M. JEAN BOSLER has been nominated by the Paris Academy of Sciences for director of the observatory at Marseilles.

PROFESSOR LUBARSCH has been appointed director of the Robert Koch Foundation for Combating Tuberculosis in place of the late Professor Orth.

MAURICE L. HUGGINS, who has held a National Research fellowship in chemistry during the past year at Harvard University, has been reappointed for the coming year, which he will spend at the California Institute of Technology at Pasadena, carrying on researches in the field of crystal analysis by means of X-rays.

DR. F. L. RANSOME, who has been a member of the U. S. Geological Survey since 1897, leaves Washington on September 6 to take up his new work as professor of economic geology and head of the department of geology at the University of Arizona, at Tucson, Arizona. Dr. Ransome has accepted the appointment for the coming academic year, but has not resigned from the Geological Survey and is under no engagement to remain permanently at Tucson.

VICTOR YNGVE, who has been engaged in cryogenic research at Harvard University during the past year, has accepted a position as director of research for the Manhattan Electrical Supply Co., New York City.

A. T. MCPHERSON, Ph.D. (Chicago, '23), has accepted a position as associate chemist in the Bureau of Standards, where he is engaged in the investigation of rubber and gutta percha as insulating materials.

LOWELL H. MILLIGAN, Ph.D. (Cornell '23), has taken a position as research chemist with the Norton Co., at Worcester, Mass.

DR. J. WALTER FEWKES, chief of the bureau of American ethnology of the Smithsonian Institution, has returned to Washington from an investigation of pottery found in the Mimbres Valley in New Mexico.

CHARLES W. COULTER, assistant professor of sociology in Western Reserve University, has returned to the United States after an absence of over a year in China, where he taught at Nanking University, in Nanking; at Nankai University in Tientsin and in Peking University.

PROFESSOR BURTON CAMP, of the department of mathematics of Wesleyan University, has been granted leave of absence for the college year, 1923–1924. Professor Camp is planning to work at the library of the University of Paris and later to work on the mathematical theory of statistics with Professor Karl Pearson at the Biometric Laboratory of University College, London.

DR. WILHELM SEGERBLOM, secretary of the commission to revise the definitions of the requirement in chemistry of the College Entrance Examination Board, writes that the commission desires to have the benefit of all opinion adverse or otherwise on the present syllabus. All teachers who wish to criticize either the chemistry syllabus itself or the examinations set in accordance therewith or who may have constructive comments looking towards improvements in the requirement are requested to send such information to the chairman of the revision commission, Prof. Percy T. Walden, Department of Chemistry, Yale University, New Haven, Connecticut.

THE following awards were made at the meeting of the trustees of the Elizabeth Thompson Science Fund on May 28: Dr. E. B. Krumbhaar, Philadelphia General Hospital, Philadelphia, Pennsylvania, for the study of immunity to cancer, $150. Professor H. A. Laurens, Yale University School of Medicine, New Haven, Conn., toward the purchase of a monochromatic illuminator for the visible and ultra violet, $300. Dr. W. W. Swingle, Osborn Zoological Laboratory, Yale University, New Haven, Conn., to aid in the completion of experiments on endocrine glands, $150. The Elizabeth Thompson Science Fund is administered by G. H. Parker, *president*; E. B. Wilson, *secretary*; Charles S. Rackemann, *treasurer*, and G. P. Baxter and W. B. Cannon, members of the board of trustees. The trustees meet three times a year toward the end of February, of May and of November. Applications should be in the hands of the secretary well in advance of the date of the meeting.

UNIVERSITY AND EDUCATIONAL NOTES

BY the will of Nettie Fowler McCormick, widow of Cyrus H. McCormick, inventor of the reaper, Washington and Tusculum College at Tusculum, Tennessee, received $100,000.

BOSTON UNIVERSITY has received a bequest of $100,000 from the late Austin B. Fletcher, of New York, a member of the board of trustees.

DR. CHARLES A. KRAUS, professor of chemistry in charge of graduate work and director of the research laboratories of chemistry at Clark University, Worcester, will join the faculty of Brown University in September, 1924.

DR. WILLIAM H. GOODRICH, Augusta, has been elected dean of the University of Georgia School of Medicine to succeed the late Dr. William H. Doughty.

ALTON LINCOLN SMITH, professor of drawing and machine design at the Worcester Polytechnic Institute, has been elected to the newly established position of assistant to Dr. Ira N. Hollis, president of the institute. Professor Smith, who is one of the oldest

members of the faculty, will preside at faculty meetings in the absence of the president and otherwise perform his duties.

