VOLUME VII. DECEMBER, 1890. WHOLE NO. 55.

THE West ✦ American ✦ Scientist.

A popular monthly review and record for the Pacific Coast.

Official Organ of the San Diego Society of Natural History.

CONTENTS.

		PAGE
Parry's Lotus Tree, illustrated, by the late Dr. Albert Kellogg		63
Fritillarias, illustrated	*Carl Purdy*	66
Some Notes on Echinocactus, illustrated	*C. R. Orcutt*	67
Papaver Californicum	*C. R. Orcutt*	70
Library Catalogue		71

LITERARY AND EDUCATIONAL SUPPLEMENT.

A Poetical Mosiac, (selected)		31
Waiting		31
Locals and Personals		32
Editorial		32
School and College		33
Notes and News		33
College of Letters		34
Good Literature		35
In Lighter Vein		37

C. R. ORCUTT, EDITOR AND PUBLISHER.

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VOL. VII. DECEMBER, 1890. WHOLE NO. 55.

PARRY'S LOTUS TREE.

(From the Mining and Scientific Press, LIII, 391.)

The trees around them all their food produce,
Lotus their name divine—nectareous juice!
Hence *Lotophagi* called, which who so tastes
Insatiate riots in their sweet repasts,
Nor other home, nor other care intends,
But quits his house, his country and his friends.
Homer's Odyssey.

Although mention is made of this native fruit (Zizyphus Parryi) in the California State Board of Forestry's catalogue of trees and shrubs desirable for culture, nevertheless such a compiled list must needs be very brief to come within due limits assigned, hence further details may become desirable.

Common perception recognizes the truism that where native families, genera and species of trees, shrubs and plants abound, they furnish the best presumptive evidence—if not always proof—that other kindred and choicer sorts will suit similar situations, climatic conditions and soils, often vastly widening in their range.

With our intelligent culturists and nurserymen, it seems needless to urge that the almost universally preferred practice is to resort to the wilds for the strongest seedlings as stocks for propagating purposes. Therefore, with this in view, we offer a short description, with pen and ink sketch, of our own native lotus, in order to facilitate ready recognition and to designate the best known localities for procurement of the seed supply. Withal summary suggestions of a few foreign sorts that might well supersede the native jujube, and here and there intersperse a practical hint or so to profit, or of economic and commercial value.

Parry's Lotus or Jujube is a zigzag, branching, thorny bush or small tree, four to sixteen feet high, seldom over four to six inches in diameter. The leafy spines are long, stout and straight, leaves entire and small—less than one inch—blunt or notched at the top, wedge-shaped, narrowing into a slender, short leaf-stem, one to three flowers, recurved in fruits, and this one to three seeded, mealy and nearly dry, oval, one-half to three-fourths of an inch long, apex short-pointed on a curved stem of one-half an inch or so in length. Mostly a shrub well suited for more eminently useful hedges; abounds in gravelly ravines near San Felipe, San Diego county, also at Rock House summit, of the same region, and east of San Bernardino, California.

Before inviting specific attention to the most commendable species for culture it seems requisite to make a few concise remarks on jujubes in general; for out of half a hundred or more we can now refer to only a few. Jujubes are among the most feasible, if not the best of fruits in the world for jellies and various preserves, or dried, and for a sort of bread or cakes, pies,

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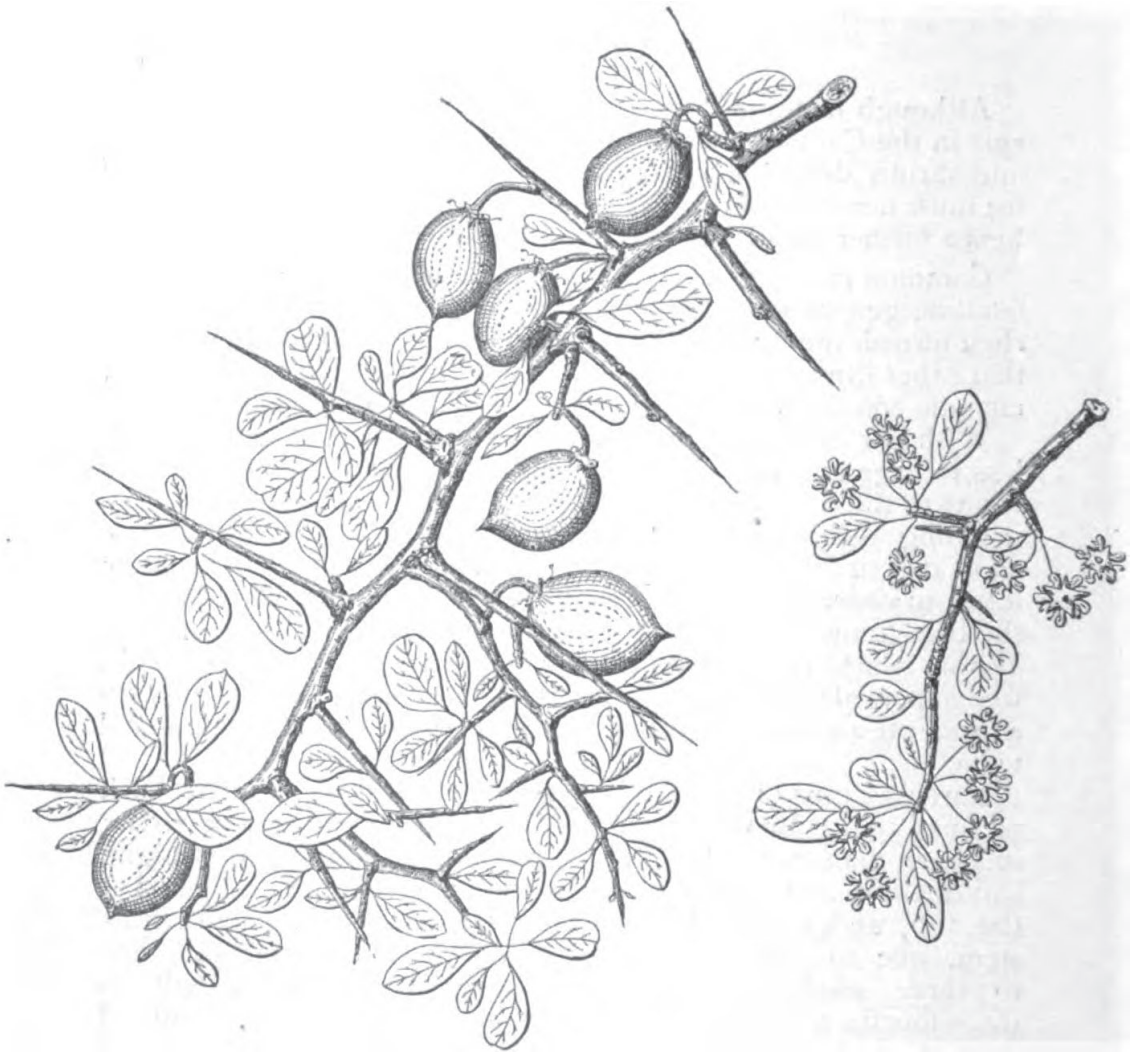

