* .. .. .. arenaria, Roth.
(*Psamma*—, R. & S.*

ORYZOPSIS
.. melanocarpa, Muhl.
.. asperifolia, Michx.
.. .. Canadensis, Torr.

STIPA
.. Richardsonii, Link.
.. .. avenacea, L.
.. .. spartea, Trin.
(*juncea*, Pursh.☖

ARISTIDA
.. ramosissima, Engelm.
.. β. uniaristata, Gray.
.. .. dichotoma, Michx.
.. .. gracilis, Ell.
.. β. depauperata,Gray.
.. .. stricta, Michx.
.. .. oligantha, Michx.
.. .. purpurascens, Poir.
.. lanata, Poir.
.. tuberculosa, Nutt.

SPARTINA
.. .. cynosuroides, Willd.
.. polystachya, Willd.
* .. .. juncea, Willd.
(*Dactylis patens*,Ait.*
* stricta, Roth.
.. .. β. glabra, (Muhl.) Gr.
.. γ. alterniflora, (Lois.)

CTENIUM
.. Americanum,Spreng.
(*aromaticum*, (Ell.) ☖

BOUTELOUA
.. oligostachya, Torr.
.. hirsuta, Lagasca.
.. .. curtipendula, Gray.
.. β. aristosa, Gray.

GYMNOPOGON
.. racemosus, Beauv.
.. brevifolius, Trin.
(*racemosus, v. filiformis*, Chapm. ‖

CYNODON
* .. .. Dactylon,Pers.

DACTYLOCTENIUM
* .. .. Ægyptiacum, Willd.

ELEUSINE
.. .. Indica, Gærtn.

LEPTOCHLOA
.. .. mucronata, Kunth.
.. .. fascicularis, Gray.
(*polystachya*, Kunth.‖

TRICUSPIS
.. .. seslerioides, Torr.
β. flexuosa, Wood.
.. .. purpurea, Gray.
(*Triplasis*—,Chapm.‖

GRAPHEPHORUM
.. melicoides, Beauv.
β. major, Gray.
(*Dupontia Cooleyi*,G†

DIARRHENA
.. Americana, Beauv.

DACTYLIS
* .. .. .. glomerata, L.

KŒLERIA
* .. cristata, Pers.
β. gracilis.

EATONIA
.. .. .. obtusata, Gray.
.. .. .. Pennsylvanica, Gray.
.. β. major, Torr.

MELICA
mutica, Walt.:
.. α. glabra,(Pursh.)Gr.
.. β. diffusa,(Pursh.)Gr.

GLYCERIA
.. .. Canadensis, Trin.
obtusa, Trin.
.. elongata, Trin.
.. .. .. nervata, Trin.
.. pallida, Trin.
* .. aquatica, Smith.
* .. .. .. fluitans, R. Br.
acutiflora, Torr.
* .. maritima, Wahl.
* distans, Wahl.

BRIZOPYRUM
.. spicatum, Hook.

POA
* .. .. .. annua, L.
* .. .. .. compressa, L.
* .. alpina, L.
* laxa, Hænke.
* .. cæsia, Smith.
(*nemoralis*, † non L.
.. β. strictior, Gray.
* .. .. .. serotina, Ehrh.
* .. .. .. pratensis, L.
* trivialis, L.
.. .. sylvestris, Gray.
.. debilis, Torr.
.. alsodes, Gray.
.. flexuosa, Muhl.
.. .. brevifolia, Muhl.

ERAGROSTIS
.. .. .. reptans, Nees.
* poæoides, Beauv.
* .. .. β. megastachya,(Lnk
* .. .. pilosa, Beauv.
.. Frankii, Meyer.
(*erythrogona*, Nees. ☖
.. Purshii, Schrader.
.. .. tenuis, Gray.
.. .. capillaris, Nees.
.. nitida, Chapm.
.. pectinacea, Gray.
β. spectabilis, Gray.

BRIZA
* maxima, L.
* media, L.

FESTUCA
* .. Myurus, L.
.. .. .. tenella, Willd.
* .. ovina, L.
* β. vivipara.
* .. γ. duriuscula, (L.)
* δ. rubra, (L.)
* .. elatior, L.
* β.pratensis,(Huds)Gr
.. .. .. nutans, Willd.
β. palustris, Wood.

BROMUS
* .. .. .. secalinus, L.
* .. racemosus, L.
* .. mollis, L.
.. .. Kalmii, Gray.
.. .. ciliatus, L.
.. .. β. purgans, (L.)
* asper, L.
* sterilis, L.

UNIOLA
.. paniculata, L.
.. .. latifolia, Michx.
.. gracilis, Michx.

PHRAGMITES
* .. .. .. communis, Trin.

ARUNDINARIA
macrosperma, Michx.
(*gigantea*, Chapm. ‖
.. .. tecta, Muhl.
(*macr., v. tecta*, ☖

LEPTURUS
.. paniculatus, Nutt.

LOLIUM
* .. perenne, L.
* .. temulentum, L.
.. β.Canadense,(Michx)

TRITICUM
repens, L.:
* .. .. α. nemorale, Anderss.
* β. intermedium,Fries.
dasystachyum, Gray.
(*repens, v.*——,Hook.☖
* .. violaceum, Hornem.
* .. .. caninum, L.

HORDEUM
.. .. jubatum, L.
* .. .. pratense, Huds.
(*pusillum*, Nutt. †☖

ELYMUS
.. .. .. Virginicus, L.
.. .. Canadensis, L.
.. β. glaucifolius,(Muhl.
* Sibiricus, L.
.. .. .. striatus, Willd.
.. β. villosus, (Muhl.)
w Sitanion, Schult.
.. mollis, Trin.

GYMNOSTICHUM
.. .. .. Hystrix, Schreber.
(*Elymus*——, L. ☖

DANTHONIA
.. .. .. spicata, Beauv.
compressa, Austin.
.. sericea, Nutt.

AV[redacted]
.. striata. [redacted]
([redacted]
[redacted]orter.

[redacted]ISETUM
[redacted]picatum,Beauv.:
.. α. molle, Gray.
.. .. palustre, Torr.

AIRA
* .. .. flexuosa, L.
* .. .. cæspitosa, L.
* .. præcox. L.
(*Avena*——,Beauv.†☖
* caryophyllea, L.
(*Avena*——, L. ☖
* atropurpurea, Wahl.

ARRHENATHERUM
* .. avenaceum, Beauv.
(*elatius*, Mert.& Kh.*
(*Avena elatior*, L. *☖

HOLCUS
* .. lanatus, L.

HIEROCHLOA
* .. .. borealis, Rœm.& Sch.
* alpina, Rœm. & Sch.

ANTHOXANTHUM
* .. .. odoratum, L.

PHALARIS
* .. .. Canariensis, L.
* .. .. arundinacea, L.

MILIUM
* .. .. effusum, L.

AMPHICARPUM
.. Purshii, Kunth.

PASPALUM
.. .. fluitans, Kunth.
.. Walterianum, Schult.
.. .. setaceum, Michx.
(*ciliatifolium*, Mx. ‖
Floridanum, Michx.
.. .. læve, Michx.
β. altissimum, Wood.
.. distichum, L.
.. Digitaria, Poir.

PANICUM
.. .. filiforme, L.
(*Paspalum*—,Schw. ☖
* .. .. .. glabrum, Gaudin.
(*Paspalum*—,Wood.☖
* .. .. sanguinale, L.
(*Paspalum*—, Lam.☖
.. .. anceps, Michx.
.. .. agrostoides, Spreng.
.. .. proliferum, Lam.
.. β. geniculatum,Wood.
.. .. .. capillare, L.
.. autumnale, Bosc.
(*divergens*, Muhl. ‖
.. .. .. virgatum, L.
β. obtusum, Wood.
.. amarum, Ell.
.. .. .. latifolium, L.
.. .. clandestinum, L.
.. β.pedunculatum,(Tor
.. .. microcarpon, Muhl.
.. .. xanthophysum, Gray.
.. viscidum, Ell.
.. .. paucifiorum, Ell. ?
dichotomum, L.:
.. .. .. α. nodiflorum, (Lam.)
.. β. lanuginosum,(Ell.)
.. γ. barbulatum, (Mx.)
.. δ. nitidum, (Lam.)
ε. pubescens, (Lam.)
ς. laxiflorum, (Lam.)
η. sphærocarpon,(Ell)
.. .. .. depauperatum, Muhl.
β. involutum, (Torr.)
.. verrucosum, Muhl.
* .. .. .. Crus-galli, L.
(*Oplismenus*–,Wood.☖
.. β. hispidum, (Muhl.)
γ. muticum, Wood.

SETARIA
* .. .. verticillata, Beauv.
* .. .. .. glauca, Beauv.
* .. .. .. viridis, Beauv.
* .. .. Italica, Kunth.
* Germanica, Beauv.☖

CENCHRUS
.. .. tribuloides, L.

TRIPSACUM
.. .. dactyloides, L.
.. β.monostachyum,(Wd

ROTTBŒLLIA
.. rugosa, Nutt.

ERIANTHUS
.. .. alopecuroides, Ell.
.. brevibarbis, Michx.

ANDROPOGON
.. .. .. furcatus, Muhl.
.. .. .. scoparius, Michx.
.. argenteus, Ell.
(*Elliottii*, Chapm. ‖
.. .. Virginicus, L.
.. macrourus, Michx.

SORGHUM
.. .. .. nutans, Gray.
.. avenaceum, Chapm.

———:o:———

EQUISETACEÆ.

EQUISETUM
* Telmateia, Ehrh.
(*eburneum*, Schreb. †
(*fluviatile*, Smith.*
(*maximum*, Lam. *
* .. .. .. arvense, L.
β. serotinum, Meyer.
* .. pratense, Ehrh.
* .. sylvaticum, L.
* .. palustre, L.
* .. littorale, Kuhlew. ?
* .. .. limosum, L.
.. lævigatum, Braun.
.. robustum, Braun.
.. β. affine, Engelm.
* .. .. .. hyemale, L.
* .. .. variegatum, Schleich.
* .. scirpoides, Michx.

