

sylvania, secretary, Dr. Herbert Rand, Harvard University, Cambridge, Mass.

The Association of American Anatomists.—December 28–30. President, Professor George A. Piersol, University of Pennsylvania; secretary, Professor G. Carl Huber, 1330 Hill St., Ann Arbor, Mich.

The Society of American Bacteriologists.—December 28–30. President, Professor V. A. Moore, Cornell University; secretary, Charles E. Marshall, Michigan Agricultural College, East Lansing, Mich.

NEW HAVEN

The American Physiological Society.—December 27–29. President, Professor W. H. Howell, Johns Hopkins University; secretary, Professor A. J. Carlson, University of Chicago.

The American Society of Biological Chemists.—December 28–30. President, Thomas B. Osborne, Connecticut Agricultural College; secretary, Dr. Alfred M. Richards, University of Pennsylvania, Philadelphia, Pa.

PITTSBURGH

The Geological Society of America.—December 29, 31. President, Dr. Arnold Hague; secretary, Dr. E. O. Hovey, American Museum of Natural History, New York City.

The Association of American Geographers.—December 30–January 1. President, Professor Henry C. Cowles, University of Chicago; secretary, Professor Albert P. Brigham, Colgate University, Hamilton, N. Y.

The American Paleontological Society.—December 28–29. Secretary, Dr. R. S. Bassler, U. S. National Museum, Washington, D. C.

PROVIDENCE

The American Anthropological Association.—December 28–31. President, Dr. W. H. Holmes, Bureau of Ethnology; secretary, Dr. Geo. Grant MacCurdy, Yale University, New Haven, Conn.

The American Folk-lore Society.—Week of December 29. President, Dr. Henry M. Belden, University of Missouri; secretary, C. Peabody, Harvard University, Cambridge, Mass.

NEW YORK CITY

The American Mathematical Society.—December 28–29. President, Professor Maxime Bôcher, Harvard University; secretary, Professor F. N. Cole, 501 West 116th St., New York City.

SCIENTIFIC NOTES AND NEWS

DR. CHARLES OTIS WHITMAN, head of the department of zoology of the University of

Chicago since 1892 and director of the Woods Hole Marine Biological Station for twenty years, died of pneumonia at his home at Chicago on December 6.

MR. R. A. SAMPSON, F.R.S., professor of mathematics and astronomy in the University of Durham, has been named astronomer royal for Scotland and professor of practical astronomy in the University of Edinburgh, in succession to Mr. F. W. Dyson, F.R.S.

SIR JOSEPH JOHN THOMSON, Cavendish professor of experimental physics at Cambridge, and Sir Victor Horsley, the London surgeon, have been elected corresponding members of the Prussian Royal Academy of Sciences.

LORD AVEBURY has been elected a corresponding member of the Paris Academy of Sciences in the section of anatomy and zoology.

WE learn from *Nature* that Emperor Francis Joseph has conferred the Austrian great gold medal of science and literature upon Mr. E. Torday, the leader of the scientific expedition sent out by the British Museum to study the native tribes in the Kasai basin of the Congo.

THE city of Philadelphia, on the recommendation of the Franklin Institute, has awarded the John Scott legacy premium and medal to Dr. L. H. Baekeland, of Yonkers, New York, for his invention of bakelite. The Franklin Institute has awarded Elliott Cresson medals for "distinguished, leading and directive work," in their respective fields of endeavor to the following: Dr. Harvey W. Wiley, chief chemist to the Department of Agriculture, Washington, for his work in the fields of agricultural and physiological chemistry. John Fritz, Bethlehem, Pa., for his work in the development of the iron and steel industries. John A. Brashear, Pittsburgh, Pa., for his work in the production and perfection of instruments for astronomical research. Edward Weston, Newark, N. J., for his work in electrical discovery and in the advancement of electrical application. Ernest Rutherford, professor of physics, Owens College, Victoria University, Manchester, Eng.,

for his work in the advancement of the knowledge of electrical theory. Sir Joseph John Thomson Cavendish, professor of experimental physics, Cambridge University, for his work in the advancement of knowledge of the physical sciences. Sir Robert A. Hadfield, Sheffield, England, for his work in the advancement of knowledge of metallurgical science.

MR. N. H. DARTON, for many years geologist of the U. S. Geological Survey, has been appointed the geologist of the new U. S. Bureau of Mines with headquarters at Washington, D. C. He will continue his investigations of the geological conditions under which explosive gases occur in coal deposits.