ZIZYPHUS PARRYI.

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or served as desserts like dates and figs; in short, one way or another they are eatable and mostly excellent. It would be safe to say that four hundred to five hundred trees to the acre—of almost any soil—could be planted, that at two or three years old would yield five to ten pounds to each bush. With any market at all, the fresh fruit would be cheap at a dime a pound for jellying in the rural way; they would thrive well with less care than a common corn patch; would double, quadruple and quintriple in four or five years at the furtherest, and thence onward for ages, would pay better than strawberries, with half the labor and not a tithe of the trouble in harvesting, nor risk of loss; would even utilize the worst land; have the world for a market, of the dried fruit and jelly, with other uses to be noted further on.

CLASSIC LOTE TREE (ZIZYPHUS LOTUS). This is a small tree common to Persia, Africa, Sicily and Spain, and is now cultivated in all regions of the olive, the vine and the fig. Tunis was the ancient land of the renowned people known as Lotophagi. This sweet fruit is of the size of sloes, with large stone, and is borne on every part of the plant like gooseberries, purple-tinged; the farinaceous pulp—separated from the pits and sun-dried—is set aside for winter use; has the flavor of dates and figs. A kind of wine or beer drink is made by expression, diluted with a little water, but will keep only a few days; doubtless immoderately used in this or some similar way may have led to a devoted dissipation akin to the poet's conception.

It should be observed, in a general way, that this and all the species are eminently adapted to the borders of deserts—delight in arid sands, gravelly ravine sides and rocky ridges—would preserve embankments and prevent fearful washouts without serious obstruction to railroads or casting a length of blighting shadows; but they will grow in any soil. Fruit described as of delicious taste in the fresh state; also, after exposure to the sun a few days, they are pounded and made into bread. These paste-cakes are only sun-dried so as to well evaporate the little moisture used in making; it resembles, both in color and taste, what we designate as 'gingerbread,' and is noted as excellent food for long journeys.

From the thorny nature of the Loti, one might well wonder how the fruit could be collected with facility, but as it is neither tender not watery, and somewhat farinaceous and leathery-like and the shrub hardiest of the hardy with tough and elastic twigs, a cloth is spread on the ground and the bush beaten with a stick.

This Lotos of the Lotophagi must not be confounded with the Egyptian lotos (Nymphea lotus), nor with the lotos of Homer and Dioscorides, which is a species of (amatory?) Trifolium, inciting, if not causing, a similar infatuation, as the one eaten by the natives of the Pacific in their season; nor with the lotos of Hippocrates (Celtis Australis), nor with the Italian lotos (Diospyrus lotois).

COMMON JUJUBE (Z. VULGARIS).—This is a small tree, of twen-

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ty feet in height, fruit blood-red or saffron, with a sweet granular pulp. In the south of Europe it is mostly served up in the dried state, as a choice sweetmeat of the winter season, known as jujube. The Turks plant these with other trees in front of their coffee houses that they may enjoy shade, shelter and fruit together,

EAST INDIAN JUJUBE TREE (Z. JUJUBE).—Also a small tree of sixteen or twenty feet, cultivated in China and Cochin-China, bears fruit of the size of a large cherry, smooth and yellow when ripe. There is however a variety of this, or perhaps another species, that produces an excellent fruit of oblong form, of the size of a hen's egg, known by the name of *Navikellekool.*

PEAR-WOOD JUJUBE (Z. XYLOPYRUS).—This tree abounds everywhere in the forests of Coromandel. Cattle eat the leaves, young twigs and fruit; the kernel, of which, the natives are very fond, has the fine flavor of filberts. The timber of the largest trees is also highly esteemed, is of yellow orange color, very hard and durable, and withal very light. Most timbers combining such rare qualities for many uses proved too heavy.

A kindred shrub (Paliurus), and one of this genus, the Christ Thorn (Z. Spina-Christi), are both equally common in Judea. The former cap, or crown-fruited; the latter double-thorned with fruit like a sloe. Rival authors refer to the plausible pliability of their exceeding flexible twigs, being readily wrought into any form, as having been the one put upon the head of our Savior.

Lote trees may be multiplied by cuttings from the roots or ripe twigs, with care, from layers and root slips, suckers and seeds. These budded or grafted from a few choice foreign parent trees would soon yield a progeny of many millions, adding to the wealth of the Pacific, and an annual income to California alike counted by unnumbered millions.

Our pen picture is from a specimen contributed by Dr. C. C. Parry, whose name it bears, and is furnished through the liberality of the California Academy of Science. *Albert Kellogg.*

FRITILLARIAS.

(From the *Pacific Rural Press* xxxviii, 418.)

