The American Association for the Advancement of Science, of which Dr. Eliot was president in 1915, sent a congratulatory message, in the following form:

TO CHARLES W. ELIOT

For forty years president of Harvard University, of whose great traditions you are a part, the American Association for the Advancement of Science, once honored by your election to its presidency, sends greetings on the occasion of your ninetieth birthday. One of the verses in the treasure-house of Greek letters warns against calling any man happy before he is dead. You Sir, while still active in your work, witness in no small measure its fruition and the high esteem in which it is held by all. Each of the twelve thousand members of the American Association for the Advancement of Science, engaged in the fields of science and of education which you have made more fertile for them, would gladly join in expression of respect, of appreciation and of honor to you, man of science, our master in education, leader in American civilization.

SCIENTIFIC NOTES AND NEWS

THE annual general meeting of the American Philosophical Society will be held at Philadelphia on April 24, 25 and 26. On the evening of April 25, Dr. Dayton C. Miller, professor of physics in the Case School of Applied Science, will give a lecture on "Visible sound," previous to a reception in the hall of the historical society of Pennsylvania. The symposium on the morning of April 26 is entitled "Are the various races of man potentially equal?" Those who will speak are: Professor Franz Boas, Columbia University; Dr. Clark Wissler, American Museum of Natural History; Dr. Aleš Hrdlička, of the U. S. National Museum, and Dr. H. U. Hall, University of Pennsylvania.

ARTHUR STANLEY EDDINGTON, F.R.S., Plumian professor of astronomy at the University of Cambridge since 1913, and director of the observatory since 1914, who was recently awarded the gold medal of the Royal Astronomical Society has been awarded the Bruce Gold Medal of the Astronomical Society of the Pacific for 1923. The awards in both cases were based upon his work in relativity and the internal physical constitution of the stars.

PROESSOR MAX PLANCK, of Berlin, has been elected an honorary fellow of the Physical Society of London.

THE Council of the Royal Society has recommended the following fifteen candidates for membership: Dr. Thomas Nelson Annandale, Mr. Joseph Edwin Barnard, Professor James Fairlie Gemmill, Dr. Mervyn Henry Gordon, Professor Percy Groom, Dr. Christopher Kelk Ingold, Professor Percy Fry Kendall, Professor Louis Vessot King, Professor Louis Joel Mordell, Dr. Thomas Slater Price, Professor Chandrashekara Venkata Raman, Professor Leonard James Rogers, Dr. Alexander Russell, Professor Charles Spearman, Mr. Frank Twyman.

THE gold medal of the British Institution of Mining and Metallurgy, as we learn from *Nature*, has been awarded conjointly to Mr. H. W. Gepp and Mr. G. Rigg in recognition of their joint and individual services in the advancement of metallurgical science and practice, with special reference to their achievements in the treatment of complex sulphide ores, and in the development of the electrolytic process for the production of zinc in the Commonwealth of Australia.

DR. J. L. E. DREYER has been elected president of the Royal Astronomical Society. The vice-presidents are Dr. A. C. D. Crommelin, Professor A. S. Eddington, Professor A. Fowler and Mr. E. B. Knobel.

JUSTICE CURTIS DWIGHT WILBUR, of the Supreme Court of California, who has been appointed secretary of the Navy by President Coolidge, is a brother of Dr. J. Lyman Wilbur, president of the University of California and this year president of the American Medical Association.

REAR ADMIRAL ALBERT PARKER NIBLACK, U. S. N., retired, has been elected a director of the International Hydrographic Bureau and is now on his way to the headquarters of that organization in Monaco. Admiral Niblack was the candidate of the United States for a vacancy on the board of directors which consists of three members.

DR. HERBERT N. McCov has been appointed a member of the board of trustees and field secretary for the publication of the International Critical Tables of the National Research Council, with the special object of completing the campaign for the necessary funds as rapidly as possible. About seventy-seven thousand dollars are needed in addition to the sum already pledged or paid.

DR. MARSTON T. BOGERT, professor of organic chemistry at Columbia University, has been elected chairman of the committee on chemical research on medicinal substances of the National Research Council.

AT the thirty-fourth annual meeting of the Association of American Medical Colleges in Omaha from February 28 to March 1, the following officers were elected: *President*, Dr. Ray Lyman Wilbur, Stanford University; *Vice-president*, Dr. Hugh Cabot, University of Michigan; *Secretary*, Dr. Fred C. Zapffe, 3431 Lexington Street, Chicago; *Chairman of the executive* council, Dr. David L. Edsall, Harvard University. The next annual meeting will be held in Boston some time in February, 1925.