FILICES.

POLYPODIUM
* .. .. .. vulgare, L.
.. .. .. incanum, Swartz.

ADIANTUM
.. .. .. pedatum, L.
w Capillus-Veneris, L.

PTERIS
* .. .. .. aquilina, L.
β. caudata, (L.)
γ. lanuginosa, Hook.

CHEILANTHES
.. .. vestita, Swartz.
.. tomentosa, Link.
.. lanuginosa, Nutt.

PELLÆA
.. gracilis, Hook.
(*Allosorus*—, Presl. †
(*Pteris*—, Michx. ☖
.. .. .. atropurpurea, Link.
(*Allosorus*—,Kunze.†
(*Pteris*——, L. ☖

ALLOSORUS
acrostichoides, Spr.

WOODWARDIA
.. .. Virginica, Smith.
.. angustifolia, Smith.

ASPLENIUM
.. .. pinnatifidum, Nutt.
(*Camptosorus*–,Wood☖
ebenoides, Scott.
(*C. pinnatifidus,v.*—,☖
* .. .. .. Trichomanes, L.
* .. viride, Hudson.
.. .. .. ebeneum, Aiton.
.. montanum, Willd.
* .. Ruta-muraria, L.
.. .. .. angustifolium, Mx.
.. .. .. thelypteroides, Mx.
* .. .. .. Filix-fœmina, Bernh.
.. .. .. β. Michauxii, Mett.

SCOLOPENDRIUM
* .. vulgare, Smith.
(*officinarum*, Swz. †☖

CAMPTOSORUS
.. .. .. rhizophyllus, Link.

PHEGOPTERIS
* .. .. polypodioides, Fée.
(*Polypodium Phegopteris*, L. *†☖
.. .. .. hexagonoptera, Fée.
(*Polypodium*-,Mx.†‖☖
* .. .. Dryopteris, Fée.
(*Polypodium*—,L.*†☖

ASPIDIUM
* .. .. .. Thelypteris, Swz.
(*Nephrodium*–,Desv.*
.. .. Noveboracense, Swz.
.. fragrans, Swz.
* .. spinulosum, Swz.
(*Nephrodium*–,Desv.*
.. .. .. β.intermedium,(Wld)
* .. γ. dilatatum, (Swz.)
* δ. dumetorum, (Sm.)
* .. ε. Boottii, (Tuckerm.)
* .. cristatum, Swz.
(*Nephrodium*–,Rich.*
.. β.Clintonianum,Eaton
.. .. .. Goldianum, Hook.
* .. Filix-mas, Swz.
(*Nephrodium*–,Rich.*
.. .. .. marginale, Swz.
.. .. .. acrostichoides, Swz.
.. β. incisum, Gray.
* .. Lonchitis, Swz.
aculeatum,Swz.:
* .. α. Braunii, Koch.

CYSTOPTERIS
.. .. .. bulbifera, Bernh.
* .. .. .. fragilis, Bernh.
* β. dentata, (Hook.)
* .. montana, Bernh.

STRUTHIOPTERIS
* .. .. Germanica, Willd.

ONOCLEA
.. .. .. sensibilis, L.
β. obtusilobata, Torr.

WOODSIA
.. .. obtusa, Torr.
* .. .. Ilvensis, R.Br.
* .. hyperborea, R.Br.
* .. glabella, R.Br.
Oregana, Eaton.

DICKSONIA
.. .. .. punctilobula, Kunze.
(*pilosiuscula*, Willd. ☖

SCHIZÆA
pusilla, Pursh.

LYGODIUM
.. palmatum, Swz.

OSMUNDA
* .. .. .. regalis, L.
.. .. .. Claytoniana, L.
.. .. .. cinnamomea, L.
β. frondosa, Gray.

BOTRYCHIUM
* .. Lunaria, Swz.
* .. simplex, Hitchcock.
* .. lanceolatum, Angstr.
(*simplex*, †
* .. matricariæfolium,
A. Braun.
β.subintegrum,Milde.
(*neglectum*, Wood. ☖
* .. .. .. Virginicum, Swz.
β. gracile, (Pursh.)
.. .. .. lunarioides, Swz.
.. β. obliquum, (Muhl.)
.. γ. dissectum, (Muhl.)

OPHIOGLOSSUM
* .. .. vulgatum, L.
bulbosum, Michx.

LYCOPODIACEÆ.

LYCOPODIUM
.. .. lucidulum, Michx.
* .. .. Selago, L.
* .. inundatum, L.
β. Bigelovii, Tuck.
* .. alpinum, L.
.. alopecuroides, L.
* .. annotinum, L.
β. pungens, Spring.
.. .. dendroideum, Michx.
β. obscurum, (L.)
* .. .. clavatum, L.
.. Carolinianum, L.
* .. .. complanatum, L.
* .. β. sabinæfolium,(Wld
(*Chamæcyparissus*,Br*

SELAGINELLA
* .. selaginoides, Gray.
(*spinulosa*,Braun. *
.. .. .. rupestris, Spring.
.. .. .. apus, Spring.

ISOETES
* .. lacustris, L.
Tuckermani, Braun.
echinospora,Durieu.:
.. α. Braunii, Engelm.
β. muricata, Engelm.
γ. Boottii, Engelm.
saccharata, Engelm.
.. .. riparia, Engelm.
Engelmanni, Braun.
β. gracilis, Engelm.
γ. valida, Engelm.
.. melanopoda, J.Gay.

HYDROPTERIDES

MARSILEA
* quadrifolia, L.

AZOLLA
.. .. Caroliniana, Willd.

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MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

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MISSOURI BOTANICAL GARDEN

NORTH AMERICAN PLANTS.

CONTENTS OF FASCICLE I.

COLLECTED AND DISTRIBUTED BY A. H. CURTISS IN 1877.

Clematis reticulata, Walt.
Asimina parviflora, Dunal.
grandiflora, Dunal.
Nymphæa flava, Leitner.
Sarracenia variolaris, Mx.
Gynandropsis
pentaphylla, DC.
Helianthemum
corymbosum, Mx.
Ascyrum amplexicaule, Mx.
Hypericum cistifolium, Lam.
fasciculatum, Lam.
myrtifolium, Lam.
Arenaria diffusa, Ell.
Portulaca pilosa, L.
Sida stipulata, Cav.
Hibiscus coccineus, Walt.
Gordonia Lasianthus, L.
Ximenia Americana, L.
Ceanothus microphyllus, Mx.
Polygala Baldwinii, Nutt.
cymosa, Walt.
grandiflora, Walt.
setacea, Mx.
Lupinus villosus, Willd.
Crotalaria Purshii, DC.
Psoralea virgata, Nutt.
canescens, Mx.
Lupinellus, Mx.
Petalostemon roseum, Nutt.
gracilis, Nutt.
corymbosus, Mx.
Indigofera Caroliniana, Walt
Glottidium Floridanum, DC.
Astragalus obcordatus, Ell.
Æschynomene viscidula, Mx.
Rhynchosia tomentosa, var.
monophylla, T. & G.
var. erecta, T. & G.
var. volubilis, T. & G.
Galactia Elliottii, Nutt.
Baptisia Lecontei, T. & G.
Cassia obtusifolia, L.
Schrankia angustata, T. & G.
Prunus Caroliniana, Ait.
Cratægus flava, Ait.
Gaura augustifolia, Mx.
Œnothera sinuata, L.
Ludwigia virgata, Mx.
linifolia, Poir.
alata, Ell.
Rhexia glabella, Mx.
ciliosa, Mx.
serrulata, Nutt.
Piriqueta fulva, Chapm.
Eryngium Mettaueri, Wood.
aromaticum, Baldw.
Tiedemannia teretifolia, DC.
Heliosciadium
letophyllum, DC.
Leptocaulis divaricatus, DC.
Cornus stricta, Lam.
Galium hispidulum, Mx.
Richardsonia scabra, St. Hill.
Diodia Virginica, L.
Chiococca racemosa, Jacq.
Houstonia rotundifolia, Mx.
Vernonia augustifolia, Mx.
Carphephorus corymbosus.
Liatris elegans, Willd.
tenuifolia, Nutt.
gracilis, Pursh.
paniculata, Willd.
Eupatorium
coronopifolium. Willd.
Aster squarrosus, Walt.
Erigeron vernum, T. & G.
Diplopappus obovatus, T & G
Solidago brachyphylla, Chap
tortifolia, Ell.
Bigelovia nudata, DC.
Heterotheca scabra, DC.
Chrysopsis gossypina, Nutt.
Conyza ambigua, DC.
Baccharis augustifolia, Mx.
glomeruliflora, Pers.
Pterocaulon
pycnostachyum, Ell.
Berlandiera tomentosa, T & G
Iva microcephala, Nutt.
Melanthera hastata, Mx.
Zinnia multiflora, L.
Rudbeckia mollis, Ell.
Helianthus Radula, T. & G.
Actinomeris
heterophylla, Chapm.
Coreopsis aurea, Ait.
gladiata, Walt.
nudata, Nutt.
Acanthospermum
xanthioides, DC.
Palafoxia integrifolia, T & G.
Baldwinia uniflora, Nutt.
Actinospermum
angustifolium T. & G.
Cirsium Nuttallii, DC.
Chaptalia tomentosa, Vent.
Lygodesmia aphylla, DC.
Pyrrhopappus Carolinianus.
Lobelia glandulosa, Walt.
paludosa, Nutt.
Vaccinium myrsinites, Mx.
Leucothoe axillaris, Don.
acuminata, Dunal.
Andromeda nitida, Bartr.
ferruginea, Walt.
ligustrina, Muhl. var. frondosa, Pursh.
Kalmia hirsuta, Walt.
Bejaria racemosa, Vent.
Ilex ambigua, Chapm.
myrtifolia, Walt.
Dahoon, Walt.
coriacea, Chapm.
Bumelia tenax, Willd., var.
Styrax pulverulenta, Mx.
Symplocos tinctoria. L'Her.
Utricularia fibrosa. Walt.
Pinguicula lutea, Walt.
elatior, Mx.
pumila, Mx.
Bignonia capreolata, L.
Gratiola subulata, Bald.
Scoparia dulcis, L.
Buchnera elongata, Swartz.
Seymeria tenuifolia, Pursh.
pectinata, Pursh.
Gerardia divaricata, Chapm.
Gerardia aphylla, Nutt.
purpurea, L., var. fasciculata, Chapm.
filifolia, Nutt.
Ruellia oblongifolius, Chapm
Verbena Caroliniana, Mx.
Callicarpa Americana, L.
Hyptis radiata, Willd.
spicata, Poit.
Pycnanthemum nudum, Nutt
Salvia azurea, Lam.
Scutellaria integrifolia, var. major, Chapm.
Bonamia humistrata, Gray.
Lycium Carolinianum, Mx.
Bartonia verna, Muhl.
Gelsemium sempervirens, Ait
Polypremum procumbens, L.
Asclepias amplexicaulis, Mx.
cinerea, Walt.
Olea Americana, L.
Rumex Engelmanni, Ledeb.
Polygonella gracilis, Meisn.
Persea Carolinensis, Nees.
Callitriche peploides, Nutt.
Euphorbia heterophylla, L.
Jatropha urens, L., var. stimulosa, S. Muller.
Styllingia sylvatica, L.
ligustrina, Mx.
Tragia innocua, Walt.
Quercus Catesbæi, Mx.
cinerea, Mx.
Phellos, L.
virens, var. dentata, Chap.
Myrica cerifera, L., var. pumila, Mx.
Pinus Elliottii, Eng.
australis, Mx.
Sabal Palmetto, R. & S.
Sagittaria natans, Mx., var. lorata, Chapm.
Burmannia capitata, Chapm.
Habenaria cristata, R. Br.
ciliaris, R. Br., var.
nivea, Spreng.
Spiranthes brevifolia, Chap.
graminea, var. Walteri, Gr.
Pogonia divaricata, R. Br.
Calopogon parviflorus, Lindl.
Aletris aurea, Walt.
Tillandsia recurvata, Pursh.
usneoides, L.
Smilax auriculata, Walt.
tamnoides, L.
laurifolia, L.
Lilium Catesbæi, Walt.
Yucca aloifolia, L.
Juncus Rœmerianus, Scheele
Tradescantia rosea, Vent.
Xyris Elliottii, Chapm.
platylepis, Chapm.
torta, Smith.
Eriocaulon gnaphalodes, Mx.
Lachnocaulon
Michauxii, Kunth.
Cyperus articulatus, L.
Baldwinii, Torr.
microdontus, Torr.
Cyperus tetragonus, Ell.
rotundus, var. Hydra, Gr.
Fuirena scirpoidea, Vahl.
Eleocharis albida, Torr.
Baldwinii, Torr.
Fimbristylis ciliatifolia.
stenophylla.
spadicea, Vahl., var. puberula, Chapm.
Dichromena latifolia, Baldw.
leucocephala, Mx.
Rhynchospora caduca, Ell.
capitata, Chapm.
Chapmanii, M. A. Curtis.
ciliata, Vahl.
divergens, Chapm.
Eliiottii, Dietr.
filifolia, Gray.
Grayii, Kunth.
megalocarpa, Gray.
miliacea, Gray.
oligantha, Gray.
plumosa, Ell.
Scleria ciliata, Mx.
Elliottii, Chapm.
Baldwinii, Torr.
gracilis, Ell.