These comprise seven or eight Californian species, all very similar in stalk and leaf and shape of flower, but in great variety of color and mottling, and with curious forms of bulbs. Those who are familiar with lilies know that there are some bulbs which vie with the blossoms in beauty. The Fritillarias, too, have some beautiful bulb forms. One type is a round flattened disk, clean, shiny and white, beaded and covered with little rice-like, ivory white bulblets, which fall off at the touch. This is the bulb of F. recurva and F. lanceolata. F. biflora and F. liliacea have another form, in which the bulb is formed of a few, rounded clear white scales, easily falling apart, and each section propagating the plant, as do the little grain like bulblets of the others.

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FRITILLARIA RECURVA.

The stalk of Fritillaria is stout and erect. The stalk leaves are arranged in circles on the stem, ten or fifteen long leaves in a whorl. At the base there is a single large leaf, sometimes in F. lanceolata as large as the hand. The Fritillarias are usually profuse bloomers; the blossoms an inch or so across, pendant bells strung on the upper part of the flower stalk, sometimes a few but often a string a foot long, and comprising a dozen or more blossoms All are of elegant habit, one of those perfectly graceful forms which delights the eye in outline, all curves, and symmetry. Several species are more elegant in habit than rich incolor. Fritillaria lanceolata, F. biflora and F. pluriflora have curiously mottled flowers, in shades of green and brown, very odd but hardly pretty; but, on the other hand, F. recurva, with its scarlet bells, is as beautiful as any lily, The yellow bells of F. pudica are very attractive, and F. liliacea gives variety with its white blossoms.

All are easily cultivated, preferring a gritty soil with leaf mold and partial shade, but doing well in almost any well drained soil. Well grown specimens will reach three and four feet in height, and I will hardly dare to tax the credulity of the reader with the number of flowers that have been grown on one stalk.

Carl Purdy.

SOME NOTES ON ECHINOCACTUS.

(From Garden and Forest, iii, 238)

The genus Echinocactus is represented in SouthernCalifornia by a great diversity of forms which nearly approach each other. The Cactaceae are generally recognized as very difficult to study, not, perhaps because they are characterless, but because of the difficulty of making specimens and the usual lack of material for study. Only by very extended and close field observation can

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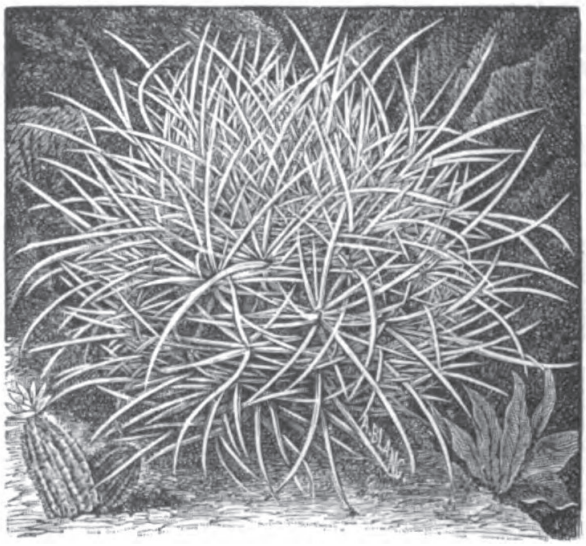
one arrive at correct conclusions relative to species and varieties, and this none of our botanists have yet enjoyed.

Near San Diego the genus is represented by E. viridescens Nutt., usually a low, depressed plant of about thirteen ribs, with pale straw-colored flowers and a slightly acid, pleasant fruit. This is a maritime species or variety almost wholly restricted to the immediate neighborhood of San Diego.



ECHINOCACTUS CYLINDRACEUS.

Echinocactus Orcuttii, Engelm., is found a little further to the south and further inland from the coast. It differs in size, the number of ribs (usually twenty-two to thirty) and in the young plants, which are globose. It is inclined to grow in cæspitose clumps of fifteen to twenty cylindrical heads, around which the ribs are often spirally inclined. It seems to form almost a connecting link between E. viridescens and E.cylindraceus, Engelm., which latter was originally collected by Dr. Parry on the eastern slopes of the mountains bordering the Colorado Desert, in San Diego county. Dr. Engelmann was at one time inclined to doubt the right of E. cylindraceus to specific rank, as other botanists are still inclined to doubt. In 1882, I found what I determined was E. cylindraceus in the desert cañons of Lower California, and also west of the mountains near the San Rafael valley, and Dr. Engelmann wrote that he concurred with me in that opinion. This cactus was a fine cylindrical plant, encompassed by a fine network of its slender, recurving white spines, with lemon-yellow flowers.

Echinocactus Lecontei, Engelm., is another species originally credited to the Eastern slope of our mountains and to Arizona. Hundreds of plants annually reach the European market under this name, collected within the confines of the Colorado Desert, which differ only in a slight degree from E. cylindraceus. This form is more inclined to a grayish color, less flexible spines, and perhaps to a more globose shape. The demand in Europe for

