

Henry Van Peters Wilson, Ph.D., 1888, professor of biology, University of North Carolina.

Arthur Lincoln Lamb, A.B., 1888, science master, Country School, Baltimore.

Clifton Fremont Hodge, Ph.D., 1889, assistant professor of physiology, Clark University.

Thomas Hunt Morgan, Ph.D., 1890, professor of experimental zoology, Columbia University.

Henry Torsey Fernald, Ph.D., 1890, professor of entomology, Massachusetts Agricultural College.

Edwin Grant Conklin, Ph.D., 1891, professor of zoology, Princeton University.

Robert Payne Bigelow, Ph.D., 1892, instructor in biology and librarian, Massachusetts Institute of Technology.

George Wilton Field, Ph.D., 1892, zoologist, Massachusetts Board of Fisheries.

Theodore Hough, Ph.D., 1893, professor of physiology, University of Virginia.

Maynard Mayo Metcalf, Ph.D., 1893, professor of zoology, Oberlin College.

Herbert Spencer Jennings, professor of experimental zoology, Johns Hopkins University.

Ross Granville Harrison, Ph.D., 1894, professor of comparative anatomy, Yale University.

Reid Hunt, Ph.D., 1896, pharmacologist, Bureau of Health, Washington, D. C.

Henry McElderry Knower, Ph.D., 1896, associate in anatomy, Johns Hopkins University.

George Lefevre, Ph.D., 1896, professor of zoology, University of Missouri.

Hubert Lyman Clark, Ph.D., 1897, assistant in invertebrate zoology, Harvard University.

Charles Peter Sigerfoos, Ph.D., 1897, professor of zoology, University of Minnesota.

Duncan Starr Johnson, Ph.D., 1897, professor of botany, Johns Hopkins University.

Gilman Arthur Drew, Ph.D., 1898, professor of biology, University of Maine.

Caswell Grave, Ph.D., 1899, associate professor of zoology, Johns Hopkins University.

Albert Moore Reese, Ph.D., 1900, professor of zoology, West Virginia University.

William Chambers Coker, Ph.D., 1901, associate professor of botany, University of North Carolina.

Henry Farnham Perkins, Ph.D., 1902, assistant professor of zoology, University of Vermont.

Lewis Robinson Cary, student, 1903-5, holder of fellowship, Princeton University.

Rheinart Parker Cowles, Ph.D., 1904, instructor in biology, Johns Hopkins University.

Otto Charles Glaser, Ph.D., 1904, instructor in zoology, University of Michigan.

David Hill Tennent, Ph.D., 1904, associate professor in zoology, Bryn Mawr College.

Eugene Willis Gudger, Ph.D., 1905, professor of biology and geology, North Carolina Normal and Industrial College.

John Augustine English Eyster, M.D., 1905, associate professor of physiology, University of Virginia.

Samuel Rittenhouse, Ph.D., 1905, instructor in biology, Olivet College.

Robert Irvine Coker, Ph.D., 1906, special investigator for Peruvian Government.

Bartgis McGlone, Ph.D., 1907, professor of biology, St. John's College.

Ivey Foreman Lewis, Ph.D., 1908, professor of biology, Randolph-Macon College.

William E. Kellicott, lecturer, 1908, professor of biology, Woman's College, Baltimore.

Samuel Ottmar Mast, Johnston scholar, 1907-8, associate professor of biology, Woman's College.

J. Frank Daniel, Adam T. Bruce, fellow, 1908-9, Johns Hopkins University.

William Dana Hoyt, fellow in botany, 1908-9, Johns Hopkins University.

Asa Arthur Schaeffer, fellow in zoology, 1908-9, Johns Hopkins University.

Frederick Harvey Blodgett, candidate for Ph.D., 1910, Johns Hopkins University.

William Henry Brown, candidate for Ph.D., 1910, Johns Hopkins University.

SCIENTIFIC NOTES AND NEWS

As has already been announced, Sir J. J. Thomson, F.R.S., will preside over the Winnipeg meeting of the British Association to be held from August 25 to September 1 of this year. The presidents of the sections are as follows: A (Mathematical and Physical Science), Professor E. Rutherford, F.R.S.; B (Chemistry), Professor H. E. Armstrong, F.R.S.; C (Geology), Dr. A. Smith Woodward, F.R.S.; D (Zoology), Dr. A. E. Shipley, F.R.S.; E (Geography), Sir Duncan A. Johnston, K.C.M.G.; F (Economic Science and Statistics), Professor S. J. Chapman; G (Engineering), Sir William H. White, K.C.B., F.R.S.; H (Anthropology), Professor J. L. Myres; I (Physiology), Professor E. H. Starling, F.R.S.; K (Botany), Lieut.-Colonel D. Prain, F.R.S.; L (Educational Science), Dr. H. B. Gray; and subsection, Agriculture, Major P. G. Craigie (chairman).

