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Continuation only in this number—pages 81–88.

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Charles Russell Orcutt Editor and Publisher.

Price 10 cents; \$1 a year; \$10 for Life.

OPUNTIA DAVISII E. & B.
E-B 49 t 16. E syn 305. Wp an 5:55.
Wat I 405. ct 3 445 460. He 91. Fr
978.

OPUNTIA DULCIS Engelm.

OPUNTIA ECHINOCARPA E. & B.
E syn 305; 1:14; bot ct 1:250. E-B
49 t 18 f 5-10 t 24 f 8 seeds. Wp an
5:55. Py Am nat 9:20. Wat I 406.
ct 3: J45 460 461. Hm 550. cov 4:21
45 46 49 113 236 276-8. He 91 Fr
979.

OPUNTIA EMORYI Engelm.

E syn 393; bot ca 1:249; m b 53 t 70
71. Wp an 5:54. Wat I 406. ct 3:443
461. Hm 550. He 91. Fr 972.

OPUNTIA ENGELMANNI Sim-Dyck.

Sm 235. E Ld 207; Am J si 2 14:
338; syn 290 [34]; m b 47 t 75 f 1-4,
seeds; bot ca 1:248. Scheer bot iler
293. Wp an 2:686; 5:49. Lab 460.
Young F-Texas 278. Wat I 406. Hm
550. He a 68. Fr 950.

OPUNTIA FICUS-INDICA Mill.

Mill G-1 ed 8, no 2. -& Fl 1:555.
E syn 290 [24]; m b 49; bot ca 1:248
Wat I 406. ct 3:419 461. Hm 551.
Or W 7:156; Ca board hort r 1890.
He 91. Fr 931.

OPUNTIA FRAGILIS Haw.

OPUNTIA FULGIDA Engelm.

OPUNTIA FULVISPINA Sim-Dyck.

OPUNTIA GLAUCOPHYLLA Wendl.

OPUNTIA GRAHAMII Engelm.

OPUNTIA GRANDIS Hort.

OPUNTIA INVICTA Brandegee.

OPUNTIA LEPTOCAULIS D C. This is the
widely advertised *O. frutescens*, Engelm., of
Texas and Mexico; 2 to 4 feet high, with slender
terete joints a fourth of an inch thick;
very small yellow flowers; berries scarlet.
Quite ornamental and a favorite with cactus
fanciers.

OPUNTIA LURIDA Hort.

OPUNTIA MACROCENTRA Engelm.

OPUNTIA MACRORHIZA Engelm.

OPUNTIA MAMILLATA Schet.

OPUNTIA MICRODASYS Pfeiff.

OPUNTIA MONACANTHA Haw.

OPUNTIA NIGRICANS Haw.

OPUNTIA OCCIDENTALIS Engelm. A
Prickly Pear of luxuriant growth, with stout
woody stems and innumerable branches; joints
9 to 12 inches long and 6 to 8 inches across;
flower yellowish and orange; fruit 2 inches
long, very sour and juicy.

OPUNTIA PARISHII Orcutt.

OPUNTIA PHAEACANTHA Engelm.

OPUNTIA PROLIFERA Engelmann. This
densely-branching shrub bears a small flower
of a pomegranate purple, and once grew in
great abundance where the city of San Diego
now exists.

OPUNTIA RAFINESQUII Engelm.

OPUNTIA ROSEA DC.

OPUNTIA RUFIDA Engelm.

OPUNTIA RUTILA Nutt.

OPUNTIA SENILIS Roezl.

OPUNTIA SERPENTINA Engelm. Procumbent,
with yellow flowers, comparatively rare
in cactus collections.

OPUNTIA SUBULATA Engelm. A beautiful
tropical species of rapid and rank growth,
with persistent vivid green leaves, and long,
straight spines.

OPUNTIA TENUISPINA Engelm.

OPUNTIA TESSELLATA Engelm.

OPUNTIA TUNA Mill.