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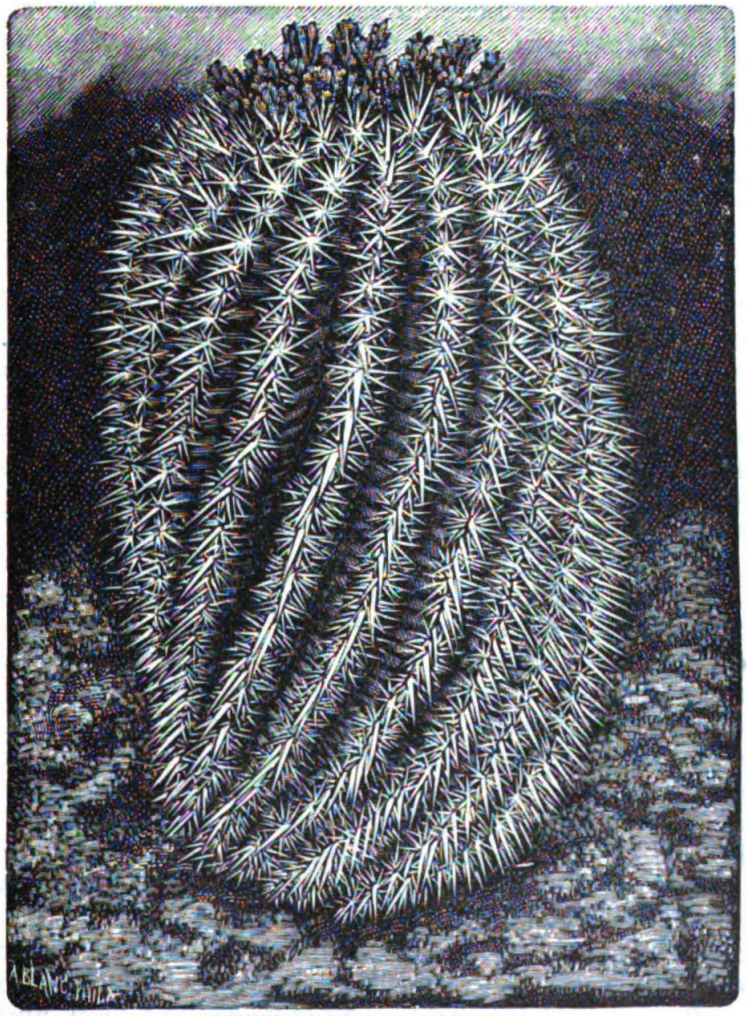
this particular species makes it command a higher price than many others, and it was only recently that I learned whence the trade was supplied. As they are collected near the original locality cited for it, no blame can attach to those who endeavor to supply the demand, but I must consider it merely a 'trade name' for a form differing in no essential character from other plants yearly sent out under this, the preceding and the following names.

Echinocactus Wislizeni, Engelm., is the oldest name applied to any of these forms of cacti. Some of the plants received under this name are beautiful, with white spines like those of E. cylindraceus; others have exceedingly handsome red spines; still others have dull spines of no special color. In young plants especially the color of the spines is very variable.

Echinocactus Emoryi is the last of our Californian species to receive notice. It more nearly approaches the two first mentioned species, the reddish spines and flowers being usually the most characteristic features. But along with the red-spined and



ECHINOCACTUS ORCUTTI.

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red flowered plants, I have found other varieties, white, green, brown and other shades in flowers and spines—until no constant character can be found by which to distinguish between them.

English cacti-culturists claim that E. Orcuttii is identical with the old E. Californicus, a name considered synonymous with E. viridescens by Dr. Engelmann. A great variety of plants have reached the European market under the latter name, which, considering its natural variations, is not to be wondered at.

I have carefully studied every form in Southern California, and northern Lower California that I have been able to learn of, and I have been forced to the conclusion that only three true species exist within our limits: E. polycephalus (belonging to a distinct section of the genus,) E. Wislizeni and E. viridescens. Under E. Wislizeni I would class as varieties E. cylindraceus and E. Lecontei; while under E. viridescens I would place E. Emoryi and E. Orcuttii as sufficiently well-marked varieties. Several other varieties of both these species could be sufficiently distinguished to satisfy the foreign trade. Perhaps these views will not be retained when I become more familiar with Arizona, New Mexico and Mexican forms. but they are certainly in line with the later views of Dr. Engelmann, the greatest authority on the family that we have had.

C. R. Orcutt.

PAPAVER CALIFORNICUM.

(From Garden and Forest, iii, 385)

This true poppy, the only one indigenous to California, was discovered in 1886 in the Santa Inez mountains by Mr. John Spence, of Santa Barbara. It was described by Dr. Asa Gray in the Proceedings of the American Academy of Arts and Sciences, Vol. XXII, pp. 313-314, thus being one of the last California flowers to receive a name at the hands of that illustrious botanist. Not only is it one of the latest discoveries, but it justly ranks among the handsomest of the annuals of the Pacific Coast.

It is rarely found except on ground which has been burnt over, Mr. Spence first finding it far away from any cultivated fields at an elevation of 1,500 to 2,000 feet, on ground which had been covered principally with manzanita bushes, but had been burned over the year before. Probably for this reason and from its close resemblance in appearance to Meconopsis heterophylla, a less showy plant, but with flowers almost identical in size and coloring, it owes its escape from previous discovery.

As Dr. Gray suspected, this is not a local species, but is apparently widely distributed in Southern California, having recently been collected by several botanists in widely separated localities, but everywhere under similar conditions as first found, on tracts of burnt brush-lands at from one to two thousand feet elevation. This spring I observed it in great abundance back of San Diego, near Potrero, and also between the Cajon and Santa

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Maria valleys on hillsides burned over by forest or brush fires last fall. Although I have traversed both sections repeatedly during the past ten years, this richly colored flower had never been seen before these fires had denuded the land.

It forms a fine, bushy plant about a foot in height and bears a profusion of large showy flowers of an average of two inches in diameter. The color of the large delicate petals is a bright saturn red to orange chrome, with a center of a delicate sulphur yellow. In cultivation it is said to make a fine pot-plant, and if it improves as most of our wild flowers do under the attention of horticulturists, it will prove a most desirable addition to American gardens.

Associated with it is usually found Phacelia Orcuttiana, another so-called 'fire-weed' which is likely to prove a welcome acquisition to the garden on account of its masses of white flowers with conspicuous yellow centers. This Phacelia grows into a tall, stately plant, branching freely from the base.

It is an interesting problem why the seeds of these handsome plants should lie dormant so many years in the soil, awaiting the —to them—life-saving, destructive fire. After once starting into existence, the seed does not seem to require to pass through the ordeal of fire before growing, for the second year after a fire they appear in greater abundance than the first. Gradually, however, as other plants get re-established on the ground these become fewer and fewer, until other vegetation overcomes them, and their seeds again lie dormant in the soil awaiting another deluge of flame. *C. R. Orcutt.*

LIBRARY CATALOGUE.

