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Charles Russell Orcutt, Editor.

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San Diego, California, U. S. A.
CACTACEAE.

Many people who have been acquaint- ed only with the prickly pear and the cholla cactus of the plains—perhaps to the detriment of their epidermis, will be surprised to learn that over one thousand valid species exist, to which more than three thousand names have been applied by botanists and horticulturists.

The following is a nearly complete list of known species, and a few synonyms are also given. Descriptions of all will be published eventually we hope, but this contains much never published, at least in English, and in this form will be useful to many.

Tribe ECHINOCACTEAE.

Calyx tube produced beyond the ovary; stem covered with elongated tubercles or ribs, rarely leafy (except when young). Karl Schumann, in his monograph, rec-ognizes 31 genera, including Cereus, Pilocereus, Cerebracereus, Phyllocactus, Epiphyllum, Echinopsis, Echinocereus, Echinocactus, Mocacereus, and Leuchtenbergia in this tribe, in the order named, making a separate tribe for Mammillaria, Pelecyphora, and Ariocarpus. Pilocereus, Cephalocereus, Echinocereus, and Echinocactus are better kept as sections of Cereus; Epiphyllum as a section of Phyllocactus; Ariocarpus (Anhalonium) as a section of Mammillaria. His other genera are divided into 3 tribes, Rhipsalidae, of 3 genera—Pfeiffera, Hariota and Rhipsalis (best treated as one); Opuntiae, of 3 genera—Opuntia, Neopalea and Pterocac-
tus (the 2 latter of doubtful value; and Peloskia, including Peloska and Malhnania.

Genus ANHALONIUM Lem.

A. AREOLOSUM Lem.
A. ASELLIFORME Web.
A. elongatum S. is prismatium.
A. fissipedum Monv., is sulcatum.
ANHALONIUM FISSURATUM E.
Anhalonium Engelmann Lemaire Cact 42 (1865).
Living Rock, found in Texas and Mexico. "Upper and exposed part of tubercle triangular in outline, convex, carinate and almost smooth below, convex and variously fissured and thereby verrucose above, sharp and cre- ated on the edges."—Engelmann.
A. furfuraceum Wat, is prismatium.
A. urdianum Reb., is Echocactus Williamsii.
A. kotschoubeyanum Lem, is sulcatum.
A. Lewskyi Hennings, is Ech. lucat.us Williamsii.
A. PRISMATICUM Lem.
Simple, tip flat-topped or depressed, more rarely hemispherical, center densely tene-mose, 4-8 inches in diameter, 1-2 (rarely 3) inches above ground, the large root 4-5 inches below the surface with few coarse thorny roots; tubercles triangu- lar, acute with a cartilaginous tip, or obtuse, often ending in a minute depression or tomentose areola, spineless, the keel often with a strong shoulder, 1-3 inches long, often as wide, axis with long dense wool, upper surface smooth or often more or less roughened; flower white to rose, 1 inch long, sepals brownish; fruit oval or clavate, scarlet or brown; the Indians, or peyote (a name more commonly restricted to Echocactus Williamsii). The minute areoles are sometimes placed on the upper surface of the tubercles near the end, or often ab- sent. San Luis Potosi (Orcutt 250), where the type is supposed to exist at all the variations necessary to connect sev- eral alleged species. The type of Watson's Mamillaria furfuracea was collected at Carneros Pass, Coahuila (Pringle 250).
A. pulviligatum Lem, is prismatium.
A. retusum S. is prismatium.

ANHALONIUM RUNGEI Hildm.
Sandy soil, in the foot of high mount- tains. Coahuila (C. Runge).
A. SULCATUM S.
A. TRIGONUM Web.
A. turbiniforme Web.
A. williamsii F., is Echocactus Williamsii Lem.

Genus APOROCACTUS Lemaire.
A. Baumannii Lem, is Cereus Baumannii Lem fide KS.
A. conophyllum Lem, is Cereus Baumannii fide KS.
A. flagelliformis Lem, is Cereus flagellifor- mhis Mill fide KS.
Genus **ARIOCARPUS** Scheidw.

