

any marked change over the region of the eye, the only indication of the place where the eye should be being a slight absence of pigment and a more delicate texture. When the dorsal integument was removed, no evidence of an eyeball was to be noted. The optic pedicel was present and in a normal condition as to both size and position. The several recti muscles were recognized with difficulty. Their origin was as in the right eye, but they were inserted into loose connective tissue surrounding the optic pedicel with their fibers from 2 to 5 mm. long. The fibers in the recti muscles of the right eye were 10-15 mm. long, which indicates something of the amount of degeneration of the recti muscles in the atrophied eye.

The trochlear, oculo-motor and abducens nerves were each found piercing the cranial capsule and passing to the short and mostly fused recti muscles. So far as one could determine by a gross examination, these nerves were the same as those passing to the fully developed eye, except much shorter. The optic nerve was surrounded by a greater amount of connective tissue than in the normal eye and terminated distally and abruptly at the end of the optic pedicel, with which it was closely united.

Two explanations are suggested for the disappearance of this eye. First, the loss of the eyeball was due to some injury. If such were the cause, then one would expect to find some evidence in the form of a scar, etc., but nothing was seen which pointed conclusively to any previous injury. Secondly, for some reason of which we have no knowledge, the embryonic eyeball tissues were arrested in their development. This seems the more probable as the integument over the eye was so much like the rest of the skin. The material was not fixed satisfactorily for a histological study.

W. M. SMALLWOOD

ZOOLOGICAL LABORATORY,
SYRACUSE UNIVERSITY

THE CONVOCATION WEEK MEETINGS OF SCIENTIFIC SOCIETIES

THE American Association for the Advancement of Science and the national scientific societies

named below will meet at the Johns Hopkins University, at Baltimore, during convocation week, beginning on December 28, 1908:

American Association for the Advancement of Science.—Retiring president, Professor E. L. Nichols, Cornell University; president-elect, Professor T. C. Chamberlin, University of Chicago; permanent secretary, Dr. L. O. Howard, Cosmos Club, Washington, D. C.; general secretary, Dr. J. Paul Goode, University of Chicago.

Local Executive Committee.—William H. Welch, M.D., chairman local committee; Henry Barton Jacobs, M.D., chairman executive committee; William J. A. Bliss, secretary, Joseph S. Ames, William B. Clark, R. Brent Keyser, Eugene A. Noble, Ira Remsen, John E. Semmes, Francis A. Soper, Hugh H. Young.

Section A, Mathematics and Astronomy.—Vice-president, C. J. Keyser, Columbia University; secretary, Professor G. A. Miller, University of Illinois, Urbana, Illinois.

Section B, Physics.—Vice-president, Professor Carl E. Guthe, State University of Iowa; secretary, Professor A. D. Cole, Ohio State University, Columbus, O.

Section C, Chemistry.—Vice-president, Professor Louis Kahlenberg, University of Wisconsin; secretary, C. H. Herty, University of North Carolina, Chapel Hill, N. C.

Section D, Mechanical Science and Engineering.—Vice-president, Professor Geo. F. Swain, Massachusetts Institute of Technology; secretary, G. W. Bissell, Michigan Agricultural College, East Lansing, Mich.

Section E, Geology and Geography.—Vice-president, Bailey Willis, U. S. Geological Survey; secretary, F. P. Gulliver, Norwich, Conn.

Section F, Zoology.—Vice-president, Professor C. Judson Herrick, University of Chicago; secretary, Professor Morris A. Bigelow, Columbia University, New York City.

Section G, Botany.—Vice-president, Professor H. M. Richards, Columbia University; secretary, Professor H. C. Cowles, University of Chicago, Chicago, Ill.

Section H, Anthropology.—Vice-president, Professor R. S. Woodworth, Columbia University; secretary, George H. Pepper, American Museum of Natural History, New York City.

Section I, Social and Economic Science.—Vice-president, Professor W. G. Sumner, Yale University; secretary, Professor J. P. Norton, Yale University, New Haven, Conn.

Section K, Physiology and Experimental Medicine.—Vice-president, Professor Wm. H. Howell, Johns Hopkins University; secretary, Dr. Wm. J. Gies, College of Physicians and Surgeons, Columbia University, New York City.