(Scientific books and periodicals may be ordered through our Book and Subscription Department.)

Recent accessions to the Library of the West American Museum of Nature and Art will be catalogued monthly.

4027. Contributions to American Botany, XVII. I. Miscellaneous notes upon North American plants, chiefly of the United States, with descriptions of new species. II. Descriptions of new species of plants, from northern Mexico, collected chiefly by Mr. C. G. Pringle, in 1888 and 1889. By Sereno Watson. From Proc. Am. Acad. Art and Sci. XXV., pp. 123-165 (issued Sept. 25, 1890). From the author.

4028. A provisional host-index of the fungi of the United States, by W. G. Farlow and A. B. Seymour. Part II. Gamopetalae—Apetalae. Cambridge, Sept. 1890. From Dr. Farlow.

4029. Annual report of the State botanist of the State of New York. By Charles H Peck, Albany, 1890. From the author.

4030. Report of the botanist on the grasses and forage plants, and the catalogue of plants. By Charles E. Bessey and Herbert J. Webber. Extracted from the report of the Nebraska State

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Board of Agriculture for 1889. Lincoln, Neb., 1890. From H. J. Webber.

4031. Notes on slugs, chiefly in the collection of the British Museum. By T. D. A. Cockerell. From the Annals and Magazine of Natural History, October, 1890, pp. 277-288. From the author.

4032. Colorado College studies: papers read before the Colorado College scientific society. First annual publication. Colorado Springs, Colo., 1890. From the society.

4033. Bulletin of the Illinois State Laboratory of Natural History. Vol. III. Articles I to X. pp. 1-190 (separates).

4034. A protest against the Supreme Court of Illinois. By Edward C Hegeler. Chicago, 1890. From the author.

4035. Catalogue of the described Araneae of temperate North America. By Dr. George Marx. From Proc. U. S. Nat. Mus., XII, 497-594. Washington, 1890. From the Smithsonian Institution.

4036. Notes on the leaves of Liriodendron. By Theodor Holm.

4037. Birds from the coasts of western North America and adjacent islands, collected in 1888-'89. with descriptions of new species. By Charles H. Townsend.

4038. Reptiles from Clarion and Socorro Islands and the Gulf of California with description of a new species. By Charles H. Townsend.

4039. Plants collected in 1889 at Socorro and Clarion Islands, Pacific Ocean. By Dr. George Vasey and J. N. Rose.

4040. On a new genus and species of Colubrine snakes from North America. By Leonard Stejneger.

4041. The osteological characteristics of the family Anguillidae. By Theodore Gill.

4042. The osteological characteristics of the family synaphobranchidae. By Theodore Gill.

4043. The osteological characteristics of the family Muraenidae. By Theodore Gill.

4044. On the disappearance of the dick cissel (Spiza Americana) from the District of Columbia. By Hugh M. Smith.

4045. Description of a new species of bat, Atalapha semota. By Harrison Allen.

4046. On the snakes of the genus Charina. By L. Stejneger.

4047. On the North American lizards of the genus Barissia of Gray. By L. Stejneger.

4048. Notes on the occurrence of a young crab-eater (Elacate canada) from the Lower Hudson Valley, N. Y. By A. K. Fisher.

4049. Observations on the life history of the bottlenose porpoise. By Frederick W. True.

4050. Descriptions of new West American land, fresh water, and marine shells, with notes and comments. By Robert E. C. Stearns.

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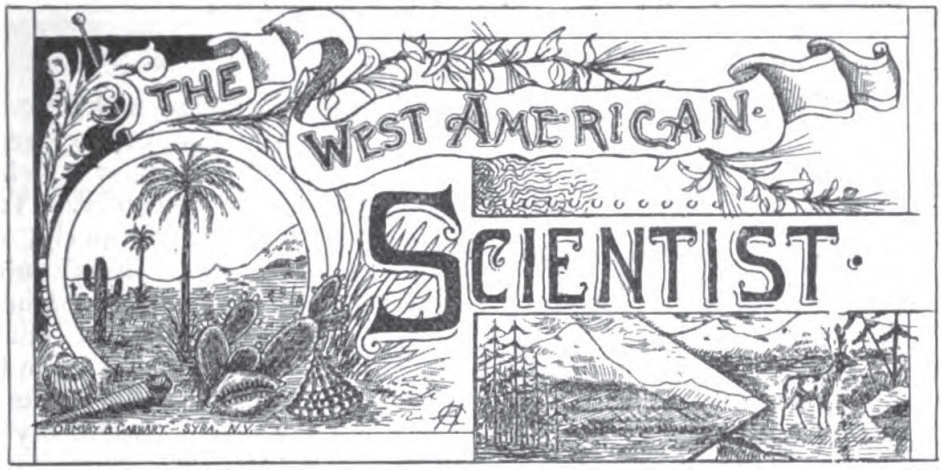

LITERARY AND EDUCATIONAL SUPPLEMENT, No. 3.

(*Edited by the Students and Facully of the San Diego College of Letters.*)

A POETICAL MOSIAC.

(Selected.)

