

lar theories were thus far of direct applicability but it is recognized that the electrical condition of the atmosphere plays a great part and in studies of the future the theories now being developed in physics and chemistry will undoubtedly be extremely useful.

Preceding the dinner Dr. Bohr took part in a colloquium at the Bureau of Standards.

THE ENGINEERS' TESTIMONIAL DINNER TO DEAN COOLEY

DEAN MORTIMER E. COOLEY, of the Colleges of Engineering and Architecture of the University of Michigan, was the recipient of a tribute such as come to few at the Engineers' dinner, which was given in his honor at the Hotel Statler in Detroit on November 23. It was a personal recognition, full of enthusiasm and honest sentiment, on the part of his friends, his former students and his confrères, everywhere. The speakers were:

Call to Order by Chairman, Alex Dow, M.Eng. (*Hon.*) '11, past president, Det. Eng. Soc.

Introduction of Toastmaster, Mr. Walter S. Russel, '75e, M.Eng. (*Hon.*) '10.

MORTIMER ELWYN COOLEY:

At his Boyhood Home, Robert F. Thompson, '92l, LL.M. '93, Judge 7th District, New York Supreme Court.

"As Cadet and Ensign," Ira N. Holis, President Worcester Polytechnic Inst., Mem. A. S. M. E.

"As professor of mechanical engineering," Ernest B. Perry, '89e, Mech.E. '96, Manager Industrial Works, Bay City, Michigan, Mem. A. S. M. E.

"In the service of his country," Hon. Edwin Denby, '96l, Secretary of the Navy, Represented by Admiral John K. Robinson, U. S. N.

"On the Yosemite," Granger Whitney, Williamsburg, Mich. Apple grower.

"As dean of engineering and architecture," Marion L. Burton, President.

"In the engineering profession," F. Paul Anderson, dean of engineering, University of Kentucky.

"In the Federated American Engineering Societies," Philip N. Moore, past president, A. I. M. & M. E., vice-president, Federated American Engineering Societies.

"As a companion," Hon. Chase S. Osborn, LL.D. (*Hon.*) '11, ex-governor of Michigan.

Dean Cooley did not speak but he held a reception after the dinner at which every one of the 550 engineers present extended their personal congratulations.

THE MEDALISTS OF THE ROYAL SOCIETY

At the anniversary meeting of the Royal Society held on November 30, the report of the council was presented and the president, Sir Charles Sherrington, delivered his address. Those to whom medals were presented and their qualifications were as follows:

Royal Medal. Professor Charles James Martin.—Professor Martin is distinguished for contributions both to physiology and to pathology. Investigating snake venoms, he differentiated two groups in virtue of their action, one nervous, the other, so to say, humoral. His work on heat-regulation in monotremes threw light on the evolution of the thermotaxis of warm-blooded animals. More recently his researches have lain in the colloidal chemistry of proteins, and in protein-metabolism. As director of the Lister Institute he has contributed to many investigations, in addition to those actually issued in his name. Thus he has been intimately associated with the inquiry into the influence of accessory food factors of diet in the prevention and remedying of "deficiency" diseases, such as scurvy and rickets, an inquiry the success of which may be regarded as one of the recent triumphs of preventive medicine.

Royal Medal. Sir William Napier Shaw.—In the great advances made during the last twenty-five years in the science of meteorology, Sir Napier Shaw has been amongst the foremost pioneers. During his twenty years' administration at the Meteorological Office, that office saw three marked steps forward: two of these were changes in its quarters; the third and greatest was the change in outlook of the work of the office, whereby it assumed, under Sir Napier Shaw's stimulating influence, the character of a scientific institution for the interpretation of meteorological phenomena. With the assistance of his scientific staff, he has developed the physical and dynamical aspects of the subject, and has done much to concentrate attention upon the thermodynamics of meteorology, wherein the motions of the water-laden air are interpreted as the action of a thermodynamic engine. His contributions to knowledge of the air and its ways have been largely responsible for changing the basis of meteorology from one of empiricism to one of science.

Copley Medal. Professor Horace Lamb.—For forty years Professor Lamb has been recognized as one of the most prominent and successful workers in applied mathematics in Great Britain. He is the foremost authority on hydrodynamics, not only in Great Britain but the world over. Professor Lamb's scientific activity, originally centering around the subject of hydrodynamics, has radiated thence into most branches of physical science and he may be regarded as the outstanding representative to-day of the school founded by Stokes, Kelvin, Clerk Maxwell and Rayleigh. In recent years he has made important contributions to seismology, the theory of tides, and other branches of geophysics. Specially perhaps should be mentioned the assistance he has given of recent years to the Aeronautical Research Committee. Mathematical questions involved in the flow of air round aircraft, in the action of propellers, and the stresses

in aeroplane structure, are of fundamental importance, but are exceedingly difficult; and here, as elsewhere, Professor Lamb's mathematical skill and power of clear exposition have proved of the highest value.