Sporobolus Indicus, Brown.
Floridanus, Chapm.
Muhlenbergia
trichopodes, Chapm.
Aristida stricta, Mx.
spiciformis, Ell.
lanata, Poir.
Ctenium Americanum, Spr.
Eustachys petræa, Desv.
glauca, Chapm.
Floridana, Chapm.
Dactyloctenium
Ægyptiacum, Willd.
Tricuspis ambigua, Chapm.
cornuta, Gray.
Uniola paniculata, L.
Paspalum vaginatum, Swartz
distichum, L.
præcox, Walt.
Panicum gibbum, Ell.
anceps, var. strictum, Chap
ignoratum, Kunth.
molle, Mx.
Cenchrus echinatus, L.
Stenotaphrum
Americanum, Schrank.
Rottbœllia rugosa, Nutt.
Andropogon Elliottii, Chapm
brachystachyus, Chapm.
tetrastachyus, Ell.
Virginicus, L., var.
melanocarpus, Ell.
Sorghum pauciflorum, Chap.
secundum, Chapm.

Aspidium Floridanum, Chap.

Lycopodium cernuum, L.
inundatum, L., var. appressum, Chapm.

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NORTH AMERICAN PLANTS.

— CONTENTS OF —

FASCICLE III.

Distributed by A. H. Curtiss in 1879-80.

Anona laurifolia, Dunal.
(Leavenworthia Michauxii, Torr.
Warea cuneifolia, Nutt.
Alyssum Lescurii, Gray.
Polanisia trachysperma, Torr. & Gray
Polanisia tenuifolia, T. & G.
Hypericum aureum, Bartr.
Hypericum fasciculatum, Lam., var. aspalathoides,
Arenaria patula, Michx.
Stellaria uniflora, Walt.
Siphonychia Americana, Torr. & Gr.
Sesuvium pentandrum, Ell.
Sida filiformis, Moric.
Urena lobata, L.
Modiola multifida, Mœnch.
Pavonia spinifex, Willd.
Hibiscus furcellatus, Desv.
Melochia serrata, Benth.
Zanthoxylum Pterota, H. B. K.
Bursera gummifera, Jacq.
Amyris Floridana, Nutt.
Vitis incisa, Nutt.
Gouania Domingensis, L.
Dodonæa viscosa, L.
Hypelate paniculata, Don.
Cardiospermum Halicacabum, L.
Polygala Rugellii, Shuttl.
Crotalaria incarnata, L.
" pumila, Ort.
Dalea Hallii, Gray.
Petalostemon carneus, Mx.
Tephrosia angustissima, Shuttl.
Tephrosia leptostachya, DC.
Indigofera tinctoria, L.
Glottidium Floridanum, DC., var.
Sesbania macrocarpa, Muhl.
Zornia tetraphylla, Mx.
Desmodium molle, DC.
Phaseolus sinuatus, Nutt.
Vigna glabra, Savi.
(Galactia glabella, Mx.
Canavalia obtusifolia, DC.
Sophora tomentosa, L.
Ecastophyllum Brownei, Pers.
Cassia Roemeriana, Scheele.
Mimosa strigillosa, T. & G.
Desmanthus brachylobus, Benth.
(Chrysobalanus oblongifolius, Mx.
Chrysobalanus Icaco, L.
Œnothera sinuata, L., var. humifusa, Tor. & Gr.
Ludwigia capitata, Mx.
" sp.
Rhizophora Mangle, L.
Laguncularia racemosa, Gærtn.
Conocarpus erecta, Jacq.
" " var. sericea, Chapm.
(Ammannia humilis. Mx., v.
Ammannia latifolia, L.
Papaya vulgaris, DC.
Eugenia dichotoma, DC.
(" monticola, DC.
" buxifolia, Willd.
Psidium Guayava, Raddi.
Eryngium Baldwinii. Sprg.
Chærophyllumn Teinturieri Hook & Arn.
Borreria micrantha, T. & G.
Ernodea littoralis, Swz.
Psychotria lanceolata, Nutt
(" rufescens, H.B.K.
Hamelia patens, Jacq.
Randia aculeata, L.
Oldenlandia Halei, Chapm.
Vernonia Lindheimeri, Gray & Eng.
Eupatorium mikanioides, Chapm.
Bellis integrifolia, Mx,
Guttierezia sphaerocephala, Gray.
Chrysopsis trichophylla, N.
" hyssopifolia, Nutt.
Berlandiera subacaulis, Nutt
Helianthus debilis, Nutt.
Coreopsis Leavenworthii, Torr &. Gray.
Bidens leucantha, Willd.
Flaveria linearis, Lag.
Palafoxia Feayi, Gray.
Lobelia Feayana, Gray.
Scævola Plumieri, Vahl.
Campanula Floridana, Watson.
Vaccinium Elliottii, Chapm.
Chrysophyllum oliviforme, Lam.
Sideroxylon mastichodendron, Jacq.
Bumelia lycioides, Gærtn.
Ardisia Pickeringia, T. & G.
Plumbago scandens, L.
Samolus ebracteatus, Kth.
Utricularia gibba, L.
Physanthes grandiflora, Bth.
Gerardia Skinneriana, Wood
Calophanes linearis, Gray.
Verbena bipinnatifida, Nutt
" Aubletia, L.
" " var. maritima.
Herpestis amplexicaulis, Ph.
Herpestis nigrescens, Benth
Lantana involucrata, L. var.
Citharexylum villosum, Jacq.
Avicennia nitida, Jacq.
Satureia rigida, Bartr.
Hedeoma Drummondi, Bth.
Calamintha glabella, Benth.
" coccinea, Benth.
Scutellaria brevifolia, Gray.
Physostegia Virginiana, var. denticulata, Chapm.
Heliotropium curassavicum, L.
Heliotropium polyphyllum, Lehm., var. Leavenworthii, Gray.
Heliophytum parviflorum, DC.
Phacelia Purshii, Buckl.
Ipomœa Pes Capræ, Sweet.
" cathartica, Poir.
Evolvulus argenteus, Pursh.
Solanum verbascifolium, L.
Physalis viscosa, Gr. Flora.
Sabbatia Elliottii, Steud.
" gracilis, Salisb., var. grandiflora, Gray.
Eustoma exaltatum, Griseb
Limnanthemum trachyspermum, Gr.
Spigelia Marilandica, L.
Mitreola petiolata, T. & Gr.
(Amsonia Tabernaemontana, Walt.
(Asclepias tomentosa, Ell.
Metastelma Bahamense, Griseb.
Philibertia viminalis, Gray.
Gonolobus suberosus, R. Br.
Forestiera ligustrina, Poir.
" acuminata, Poir.
Aristolochia tomentosa, Sims.
Boerhaavia hirsuta, Willd.
Pisonia obtusata, Swartz.
Petiveria alliacea, L.
Atriplex cristata, H. B.K.
Iresine vermicularis, Moq.
Telanthera Floridana, Chapm.
Polygonella parvifolia, Mx.
Coccoloba uvifera, Jacq.
" Floridana, Meisn.
Persea catesbyana, Chapm.
Cassyta filiformis, Miller.
Euphorbia dentata, Michx.
" glabella, Swartz.
" graminifolia, Mx
" pilulifera, L.
" polyphylla, Eng.
" trichotoma, H. B. K.
(Ceratiola ericoides, Mx.
Batis maritima, L.
Ulmus crassifolia, Nutt.
Ficus aurea, Nutt.
Carya aquatica, Nutt.
(Quercus lyrata, Walt.
Myrica inodora, Bartr.
(Sabal serrulata, fr.
Epidendrum venosum, Lind
Thalia divaricata, Chapm.
(Zephyranthes Treatiae, Watson.
Cooperia Drummondii, Her.
Tillandsia utriculata, Lec.
" bracteata, Chapm.
" caespitosa, Lec.
Smilax Walteri. Pursh.
Schœnocaulon gracilis, Gr.
Nolina Georgiana, Mx.
Juncus repens, Michx.
Tradescantia Floridana, Watson.
Cyperus brunneus, Swz.
" Lecontei, Torr,
" ligularis, L.
" Nuttallii, Torr., var.
" virens, Michx.
(Eleocharis albida, Torr.
(" capitata, R. Br.
Scirpus supinus, L., var. Hallii, Gr.
Fimbristylis Warei, Torr.
Rhynchospora cymosa, Nt.
" corniculata, Gray.
" divergens, C. var.
" microcarpa, Bald.
" semiplumosa, Gray, var.
" stipitata, Chapm.
Carex dasycarpa, Muhl.
Aristida scabra, Kunth.
Vilfa sp.
Cynodon Dactylon, Pers.
Trieuspis stricta, Nutt.
" trinerviglumis, Buckl.
Paspalum fluitans, Kunth.
(Paspalum distichum, var.
Panicum amarum, Ell.
" Colonum, L.
" divaricatum, L.
" microcarpon, Muhl.
" striatum, Lam.?
" sp.
" sp.
Setaria Italica, Kunth.
Erianthus strictus, Baldw.
Andropogon tener, Kunth.
" Torreyanus, Steud.
Acrostichum aureum, L.
Polypodium pectinatum, L.
" Phyllitidis, L.
" aureum, L.
Ceratopteris thalictroides, Brongn.
Vittaria lineata, Swz.
Blechnum serrulatum, Mx.
Aspidium unitum, var. glabrum, Mett.
Nephrolepis exaltata, Schott
Isoetes flaccida, Shuttl.