Karl Schumann revives this name in his publications, but we prefer to retain the name Anhalonium, which has been in universal use, among botanists and horticulturists alike, for more than fifty years.

A. *aseilliformis* Web., is Anhalonium aseillinum, and "Ashy Cactus"—Coulter.

A. *fissuratus* KS., is Anhalonium fissuratum.

A. *Ktschubeyanus* KS., is Anhalonium sulcatum.

A. *retusus* Scheidw., is Anhalonium prismatium Lem.

A. *sulcatus* KS., is Anhalonium sulcatum.

A. *trigonus* KS., is Anhalonium trigonum.

A. *Williamsii* Voss., is Echinocactus Williamsii.

Genus **ASTROPHYTUM** Lemaire.


A. *capricorne* Hort., based on Echinocactus capricornus.

**ASTROPHYTUM MYRIOSTIGMA** Lem.

The Bishop's Hood; an odd and beautiful spineless plant from Mexico, resembling a piece of carved stone.

A. *prismaticum* Lem. Cact. 50, error for myriostigma.

**CACTUS ALTERNATUS** Coulter.

"Subglobose, 10 cm. in diameter; simple: tubercles long (15-20 mm) and spreading, with woolly axils; radial spines 3, rigid and recurved, 5 mm long; central spines 3, very stout and much recurved, 20-30 mm long, alternating with the radials; all ashy colored and often twisted; flower and fruit unknown."-Type in Herb. Coulter. San Luis Potosi (Eschauzier of 1891)."—Coulter Cont U S Nat Hb 3:117.

**CACTUS DENSIISPINUS** Coulter.

"Globose, 7.5 cm. in diameter; simple: tubercles short, with wooly axils; radial spines about 25, erect-spreading, slender, but rigid, yellow (brownish to black with age), unequal, 8-10 mm long; central spines 6, a little longer (10-12 mm) and straight, more rigid and darker, black tipped; seeds obovate, reddish-brown, 1.2 mm long. Type in Herb. Coulter. San Luis Potosi (Eschauzier of 1891). Very easily distinguished by its dense, erect spines, which so completely cover the plant as to give it the appearance of a large chestnut burl."—Coulter Cont U S Nat Hb 3:96-97.

**Mammillaria castanoides** M., Wegner **M. densispinosa** and **M. fusca** are probably all identical with this species.

**CACTUS ESCHAUZERI** Coulter.

"Depressed-globose, 3 cm. in diameter, simple: tubercles broader at base, 6-8 mm long, with naked axils; spines all pubescent; radials 15-20, with dusky tips, the lateral 10-12 mm long, the lower weaker, shorter and curved, the upper shorter, solitary central spine reddish, slender, somewhat twisted, usually hooked upwards, 15-20 mm long; flowers red (?); fruit reddish (?), ovoid, about 10 mm long; seeds reddish, oblique-obovate, 1.2 mm long, pitted, with subcentral hilum. Type in Herb. Coulter. San Luis Potosi (Eschauzier of 1891)."—Coulter Cont U S Nat Hb 3:104.

**CACTUS MACULATUS** Coulter.

cm. simple: t

"Obovate-cylindrical, 6 by 8 cm, somewhat cespitose: tubercles ovate, terete, 10 mm long, grooved to the base, with naked axils: radial spines 10 or 11, straight and spreading, rigid, blackish (becoming ashy with age), black-tipped, 12 mm long; central spine large, more or less spotted, erect, 25-30 mm long; flower 12 mm long, pinkish; fruit unknown. Type in Herb. Coulter. San Luis Potosi (Eschauzier of 1891)."—Coulter Cont U S Nat Hb 3:117.

**CACTUS PRINGLEI** Coulter.

"Globose (?), 5 cm in diameter: tubercles short-conical, about 6 mm long, with very woolly axils: radial spines 15-20, seaceous-bristly and radiant, 5-8 mm long, central spines 5-7 (usually 6), stout and horny, more or less recurved, spreading 20-25 mm long; all straw-colored, but the centrals darker: flowers deep red (dark er, even brownish outside), 8-10 mm long; fruit unknown. Type, Pringle of 1891 in Herb. Gray."—Coulter, Cont U S Nat Hb 3:109.

