

to go to Middletown and inspect the plant of the American Rolling Mills, the home of Ingot Iron. After visiting this plant the party goes to Dayton, where members of the Cincinnati Section, residents of Dayton, have arranged an inspection trip through the plant of the National Cash Register Co. Negotiations are now in progress to have Mr. Wright give an exhibition of his latest aeroplane, including the stabilizer.

The following provisional program will give an idea of the plans for the Cincinnati Meeting:

Monday, April 6, evening, council meeting.

Tuesday, April 7, morning, general meeting; afternoon, excursions; evening, smoker at zoo.

Wednesday, April 8, morning, division meetings; afternoon, excursions; evening, concert by the Cincinnati Symphony Orchestra at Emery Hall.

Thursday, April 9, morning, division meetings; afternoon, division meetings; evening, subscription dinner.

Friday, April 10, excursion to American Rolling Mills, Middletown, O., and the National Cash Register Company, Dayton, O.

Following are the addresses of the Divisional and Sectional Secretaries:

#### Divisions:

Agricultural and Food Chemistry: G. F. Mason, H. J. Heinz Company, Pittsburgh, Pa.

Biological Chemistry: I. K. Phelps, Bureau of Chemistry, Washington, D. C.

Fertilizer Chemistry: B. F. Carpenter, Virginia Carolina Chemical Co., Richmond, Va.

Industrial Chemists and Chemical Engineers: S. H. Salisbury, Jr., Lehigh University, South Bethlehem, Pa.

Organic Chemistry: C. G. Derick, Morris Ave., Lincoln Place, Urbana, Ill.

Pharmaceutical Chemistry: A. P. Sy, University of Buffalo, 24 High St., Buffalo, N. Y.

Physical and Inorganic Chemistry: R. C. Wells, U. S. Geological Survey, Washington, D. C.

#### Sections:

India Rubber Chemistry: Dorris Whipple, the Safety Insulated Wire and Cable Co., Bayonne, N. J.

Water, Sewage and Sanitation: Harry P. Corson, State Water Survey, Urbana, Illinois.

All Divisions of the Society will meet. The Water, Sewage and Sanitation Section has

announced that it is planning a special conference on Standard Methods of Water Analysis. The Rubber Section hopes to have a large meeting, as Cincinnati is conveniently located to some of our largest rubber manufacturing centers.

#### SCIENTIFIC NOTES AND NEWS

THE following fifteen candidates have been selected by the council of the Royal Society to be recommended for election into the society: Dr. Edgar Johnston Allen, Mr. Richard Assheton, Mr. Geoffrey Thomas Bennett, Professor Rowland Harry Biffen, Dr. Arthur Edwin Boycott, Mr. Clive Cuthbertson, Dr. Henry Hallett Dale, Mr. Arthur Stanley Edgington, Professor Edmund Johnston Garwood, Mr. Thomas Henry Havelock, Dr. Thomas Martin Lowry, Professor Diarmid Noël Paton, Mr. Siegfried Ruhemann, Dr. Samuel Walter Johnson Smith and Dr. Thomas Edward Stanton.

THE seventieth birthday of Professor A. Engler, the distinguished Berlin botanist, will be celebrated on March 27, when a marble bust will be presented to him.

PROFESSOR R. W. WOOD, of the Johns Hopkins University, gave in London, on February 27, the first Guthrie lecture of the Physical Society, his subject being "Radiation of Gas Molecules Excited by Light."

DR. GEORGE E. DE SCHWEINITZ, professor of ophthalmology in the University of Pennsylvania, was given by the university the degree of doctor of laws, at its recent university-day celebration.

DR. E. W. HOBSON, Sadlerian professor of pure mathematics at the University of Cambridge, has been nominated to represent the university on the occasion of the celebration on June 29-30 and July 1 of the three hundredth anniversary of the foundation of the University of Groningen.

DR. A. SMITH WOODWARD has been elected president of the Geological Society of London.

OFFICERS of the Royal Astronomical Society have been elected as follows: *President*, Major E. H. Hills; *Vice-presidents*, Dr. F. W. Dyson,

Dr. J. W. L. Glaisher, Professor H. F. Newall and Professor H. H. Turner; *Treasurer*, Mr. E. B. Knobel; *Secretaries*, Professor A. S. Eddington and Professor A. Fowler; *Foreign Secretary*, Professor Arthur Schuster.

At the recent annual meeting of the State Microscopical Society of Illinois the constitution and by-laws were revised and the following officers elected for the ensuing year:

*President*—David L. Zook.

*First Vice-president*—Walter F. Herzberg.

*Second Vice-president*—Francis T. Harmon.

*Treasurer*—Frank I. Packard.

*Corresponding Secretary*—N. S. Amstutz.

*Secretary*—V. A. Latham.

*Curator*—Henry F. Fuller.

*Trustees*—M. D. Ewell, B. U. Hills, Albert McCalla, S. S. Graves and W. G. King.