Mr. H. B. Woodward, F.R.S., having reached the age of seventy-six years, has re-

tired from the assistant directorship of the Geological Survey of Great Britain. He is succeeded by Dr. H. Strahan, F.R.S.

M. LÉON L'ABBÉ, who has recently been re-elected to the French senate, succeeds M. Bucquoy as president of the Paris Academy of Medicine.

MR. ARTHUR SILVA WHITE has resigned as assistant secretary of the British Association for the Advancement of Science.

PROFESSOR HILLHOUSE will retire from the chair of botany in the University of Birmingham at the end of the present session.

MR. R. JAMES WALLACE, who has for several years past been engaged in photographic research at the Yerkes Observatory, as instructor in photophysics, has resigned his position there to become director of the research laboratory of the Cramer Dry Plate Company at St. Louis. It is a promising evidence of appreciation of research that a commercial company engages the services of a scientific investigator for the improvement and further development of its products.

THE Geological Society of London will this year award its medals and funds as follows: Wollaston medal, Mr. Horace B. Woodward, F.R.S.; Murchison medal, Professor Grenville A. J. Cole; Lyell medal, Professor Percy F. Kendall; Bigsby medal, Dr. John Smith Flett; Prestwich medal, Lady Evans; Wollaston fund, Mr. Arthur J. C. Molyneux; Murchison fund, Mr. James V. Elsdon; Lyell fund, Mr. R. G. Carruthers and Mr. Herbert Brantwood Muff.

DR. JOHN M. COULTER, head of the department of botany in the University of Chicago, was among those who returned to New York on the *Baltic* after the ill-fated trip of the steamer *Republic*.

WE learn from *Nature* that Professor J. Arthur Thomson, of Aberdeen University, has been invited by the lecture committee of the South African Association for the Advancement of Science to give the "South African Lectures" for 1909. The lectures are to be delivered in August and September in Johannesburg, Pretoria, Bloemfontein, Kimberley,

Cape Town, Grahamstown and Durban, and at the request of the committee they will have special reference to the Darwin centenary.

MR. G. W. BURY has undertaken an expedition into southwest Arabia.

MR. DONALD MACKAY is engaged in exploration in British New Guinea. He is attempting to ascend the Purari River, with a view to making his way overland to the head waters of the Fly River.

DR. C. W. A. VEDITZ, professor of economics at George Washington University, has been selected as a special expert agent for the United States Department of Labor and Commerce to investigate the child-labor problem and conditions in the principal industrial countries of Europe. He will leave this country on February 3 and will remain abroad for about eight months.

PRESIDENT ROOSEVELT has appointed Mr. W. K. Moorehead, curator of archeology in Phillips Academy, Andover, a member of the United States Board of Indian Commissioners.

DR. FRANCIS E. FREMANTLE, medical officer of health for Hertfordshire, has been appointed to the Edward Jenner lectureship in public health at St. George's Hospital Medical School, London.

UNDER the auspices of the Pennsylvania Society of the Archeological Institute of America, a public lecture was given at the University of Pennsylvania Museum on Wednesday afternoon, January 27, on "Excavations and Repairs at Casa Grande, Arizona," by Professor J. Walter Fewkes, of the U. S. Bureau of American Ethnology.

MR. FRED G. PLUMMER, chief of geography in the National Forest Service, gave a lecture on "The American Forests" before the department of geology of Colgate University, on the evening of January 20.

At the regular meeting of the Academy of Science of St. Louis, held on January 18, 1909, with Professor Wm. Trelease presiding, Professor W. H. Roever, of the department of mathematics of Washington University, presented a paper embodying his researches on

"An Optical Interpretation of some Problems in Statistics."

At the meeting of the Royal Microscopical Society on January 20, Lord Avebury delivered his presidential address on seeds, with special reference to British plants.

PROFESSOR KARL PEARSON gave last month before the Royal Institution of Great Britain two lectures on "Albinism in Man."

SIR THOMAS WARDELL, known for his researches on silk fiber, died on January 3, in his seventy-eighth year.

MAJOR PERCY B. MOLESWORTH, who had made valuable observations on Jupiter and Mars, died in Ceylon on December 26, in his forty-second year.