Genus **CEPHALOCERUS** Pfeiffer.

C. **CHRYSOMALLUS** KS.

Erect, branching like a candelabra, 10-15 feet high, stems 3-6 inches in diameter:
ECHINOCACTUS GRUSONII Hildm.

CEREUS MARGINATUS DC.
young plants with 17 obtuse ribs and deep intervals, 12-13 ribs in older plants and more obtuse, areolae ½ inch apart, 1-12 radial spines, slender, straw-colored, centrals 4-5, the lower one the longest, the upper portion of the older or floriferous stems supplied with numerous ciliary white spines, especially abundant on the side where the flowers are produced; flower 2 inches across, 4 inches long (including the ovary); about 25 long narrow scales on ovary with 6-12 fine white hairs ½ inch long in the axils, ovary apple-green; petals about 0.8-0.9 mm broad, nearly 20 long, acute, white; sepals equally numerous, brownish white; style 2½ inches long, whitish, nearly equaling the petals; stamens white, anthers an eighth inch long and pale yellow. Flower deeply embedded in a mass of persistent hairs an inch long and of a snowy white—tinged with yellow occasionally at the tips. Fruit nearly globose, ½ inches long, dull purple with a bluish bloom; remains of flower persistent; the minute scales and hairs abundant or nearly absent; outer skin ½ inch thick, dull purple, the edible pulp bright in genera rather insipid. Sweetish. Seeds black. Viela, or Old Woman cactus of the Mexicans. States of Puebla and Oaxaca, Mexico (Orcutt 2679, 2679).

C. COLUMNA-TRAJANI KS.

Erect, 15-20 feet high, 2-3 short branches slightly divergent from the main stem a few feet from the ground; 5-7 radial spines; one-fourth to three-fourths inch long. 1 central ½-2 inches long, rarely a spicier or central or radial above; radials laterally disposed except the lowest, all ashy black. Ribs 11-13 in young plants, bluish with shallow intervals. Te-te-cho of the Mexicans, who describe the fruit as sweet and edible, the flower as red. States of Puebla and Oaxaca, Mexico (Orcutt 2679).

C. Hoppenstedtii KS, is Pilocerus Hoppenstedti Web. fide KS.

C. MACROCEPHALUS Web.

C. MELOCACTUS KS.

C. SEKILIS Pf.

Genus CEREUS Haworth.

"Flowers about as long as wide or elongated. Scales of the ovary distinct, with naked or woolly axils, or almost obsolete, and the axils spiny. Berry succulent, covered with spines or scales or almost naked. Seeds black, without albumen. Embryo short and straight or curved or hooked; cotyledons usually contrary to the sides of the seed.—Plants of all sizes, low or climbing or erect, sometimes enormous; spine-bearing areolae on vertical ribs. Flowers from the older or, at least, fully formed parts of the plant, not from any preferred area, but bursting through the epidermis just above the bunches of spines; some open only in sunlight, others only at night, others again are not thus influenced. Fruit often edible, sometimes of very large size."—E.

Subgenus EUCEREUS. "Prismatic or cylindric, mostly branching; flowers usually longer than wide; stigmas white; seeds obovate, usually smooth or pitted; embryo with folaceous curved to yel-
dons."—E.

CEREUS COLUBRINUS Otto.

CEREUS ACULEATUS Otto.

CEREUS ALAMOSENSIS Coulter.

Sina spinosa of Sonora; 2-8 feet high, 2-30 branches from the base with joints 1-4 feet long, flexuous or decumbent, often forming arches and rooting at the joints, and thus spreading over wide areas, sometimes 100 feet in diameter or more; ribs about 7, slightly tuberculated. The bright
red flowers slightly resemble those of C. flagelliformis.