An annual conversazione meeting will be held on March 12 at the rooms of the Chicago Press Club. The annual soirée in connection with the Chicago Academy of Sciences, Lincoln Park, will be held some time in April.

"MEN of the Old Stone Age in Europe: their Environment, Life and Art" was the subject of the annual Hitchcock Lectures, just given at the University of California as the series for 1914. This year's Hitchcock Lecturer was Dr. Henry Fairfield Osborn, research professor of zoology in Columbia University, and president of the American Museum of Natural History. The latest fruits of excavation and comparative study in various parts of the world were gathered together by Professor Osborn in these lectures. He told of *Pithecanthropus*, the earliest human type as yet discovered; of the recent important English discovery of the Piltdown man; of the Heidelberg man; of the Neanderthal human type; of the Crô-Magnon race, and of the local Grimaldi race. He described the mural art of such caverns as those of Font de Gaume, in France, and Pasiega, Castillo and Altamira, in Spain. After telling of the appearance of the Grenelle race and the Azilian-Tardenoisian culture, he completed his lectures with an account of the beginning of the Neolithic Period, its culture and the sources of its main races.

DR. W. M. DAVIS, Sturgis-Hooper professor

emeritus at Harvard University, has gone from Cambridge on a trip to several of the island groups in the Pacific Ocean, where he will study coral reefs. On the outward voyage he will visit the Fiji and other islands, in August he will attend the colonial meeting of the British Association to be held in Australia, and in September will take part in a supplementary meeting promoted by the government of New Zealand. On the return voyage, he will stop at the Society Islands. The trip is made possible by a grant from the Shaler Memorial Fund. Professor Davis lectured before the Colorado Scientific Society at the State School of Mines, Golden, Colo., on "The Front Range of the Rocky Mountains," February 3; at the State University, Boulder, Colo., on "Theories of Coral Reefs," February 4; at Brigham Young University, Provo, Utah, on "The Lessons of the Colorado Canyon," February 6, and before the Leconte Club at the University of California, Berkeley, Cal., on "The Topographic Features of Desert Regions," February 10.

THE Cutter lectures on preventive medicine and hygiene are to be given at the Harvard Medical School this year by Charles V. Chapin, M.D., superintendent of health, Providence, and Dr. Cressy L. Wilbur, chief statistician, Bureau of the Census. Dr. Chapin will give six lectures on municipal sanitation, as follows:

March 20, "Science and Sanitation."

March 27, "Efficiency of Public Health Measures."

April 2, "Organization of the Health Department."

April 9, "Research and Publicity."

April 16, "Nuisance Problems."

April 30, "Contagious Disease Problems."

Dr. Wilbur's subject will be "Vital Statistics in Massachusetts and the United States," and the dates are March 25 and 26.

DR. JOHN M. CLARKE, state geologist of New York, lectured before the Society of Sigma Xi of the Ohio State University on December 27, his subject being "Land Bridges Across the Atlantic."

PROFESSOR ARTHUR H. BLANCHARD, of Columbia University, on February 24, delivered illustrated lectures at the University of Tennessee on the subjects: "Bituminous Macadam and Bituminous Concrete Pavements" and "Highway Engineering in Europe" and an illustrated lecture on "City Pavements," before the chamber of commerce of the city of Knoxville.

PROFESSOR J. ANSEL BROOKS, of Brown University, on March 2, delivered an illustrated lecture on "The Principles of Efficiency Engineering applied to Highway Engineering," before the graduate students in highway engineering at Columbia University.

ON February 28 Sir J. J. Thomson began a course of six lectures at the Royal Institution on recent discoveries in physical science.

PORTRAITS of Dr. John Herr Musser, late professor of medicine in the University of Pennsylvania, and of Dr. Rush Shippen Huidekoper, first dean of the school of veterinary medicine, were presented to the University of Pennsylvania at its university-day celebration on February 23.

MR. AND MRS. PAUL J. SACHS have established a fund for the American Museum of Natural History to be known officially as the Angelo Heilprin Exploring Fund. The money is given in memory of Angelo Heilprin and is to be applied each year to any exploring purpose the museum authorities deem fitting.

MEMORIAL services for Alfred G. Compton, late professor of physics at the College of the City of New York, were held on March 9 in the great hall of the college. Professor Compton entered the college at its foundation and was graduated with the class of 1853. Since his graduation until his retirement in 1911 he was a member of the faculty. Among those who made addresses were: Professor Michael I. Pupin, of Columbia University; Professor Adolph Werner, of the college, and Dr. John H. Finley, state commissioner of education and formerly president of the college.

PROFESSOR EDWIN J. HOUSTON, formerly of the Central High School of Philadelphia and the Franklin Institute, well known for his

work in electrical engineering and for his writings on this and other departments of physics, died on March 1, aged seventy years.

COLONEL ALEXANDER ROSS CLARKE, the distinguished British geodesist, died on February 11, at the age of eighty-five years.

DR. JULIA COCK, consulting surgeon to the New Hospital for Women and dean of the London School of Medicine for Women, died on February 7, aged fifty-four years.