DR. ALLERTON S. CUSHMAN has retired from the position of assistant director and chemist in charge of the division of tests, office of public roads, to undertake industrial research work in Washington.

OWING to ill-health Mr. Goodfellow, the leader of the British expedition to Dutch New Guinea, has been compelled to return home. The Committee of the British Ornithologists' Union have appointed in his place Captain C. G. Rawling, who represents the Royal Geographical Society on the expedition.

DR. DANIEL T. MACDOUGAL gave an illustrated address on "Desert Problems" before the Sigma Xi Society of Purdue University on the evening of December 3, 1910.

PROFESSOR ROBERT DE C. WARD, of Harvard University, gave a lecture before the departments of geology and biology of Colgate University, on the evening of December 8, on "The Coffee Country of Brazil, with Special Reference to Climate."

"A SOILS Survey for Minnesota" was the topic of an address by Professor A. R. Whittson, of the soils department of the Wisconsin College of Agriculture before the Northern Minnesota Development Association which met at Brainard, Minnesota, December 2.

WE regret to record the death of Dr. Octave Chanute, known for his important contributions to scientific aviation. Dr. Chanute was born in Paris in 1832.

PROFESSOR COOPER D. SCHMIDT, professor of mathematics for twenty-one years in the University of Tennessee and dean of the university, has died at his home in Knoxville, Tenn., aged fifty-one years.

THE Chemists' Building Company, organized to promote the interests of chemical science and industry in America, has erected a ten-story fireproof building, on a lot 56 feet wide and 100 feet deep, at 50-54 East 41st Street, New York City. The lower half of this building is leased to the Chemists' Club, and contains all the appurtenances of a social club, together with a large auditorium for scientific meetings and ample space for a complete chemical library and museum. The five upper stories have been specially constructed for laboratory purposes, and can be rented either as entire floors, or in suitable subdivisions, to analytical, commercial or research chemists, physicists, bacteriologists, etc.; but not as manufacturing laboratories. They are provided with ventilating flues, water, gas and electric mains, steam, refrigerating and compressed-air lines, in suitable locations. The building will be ready for occupancy in the beginning of March, when the rooms will be inaugurated by appropriate ceremonies.

A CLUB that has for its purpose the study of breeding problems in relation to animals and plants, has been formed at the University of Wisconsin by the members of the faculty of several departments and graduate students working along biological lines. The officers are: Dr. Leon J. Cole, associate professor of experimental breeding, president; Mr. Augustus J. Rogers, instructor in horticulture, secretary. The membership includes instructors and graduate students from the colleges of letters and science and agriculture and the school of medicine.

A DECREE has been published by the Italian government creating a commission to examine the new theory put forward as to the cause of pellagra and to formulate any changes in the existing law of protection that may be considered desirable. The commission consists of nine members, all doctors with the exception

of Prince Teano, deputy, who was chiefly instrumental in calling the attention of the Italian government to the discovery of the English commission on pellagra.

THE annual meeting of the College Entrance Examination Board was held at Columbia University on November 12. Tufts was admitted to membership, bringing up to thirty the total number of colleges represented. A standing committee of seven was named to study the reading and rating of examination books and the standards of marking. The list of examiners appointed to prepare examination questions in the sciences for 1911 is as follows:

Botany—Chief examiner, Willard Winfield Rowlee, Cornell; associates, Mary Elizabeth Kennedy, Mount Holyoke; Louis Murbach, Central High School, Detroit, Mich.

Chemistry—Chief examiner, Alexander Smith, University of Chicago; associates, Gregory Paul Baxter, Harvard; Boynton Wells McFarland, New Haven High School, New Haven, Conn.

Mathematics—Chief examiner, Robert Woodworth Prentiss, Rutgers; associates, Herbert Edwin Hawkes, Columbia; Edward B. Parsons, Boys' High School, Brooklyn.

Physics—Chief examiner, Frank Allan Waterman, Smith; associates, William Edward McElfresh, Williams; Daniel Edward Owen, William Penn Charter School, Philadelphia, Pa.

Zoology—Chief examiner, George Howard Parker, Harvard University; associates, Charles Wright Dodge, University of Rochester; Walter Hollis Eddy, High School of Commerce, New York.

