

Jacques Loeb, Rockefeller Institute. Diffusion and Secretion. (12 minutes.)

Lafayette B. Mendel and S. E. Jordan, Yale University. Some Interrelations between Diet, Growth and the Chemical Composition of the Body. (12 minutes.)

Henry L. Abbot, Cambridge, Mass. Hydrology of the Isthmus of Panama.

John M. Clarke, State Museum, Albany. The Strand and the Undertow.

W. M. Davis, Harvard University. Sublacustrine Glacial Erosion in Montana.

Scientific Exhibit in the General Library, from 3.30 to 5.00.

From 8.15 to 9.15:

President W. H. Welch, Johns Hopkins University. The Formation of the National Research Council at the Request of the President of the United States. (15 minutes.)

Dr. S. W. Stratton, Director of the National Bureau of Standards, Washington. Target Practice in the Navy and Some of the Research Problems Involved; Illustrated with Moving Pictures. (45 minutes.)

Reception and Scientific Exhibit in the General Library, from 9.15 to 10.30.

#### *Tuesday, November 14*

From 10.00 to 12.30:

Edwin H. Hall, Harvard University. Electric Conduction in Metals. (20 minutes, lantern.)

Edward B. Rosa, National Bureau of Standards. The Silver Voltmeter as an International Standard. (15 minutes.)

R. W. Wood, Johns Hopkins University. One-dimensional Gases and the Reflection of Molecules. Series in Resonance Spectra. (10 minutes, lantern.)

Elihu Thomson, Swampscott, Mass. Inferences Concerning Auroras. (20 minutes.)

A. A. Michelson, University of Chicago. Report of Progress in Experiments for Measuring the Rigidity of the Earth. (10 minutes.) The Laws of Elastic-viscous Flow. (10 minutes.)

C. G. Abbot, Smithsonian Institution. On the Preservation of Knowledge. (5 minutes.)

Franz Boas, Columbia University. Further Evidence Regarding the Instability of Human Types. (20 minutes.)

Ross G. Harrison, Yale University. Transplantation of Limbs. (20 minutes, lantern.)

Chas. B. Davenport, Station for Experimental Evolution, Carnegie Institution. Heredity of Stature. (20 minutes, lantern.)

From 2.30 to 5.00:

Professor George E. Hale, Chairman of the National Research Council. The Work of the National Research Council; Recent Observations of Organized Science in England and France. (45 minutes.)

Lieutenant Colonel George O. Squier, Chief of Aviation, U. S. Army. Scientific Research for National Defense, as Illustrated by the Problems of Aviation. (45 minutes.)

Professor Arthur A. Noyes, Massachusetts Institute of Technology. The Nitrogen Problem in War and in Agriculture. (30 minutes.)

Discussion of the Work of the National Research Council.

#### SCIENTIFIC NOTES AND NEWS

A MEETING to plan a memorial to the late Sir William Ramsay was held at University College, London, on October 31. After the meeting, the director of the University College Chemical Laboratories, Professor J. Norman Collie, F.R.S., delivered a memorial lecture on "The Scientific Work of Sir William Ramsay."

WE are informed by a correspondent who has just returned from Germany that the published statement that Dr. A. von Wassermann, of the University of Berlin, has succeeded Ehrlich as head of the Institute for Experimental Therapeutics at Frankfurt-on-Main is incorrect and that Professor Kolle of Berne, holds this position temporarily.

PROFESSOR WILLIAM W. PAYNE, director of the Elgin Observatory, formerly professor of mathematics and astronomy and director of the Goodsell Observatory of Carleton College, and the founder of *Popular Astronomy*, was granted the degree of doctor of science by Carleton College on October 13, on the occasion of the celebration of the fiftieth anniversary of the founding of the college.

PROFESSOR W. A. NOYES, director of the chemical laboratory of the University of Illinois, will lecture on "The Electron Theory" as part of the program of the Franklin Institute, Philadelphia, for the year 1916-17.

ON October 26, Professor C. J. Keyser delivered an address before the assembly of Le-

land Stanford University on "Ways to Pass the Walls of the World." On October 27, he addressed the university meeting of the University of California on "The Ideals that are Most Worthy of Loyalty." During the current half-year Professor Keyser is giving instruction in the University of California in exchange of work with Professor M. W. Haskell, who is lecturing in Columbia University.

It is reported that Lieutenant-colonel J. George Adami, professor of pathology in McGill University, Montreal, who held the position abroad of official Canadian recorder of medical history of the war, has resigned and will soon return to Montreal.

MR. JOHN E. MELLISH, who has been at the Yerkes Observatory for the past fifteen months as volunteer research assistant, will take charge of the well-equipped private observatory at Leetonia, Ohio, of Mr. Elmer Harrald.

