







# The West American Scientist.

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## EDITORIAL.

In commencing a new volume of this magazine we wish first to thank its friends and contributors, whose aid in the past has rendered its publication possible. As to the future, if present assurances do not fail, we hope to accomplish the ambitious task we have set ourselves, which will convert its pages into a vast cyclopaedia of West American biology, and a history of the progress of science on the Pacific Coast. The co-operation of every reader is desired.

## NOTES AND NEWS.

### San Diego Marine Biological Association:

It is announced that the gift of Miss Ellen B. Scripps, of fifty thousand dollars, for a new building, is now available, and it is hoped to complete the structure by August, 1907.

The newly elected directors are:—  
Dr. Fred Baker, President.  
Prof. W. E. Ritter, Scientific Director.  
Julius Wangerheim, Treasurer.  
F. W. Kelsey, Secretary.  
Miss Ellen B. Scripps.  
Edward W. Scripps.

### Brandege Herbarium and Library:

Announcement is made of the gift of the Brandege herbarium, consisting of some 125,000 sheets, and the valuable botanical library associated with it, to the California State University, at Berkeley, California, by Mr. and Mrs. T. S. Brandege.

### Calamintha Chandleri.

T. S. Brandege, *Zoe* 5:195 (Ag 1905), describes this as follows:—  
"Stems frutescent, branching, 1 m. high, forming clumps, upper parts pubescent: leaves orbicular or broadly ovate, with truncate or cuneate base, obtuse, crenate-serrate or entire, 1 cm. long and broad, slightly pubescent on the upper face, more so on the lower: petioles pubescent, 5 mm. long: flowers single or in 2-4-flowered cymes in the axils of the leaves; peduncles and pedicels 1-2 mm. long: bracts linear-lanceolate: calyx tubular-campanulate, slightly bilabiate, 6-7 mm. long; the teeth about 1 mm. long, triangular, acuminate, those of the lower lip slightly longer: corolla 13 mm. long, pubescent outside, cream-white: the tube straight, as long as the calyx; lobes of the lower lip short: stamens conniving in pairs: style bearing a few scattered hairs nearly its whole length. Collected by H. P. Chandler near San Diego, California, on Mount San Miguel, May 21, 1904."

## WANTS.

The director of the United States Geological Survey, Washington, D. C., wishes to obtain numbers 1, 2, 70-73, 96 and 97 of the West American Scientist to complete their set.

The librarian of the New York botanical garden wishes numbers 1, 2, 4, 9, 11, 96 and 97 of the West American Scientist.

The Library of Congress lacks num-

bers 1, 9, 27, 28 and 96 of the West American Scientist, which the librarian wishes to obtain.

The Smithsonian wants Nos. 2, 4, 6-8, 20, 21, 23-25, 29-31, of the West American Scientist, and the U. S. National Museum wants Nos. 2, 4, 6-9, 50-54, 66, 68, 69 and 70.

### PLANT IDENTIFICATION.

Perhaps no greater service can be done the rising generation in America than the establishment of a bureau where specimens of plants, insects, minerals, etc., could be sent, with a fair prospect of securing the correct names. Scientific activity has never been greater, and institutions glad to render such aid have never been more numerous. Yet even a professional botanist, with an acquaintance with specialists, and the specialists themselves, with all the available facilities of modern institutions, find infinite difficulties in their way. Botany is not an exact science, and its literature has become so intricate and cumbersome that no one can hope to fully master it. As the late Thomas Meehan has remarked, the greatest need at the present time is not more literature, but an index to what we already have. To render the subject still more difficult, there has arisen much controversy over nomenclature, until no one can be quite sure as to the names that should be used.

One writer (Heller, *Muhlenbergia* 1:135) remarks that he "can see no object in burdening literature with varietal or form names." Hence every albedo must be ranked as a species, or remain nameless. Every distinct variety must be raised to specific rank or ignored. Even this could be borne, if botanists would refrain from describing specimens as species, but each must be allowed individual freedom, to describe new species of thunder, if he likes, as one notable American botanist has done.

Such a bureau as is needed, would require for the naming of American plants alone a library that would cost far more than \$100,000, an herbarium

that would require years to form, and trained specialists with unlimited leisure and patience, to solve the problems that would confront them. A botanical garden on no mean lines would also be found indispensable to the proper conduct of the work. Fools rush in where angels fear to tread—and this magazine is not yet equipped for the work outlined. We shall, however, from time to time give practical directions and advice to those seeking to take up botanical work.

As a possible help to the student, we have decided to give carefully compiled descriptions of the plants of the southwest, bringing together the many scattering descriptions as far as possible, with the hope that in time the beginner, by saving up these pages, will be fairly equipped to identify the native plants of the Golden State, and be able to judge for himself as to the rightful names for our trees and flowers.

