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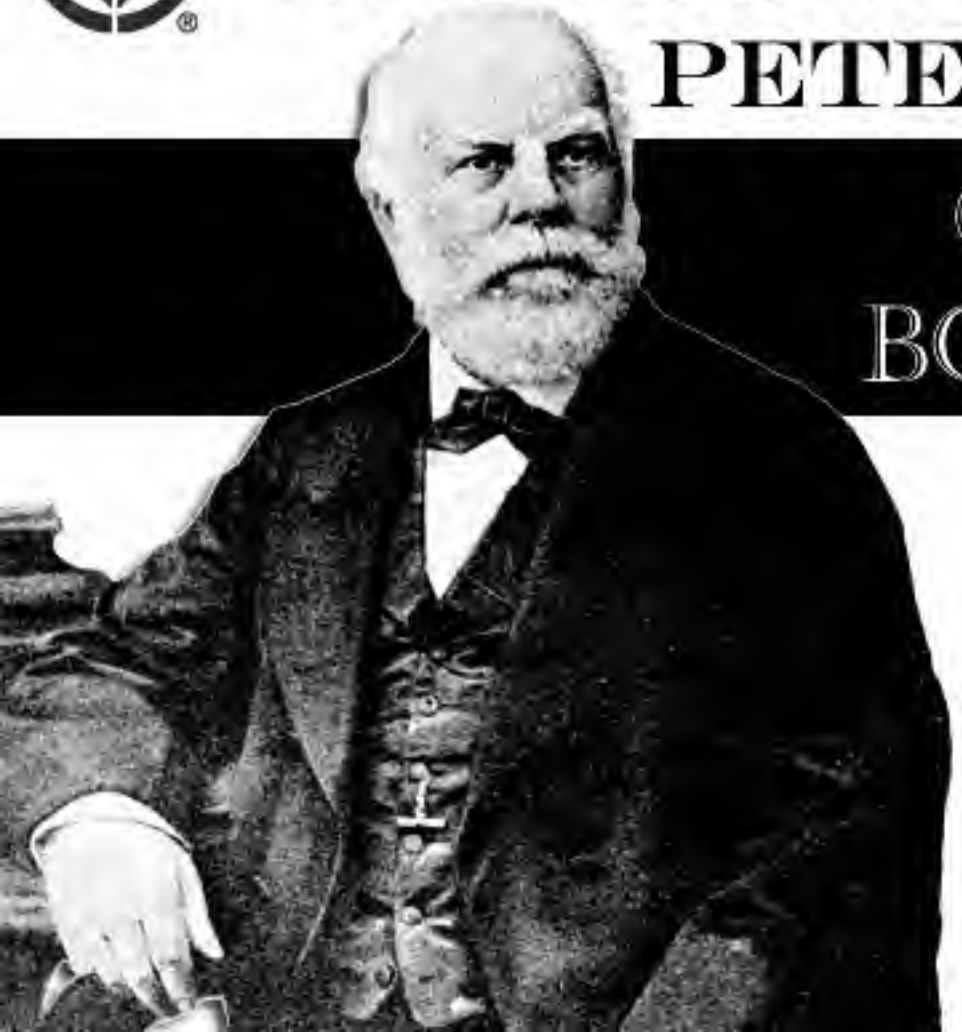
George Engelmann Botanical Notebooks



Pagination Note:
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June 21 1877

	18 White oaks grew	13 Black oaks grew
In the first 20 years ~~the~~ approximately	0.8 lines	1.6 lines
20 – 30 years	0.8 "	1.7 "
30 – 40 "	0.7 "	1.2 "

Growth of Black oaks nearly twice as fast as of White oaks. and if G. nigra and the California are deducted, the disproportion is still greater

Growth apparently nearly equal (in each) of the first 20 years; or in the black oaks a little slower between 30 and 40 years

Aug 8th 77

	19 White oaks	8 Black oaks
Sapwood ~~of~~ thickness	18 lines	21 lines
~~Time~~ of growth	22 years	17 years

0 1 2 3 4 5 6 7 8 9 10
cm
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5808

Dr Gray

you can not see my notes stowed away where they can not be found — it would cause me a good deal of trouble to do all that I expected over again, and here is Mr Arthur of Iowa who wants to know all about it — I have off hand told him, he must consider it a new species, L. spirata