WALTER D. HARRIS, formerly assistant professor of physics at Syracuse University, has resigned his position with the United States Bureau of Chemistry to take an active interest in the Valhalla Co., Chicago, manufacturers of electro-chemical machinery.

MR. E. W. KERR has resigned his professorship in mechanical engineering at Louisiana State University to take up commercial work with the Cuba Cane Sugar Corporation, Havana, Cuba.

DR. LEVERETT D. BRISTOL, for two years professor of bacteriology and hygiene and director of the city public health laboratory at the University of North Dakota, has accepted the newly created Boston dispensary fellowship in public health in the department of preventive medicine at Harvard Medical School, Boston.

SIR ERNEST SHACKELTON, the Antarctic explorer, arrived in New Orleans, on November 3, on the steamer *Parismina*, from Colon, and departed several hours later for San Francisco, on his way to rescue ten members of the Shackelton party on the west side of the Antarctic continent. He expected to sail from San Francisco for Wellington, New Zealand,

on November 8, going thence to Dunedin, where he and a rescue expedition will sail for the Antarctic on the *Aurora*.

LIEUTENANT-COLONEL E. ALEXANDER MEARNs, U. S. A., died in Washington, D. C., on November 1, in his sixty-first year. He was one of the founders of the American Ornithologists' Union, and a member of the Roosevelt East African expedition. Dr. Mearns was an indefatigable collector of natural history specimens all his life, and was the author of many contributions to zoology and botany.

THEODORE NEWELL ELY, engineer and retired chief of motive power of the Pennsylvania railroad, died on October 28, at his home at Bryn Mawr, Pa., aged seventy years. Dr. Ely established a scientific department in the Pennsylvania Railroad in 1875. He had received the honorary degree of master of arts from Yale University and the doctorate of science from Hamilton College. In addition to membership in the national engineering societies, he was a member of the American Philosophical Society and a fellow of the American Association for the Advancement of Science.

PHILLIP H. CARY, a graduate of Oberlin College who had nearly completed the work for the degree of doctor of philosophy at the University of Minnesota, where he was specializing in paleontology and stratigraphy, died on October 27. Last January, when the call came for more men in the southwestern oil fields, he left his graduate work temporarily and was rapidly establishing a reputation as an oil geologist in Oklahoma.

PROFESSOR G. C. J. VOSMAER, of the University of Leiden, known to all zoologists for his valuable contributions on the morphology and classification of sponges, has died at the age of sixty-two years.

THE death is announced of the distinguished psychiatrist Dr. Magnan, honorary chief physician of the Asile Sainte-Anne at Paris.

THE twenty-fifth annual meeting of the American Psychological Association, in affiliation with the American Association for the Advancement of Science, will occur on Wed-

nesday to Saturday, December 27 to 30, in New York City. By invitation of the psychologists of Columbia University the sessions will be held at that institution. It is proposed to hold the regular meetings in Teachers College, 120th Street, between Broadway and Amsterdam Avenue. As headquarters the Hotel Marseilles at 103d Street and Broadway has been selected. This meeting marks the twenty-fifth anniversary of the association's foundation. An appropriate program commemorating the event will be held on Thursday afternoon, December 28. The annual banquet will also take place on Thursday, at 7 P.M., in the Hotel Marseilles. The program of after-dinner speakers for this occasion is in the hands of the anniversary committee. The president's address on "The Laws of Relative Fatigue" will be given by Professor Raymond Dodge, of Wesleyan University, at 8 P.M. on December 27, in Schermerhorn Hall. It will be followed by the annual business meeting of the association, and a smoker in the Psychological Laboratory. A joint session with Section L (Education) of the American Association for the Advancement of Science is planned for Friday morning, December 29. The program with additional notes on the meetings will be distributed to members early in December.

THE formation of the Association of British Chemical Manufacturers has been noted in SCIENCE. The association, which has been joined by the leading chemical firms of Great Britain, is now installed in offices at 166, Piccadilly. Sir Charles Bedford has been appointed general secretary, and Sir William Pearce, M.P., honorary treasurer. The chief objects of the association are: (1) To promote cooperation between British chemical manufacturers. (2) To place before government the views of the association upon matters affecting the industry. (3) To develop technical organization and promote industrial research and efficiency. (4) To facilitate the development of new British industries and the extension of existing ones. (5) To improve the methods of education in chemistry. (6) To finance researches undertaken in the interest of the industry. (7) To found scholar-

ships or lectureships for the promotion of its objects. The financial strength of the association is guaranteed by the fixing of the minimum subscription at 25 guineas and the maximum at 250 guineas. The affairs of the association are to be managed by a council of 20, 16 elected and 4 coopted.