Davy Medal. Professor Herbert Brereton Baker.—Professor Baker's researches in various fields of chemical investigation, his examination of highly purified tellurium from various sources for the possible presence of higher members of the same group of elements, and the redetermination of its atomic weight, are of outstanding merit. It is, however, his remarkable researches on the influence of traces of water in modifying chemical change, whether of the nature of combination or of decomposition, which constitute perhaps his especial distinction. The results obtained by complete drying were as remarkable as they were unexpected, because they were in direct opposition to those which followed careful drying by usual methods. The bearing of Professor Baker's researches on theories of chemical change is as important as his conclusive experimental demonstrations of the phenomena themselves.

Hughes Medal. Dr. Robert Andrews Millikan.—Dr. Millikan has long been regarded as one of the most skilful experimenters in physical science. He is awarded the Hughes medal especially for his determinations of the electronic charge e and of Planck's constant h . When physicists were still ignorant of the value of the electronic charge to within 5 per cent., Dr. Millikan, by a method of the utmost ingenuity, arrived at the value 4.774×10^{-10} E.S.U., for which he claimed an accuracy of one part in a thousand, a claim which has stood the test of time. His determination of h was not only remarkable in itself, but was of still greater value as finally vindicating the Einstein-Bohr view of the nature of the photo-electric phenomenon.

SCIENTIFIC NOTES AND NEWS

THE presidential address of Professor J. Playfair McMurrich, of the University of Toronto, given before the American Association for the Advancement of Science at Cincinnati on the evening of December 27, is printed in the present issue of SCIENCE. Subsequent numbers of the journal will contain the addresses of the vice-presidents of the association and others of the more important addresses and papers presented at the meeting. A special number will contain a full account of the proceedings.

JOHN TATLOCK has been elected president of the New York Academy of Sciences, in succession to Professor R. A. Harper. The vice-presidents for 1924 are: Carl P. Sherwin, Robert Cushman Murphy, William D. Matthew, Robert S. Woodworth.

At the fifth annual meeting of the Chemical Industry Club of London, Sir William Pope was elected president and Professor W. R. E. Hodgkinson, vice-president.

JOSEPH BARCROFT, F.R.S., reader in physiology in the University of Cambridge, has been appointed Fullerian professor of physiology at the Royal Institution, London, in succession to Sir Arthur Keith.

DR. KONSTANTIN VON MONAKOW, professor of neurology in the University of Zürich and the author of numerous works on the normal and morbid anatomy of the brain and spinal cord, has recently celebrated his seventieth birthday.

THE degree of LL.D. is to be conferred on Dr. Simeon E. Josephi, Portland, by the University of Oregon at the commencement exercises at Eugene, in June, 1924, in recognition of his long services and to commemorate the twenty-five years he spent as dean of the medical school of that university.

DR. JACOB G. LIPMAN, of the University of New Jersey, has been appointed a member of the International Commission of Agricultural Ecology.

At the meeting of the Washington Academy of Sciences on November 17, the following program was presented: "The Origin and Development of the Pan-Pacific Scientific Congress," by Dr. J. C. Merriam, president of the Carnegie Institution; "The Australian Meeting in 1923, the Scientific Proceedings," by Dr. T. Wayland Vaughan, of the U. S. Geological Survey; the resolutions adopted by the Congress on International Cooperation in Scientific Research, by Professor H. E. Gregory, of Yale University, director of the Bishop Museum, Honolulu.

THE following lectures have been given before the Astronomy and Physics Club of Pasadena:

November 2, "Anomalies of largely ionized substances in solution in the light of recent theories:" Dr. A. A. Noyes.

November 9, "An ether-drift experiment:" Professor E. B. Wheeler.

November 16 and 23, "The observational evidence of a velocity-restriction in space:" Dr. Gustaf Stromberg.

December 7, "Rainfall and sunspots:" Dr. Dinsmore Alter.

THE Physical Society of Pittsburgh was organized recently by 75 men interested in physics. The following officers have been elected for the coming year: Dr. L. O. Grondahl, *president*; Dr. G. E. Stebbins, *vice-president*; Dr. R. J. Piersol, *secretary-treasurer*. The society gave a dinner with Dr. Niels Bohr as guest of honor on November 28.

AMONG the lectures announced by the Carnegie In-