THE *London Times* states that by the generosity of Sir Julius Wernher, who recently placed a sum of £10,000 at the disposal of the committee for the purpose, a much-needed extension of the department of metallurgy has now been begun. The department has, up to the present, been accommodated in a number of scattered rooms in Bushy House, which, in consequence of the increase and importance of the work, have become quite inadequate. Plans have been prepared in consultation with Dr. Rosenhain, the superintendent of the department, and the contract has been let to

Messrs. Dick, Kerr and Co., who have already made good progress with the foundations.

THE Sedgwick Memorial Museum, of Cambridge, has received a valuable gift of fossils, etc., from the widow of the Rev. George Ferris Whidborne, who had previously presented to this museum his collection of Devonian fossils. Mrs. Whidborne has now given the remainder of his collection, with all his scientific books and manuscripts, together with a series of photographs and other illustrations.

THE University of Pittsburgh announces the establishment of four industrial fellowships: No. 1, in the chemistry of baking, yielding \$750 a year for two years, with a cash prize of \$2,000. Nos. 2, 3 and 4, for an investigation with a view to eliminating or abating the smoke nuisance in large cities, yielding \$2,000, \$1,500 and \$750 per year, respectively, for two years, together with a large additional consideration.

THE U. S. Geological Survey has published as Bulletin 444 a bibliography of North American geology for the year 1909, by J. M. Nickles. This volume covers all publications on the geology of North America that were printed anywhere in the world in 1909, showing the authors, titles and, briefly, the scope or contents of more than thirteen hundred books and papers. The bulletin includes a comprehensive index.

THE proceedings of the third International Congress for Home Education comprises 8 volumes in which specialists in pedagogy discuss the study of childhood, and education of children before, during and after their school years, the education of abnormal children and the various subjects relating to childhood. The exchange of opinions which was evoked at this congress by the papers presented will be published in a separate volume, the ninth in the series, which will appear shortly. The 9 volumes will be sent to all those who will be registered with the secretary general of the congress, L. Pien, 44 Rue Rubens, Brussels, Belgium, before the first of January. Such persons will be considered members of the congress and will receive the 9 volumes upon payment of the dues, 10 francs (\$2). After

that date these publications will be found only in the hands of booksellers at a price considerably higher. These volumes contain more than 300 articles. A certain number of papers—in the neighborhood of 100—were not received by the bureau in time for publication. The members of the congress will find these reviewed in the *Revue de l'Education familiale*, of which sample copies may be obtained free of charge by applying to the secretary general, as mentioned above. Probably the fourth International Congress for Home Education will be held in the United States. A commission has been appointed to take the matter under consideration. Professor Monroe, of the State Normal School, Montclair, N. J., is secretary of this commission.

At the first Optical Convention, held in 1905, a permanent committee was appointed, to which was entrusted the task of deciding upon a suitable date for the holding of a second convention, and of taking the necessary steps to initiate it. According to *Nature* a general meeting of the committee and of members of the optical industry, representatives of optical bodies and societies, and others interested in optical questions, was held on November 29, to consider and discuss proposals for the organization of a second convention. The chair was to be taken by Dr. R. T. Glazebrook, C.B., F.R.S., director of the National Physical Laboratory, as chairman of the permanent committee, and all interested were invited to be present at the meeting. The main features of the scheme which the members of the existing executive committee had in view were in broad outlines as follows: (1) an exhibition of optical and allied instruments; (2) the preparation of a catalogue of optical and allied instruments of British manufacture to serve as a convenient work of reference for all users of optical and scientific instruments, not necessarily to be limited to instruments actually exhibited; (3) the holding of meetings for the reading of papers and for discussions and demonstrations on optical subjects; (4) the publication of a volume of proceedings, in which these papers will be collected together.

