

The West American Scientist.

Vol. XIV. No. 7.

July, 1903.

Whole No. 126.

THE WILD FLOWER PRESERVATION SOCIETY OF AMERICA.

The increased interest in nature study developed within recent years, and stimulated by numerous illustrated books of a popular nature, has unfortunately endangered the existence of many ornamental wild plants that would otherwise have escaped public notice. The problem presented is how these depredations may be checked without seriously restricting the freedom or enjoyment of the nature-lover.

Local societies having this aim in view have been established in several places, and various articles on the subject have appeared in magazines and newspapers; these are all useful factors in arousing a healthy public sentiment against indiscriminate and thoughtless flower-picking. But it is evident that the successful prosecution of a campaign of this kind requires a central body which shall direct and inspire the work; and it also requires some official medium of publication. The organization of a national society along these lines, effected on April 23, 1902, while it represents to a certain extent the growth of popular sentiment, is the direct result of the remarks by Dr. F. H. Knowlton in his essay, "Suggestions for the Preservation of Our Native Plants," which was awarded the first prize in the recent competition held by the New York Botanical Garden with the income of the Caroline and Olivia Phelps-Stokes fund. A few paragraphs from the essay itself will serve as a partial explanation of the aims and objects of the Society:

"It seems to me that all legitimate effort that can be made for the conserva-

tion of the native flora is naturally divisible into two fields: First, the broader, higher plane of enlightened public sentiment regarding the protection of plants in general and, second, the immediate steps that must be taken to save certain of the more showy or interesting forms now threatened with extermination. The first is something we may reasonably hope for, even if it comes slowly; the second is a practical question that must be solved quickly or it will be too late. * * * The public must be educated up to the point when it will be possible for them to enjoy the flowers and plants of field and forest without destroying them. They must be led to see that it is only selfishness which prompts the indiscriminate plucking of every bright-colored flower or shapely fern that attracts their eye. A walk afield, enlivened by the presence of flowers and birds, leaves behind a memory that may be cherished for years. The ruthless breaking up of this rounded symmetry of nature, simply for the gratification of the moment, leaves a void impossible to fill."

* * * *

The proposed fields of labor of the Society may be summarized as follows:

EDUCATION.—The primary and secondary schools afford abundant opportunity for missionary work. Let every teacher aim to impress on the pupils under his charge the beauty and value of plant life. Let him give some instruction in the differences between native species, many of which are rare or easily destroyed, and the introduced weeds, most of which are so sturdy and abundant that they will survive wholesale plucking.

MORAL SUASION.—Public sentiment can be influenced to a large ex-

tent by articles in newspapers and magazines, if the subject-matter is well presented. The establishment of a press bureau by the Society is expected to facilitate this work.

PUBLIC PARKS.—Many cities have set apart for public use and enjoyment various tracts of land distinguished for the beauty of their scenery or vegetation. This is one of the most effective means of preserving plants from destruction, and local chapters will be formed to work on this line.

LEGISLATION.—In some few instances it may be advisable to invoke such legislation as protects the Hartford fern in Connecticut. This, however, is a last resort, and should only be employed in emergencies where all other measures for protection have failed.

EDITORIAL.

We publish this month an outline of the work proposed by the wild flower preservation society, which we consider worthy of the encouragement of our readers. In California we stand in need of the preservation of certain beautiful trees, and the action taken some years ago for the protection of the Torrey pine of San Diego county was taken none too soon. The Parry lily, of the mountain region of Southern California, is in most urgent need of protection from the spirit of commercialism, which has already rendered this beautiful flower a rare one. The annual dues of the society are one dollar a year, which entitles members to "The Plant World" monthly, and the secretary, Charles Louis Pollard, 1854 Fifth street, Washington, D. C., will be pleased to enroll the names of all who are in cordial sympathy with the objects of the organization.

RANDBURG MINING DISTRICT.

A topographic map of the country adjacent to the Randsburg and Johannesburg mining districts, California, is now in press and will soon be issued by the United States Geological Survey. The area covered by this map is known as the Randsburg quadrangle, and embraces almost equal portions of Kern

and San Bernardino counties, and shows part of the location of the Randsburg Railroad, which connects Johannesburg with Barstow, San Bernardino county.

The scale of this map is approximately one mile to the inch. The contour vertical interval of 50 feet shows well the topographic features of the region. All roads, trails, mines, and houses are shown with great exactness, and—most important in such an arid country—the positions of all wells, springs, reservoirs, and dry lakes are accurately located. This section is practically a desert, and unless water can be found within reasonable distances and at depths easily reached from the surface, prospectors and miners can not prosecute their work. The water for Randsburg and Johannesburg is piped from wells about 5 miles northeast of these places. It is of fairly good quality but is insufficient in quantity, and while the water company charges are not there regarded as excessive, the lowest rates would astonish those who are not familiar with this desert country. Persons occupying houses or tents without water pipes usually pay one dollar a barrel for water.