NOTE.—In this fascicle will be found 215 species and varieties, the 15 with parentheses at left of names being supplementary to Fascs. I and II. All have printed labels, and there will probably be no omissions from any of the sets. The three specific names omitted in the list will probably be supplied in the labels. Price of Fasc. III., at Cambridge, eighteen dollars.

Jacksonville, Florida, January 1, 1880. A. H. CURTISS.

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Rec'd Aug 31
Sept 7

Liberty, Bedford Co., Va.
Aug. 27, 1872.

Dr. George Engelman:

Dear Sir - As you will perceive from the inclosed prospectus, I have in preparation a new catalogue, which I desire to make as serviceable as possible to exchangers.

It has recently occurred to me that the States of Missouri, Iowa & Minn. ought to be included, as there are many in those States to whom it would be useful. But I am wholly without reliable materials, & can do nothing without the assistance of persons familiar with the flora of those States.

Knowing that you are better informed on the subject than any one else, I take the perhaps unwarrantable liberty of asking that you will give me a list of such trans. Miss. sps. & vars. found in this section as readily occur to you. All I ask of you is to run over the Catalogue I send & note down such sps. as you see should be included, giving the catalogue No. each should follow. Unfortunately, many of the genera are arranged alphabetically; in such cases, the names of sps. would need to be given instead of Nos.

Prof Porter's request & of my own judgement to

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I shall arrange all sps. in the exact order adopted by Gray. Word will be made secondary & his sps. & vars. as well as those of Gray's 2d Ed., by which many but not all are still labelled, referred to by signs.

I shall of course expect to make you some return in case you do me the favor, & therefore have marked the Catalogue sent, the dashes indicating the Virginian sps. I have in duplicate from which you will be at liberty to select freely. I can send you Juncus Roemerianus much taller than you describe it to be - it agrees exactly with Chapman's "J. maritimus" - time of flowering evidently April. A most remarkable sp. apparently developing one leaf a year. The bvs. long persistent. J. stygius is rather common in S.E. Va. Mr. Canby thinks my Spms. interesting as to development of bracts. - flowers in June & July. - J. dichotomus very variable - as also J. scirp. echinatus. - I have found in '69 a very interesting Juncus here which I called J. scirp. polycephalus. - I have found most of your vars. of Sagittaria variabilis in Va. & think you have a very good arrangement. - Picinus fungens is quite uncommon here - it flowers earlier than your sps., which are P. inops, mitis, rigida, & Strobus. - I think our P. rigida rather different from the Northern growth, rather between the latter & P. Taeda, which I suspect to be only a Southern var. - Hoping to hear soon whether you will aid me, I am

Very truly & respectfully yours, A. H. Curtiss

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GEORGE ENGELMANN PAPERS

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Rec'd Sept 17
Ans Oct 13

Liberty, Bedford Co., Va.
Sept. 12, 1872

Dr. George Engelmann,

Dear Sir – I am gratified to learn from your letter of the 7th inst. that you are willing to assist me in my Catalogue. – I wish now that I had sent you an interleaved C'logue, but probably it will be as convenient to use separate paper. – Please indicate the natural position in the manner I mentioned. – I suppose none of the sps. that I shall find in your list grow in Europe; if any of them do, please place an E. or Eur. before them. As soon as I receive your list I shall probably wish to send my Mo. to press. – Considering that a list of the plants in Chapman's section is almost useless to exchangers, I decided to omit them, in order to make the C'logue more convenient & cheap. – As the southern boundary of Gray's section coincides with that of Mo. I thought it would be best to add the tier of States just west of said section, in consideration of the fact that there are many additions in Mo. & Iowa & some in Minnesota. – The C'logue being on an entirely new plan, it is an experiment, and if it proves satisfactory, I can enlarge it in a year or two. – I am confident

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that there is not over one exchange in a hundred made with persons south or west of what I call Gray's section. On the whole I prefer Gray's old Clague to Harris's but both are inconvenient when one or both parties to an exchange use Wood. I notice what you say in regard to Yucca in your letter and in the Torrey Bulletin. Your discovery is very interesting, & I wish I had some notes to communicate. I have never seen a Yucca growing wild, nor examined any except Y. filamentosa, of which we have a fine clump in front of our house. It flowers once in two or three years, and always sets as much fruit as it seems able to support, but we cut the stalks off as soon as the fls. are gone. Most of the fls. fall off fresh and entire (unfertilized?); but when the fr. sets, the perianth withers around it. I can send you specimens with young fr. immediately, or when I send the other things. I have never seen any sign of worms about it.

I have noticed that a great number of larvae develope in the fr. of the monoecious Melanthieae. May not this have a similar significance? I was [illegible] the S. Peak of Otter yesterday & brought home a quantity of Melanthium, but as a storm came up I had to return without getting Veratrum parviflorum, which

I think Mr. Engelmann is not mistaken in publishing a notice of my discovery of Clague and of my wanting specimens in exchange for a year or two ago.

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I wanted most; perhaps I may go again in a fortnight. The Melanthacum flowers in July & Aug.; the Veratrum in Aug. & Sept.; probably both are visited by the same insect. But V. viride must have another sp., as it flowers in May & June; in addition, this sp. was nearly devoured last spring by a green larva working extensively. The heads of Inu radiate Compositæ are very much devoured by small larvæ, especially Polymnia. I presume Mr. Riley would like to receive them & raise the insects. As for myself, I find I have motive for entomology. I have quite a quantity of unmounted specms. which I wish might be put to some use.

I have recently rec'd a letter from the P. M. Genl. saying that botanical pkgs. may be sent like roots, &c that is, in pkgs. of not over 12 ozs. in weight at a prepaid postage of 2c per 2 ozs. I had a pkge from Colo. lost about the time the law was changed.

Before you return the Catalogue, mark all the plants you want, & I will send them with pleasure either a mail or express package.

I remain

Very Truly Yours

A. H. Curtiss

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Rec'd Oct 30th
Ans Nov 1 Liberty, Bedford Co., Pa.
Curtiss Oct. 26, 1872

Dr. Geo. Engelmann:

Dear Sir - I rec'd your letter of the 13th inst. yesterday, and as it has been so long on the way, I hasten to acknowledge its receipt & to thank you for the valuable notes & additions to my Catalogue which it contained - But I was not at all impatient, for as my Canadian friend is expected home in Nov I have concluded not to send the Catalogue to press before Dec.!