Opuntia ursina is a name given by
Albert Weber to a curious and beautiful
plant of the Mohave desert, advertised
as the Grizzly Bear cactus. The
joints are about 3 by 5 inches, densely
covered with slender flexuous ivory
white spines, the longest over 6 inches
long, and completely hiding the plant.
A cutting reminds one of the "Old
Man" cactus of Mexico, but this be-
longs among the prickly pears—form-
ing low wide spreading masses of interlacing
snow white spines.

OPUNTIA VULGARIS Mill.

OPUNTIA WHIPPLEI E. & B.

Genus PELECYPHORA Ehrenb.

PELECYPHORA ASELLIFORMIS Ehrenb.

The Hatchet cactus is a little gem
from Mexico, so-called from the shape
of the tubercles. It bloomed in San
Diego on May day, scarce $\frac{1}{2}$ inch in
length and breadth, with thirteen
bright magenta colored petals and
seven or eight pale lavender sepals,
the four stigmata white, style and filaments
tinged with purple, and anthers
bright orange. The largest plant
among a hundred is but little over an
inch in height and diameter, and in
earlier days they were literally worth
their weight in gold. The flowers are
open only in sunlight.

PERESKIA ACULEATA Mill.

The Barbadoes gooseberry or Blad-apple, a
cactus with leaves like an orange tree, excellent
for grafting.

Genus PFEIFFERA Salm.

Only one species, which we have never seen.

Genus PHYLLOCACTUS Link.

PHYLLOCACTUS ACKERMANNI Walp.

The King cactus was taken from Mexico to England prior to 1829 by George Ackermann, and bears the most gorgeous flowers, 6 to 8 inches in diameter, the acutely pointed, wavy petals of a deep brilliant crimson, bordered at the base with bright magenta, the interior decorated with a mass of white filaments and antlers, the 11 stigmata and style also white. The plant blooms freely and may be seen in many San Diego gardens. The plant before me is about a foot high and bears one open flower and three buds today (May 3, 1900).

PHYLLOCACTUS ANGULIGER Lem.

Deep notches along the stems like the teeth of a large saw; fls pure white, fragrant.

P. BOLLWILLERIANA, fls carmine scarlet, 5 inches across.

P. Conway's Giant: "fls often 2 ft. in circumference, deep scarlet shading to purple."

PHYLLOCACTUS CRENATUS Walp.

This species, which is a native of Honduras, rivals in size and fragrance of its fls the famous Night-blooming cereus; it grows to a height of 2 feet, with round base branches, the upper portion flattened out and the margins serrated; the flower tube 4 in. long, brownish green like the sepals; petals 4 in. long, creamy white.

PHYLLOCACTUS KAMPMANNI Hort.

Kampmann's Case-knife cactus is a less robust plant than the King cactus, and the flowers are only about 3 inches in diameter, the petals broader in proportion, of a bright, but lighter, crimson. Filaments white, antlers canary yellow. This is a general favorite in San Diego gardens also, producing its lovely flowers in the greatest profusion.

QUEEN CACTUS.**PHYLLOCACTUS LATIFRONS** Walp.

The Queen cactus is quite the giant among the Phyllocacti, the stout flattened stems 4 to 5 inches broad, deeply crenated and commonly 8 to 10 feet high. The flowers are 7 to 8 inches long, about 6 inches in diameter, the petals of a delicate, clear, creamy white, the sepals and tube of a reddish hue. Native of Mexico.

PHYLLOCACTUS WRAYI Hort.

Fls 8 in. across, yellowish-white.

Genus PILOCEREUS Lemaire.

Included under Cereus.

Genus RHIPSALIS Gaertn.

RHIPSALIS CASSYTHA Gaertn.

RHIPSALIS SALICORNIOIDES Haw.

FICOIDEAE.**Genus MESEMBRIANTHEMUM** Linn.

MESEMBRYANTHEMUM AEQUILATERALE: Haworth. Beach Strawberry or Sea-apple. An Australian and West American creeping plant, spreading readily over saline ground, whether clayey, sandy or rocky. "Sheep are very fond of this succulent plant, and require but little water when browsing on it; or in cold coast districts they will do without any water, even in summer, while thriving well on the foliage." The brilliant red flowers are very fragrant, followed by large, sweet and delicious fruit, faintly suggestive of a strawberry. An ornamental plant, easily grown from cuttings.