Why all this toil for triumphs of an hour (*Young*)?
Life's but a summer, man a flower (*Johnson*).
By turns we catch the vital breath and die (*Pope*)—
The cradle and the tomb, alas! so nigh (*Prior.*)
To be is better far than not to be (*Sewell*)
Though all man's life may seem a tragedy (*Spencer*);
But light cares speak when mighty cares are dumb (*Daniell*);
The bottom is but shallow whence they come (*Raleigh*).
Your fate is but the common lot of all (*Longfellow.*)
Unmingled joys here to no man befall (*Southwell*,)
Nature to each allots his proper sphere (*Congreve.*)
Fortune makes folly her peculiar care (*Churchill.*)
Custom does often reason overrule (*Rochester*;)
And throws a cruel sunshine on a fool (*Armstrong.*)
Live well—how long or short, permit to Heaven (*Milton*;)
They who forgive most shall be most forgiven (*Bailey*).
Sin may be clasped so close we cannot see its face (*Trench*),
Vile intercourse where virtue has no place (*Somerville*).
Then keep each passion down, however dear (*Thompson*),
Thou pendulum betwixt a smile and tear (*Byron*).
Her sensual snares let faithless Pleasure lay (*Smollett*)
With craft and skill, to ruin and betray (*Crabbe*);
Soar not too high to fall, but stoop to rise (*Massenger.*)
We masters grow of all that we despise (*Cowley.*)
Oh, then, renounce that impious self-esteem (*Beattie*,)
Riches have wings and grandeur is a dream (*Cowper.*)
Think not ambition wise because 'tis brave (*Davenant*;)
The path of glory lead but to the grave (*Gray*).
What is ambition? 'Tis a glorious cheat (*Willis*,)
Only destructive to the brave and great (*Addison.*)
What's all the gaudy glitter of a crown (*Dryden*)
The way to bliss lies not on bed of down (*Quarles.*)
How long we live, not years, but actions tell (*Watkins.*)
The man lives twice who lives the first life well (*Herrick.*)
Make then, while yet you may, your God your friend (*Mason.*)
Whom Christians worship, yet not comprehend (*Hill.*)
The trust that's given guard, and to yourself be just (*Dana*,)
For, live we how we can, yet die we must (*Shakespere.*)

——:o:——

WAITING.

By the mossy old stone wall,
From the trees the blossoms fall
Bright the starlight burns above,
While I'm waiting for thee love
Waiting, waiting,
In the golden even-tide.

By the mossy old-stone wall,
On thy grave the dead leaves fall;
Soft the starlight beams above
I am lonely waiting love
Waiting, waiting
For the golden even-tide.

Eulalie Woods.

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At Home.

LOCALS AND PERSONALS.

We are glad to welcome back Theodore Barnes, a former student.

We have been entertained with some every excellent debates in the Literary Society, lately.

A short while ago we students made a visit to that place of historical interest, Old Town, sometime afterward, to take advantage of the extreme low tide, we walked along the beach to Point of Rocks. The coloring of the sea and glittering sands, the silvery, slender new moon and the gleaming evening star burning in a sky that still glowed with the glory of sunset could have been done justice only by the pen of Black. It is certainly true that the students in our college have the benefit of beauties of nature not to be met with elsewhere.

Miss Gover had an appreciative audience in her room, the other day, looking at some of her pictures—water-colors, designs, copper-plate etchings of Colorado scenery, paintings in oil, etc.

Last Friday in replacing officers in the Excelsior Society Miss Ida Lowe was chosen President; Henry Frey, Vice-President; Miss Belle Jacoby, re-elected Secretary; E. N. Groh, Chaplain; Misses Niles and Pease, Critics; the Executive Committee will remain unchanged for the term.

The College students under Prof. Davidson's care went on a picnic to La Jolla Caves, during the recent low tide to gather mosses, shells and information.

A Fox always is a sly creature, and Lewis was true to his name in the management of his debate of last week. By-the-by it was a *very* good debate.

The West is making great strides in educational matters. All who wish to understand the great subject of education as it affects America must keep *en rapport* with our western country. One of the western schools has a travel class which visited Washington recently. Travel classes, if managed properly, must have distinct effect upon culture. The Englishman who, in Chesterfield's time, scrupulously sent his son on the "grand tour," and the young German of Goethe's time who "finished" with a "wander-year," understood this.

The teacher of Art, Miss M. E. Gover, from London, has exhibited in all the principal exhibitions in England, among which are the Royal Academy of Fine Arts, London; the Institute of Painters in Water Colors, Picadilly, London, and the Society of British Artists, Certificated as Art Master at the South Kensington School of Design. She also holds certificates with honors, from the Trinity College, London. Since she has been in America her line of work has been etching, chiefly from western scenery.

EDITORIAL.

The *Illini*, the old college paper of the University of Illinois, this fall, enters on its twentieth volume. The *Illini* grows and improves with the institution with which it has so long been identified. In its issue of September 27th, the *Illini* said:

A fact ever to be borne in mind about the College of Letters is the salubriousness and healthfulness of the climate and location.

Not only do those who are in good health, or entering college retain their health, but invalids of other climes and localities attend school at Pacific Beach, able to live comfortably, pursue their studies, and constantly gain in health.

'Tis always morning, somewhere and above
The awakening continents, from shore to shore,
Somewhere the birds are singing evermore.

—*Longfellow.*

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School and College.

SCHOOL AND COLLEGE.

The Westfield, Mass. High School is to organize an Agassiz Science Club.

A party of students of California College, Oakland chaperoned by a professor, lately paid a visit to their noted neighbor, Joaquin Miller, "The Poet of the Sierras." who has his characteristically odd home in the hills of East Oakland, or on what he calls "Oakland Heights." Like other notables, the blond old singer of the mountains, is intruded upon by a great many gaping sight seers, who go to look at him as they would some abnormal curiousity in a noisy side show to a menagerie. So this party found Joaquin too much indisposed to receive them as he preferred the role of an interesting invalid to that of a (mountain) lion. Mr. Miller is excentric or nothing. A few years ago while making his home temporarilly in Washington, D. C., he perched his "cabin" in the prongs of a tree and had the distinguished people who would run after him, climb a ladder to gain his latch string.

English universities derive only one-tenth of their support from students, while the students of American Colleges contribute two-fifths to their maintainance.

A number of the students of the university of Kansas have formed a "Modern Language Club." All the business correspondence, conversation and exercises of the meetings are to be conducted in the language to which the session of the Club is devoted—French, German, etc.

The university of Illinois has 450 students. 177 of them being new ones, this fall.

The university of Moscow is 135 years old, and has 88 regular professors, 85 private instructors and 3,805 students.