HARRY S. SMITH, formerly chief of the Bureau of Pest Control of the State Department of Agriculture of California, has been appointed associate professor of entomology in the University of California, to be stationed at Riverside.

THE French Academy of Sciences has nominated M. Henri Piéron to the chair on the physiology of the senses at the Collège de France.

DISCUSSION AND CORRESPONDENCE

HORSE FLESH IN ENGLAND IN THE ELEVENTH CENTURY

A NOTE on the use of horse flesh in Europe, in SCIENCE (N. S. 44 [1916], No. 1140, pp. 638–639), pointed out that, though eaten very generally in earlier times, it went out of use as food as the result of an edict of Pope Gregory III, dating from the eighth century. This prohibition, it would seem, was more effective in Continental Europe than in England. At any rate, a book by W. Boyd Dawkins, "Cave Hunting: Researches on the Evidence of Caves Respecting the Earlier Inhabitants of Europe" (London: Macmillan Co., 1874), gives interesting information about the animals, including the horse, used for food in Roman Britain, and about the abandonment of horse flesh as food because it was again forbidden by the Church, but under different circumstances.

The bones of the Celtic short-horn (Bos longifrons) were found to be very abundant in the Romano-Celtic or Brit-Welsh stratum of the Victoria Cave, Settle, Yorkshire; also those of a variety of the ox indistinguishable from the small dark mountain cattle of Wales and Scotland, which were the chief food of the inhabitants.

> A variety of the goat with simple recurved horns, which is commonly met with in the Yorkshire tumuli . . . , and in the deposits round Roman villas in Great Britain, furnished the mutton; while the pork was supplied by a domestic breed of pigs with small canines; and since the bones of the last animal belong, for the most part, to young individuals, it is clear that the young porker was preferred to the older animal. The bill of fare was occasionally varied by the use of horse-flesh, which formed a common article of food in this country down to the ninth century. To this list must be added the venison of the roedeer and stag, but the remains of these two animals were singularly rare. Two spurs of the domestic fowl, and a few bones of wild duck and grouse, complete the list of animals which can with certainty be affirmed to have been eaten by the dwellers in the cave. . . . There were also bones of the dog, which from their unbroken condition proved that the animal had not been used for food, as it certainly was used by the men who lived in the caves of Denbighshire, in the Neolithic age. The whole group of remains implies that the dwellers in the Victoria Cave lived upon their flocks and herds rather than by the chase. And since the domestic fowl was not known in Britain until about the time of the Roman invasion, the presence of its remains fixes the date of the occupation as not earlier than that time. On the other hand, since the small Celtic short-horn (Bos longifrons) was the only domestic ox in use known in Roman Britain, and since it disappeared from those portions of the country which were conquered by the English, along with its Celtic possessors, the date is fixed in the other direction as being not much later than the Northumbrian conquest of that portion of Yorkshire.

Elsewhere in the book the author quoted tells that the

> broken bones of the horse [in these caves] . . . leave no room to doubt that horse-flesh was a common article of food at that time. It was so, indeed, throughout Roman Britain, and after the English invasion was used as late as the Council of Celchyth, in the year 787. It was forbidden by the Church because it was eaten by the Scandinavian peoples in honor of Odin. In Norway, Hacon, the foster-son of Aethelstan, was compelled to eat it by the bonders, in 956, and the revolt of the bonders, which ended in the bloody battle of Stikkelstadt, in which Olaf met his death, in 1030, was caused by his cruelties to the eaters of horse-flesh. As Christianity prevailed over the worship of Thor and Odin, it was banished from the table. The present prejudice against its use is a remarkable instance of the change in taste which has been brought about by an ecclesiastical rule aimed against a long-forgotten faith. The rule was not, however, always obeyed, for the Monks of St. Gall, in the eleventh century, not only ate horse-flesh but returned thanks for it in a metrical grace written by Ekkehard the Younger (died 1036): "Sit feralis equi caro dulcis sub cruce Christi."

C. F. LANGWORTHY

WASHINGTON, D. C.

EFFECT OF PLANT EXTRACTS ON BLOOD SUGAR

OUR studies in connection with insulin led us to the conception that carbohydrate metabolism is performed by an oxidizing ferment mechanism. This theoretical conception induced us to test vegetable material, known to contain oxidases and peroxidases, for oxidizing substances having an insulin-like action. In December, 1922, we injected 5 cc. of juice from a raw potato intravenously into a 1,500 gram rabbit and noted a fall of blood sugar in one hour from 0.17 to 0.13 per cent. Since then we found that sterile pieces of raw potato, and juice expressed from these, introduced into a glucose solution, after incubation for 24