I will send you duplicates in Decr. - prefer to wait till I make my general distribution, as I then overhaul all my specms. and can select all forms that I think will interest you.

I send in advance specms. of two plants not described in our

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Am. text-books, which I found Pike enter in my Herbarium. I enclose labels —

The Galium is common in this region, in dry, open situations, especially along road-sides, but in the latter situation I think it remains merely to prostrate leafy shoots, which are very conspicuous in March & April, growing with Alchemilla arvensis, which springs up at the same time. I ought to have investigated this point, & also to have secured specimens of this growth. It varies from 3' to 18' in height, but generally is 4' or 5' high, & but little branched, unless browsed down. The fls. are greenish-brown. It is an extremely neat & interesting little plant. I disavow the name aritidum, but I take it to be G. anglicum, Huds., or as Hooker calls it, G. spurium.

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var. anglicum – but parvicense is too bad a name!

The Antennaria grows with the ordinary A. plantaginifolia, but there are no intermediate forms; if it be a var. of this, it ought to be named (a word for rooted would be very appropriate, or parvula or parvula) for it is far more different from the ordinary form than the var. monocephala, which is a more accidental form produced by growing on damp banks or rocks. But I see no point in which it differs from A. divica. This sp. is not known to grow south of the Hudson's Bay region; whence Thlaspi arvense was not known to grow south of Canada till I found it growing luxuriante, in tidewater Virginia. I have rec'd the same form from Virginia. It was found that

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one field of it, spreading extensively its discoveries only preventing its wide distribution — I believe there is no material difference, except in degree between A. divica and A. plantag. in Florida (Sprenda specs. of the latter); but in A. divica, as in my plant, the outer involucral scales differ much from the inner, while in A. plantag. they do not. I take it that A. divica, Baxter. = A. divica, Br. & = Gnaphalium divicum, L. (?) I have spms., two from Europe & one from the Rocky Mts. of Hall's collection. The latter differs considerably, having 11 heads in a loose, panicled corymb, very small & but little dilated radical lvs. silky above, 10' high. In my Eur. spms. the involucre is rather more brown than in mine; in one spm. rose-colored & spms. 2'-4½' high. — But I need not enlarge on the subject, for you will solve the question at a glance!

I have not succeeded in obtaining specs. of any of the Eur. annual Antennarias. I suppose it would be best to place this before Alpaine, as the spms. are arranged by Bray (?) —

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Rec'd Octob 30 '72

At your suggestion I have entered Euphorbia inæquilatera, Sonder. as a synonym of E. serpyllifolia, Pers. I see the descriptions appl. to one sp. Sps. found only in Chapman's section I shall omit — Doubtless some of them occur in Missouri, but I shall not know which they are, except the one you mention, Heliotropium tenellum, but this is not in Chapm., nor, H. Leavenworthii — Malvastrum angusteum said to grow on an island in the Miss. I will enter, like M. coccineum, as a trans-Miss. sp.

I read your synonym of Demna Torreyi, D. Valdiviana, Phil. — am I right about the authority?

I suppose your Baltonia latiuscula does not equal Wood's B. decurrens; it seems singular that Gray should omit so good a sp. as the latter

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Does the typical form of P. pinnatum asperum, of Heliantheus cinereus (what is the authority for this name?) & of Actinella scaposa grow in Mo.? Does your Cuscuta Saururi grow as far north as Mo. & Ky., & which side of the Miss. River?

In consequence of the carelessness of our authors, I find the greatest difficulty in giving authorities for vars., but have adopted a rule to give, in parentheses, the names of the botanists who originally described them as sps. when I find that such was the case, thus; Smilacina racemosa, L., β. obovatus, (Muhl.) – γ. Balsamitae, (Willd.) – δ. lanceolatus, (Ait.) – ε. gracilis, (Pursh.) Pursh described the var. discoideus, but Wood seems to attribute the name to Poiret, & I will enquire of Dr. Porter about it – By this means I can omit a large number of synonyms, which

I would otherwise give, as a great many of Brazos cons. are considered sp. by other authors —

On the last page I give a few Missouri plants not on your list, which I find in one sent to a Mr. Broadhead, with whom I am thinking of making a small exchange.

Varieties which are founded on differences in color of flower I think I at all generally omit, for it is useless to exchange dried spms. of them, unless they are some shades of yellow.

As his list is inaccurate, I will be greatly obliged if you will copy for me such as you think proper to include, with authorities & position.

Hoping to hear from you soon I remain

Yours very truly

H. A. Gentlife

Broadpicado Mo. plants.

Anemone stellata, var. ? (Cairo. & Bates Co.

Draba caroliniana, var. siliculis (?)
var. (?) hispidulis (?)

" " Viola cucullata, v. alba - (W. Mo.

" delphinifolia - "large var."

Aquilegia canadensis, var. alba

Sida hispida - "yellow var." multifida - "yellow var."

Astragalus distortus var. alba

Sedum stoloniferum (Newton Co.

- Apogon humilis (Ele.) - W. Mo. & S.

- Helianthus orgyalus - W. Mo.

Grindelia squarrosa "

Coreopsis grandiflora "

Lobelia syphilitica, var. alba

Castilleia coccinea, "yellowish var."

Salvia azurea - "very common on prairies in W. Mo."

- " trichostemoides - W. Mo.

Phlox pilosa - [illegible]

- Solanum rostratum (Jackson Co.

Oenothera angustifolia

Carya "pecan"

Celophanes oblongifolia

Rec'd Oct 30 1872.

Certainly so fern.

D. C. W. Watt.

though exhibited as such by a gardener at the late Zoological fair together with a plant of Sarracenia purpurea from S.E. as true to name do thousands of plants of it that I have seen in N. New York. I am anxious to know what it is, and therefore send it on to you. You need not return it, as Mr. Watt has done.

I conclude you think of provising Quercus. Next fall, if the Oaks fruit, I think I could make out a set of specimens showing that Q. nigra varies into Q. tinctoria. Both are very variable, to my mind, equally deserving of the rank of species. Q. coccinea sometimes has leaves with much toothed, deeply overlapping lobes — resembling nearly those of tinctoria. Q. tinctoria has the cups, but often these two peculiarities are not always united in the same tree. The former exceedingly variable in single plants.

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always quite different from
the type of 2. tinctoria —
2. alba is quite variable in pr. & lvs.
2. falcata in leaves —
Have you 2. tridentata, 2. quinquelob.
2. rubra uncinata been found
east of the Mississippi?
I notice Wood describes 2. trilobata
as a distinct sp. I will place it with
the Lysiodes —
Has Desmanthus gibba been found as
far east as Mo.? & 2. glandulosa
east of the Mississippi?

A. A. Gray

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Rec'd Dec 27
Ans. 1/26
Feb 28

Liberty, Bedford Co
Va
Dec. 12, 1872.

Dr. Geo. Engelmann:

Dear Sir — I think I have not acknowledged your kind very valuable letter of the 1st ult. At the time of its receipt my father was very sick, and on the 13th ult. he died, after which I had to convey his remains to Northern N. Y. for interment. I would like to let all botanical matters lie a month longer, but my obligations are so numerous, that I must not follow my own inclinations altogether, but probably I shall not commence any distribution before Jany. 1. I have to-day looked at my Cilogue for the first time & have made the critical corrections suggested.

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the general Letter I received
a few days from other
persons – Use a separate half
sheet I give a few more
questions, & shall be obliged
to you if you will return it
with answers annexed –

I am glad to have my opinion
confirmed of the Galium and
Antennaria – Dr. Parry knows
of no trans-Miss. plants in Iowa
except Viola Nuttallii & Cleome
integrifolia, & the latter I
reported to me from Illinois
as well as from Mo., Iowa & Kansas.
In Watson's Rept. I find a good many
attributed to Iowa, but as there
are many obvious errors in this
work I cannot altogether rely
on it –

"Pellonia decurrens", described
in Wood's Botanist & Florist.

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as growing in Ill. seems to me to be quite distinct from D. spathifolia.

I am specially obliged for the fine lot of Lemna paucicostata you sent, shall give it a wide distribution.

Yours very truly
Alph. Wood

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12½° Min.
31½° Max.

10 21/2

31½

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Rec April 5th
Ans —

Liberty, Bedford Co., Va.
March 28, 1873

Dr. Geo. Engelmann;

Dear Sir — Your favor of the 28th ult. came duly to hand & I expected to have acknowledged it sooner & to have been able at the same time to have sent you first proof of my Glogue, or rather, second proof of one-fourth — The printer sent me first proof of one page a month ago, which suited me well, but he had to send for more type afterwards, to go to Washington, &c & that I have been so extremely busy about my distribution, my patience would have been thoroughly exhausted —

I have been laying out upwards about twenty persons, but I have aimed to give you

all your marked duplicates, & ——— send them by mail with this, & hope they will arrive in good condition.

Also you did not give the position of Asclepias angustifolia & will enter it, at a venture, between A. longifolia & A. speciosa later.

When a sp. has such extreme forms as has A. viridiflora, Spiraea salicifolia, &c, I think one of them ought to be given in our Manuals as a named var.

I hope to be able soon to send you a proof.