CEREUS AMBLYCGONUS G. Don.
CEREUS AME-AENSIS Hesse.
CEREUS ANDALGALENSIS Web.
CEREUS AREOLATUS Muech.
Andes, South America.
CEREUS ARMATUS Otto.
CEREUS ASSURGENS Gris.
West Indies.
CEREUS AUREUS KS.
CEREUS AZUREUS Parm.
CEREUS BARBATUS Otto.
CEREUS BAUMANNII Lem.
Paraguay Republic, South America.
Variety COLUBRINA KS.
Variety FLAVISPINA KS.
Variety SMARAGDFLORA Web.
CEREUS BAXANIENSIS Karw.
Mexico.
CEREUS BENECKII Eh.
Aborescent and branching after the habit of Cereus geometrizans, 6-7 ribbed; areolae 4 inch apart, woolly, bearing 5 radial spines ½ inch or less long, and 1 central 1-3 inches long, curved upward, all ash colored; fruit globose, ½ inch in diameter, dull purple; remains of flower usually deciduous, leaving a large ash-colored scar; seeds large, ½-½ inch in each berry. The be-ta-zo-yo of the Indians. In aspect of plant and fruit this closely resembles the garambullo (Cereus geometrizans). Near Oaxaca, Mexico (Orcutt 229).

CEREUS BERTINII L’Her.
Paraguay Republic, South America.
CEREUS BLANKII Pos.
CEREUS BOECKMANNII Otto.
West Indies.
CEREUS BONARIENSIS Sw.
CEREUS BONPLANDII Parm.
Paraguay Republic, South America.
CEREUS BRACHIATUS Gal.
Tehuacan, Puebla, Mexico.
Cereus bradtsianus C. is Opuntia cereiformis Web née KS.
CEREUS BRANDII H. Angl.
CEREUS BRIDGESII S. Bolivia, South America.
CEREUS CAESIUS Otto.
CEREUS CANDELARIUS Hort.
CEREUS CANDICANS Gill.
Argentine Republic.
CEREUS CAVENDISHII Monv.
CEREUS CHALYBAEUS Otto.
Argentine Republic.
CEREUS CHILENENSIS Colla.
Chile, South America.
CEREUS CHIOTILIA Web.
Aborescent, 29 feet high, branching freely a foot or so above the ground, the older branches 6 inches in diameter, the tips of the branches 2½ inches in diameter with densely woolly ovate or shield-shaped areolae, bearing the terminal flowers and fruit. The tree often of an umbrella shape, or the interlocking branches curving or twisting in any other than a symmetrical manner. Ribs 5-6, acute, with sharp intervals; areolae ½ inch across, ½ inch long, nearly or quite contiguous; 1 stout, terete, ashy, central spine ½-2 inches long or less—often 2 or 3 short centrals above ½ inch long, erect; radials about 12, ¼ inch long, curved inward, all but the lowest laterally disposed, spines all nearly white when young, called ‘tiojilla’ by the Indians, who gather quantities of the fruit for the markets of Tehuacan in June for 1 cent. Fruit 1¼ inch diameter, slightly longer, remains of the flower persistent; color dull dark red, with 25-30 thin semi-transparent triangular scales—the base and sides equal—about three-eighths of an inch; pulp dark purple, with numerous black seeds. State of Oaxaca, Mexico (Orcutt 264, 266). Flower ½ inches across, bright lemon yellow (27 Je 1902).

CEREUS CLAVIFORMIS R.-K.
CEREUS COERULESCENS S.
Argentine Republic.
CEREUS COERULENARIUS Otto.
CEREUS COMPTUS Scheldu.
CEREUS CONCINNUS Hge.

CEREUS DASYACANTHUS Engelm.
CERESUS ENNEA CANthus Engelm.

CERESUS COQUIMBANUS KS.
Chile, South America.

CERESUS CORYNE Otto.
Argentine Republic.

CERESUS COSHERENSIS Tineo.
CERESUS CRENATUS Lab.
Cerés Cumenekei Web., is gummousus.

CERESUS CURVISPINUS Bert.
CERESUS DAMARCARO Hge.

CERESUS DECORUS Lodd.
CERESUS DONKELAERI S.
CERESUS DOMORTIERI S.
Mexico.

CERESUS DUSSEII KS.
Guadeloupe Island, West Indies.

CERESUS ERUNEUS 8.
Jalapa, Vera Cruz, Mexico.

CERESUS EMORIEI.
San Diego's Velvet Cactus. This is one of the best-known of California cacti, the slender, thickly-set yellowish spines giving it a peculiarly beautiful appearance. The spines on the young joints are shorter, soft and flexible; the flowers are yellowish, followed by a small edible fruit.