NOTES AND NEWS.

The debate is the Society grindstone.— *Whittenberger.*

The tunnel under St. Clair river, between Canada and the United States is completed, and soon will be opened with a "hole" lot of ceremony.

A thirty-four mile $40,000,000 tunnel is proposed now, between Ireland and Scotland. An eight or ten year job.

A cheap luminous paint is now in use in Germany, designed for painting cellars, railway tunnels, dark rooms, etc. It is now produced in various colors, white, red, blue, yellow, etc , at a cost of about seventeen cents to the square yard of wall.

"It is not intellectual work that injures the brain," says the London *Hospital*, "but emotional excitement. Most men can stand the severest thought and study of which their brains are capable, and be none the worse for it, for neither thought nor study interferes with the recuperative influence of sleep. It is ambition, anxiety, and disappointment, the hopes and fears, the love and hates of our lives, that wear out our nervous system and endanger the balance of the brain."

Mr. Kessler, Chief Forest Master in Germany, makes the striking comparison that the United States has only 11 per cent. of its area covered by forests, while of the entire German empire there are 26 per cent. of area covered.

"Woodman spare that tree!"

Dr. Koch's cure for consumption is a healthy medical fad, just now. Medication is said to be by the injection, of "lymph," under the surface of the body.

Whales are becoming scarce and whalebone is $10,000 a ton. Perhaps raising whales is to become an industry, like that of raising buffaloes. Buffaloes not very long ago clouded the plains of this country. In the November *Century*, Gen. John Bidwell, one of our interesting pioneers, writes of the buffalo of only about

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forty years ago:

I think I can truly say that I saw in that region in one day more buffaloes than I have seen of cattle in all my life. I have seen the plain black with them for several days' journey as far as the eye could reach. They seemed to be coming northward continually from the distant plains to the Platte to get water, and would plunge in and swim across by thousands — so numerous were they that they changed not only the color of the water, but its taste, until it was unfit to drink; but we had to use it. One night when we were encamped on the South Fork of the Platte they came in such droves that we had to sit up and fire guns and make what fires we could to keep them from running over us and trampling us into the dust. We could hear them thundering all night long; the ground fairly trembled with fast approaching bands; and if they had not been diverted, wagons, animals and emigrants would have been trodden under their feet.

Bret Hart, who is growing old and white-haired, is living in England, where he is still quite popular.

Among the new exchanges is the WEST AMERICAN SCIENTIST, published at San Diego College of Letters, Pacific Beach, California. The paper is divided into two departments, a scientific, and a literary and miscellaneous. It is published monthly. The scientific department of the August number begins with a review of the life and services of Mathew Cook, a prominent western naturalist whose investigations of the Codlin moth and other insects injurious to fruit attracted considerable attention. An article on "The Beach and Its Effects on the Climate," and another on "The Coloration of Fishes," are also of special interest. An article on the flora and fauna of that region is valuable to anyone interested in botany and zoology. The literary and miscellaneous departments contain useful and humorous articles which convey many valuable hints.

College of Letters.

FACULTY.

Samuel Sprecher, L. L. D., President.
F. P. Davidson, A. M., Natural Sciences.
Lucia Powers Woods, Languages—Ancient and Modern.
Thos. J. Penfield, A. B., Mathematics.
Mary Edith Gover, Art Master—Art and English.
Carl Vandal, Music—Violin, Piano, Vocal.
E. N. Proh, Asst. Instructor of Latin.
Katie Woodford and Lita Kidwell, Asst. Insts. Preparatory.

—:o:—

STUDENTS.

Alexander, Jesse,	San Diego,	Calif.
Ames, Nellie,	Los Angeles,	"
Barbour, Frank,	Coronada,	"
Barbour, Fred,	"	"
Barnes, Theodore,	Madisón,	Neb.
Blakeman, C. B.	San Diego,	Calif.
Bottsford, Addie,	La Jolla,	"
Brown, Bessie,	San Diego,	"
Cogewell, Mary,	Pacific Beach,	"
Davidson, Charles,	"	"
Davis		
Fox Lewis	Colton,	"
Frey, Henry H.,	Cincinnati,	Ohio.
Gabrielson, Wm.,	San Diego,	Calif.
Gearn, Laura,	"	"
Groh, E. N.,	Boyertown.	Penn.
Hall, Maria,	El Cajon,	Calif.
Havermale, Wm.,	San Diego,	"
Hewlet, Fannie,	Cascade,	Colorado.
Jacoby, Belle,	San Diego,	Calif.
Jones, C. Lily,		
Kidwell, Lita,	National City,	"
Kirby, Edith,	San Diego,	Calif.
Lovett, Horace	"	"
Lowe, Ida,	"	"
Niles, Ruby,	"	"
Oliver, Jacqueline,	Punta Banda,	L. C.
Pauly, James,	San Diego,	Calif.
Pauly, Nettie,	"	"
Pease, Fannie,	Valley Centre,	"
Pease, Minnie,	"	"
Reed, Oliver,	San Diego,	"
Roper, Chas.	Dublin,	Ireland.
Roper, Samuel,	"	"

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Rowe, Evangeline, Pacific Beach, Calif.
Rowe, Mabel, " " "
Stockton, Samuel, San Diego, "
Sprecher, James, " "
Suits, Rodney, " "
Thomas, Fred, " "
Thope, Lulo May, Pacific Beach, "
Thoustrup, Della, San Diego, "
Thoustrup, Rosa, " "
Thresher, Marian, Pacific Beach, "
Townsend Maud, Calico, "
VanNorman Vernon, San Diego, "
Wagner, Pearl, Pacific Beach, "
Wescott, Maud, " "
Wood, Harry, National City, "
Woodford, Kate, San Diego "
Woods, Eulalie, Pacific Beech "
Woods, Percival E. " "

CHILDREN'S LITERATURE.

