scientific explorer by nature, a skilled interpreter and critic of scientific facts, and he has much facility in writing. Most of his recent work is published in English. About his personality there is a quiet humility which strongly attracts advanced students and begets confidence in Dr. Krogh's scientific results. His mental attitude can well be illustrated by a sentence from a recent letter to an American colleague: "The Nobel award came as a perfect surprise to me and when it was first told me by a journalist, I declined to believe it because, in my opinion, my work on the capillaries was so far only a promising beginning."

APPOINTMENTS AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

THE Massachusetts Institute of Technology announces a number of additions to its faculty and instructing staff. Chief among these are the appointments of W. Spencer Hutchinson to the professorship of mining, Dr. G. B. Waterhouse to the professorship of metallurgy and Dr. Frederick G. Keyes to be acting head of the department of chemistry.

Professor Hutchinson graduated from the institute in 1892, after having studied in the civil engineering and mining departments. During his career he has examined and managed a number of mining properties in the United States. He is known as an authority on mine valuation and taxation, and has done much professional work in Mexico, South America and Australia. For several years he has been consulting engineer for the Vanadium Corporation of America, which has extensive mines in Peru. He has been a consultant mining engineer in Boston.

Professor Waterhouse was born in England forty years ago, and educated at Sheffield, where he received the degree of bachelor of metallurgy. He came to the United States in 1900, and later studied at Columbia University, where he obtained the degree of doctor of philosophy in 1906. He is the author of numerous original scientific papers and the translator of a great number of French and German works on metallurgy. His specialty is the metallurgy of iron and steel. From 1908 until the present time he has been technical director of the Lackawanna Steel Company in Buffalo.

Professor Keyes, the acting head of the department of chemistry, is a graduate of Rhode Island State College and of Brown University. During the war he was stationed at Puteaux as director of the Research and Control Laboratory, with the rank of major in the A. E. F. In 1920 he was made director of the Research Laboratory of Physical Chemistry at the institute, following the resignation of Professor A. A. Noyes. A short time ago Professor H. P. Talbot resigned as head of the department of chemistry to become dean of students on the retirement of Professor Burton, and Professor Keyes was appointed as acting head of the department until Professor Talbot's permanent successor is chosen.

SCIENTIFIC NOTES AND NEWS

AT the Hull meeting of the British Associa tion, Mr. F. E. Smith, director of scientific research at the Admiralty, and secretary of the Physical Society, was elected one of the general secretaries, to succeed Professor H. H. Turner, of the University of Oxford. Professor J. C. Shields and Professor_J. C. Mc-Lennan presented the invitation to meet in Toronto in 1924, which was accepted. It was announced that a grant of about \$50,000 would be available for the meeting and for defraying the expenses of visiting members.

PROFESSOR J. H. JEANS, secretary of the Royal Society, who was professor of applied mathematics at Princeton University from 1905 to 1909, received the doctorate of science from Oxford University on the occasion of his delivery of the Halley lecture.

PROFESSOR E. T. WHITTAKER, formerly royal astronomer for Ireland and secretary of the Royal Astronomical Society, has been elected a foreign member of the Reale Accademia dei Lincei.

THE honorary degree of doctor of science has been awarded by the University of Leeds to Professor A. F. Holleman, of the University of Amsterdam.

IN recognition of the notable services rendered by Dr. Bernhard E. Fernow to forestry in America, the trustees of Cornell University have given the name Fernow Hall to the university building devoted to instruction in forestry. The formal unveiling of the tablet bearing Dr. Fernow's name took place October 5, when addresses commemorative of his achievements were delivered by Dr. Livingston Farrand, president of the university, Dean Albert R. Mann, of the New York State College of Agriculture, and Professor Ralph S. Hosmer, head of the department of forestry. Dr. Fernow organized at Cornell University in 1898 the first school of forestry in America.

AT a recent meeting of the corporation of Yale University a letter was presented from Dr. Lawrason Brown, president of the National Tuberculosis Association, in which appreciation was expressed of the work of Professor Treat B. Johnson and Mr. Elmer B. Brown, who had been associated with Dr. Esmond R. Long, of the University of Chicago, in research in the fundamental nutrition of the tubercle bacillus. The corporation passed a vote of thanks to the National Tuberculosis Association for its further appropriation for the work in which Professor Johnson and Mr. Brown will continue to be associated.

