

sented by a special committee from the Graduate School, including Professor S. E. Barney, Professor L. B. Mendel, Professor L. F. Winternitz and Professor C.-E. A. Winslow.

After very full discussion of the various points involved the following resolutions were unanimously adopted:

1. That the degree of Doctor of Public Health (for which the abbreviation should be Dr.P.H.) for graduates in medicine should normally be awarded after two years of work done under academic direction, of which one year at least should be in residence; and that the requirements for the degree should include class work, practical field work, and an essay based on individual study of a particular problem.

2. That the degree of Doctor of Philosophy or Doctor of Science in Public Health or Hygiene should be conferred upon students who hold the bachelor's degree from a college or technical school of recognized standing, and have satisfactorily completed not less than three years of graduate study. It is understood that this degree is based upon the fundamental sciences associated with hygiene and public health, including a knowledge of physics, chemistry, general biology, anatomy, physiology, physiological chemistry, pathology and bacteriology, in addition to the thesis and other usual requirements for the Ph.D. or Sc.D. degree.

3. That the Certificate in Public Health should be granted for not less than one academic year of work to those who have received a bachelor's degree from a recognized college or technical school, or have satisfactorily completed two years of work in a recognized medical school, provided they have previously pursued satisfactory courses in physics, chemistry, general biology and general bacteriology.

4. That the degree of Bachelor of Science in Public Health or Hygiene should be given for the completion of a four years course, the last two years of which have been devoted to the fundamental sciences associated with hygiene and public health.

5. That the authorities having the appointment of health officials be urged to give preference so far as possible to persons holding degrees or certificates in public health or hygiene.

SCIENTIFIC NOTES AND NEWS

SIR J. J. THOMSON has expressed his desire to resign the Cavendish professorship of ex-

perimental physics at the University of Cambridge, but has offered to continue his services in the promotion and direction of research work in physics without stipend.

COLONEL WILLIAM H. WELCH, of the Johns Hopkins University, has sailed for France, where he will attend the health conference of the International Red Cross.

THE following fifteen candidates have been nominated by the council of the Royal Society for election into the society: Professor F. A. Bainbridge, Dr. G. Barger, Dr. S. Chapman, Sir C. F. Close, Dr. J. W. Evans, Sir Maurice Fitzmaurice, Dr. G. S. Graham-Smith, Mr. E. Heron-Allen, Dr. W. D. Matthew, Dr. C. G. Seligman, Professor B. D. Steele, Major G. I. Taylor, Professor G. N. Watson, Dr. J. C. Willis and Professor T. B. Wood.

FELLOWS of the Royal Society of Edinburgh have been elected as follows: Dr. A. R. Cushny, Dr. W. J. Dundus, Dr. R. O. Morris, Dr. T. S. Patterson, Mr. B. D. Porritt, Mr. A. H. Roberts, Mr. W. A. Robertson, Dr. A. Scott, Dr. A. R. Scott, Mr. W. W. Smith and Captain D. A. Stevenson.

LIEUTENANT GENERAL SIR CHARLES H. BURCHAELL, K.C.B., director-general of the British Army Medical Service in France, has received the honorary degree of LL.D. of the University of Dublin, from which he graduated in 1889. He has also received the honorary fellowship of the Royal College of Surgeons in Ireland.

DR. WILLIAM K. GREGORY, associate in paleontology in the American Museum of Natural History, New York, was recently elected a corresponding member of the Zoological Society of London.

MAJOR JOHN W. CHURCHMAN, M.R.C., professor of surgery at Yale University, has been named "Officier de l'Instruction Publique" by the French government in recognition of his services as *Medecin chef* of Hospital militaire 32^{bis}, Passy, France, during 1916.

DR. M. G. SEELIG, professor of surgery in the medical school of St. Louis University, has received his honorable discharge from the

Army, and has accepted the commission of colonel in the Medical Section of the Officers' Reserve Corps.

AMONG the members of the University of California faculty who have been on war leave and have now returned to their work at the university are: W. B. Herms, associate professor of parasitology; G. R. Stewart, assistant professor of agricultural chemistry; A. W. Christie, instructor in agricultural chemistry, and W. D. Norton, H. E. Drobish and F. T. Murphy, assistants in agricultural extension.

THE laboratory of forest pathology of the Bureau of Plant Industry, U. S. Department of Agriculture, formerly located at Missoula, Montana, has been permanently established in Spokane, Washington, with Dr. James R. Weir in charge.

DR. H. M. HALL, who recently resigned as associate professor of economic botany in the University of California, has accepted a position with the Carnegie Institution of Washington. The vacancy in the department of botany at Berkeley has been filled by the appointment of Dr. F. J. Smiley, who has been associate professor of botany and geology in Occidental College.

MR. C. D. SHANE has been appointed assistant in the Lick Observatory, University of California.

DR. LEE R. DICE (California, 1915), formerly zoologist of the Experiment Station and instructor in zoology at Kansas State Agricultural College, and later assistant professor of biology at Montana State University, has accepted the position of curator of mammals in the Museum of Zoology, University of Michigan.

MR. CHARLES HOWARD RICHARDSON, recently a research chemist with the Röhm and Haas Chemical Company, Bristol, Pa., has been appointed specialist in insect physiology, Bureau of Entomology, Washington, D. C.