M. DOMINIQUE CLOS, honorary professor of botany at Toulouse, has died at the age of eighty-eight years.

THE House of Representatives has included in the military appropriation bill an appropriation of \$500,000 for air-ships. The Russian war office has reserved for this purpose a fund of \$750,000. The Aero Club of America offers a prize of \$10,000 for a race from New York City to Albany as part of the Hudson-Fulton memorial celebrations to be held in the autumn.

THE sum of \$100,000 has been given to the medical school of the London Hospital, the income to be expended in the advancement of medical research and the promotion of higher education in medicine.

BARON BESSIÈRES has left a legacy of \$16,000 to the Pasteur Institute, Paris, to be employed in scientific researches.

A ROYAL BRITISH RADIUM INSTITUTE is to be established through a gift from Sir Ernest Cassel. It is intended to investigate especially the therapeutic action of radium. In this connection it is reported that a syndicate has been formed in connection with the institute to extract radium from the pitch-blend deposits of an old copper mine recently reopened at St. Ives, Cornwall. This is said to be the only place where radium can be produced outside of Austria.

A SOCIETY of radiology has been founded in Paris for the scientific study of the medical applications of radiations in general.

THE important George G. Heye collection of American antiquities will soon be placed on exhibition in the Museum of the University of Pennsylvania.

Two additions to the series of North American habitat groups in the American Museum of Natural History have recently been completed. These are the Duck Hawk group, representing a scene along the Palisades of the Hudson River, and the Hackensack Meadow group, which represents the nesting habits of the birds which frequent it in August.

A MEDICAL congress is to be held in Bombay, beginning on February 22. Sir George Clarke will deliver the presidential address, and the sectional meetings will last four days.

ARRANGEMENTS for the North American Conservation Conference between representatives of the United States, Canada and Mexico, at the White House, February 18, are going forward rapidly, following the cordial acceptance by Sir Wilfrid Laurier, Premier, and Earl Grey, Governor-General, of Canada, and President Diaz, of Mexico, of President Roosevelt's invitation to send delegates. The conference will discuss the situation with regard to the natural resources of the respective countries and help prepare a general plan adapted to promote the welfare of the nations concerned in accordance with President Roosevelt's suggestion. This International Conference will meet at the White House by President Roosevelt's invitation. It will not be a large gathering as was the Conference of Governors at the White House last May, or the joint Conservation Conference last December between the National Conservation Commission, the Governors and the representatives of State Conservation Commissions and Conservation Committees of national organizations. The attendance will be limited to the representatives of Canada and Mexico and representatives of the State Department of the United States Government and of other executive departments which can render particular assistance to the conferees in their deliberations,

and the National Conservation Commission. Canada has already taken active steps in preparation for the conference and recently sent to the National Conservation Commission a number of carefully prepared maps which show the present status of the public lands of the dominion as well as the distribution of the principal natural resources and the development of its transportation systems. The Canadian authorities have also gathered together and sent to the chairman of the commission a comprehensive collection of government documents bearing on the natural resources of the country. These have been carefully indexed and bound together according to subjects. They will be used at the forthcoming conference.

MR. D. C. SOWERS, in charge of the special magnetic expedition to China under the auspices of the Carnegie Institution of Washington, left Peking on January 30. He will be assisted by Professor Chester G. Fuson, for the past four years professor of history and geography at the Canton Christian College. The general route to be followed by the party will touch at the following places: Sianfu, Lanchowfu, Suchow, Turfan, Kashgar, Khotan, thence, via the Karakorum Pass, into India, where connection will be made at Dehra Dun with the magnetic survey of India. A series of magnetic observations will, therefore, be obtained in parts of China and Chinese Turkestan where no previous data existed. Dr. J. C. Beattie, director of the department of physics, South African College, Cape Town, has been granted a year's furlough in order to take charge of a magnetic survey party under the auspices of the Carnegie Institution of Washington. He left Cape Town November 25. His general route of travel will be through German Southwest Africa, thence into Rhodesia, British East Africa, German East Africa, and next through Nubia and Egypt, connecting with the magnetic survey of Egypt at Cairo. He will be assisted by Professor J. T. Morrison, in charge of the department of physics, Victoria College, Stellenbosch, South Africa, who will confine his work chiefly to points reached by steamer along the east and

west coasts of Africa. There will thus be obtained during the present year magnetic data in regions of Africa hitherto almost entirely unexplored. Mr. Joseph C. Pearson, who during the past year has been engaged in making magnetic observations in various parts of Persia under the auspices of the Carnegie Institution, will be ready to undertake similar work in Asia Minor, beginning at Bagdad some time in March.