THE Treasury Department has announced that Dr. J. W. Scherechewsky, assistant surgeon general, U. S. Public Health Service, has been commissioned to conduct an investigation into the cause of cancer; the headquarters of this investigation will be established in Boston.

PROFESSOR H. B. MERRILL, of Carroll College, has resigned to take up chemical work in the research laboratory of the A. F. Gallun & Sons Company, Milwaukee.

DR. A. R. FORTSCH, of the Iowa State University, will become research chemist in the laboratory of the Standard Oil Company at Whiting, Indiana.

AN Associated Press despatch from Honolulu, dated September 20, states that, as the result of burns received while experimenting with radium, Dr. Hideljich Kinoshita, professor of science at the Imperial University of Tokyo, may lose his eyesight.

THE governors of the Harper Adams Agricultural College, Newport, England, have accepted with regret the resignation of Mr. P. Hedworth Foulkes, who has held the post of principal since the opening of this college twenty-two years ago.

GEORGE A. SEAGLE, who had been for thirtyeight years superintendent of the Wytheville (Va.) station of the Bureau of Fisheries, has retired from active service.

MR. W. H. FRV, petrographer in the Bureau of Soils, U. S. Department of Agriculture, for a number of years past, has resigned and will remove to Fayetteville, N. C.

DR. O. A. REINKING has resigned from the University of the Philippines to take a position as plant pathologist, in Honduras, for the United Fruit Company. Dr. Reinking recently received his doctorate at the University of Wisconsin, where he has continued researches, begun in the Philippines on coconut bud-rot. He obtained leave from the University of the Philippines about a year ago and returned to this country by way of British North Borneo, Java, Italy, Germany, France and England, visiting mycological and pathological institutions.

DR. BARTON WARREN EVERMANN, director of the Museum of the California Academy of Sciences and of the Steinhart Aquarium, has been appointed by the National Research Council as its representative at the Commercial Conference to be held at Honolulu from October 25 to November 8, under the auspices of the Pan-Pacific Union, where he will present a paper on "The Conservation of the Marine Life of the Pacific." Dr. Evermann will sail for Honolulu on the *Maui* on October 18.

PROFESSOR S. R. WILLIAMS, head of the department of physics of Oberlin College, has been granted a year's leave of absence and will spend the year in research work at the California Institute of Technology as research associate.

PROFESSOR GEORGE GRANT MACCURDY has returned to Yale University after a year's stay abroad as first director of the American School in France for Prehistoric Studies.

DR. ALONZO E. TAYLOR, of Stanford University, sailed for Europe on September 23.

According to English journals, an expedition headed by Captain F. Hurley has left Sydney for Port Moresby with the object of exploring New Guinea from the air. The party includes an ethnologist and a naturalist. Two seaplanes are being taken and will be used in a four months' air survey of the western portions of British New Guinea. Meanwhile the scientific section of the expedition will navigate the Fly River in a ketch. The cost of the seaplanes is being borne by Mr. L. Hodson, of Sydney.

THE courses offered by the New School for Social Research, New York City, include "The Significance of Modern Philosophy," by Professor John Dewey, Columbia University; "Behavior Psychology," by Dr. John B. Watson, of the J. Walter Thompson Company; "Psysiology and Conduct," by Professor Arthur R. Moore, of Rutgers College, and "Biology and its Social Implications," by Professor Otto Glaser, of Amherst College.

THE Harveian Oration will be delivered before the Royal College of Physicians of London by Dr. Arnold Chaplin, on October 18. The Bradshaw Lecture will be delivered by Sir Maurice Craig, on "Mental symptoms in physical disease," on November 2. The Fitz-Patrick Lectures will be delivered by Dr. R. O. Moon, on "Philosophy and the post-Hippocratic school of medicine," on November 7.

A CELEBRATION of the one hundredth anniversary of the birth of Louis Pasteur will take place in Philadelphia on December 27. Tentative plans call for a meeting in the afternoon at the Academy of Music, and a banquet in the evening at the Bellevue Stratford Hotel, at both of which there will be distinguished A general committee, comprising speakers. Drs. Edgar Fahs Smith, Ernest Laplace, Francis X. Dercum, Charles A. E. Codman Wilmer Krusen, McCluney Radcliffe, secretary, Judson Daland, treasurer, and William Duffield Robinson, chairman, and an honorary advisory committee from all parts of the country have been appointed.