CERESUS ERUCA Brandegee.
"Prostrate, very rarely branched, 13-ribbed, 3+ feet long, 3-4 inches in diameter; rooting from the under side of the older growth, decaying at one end and growing forward at the other, generally in patches of 20-39, probably originating from a common center; areoles 4-6 mm in diameter, separated about the same distance; spines about 20, stout, ash-colored, less than an inch long, the exterior cylindrical, the interior stouter, angular, somewhat and the lower central one much flattened, more than an inch long, angular, strongly reflexed. Common on the sand of Magdalena island and about San Jorge, Baja California. Its local name is 'chilenola'. The manner of growth, with uplifted heads and prominent reflexed spines, gives the plant a resemblance to huge caterpillars."—Brandegee, Cal. ac prr 2, 2:163, t 7.

CERESUS ECHLORUS Web.
Brazil, South America.

CERESUS EUPHORIOIDES Haw.
Brazil, South America.

CERESUS EXTENSUS S.
CERESUS FASCICULARIS Meyen.
Peru, South America.

CERESUS EUPHYLLIFORMIS Haworth.
The well-known whip-cord or Rat's-tail Cactus, so useful in hanging baskets or for grafting on columnar species; the bright rose-colored flowers are extremely attractive.

Variety LEPTOPHIS KS.

CERESUS FORBESII Otto.
Argentine Republic.

CERESUS FUNKII KS.

CERESUS GEMMAUS.
CERESUS GHIRESBREGHTI KS.
Mexico.

CERESUS GLACIUSCENS Tweed.
CERESUS GLAZIOVII KS.
Brazil, South America.

CERESUS GLYCEMORPHUS Orcutt.
Eucheneocerus glycimorphous Foerst.

CERESUS GRANDIFLORUS Haworth.
Miller, Gard Dictionary, ed. n II. "The night-flowering cactus has gained a name which entitles it to prominent notice, and plants might well be included in every garden, for its flowering is a source of interest to the beast observant persons."—Castle.

CERESUS GRANDIS Haw.

CERESUS GREGGII Engelm.
Gregg's night blooming cactus occurs in the arid regions of Southern Arizona, New Mexico, Texas, Chihuahua and Sonora, and is notable for its large tuberous root and slender inconspicuous stems, 1 to 3 or 4 feet high, a half inch in diameter. Flower 6 inches long, 2 inches in diameter, with pale, purple petals, followed by the smooth, oval, acuminate, scarlet fruit, succulent, crowned with the remains of the corolla, and supported by a distinct stipe of a bright crimson.

CERESUS GUMMOSUS Engelm.
The pitahaya agria, or cord-wood cactus, of Lower California, is noted for its large, bright, scarlet fruit, possessing a delicious flavor, pleasantly
acid, like a strawberry, the pulp the color of a ripe watermelon, with the small black seeds scattered throughout. The flowers are 4 to 5 inches long, purple, and quite handsome. The stems are 4 to 10 feet high, 3 to 5 inches in diameter, armed with stout angular, blackish spines.

*Cereus Haageanus* S. Cereus haageanus Sebald. Near Orizaba, Mexico.

*Cereus Haageanus* Web. (See Cereus haageanus.)


*Cereus Hirschiatus* K.S. Cereus hirschiatus K.S. (See Cereus hirschiatus.)

*Cereus Foillianus* U.S. Weber. 

"Foliating from base, 4.5 m high and stout, dark-green; ribs 10-12, acute, often oblique, with areoles 2.3 cm apart; radial spines about 12, irregular, 1-1.5 cm long; central 3, the lower one 2-10 cm long and deflexed; flowers near the summit, white, 10 cm long; fruit "as large as a goose egg", dark purplish-red, bearing wood and spines. Tyype Weber specimens in hib Mo bot garden. Common about Tehuanac, Puebla. Important for its wood, which forms long, straight rods used for poles in houses and vineyards."—Coult. Cont. Na hib 3:411.

*Cereus Horizontalis* Gill. Cereus horizontalis Gill. Ar. entire Republic.

*Cereus Hylocanthus* K.S. Argentina Republic.