Yours very respectfully

S. Watson

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Rec'd April 15
Ans — 16

Liberty, Va — April 8, 1873

Dr. Geo. Engelmann:

Dear Sir — I went to Lynchburg yesterday to attend to the printing of the first one-fourth of my Catalogue, of which I indose a copy for your examination — These are the 4th & 5th pp.; next will come the 3d & 6th, then the 2d & 7th, & last the 1st & 8th — one sheet being pasted into the other — I also send you a copy of the heading & explanations which will occupy nearly 1/4 of 1st p. & I do so especially to obtain your valued criticisms — You can judge better than I whether the explanations are full & clear, & as your botanical lore is so vastly greater than mine, I doubt not that you ~~you~~ could suggest many improvements in regard to technical phraseology & general construction, if your time would permit — As for myself, I have so many "irons in the fire" that I am well nigh distracted — & just now comes a list of over a hundred not rared disiderata from Gray & Hooker! It seems that the more I send them, the more they ask —

I think my List will be liked by the mass of botanical students, & that it will lead to a more accurate study of the science — & probably Botanists will not pick

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flaws in so humble a production. Those connected with Mannis list will probably be jealous, like Canby, who has tried not to give me any assistance; but a pkge. just recd from him will enable me to give some of his latest discoveries — a good joke on him(?) You will perceive some awkward arrangements of synonyms in Ericaceae; elsewhere I shall try to improve on it. Hoping you will favor me with a "free criticism", I remain

Very truly & respectfully yours

A. D. Hentiffson

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April 10th — Having failed to mail this as I intended, I send a couple of spms. which I will thank you to pass judgment upon — 1st. — What I take to be Sorghum avenaceum. Some authenticated spms. of S. nutans I have lately recd — together with Chapman's descriptions, make me confident that the sp. that grows here is S. avenaceum, though that has not before been reported from Gray's section. — 2d — A Phlox sent me from Ill. labelled P. subulata. It is so different from my spms. of the latter, & so resembles a Stellaria that I am inclined to believe it be Gray's Phlox stellaria — n. sp. —

A. D. H.

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Catalogue
of the
Phaenogamous and Vascular Cryptogamous Plants
of Canada & the North-eastern Portion of the United States,
Including Virginia & Kentucky on the South, & Missouri, Iowa & Minnesota on the West.

Explanations:- The following Catalogue, prepared expressly for use in botanical exchanges, is intended to include all the Phaenogams and Vascular Cryptogams of that portion of North America in which there are at present resident collectors; and to illustrate their distribution by carefully compiled floras of the three most dissimilar sections east of the Mississippi; while, by the introduction of Synonyms, it is adapted in nomenclature to the leading American and European Manuals of Botany. Of the three dotted columns, the first (headed C at top of first Col. of each page) represents the flora of Canada; the second (headed I), that of Illinois; the third (headed V), that of Virginia. In the column headed E, the *'s indicate which plants are found also in Europe; the W's, which are found only west of the Mississippi. A name in Italics, with a parenthesis at left, is a synonym now in use of the one next above; a dash denotes a repetition of the preceding specific name (differences in inflection being understood). A † refers to Gray's Manual of Botany, 2d 3d & 4th Eds.; a ‡, to the same, 5th Ed.; a ‖, to Chapman's Southern Flora; a §, to Wood's Botanist & Florist; a ✱ (at right),

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to standard European Manuals. The Nomenclature adopted by Prof. Gray is given precedence, and the same authority is followed in regard to natural arrangement and the citation of authors; the Carices alone are arranged alphabetically, but numbers are affixed showing their position in Gray's arrangement. Varieties are preceded by the first Greek letters; when there is a var. a., it is considered that the specific name is merely comprehensive, or that it represents a typical form not found in this territory. When a variety was originally described as a species under the same name, the name of the original author is generally given in parentheses.

For valuable {contributions to / assistance in} the present work, special acknowledgment is due to Dr. Geo. Engelmann, of St. Louis, Prof. T. C. Porter, of Lafayette College, John Macoun, Esq., of Belleville, Canada, and Dr. Henri van Heurck, of Antwerp.

Liberty, Bedford Co., Va., May 1, 1873. Allen H. Curtiss.

Price:— 1 copy, 20¢; 3 copies, 50¢; 7 copies $1.00.

MISSOURI BOT.
GEORGE ENGELMANN PAPERS

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Rec'd June 20th
Ans — 25

Liberty, Bedford Co. Va.
June 16, 1873 –

Dr. G. Engelmann:

Dear Sir – In order that you may not quite forget me & my Catalogue, I send you the 2d & 3d pp. of the latter, which is "creeping its slow length along" & approaching completion. The copies I have rec'd of the last impression do not look as well as the others. The Genices you will observe are arranged alphabetically & Gray's Nos affixed. The statement in my preface which you criticised was not a correct statement of my idea & I have altered it. I cannot think, with you, that it would be better to distinguish the plants simply naturalized; one leading object of the Catalogue being to render assistance in exchange with Europeans, I think it better to distinguish those that are common to both countries; so, if we have here only a var. of a European sp., I do not prefix a * to the specific name. But I do not suppose I have done this accurately. I think with you that many of Gray's S. Va. plants could not be found in this State, but when a leading author includes a plant in the flora of a section so little botanized as this, it is difficult to expunge it.

I recently made a trip to our Peaks of Otter & discovered a very interesting Anemone – I think it to be the A. trifolia L. but

Prof. Gray inclines to call it the one of the large European vars. of A. americana. I collected it under difficulties & only brought home three specs. I think I will send you one, with one of Convallaria. I think I neglected to reply to your letter of April 8th. I shall be very much obliged for copies of your monographs of Yucca & Quercus – wish I had had the latter before, as I was sorely puzzled in working it up for my Flora –

The canard about the Natural Bridge originated in that hot-bed of secession, Southern chivalry, & other things evil, the Va. military Inst. at Lexington. Prof. Porter is just starting off with Profs. Lesquereux & Leidy to join Hayden's Expedition. He has recently favored me with a criticism more favorable than I expected –

I hope my printer will finish the job by July 1st for I have a multitude of cares to get the off my mind –

Yours very truly

J. M. Coulter

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Rec'd Sept 21st
An — 27

Near Jacksonville, Fla.
Sept. 11, 1878.

Dr. George Engelmann:

Dear Sir — As you are the recognized authority on Junci, I have concluded to send you all the forms found here, except J. Roemerianus, polycephalus & tenuis, which are well marked and the first two rather too bulky — In the package accompanying this you will find each specm. on a numbered sheet, to which Nos you can refer in naming them. I enclose a few blank labels which you can use if you find any of the specms. worthy of preservation.

The Rhizanthus I thought might be new to you as it has been collected but once before — on the Mexican boundary. I have sent specms to Prof. Eaton to be engraved for his new work —

I have for Mons. Cels and not U S

The Corydalis I presume to be your var. microantha of C. aurea, which also grows here. In Va. I used to find very small flowered forms of C. flavula.

As to your genus Yucca, I have only to remark that Y. filamentosa never fruits here, while Y. gloriosa fruits freely — capsules fleshy, turning purple & persisting indefinitely —

As soon as you determine my Juncei, I will have labels printed for them. I have sets of most of them for my 2d Fasc. of S. Plants.

Yours very respectfully

A. H. Curtiss

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Rec Nov 5th
Ans Nov 13th

Near Jacksonville, Fla.
Oct. 28, 1878.

Dr. George Engelmann:

Dear Sir - I am very much obliged to you for determining my Yucca, & for your kind letter of Sept. 27th - Yucca filamentosa I know certainly & it never fruits here either wild or cultivated. In Va. I had it in cultivation & it fruited abundantly! Y. gloriosa I have only seen here in gardens, where it does not fruit. I have one some other plants here which puzzle me sorely. Chrysobalanus oblongifolius, Asimina pygmaea & Smilax glauca are abundant & distributed as if from seed, yet I have never seen ~~att~~ a vestige of fruit on either, & the Smilax never in flower! Though I have searched diligently for all three for three years.

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We have also a grass which spreads rapidly through neglected fields, but after the closest search I have failed to find any inflorescence. I have just sent Prof. Munro 100 grasses from here to study for his monograph, but having no specimen prepared of this neglected to send it. It has a tough woody root-stock like Arundinaria & foliage like a Panicum. Of the latter genus I sent Munro half a dozen forms which he will probably consider sps. P. dichotomum has been made altogether too comprehensive. My 1st Fascicle contained P. autumnum, Trin., & the 2d will contain Paspalum obtusifolium, Raddi.

I have not your Revision of Juncei, & shall be very glad of the copy you offer me. Also of the incomplete set of Juncei Am. Boreali, provided I can make a return for it.

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But I am only using my fascicles for exchange & they number each number 250 full-sheet specimens. Have you not an accumulation of trans-ship. duplicates which you would add to the Junci Texe. for my 8. sets? I could offer 250 sps. now, 500 next winter, 750 a year later, and on.

If you are willing to enter into such an exchange, please send me the plants next month if possible. If for one Fasc., send by mail; if for more, by express.

Hoping we may be of mutual service to each other, I remain

Yours very truly

A. H. Curtiss

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Rec Jan 4 Herbarium of A. H. Curtiss,
Ans by A.C. Jan 29 ans A. Lich

Talleyrand Place, near
Jacksonville, Florida., Dec. 30, 1878.

Dr. George Engelmann -

Dear Sir - I hope this will find you in better health than did my last; it leaves me worse than the last did, attacked again by the "chills" & taking another course of quinine - the sine qua non in this climate - and yet we are having our coldest weather now, ice having formed 1/4 inch. thick in exposed tubs.

I have only glanced at your fungi as yet. Shall reach the fungi in about a month in selecting for the Va. Univ. herb'm. Shall then incorporate your set as a permanent & most valued portion of it. (I mean, my own herbarium!) Many thanks for the Monograph, which is only second in value to the fungi. I have a single stem pomenthus of Chapman

[illegible] collected many late — hope to secure it for my 3d Fasc.

As it is now too late to obtain a list from you for a selection this winter, I have concluded to send you my first fascicle (250 sp.), [illegible] that you will send me something for it additional to the fund. As the 2d Fasc. contains considerable material supplementary to the first I wish you to have that also —

Send me any trans-Mississippi plants you have to spare. I have never been able to purchase sets & therefore have not many western plants. I have asked Prof. Gray to [illegible] to you two sets of my plants, and in so doing have presumed on your good nature in a [illegible] manner.