LAWRENCE W. WALLACE, of Washington, executive secretary of the American Engineering Council, has been reelected president of the Eyesight Conservation Council of America.

THE American Association of Cereal Chemists, which in 1923 united with the American Society of Milling and Baking Technology, is publishing a new journal, *Cereal Chemistry*. The editorial staff includes Dr. C. H. Bailey, University of Minnesota, editor-in-chief; C. G. Ferrari, managing editor; Dr. C. L. Alsberg, L. A. Fitz, Mary M. Brooke and H. E. Weaver, associate editors. Publication will be bimonthly during the year 1924, the first issue having appeared in January of this year.

WILLIAM GAERTNER, president of The Gaertner Scientific Corporation, 1201 Wrightwood Avenue, Chicago, Illinois, has been awarded the Howard N. Potts gold medal by the Franklin Institute acting through its committee of science and arts "in consideration of his notable achievement as a designer and maker of scientific instruments, materially contributing to the success of the research in physical science."

T. R. HARRISON has assumed charge of the research department of The Brown Instrument Company, Philadelphia. Mr. Harrison was formerly associated with the pyrometry department of the Bureau of Standards and more recently with the Champion Porcelain Company, of Detroit.

DR. B. M. DUGGAR, of Washington University and the Missouri Botanical Garden, is spending a half year at the Johns Hopkins School of Hygiene and Public Health, continuing an investigation of certain filterable viruses.

PRESIDENT WALLACE W. ATWOOD, of Clark University, is visiting Porto Rico where he will deliver an address at the University of Porto Rico, of which C. W. St. John, Clark, 1916, is dean, and Dr. Frederick Morse Cutler, who took his Ph.D. at Clark, is professor of history.

MISS E. A. Mc. GAMBLE, professor of psychology at Wellesley College, is on leave of absence for the second semester, making a tour of European laboratories of psychology and psychiatrical clinics. She will represent the college on the occasion of the celebration at the University of Königsberg of the two hundredth anniversary of Emmanuel Kant's birth.

DR. JOHN H. KYLIN, formerly professor of botany at the University of Lund, Sweden, will give a course this summer on Marine Algae at the Puget Sound Biological Station of the University of Washington.

DR. J. E. SPURR, editor of *The Engineering and Mining Journal-Press*, of New York, gave a series of three lectures on Ore Magmas before the geological department of the University of Wisconsin from March 5 to 7. During the same week there was a conference at Madison on Lake Superior geology, participated in by the members of the Geological Department of the University of Wisconsin, representatives of the Michigan and Minnesota geological surveys and mining geologists from various parts of Lake Superior.

THE program for the meeting of the Philosophical Society of Washington, on March 22, will be as follows: "Electrically Controlled Micrometers," Dr. Charles Moon; "The Development of the Electric Telemeter," Orville S. Peters.

PROFESSOR ALBERT PERRY BRIGHAM, of Colgate University, spent the greater part of February and March meeting lecture engagements in England. He gave three lectures on the "United States, regional and national," at the University of London; four on "Major features of the United States," at Oxford University, and lectured before the Royal Geographical Society, the College at Cheltenham and the University College at Reading.

M. LE DUC DE BROGLIE will deliver the Guthrie lecture of the Physical Society of London on March 20, as part of the society's jubilee celebrations.

PROFESSOR C. G. BARKLA, professor of physics at Kings College, London, will deliver the seventh Silvanus Thompson Memorial Lecture of the Röntgen Society at the Institution of Electrical Engineers, London, April 1.

PROFESSOR A. V. HILL delivered the third Joule Memorial lecture of the Manchester Literary and Philosophical Society on March 4. His subject was "Thermodynamics in physiology."

THE death is announced of John G. D. Mack, state engineering of Wisconsin and former professor of mechanical engineering in the University College of Engineering.

ATTENTION is called in *Nature* to the circumstance that on March 5 occurred the tercentenary of the birth of John Collins, who wrote on merchants' accounts and also on quadrants, dialling and navigation. Widely known in his day, he was admitted a fellow of the Royal Society in 1667, which then met at Greshäm College. He was an indefatigable correspondent. After his death, letter's were found among his papers from Newton, Gregory, Wallis, Flamstead, Slusius, Leibnitz and others, and in 1712 the Royal Society ordered the publication of some of them. He died November 10, 1683.