Now do not answer this, if off hand — but I dislike

225/26

304/34

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Do you know a "Magnolia" which they send in bouquets here from N Orleans? It is intermed. between Magnolia and Michelia — two valvate sepals? (Brats?) enclosing an entire closed (falling off imbricate) silky third one six scarish petals long stiped torus. No Michelia Adelphus fits, nor does Michelia seem to fit entirely. They call it Magnolia fuscata

255/28

312/156/17

18/9

62

840/78/50

6357/6554

What is the Daborandi leathery leaf leaflets vote — new drug a large pinnate — Sapindaceous? Lauroleat entire glabrous

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Oerstedt in Liebmann's Chênes — Cambridge Oct 14 1883

Quercineae	Castaneae
styli dorsum superficiem internam stigmatosi	styli apice stigmatosi
amentis ♂ pendentis	amentis ♂ erectis
(Folia rare integra)	(folia depissime integra)

Cupula echinata demum partita 2–3 flora

Fagus	Castanea
	Castanopsis

Cupula ignobiscalato – squamosa, 1-flora

Quercus	Pasania

Cupula verticillato squamosa 1-flora

Cyclobalanopsis	Cyclobalanus

Subfamilia

Quercineae Amentis ♂ pendulis, styli apices (vel supra) stigmatosi:

Quercus

Subgen 1. **Lepidobalanus**, short styles, abortive ovules basal, pericarp thin, glabrous inside

Sect. a **Eulepidobalanus** × Cerrinae: Q. pedunculata, Cerris, mediterranea et.
×× pinnatifidae: Q. alba, pubescens.
××× lyratae: Q. stellata, macrocarpa, lyrata

Sect b. **Prinus** Q. Prinus, bicolor, infectoria, lusitanica, prinoides

Sect c. **Macrocarpaea** pericarpium crassum, Cotyled. inaequales — i Mexico

Sect d **Ilex** Q. Ilex, virens, agrifolia, paragens, chrysolepis et.
folia crassa semperviventia integra vel spinosa et.

Subgen 2. **Heterobalanus** styli aculi, linearis, reflexi Q. semecarpifolia Sm. Ft. p. 15 Nepaul
only species.

RVC

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Subgen 3 Erythrobalanus styli lineares antice canaliculati etc. capitati American! The most natural of all the subgenera of Quercus. Probably many hybrids – mostly bicornel fruit

Sect a. Euerythrobalanus Q. nana etc Georgiana, Tinctoria have the old discepiments in the large fruit distinctly preserved
Q. Phellos

Sect b. Microcarpaea the same but smaller acorns, discepiments indistinct – perhaps thinner. Q. falcata ilicifolia, aquatica, nigra, virginiana Phellos etc

Sect c Heteroscarpae Annual fructif., ovules at top of seed – mexican species

Sect d Lepidobalanoides annual fructif. ovules at base of seed; 6 tropical America species the most southern in Central America: Q. Humboldtii, Lindenii, tolimensis etc

Subgen 4 Cerris styli lineares subulati etc Ovula abortiva ad basin seminis

Sect a Euercris squam cupulae lineares reflexae Q. Cerris, Vallonea, Libani etc

Sect b. Erythrobalanopsis cupula glandis majorem partem tegens Q. Libani, Aucheri etc

Sect c Suber cupulae squamae supe breves, erectae Q. Suber, pseudosuber

Sect d. Ilicopsis cup. squ. rigidae, medis reflexis folis parvis spinosis rigidis Q. coccifera occidentalis etc

Cyclobalanopsis Oerst. Quercus sect Cyclobalanus Lindl. Dc. pro parte Arbores ↑ pendula
Styli 3 brevis, apice dilatati – glans pericarpio tenui maturat [plerique] annum ovula abortiva supera. Cupulae squamae verticillatae; 21 species – North India, China & Japan

Subgen 1. Euacyclobalanopsis maturat. ann. etc.
Subgen 2 Pasaniopsis maturatio biennis styli apice dilatati. Java
Subgen 3 Cyclobalanoides " " " " capitati. "

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Subfamilia Castaniaceae Arbores ↑ erectae; styli apice poro stigmatoso