*Cereus Hylacanthus* K.S. Cereus hylacanthus K.S. (See Cereus hylacanthus.)


*Cereus Inermis* P DC. Cereus inermis P DC. Near La Guayra, Venezuela.


*Cereus Ibbadians* Lem. Cereus ibbadians Lem. (See Cereus ibbadians.)

*Cereus Icostonus* K.S. Cereus icostonus K.S. Andes, South America.

*Cereus Jacquinii* Rebut. Cereus jacquinii Rebut.

*Cereus Jamacaru* P DC. Brazil, South America.

*Cereus Jusebertii* Rebut. Cereus jusebertii Rebut.

*Cereus Karstenii* S. Cereus karstenii S. (See Cereus karstenii.)

*Cereus Kerri* K.S. Cereus kerri K.S. Colima, Mexico.


*Cereus Lanceanus* Hort. Cereus lanceanus Hort. (See Cereus lanceanus.)

*Cereus Laniceps* K.S. Cereus laniceps K.S. Bolivia, South America.


*Cereus Lapidotus* S. Cereus lapidotus S. Near La Guayra, Venezuela.

*Cereus Leptacanthus* S. Cereus leptacanthus S. Paraguay Republic, South America.


*Cereus Linkii* Hort. Cereus linkii Hort. (See Cereus linkii.)

*Cereus Longiflorus* Karw. Cereus longiflorus Karw. (See Cereus longiflorus.)

*Cereus Lormatus* Grus. Cereus lormatus Grus. (See Cereus lormatus.)

*Cereus Macdonaldiae* Hook. Cereus macdonaldiae Hook. (See Cereus macdonaldiae.)

*Cereus Macrogonus* S. Cereus macrogonus S. State of Rio de Janeiro, Brazil. (See Cereus macrogonus.)

*Cereus Malletianus* Cels. Cereus malletianus Cels. (See Cereus malletianus.)

*Cereus Mallisonii* Hort. Cereus mallisonii Hort. (See Cereus mallisonii.)

*Cereus Martianus* Zuec. Cereus martianus Zuec. (See Cereus martianus.)

*Cereus Martinii* Lab. Cereus martinii Lab. (See Cereus martinii.)

*Cereus Maynardii* Paxt. Cereus maynardii Paxt. (See Cereus maynardii.)

*Cereus Melanurus* K.S. Cereus melanurus K.S. Brazil, South America.

*Cereus Micracanthus* P DC. Cereus micracanthus P DC. (See Cereus micracanthus.)

*Cereus Monvilleanus* Web. Cereus monvilleanus Web. (See Cereus monvilleanus.)

*Cereus Multangularis* Haw. Cereus multangularis Haw. Andes, South America, probably Peru. (See Cereus multangularis.)

*Cereus Multiplex* Hort. Cereus multiplex Hort. (See Cereus multiplex.)


Cereus Nickelsi Hort, is Cephalocereus column-trajanii.

*Cereus Nycticalus* Link. Cereus nycticalus Link. (See Cereus nycticalus.)

*Cereus Obtusangulus* K.S. Cereus obtusangulus K.S. State of Rio de Janeiro, Brazil. (See Cereus obtusangulus.)

*Cereus Ocamponis* S. Cereus ocamponis S. Climbing over trees, fences or houses; joints 3- to commonly 4-sided, 1 or 2-5 feet long, young growth even c-ribbed; areoles 1-12 inches apart, tomentose, commonly 7 radials and 1 central spine; radials rarely over 1 mm, central rarely 5 mm long, stout, straight or slightly curved.
CEREUS SAROENTIANUS Orcutt.

CEREUS SENILIS Salm-Dyck
Cacti.—

Stems dark green. 3 inches thick, the ribs scarcely an eighth inch thick, strongly echinulate, bearing the areoles at the summit. Flower white, style 7 inches long: stamina 14, slender, white, nearly 4 inch long; ovary 1/8 inch long; ovary lobes 3, an inch in diameter, covered with ab. 8 tubercles; surmounted with minute scales (the tomentose axils commonly bearing 2 white spines); tube of ovary 1 1/2 inches long, bearing 5 or more similar scales with tomentose and spiny axils; filaments and large anthers apparently white (1 dead flower). petals narrow, acuminate, 18 inches long, extending three-fourths inch beyond the filaments. Bolivia, or Northern Cr. of the Indians; 15-20 feet high; cultivated in gardens for its fruit (?) States of Puebla and Oaxaca, Mexico (Orcutt 5789).