Victor Hugo calls this 'the women's century,' and he might have added that it is the children's century as well, for never before the world's history has so much thought been paid to children—their schools, their book, their pictures and their toys. Childhood, as we understand it, is a recent discovery.

Up to the time of the issue of the *St. Nicholas Magazine* seventeen years ago literature and children's magazines were almost contradictory terms, but the new periodical started out with the idea that nothing was too good for children; the result has been a juvenile magazine genuine with conscientious purpose—the greatest writers contributing to it, with the best artists and engravers helping to beautify it—and everything tuned to the key-note of youth.

It has been the special aim of *St. Nicholas* to supplant unhealthy literature with stories of a living and healthful interest. It will not do to take fascinating bad literature out of boys hands and give them in its place Mrs. Barbauld and Peter Parley, or by the work or writers who think that any 'good-y' talk will do for children, but they must have strong interesting reading, with the blood and sinew of real life in it—reading that will waken them to a closer observation of the best things about them.

In the seventeen years of its life *St. Nicholas* has not only elevated the children, but it has also elevated the tone of contemporary children's literature as well. Many of its stories, like Mrs. Burnett's 'Little Lord Fauntleroy,' have become classic. It is not too much to say that almost every notable young people's story now produced in America first seeks the light in the page of that magazine.

The year 1891 will prove once more that 'no household where there are children is complete without *St Nicholas*.' J. T. Trowbridge, Noah Brooks, Charles Dudley Warner and many well-known writers are to contribute during this coming year. One cannot put the spirit of *St. Nicholas* into a prospectus, but the publishers are glad to send a full announcement of the features for 1891 and a single sample copy to the address of any person mentioning this notice. The magazine costs $3.00 a year. Address the Century Co., 33 East 17th St., New York.

A GREAT AMERICAN MAGAZINE.

The Century magazine is now so well know that to tell of its past success seems almost an old story. The N. Y. *Tribune* has said that it and its companion, *St. Nicholas for Young Folks*, issued by the same house, 'are read by every one person

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in thirty of the country's population,' —and large editions of both are sent beyond the seas. It is an interesting fact that a few years ago it was found that seven thousand copies of *The Century* went to Scotland—quite a respectable edition in itself. The question in England is no longer 'Who reads an American book?' but 'Who does not see the American magazines?'

A few years ago *The Century* about doubled its circulation with the famous War Papers, by General Grant and others, adding many more readers later with the Lincoln History and Kennon's thrilling articles on the Siberian Exile System. One great feature of 1891 is to be 'the gold hunters of California,' describing that remarkable movement to the gold fields in '49, in a series of richly illustrated articles *written by survivors*, including the narratives of men who went to California by the different routes, accounts of the gold discoveries, life in the mines, the work of the vigilence committees (by the chairman of the committees) etc., etc. General Fremont's last writing was done for this series. In November appears the opening article 'The First Emigrant Train to California,'—crossing the Rockies in 1841—by General Bidwell, a pioneer of pioneers. Thousands of American families who had some relative or friend among 'the Argonauts of '49' will be interested in these papers.

Many other good things are coming—the narrative of an American's travels through that unknown land Tibet (for 700 miles over ground never before trod by a white man); the experience of escaping War-Prisoners; American Newspapers described by well-known journalists; accounts of the great Indian Fighters, Custer and others; personal anedotes of Lincoln, by his private secretaries; 'The Faith Doctor,' a novel by Edward Eggleston, with a wonderfully rich programme of novellettes and stories by most of the leading writers, etc., etc.

It is also announced that *The Century* has purchased the right to print, before its appearance in France or any other country, extracts from advance sheets of the famous Talleyrand Memoirs, which have been secretly preserved for half a century—to be first given to the world through the pages of an American magazine. All Europe is eagerly awaiting the publication of this personal history of Talleyrand—greatest of intriguers and diplomats.

The November *Century* begins the volumne, and new subscribers should commence with that issue. The subscription price ($4.00) may be remitted directly to the publishers, The Century Co., 33 East 17th St., New York, or single copies may be purchased of any newsdealer. The publishers offer to send a free sample copy—a recent back number—to any one desiring it.

SCIENCE FOR YOUNG PEOPLE.

The *Youth's Companion* of Boston the well-known weekly, filled with choice stories and miscellany, announces for 1891 an interesting and instructive series of papers by eminent scientists on the latest discoveries in science.

Among the subjects are, 'The Stars,' 'The Moon,' 'The Earth,' 'The Ocean,' and 'The Sun.' 'The Trappersand Hunters of the Insect Tribes,' by Dr. H. C. McCook, is sure to be especially fascinating to the naturalists old and young. Subscription price, $1.75 per year in advance, for this unique journal.

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Among the Wits.

IN LIGHTER VEIN.

Produced without irrigation—a dry joke.

A watch factory can't run on tick any better than any other factory can.

The r-oystering months — the months with "r's" in them.

Many a poor man with a large family has found that any number of dogs will not keep the wolf from the door.

Work educates the body—*Coleridge.*

How ignorant a tramp's body must be.

Little Dot—"Mamma, what does 'transatlantic mean?" Mamma—"Across the Atlantic of course." Little Dot—"Does 'trans' always mean 'across'?" Mamma—"Yes. Now don't bother me any more, or I shall put you to bed." Little Dot—"Well, Mamma, does 'transparent' mean a cross parent?"

Young Humorist (to the editor)—Have you looked over the comic sketches I left with you?

Editor—I have.

Young Humorist—They ain't as good as I might do if I hadn't so many other irons in the fire.

Editor (handing back the manuscript)—Here they are and I advise you—

Young Humorist—What?

Editor—Put them with the other irons.—*Texas Siftings.*

Girls—Plant the mind with learning,
Water the heart with culture and grace;
Keep the fires of conscience burning,
And paint and powder off your face.

Boys—Rule your own spirits,
If you can't, its a sad, sad pity;
And scripture says it you do,
You're "greater than he that taketh a city."

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