PRIZES conferred by the Paris Academy of Medicine include: the Baillarger prize (£80) to Dr. A. Rodiet, of Dun-sur-Auron, for a contribution to the study of the organization of lunatic asylums; the Barbier prize (£80) has been divided among several competitors, Dr. P. Remlinger, of Constantinople, getting £32 for a series of researches on rabies, Dr. L. Malloizel, of Paris, £24 for anatomo-clinical researches on pleuro-cortical reactions, and Drs. Louis Wickham and Degrais, of Paris, a like amount for their work on the treatment of angiomas of radium. To Professor Calmette, director of the Pasteur Institute at Lille, and MM. Boullanger and E. Rolants, heads of laboratories, F. Constant and L. Masol, demonstrators in the same institute, and Professor Buisine, of the Lille Faculty of Science, has been awarded the Orfila prize (£160) for researches on the purification of water that has been used in towns and of the residual water of factories. Dr. Marfan has won the Roger prize (£100) for his treatise on suckling and the feeding of infants. The Saintour prize (£176) has been awarded to Dr. Emile-Sergeant, of Paris, for his work on syphilis and tuberculosis; the Campbell-Dupieris prize (£92) to Dr. Morris Nicloux, *Professeur agrégé* of the Paris Faculty, for his work on general anesthetics from the chemico-physiological point of view. The Ernest Godard prize (£40) has been awarded to Dr. F. W. Pavy, of London, for his work on carbohydrates and their transformation—a physiologico-pathological study with considerations on diabetes and its treatment.

THE New York State Bar Association at the closing session of its thirty-second annual meeting at Buffalo on January 29, went on

record in favor of a bill designed to correct the evils of expert medical testimony in the courts. The draft of the bill provides, among other things, that "in criminal cases for homicide where the issues involve expert knowledge or opinion the court shall appoint one or more suitable disinterested persons, not exceeding three, to investigate such issues and testify at the trial; and the compensation of such person or persons shall be fixed by the court and paid by the county where indictment was found, and the fact that such witness or witnesses have been so appointed shall be made known to the jury. This provision shall not preclude either prosecution or defense from using other expert witnesses at the trial."

UNIVERSITY AND EDUCATIONAL NEWS

A BILL has been introduced in the Wisconsin legislature which proposes to increase the building fund of the University of Wisconsin from \$200,000 to \$300,000 annually, and to lengthen the period of this appropriation from five to seven years.

A NEW industrial fellowship has been presented to the University of Kansas by the Holophane Glass Co. It yields \$1,500 a year for two years, together with ten per cent. of the profits that may arise from any discoveries made by the student who pursues the special study. The fellowship is open to students of any university, but the work will be done in the laboratories of the University of Kansas.

BRYN MAWR COLLEGE has established ten graduate scholarships, five open to English, Irish or Scotch and five to German women students, who have attained a standard equivalent to that of the bachelor's degree. The scholarship covers the fees for board, residence and tuition at Bryn Mawr College for one academic year and as these fees for graduate students amount to \$405 this is equivalent to a scholarship of £81 or of 1,620 Marks.

MR. CHINUBHAI MADHOWLAL has given four lakhs of rupees (about \$125,000) to be applied

by the Bombay Government towards the development of science teaching in Ahmedabad, in connection, if possible, with the proposed Curline Institute in Bombay.

THE University of Liverpool has received an offer from Mr. Alexander Elder, to contribute \$50,000 for the establishment of a chair of naval architecture.

ON recommendation of the faculty of the medical department of Western Reserve University, the trustees have voted that beginning with the academic year 1910-11 the requirement for unconditional entrance to the medical department shall be graduation from an approved college or scientific school granting the bachelor's degree (or equivalent) following the completion of a course of at least three collegiate years and including inorganic chemistry, physics, biology and Latin. Conditional entrance will be granted upon the completion of the work of the junior year in the course of an approved college or scientific school enforcing a four-year course (or equivalent degree) including the subject requirements enumerated above, conditioned upon the student obtaining a baccalaureate degree before he enters the third year in the medical school.

DR. A. GRAHAM LUSK, professor of physiology at the University and Bellevue Hospital Medical School has been appointed professor of physiology in the Cornell Medical College.

DR. DANA B. CASTEEL, instructor in zoology in the University of Michigan, has been appointed instructor in zoology in the University of Texas.

CAPTAIN H. G. LYONS, F.R.S., director-general of the survey of Egypt, has been appointed lecturer in geography at the University of Glasgow.

DISCUSSION AND CORRESPONDENCE

THE LAW OF RADIATION

TO THE EDITOR OF SCIENCE: Is it worth while to keep on upholding certain theories, and to wholly neglect certain new facts which tend to undermine the very foundation on which these theories rest? What justification