Section L, Education.—Vice-president, Professor John Dewey, Columbia University; secretary, Professor C. R. Mann, University of Chicago, Chicago, Ill.

The American Society of Naturalists.—December 31. President, Professor D. P. Penhallow, McGill University; secretary, Dr. H. McE. Knowler, The Johns Hopkins Medical School, Baltimore, Md. *Central Branch.* President, Professor R. A. Harper, University of Wisconsin; secretary, Professor Thomas G. Lee, University of Minnesota, Minneapolis, Minn.

The American Mathematical Society.—December 30, 31. President, Professor H. S. White, Vassar College; secretary, Professor F. N. Cole, 501 West 116th St., New York City.

American Federation of Teachers of the Mathematical and Natural Sciences.—December 28, 29. President, H. W. Tyler, Boston, Mass.; secretary, Professor C. R. Mann, University of Chicago, Chicago, Ill.

The American Physical Society.—President, Professor E. L. Nichols, Cornell University; secretary, Professor Ernest Merritt, Cornell University, Ithaca, N. Y.

The American Chemical Society.—December 29–January 1. President, Professor Marston T. Bogert, Columbia University; secretary, Professor Charles L. Parsons, New Hampshire College, Durham, N. H.

The Geological Society of America.—December 29, 31. President, Professor Samuel Calvin, University of Iowa; secretary, Dr. E. O. Hovey, American Museum of Natural History, New York City.

The Association of American Geographers.—January 1, 2. President, Dr. G. K. Gilbert, U. S. Geological Survey; secretary, Professor Albert P. Brigham, Colgate University, Hamilton, N. Y.

The American Society of Vertebrate Paleontologists.—December 28–30. President, Professor Richard Swan Lull, Yale University; secretary, Dr. W. D. Matthew, American Museum of Natural History, New York City.

The American Society of Biological Chemists.—December 28–30. President, Professor John J. Abel, The Johns Hopkins University; secretary, Professor William J. Gies, 437 West 59th St., New York City.

The American Physiological Society.—December 29–31. President, Professor W. H. Howell, Johns Hopkins University; secretary, Dr. Reid Hunt, Hygienic Laboratory, 25th and E Sts., N. W., Washington, D. C.

The Association of American Anatomists.—December 29–31. President, Professor J. Playfair McMurrich, University of Toronto; secretary, Professor G. Carl Huber, 1330 Hill St., Ann Arbor, Mich.

The Society of American Bacteriologists.—December 28–January 2. Vice-president, Professor H. L. Russell, University of Wisconsin; secretary, Dr. Norman MacL. Harris, University of Chicago, Chicago, Ill.

The American Society of Zoologists.—Eastern Branch, December 29–31. President, Professor William Morton Wheeler, Harvard University; secretary, Dr. Lorande Loss Woodruff, Yale University, New Haven, Conn. *Central Branch,* December 28–30. President, Professor E. A. Birge, University of Wisconsin; acting secretary, Professor Thomas G. Lee, University of Minnesota, Minneapolis, Minn.

The Entomological Society of America.—December 29, 30. President, Professor W. M. Wheeler, Harvard University; secretary, J. Chester Bradley, Cornell University, Ithaca, N. Y.

The Association of Economic Entomologists.—December 28, 29. President, Professor S. A. Forbes, University of Illinois; secretary, A. F. Burgess, Washington, D. C.

The Botanical Society of America.—December 29–31. President, Professor W. F. Ganong, Smith College, Northampton, Mass.; secretary, Professor D. S. Johnson, Johns Hopkins University, Baltimore, Md.

American Nature Study Society.—December 30, 31. President, Professor L. H. Bailey, Cornell University; secretary, Professor M. A. Bigelow, Teachers College, Columbia University, New York City.

Sullivant Moss Chapter.—President, Dr. T. C. Frye, Seattle, Wash.; secretary, Mr. N. L. T. Nelson, St. Louis, Mo. Address: Mrs. Annie Morrill Smith, 78 Orange St., Brooklyn, N. Y.

Wild Flower Preservation Society.—President, Professor Chas. E. Bessey; secretary, Dr. Charles Louis Pollard, New Brighton, N. Y.

The American Anthropological Association.—December 28–January 2. President, Professor Franz Boas, Columbia University; secretary, Dr. Geo. Grant MacCurdy, Yale University, New Haven, Conn.

