has been outstanding, and has left with them lasting inspiration. He was always kindly and considerate of others, of even temperament and easy to work with and his optimism was unbounded. His acquaintance was broad and his friends are many.

Dr. Orton's publications, largely on subjects related to plant pathology, comprise some forty or more bulletins and circulars of the Department of Agriculture and many published in outside journals and magazines and by the Tropical Plant Research Foundation.

Dr. Orton is survived by his widow and two daughters, Alberta and Alice, and by two married sisters, who reside in Vermont.

W. W. GILBERT

SCIENTIFIC EVENTS

SINANTHROPUS PEKINENSIS

THE Peking correspondent of the London *Times* reports that at an open meeting of the Geological Society of China held on December 28 the closely guarded details of the finding in North China of the skull of a man hundreds of thousands of years old were officially revealed. The discovery, which is claimed to be the most important of its kind, was made on December 2, in a limestone cave deposit at Choukoutien, forty miles from Peking.

The find is said to be a unique specimen, and consists of the greater part of an uncrushed adult skull belonging to an entirely new genus, known to science as *Sinanthropus Pekinensis,* which is definitely placed above the Java ape-man in brain capacity, but below Neanderthal man. The Peking man is considered to antedate Neanderthal man and is held to be nearer the genus *Homo* than the Piltdown and Java types. Estimates of the age of the skull vary greatly. Dr. Grabau, adviser to the Chinese Geological Survey, states that the Peking man lived at the beginning of the Quaternary Period and gives his age as 1,000,000 years, but Père Teilhard Dechardin, president of the Geological Society of France, and also adviser to the Chinese Survey, favors an estimate of 400,000 to 500,000 years.

The credit for the actual discovery of the skull goes to a young Chinese geologist, Mr. W. C. Pei, in charge of the field work of the Geological Survey at Choukoutien last season. Excavations there had previously yielded the major parts of the two lower jaws and numerous teeth and skull fragments of "Peking Man," as well as four tons of fossil remains, including the sabre-toothed tiger, which flourished at the same time as "Peking Man." The skull is still largely embedded in hard travertine, which will require a couple of months of difficult and delicate work to remove, but the vault from the massive brow ridges to the occiput and the whole of the right side have already been freed from the relatively soft matrix, showing that while most of the facial region seems lacking, the brain case is almost completely preserved. The massive jaw sockets are also visible.

Compared with the Java skull which is approximately the same length, the Peking skull is said to possess characteristics which point to relatively greater brain capacity.

CANADIAN NATIONAL RESEARCH LABORATORIES[1]

TENDERS have been invited by the Government of Canada for the construction of a National Research Laboratories building that will cost, when finished, approximately three million dollars. Appointments of chiefs to two of the laboratory divisions has been announced.

Dr. H. M. Tory, formerly president of the University of Alberta, and now the president of the National Research Council, has expressed the view publicly that the new home for research in Canada will be one of the finest to be found in any country. It is being built on the banks of the Ottawa River in the capital city. Designed in the form of a giant figure "8," it will stand 60 feet (four stories) high, 418 feet long, and 176 feet deep. Two hundred and fifty thousand feet of floor space will be provided. Library accommodation will be for 300,000 volumes. An assembly hall and associated rooms will be capable of accommodating the staff and the various scientific societies of the Dominion.

Plans call for the development of the following divisions: The divisions of physics and engineering physics, to the head of which Dr. Robert William Boyle, dean of the faculty of applied science at the University of Alberta, has already been appointed; the division of industrial chemistry, to the head of which Dr. George Stafford Whitby, professor of organic chemistry at McGill University, has been appointed; the division of economic biology and agriculture, to which Dr. Robert Newton, professor of field crops and plant biochemistry at the University of Alberta, is the acting head; the division of industrial engineering, the division of textiles, the division of standards, and such other divisions as improvement in industrial processes, the development of natural resources, and the utilization of waste require.