The whole area represented on this sheet is one of the most forbidding deserts in the United States. The valleys

50 YEARS' EXPERIENCE

PATENTS

**TRADE MARKS
DESIGNS
COPYRIGHTS &C.**

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. Handbook on Patents sent free. Oldest agency for securing patents.

Patents taken through Munn & Co. receive special notice, without charge, in the

Scientific American.

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, \$3 a year; four months, \$1. Sold by all newsdealers.

MUNN & Co. 361 Broadway, New York
Branch Office, 625 F St., Washington, D. C.

are practically sand beds, the mountains bare masses of rock. The only vegetation in the valleys is scattered, low cactus, with here and there a greasewood or creosote bush about knee-high. The mountains are absolutely devoid of grass or trees.

The mineral wealth, principally gold, constitutes the whole value of the country; but this is sufficient to have built up during the last few years the flourishing mining camps of Randsburg and Johannesburg, with an aggregate population of about 1,200.

WEST AMERICAN SCIENTIST:

Established 1884.

Published Monthly.

Price 10c a copy; \$1 a year; \$10 for life.

CHARLES RUSSELL ORCUTT, Editor.

Number 365 Twenty-first Street,
San Diego, California.

COLLECTED DESCRIPTIONS.

OXYTHECA CARYOPHYLLOIDES Pry.

"Plant low (4-6 inches), with short simple primary stem, or branching from the base, upper stems prolonged into numerous slender, intricate branches, smooth or glandular-pubescent, with irregular patches or dark-colored glands on the upper stem and involucres; leaves radical, obovate, spatulate, occasionally emarginate, tapering into a petiole expanding at its clasping base; cauline bracts ternate with oblong divisions, nearly equal, $\frac{1}{2}$ line long, shortly acuminate; involucres (except in the lower axils) sessile, 5-parted to near the base, divisions nearly equal, $1\frac{1}{2}$ lines long, narrowly ovate with strong mid-nerve prolonged into an awn about one-third its length; fl, 2-3 in each involucre, shortly pedicelled and with very minute bractlets; perianth short, greenish, obscurely lobed, closely embracing the matured akenes; akenes broadly triangular, smooth, with rounded edges; embryo with curved radicle and orbicular accumbent cotyledons."—Parry, *Dav ac pr* 3:2 (28 F 1882). Mts. San Bernardino county, Cal, Ag 1881 (Parish 1097).

OXYTHECA EMARGINATA Hall

"Slender annual, 2-6 in. high, more or less glandular-pubescent up to the involucres, the lvs and bracts sparsely strigose-pubescent, the whole herbage and especially the involucres early turning red; lvs clustered near base of stem, narrow, oblanceolate, emarginate, 4-8

lines long; involucres obpyramidal, 3 lines high, shallowly 5-lobed, each lobe with a narrow w membranous margin and tipped with an awn a line or less in length; fls usually 4, on short pedicels, slightly exserted, externally pubescent on the lower half; segments 6, distinct to the base, oblanceolate, fimbriate above into slender divisions, 1-three-fourths lines long; stamens 9; akene triangular, enclosed by the withering-persistent perianth."—Ha U 75.

OXYTHECA LUTEOLA Parry.

"Prostrate (3-10 in. broad), dichotomously branched from the base, smooth, or with scattered pubescence on the slender branches; lvs orbicular to oblong-obovate, $1\frac{1}{2}$ -2 lines in width, with slender petioles 3 or 4 times as long, covered below with dense wooly pubescence, smoother above, the cauline in 1-sided pairs (the third at each node obsolete or nearly so), one or both passing into linear-aciculate bracts; involucres sessile, 5-parted, the spreading unequal divisions resembling the bracts, the longer 2-5 lines in length (including the slender awn) and about equaling the bracts; fls pubescent, crowded (7-15), developing centripetally, the short pedicel jointed at the base of the perianth and subtended by 2 bractlets, 1 linear, the other broader and scarious; perianth 6-cleft nearly to the middle, greenish-y; fil short; anthers oval; styles short, with spreading capitate stigmas; akenes smooth; cotyledons orbicular, accumbent to the longer radicle."—Parry, *Terr cl b* 10:23. Lancaster, Cal. (Parry).

OXYTHECA PARISHII Parry.