THE U. S. Civil Service Commission announces an examination for junior pharmacologist, on April 8, to fill vacancies in this position in the bureau of chemistry, Department of Agriculture, Washington, D. C., at salaries ranging from \$1,200 to \$1,500 a year.

JOHN DEWRANCE has presented £2,000 to the donation fund of the Royal Society. The income arising from this fund is applied in promoting experimental researches.

THE Bermuda Biological Station for Research will be opened in June for a period of about six weeks. Members have facilities for shore collecting, dredging and marine towing down to a depth of 100 fathoms. Inquiries should be sent to Dr. E. L. Mark, 109 Irving St., Cambridge, Mass.

ACCORDING to the resolutions of the meeting of October 25, 1912, at Lyons, the secretary's office of the permanent committee for the International Veterinary Congresses has been definitely established at The Hague from January 1, 1914, under the patronage of the Dutch Department of Agriculture, Industry and Commerce. The address of the office is as follows: "Secretary's Office for the Permanent Committee for the International Veterinary Congresses at The Hague, Stationsweg 74 (Int. Tel. 848)." Correspondence, publications, etc., as far as they are not sent to the president of the committee, Dr. A. Lydtin, at Baden-Baden, or to the secretary, Professor Dr. D. A. de Jong, at Leyden, are to be addressed to this office.

WITH the cooperation of fifty different organizations devoted to social progress and civic welfare, Reed College will hold a conference on May 15, 16 and 17, as a clearing house for

welfare workers and a stimulation for the activities of the city for the year 1915. This Portland 1915 conference will be similar in scope and method to the Reed College conference on the conservation of human life held last May.

A NEW edition of "Les observatoires astronomiques at les astronomes," first published in 1907, is in course of preparation, under the direction of members of the Royal Observatory of Belgium, with Professor P. Stroobant as chairman. He will be glad to receive information from directors of observatories and private astronomers concerning their work and publications.

#### UNIVERSITY AND EDUCATIONAL NEWS

THE College of Agriculture and the Mechanic Arts of North Carolina is preparing to celebrate on the first three days of October the twenty-fifth anniversary of the first opening of the college. A tentative program has been adopted at a meeting held in the office of Governor Locke Craig, who is *ex officio* chairman of the board of trustees and at the head of the advisory committee which is cooperating with the committee of arrangements. In order to make the quarter-centennial celebration a complete success, efforts will be made to have in connection with it reunions of the twenty-two classes which have so far been graduated. There will also be social meetings, addresses by some of the distinguished men who took part in the founding of the college, and other interesting features. The celebration proper will take place on the morning of October 3, with the principal addresses, but the other meetings will not be at all lacking in interest. Guests who will be held in special honor throughout the celebration will be those who took part in the movement which resulted in the founding of the college.

THE faculty and students of the University of Pittsburgh held a banquet on February 25.

At the end of the current college year, Dr. Albert Benedict Wolfe, head of the department of economics and sociology, will withdraw from the Oberlin faculty in order to accept the headship of the department of sociology and economics in the University of Texas.

PROFESSOR O. PERRON, of Tübingen, has accepted the professorship of mathematics at Heidelberg, as successor to Professor L. Koenigsberger.

#### DISCUSSION AND CORRESPONDENCE

##### STANDARD UNITS IN AEROLOGY

IN SCIENCE, January 2, 1914, p. 31, it is stated that Blue Hill Observatory would use the new units for atmospheric pressure and temperature, *i. e.*, the units proposed by Köppen at Monaco in 1909 and again by V. Bjerknes at the Vienna meeting of the International Commission for Scientific Aero-nautics, 1912. In this system, pressure is expressed in bars or decimal parts thereof, such as decibar, centibar and millibar. One million C.G.S. units constitutes a bar.

Professor A. E. Kennelly, visiting this observatory, called attention to the inconsistency of such use of the term "bar." Unknown to meteorologists at home or abroad, apparently, the bar has been defined and used with a different value. Professor T. W. Richards in 1903,<sup>1</sup> suggested that the pressure of a dyne per square centimeter be called a bar;<sup>2</sup> and while investigation shows that somewhat similar suggestions had been made by others, Richards's was independently made, original and legitimately deduced. Kennelly<sup>3</sup> and others following Richards have used the bar in this sense. It has therefore priority of definition and usage and is moreover the logical and appropriate unit of pressure. For the unit proposed by the aerologists, a more fitting designation would have been "aer" or "atmos."

Unless some protest be made against the proposed bar of the aerologists, we add to the confusion of units and terms already existing in meteorology. It is important too that we

<sup>1</sup> Publication 7, Carnegie Inst., 1903, p. 43.

<sup>2</sup> "New Method of Determining Compressibility," T. W. Richards and W. N. Stull, *Jour. Am. Chem. Soc.*, Vol. XXVI., April, 1904.

<sup>3</sup> "Convection of Heat from Small Copper Wires," A. E. Kennelly, C. A. Wright and J. S. Van Bylevelt, *Trans. Am. Inst. Elec. Engineers*, June, 1909.