DR. CHESTER N. MYERS, organic chemist of the Hygienic Laboratory, Public Health Service, has resigned to organize a research laboratory for H. A. Metz and Company, New York.

DR. H. J. SPINDEN, of the anthropology department of the American Museum, has returned from an archeological and ethnological expedition to Central America and Columbia.

A COAST and Geodetic Survey party, under the direction of O. W. Swainson, is at work on the triangulation and topographic surveying of the Virgin Islands, recently acquired from Denmark.

PROFESSOR L. C. GRATON, who has been in New York as secretary of the Copper Producers' Committee, one of the few war committees for industrial control organized and administered by the concerned industry itself though acting under authority of the War Industries Board, will soon return to Harvard University to take up the work in mining geology and to revive the secondary enrichment investigation. Before leaving New York, he will repeat at Columbia the series of lectures he gave there last year on oxidation and secondary enrichment.

MR. GERALD H. THAYER gave an illustrated lecture on "Camouflage and Protective Animal Coloration" at the New York State College of Forestry at Syracuse on March 18.

THE seventh Harvey Society lecture of the present series will be by Dr. Stewart Paton, of Princeton University, formerly major, U. S. A., on "Human Behavior in War and Peace" at the New York Academy of Medicine on Saturday evening, April 12.

ON March 25, an exhibition of motion pictures of plant life was held at the Brooklyn Botanic Garden under the joint auspices of the Torrey Botanical Club and the Botanic Garden. Among the subjects illustrated were the penetration of the tissue of a potato tuber by the hypha of the parasitic fungus that causes the potato leak disease, and bridge grafting to save fruit trees which have been girdled by rodents or otherwise. The films were explained by Dr. R. B. Harvey, of the Department of Agriculture.

DR. LEONARD HILL, F.R.S., delivered a lecture on the atmospheric conditions which affect health, before the Royal Meteorological Society on March 19, in the lecture room of the Geo-

logical Society. The chair was taken by Sir Napier Shaw, F.R.S.

A MEMORIAL service in honor of the late President C. R. Van Hise will be held by University of Wisconsin late in April, according to plans now in preparation. The speakers will be: Professor T. C. Chamberlin, of the University of Chicago, who will speak on Dr. Van Hise's relation to science; Dr. Albert Shaw, of *The Review of Reviews*, who will speak on Dr. Van Hise's relation to the public, and President E. A. Brige, of the university, who will speak on Dr. Van Hise's relation to the university.

DR. FREDERICK DU CANE GODMAN, the distinguished English naturalist, died on February 19.

J. J. T. SCHLÆSING, professor of agricultural chemistry in the Paris Conservatoire des Arts et Métiers, died on February 8 at the age of ninety-four years.

ANDRÉ CHANTEMESSE, professor of hygiene in the Paris faculty of medicine and inspector general of sanitary services, has died in his sixty-fifth year.

ANDREW MELVILLE PATERSON, professor of anatomy at the University of Liverpool, died on February 13, aged fifty-six years.

• THE British Association for the Advancement of Science will resume its series of annual meetings this year at Bournemouth from September 9 to 13, under the presidency of the Hon. Sir Charles Parsons.

A CONSIDERABLE fund has been given to Montefiore Home and Hospital, Gun Hill Road, New York City, the income of which is to be devoted to medical research independent of the hospital laboratory work. The selection of a director of research is at present under consideration and is in the hands of the laboratory committee.

THE ninth session of the Marine Biological Laboratory at Laguna Beach, California, will begin on June 25 and last six weeks. General courses in marine zoology, botany and entomology will be given. There are eight small private rooms for the use of special investigators. Copies of the announcement may be

obtained by writing to the Department of Zoology, Pomona College, Claremont, California.

UNIVERSITY AND EDUCATIONAL NEWS

DR. J. B. HURRY has offered to increase the value of the Michael Foster research studentship in physiology, founded by him at the University of Cambridge in 1912, and tenable biennially, from a hundred guineas to £200.

DR. WITHROW MORSE, of the Michael Reese Hospital at Chicago, has received an appointment as professor of physiological chemistry in the medical school of the University of West Virginia, Morgantown.

DR. EUGENE L. PORTER, instructor in physiology in the University of Chicago, has been appointed assistant professor of physiology at the Western Reserve University Medical School.

DR. FRANK J. SMILEY, has been appointed assistant professor of economic botany and assistant botanist in the Agricultural Experiment Station, University of California.

THE Manchester City Council has approved the appointment of Arthur James Turner, to the chair of textile technology in the College of Technology, Manchester. Professor Turner will be assisted in conducting the work of his department by colleagues who are practical experts in various branches of the textile industries.

DISCUSSION AND CORRESPONDENCE

"OLD AGE" OF CHEMICAL ELEMENTS

TO THE EDITOR OF SCIENCE: In his presidential address Professor Richards discussed the interesting problem of radioactive lead.¹ The present conception regarding the structure of atoms and the theory of electrons seems to indicate that the chemical elements may be subject to "old age." According to this hypothesis "common" lead possessed eons ago, probably at the time of the formation of the earth, an atomic weight of 206.08 and density of 11.27 and by slowing up in the speed of its electrons increased its

¹ SCIENCE, 49, p. 1, 1919.