The "beach strawberry," "sea appl," or "Hottentot fig," is a stout, prostrate perennial plant, abundant on the sea shore from Santa Cruz, California to Chili, Tasmania, and Australia being large, solitary brilliant rose-red flowers, that are very fragrant, followed by luscious dull-red berries that are very acceptable to children, large and small, when enjoying a day on the beach.

MESEMBRIanthemum NODIFLORUM L.
MESEMBRIanthemum CRYSTALLINUM

Genus SESUVIUM Linnaeus.

SESUVIUM PORTULACASTRUM Linn.
Or 2062 e.j. da 7, ev 4 114

UMBELLIFERAE.

C-R indicates Coulter & Rose Revision N. A. Umbelliferae (D 388)

Genus HYDROCOTYLE Tournefort.
HYDROCOTYLE PROLIFERA Kellogg.
H AMERICA L. da 7
HYDROCOTYLE RANUNCULOIDES L.
H verticillata c-r 137 v-r d

Genus BOWLESIA Ruiz & Pavon.

BOWLESIA LOBATA R. & P.

Genus ERYNGIUM Tournefort.

E petiolatum Hook. da 7. c-r 97 v-r sj
E armatum C-R d-Butte County, Ca.

Genus DEWEYA Torrey & Gray.

DEWEYA ARGUTA Torr. & Gray.

Is Velea arguta.

Genus VELAEA DC.

VELAEA ARIZUTA C-R 120 (Deweya a T-G fl 1)
VELAEA PARISHII C-R 121

"Glabrous throughout, nearly acaulescent, about 1° high; leaves thickish, terete-pinnatifid, the segments ovate, irregularly cuspidate-toothed & lobed, with revolute margins; umbel about 10-rayed, with no involucre & involucels of few setaceous bractlets; rays 2' or

more long; pedicels about 4" long; calyx-teeth prominent; fr (immature) oblong, glabrous, about 3" long, with prominent ribs; oil-tubes 3 or 4 in the intervals, 4 or 5 on the commissural side."—C-R 121

VELÆA VES ITA C-R

Genus CARUM Linnaeus.

CARUM GAIRDNERI Benth. & Hook.

Genus OENANTHE Linnaeus.

OENANTHE CALIFORNICA S. Watson
OE sarmentosa Presl v calif rni a fide c-r 82.

Genus DAUCUS Tournefort.

DAUCUS I USILLUS Michx.

Daucus Pusillus Michx.—Mrs. R. F. Bingham (S. B. Soc. Nat. Hist., C. i:2-35) states that this is "very much valued by the natives as a remedy for the bite of the rattlesnake." She cites "one of our oldest physicians" as having "seen a Californian chew the plant, moisten his arm with the saliva, and then permit a rattlesnake to bite his arm, without producing swelling or any bad effect." She says the plant is usually applied in the form of a poultice. It is widely distributed from British Columbia to Mexico and eastward to the Atlantic, but I have not personally known of its use above stated, the "Golondrina" (a species of Euphorbia) possessing the same desirable reputation throughout the section where I have collected.

D. carota L. c-r 33 da7

Genus SANICULA Tournefort.

SANICULA BIPINNATIFIDA Dougl.
SANICULA LANCINIATA Hook. & Arn.
SANICULA MENZIESII Hook. & Arn
S tuberosa Orrey ca7 c-r 107
S nudicaulis H-A da7 is S laciniata fide c-r

Genus PEUCEDANUM Linnaeus.
PEUCEDANUM DASYCARPUM T. & G.
PEUCEDANUM EURYTERA A. Gray.
P. villosum Nutt. Ord. c-r 64 z n
P. mohavense c-r 62, Curran inj
P. caruifolium T-G, c-r 68, da7
P. utriculatum Nutt. c-r 67, da7
P. Hassae c-r da7
P. parishii c-r 68, bot gazette 13 209; Parish b
P. vaseyi c-r 67, bot gaz 13 144; Vasey b mts
Sium erectum Huds. da7
Berula angustifolia Koch c-r 133; da7
Cicuta bolanderi Wat. c-r 139; da7
Pastinaca sativa L. c-r 49 da7
Foeniculum vulgare Gertn. da6; c-r 108
Coriandrum sativum L. c-r 3 ; da7
Selinum capitatum B-H c-r 43

Genus APIUM Linnaeus.