Dr. Boyle was graduated from McGill University in 1906, and from then until 1909, when he received the Ph.D. degree and the 1851 scholarship, he did research

[1] From *Nature.*

on the properties of matter and radioactivity. From 1909 until 1911 he continued his work under the direction of Sir Ernest Rutherford at the University of Manchester. Returning to Canada, he lectured at McGill, was appointed assistant professor in 1912, and in the same year was made professor in the University of Alberta. During the war years, on the recommendation of Sir Ernest Rutherford, Dr. Boyle was engaged in research for the Admiralty Board of Invention and the Anti-submarine Division; and in that work he developed important applications of ultrasonics. In 1924 he tested apparatus for the detecting of icebergs and the sounding of depths in the Belle Isle Straits.

Dr. Whitby studied chemistry under Sir William Tilden at the Imperial College of Science and Technology, London, graduating in 1906 with the Frank Hatton prize. He was one of the first scientific workers to study the rubber industry, and one of his books thereon, "Plantation Rubber and the Testing of Rubber," 1920, has markedly influenced the trend of rubber research. In recognition of his contribution in that field, the Institution of the Rubber Industry (Great Britain) recently awarded him the Colwyn gold medal. In 1928 the distinction of Officier d'Académie was conferred upon him by the Government of France. The same year he was president of the Canadian Chemical Association.

As assistant director of the division of physics and engineering physics, Prof. John Hamilton Parkin, associate professor of mechanical engineering at the University of Toronto, has been appointed to direct the development of national aeronautical research laboratories.

Plans for the new National Laboratories building call for completion early in 1931. Meanwhile, temporary laboratory space has been provided.

THE AMERICAN STANDARDS ASSOCIATION

ANNOUNCEMENT that the underwriting of the finances of the American Standards Association for a period of three years to permit a total annual expenditure of $150,000 for its work is now being completed has just been made by William J. Serrill, president of the association. This fund permits an increase in the budget for 1930 of $80,000 over the previous budget of the association and is expected to result in an expansion of national standardization work affecting practically all industries.

The fund is being underwritten by a large group of industrial organizations. The underwriting was arranged by a committee consisting of James A. Farrell, president of the United States Steel Corporation; Gerard Swope, president of the General Electric Company; George B. Cortelyou, president of the Consolidated Gas Company of New York, and F. A. Merrick, president of the Westinghouse Electric and Manufacturing Company.

Because of the rapid growth of the industrial standardization movement in this country, the underwriting was planned to permit immediate expansion of the work of providing authoritative national standards while permanent financing is under way. It is expected that this financing will be completed during the three-year period of the underwriting.

Among the companies joining in the underwriting are:

Aluminum Company of America
American Telephone and Telegraph Company
Bethlehem Steel Company
Consolidated Gas Company of New York
Detroit Edison Company
General Electric Company
General Motors Corporation
Gulf Oil Corporation of Pennsylvania
Public Service Corporation of New Jersey
Standard Oil Company of New Jersey
U. S. Steel Corporation
Westinghouse Electric and Manufacturing Company
Youngstown Sheet and Tube Company

Up to the present time the association has adopted approximately 160 national standards, and 190 other national standards are being formulated. The association provides the machinery by which all of the producing, distributing and consuming groups concerned with a standard may cooperate in its preparation. The foremost technicians of all groups are thus brought together to pool their knowledge for the benefit of all. Over 2,000 individuals representing 800 cooperating organizations are in this way working on technical committees under the procedure of the association.

An important feature of the association's work is the adoption of national standard safety codes, which are used voluntarily by industries and also as the basis for state and municipal safety regulations and for the regulations of insurance companies in numerous states. Among the most important of these codes are the National Electrical Safety Code, the Code for Mechanical Power Transmission and several codes for mine safety.

As the result of the recent affiliation of the American Home Economics Association with the American Standards Association, this latter body has also begun important standardization work on projects of direct concern to the ultimate consumer, such as refrigerators, sheets and blankets.

INTERNATIONAL CRITICAL TABLES

THE sixth volume of the International Critical Tables was issued about the middle of October. The