CERES PARIISOS A. Lke.
CERES PARVIFLORUS Ks.
Bolivia, South America.
CERES PARVIFLORUS Otto.
CERES PAUCICUSpiUS Web.
Bolivian Republic.
CERES PULICICUSIUS E.
CERES PAXTONIANUS Monv.
CERES PERUVIANUS Mill.
Peru, South America.
Variety MONSTRIFOSA PDC.
CERES PITAHAIA PDC.
Brazil, South America.
CERES PLATYCONUS Otto.
CERES POLYRHIZUS Web.
CERES POMANISIUS Web.
Argentine Republic.
CERES PTEROGONUS Lem.
CERES PULICICUSIUS Pf.
CERES QUADRIOCOSTATUS Bello.
West Indies.
CERES QUERETARENSIS Weber.
"Tree-like, much branched, 6-8 m high; flowers 10-12 cm long; ovary covered with triangular fleshy scales which arise from a tubercle and bear axillary wool and spines; fruit densely covered with bunches of dark-yellowish or brownish spines borne in clusters. Type, Weber specimens in hb Mo bot yard. In the vicinity of Queretaro, Mexico, and cultivated along roadsides and fence rows."—Ocurt, Cont Na 3:49.

CERES REPANDUS Haw.
CERES RIGIDICUSPIUS Monv.
Probably from the Andes (not Mexico, ride KS).
CERES RUFERI Hge.
CERES RUSSELLIANUS Forb.
CERES SALM-DYCKIANUS Web.
CERES SAXICOLA Morong.
CERES SCHOMBURGKII Otto.
CERES SEPILUS PDC.
CERES SERPENTINUS PDC.
Mexico.
CERES SETACEUS S.
Brazil, South America.
Cerces simonii Hildm, is C. alamosensis C.

OLD MAN CACTUS.

Cereus orororis Runge, is C. alamosensis C.
CERES SPACHIANUS Lem.
Argentine Republic.
CERES MICROSCOPUS DC.
CERES SPECIOSUS KS.
Variety COCCINIA KS.
CERES SPINULOSUS PDC.
Mexico.
CERES SPLENDIDUS Paxt.
CERES STELLATUS Pf.
CERES STELLIGER Otto.
CERES STOLONIFER Web.
CERES STRIATUS Brandegee.
Cereus digueti Weber, Mu d'hist nat, 155, 319.

Apparently not rare in saline soil near Batamotal, Sonora, where it is known by the name sa-ra-ma-tra-ca; the tubers are produced abundantly like small potatoes.
CERES STRIGOSUS Gll.
Argentina Republic.
CERES SUBPLAVISPINUS Otto.
CERES SUBINERMIS. Hem.
CERES SUBINTORUS Otto.
CERES TENUISSIMUS G. Don.
CERES TEPHRACANTHUS Lab.
Bolivia, South America.
CERES TETAZO Weber.
"Stout, branching, 10-15 m high; flowers greenish-white, 6 cm long, in clusters of 10-20 from the youngest areoles and without any wool; fruit irregularly dehiscent, exposing the ripe pulp. Type, Weber specimens in hb Mo bot yard. Zapatalan, Jalisco."—Ocurt, Cont Na 3:409.

CERES TETRAGONUS Haw.
CERES TORTUOSUS Forb.
Argentina Republic.
Cacti.

CEREUS TRIGONUS Haw. West Indies.

CEREUS TRINITATENSIS Lem. CEREUS TUBEROUS Pos.

CEREUS UNDULATUS H. Dresd. CEREUS VERSCHAFFELTII Hge.

C. EUS VIRENS P DC. Subgenus LEPIDOCEREUS E. Tall cynular, branching plants with the notiferous and stell. areoles bearing similar spars; flower tube short, stigmas white, embryo curved.