Cyclobalanus Oerst sect Cyclobalanus & Chlamydobalanus Endl. pro parte. Lithocarpus. Styli brevissimi vel nulli
Islands of the Indian Ocean

Pasania Oerst sect Pasania & Chlamydobalanus in parte; styli cylindrici, erecti, free glans erecti, connati imperfect 6-9 loculary
South eastern Asia & Islands
Q. densiflora in California

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Cambridge Oct 1873

Fred. Michael Liebmann born 1813, died 1856. went to Mexico 1840 where he met Karwinski and Cater Ghiesbrecht, headquarters at Mirador, explored Orizaba afterwards Oaxaca & Tehuantepec; returned early in 1843

Queries Michaux the elder on Oaks of America, the younger in Sylva.

Louis Née (French man, in the Spanish Expedition and Malaspina) end of last century
Humboldt & Bonpland.
Dr Schiede since 1830
Henry Galeotti (Belge) 1835–40
Theod Hartweg 1836 –
Liebmann 1840 – 1842
Oersted (A.S.) 1846–48
Warszewicz (correctly spelled!) 1844 – made many excursions with Oersted

Blume, Java 1817–26 also Japan
Korthals Java & Sumatra 1832–33
Junghuhn, Java (published 1851)
Teysmann Sumatra 1855–58 –

Sumatra & Java have species of oak, quite different from one another

Nathaniel Wallich India 1818–47
J. D. Hooker & Thomson 1848–50

Thunberg N. Japan 1784

Karl Koch 1836 Tschihatcheff 1846 Kotschy in Western Asia

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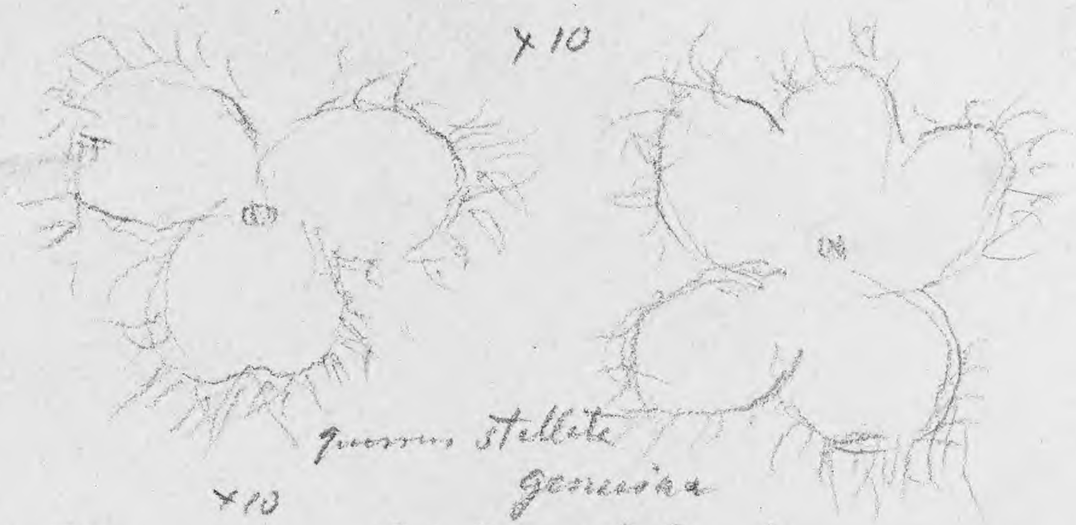
Nov 15 1883



gymnos stellata
geminiflora
Sillafton, S. Carolina

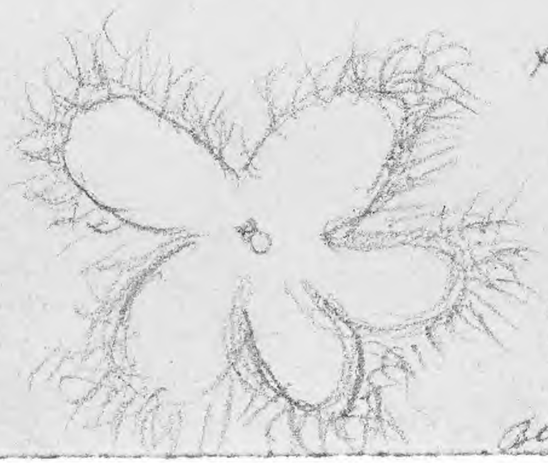
6-8 anthers
with the before opening

x10

6 anthers
small
glabrous

rachis glabrous

g. stellata lucigata
Beech Hill, on Savannah River
Mallisham



x10

6 anthers

open anthers

g. stellata
leianthera
Sillafton S. Carol

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21 Q. macrocarpa Mx. Engl^m in Missouri!

