

bryo sac into parenchyma tissue coördinate with the phenomenon so common in stamens.

The synoptical resumé given above, upon examination, indicates that in general the influence of the cecidiogenic stimulus is essentially atavistic in character and results. Chlorosis, antholysis, hypertrophy, all may be considered as reversion phenomena. A peculiarly good example is the conversion in cecidia of ligulate flowers into tubular. The specialized organ becomes more generalized. It is not improbable that cecidia forms, when thoroughly understood, will be found to present a series comparable with the paleontologic or ontogenetic series of organisms, and that they will afford similar ground for speculations concerning descent, if not of species, at least of certain tissues and organs.

CONWAY MACMILLAN.

#### CURRENT NOTES ON ANTHROPOLOGY.

##### THE WALL PAINTINGS OF MITLA.

ARCHÆOLOGISTS are well aware of the mystery which has surrounded the ruins of Mitla in Oaxaca, grandiose remains which were found deserted and nigh forgotten when the Spaniards first conquered the country. A handsome large folio volume has recently been published in Berlin (A. Asher & Co.) in which Dr. Eduard Seler presents a study of the singular wall-paintings, portions of which still adorn the inner surfaces on the walls of some of the rooms.

Dr. Seler copied these with fidelity and now reproduces them with an admirable study of their meaning and origin. He is of opinion that the central figure in the religion of the Zapotecs, who are believed to have been the builders of Mitla, was Quetzalcoatl, a familiar and prominent divinity of the Nahuatl tribes. The transfer he explains by the influence which the coast branches of the Nahua exerted upon the Zapotecan priesthood. This thesis is de-

fended with a great deal of learning. Many views of the ruins are given in the full-page plates and numerous mythological figures in the text. The monograph is throughout marked by the thorough scholarship for which the author is so well known among students of American antiquity.

It is a work which our large libraries should not fail to procure.

##### COMMERCE ACROSS BERING STRAITS.

DR. BENJAMIN SHARP at a recent meeting of the Academy of Natural Sciences, Philadelphia, gave some suggestive information about possible ancient commerce across Bering straits. The distance is about forty miles and in the middle are the Diomed Islands, say twenty miles from each shore.

On the American side there is abundance of wood from which canoes, etc., might be made, but there is none on the Siberian side. The skin boats used by the Siberian natives, made from walrus hide, could not have been sewed sufficiently tight by bone needles to have served to cross the strait. The distance is bridged by ice about once in five years, but the passage across is considered quite dangerous, and nothing but the love of tobacco will induce a native to venture. The inhabitants of the Asian side appear to have been more influenced by the Eskimo arts than the reverse.

These facts and the general bearing of Dr. Sharp's observations are unfavorable to an extended early communication from the Siberian coast to the American.

##### THE SOCIETY OF AMERICANISTS OF PARIS.

FOR many years French scholars have taken a creditable interest in the study of American subjects, and another evidence in this direction is the formation of a society in Paris devoted especially to this subject. It is entitled the 'Société des Américanistes,' the president being Prof. Hamy, and

the honorary president the Duke de Loubat.

It has begun the publication of a journal in large quarto form, the first number of which has forty-one pages and several illustrations. Its contents are two articles, one by Dr. Hamy on the American collections brought together at Genoa on the occasion of the fourth centenary of the discovery of America; the second on the present state of the Fu Sang question. They are both interesting, and it is especially gratifying to see that M. Henri Cordier, the author of the latter, follows the opinion of the eminent Sinologue Professor Schlegel in wholly dismissing the discovery of Fu Sang from the list of possible pre-Columbian voyages to America. (I gave Prof. Schlegel's argument in these notes September 9, 1892).

It is not stated what relation, if any, this new society bears to the long-existent 'Société Américaine de France,' which has at times published highly valuable material.

D. G. BRINTON.

#### SCIENTIFIC NOTES AND NEWS.

##### A DIRECTOR IN CHIEF OF SCIENTIFIC BUREAUS IN THE DEPARTMENT OF AGRICULTURE.

A LARGE number of letters have been addressed to Senator Redfield Proctor, Chairman of the Committee on Agriculture, urging the appointment of a permanent Director in Chief of the scientific bureaus and investigations under the charge of the United States Department of Agriculture. The writers of the letters include the presidents and members of the faculties of Johns Hopkins University and of Yale University, the president of Columbia University, Professors Brewster, Shaler and others most competent to judge of the importance of this measure.

The Joint Commission of the Scientific Societies of Washington has adopted the following resolutions:

WHEREAS, The work of the Department of Agriculture in the discovery, exploration, development, conservation and proper utilization

of the resources of our country is of the utmost importance; and whereas the Department's capacity for originating, procuring and disseminating knowledge of vital importance to farming and other interests, though already large, is capable of much extension in the future; and whereas the results accomplished through the system now in existence have been exceedingly great, and the one thing above all others necessary to increase the efficiency of this organization is a permanent policy with regard to its work and personnel:

*Resolved*, That the Joint Commission of the Scientific Societies of Washington, composed of the officers of the several scientific societies of the city, comprising in all a membership of nearly 2,000, heartily approves the proposition to create the office of 'Director-in-Chief of Scientific Divisions in the Department of Agriculture,' to be filled by a broadly educated and experienced scientific administrative officer, holding office during good behavior.

*Resolved*, That the plan of having a permanent officer in charge of the scientific and technical work under the executive head of a department represents a distinct advance in good government, and is therefore not only of national importance, but if carried out certain to have a beneficial effect upon the scientific standing of Government work in all its relations.

##### RÖNTGEN RAYS AND THE ROYAL SOCIETY.

THE London papers give the following account of the meeting of the Royal Society on February 13th: A paper by Lord Kelvin on The Generation of Longitudinal Waves in Ether described an arrangement for obtaining pressural disturbance through a considerable space of air, accompanied by a very small proportion of ordinary transverse waves. His apparatus would afford the means of exposing sensitive plates to these longitudinal vibrations, and thus might assist in elucidating the nature of the Röntgen rays. A paper by Prof. J. J. Thomson was also read relating to experiments from which he concludes that all substances when transmitting the Röntgen rays are conductors of electricity. A discussion followed the reading of these papers, in which de-