Cereus bavvsus Web. Erect, rarely branching, 8-12 or more stems from the same root, 10 or more feet high, 4 inches in diameter; ribs 9, slightly obsolete with sharply defined intervals; areoles an inch apart on the older stems; radial spines 15, 1½-inch long, the lower ones the longer, on the old roots: a tuft and about ½ inch long; central spines 5 or more, upper one-eighth inch long or more, the lowest often 3 inches long, red, red, twisted, flattened or carinate. Flower 2 inches across, including the ovary 1½-inch long; petals white, obtuse, 1½ inches long; the 6 sidiflora, style and anthers pale yellow, filaments white; style 2 inches long. Fruit said to be red. 1½ inches long, with black seeds; immature fruit with about 100 woolly areolae with capillary spines in the axils of obsolete se's or tuberous state of Cereus Mexica (Orcutt 265). Called 'cardon' by the Indians, perhaps erroneously.

CEREUS CANDELABRUM Web. Aborscent, 25 feet high, trunk 1-2 feet in diameter, apparently growing stems in candelabra 50 m shading an area greater in diameter than the height of the tree. Branches a foot in diameter. 9-20 obtuse ribs with areoles 1½ inch apart, when young, and densely tomentose at the base of spines; the older areolae but slightly tomentose, the bases of the spines often in close contact; spines ashy, bulbous at base, flattened or angular, strong; the central 2 inches long 3-9 radials, usually 3 literally disposed on each side and one below the central one. Rarely, 1-2 shorter radials above; spines mostly deciduous on the trunk and older branches, the persistent areolae often enormously enlarged to a height and diameter of 1-2 inches with 10-20 formidable subulate spines, the longest 3 inches or more long. Flower white, much resembling that of C. Pringlei, but with tips red in the middle of May, dull red 3 inches long, 2 and 2½ in greater and lesser diameter, pulp pulp, sweet, edible, but valued less than the pitua and other cactus fruits. About 30 triangular scales. Bearing in the axils densely with pulp and spines with 3 or more slender, bistrong, white spines 1-1½-inch long, form the armament of the fruit—the spiny areolae easily detached for drying at maturity. Fruit said to be used in making a pleasant drink and the seeds also utilized. The erect growth of the number of branches and the bright yellow color renders this giant cactus everywhere conspicuous. State of Oaxaca, Mexico (Orcutt 265). Known to the Indians as the 'cardon'.

CEREUS ORCUTTII K Br. "Stems erect, branching, bright green, reaching a height of .5 m and a diameter 2.5 cm; ribs 6-8, about 1 cm high, areolae round, about 5 mm in diameter and about half that distance apart, densely covered with short, light gray wool; spines all slender, light brown, irregularly acicular; radials 12-20, about 12 mm long, central 2-4, about 2 cm long; stems lining the upper half of the tube; style ½ supreme; fruit not known."—Katharine Brandegee, Zoe, 5:3 (Feb. 100).

Near Rosario, Baja California. Dense-cushioned with bright yellowish brown spines; fruit the size of an orange, called pitulla dulce.

CEREUS PRINGLEI S. Watson. The Cardon is the giant cactus of Lower California and Sonora, where it forms forests, attaining a height of 20 to 35 feet. The ribs are usually 13, and it differs from the giant cactus of Arizona (Cereus giganteus) in that the spine bearing areolae on the ribs are connected by woolly grooves. The trunk is often 3 to 4 feet in diameter; the older portions of the branches usually quite thornless. The dead wood is used for fuel, but otherwise this mammoth production of the desert seems to be without use.

CEREUS THURBERI Engelm. The pitaya Duke is an abundant species in Sonora and portions of Lower California, also said to occur in southern Arizona. It grows from 5 to 20 feet high, many stems 6 to 10 inches in diameter from the same base, bearing greenish or reddish white flowers followed by large luscious fruit, rather too sweet it is said for northern palates. It was named in honor of George Thurber, a widely renowned botanist.

Subgenus PILOCEREUS E. "Tall, cylindrical, mostly unbranched; upper flower-bearing portion with more crowded areolae and longer, denser, thinner bristles or hairy spines; flowers short; seeds as in Eucereus."—E.
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