WE learn from the *Journal* of the American Medical Association that the American Pasteur exhibit prepared by the Department of Agriculture and displayed at the American Museum of Natural History, New York City, in December, 1922, in honor of the centenary of the birth of Louis Pasteur, has been awarded the diplome de grande prix by the Exposition Internationale de Pasteur at Strasbourg. This exhibit illustrated all Pasteur's world-famous experiments in fermentation, as well as his work on anthrax, chicken cholera and rabies. Apparatus exactly like that employed by Pasteur was reproduced by the Bureau of Chemistry and arranged in such orderly sequence that one could follow each successive step of the great discoveries. John S. Buckley, of the pathological division of the Bureau of Animal Industry, furnished the material showing the experiments on rabies, etc. The exhibit of the Bureau of Chemistry has been returned to Washington and reassembled in the east gallery of the old National Museum.

A BEQUEST to the Royal College of Physicians of Edinburgh by the late Dr. John Parkins is a prize for the best essay on certain medical subjects. The subject of the essay for the present period, to use the terms of the deed, is "On the effects of volcanic action in the production of epidemic diseases in the animal and in the vegetable creation, and in the production of hurricanes and abnormal atmospherical vicissitudes." The prize is open to competitors of all nations, and its value is about \$450.

A CORRESPONDENT writes that the Leningrad Academy of Science is preparing to dispatch 60,000 copies of its publications to scientific institutions in Europe and America.

A CORRESPONDENT writes: "W. F. Taylor, professor of bacteriology, Wake Forest College, School of Medicine, assisted by W. L. P. McBride, has recently isolated from the blood of a case diagnosed as typhoid fever a non-agglutinating typhoid like organism, which he has identified as *Bacterium Columbense*. This organism was first described in 1905, later in 1914, by Dr. Aldo Castellani, director of Government Clinics for Tropical Diseases, at Columbo, Ceylon. (*Centralblatt für Bakteriologie, Originale*, 1914). This case shows that *febris columbensis* is a disease not limited to the tropics, but is found also in temperate climates."

A SPECIAL committee of the Engineering Foundation has reported in favor of a non-commercial investigation into the nature and use of paint and varnish. For this purpose the committee recommends that Congress should place at the disposal of the Forest Products Laboratory about \$45,000, which is estimated to be equal to one hundredth of 1 per cent. of the value of paint used annually in this country.

GEORGE I. ROCKWOOD, president and treasurer of the Rockwood Sprinkler Co. of Massachusetts, newly elected vice-president of the American Society of Mechanical Engineers, has endowed a gold medal of the American Society of Mechanical Engineers, to be awarded "in those rare cases when an individual has succeeded by the exercise of his genius and character, in powerfully assisting the fortunes of our country or the general engineering progress of the world."

LORD ATHOLSTAN, who has been conducting a crusade in the Montreal *Star* against tuberculosis and the conditions which produce it, has offered to cooperate with the Quebec Government in a campaign against disease. Towards the cost he will make a personal contribution of \$500,000. He suggests that measures should be taken similar to those followed in Framingham, Massachusetts. The so-called "Framingham Experiment" was conducted at the instance of the Metropolitan Life Insurance Company, which gave \$100,000 for a "community health and tuberculosis demonstration to be conducted by the National Tuberculosis Association of America under the supervision of a special national committee."

THE fifteenth congress of the German Röntgen Society will be held from April 27 to 29 at the Langenbeck-Virchow Haus in Berlin under the presidency of Professor Wintz. The first day will be devoted to diagnosis, the second to the dosimetry of x-rays, radium and light rays, and the third to technique. Further information can be obtained from the secretary, Dr. Graessier, Buerger Hospital, Cologne.

EIGHTY different industrial motion picture films, valued at nearly \$200,000, are now in the possession of the Department of the Interior, Bureau of Mines. These motion picture films were produced at small cost to the government, practically the entire cost being borne by the various industries filmed. Each film depicts the various processes employed in the manufacture and marketing of some well-known American product wholly or partly of mineral origin. The films are loaned free by the Department of the Interior to technical societies, commercial organizations, colleges, schools and churches. They are in constant demand. Three pictures have been completed by the Bureau of Mines during the past month. One, "The world's struggle for oil," portrays the history of the oil industry from early Biblical times up to the present day. Another is the "Story of the gasoline motor," which visualizes the complete operation of a gasoline engine. The third picture, "The story of refractories," presents scenes in the manufacture of refractory brick and other refractory products. Applications for these films should be addressed to the Department of the Interior, Bureau of Mines, Pittsburgh, Pa.