### California Plants.

A new work on California botany, by Charles Russell Orcutt, editor of the West American Scientist, of San Diego, Cal., is announced. The title is "California Plants," and it is being issued in parts—each containing descriptions of about one hundred species of the native trees and flowers. The price is \$3 for 12 numbers. Four parts are now in press and the first volume of 12 parts will be completed, it is hoped, during 1907.

### CALIFORNIA BOTANICAL GARDEN

Recent accessions to the plant collections are as follows.

From the Missouri Botanical Garden:—

- Aloe albocincta.**
- Variety **grandidentata.**
- Aloe Baumii.**
- Aloe commutata.**
- Aloe dichotoma.**
- Aloe macrocarpa.**
- Aloe obscura.**
- Variety **intermedia.**

**Aloe Salm-Dyckiana.**  
 Aloe Schimperii.  
 Aloe striata.  
 Aloe supralaevis.  
 Variety erythrocarpa.  
 Variety hybrida.  
 ALOE VERA Linnaeus.  
 Apicra aspera.  
 Apicra foliolosa.  
 Gasteria acinacifolia.  
 Gasteria brevifolia.  
 Gasteria Croucheri.  
 Gasteria cuspidata.  
 Gasteria decipiens.  
 Gasteria disticha.  
 Variety angulata.  
 Gasteria excavata.  
 Gasteria maculata.  
 Gasteria nigricans.  
 Variety subnigricans.  
 Gasteria subverrucosa.  
 Gasteria verrucosa.  
 Haworthia attenuata.  
 Haworthia coarctata.  
 Haworthia fasciata.  
 Haworthia granata.  
 Haworthia radula.  
 Haworthia rugosa.  
 Haworthia subrigida.  
 Haworthia tortuosa.



## MEDICAL SCIENCE DEPARTMENT.

### PERPETUAL YOUTH.

The poet informs us that no one ever truly longs for death. It is life, more life and fuller that we want. It is true there is an instinctive grasp upon even the seemingly most undesirable life, but the hold is instinctive rather than reasonable. The love of youth, however, is dictated by reason. Its desirability is seen by all. My friend once said, "I would far rather die than be old."

Scientists have been trying for ages to discover the secret of perpetual youth. They have arrived at a plausible theory and it remains with the present generation to test its practical merits.

Youth is the period of construction. The child eats to live and to grow. After maturity he should eat only to live and, according to modern theory, if this were done there would be no pe-

riod of old age. In youth there is a natural elasticity of the walls of the arteries which assists circulation. So long as nutrition supplies only waste the elasticity continues but as soon as nutrition becomes more abundant than activities require the surplus is deposited causing a hardening of the walls of the arteries. This hardening interferes with the perfection of the whole circulation and thus introduces the commencement of the period known as old age. Accordingly old age could be prevented by supplying less nutrition of by using the supply more lavishly in larger activities. It is usually recommended both to eat less and to exercise more.

As I have already said it rests with the present generation to test the value of the assertion. And yet we can look about us and see the probability of success. Years ago it was considered that maturity with its burden of work and care required more nutrition than the growing child who is none the less busy because its activity is expended upon what the hard-working parents call play. still larger supply of nutrition was supposed to be required as the weakness of old age approached. As a result we saw commonly a sluggish, feeble old age at three score years and ten against which we now more frequently find youthful activity and vigor in the eighties.

The greater youthfulness of the present examples of advanced age are due not only to greater activity, and a possibly greater abstemiousness but also to a different frame of mind. In former years old age was invited by being expected. Men in their prime retired from business and sat down with open arms to await the advent of the spectre. Mothers resigned their household cares to the daughters and mistook the consequent loss of interest and capability for the approach of old age. Gradually, however, a change has come. Reason points out the absurdity of these things and the human will has asserted itself and that, as all physicians know is a power. An old soldier, wounded and apparently dying, was told by the surgeon that he had but one chance in a hundred to

live. "Well, sir," he answered sturdily, "I'll take that chance," and he did and lived. The will to be young is no small help to the result.

Adelina Patti is a good illustration. She wished to be youthful and believed it possible to be so. In her opinion the greatest foe of youth is ill health. "Whenever we are sick," she says, "we lose a part of our youth. Every convalescence requires an expenditure of vital force and is so much subtracted from one's life capital." Good health she believes to be within the reach of all. Much of the feebleness of women is brought about by the obligations of conventional social life which bring neither enjoyment nor usefulness but awaken ambition, envy and bad temper, the greatest foes of good health.

