

seums. To provide an efficient substitute for these codes, to enunciate the principles upon which a successful defence of society against crime must be conducted and the abolition of criminality accomplished, is the special province and object of penology. * * * The supreme object of penology is to prevent crime, not to punish for it. It is similar to the science of medicine and surgery in that its province is not only to cure specific cases of disease, but also to prevent the genesis, recurrence and spread of disease." In this very radical statement, and in his assertion that 'criminality is a preventable and curable disease,' Mr. Boies goes further than most scientific criminologists are prepared to go.' His absorption in his own subject also leads the author at times to regard the elimination of criminality as the main end for which the state exists, and to advocate unhesitatingly strenuous measures of somewhat dubious character, such as forbidding the marriage of various classes of criminals and even castrating them.

It must be said that the general tone of the book is distinctly dogmatic, and the author seldom appears willing to admit that any question can have two sides to it. He makes few references to authorities, and it may be gathered that his estimates as to the comparative values of authorities are somewhat uncritical. At the same time Mr. Boies has written a distinctly useful book. He may be described as a disciple of Ferri, adopting the same broad sociological standpoint as the eminent Italian author and making an attempt to adapt Ferri's principles to American conditions. It may be added that the book has been admirably produced by the publisher, and shows a praiseworthy absence of inaccuracies and misprints.

HAVELOCK ELLIS.

SCIENTIFIC JOURNALS AND ARTICLES.

THE *Botanical Gazette* for April contains a continuation of Professor Frederick C. Newcombe's paper upon 'The Rheotropism of Roots.' It will be completed in the May number, when the principal results will be noted. Mr. John Donnell Smith publishes his 23d

paper under the general title 'Undescribed Plants from Guatemala and other Central American Republics,' including descriptions of about twenty new species, and also of a new genus (*Donnellia*) of the Commelinaceæ, by C. B. Clarke. Accompanying the paper are two double page plates by C. E. Faxon. Miss Alice Eastwood concludes her 'Descriptive List of Plants collected by Dr. F. E. Blaisdell, at Nome City, Alaska,' describing new species of *Mertensia*, *Pedicularis*, *Pinguicula*, and *Aster*. Mr. E. B. Copeland discusses Haberlandt's 'New Organ of *Conocephalus*,' which he has called a substitute hydathode. Mr. Copeland shows that there is nothing very surprising or remarkable in the behavior of these structures, and that they are essentially similar to such as the same condition produces in many plants, the conditions being excess of moisture.

The American Naturalist for April begins with an article by Henry F. Osborn on 'Homoplasy as a Law of Latent or Potential Homology,' homoplasy being the independent similar development of homologous organs or regions giving rise to similar new parts. Applying this is to the teeth Professor Osborn finds that similar cusps have been developed in unrelated mammals in different parts of the world, and that there is some underlying principle which determines in a measure the course of evolution. Ales Hrdlicka presents some 'New Instances of Complete Division of the Malar Bone, with Notes on Incomplete Division,' and Herbert P. Johnson describes 'Collateral Budding in Annelids of the Genus *Trypanosyllis*.' This method is considered as an advance over linear budding and the genus as representing the most highly specialized mode of asexual reproduction among annelids. J. B. Johnston and Sarah W. Johnson discuss 'The Course of the Blood Flow in *Lumbricus*' in some detail, stating that their experiments give no support to the idea that there is a more or less complete segmental circulation in the genus. The notes and brief reviews are numerous.

The American Museum Journal for April contains an account, with illustrations, of an exhibit of birds' bills, feet, tails, wings and feathers, designed to illustrate terms used in

ornithology, as well as to call attention to the connection between the form and function of these parts. A course of lectures on the birds of spring is announced. The Supplement is a 'guide leaflet' to the collection of baskets from the graves of the ancient Indians of southeastern Utah, which comprises the oldest known baskets from this continent.

The Popular Science Monthly for May opens with a discussion of 'The Electronic Theory of Electricity' by J. A. Fleming, while a review of the 'Sulfuric Acid and Its Manufacture by Contact-process' is given by R. Kneitsch. Carl H. Eigenmann considers 'The Physical Basis of Heredity,' concluding that the chromatic threads are the carriers of hereditary power; the article is very clearly written and enlivened with touches of humor here and there. 'Children's Vocabularies' are discussed by M. C. and H. Gale, who show that these are, even for very young children, much more extensive than is generally imagined, and that they largely depend on what the children wish. Havelock Ellis presents an article on 'Mescal: A Study of a Divine Plant,' giving in detail the results of some experiments, and deciding against it as a therapeutic agent. 'Infectious Diseases' and their possible cure is by Alfred Springer and 'The Relations of Electrically charged Molecules to Physiological Action' by Jacques Loeb, while A. S. Packard describes 'An Afternoon at Chelles and the Earliest Evidences of Human Industry in France.'

Harper's Magazine for May contains an article on 'Marine Fish Destroyers' which fairly teems with erroneous statements and misleading deductions. It is only necessary to cite Dinosaurs one hundred feet in length, with a height of thirty feet and a thigh bone eight feet high, Mosasaurs seventy-five feet in length, and Zeuglodonts with limbs unknown, to show the exaggerated style of statement. The largest Dinosaur actually measured falls inside of seventy-five feet, and the largest femur found is six feet eight inches long, and but a single one of this size has ever come to light. Few Mosasaurs reached a length of forty feet and the vast majority are under twenty-five, while the limbs of Zeuglodon are

known. The misleading deductions are as to the amount of fish destroyed by these animals, the writer not taking into account the fact that it is by no means proved that all these extinct animals lived so extensively on fish as is stated, and that it is not at all probable that they required a hearty dinner every day, much less obtained one. Worst of all is the inference that since so many fishes perish from natural enemies it makes no difference how many man captures, nor does it do any good to pass laws for their protection. Aside from the universal decrease of anadromous fishes which are particularly open to the attacks of man we have the notable decrease of the whitefish and Lake Trout of the Great Lakes, the noticeable diminution in the size of mackerel brought to market and the fact that the halibut fishery is now prosecuted at depths and distances once undreamed of. It would hardly be necessary to notice this paper at length but for the fact that the position and titles of its writer give undue weight to its statements in the mind of the reader, while its publication in a popular magazine spreads it broadcast and causes it to be read by hundreds who will not know that there is quite another side to the subject.

SOCIETIES AND ACADEMIES.

A PACIFIC SECTION OF THE AMERICAN MATHEMATICAL SOCIETY.

The mathematicians of the Pacific Coast held a meeting in San Francisco on May 3 and formally organized the second Section of the American Mathematical Society, to be known as the Pacific Section. The following officers were elected: Professor Irving Stringham, *Chairman*; Professor G. A. Miller, *Secretary*; Professor R. E. Allardice, Dr. E. J. Wilczynski and the secretary, program committee. The following papers were presented during the two sessions of the Section:

'On a Linear Transformation, with some Geometrical applications': Professor R. E. ALLARDICE, Stanford University.

'A Movement whose Centroides are Cubics': Dr. E. M. BLAKE, University of California.

'On the Determination of the Analytic form of the Distance between two Points by means of Distance Relations': Professor H. F. BLICHFELDT, Stanford University.