β. abbreviata = nr St L Engl^m

γ. minor circa St L. Engl^m!

Q. bicolor in Mich. Engl^m!

Q. prinus (Coop. l. c.)

β acuminata. Mo Engl^m!

γ ~~Muehlenb~~

Chinquapin Mx

Q. stellata Wangenh (Phellos Mich) Mo Rhizl 305

Q alba L-γ microcarpa nr St L. Engl^m!

Q. rubra = (Q. nigra Pursh) Engl^m! Mo

β runcinata nr St Louis Engl^m!

Q. palustris Du Roi Mo Engl^m!

Q. coccinea. α coccinea Mo Engl^m

β nigrescens = Q. tinctoria Mx Mo Engl^m!

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	1 mm	10 mm	20 mm	30 mm	40 mm	50	60	70	80	90
1 mm 0.0024096385 or	0.0024	0.0265	0.0506	0.0747	0.0988	0.1229	0.1470	0.1711	0.1952	0.2193
2. 0.0048192770	0.0048	0.0289	0.0530	771	0.1012	1235	1494	1735	1976	2217
3. 0.0072289155	0.0072	0.0313	0.0554	795	1036	1277	1518	1759	2000	2241
4. 0.0096385540	0.0096	0.0337	0.0578	819	1060	1301	1542	1783	2024	2265
5. 0.0120481925	0.0120	0.0361	0.0602	0.0843	0.1084	0.1325	0.1566	0.1807	0.2048	0.2289
6. 0.0144578310	0.0145	0.0386	0.0627	868	1109	1350	1591	1832	2073	2314
7. 0.0168674695	0.0169	0.0410	0.0651	892	1133	1374	1615	1856	2097	2338
8. 0.0192771080	0.0193	0.0434	0.0675	916	1157	1398	1639	1880	2121	2362
9. 0.0216867465	0.0217	0.0458	0.0699	940	1181	1422	1663	1904	2145	2386
10. 0.0240963850	0.0241	0.0482	0.0723	0.0964	0.1205	0.1446	0.1687	0.1928	0.2169	0.2410

1 — 100 millimeter, divided by 415

quotient 0.0024096385 give the above

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JNO. S. HEALY,

DRUGGIST AND CHEMIST,

S. W. Cor 5th and Myrtle Sts.

Spuibbs' Preparations constantly on hand.

℞

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Quercus Durandii. Leaf & seedling

Juniperus Davisiana
Hook Burnett & Jones' Mexican Boundary
(Lee & Jones' collr.)
from Parsons & Son
Longwood

Pr. Mexicana (Bigelow) 17" diam
bark 2", thick, deeply cracked
sap 2 3/4" 27 rings outer ones quite small
wood 4" red 46 rings, very variable in thickness

Sassafras (Lettsom) 23" diam
bark 1 1/4 - 1 1/2 "
sap 4 111 7 rings
wood 10" diam 106 rings

Juglans nigra (Bigelow) 35" diam
bark 3" mottled, full of woodpecker holes
sap 1 1/2 - 1 3/4" abt 60 rings
wood red, 13" abt 220 rings

Quercus Phellos (Kittell's) shoot with broad large leaves
Willow Oak
Leaves stipulate!

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rupestris
vitis cordifolia
for Pakon

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Californische Eichengallen
in Botan. Zeitung 7 May 1875
Dr Czech p. 322

Osten-Sacken Nordamerik.
Gallen in Stettiner
Entomol. Zeitung 1861
p. 405

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Quercus coccinea has down on young leaves, which is like that of rubra and soon disappears and a glabrous or nearly glabrous rhachis of ♂ aments

Q. tinctoria holds the down of leaves firmly and the ♂ rhachis is pubescent or tomentose

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Druckerei v. August Osterrieth, Frkfrt a/M.