Serenity of spirit is considered by many as the one great secret of longevity. It certainly is a powerful ally of youthfulness. A statement of Sir Benjamin Ward Richardson, M. D., places the normal period of man's life at about one hundred and ten years and states that about seven out of every ten people could attain to that age if they lived aright. His advice is to cultivate a spirit of serene cheerfulness under all circumstances and to learn to like physical exercise in a scientific way. Chauncey M. Depew gives as his observation that longevity is indissolubly connected with work. And yet the healthfulness of work can be destroyed by an adverse or fretful state of mind. The mind is at the head and it can be schooled to look upon life with cheerfulness. We may not be able to realize our ideal but we can, as some one has said, idealize our real.

We see in the present generation a small army of those who have set out toward the goal of perpetual youth. They are all of them busy, active men and women, not acidly abstemious but merely not gluttonous, serene for they have faith in the eternal working for good of all things. They are happy for they are seeking the good of those about them. They are counting their lives not by years but by actions. They will never grow old: Long may the live!

OLIVE EDDY ORCUTT, M. D.

## AMERICAN BOTANICAL GARDENS

**Botanic Garden of Harvard University:** Cambridge, Massachusetts.

Founded in 1805, with about 7 acres of land. The system of garden, libraries, museum, laboratories and herbaria operated by Harvard College, is one of the most complete in existence. The Gray Herbarium and Library is classic ground. The garden itself is insignificant.

### Arnold Arboretum:

Jamaica Plain, Massachusetts.

Founded through a bequest of \$100,000, made about 1870, by James Arnold, of Providence, R. I. Now the greatest tree museum in existence, freely open to the public, covering over 160 acres.

### Missouri Botanical Garden:

St. Louis, Missouri.

Established in 1889, through the will of Henry Shaw, who devised about 670 acres to the institution. A very large herbarium and library are being formed, with the Engelmann collections for a nucleus.

### New York Botanical Garden:

Bronx Park, New York.

This is a strong association of annual members, who contribute \$10 a year each, fellows and patrons, who, by co-operation with the city, with Columbia University, and a large endowment, have established a superb system of greenhouses, museum, library, herbarium, arboretum, and park. The sum originally subscribed was \$250,000, and a tract of 250 acres in the Bronx was set aside for its use.

### University of California:

Berkeley, California.

The botanical garden supported occupies several acres, and contained in 1905 about 2000 species. The valuable herbarium and library has been enriched by the gift of the Townsend Stith Brandegee herbarium and botanical library, presented in 1906.

### Smith College:

Northampton, Massachusetts.

31 OCT. 1908

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## CALIFORNIA BOTANICAL ASSOCIATION.

SAN DIEGO, CALIFORNIA.

The objects of this association shall be the promotion of botanical science by exploration, experiment and research; the publication of agricultural and botanical works; the forming of an herbarium, a museum, and library, especially pertaining to agriculture and botany; and the establishment and maintenance of a botanical garden and arboretum, in which every known tree, plant or flower susceptible of cultivation, may be grown for purposes of public instruction, experiment, and scientific observation.

It is proposed to effect an organization, and to incorporate under the laws of the state of California, without capital stock (as pecuniary profit is not its object), at an early date, and every lady or gentleman interested in botany, horticulture, or the allied branches of science, is earnestly invited to become a charter member.

The plans under consideration contemplate the establishment of the CALIFORNIA BOTANICAL GARDEN as an institution of more than local importance, aiming to make it in time of even international value, with features that shall ensure it recognition among the educational factors of the nation. It is therefore proposed to select an "Honorary Advisory Board of American Botanists", who shall be fully advised of our plans and the local conditions, and requested to express advice and suggestions as to the development of the educational and scientific features of

our work, and to co-operate with us, and to use our advantages of climate in the experimental and research work of the several institutions with which they may be associated. The professors of botany in the leading universities of the United States, the directors of the Missouri Botanical Garden, of the New York Botanical Garden, of the Arnold Arboretum of Harvard University, the National Forester, and others, may thus be consistently invited to advise and co-operate with us in our plans—and as far as correspondence thus far conducted with these gentlemen has gone their cordial assistance may be depended upon from the start.

The main elements of the modern botanical garden are fourfold:—the utilitarian or economic, the aesthetic, the scientific or biologic, and the philanthropic. In the broadest interpretation of the economic department there might be included, to advantage, facilities for the display and investigation of all plants directly or indirectly useful to man, and their products. This conception would include forestry, pharmacognosy, agriculture, pomology, pathology and organic chemistry.

A sense of the beautiful can be maintained and cultivated in the establishment of the modern botanical garden, the buildings, roads, paths and planting being arranged with reference to tasteful and decorative landscape effect. The cultivation of decorative plants, and especially the fostering of a taste for them, and the bringing of unusual or new species to attention and effecting their general introduction, are important functions