APIUM GRAVEOLENS Linn.

Genus APIASTRUM Nuttall.

APIAS RUM ANGUSTIFOLIUM Nutt.

Genus CAUCALIS Linnaeus.

CAUCALIS MICROCARPA H. & A.

ANGELICA TOMENTOSA S. Watson.

ARALIACEAE.

Aralia californica Watson da 7
Hedera helix L. da 7

CORNACEAE.

Genus CORNUS Linnaeus.

CORNUS CAPITATA Wall. The Himalayan strawberry-tree, also known as Benthamia fragifera, Lindl.

CORNUS NUTTALLII Audubon. A showy tree, or large shrub, the flowers followed by large cluster of crimson berries. "Dogwood." Cornus californica C. A. Meyer
C pubescens californica C R da 7

Genus GARRYA Douglas.

G. flavescens Wat v palmeri Wat. Or d j

CAPRIFOLIACEAE.

Genus SAMBUCUS Tournefort.

SAMBUCUS GLAUCA Nutt.

The California elder is considered superior to either the eastern or the European species in the quality of its fruit. Edward J. Wickson says: "It is common throughout the state; and frequently becomes a tree 20 feet or more in height with a trunk 18 inches in diameter. The fruit is very abundant, and largely used."—California Fruits, Ed. 2, p. 65.

Genus SYMPHORICARPUS Dill.

SYMPHORICARPUS MOLLIS Nutt.

SYMPHORICARPUS RACEMOSUS Mex.

Genus LONICERA Linnaeus.

LONICERA HISPIDULA Dougl.

Lonicera subspicata Hook & Arn.—The "moronei" of the Mexicans is used by them in the form of a tea as a blood purifier; the plant is also used for the healing of sores.

RUBIACEAE.

Genus KELLOGGIA Torrey.

KELLOGGIA GALIOIDES Torr.

Genus GALIUM Linnaeus.

GALIUM ANDREWSII A. Gray.

GALIUM ANGUSTIFOLIUM Nutt.

GALIUM APARINE Linn.

Galium Aparine L.—“Cleavers are regarded as a most valuable cooling diuretic, useful in most diseases of the urinary organs” (Gunn). “Considered as a sovereign remedy in kidney diseases” (Mrs. Bingham). A cold infusion is used, as heat destroys its medicinal virtues. Goose grass, as this plant is sometimes called, is abundant in Southern and Baja California—in fact throughout the west, but our plant differs from the eastern and European form.

GALIUM PUBENS A. Gray.

GALIUM ROTHROCKII A. Gray.

G californicum H-A da 8

G spurium L da 8

GALIUM STELLATUM Kellogg.

VALERIANACEAE.

VALERIANELLA MACROCERA A. Gy.

COMPOSITAE.

Genus BRICKELLIA Ehr.

BRICKELLIA ATRACTYLOIDES A. G.
BRICKELLIA CALIFORNICA A. Gray.
BRICKELLIA FRUTESCENS A. Gray.

Genus GUTIERREZIA Lagascea.

GUTIERREZIA CALIFORNICA T. & G.
GUTIERREZIA EUTHAMIAE T. & G.

Genus ERIGERON Linnaeus.

ERIGERON CANADENSIS Linn.
ERIGERON FOLIOSUS Nutt.
ERIGERON INCOMPTUS A. Gray.
ERIGERON PHILADELPHICUS Linn.

Genus SOLIDAGO Linnaeus.

