pendently of the segmental arteries, with which, however, they join later. The illustrations which Mr. Sabin gives of the actual condition of the developing subclavian arteries were very much to be desired, since Hochstetter's paper was illustrated only by a few simple diagrams. The results are now published in the *Anatomischer Anzeiger*, Vol. 26, Nos. 11 and 12, with 29 illustrations.

The following demonstrations were made before the society:

1. William A. Locy, Northwestern University, 'Dissections Showing the Nervus Terminalis in *Scyllium, Trygon* and other Selachians.'

2. William S. Miller, University of Wisconsin, 'Demonstration of the Lymphatics of the Lung and Stomach in *Necturus.*'

3. Bennet M. Allen, University of Wisconsin, 'Models showing the Origin of the Sex-cords and Rete-cords in *Chrysemys.*'

Frank R. Lillie,
Secretary.

SCIENTIFIC JOURNALS AND ARTICLES.

The April-May number of *The Journal of Geology* contains an article on 'The Zuni Salt Lake' of western New Mexico, by Mr. N. H. Darton. It is illustrated by two maps and three half-tones. Mr. Douglass W. Johnson reviews 'The Tertiary History of the Tennessee River' and concludes that it has followed its present course through Walden Ridge for a long time, 'probably since the close of the Cretaceous period at least.' This article is illustrated by nine figures. Professor B. Shimek contributes an 'Additional Note on *Helicina occulata,*' a recent species, which also occurs as a fossil in the loess, and concludes that it supports the view that 'during the deposition of the fossiliferous loess the climate was not glacial.' Mr. Rollin T. Chamberlin describes 'The Glacial Features of the St. Croix Dalles Region,' which is illustrated by three sketch maps. Professor Stuart Weller describes 'A Fossil Starfish from the Cretaceous of Wyoming,' which he names *Pentagonaster browni.* Mr. O. W. Willcox contributes an article on 'The So-called Alkali Spots of the Younger Drift-sheets,' which are patches of white efflorescence which 'consist of small amounts of sodium chloride and much larger amounts of the carbonates and sulphates of magnesium and calcium.' Mr. George C. Matson has a paper on the 'Peridotite Dikes near Ithaca, N. Y.,' in which he describes several new dikes in addition to those noted over sixty years ago by Vanuxem and much more recently by Professor Kemp, and Mr. Wallace W. Atwood describes the 'Glaciation of San Francisco Mountain, Arizona.' This article is illustrated by a sketch map of the top of the mountain and it is stated that these records 'may possibly be those of the southernmost ice which existed in this country during the Pleistocene period.'

To the *American Geologist* for April Professor Eugene A. Smith contributes a 'Biographical Sketch of Henry McCalley' with portrait. Professor Warren Upham has an article on 'The Nebular and Planetesimal Theories of the Earth's Origin,' in which he quotes at length from Dr. T. C. Chamberlin's recent paper on the planetesimal hypothesis. Professor Upham also quotes from Dr. G. K. Gilbert's paper on 'The Moon's Face' and concludes that his explanation of the origin of the very abundant small and large crateriform features of the moon seems largely identical with Chamberlin's hypothesis 'so far as that hypothesis deals with the segregation of the originally nebulous matter to form planets and satellites.' Professor J. W. Spencer reviews 'Dr. Nansen's Bathymetrical Features of the North Polar Sea, with a Discussion of the Continental Shelves and the Previous Oscillations of the Shore Line.' Mr. Spencer says that while this memoir 'treats of the physiographic features of the Polar basin, yet the greater part is devoted to the investigation of continental shelves, not merely of the Arctic basin, but also those of the Atlantic, in which respect it is the most important work that has appeared anywhere. 'Professor

Shimek's criticism of the aqueous origin of Loess' is answered by Professor G. Frederick Wright. Mr. Paul W. Prutzman discusses the 'Chemistry of California Petroleum,' and the number concludes with an article by Professor Lawrence M. Lambe, 'On the Tooth-Structure of *Mesohippus westoni* (Cope),' which is illustrated by one plate giving four views of an upper molar of this primitive species.