"Plant slender, sparingly and dichotomously branched, 6-18 inches high; radical leaves $\frac{3}{4}$ -1 inch long, obovate-oblong, minutely ciliate-denticulate, somewhat enlarged and subcordate at base, with a short thickened clasping petiole and distinct midrib; cauline bracts small, trifid, shortly acuminate, unilateral, with a connate sheath round the stem; stipitate glands conspicuous on the stems above the internodes; involucres on slender axillary and terminal pedicels ($\frac{3}{4}$ -2 inches long), expanding into a short obscure tube conspicuously marked by longitudinal nerves, which are prolonged beyond the irregular margin into a diverging crown of slender acicular awns (18-28), somewhat unequal, about 2 lines in length, nearly twice the length of the involucre tube; fl. 5-14, pedicellate, unequally developed, the more mature reaching nearly to the summit of the involucre awns, the smaller usually staminate and abortive, with bracteoles of 2 kinds, one linear-spatulate, pubescent and ciliate, the other linear, about as long as the pedicels;

perianth 6-cleft nearly to the base, divisions ovate, pubescent on the outside, smooth within; stamens 9, inserted at the base; akene lenticular, obtusely pointed, the small green embryo with long curved radicle and accumbent cotyledons."—Parry, Davenport ac pr 3:2 (28 F 1882). Ridge of the San Bernardino mountains, California (Parish 993). Dedicated to William F. Parish.

EUPHORBIA DICTYOSPERME F-M.

"Stem stout, 2-3 dm high, 2-4 mm thick, few to several stems from the base, branched; rays 3, several times dichotomously branched, the umbel longer than the main stem; stem leaves obovate spatulate, or cuneate, the lower short petioled and retuse or even obcordate, the upper rounded at the apex, 8-15 mm wide, 1-3 cm long, almost entire to crenate serrulate; floral lvs ovate elliptical, lower serrulate or crenulate, mostly very obtuse, 6-10 mm wide, 10-15 mm long; involucre broad campanulate; lobes and bracts almost globose, 3 mm in diam. with many short warts on the upper part; styles 1-1.5 mm long, free, bifid almost to the base; seeds ellipsoid lenticular, yellowish brown, 1.8 mm long, 1.3 mm wide, 1 mm thick, or often smaller, the depth of the reticulations much varied, netted, usually prominent and forming large areolae. Southern Washington to Baja, mostly in the interior."—Norton, Mo bot gard R 11:106 t 22-23.

EUPHORBIA PALMEPI Engelm.

Many stemmed, 8-11 in. high, 3 mm thick, glaucous, erect; rays 4-5, 3-5 cm long, 2-3 times branched, a few branches below the umbel; sterile branches from the base small and few; stem leaves oblong obovate, 7-17 mm long, 3-10 mm wide, or the lower ones sometimes smaller, and oblanceolate and acute as on the sterile branches, close together and passing into scales below, 5-15 mm apart above; umbel leaves broadly ovate, shorter and 10-15 mm wide; floral leaves broader to subreniform, apiculate, sometimes slightly erose on the apical margin and sometimes subconnate; involucre whitish, 3 mm high, slightly narrower, hirsute about the mouth inside, lobes hirsute or ciliate; glands broad ovate, truncate, yellowish brown, punctate, usually short stipitate and turned up at the inner edge; bracts more or less lobed, hirsute above, adnate to the involucre below; stamens about 15; calyx a distinct disc; styles 1-1.5 mm long, basal third united, bifid above; stigmas capitate; capsule 5 mm high, 5.5 mm long,

1.5 mm wide. Mts. southern and Baja California.

OPUNTIA BERNARDINA Engelm.

"Loosely branched shrub, 2-4 ft high, several stemmed from the base; joints cylindrical, 3-12 in. long, with a slight scurfy pubescence, never deciduous; tubercles of the younger joints oblong and very prominent, shorter and less marked on the older; spines yellow, $\frac{1}{4}$ -lin. long, 1 or 2 usually longer and stouter than the others; fls in a dense cluster at the ends of the previous year's joints; inner segments of the perianth yellow, outer greenish, or dull red; fr ovate, less than an inch long, deeply umbilicate, the tubercles bearing a single short spine, becoming at length dry, and only then deciduous, usually fertile, but few-seeded; seed flat, $\frac{1}{4}$ in. in diam, the raphe channelled."Parish, Torr cl C 19:92. Dry hills and mesas. S Ber.

Bulletin 1 of the California botanical garden has appeared, from which we reproduce the following from the first of the 16 closely printed pages:—

The CALIFORNIA BOTANICAL GARDEN is a private enterprise, aiming at the formation of as large a collection of living plants as it may be found practicable to grow under the favorable conditions existing in Southern California for plant life.

THE BULLETIN will be issued occasionally as a means of communication with our correspondents.

Literature will always be welcomed in return.

Lists, mainly of species represented in the collection, will appear from time to time in the bulletin, to facilitate exchanges.

CORRESPONDENCE is invited, with the view of increasing our collection by exchanges. We can supply many things in large quantities to dealers or others, and can often use quantities of certain seeds, bulbs and plants.

Lists of collectors of native seeds and plants, horticultural catalogues of every description, and botanical, horticultural and agricultural literature in general is wanted.

Address all correspondence to the agents.

The ORCUTT SEED and PLANT COMPANY,

San Diego, California.