THE Italian parliament has passed a law in regard to the preservation of wild birds which will partly reestablish the good name of Italy in this matter. The London Times says: "Complaints have often appeared in the English Press about the wholesale destruction of insectivorous song birds on the Italian hills and mountains. In the autumn months, when visitors are passing through on their way south, an enormous number of birds, mostly chaffinches, red stars, warblers, and the like, are taken for eating and other purposes. They are generally trapped into nets and the so-called roccoli-semi-circular pergola-like arrangements of wooden stakes, under a camouflage of creepers and bushes. The new law might have been more radical, but it does something to lessen the evil It forbids altogether the vertical nets which are the most destructive on the mountain passes; it prohibits the snares and imposes several limitations and restrictions on the use of the roccoli and other similar appliances. It is to be hoped that gradually the scope of the law will be widened and strengthened, but the legislature thinks it advisable to proceed slowly in the matter, as in some of the northern valleys, where there is a poor population, bird catching is one of the ways of getting a living."

UNIVERSITY AND EDUCATIONAL NOTES

By the will of the late Dr. Plimmon H. Dudley, formerly steel expert of the New York Central Railroad, the chief part of his estate is left to Yale University for the establishment of a professorship "which shall be devoted to research and instruction in connection with the history and development of the science of railway service." "The bequest is intended," wrote Dr. Dudley, "to aid further in the establishment on a permanent basis of 'the Dudley chair, service of railroads,' provided by Lucy B. Dudley, my late wife. . . . It is likewise my wish that Yale University shall accept contributions from other individuals and corporations for the benefit of the aforesaid professorship. I also expressly desire that the research work in which I have been engaged for many years be continued and in particular the work in connection with the development and improvement of designs of rails, roadbeds and cross ties."

DR. AND MRS. ARCHIBALD CHURCH, of Chicago, have given \$100,000 towards the endowment and maintenance of a medical library for Northwestern University. Dr. Church is a neurologist and has been a member of the staff of Northwestern University Medical School for thirty-two years.

LADY STRATHCONA has given \$120,000 to McGill University to endow the department of zoology.

THE dedication of the new group of medical buildings of the Department of Public Welfare of the State of Illinois and the University of Illinois took place on March 6. Dr. William L. Noble, president of the board of trustees of the University of Illinois, presided. Addresses were given by the president of the American Medical Association, Dr. Ray Lyman Wilbur; Dr. Frederick G. Banting, of the University of Toronto, Canada; Judge Chauncey H. Jenkins and the governor of Illinois.

DR. WILLIAM FRANCIS GAY SWAN, who resigned his position as assistant demonstrator in physics at the University of Sheffield in 1913 to become chief of the physical division of the Department of Terrestrial Magnetism at the Carnegie Institution in Washington and who was appointed professor of physics at the University of Minnesota in 1918, has been appointed professor of physics at Yale University.

DR. JEAN OLIVER, associate professor of pathology at Stanford University Medical School, has been promoted to full professorship.

DR. C. K. INGOLD has been appointed professor of organic chemistry at the University of Leeds as from October 1 next on the retirement of Professor J. B. Cohen.

DISCUSSION AND CORRESPONDENCE

ON CONCENTRATION OF VITAMIN B

EFFORTS to isolate the so-called "Vitamin B" have thus far failed. A successful beginning in this direction was made by Osborne and Wakeman, who separated from yeast a material in the form of a dry powder which possessed much greater potency than the original yeast. Further concentration of the Osborne and Wakeman material had previously been unsuccessful. We have now prepared a material which is from five to ten times more potent than that of Osborne and Wakeman. The material can be obtained either from the Osborne and Wakeman material or directly from dried yeast. It is prepared by precipitation with a solution of barium hydroxide. As a rule, the barium precipitate contains from 30 to 50 per cent. of the total vitamin present in the solution. However, the material obtained from the precipitate is from five to ten times as powerful as the original material.

The present note is prompted by the article of W. Lash Miller published in SCIENCE on February 29, 1924. In this article Miller reports on the use of barium hydroxide for the preparation and separation of the individual components of Wilders' Bios.

The details of our work will soon appear in the Journal of Biological Chemistry.

P. A. LEVENE,

B. J. C. VAN DER HOEVEN THE ROCKEFELLER INSTITUTE

FOR MEDICAL RESEARCH