The American Folk-lore Society.—Week of December 28. President, Professor Roland B. Dixon, Harvard University; secretary, Dr. Alfred M. Tozzer, Harvard University, Cambridge, Mass.

The American Psychological Association.—December 29–31. President, Professor G. M. Stratton, University of California; secretary, Professor A. H. Pierce, Smith College, Northampton, Mass.

The American Philosophical Association.—December 29–31. President, Professor Hugo Münsterberg, Harvard University; secretary, Professor Frank Thilly, Cornell University, Ithaca, N. Y.

Southern Society for Philosophy and Psychology.—Convocation week. President, Professor J. MacBride Sterrett, The George Washington University; secretary, Professor Edward Franklin Buchner, The Johns Hopkins University, Baltimore, Md.

SOCIETIES AND ACADEMIES

THE GEOLOGICAL SOCIETY OF WASHINGTON

At the 208th meeting of the society, held at the Cosmos Club, on Wednesday evening, October 28, 1908, under informal communications, Mr. J. S. Diller discussed briefly wind-blown grains of quartz in limestone.

Regular Program

Geologic Studies in Southwestern Alaska: Mr. WALLACE W. ATWOOD.

The island of Unga, a portion of the Alaskan Peninsula north of Unga in the vicinity of Balboa and Herendeen bays and a district in the vicinity of Chignik Bay were visited during the past summer with a view to determining the stratigraphy of the coal-bearing horizon. The island of Unga was found to consist chiefly of igneous rocks. On the north end of the island there are some lignite-bearing beds that immediately underlie Miocene sediments. The lignite-bearing beds have been determined on the basis of plant remains to belong to the Kenai horizon. Small patches of Miocene were found at various localities on Unga, Popof and the mainland.

In the Balboa-Herendeen Bay district a thickness of over 5,000 feet of sediments was found from which Eocene shells and Kenai plants were secured. The beds which yielded the marine shells were interstratified with the leaf-bearing beds in a conformable series. This great series of Eocene beds was traced eastward through the central portion of the peninsula to Chichagof Cove, where Dr. Palache secured marine Eocene shells. The age of the Kenai leaves has been a confusing

problem in Alaska and the association of these leaves with marine shells is very gratifying. The Eocene belt has been folded and faulted and large masses of granitic rock have been intruded into it. These intrusions are in the forms of dikes, sills and laccoliths. North of the Eocene belt formations of Upper Jurassic, Lower and Upper Cretaceous were found. The Herendeen Bay coal field is located in the Cretaceous area and the coal is of Upper Cretaceous age. The structural relationship between the Upper Jurassic and Lower Cretaceous is that of conformity. Between the Lower Cretaceous and the Upper Cretaceous there is a faunal break, but no structural break was found at that horizon. Between the Upper Cretaceous and Eocene beds there does not appear to be any structural break but the faunal material received is not complete. Near the close of the Eocene times there were igneous intrusions, volcanic outbreaks and deformation. Miocene beds rest, at most places, unconformably upon underlying formations, although on the north end of Unga Island sedimentation was continuous from the Eocene on into the Miocene times.

Since the Miocene beds were deposited there has been further deformation and vulcanism in the region and volcanic activity has continued up to the present time.

The work in the Chignik district consisted chiefly in an examination of the coal field. The faunal material from that area has not yet been examined, but it is expected that the same horizons that were found in the Herendeen Bay district are represented in the Chignik area. Fossil shells and plants are there closely associated and it is expected that further light on the Kenai problem will be afforded by the collections secured from that place.

New Occurrence of Willemite and Anhydrite: Mr. W. LINDGREN.

Anhydrite occurs in the Cactus mine at Newhouse, southern Utah. The mineral accompanies the chalcopryite of that copper mine as a primary gangue mineral and is associated with tourmaline and a small amount of calcite and siderite. The hydration of the anhydrite results, of course, in the formation of gypsum, which mineral is abundantly found throughout the mine.

Willemite as a commercially important mineral of zinc ores is mined at Tres Hermanas in southern New Mexico. The mineral forms dense masses consisting of slender hexagonal prisms, and is associated with calcite, a little smithsonite, and calamine, as well as hydro-zincite. The occur-