SOLIDAGO CALIFORNICA Nutt.
Golden Rod, or “Oroja de Leabre” of the Mexicans, is prized above all other herbs for its curative properties in cases of either internal or external injuries of man or beast, the most stubborn of sores being said to quickly heal under its influence.

SOLIDAGO CONFINIS A. Gray.

Genus ASTER Linnaeus.

ASTER ADSCENDENS Lindl.
ASTER ANDERSONI A. Gray.
ASTER CANESCENS Pursh.
ASTER EXILIS Linn.
ASTER DULINUS A. Gray.
ASTER ORCUTTII Vasey & Rose.
ASTER PARVIFLORUS A. Gray.
ASTER SPINOSUS Benth.

Genus BACCHARIS Linnaeus.

BACCHARIS DOUGLASII DC.

BACCHARIS EMORYI A. Gray.

BACCHARIS GLUTINOSA Pers.

Baccharis glutinosa Pers.—This, or another species of the genus, familiarly known as Mock willow, is held in some repute for the healing of sores. *Pluchea borealis* Gray, also known by the same popular name, perhaps shares in the same virtues and is, I believe, the plant known to the Mexicans as “water-motor”—credited with medicinal virtues without number!

BACCHARIS SAROTHROIDES A Gray.

Genus PLUCHEA Cass.

PLUCHEA CAMPHORATA DC.

PLUCHEA BOREALIS A. Gray.

Genus TESSARIA Ruiz & Pavon.

T borealis T-G is *Pluchea* b.

Genus MICROPUS Linnaeus.

MICROPUS CALIFORNICUS F. & M.

Genus PSILOCARPHUS Nuttall.

PSILOCARPHUS OREGONUS Nutt.
PSILOCARPHUS TENELLUS Nutt.

Genus STYLOCLINE Nuttall.

STYLOCLINE GNAPHALIOIDES Nutt.

Genus EVAX Gaertn.

EVAX CAULESCENS A. Gray.

Genus FILAGO Linnaeus.

FILAGO ARIZONICA A. Gray.

Genus GNAPHALIUM Linnaeus.

GNAPHALIUM PALUSTRE Nutt.
GNAPHALIUM PURPUREUM Linn.
GNAPHALIUM SPRENGELII H. & A.

Genus HYMENOCLEA Torrey & Gray.

HYMENOCLEA MONOGYRA T. & G.
HYMENOCLEA SALSOLO T. & G.

Genus IVA Linnaeus.

IVA HAYESIANA A. Gray.

Genus AMBROSIA Tournefort.

AMBROSIA PSILOSTACHYA DC.
AMBROSIA PUMILA A. Gray.

Genus PERITYLE Bentham.

PERITYLE CALIFORNICA Benth.
PERITYLE EMORYI Torr.
PERITYLE GRAYI Rose.
PERITYLE GREENEI Rose.
PERITYLE INCANA A. Gray.
PERITYLE MICROGLOSSA Benth.

Genus HETEROTHECA Cass.

HETEROTHECA GRANDIFLORA Nutt.

Genus APLOPAPPUS Cass.

APLOPAPPUS BERBERIDIS A. Gray.

APLOPAPPUS JUNCEUS Greene.

“Near *A. spinulosus*, but more slender,

Established 1884.

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Just a thought to give thee pleasure,
Just a hope to gild the way,
Just a word to speak of Jesus,
Do you love Him as you may?

The year 1900 has seen the addition
of 140 pages to the volumes of the West
American Scientist—far less than we had
hoped but not a bad showing in the face
of the difficulties we have met with.

The Delineator, 7 W 13th st, N.Y., is
one of the most popular magazines with
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Review of the Cactaceæ

By Charles Russell Orcutt. Original descriptions carefully compiled and reprinted, with synonymy, and bibliographical references as complete as the author's library will permit. Illustrated. Copious excerpts, with field and garden notes. Vol. I is devoted to the species of the United States, and issued in 5 parts at \$1 each—\$3 to subscribers in advance (3 parts now ready). "Very valuable . . . above all works that come to my table I want a complete set of this."—Thomas Meehan. Edition limited to 200 copies.

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