EXCHANGES.

The undersigned is endeavoring to form a library of scientific literature, and desires to obtain as complete files as it may be possible on limited means, of all periodicals, especially those devoted to science, medicine, agriculture, horticulture, mining and other industries; publications of scientific societies, botanical gardens, experiment stations, educational and other institutions, and invites an exchange with such or with individuals; in return is offered regularly the monthly magazine established by him in 1884, the West American Scientist (complete files are exhausted). Many duplicates are available for exchanges.

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WEST AMERICAN BOTANY.
PAPAVER LEMMONI Greene.
"Near P. Californicum, but a larger and coarser plant, 1-3 ft. high; corolla twice as large, 2-3 inches broad, apparently of a deeper red, the base of the petals green; capsule broader and merely obovate; stigmas 7-10, their lower half sessile and radiant upon the summit of the capsule, upper half coherent one with another and forming a conical apiculation. Hilly and mountainous region of San Luis Obispo county, California (J. G. Lemmon)."—Greene, Pittonia 1:168.

DENDROMECON FLEXILE Greene.
"Six to ten ft. high, tree-like, with numerous more or less drooping branches; leaves ovate-oblong to elliptical, obtuse, often mucronulate, 2-5 inches long, fleshy and glaucous, crowded on the branches, short-pedicled, their margins smooth and revolute; corolla rather pale yellow, 2 inches in diameter, on a short pedicle; capsules stout, curved, 3-5 inches long; seed large, spherical, lightly scrobiculate, with a large amber colored caruncle. A common large shrub of the island of Santa Cruz, very strikingly unlike either the original mainland species, or that of the neighboring island of Santa Rosa. The large, pallid, somewhat succulent leaves are so numerous as to weigh down the branches, and this gives the shrub a rather graceful appearance; when dry they are thinner and softer than in the other species. In their axils the leaf-buds appear as solid, pyramidal, thorn-like protuberances, another singular characteristic."—Greene, Torr cl b 13: 216 (N 1886).

—Bull. Calif. Acad. Sci. 1: 389.—Santa Cruz Island, on bushy hillsides everywhere; quite
plentiful on the northward slope at no great distance from the shore."—Heise

ESCHSCHOLZIA GLAUCATA Ge.

"Perennial, very glaucous, erect, 2-4 ft. high, of a loosely cymose and sometimes distinctly dichotomous inflorescence: leaves small; their segments linear and little divergent; torus with a narrow but manifest spreading rim: petals an inch long, with orange spot at base and commonly a narrow border of the same color at the truncate summit, otherwise light yellow: seeds glo- bular, reticulated: cotyledons linear, left to the middle. On dry clayey hillsides of the interior basin of Santa Cruz Island."—Greene, Pittonia 1:45 (Mr 1887).

ESCHSCHOLZIA MARITIMA Ge.

"Root perennial: stems stout and succulent, very leafy and dichotomous, 2-3 ft. long; wholly prostrate: herbage very glaucous and also white-puberulent: leaves dense, i. e., the spatulate-oblong obtuse segments numerous, short and crowded: torus with manifest rim spreading horizontally: calyptra about ½ inch long, oval, abruptly narrowed to a very short blunt or even retuse tip: corolla broad-campanulate; petals 10 lines long, lemon-yellow with a rhomboidal spot of orange at base: pod small: seed reticulate. About Point Harris on the northeastern part of the island of San Miguel, on clayey slopes near the sea; very plentiful."—Greene, Pittonia 1:60.

ARABIS PARISHII Watt.

"Low and cespiteous (2-4 in. high), very stellate-pubescent throughout, the simple slender stems from a much branched caudex: leaves entire, the lower numerous, linear-oblongate, 6 lines long or less, the cauleine few, linear, not articulate: fls rose-color, 3 or 4 lines long: pods glabrous, ascending on pedicels 2 or 3 lines long (including the elongated filiform style) by a line broad, attenuate above; valves 1-nerved and veined: seeds somewhat 2-rowed, elliptical, narrowly winged. In Bear valley, San Bernardino mts., Cal., at 6,500 ft. alt. (Parish)."—Am ac pr 22:468.

ARABIS PULCHRA Jones.

"Perennial, canescent throughout with a fine stellate pubescence, the stems erect (a ft. high) from a branch-
ulate lobes, or these coherent above, leaving narrowly oblong perforations: style 1/2 line long beyond the margin of the fruit: pedicels 1/2 inch long, firm but recurved."—Greene, Pittonia 1:31 (amended description).

"Common on mossy shelves and crevices of the high rocky summits and northward slopes of Santa Cruz Island."—Greene, Torr cl b 13:218 (N 1886, with earliest description).

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