THE New York *Medical Journal* gives the following statistics in regard to the death rate in Germany which, after reaching the low record of 14 per mille in 1913, has followed a steadily ascending curve during the war. The figures for 1914 were 16.1 per mille, in 1915 there was an increase to 19.7, and the record for the first seven months of 1916 is 16. These statistics include civilians and soldiers. Infant mortality, however, continues to follow a descending curve. The number of deaths per centum new births, after showing a slight increase from 14.1 in 1912 and 1913, to 15.6 in 1914, dropped to 14.5 in the first year of the war. For the last year the percentage has been 12.9.

THE rate of growth of trees in woodlots and in plantations in Central New York is being studied by the junior class of the New York State College of Forestry under the direction of Professor J. Fred Baker, director of forest investigations. Soil and climatic conditions in central New York are unexcelled for maintenance and rapid forest growth. In fact, trees grow like weeds in New York and there is not a square foot in the state where there is any soil at all which will not maintain a good forest growth. The so-called virgin forests of the Adirondacks are growing to-day at the rate of about 200 board feet per acre per year. Properly managed forests, such as those of the Black Forests of southwestern Germany, are growing at the rate of from a 1,000 to 1,200 board feet per acre per year. Reasonable use of farm woodlots and the planting of the right kinds of forest trees on forest soils means the production of excellent crops of timber and that within a comparatively short period of time. The planting of trees along the highways of the state is being studied by Professor H. R. Francis, of the Landscape Extension Service of the College of Forestry at Syra-

cuse. Field studies and plans have already been prepared for portions of the main highway between Utica and Albany and the state highway between Utica and Syracuse is now being carefully studied. It is not the idea of Professor Francis to line the highways with straight rows of trees. Natural vistas showing beauty spots away from the highways will be left open, and it will be suggested that other vistas be made so that the highways will not alone be well planted with trees and shrubs, but there will be more nearly a park-like effect with opportunities of seeing the beauty of the country on either side. Professor Francis is urging the use of native trees and shrubs, taking advantage in so far as possible of the material on the ground. It is expected that these studies of highway planting will result in a publication showing just how definite areas of highway may be treated to best advantage. This will supplement a bulletin on "Suggestions for Street Tree Planting" which has already been given wide distribution by the college.

UNITED STATES patents have been issued to Dr. Clifford Richardson on an improved "bituminous substance" and on the process by which this product is manufactured. Similar patents have also been granted in Canada, Great Britain, France and Italy. It is said that these are the first patents covering a product and process involving the introduction of colloidal matter into bitumens of all types. According to the inventor, he obtains "an increased degree of body or stability in these bituminous substances, by means of the addition to and intimate and uniform dispersion through the bituminous substance of a proper proportion of a substance in the state of a disperse colloid. The process consists in the introduction of clay in the form of a colloidal aqueous paste and combining this paste with the bitumen in such a way that when the water is subsequently driven off, the bitumen forms the continuous phase of the colloidal material. The products resulting from this method of incorporating clay in colloidal form with bitumen has markedly different prop-

erties from products into which the mineral matter is introduced in the form of a dry powder. The products made by the Richardson method range all the way from materials resembling vulcanized rubber to plastic, but at the same time very stable mixtures suitable for paving and many other uses.

THE *Journal* of the American Medical Association reports that an institute for vaccines, bacteriology and chemistry at Buenos Aires was recently inaugurated. Penna, chief of the public health service, Malbran, chief of the bacteriologic service, and various professors with university chairs in these specialties, all delivered addresses. Magnin, chief of the chemical department, reported that already he had researches under way which might aid materially in remedying the scarcity of imported drugs. A number can be made and many are now being made in the workrooms connected with his department. An isolated pavilion has been set apart for a training school in applied chemistry. The national board of health has had a chemical department since 1880, but this new triple institute is said to be equipped for the science and needs of to-morrow as well as to-day.

---

#### UNIVERSITY AND EDUCATIONAL NEWS

THE Carborundum Company of Niagara Falls, N. Y., will construct an administration building on lands of the Niagara Falls Power Company on the Niagara River front. It is proposed to tender the use of the present offices to the Massachusetts Institute of Technology, which has decided to establish a research laboratory at Niagara Falls.

CHARLES GILMAN HYDE, professor of sanitary engineering in the University of California, has been appointed acting dean of its college of civil engineering, to serve during the present year because of the absence on account of illness of Professor Charles Derleth, Jr.

THE following former members of the Medico-Chirurgical College faculty have been duly elected members of the faculty of under-