DR. ALICE ROBERTSON, for several years professor of zoology in Wellesley College, known for her work on the Bryozoa, especially of the Pacific Coast of North America, died at Berkeley, California, on September 14. Although Dr. Robertson had not been in good health for several years, she had kept at her scientific work, and death followed a sudden illness, which a surgical operation failed to relieve.

MISS MARY A. BOOTH, formerly editor of *Practical Microscopy*, has died at her home in Springfield, aged seventy-nine years. She was a member of the American Microscopical Society, the New York Microscopical Society, and the Brooklyn Institute of Arts and Sciences and a fellow of the American Association for the Advancement of Science and of the Royal Microscopical Society of London, England.

DAVID SHARP, F.R.S., formerly curator of the Museum of Zoology at the University of Cambridge and editor of the *Zoological Record*, died on August 27, at the age of eighty-one years.

TADEUSZ GODLEWSKI, professor of physics in the School of Technology at Lwów, has died at the age of forty-four years. He is known for his work on radioactive and electrochemical problems.

DR. T. ICHIKAWA, president of Momoyama Hospital, Tokio, died on September 19 from typhoid fever contracted while experimenting with typhoid serum.

THE organization founded to promote the welfare of the University of Bonn has endowed the university with an institute for research with the roentgen rays. Professor Grebe is in charge and it is expected that the institute will be inaugurated this fall.

A SCIENTIFIC conference on problems relating primarily to the Pacific region will be held in Australia during August or September of next year. Plans are now being made for this event by the Australian National Research Council, supported by a commonwealth grant of £5,000 under the leadership of Professor Sir T. Edgeworth David. This will be the second conference on Pacific problems. The first was organized by the Committee on Pacific Investigation of the American National Research Council and met in Honolulu in August, 1920. The scientific men and scientific agencies interested in studies of the Pacific have not yet formed any definite organization except a committee which has acted informally to facilitate continuity of effort. Although some form of organization may be adopted at the meeting in Australia, it is expected that each conference will be autonomous and independent and that the organization and program for each conference will be in the hands of the country that issues the invitation.

WE learn from *Nature* that the centenary of the Yorkshire Philosophical Society, which was founded in 1822, was celebrated on September 20. The members of the society and its guests were received in the gardens of the Yorkshire Museum by the president, Mr. W. H. St. Quintin, and a number of congratulatory addresses from national as well as local learned bodies were read by the representatives. Later, the gathering went in procession to the Minster, where a short service was held and an address delivered by the Bishop of Beverley.

 T_{HE} third international conference of "Psychotechnique appliqué à l'orientation professionnelle" will meet this year at Milan on October 2 to 5. According to the announcement there were to be discussions on the following subjects: (a) What is meant by vocational aptitudes? (Lahy); (b) Natural aptitudes and acquired aptitudes (Décroly, Patrizi); (c) The psychological analysis of work (Gemelli, Lipmann); (d) Vocational guidance and Taylorism (Bauer); and (e) An international unification of tests and individual ratings (Claparède, Mira, Myers).

A HEALTH survey of the printing trades has been authorized by the International Joint Conference Council, representing both employers and employees. The survey is intended to cover two years and will be nation-wide. The work will include a thorough study of printing processes in their relation to health and of printing house conditions, possibly more or less detrimental to health and life. The investigation will be carried on in cooperation with a large number of governmental, scientific and corporate organizations, including the United States Bureau of Labor Statistics, which will have charge of the major portion of the social and economic inquiries. A large measure of

cooperation is expected from the insurance companies, but especially from Harvard Medical School, Yale Medical School, the Public Health School of Johns Hopkins University and a number of state health and labor departments. Particular emphasis will be placed upon methods of ventilation, air-pollution, lighting, eye-strain, posture and physique. The investigation will be under the immediate direction of Dr. Frederick L. Hoffman, dean of the advanced department of the Babson Institute, Wellesley Hills, Massachusetts, and consulting statistician to the Prudential Insurance Company of America.