One of them is intended for Mr. Geo. D. Butler, Fremont, Iowa. I asked Prof. Gray to find the two

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together, & if he does so they will cost little more than one. You can separate them, forward one to Mr. Butler, inform him of the [illegible] due you (half the charge to St. Louis) & he will refund the same to you; if not, I will. I presume you are acquainted with him. If you prefer, I will put up the 2d Face so that it can be sent by mail. If you send only enough to offset my first-face. Please send it by mail, if for both, and by express. Whatever you send I wish to receive as soon as possible, so that I may not have to lay the pkge. on the shelf till other write. I mean to send you some of the Lemna which grows with Azolla here, with Face. 2 some of that strange grass I wrote about. Where the old roots are exposed they present a coralline appearance.

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Mr. Vatten would pay the charges from Cambridge, but I study economy both for myself & others. A few days ago I had to go to the city to get an express package — & pay $1.25 on it, when it could have come directly to me by mail for 3¢! And Dr. Vasey once sent me 60 spms. by express at a cost of $2.00 — so much for thoughtlessness.

With best New Year's wishes I remain

Yours very truly

A. H. Curtiss

N. B. In first place, some of the spms. are wrongly [illegible] I placed too much reliance on Dr. Chapman's, & you accept Prof. Gray's dicta, please change

Eryngium prostratum to E. Mettauer, Wood.
Chrysopsis trichophylla " C. gossypina, Nutt.
Solidago Boottii " S. [illegible], [illegible]
Bumelia lanuginosa " B. tenax, var.
Utricularia biflora " U. fibrosa, Walt.
Panicum [illegible] " P. [illegible], Torr.

See list of pose. corrections accompanying 2d page.

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Dec 30 1878

P.S. I presume I wrote you that I had undertaken to supply a botanical collection for the Va. University. I am progressing well with it & have enough material to "fill the bill". The Amt. allowed for show specmn. is only nominal ($25.) but I wish it to be worth double that. I intend to send as many as 150 kinds of tree fruits, wall sheets of fungi & algae, entire plants of Palmetto, Zamia, etc. woods, roots, &c. Cannot you make some addition to the display, in the shape of western tree fruits or other vegetable curiosities? I must lack the western acorns, which are very curious.

A.H.G.

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Rec Feb 3
Ans Feb 8

Herbarium of A. H. Curtiss,

Talleyrand Place, near
Jacksonville, Florida., Jany. 28 1879

Dr. Geo. Engelmann:

Dear Sir – I am in receipt of your card of the 20th & have just opened the pkge. of Texan plants – They are valuable plants but unfortunately they have no names – I presume you have a Catalogue of them & I wish you would forward it to me at once – If I do not get it soon I shall have to put the plants aside till next winter.

I am very sorry to hear that you are in trouble, but hope the cloud has risen ere this.

Yours Truly
A. H. Curtiss

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Rec Nov 29
Ans Dec 31

Herbarium of A. H. Curtiss,

Talleyrand Place, near
Jacksonville, Florida., Nov. 25, 1879

Dr. Geo. Engelmann;

Dear Sir — I received with much pleasure your letter of Oct. 19th & work on Californian Oaks. It was unfortunate that the oak specimens in my 2d Fasc. were so incomplete & poorly prepared; had I not been short of species I would have omitted them.

I will not enter into explanations except to say, as to Q. pumila, that it very seldom fruits & I thought it not worth while to wait for fruited specimens. Chapman's Q. virens var. maritima like his Myrica cerifera var. intermedia I take to be merely connecting forms & not worthy of collection. I shall duly communicate your notes &c. Watson's

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to all who have recd Fasc. 1 & 2
I will get a cone from the tree
which supplied my fl. specmn. of
Pinus "Elliottii" Send you Bon equan-
imation - It is too bad if I made
a blunder after all my pains.
Probably I mistook the cones
of the low-land P. Taeda for those
of P. Elliottii.
I note what you say in regard
to the Sagittarias & Lemnelyma
communis - My 3d Fasc. will contain
something similar to the latter, the
pretty little Tradescantia Floridana, Watson.
As to Vitises; V. vulpina is common
in Virginia in Fla. & V. aestivalis & Labrusca
not infrequent. V. candicans I don't
know unless it much resemble one
of the others - V. bipinnata is common
along streams - V. riparia will be in
Fasc. I unless I conclude to
throw it away -

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V. cordifolia & trifoliata I have never detected in Fla. Both were common in Va. & I readily distinguished them by their seed, &c.

I shall not have much time to devote to other than S. plants this winter - what you have for me I wish you would send to Dr. Gattinger, of Nashville.

He sent me 1000 specms. for my Bacicles & I promised to repay him partly with Western plants. Therefore if you will send him what are due me on Fasc. I & II & for Fasc. III (if you want it) it will serve me better than to send the plants to me.

He writes that he wants plants most nearly connected with the flora of Tenn. - that he has not time to attend to the flora of the far west. If you have another set of the

Gunnei & of Lindheimer's plants with names, they will certainly be acceptable to him — and any plants from the region lying between the Mississippi & Rocky Mts. You sent me a set of the Gunnei & some of Lindheimer's plants — one or two sets — I let someone else have the Texas plants as I could not obtain their names. You can probably tell better than I what is due for the 500 spec. sent by me. This year's Fasc. will contain but 200 spec.

I wish you would give me the address of some good collectors west of the Miss. such as would prepare good sets for my Bacillus in exchange for Fla. plants. I know Rowdon, Snow & Spence.

Yours very truly

H. W. Curtiss

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GEORGE ENGELMANN PAPERS

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Rec Febr 24

Herbarium of A. H. Curtiss,

Talleyrand Place, near
Jacksonville, Florida., Feby. 15 1880.

Dr. George Engelmann:

Dear Sir — Your letter of Dec. 3d was duly recd. — I now send you specms. of two Vitices, one is what I have called V. Labrusca — but your ? leads me to doubt it. I certainly have never seen Labrusca fruit here — The other I called V. aestivalis — I also send 2 forms of Euphorbia maculata — they seem too different — Some years I did not make a set of E. hypericifolia last fall — I found the typical form on the Indian River (as well as the common var.) but did not think it worth while to collect much of it. I expect to travel extensively this year — so doubt shall find you some Ptilis Cretica —

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I am obliged for the offer of Lindheimer's plants, but I am being supplied by an excellent collector, J. Reverchon, of Dallas.

Yours truly

N. H. Cantiff.

P.S. I am hoping to receive a detailed description of Pinus Elliottii. I am becoming more familiar with it, but wish to know how you characterize it. C

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Rec March 21
An — 28

Lemna minor
Wolffia (Wolffiella) gladiata Hegelm
identified by Rowbel and J. D. Smith = Flora

Talleyrand Place, near
Jacksonville, Fla.,
March 16. 1881.

Dr. Geo. Engelmann:

Dear Sir – I will be obliged if you will write me the names of the enclosed?

The little eel-like aquatic was sent me a year or two ago, I think, by C. F. Austin, but I cannot find the specimen.

The Lemna is probably what Chapman calls L. minor – across Lake Monroe, at Sanford I found L. polyrhiza – I made a net of the little Lemna, thinking it might do for my 5th Fascicle. If only L. minor, it will go in

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as a supplementary part, I publish
I have many provided already.
Geo. Engelmann Rossbach
I find to extend from the
Indian River to Bay Biscayne
and Charlotte Harbor.

Geo. Atkinson Lettermann
find in Dunlaston Branch as
well as on the St. Johns.

Yours very truly
G. B. Ellis.

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Rec'd July 13
Ans Engelm July 19 & Oct 17

Talleyrand Place, near
Jacksonville, Fla.,
July 7, 1881.

Dr. George Engelmann:

Dear Sir - I rec'd a letter from you - or a card - while travelling in S. Florida, & on my return found your article on the Yucca Carolinana. I expect to revisit its station & cut a tree of it within a month - if you wish to write me about it, please write at once.

In reply to an inquiry, I would say that Monanthochloe is very abundant on the low Keys, extending from K. West 50 miles eastward, also on W. coast, growing on rock where the highest tides partially sub-merge it - I never found it in flower but prepared a set for my last fascicle. It is an extremely interesting grass, at first sight I thought it to be some little flowering plant - of the Lobeliaceae.

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Sagittum Halepense, which we have corresponded about, I collected in S. C. from my next-door neighbor's. I have just been distributing my 2d fascicle of Ferns & mail you a sheet herewith. I send with them some of my new finds which Watson & Sargent fail to identify. I have one several Ferns also, but these I do not feel at liberty to send. They have the same No as in the set sent to Cambridge.

No 2 is a high-climbing, woody vine from forests on Elliotts Key. Fla. not found.

No 5 – Ditto – Like Pisonia aculeata in all respects but fruit, which is very different. I send with it a panicle of the fr. of P. aculeata, collected some weeks earlier. P. aculeata has very viscid fruit ripe in May! – this in summer.

No 7 is a beautiful shrub 6 or 8 ft. high found only on Bahia Honda Key – with slender, virgate branches & small white berries,

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No 12 is an Agave, stemless, with flower stem as much as 26 ft. high. It is similar to A. Americana, but the leaves are more glaucous & have smooth edges. I failed to preserve any of them. It is called "Wild hemp", while A. rigida (more common) is called "Bamboo". Found from Cape Canaveral to Cape Sable and on the Keys - A. rigida extends farther north.

No 7 - A tall shrub or small tree found W. of Bay Biscayne.

No 17 - Another Pisonia - perhaps P. inermis being unarmed - Its fr. appears like that of P. aculeata, but it is very different in other respects - Prof. Sargent guessed P. obtusata (!), which has fleshy berries & very different leaves. A shrub or small tree found only on the piney Keys.

No 18 An Ecastophyllum, with shiny leaves very different from those of E. Brownei, climbing high into trees. Found on Elliotts Key & one other Key.

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No 20 "Eugenia brevipes", Sargent thinks more likely to be E. longipes. I imagine a shrub or small tree of the Keys & Bay Biscayne — fr. an edible berry ripe in June.