The American Naturalist for March contains the following articles: 'The Anatomical Changes in the Structure of the Vascular Cylinder, Incident to the Hybridization of the Catalpa,' by D. P. Penhallow; 'The Occurrence and Origin of Amber in the Eastern United States,' Arthur Hollick; 'Fresh-water Rhizopods from the White Mountain Region of New Hampshire,' J. A. Cushman and W. P. Henderson; and 'The Reactions of the Pomace Fly (*Drosophila ampelophila* Loew) to Light, Gravity and Mechanical Stimulation,' by F. W. Carpenter. There are, besides, reviews of scientific literature.

ARTERIOSCLEROSIS in its relation to diseases of the nervous system is the subject of the opening paper in the May issue of the *Journal of Nervous and Mental Disease*. Dr. E. D. Fisher discusses the clinical aspect, and Dr. Harlow Brooks summarizes the pathology, with reports of three illustrative cases, one of syphilis of the cerebro-spinal axis, one of arteriosclerosis of the brain and spinal cord occurring in alcoholism, and one of acute arteritis occurring in vessels of the central nervous system in rabies. Drs. W. G. Spiller and C. H. Frazier follow with the presentation of some original views on the subject of nerve anastomoses. They have experimented in this line in the treatment of cerebral palsies, and their suggestions open up a field in neurological surgery that seems to be full of promise. Dr. Spiller also contributes a short illustrated paper, being mainly the report of a case which came under his observation and seemed to offer valid evidence for the location of the fibers of temperature and pain within the tracts of Gower. Dr. Jas. W. Wherry writes on the curability of epilepsy, and takes an optimistic view of the question, conditioned on beginning treatment promptly upon the appearance of the disease. His idea of the requirements in such treatment consists of 'A study of each case individually; special adaptation of drugs to individual conditions; personal supervision and individualization of diet, absolute change of environment.' The proceedings of the New York Neurological Society for December 6, 1904, and of the Philadelphia Society for December 27, 1904, are reported.

SOCIETIES AND ACADEMIES.

THE IOWA ACADEMY OF SCIENCES.

THE nineteenth annual meeting of the Iowa Academy of Sciences was held in the chemical lecure room of Iowa College at Grinnell, Ia., April 20 and 21. The following papers were presented:

B. SHIMEK: President's address, 'Botany and Intelligent Citizenship.'

C. C. NUTTING: 'The U. S. S. *Albatross* and its Work' (illustrated with lantern slides taken by the author).

L. S. ROSS: 'Apparatus for Plating Out Petri Dishes in the Field.'

BRUCE FINK: 'Some Studies in American Cladonias.'

L. H. PAMMEL: 'Some Notes on the Flora of the Bitter Root Mountains of Montana.'

JAMES E. GOW: 'An Ecological Study of the Sabine and Neches Valleys, Texas.'

W. S. HENDRIXSON: (*a*) 'Action of Bromic Acid on Metal,' (*b*) 'Determination of Bromic and Iodic Acids.'

R. E. BUCHANAN: 'A Study of a Thermophilic Bacterium.'

L. BEGEMAN: 'J. J. Thomson's Theory of Matter.'

H. S. FAWCETT: 'Variation in the Ray Flowers of *Anthemis Cotula* and Other Composites.'

T. H. MACBRIDE: 'Some Slime Moulds of New Mexico.'

B. H. BAILEY: 'Report on Some Iowa Birds.'

NICHOLAS KNIGHT: 'Different Methods of Determining Carbon Dioxide in Minerals and Rocks.'

MORTON E. PECK: 'Flora of Hardin County.'

C. F. LORENZ: 'Three-Color Projection.'

BRUCE FINK: 'Notes on Some Iowa Algæ.'

GRACE ROOD RUEDA: 'The Biology of *Bacillus Violaceus Laurentius*.'