WE learn from the London Times that the Rowett Institute of Research in Animal Nutrition, which is conducted by a joint committee of representatives of the University of Aberdeen and the North of Scotland College of Agriculture, was opened by Queen Mary on September 12. The buildings forming the institute are situated about a mile from Bankhead, Aberdeen. The capital outlay on the scheme was about £50,000. Of this sum the Treasury, on the recommendation of the Development Commission, promised £20,000 provided an equal sum was obtained from other sources. At this stage Mr. John Quiller Rowett, LL.D., who has shown great interest in scientific research, offered £10,000 to allow the work of building the institute to proceed. Impressed with the necessity of leaving the institute room for expansion, Dr. Rowett made a further offer to provide, in addition to his first generous gift, sufficient funds to purchase the farm of Bridgefood and the croft of Redpool. The institution has been organized to include departments dealing with physiology, biochemistry, bacteriology and pathology, and to have an animal husbandry department, which is carrying out feeding and other experiments on a practical scale. All these departments afford mutual assistance to each other, and all the work, both purely scientific and practical, is organized from the newly built center. The director of the institute is Dr. J. B. Orr.

THERE is given in *Nature* some further information concerning the meeting of the Commission on Intellectual Cooperation of the October 6, 1922]

League of Nations which held its first session at Geneva from August 1 to 5. The commission had been given a free hand to define its own program with due regard to existing national activities and existing organs of international intellectual life. The following were among the topics selected for consideration: the desperate economic condition of the intelligenzia in some European countries-notably Austria and Poland; the protection of proprietary rights in scientific discoveries and ideas; the establishment of an international entente for the examination and publication of archeological monuments; inter-university relations; and an international organization of bibliography. All these questions have been referred to individual members of the commission or to sub-commissions for the preparation of reports with the view of taking further action. As for cooperation in scientific research, the commission, anxious not to interfere in the organization or work of the scientific societies, decided that this should be left to the initiative of the societies themselves. Another question on which the commission found itself unable to take any useful action was the publication by common consent of workers in all parts of the world of discoveries relative to toxic gases and the development of chemical warfare. It decided to reply to the reduction-of-armaments commission, which had referred the question, that it was unable to suggest methods whereby this result might be brought about.

UNIVERSITY AND EDUCATIONAL NOTES

MR. JAMES B. DUKE has given \$1,125,000 to Trinity College. The gifts include \$1,000,000 to the college endowment fund, \$25,000 to the new gymnasium, \$50,000 towards a \$100,000 law building and \$50,000 toward a \$100,000 building for the new school of religious training.

DR. WORTH HALE, assistant dean of the Harvard Medical School, has been appointed acting dean to serve during Dr. David L. Edsall's absence in Europe during the first half year; Dr. Roger I. Lee will serve as acting dean of the School of Public Health. DR. JOHN M. T. FINNEY has been appointed temporary surgeon-in-chief of the Johns Hopkins Hospital and professor of surgery in the medical school, in place of the late Dr. William S. Halsted. The faculty will appoint a committee to make a permanent selection.

DR. L. A. PECHSTEIN, director of the department of psychology and education of the University of Rochester, has been appointed dean of the College for Teachers of the University of Cincinnati, to succeed Dr. W. P. Burris.

THE psychology department of the Ohio State University announces the following additions to its staff: Herbert H. Goddard, full professor; Robert D. Williams, assistant professor; Marjorie Bates, instructor. The following promotions have also been made: Harold E. Burtt to full professor; A. Sophie Rogers to assistant professor.

RICHARD C. LORD, Ph.D. (Washington and Lee), for some time engaged in industrial chemistry, has been appointed assistant professor of chemistry and physics in Kenyon College.

DR. F. I. WERTHEIMER, recently connected with Professor Kraepelin's clinic at Munich, has become a member of the staff of the Henry Phipps Psychiatric Clinic at the Johns Hopkins Hospital.

THE Council of University College of North Wales has appointed Professor David Thoday, of the South African University, Cape Town, to the chair of botany, in succession to Dr. Phillips, who retires after thirty-eight years' service.

DR. GEORGE HASWELL WILSON, lecturer in bacteriology at the University of Glasgow, has been appointed to the chair of pathology in the University of Birmingham, rendered vacant by the election of Professor J. Shaw Dunn to the corresponding post in the University of Manchester.

DISCUSSION AND CORRESPOND-ENCE

THE DEATH RATE FROM TUBERCULOSIS

TO THE EDITOR OF SCIENCE: About a year ago, I had occasion to request of the chief