No 21 This is one of the trees which I ought not to send — but we have had a long dispute about it — & I don't know what Sargent now thinks about it — {The above coll in May.

57 } Prostrate Euphorbias from rocky
60 } pine woods W. of Bay Biscayne — June

100 — Erect Euphorbia from Cape Sable — July

145 — From low pine woods on the Caloosa River — fls. bluish-purple — 2°-4° — July

148 — Slender, much-branched shrub from Key West — 6°-8° — fls. white — July 1

I know you can determine some of these & I shall be much obliged for any assistance you can give me.

Yours truly

W. H. Curtiss.

E
152 Garberi
173 adenoptera
with L. Calcipetri
162 E. Floridana
Curtiss

n. sp.

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Rec'd Feb 16
Ans " "

Key West, Fla.
Feby. 8, 1882.

Dr. George Engelmann.

Dear Sir – I am again exploring in S. Fla. & making many additions to the U. S. flora –

I send by mail with this specms. of the two Agaves of this region about which I once wrote you – I will distinguish them as spiny & smooth the leaves of one being comparatively smooth-edged – Both have fl. stems 25 ft. high & bear young plants in the panicles – I never saw the spiny in fl. The smooth kind is abundant at Cape Sable – I have seen it in fl. near Cape Canaveral, & it fls. very freely on the Reef Keys – When in fl. the plant is nearly as large as A. Americana. The leaves are straight – The fls. appear in winter & spring – The perianth is

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frequently 12-divided, stamens 12, style double. It is strictly stemless. The fls. sent are of this kind. The spiny kind grows from Mosquito Inlet to Cape Sable. On the Keys small, stemless plants are very abundant in the woods, but it very rarely flowers and till after developing a woody stem 6-8° high & 5-6' diameter the leaves being at the summit. It grows on rocky ground (coral & coquina) in woods & copses, while the smooth kind grows in sandy fields near the sea.

I have just made a set of a Euphorbia, which I presume to be Chapman's E. inarquilatera - am I right? enclosed are some bits of it. Probably it is the same you found mixed with a spm. of E. adenoptera which I sent you - I have not yet learned the authority for the latter name.

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Did I send you Fr. of E. diltoïdia?
I had a lot done up to send you.
are Chapman's Cacti nicely named?
"Cereus monoclonos" & "C. triangularis"
are very common from K. West
to Cape Canaveral, the former
extending to Mosquito Inlet.
"Opuntia Ficus-Indicus" is abundant
on the Reef Keys. "O. polyantha" I
find only on No-name Key.
Until the 20th inst. please address
me at Miami; from the 20th inst.
to the 10th prox. at Key West;
after that at Jacksonville.
Yours very truly

N. L. Britton.

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Rec March 30th
Ans. April 2

Key West, Fla.
March 25th, 1882

Dr. George Engelmann.

Dear Sir – I send by mail to-day a pkg. containing specms. of the two Agaves in question. Since the receipt of your letter I have studied them more closely & am inclined to think that they vary into each other. On Indian Key, where the Sisal Hemp was first introduced, I find spiny & nearly smooth growing together, both glaucous & some with stems a foot long, but not differing otherwise. The only conclusion I can arrive at that when it grows spontaneously on rocky ground, like that of the Keys, it becomes spiny & loses its glaucousness & on rich, rocky banks it develops a trunk some 6 ft. long & flowers. Judging from its distribution & the fact that it does not seed, I conclude that hurricanes distribute the ~~seeds~~ plantlets.

I send specms. of the smooth from from Indian Key & of the rough from near Miami (a rocky bank of Biscayne Bay), the two separated by moss. Both taken from flowering plants.

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The Biscayne plant measured about as follows: trunk 6° high & 6' thick to branches, which occupied about 2° of trunk, making 8°; fl. stem 18° high & 2½' diameter; panicle about 8° or 9° long & 2½° wide.

The fl. stem of the Indian Key, starting about 3° from ground measured about the same.

Perhaps the spiny kind is what Chapman's calls var. rigida — I hope you will call it a distinct sp. or var. as I have prepared sets of both for distribution. The roots sent are from the panicles.

Next week I intend to send you the Cereus specimen & two more Euphorbias.

In haste, yours truly

A. H. Curtiss

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Rec April 14

K. West, March 27, 1882.

Dr. Engelmann:

Dear Sir – Here are two more Euphorbias, both from rocky pine woods, A from W. of Bay Biscayne, ~~omittin~~ E. adenoptera, B from Cudjoe Key – I believe the only S. Fla. sps. I have not before found are E. inæquilatera & E. centunculoides. Perhaps these are the sps. now sent –

Yours truly

N. L. Britton

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I have your monograph of Agave – Same Northerner is about to take off a cargo of Agave from the Keys.

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A. 9-10 ribs 12-16 short stature spines St. Clair

I also send a pkg. of Cereus monoclonos? B. C. variabilis & C. triangularis? & another kind Euphorbia Antiquorum occasionally spontaneous around this city & much cultivated, marked respectively A. B. & C. C. triangularis? does not climb & has no aerial roots. There is a similar kind in cultivation which climbs trees & sends down aerial roots, but the joints are broader & spineless - C. triangularis? usually is supported by bushes & sometimes falls over a branch, descends to the ground & then rises again, attaining a total length of 20 ft. or more. The other kinds are arborescent, with a trunk sometimes 6' in diameter - The branches of C. monoclonos? are erect. Both grow about 15° high - I saw C. monoclonos? in fruit on the Indian River - fr. nearly globular, about .2' long, red, smooth (I think) - Farther than this I know nothing of their flo. & fr.

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Rec'd April 22

Talleyrand Place, near
Jacksonville, Fla.,
April 15, 1882.

Dr. George Engelmann:

I must not longer neglect your letters of the 2d & 5 inst. & card of Dec. 31 – My letter accompanying the Cacti was written before I put up the specms. When I came to cut the sp. C I was surprised to see a milky juice flow from it and quickly surmised that it was Euphorbiaceæ So your determination does not surprise me – E. antiquorum is sparingly spontaneous around Key West city – It has erect branches, a trunk & quite a tree like habit –

The same may be said of Cereus monvdonos It looks just like some Western species fragmentally pictured – This on Key West, while it abounds in the scrub On the rest of the coast it is mostly simple stemmed (not branched) & grows in woods like C. variabilis – I think ten is the usual number of angles –

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In diameter it varies from 1 inch to 6 inches – the latter the main trunk. Possibly the smooth-branched kind is a different sp. The idea did not occur to me when on the Keys, but I am sure there is no difference in the branches & spines. The young Agaves I sent were all from panicles. Neither A. rigida nor A. Sisalana seed, yet young plants (of A. rigida) are very abundant in the forests of the Keys. I believe they are blown by hurricanes from the panicles. Some suggestion that A. rigida is A. Sisalana returned to a natural state solves the vexed question to my satisfaction – A. Sisalana grows only where it was once planted, while A. rigida grows only in wild, uncleared grounds!

When A. rigida grows to flowering size it is always on rocky banks.

I enclose some pressed fls. of each. I meant to state that most of the fls. sent before were buds when gathered.

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It occurred to me that the development of the pistils was arrested, although the perianth & stamens came out naturally. The leaves I sent of each were of average size. Those of A. Sisalana are 3' & probably 4' in width. A. rigida is in habit like our common Yucca aloifolia, a crown of leaves at the summit of a naked trunk, & central inflorescence. I think both have purplish filaments in the plants. Sisalana has sometimes quite spiny leaves, but always glaucous & nearly stemless. On examination a trunk 1° or 1½° may be found under the leaves.

I received your work on Agave long ago, recently your valuable monograph of Dracaenas. Many thanks for both.

It occurred to me a year ago that your new var. of D. stellata was probably Chapman's coast var.

of Q. stellata. The latter is a singular oak. In Apalachicola it grows to be a tree, without change of foliage. One would think that, if a mere variety, the leaves would approach those of the Q. stellata found not far distant in the pine barrens. In the poor pine woods up the Apalachicola, as elsewhere in N. Fla., Q. stellata is frequently met with. It has a depauperate appearance, the foliage being close to the branches by reason of the shortness of the branchlets. The foliage is less strongly lobed than farther north, more like that of Q. alba.

I have never seen any Alismaceae in Fla. except Echinodorus parvulus, which grows on low commons around Tampa, not over 1' high.

Yours very truly

A. H. Curtiss

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P.S. "Come to think", Alismaceæ include Limnocharis & Sagittaria, which of course occur in this state –

Fr. triandrum I found in a swamp near Mosquito Lagoon –

Sagittaria lancifolia is very common in marshes here & in the Everglades –

S. heterophylla I think I found in E. Fla.

S. graminea grows in pine-barren ponds (dry in summer) – It has a woody root-stock –

S. natans, in a bog near Jacksonville.

S. natans lorata, on banks of the St. Johns.

The last two & S. lancifolia were in my first-two packets, which I think you have –

On the Potomac I found all your vars. of S. variabilis except ~~fluitans~~ & pubescens.

Near the Peaks of Otter, Bedford Co. – vars. pubescens & hastata were the only Sagittarias –

over

Talleyrand Place, near
Jacksonville, Fla.,
1881.

I wish to write an article on the Sisal Hemp for a Fla. paper, and shall be thankful for any data you are pleased to give me as to manufacture, &c. What is the geographical distribution of A. rigida & A. Sisalana?
What was A. Sisalana called before Ravinis time? What are the leading distinctions, recognizable by the unscientific, between A. Sisalana & A. Americana?

I have heard much of a large Agave called in the Bahamas "Bamboo", a name applied also to the Fla. A. rigida.
It is said to grow 40° high & to have a fl. stem a foot thick, which, when dry, is made into rafts —
Do you know the sp.?

A. H. G.

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