THE *Geographical Journal* reports that with a commission from the Turkish authorities, Dr. Alois Musil has this year carried out further explorations in northern Arabia, this time in the region adjoining the Hejaz railway. Leaving Vienna in April, accompanied by Dr. Leopold Kober (geologist) and his former coadjutor, Rudolf Thomasberger (cartographer), he proceeded by way of Beirut and Damascus to Maan, where he organized his caravan, consisting of three servants and seven riding-camels. During the next two months he made a thorough examination of the imperfectly known area extending from Maan southwards to Al Gaw, and from the Red Sea eastward to Teima and the Wadi Sirhan, and including the Biblical land of Edom. The railway was used as the base for supplies, but the journey was not without danger, especially in the country of the fanatical tribes towards the south, whose suspicions were aroused by the light color of the beards of the traveler's companions, doubt being thus thrown on their character of Muslims. The scattered nature of the posts maintained by the Turks renders them powerless against the Beduin. There had been no rain for four years, and the temperature on one occasion rose to 55° C. (131° Fahr.), but the traveler was able to secure a large amount of ethnographical and linguistic material—lists of names, drawings, copies of inscriptions, and so forth. One result of the journey is, Dr. Musil believes, the identification for the first time of the true Biblical Sinai. His companions carried on work in other departments. Plants and insects were collected and geological investigations made, the country being found to consist of granite, sandstone and basalt, succeeding each other from west to east. The mapping was effected by plane-table and compass, the use of the theodolite being found impossible. Notes on the form and nature of the surface, or at least a record of the changes in direction of the route, were made whenever it was possible to elude the vigilance of the Beduin, who accompanied the party from curiosity. At the night encampments the latitude was taken by alti-

tude of the pole star, and altogether nearly 200 altitudes by aneroid were determined, the meteorological station at Beirut supplying a record of the daily march of the barometer for purposes of comparison, while the leveled line of railway gave a reference to sea-level. The map, like Dr. Musil's previous one of Arabia Petræa, has been plotted on the scale of 1:300,000, but it will be published on a smaller scale. The results of the journey will be issued by the Vienna Academy of Sciences.

UNIVERSITY AND EDUCATIONAL NEWS

COLUMBIA UNIVERSITY has received \$100,000 to be ultimately used for promoting cultural relations between Germany and the United States, and \$30,000 from Mr. E. D. Adams, to buy and equip a Deutsches Haus for the university. In addition to several other gifts, a farm of 320 acres, valued at \$15,000 has been given for an experiment station in connection with projected instruction in agricultural engineering.

ANNOUNCEMENT is made of a gift of \$100,000 to the Johns Hopkins University endowment fund by Mr. R. Brent Keyser, chairman of the board of trustees. The university must raise \$750,000 in order to secure \$250,000 from the general educational board.

THE University of Pittsburgh has received from Mr. Joseph C. Trees, '93, a gift of \$100,000, to be applied toward the construction of a new gymnasium and athletic field.

MR. FREDERICK WEYERHAUSER, of St. Paul, has promised to erect a \$150,000 auditorium and conservatory building for Augustana College at Rock Island, Ill.

THE dedication of the new Science Hall at Howard University, Washington, took place on December 13. The principal addresses were given by Dr. Henry S. Pritchett, president of the Carnegie Foundation, Dr. William H. Welch, of Johns Hopkins University, and Dr. Booker T. Washington, principal of Tuskegee Institute.

PROFESSOR FREDERIC S. LEE has been appointed to the directorship of the department of physiology of Columbia University. It is

expected that the staff of the department will be increased beyond its present membership by the appointment of several additional trained physiologists.

DR. EDWARD MARTIN, professor of clinical surgery at the University of Pennsylvania, has been elected to the John Rhea Barton professorship of surgery to succeed Dr. J. William White.

DR. F. LYMAN WELLS, formerly assistant in pathological psychology in the McLean Hospital, has entered upon the duties of assistant in experimental pathology in the Psychiatric Institute of the New York State Hospitals, and lecturer in psychology in Columbia University.

AMONG recent appointments in botany at the Michigan Agricultural College are the following: Dr. Wm. H. Brown, Ph.D. (Hopkins), to be research assistant in plant physiology under the Adams fund, at the Agricultural Experiment Station, for three fourths of his time, the remainder to be devoted to teaching advanced plant physiology in the botany department of the college. Dr. Brown comes from the Desert Laboratory, Tucson, Arizona, where he has been spending some months in research. Professor G. H. Coons to be research assistant in plant pathology at the Experiment Station, devoting one fourth of his time to teaching plant pathology at the college. Professor Coons is now assistant professor of agricultural botany at the University of Nebraska. He will assume his duties at the Michigan Agricultural College on January first.

M. MAURICE LERICHE, of Lille, has been appointed professor of geology at the University of Brussels.

DISCUSSION AND CORRESPONDENCE

IS THIS A DYNAMICAL PROOF OF THE PYTHAGOREAN THEOREM?

As indicated in the figure, $O-p$ is assumed to be a rod without mass which can revolve in the plane of the paper about O as center. $1-2$ is also assumed to be another rod without mass which lies in the plane of