

activity of the chlorophyllaceous cell in the sunlight. The curvature of twining stems is not thigmotaxis (p. 443). The use of the phrase 'conduction of a stimulus' to indicate the transmission of an impulse from the point of reception of the stimulus to a reaction zone is a mistake resulting from the literal translation of 'Reizleitung.' The German word 'Reiz' having a broad meaning which permits its use to designate both the stimulus and the stimulus-effect. 'Every change in the external conditions of an organism constitutes a stimulus;' but it is to be presumed that no one would mean that these changes in the intensity of external energy, rather than the shock of such change, are transmitted by nerves or other conducting mechanisms.

Perhaps the most remarkable omission in the entire work is that which occurs in the discussion of the history of death. No attention is given to the aging or senescence of cells, and there is no mention of any example of the plant cell in the histolytic processes, or metamorphic death, although this phenomenon is of such importance that all types of plants furnish dead cells from normal atrophies and degenerations, while in the higher types the greater bulk of the plant-body is made up of dead cells.

The greater number of the faults enumerated above would be due to the inaccessibility of the botanical literature to the animal physiologist, and are of such nature that they may be easily eliminated from future editions. The book has a long period of usefulness before it. It is stimulating and suggestive, and will do much to broaden investigation upon both the animal and vegetal organism; a purpose it would accomplish equally well under its proper title of 'The Physiology of the Cell.'

D. T. MACDOUGAL.

UNIVERSITY OF MINNESOTA.

GENERAL.

THE last Legislature of the State of Arkansas provided for the printing of the hitherto unpublished reports of Dr. J. C. Branner, formerly State Geologist of that State. There are five volumes of these reports, viz: (1) Coal; (2) Lower Coal Measures; (3) Clays, Kaolins and Bauxites; (4) Zinc and Lead; (5) Report on

the general geology of the State. Provisions were also made for printing new editions of the reports already out.

THE sixth volume of Biological Lectures from the Wood's Holl Laboratory, in the press of Messrs. Ginn & Co., will contain:

- 'The Structure of Protoplasm,' E. B. Wilson.
- 'Cell-Lineage and Ancestral Reminiscence,' E. B. Wilson.
- 'Adaptation in Cleavage,' Frank R. Lillie.
- 'Protoplasmic Movement as a Factor of Differentiation,' Edwin G. Conklin.
- 'Equal and Unequal Cleavage,' A. L. Treadwell.
- 'Cell Origin of the Prototroch,' A. D. Mead.
- 'Relation of the Axis of the Embryo to the First Cleavage Plane,' Cornelia M. Clapp.
- 'Observations on Various Nucleolar Structures of the Cell,' Thomas H. Montgomery, Jr.
- 'Protoplasmic Contractility and Phosphorescence,' S. Watasé.
- 'Some Problems of Regeneration,' T. H. Morgan.
- 'The Elimination of the Unfit,' H. C. Bumpus.
- 'Heredity of Coloration in Fishes,' Jacques Loeb.
- 'Do the Reactions of Lower Animals, Due to Injury, Indicate Pain Sensations,' W. W. Norman.
- 'North American Ruminant-like Animals,' W. B. Scott.
- 'Caspar Friedrich Wolff and the Theoria Generationis,' W. M. Wheeler.
- 'Animal Behavior,' C. O. Whitman.

MM. GEORGES CARRÉ and C. Naud have begun the publication of a series of scientific monographs under the editorial direction of leading French men of science. MM. Appell, Cornu, d'Arsonval, Friedel, Lippmann, Moissan, Poincaré and Potter are responsible for the physical and mathematical sciences and MM. Balbiani, d'Arsonval, Filhol, Fouqué, Gaudry, Guignard, Marey and Milne-Edwards for the biological sciences. The numbers so far issued are as follows: 'Les Oscillations Électriques,' by M. Poincaré; 'La Spécificité Cellulaire,' by M. Bard; 'La Sexualité,' by M. le Dantec.

SCIENTIFIC JOURNALS AND ARTICLES.

