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 uni-