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east of St George, Utah

Quercus gunnesons Mt Trumbull, ~~Lyons~~,
June 1877, E Palmer, had separate cotyledons

Quercus chrysolepis has been collected
as far east as San Francisco Mountains
New Mexico by CL Greene

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Quercus pseudovirens

Rosewood, Levi County Florida
10 miles from Cedar Keys, 5 miles
from nearest point of Gulf coast
On the Atlantic Gulf and West Indian
Transit Railroad.

M A C Garber

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5818

130 / 340 0,26
26
80
78

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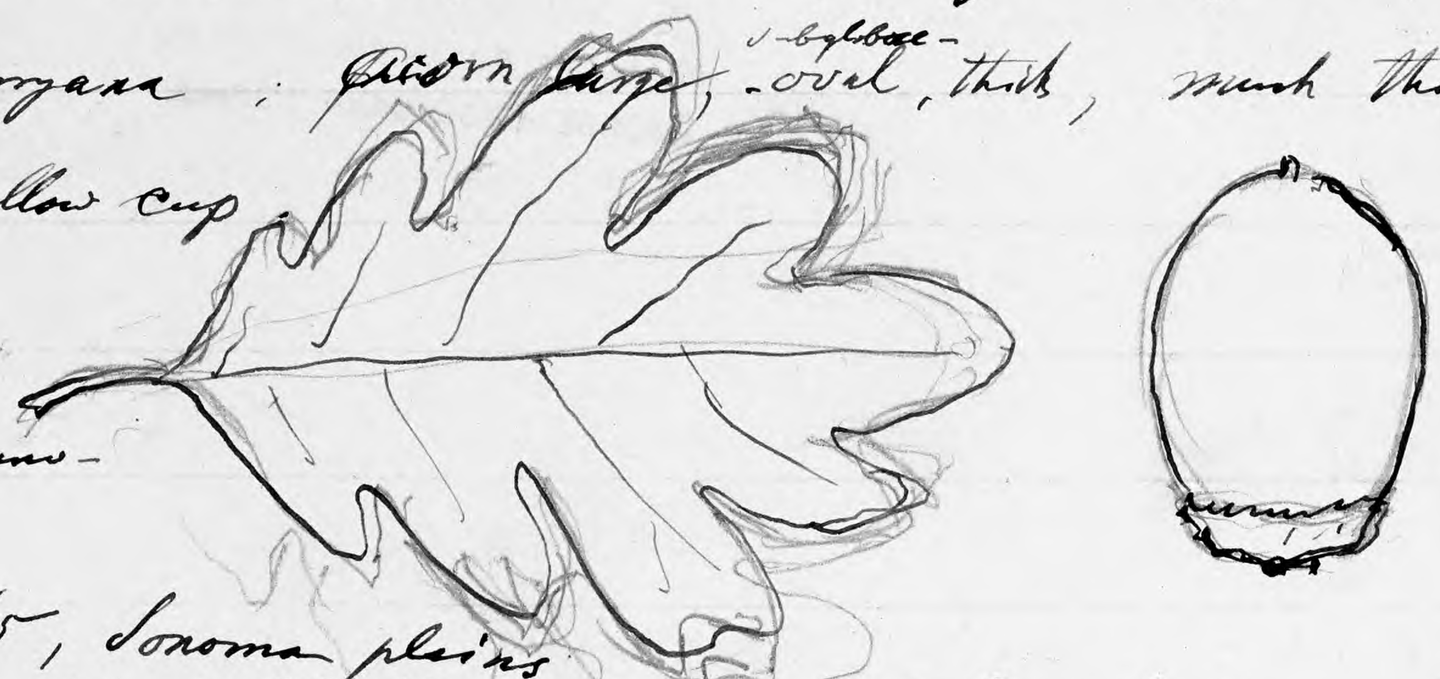
Guerrero Nesei Liebm tab 41 is most probably the large, swollen fruited

G. Garryana ; acorn large, subglobose - oval, thick, much thicker than

the shallow cup



folia subtus inanes-
fuscescentia

Hartweg 1965, Sonoma plains

Bentham names it in N. Hartw p. 337 G. Douglasii

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