THE papers in the *American Journal of Science* for May are as follows:

- 'Some Experiments with Endothermic Gases,' by W. G. Mixer.
- 'Hypothesis to explain the partial non-explosive Combination of Explosive Gases and Gaseous Mixtures,' by W. G. Mixer.

'Occurrence of Paleotrochis in Volcanic Rocks in Mexico,' by H. S. Williams.

'Origin of Paleotrochis,' by J. S. Diller.

'Association of Argillaceous Rocks with Quartz Veins in the Region of Diamantina, Brazil,' by O. A. Derby.

'Goldschmidtite, a New Mineral,' by W. H. Hobbs ;
'Hydromica from New Jersey,' by F. W. Clarke and N. H. Darton.

'Powellite Crystals from Michigan,' by C. Palache.

'Volatilization of the Iron Chlorides in Analysis, and the Separation of the Oxides of Iron and Aluminum,' by F. A. Gooch and F. S. Havens.

'Descriptions of imperfectly known and new Actinians, with Critical Notes on other Species, V,' by A. E. Verrill.

'Preliminary Note as to the Cause of Root-Pressure,' by R. G. Leavitt.

'Study of some American Fossil Cycads, Part III,' by G. R. Wieland.

Professor L. V. Pirsson, who holds the chair of geology in the Sheffield Scientific School of Yale University, has become an associate editor of the *Journal* in the place of the late Professor Marsh.

AFTER the close of the current volume, in April, the *Zoological Bulletin*, edited by Professors Whitman and Wheeler, of the University of Chicago and published by Messrs. Ginn & Co., will be continued under the title the *Biological Bulletin* and be published under the auspices of the Marine Biological Laboratory. The scope of the *Bulletin* will be enlarged so as to include General Biology, Physiology and Botany. It will further include occasional reviews and reports of work and lectures at the Laboratory. The *Bulletin* will be open, as heretofore, to scientific contributions from any source.

SOCIETIES AND ACADEMIES.

THE PHILOSOPHICAL SOCIETY OF WASHINGTON.

THE 500th meeting of the Society was celebrated on April 15th by a dinner at Rauscher's. About fifty members were present. After coffee had been served, the President, Mr. O. H. Tittmann, in his usual felicitous manner, called on the past Presidents of the Society who had honored the banquet by their presence. Seven were present, namely, Newcomb, Harkness, Eastman, Dall, Clarke, Baker and Bigelow.

Interesting remarks were made by each of these gentlemen, on the past history of the Society, its relation to present scientific progress, and its future sphere of usefulness. Informal intercourse was had for a short time after adjournment.

E. D. PRESTON,
Secretary.

ENTOMOLOGICAL SOCIETY OF WASHINGTON, APRIL 18, 1899.

UNDER the head of Exhibition of Specimens and Short Notes, Mr. Howard exhibited a vial full of specimens of a species of a *Peripatus* just received from some unknown correspondent in Trinidad.

Mr. Schwarz showed a specimen of *Chrysina erubescens* Bates. The determination he said was somewhat doubtful, but probably correct. The species is a distinct Central American form, but the specimens showed were found in Madera Canyon, south Arizona. The insect is probably a grape feeder.

Dr. Dyar showed specimens of *Megalopyge krugii*, Dew., collected by Mr. Busck in Porto Rico. The larva was described by Dewitz in his original communication, but so briefly that additional points were mentioned.

Mr. Howard asked whether Mr. Busck had been stung by this larva, and Mr. Busck replied that the first one which he found had fallen on the back of his hand and produced severe pain and inflammation which lasted for three days.

The first paper of the evening was read by Mr. Schwarz and consisted of a continuation of the Hubbard correspondence from the Southwest. The letter read at this meeting contained a discussion of the insect fauna of *Dasyllirion wheeleri*. In discussion Mr. Pollard asked whether the agave and other large plants of that region have similar insect fauna. Mr. Schwarz replied that the agave is the only liliaceous plant of that region which has an insect enemy which attacks it when healthy. This is a lepidopterous larva of the genus *Megathymus*. The communication was briefly discussed by Messrs. Cockerell and Ashmead, Mr. Cockerell stating that two Coccids had been found upon the *Dasyllirion*, but that both species