of the pioneer. If Dr. Coville's advice had been taken, the West would have escaped vast losses which have since fallen upon it.

From 1910 onward, however, experiments in blueberry culture took precedence of his other interests, and it was this investigation in cultivating, hybridizing and selecting improved strains of the blueberry plant that gave full play to Dr. Coville's special abilities—his keenness of observation and fine technique of workmanship, and an almost infinite patience in following out details. Many collateral problems had also to be solved—in particular, the effect of soil acidity upon plant growth and the stimulating rôle of cold—with the final result that large-fruited "domesticated" blueberries, in many fine varieties, are now securely established as a profitable commercial crop in the acid sandy soils of our eastern coastal plain. Largely through his work and writing the artificial acidulation of soils and the basic requirements in the culture of acid soil plants are matters of general knowledge at present.

Notwithstanding this record of accomplishment, Dr. Coville's time seemed never his own. Of unusually broad interests and possessed of sound judgment in practical matters, he was constantly besought for advice upon all sorts of questions and projects by many who knew his never-failing spirit of helpfulness. His friendly cooperation was proverbial; equally his comment, based on quick perceptions and a wide experience, was penetrating and apposite. As the necessary starting-point and background for economic work with plants he always emphasized the importance of sound taxonomic studies. Himself a clear thinker, he was imbued with almost a passion for accuracy and precision. Thus his influence over a long period of years was uncommonly helpful and inspiring to younger men within the department and it was effective also in a far wider scientific and educational field, where it will be sorely missed. He will long be missed also in other walks of life, for he had in high degree that quick unaffected and sympathetic interest in people that is the genius for friendship.

Erect and well over six feet in height, Dr. Coville was of distinguished bearing; in college he had been an outstanding athlete. He was conservative and of great natural dignity; but coupled with this there were boyish enthusiasms that had to be shared with his friends, and those who had the privilege of out-of-door association with him will cherish their recollections of his comradeship. A field trip, even a walk through familiar woods, took on new possibilities of enjoyment from his awareness of the surroundings and his keen interest in every living thing therein, and was bound to yield new information or help to satisfy some question to which his inquisitive spirit seemed always to lead. He had moreover a profound appreciation of beauty in nature —a depth of feeling that often enough is smothered by matter-of-fact scientific accomplishment. His mind was stored with a lifetime's recollections of field incidents, of plants in a particular setting, and of other natural phenomena, and on occasion these memories would be brought forth as vividly as if the happenings or scenes were of yesterday, and, one may add, with astonishing detail as to essentials. Out of an active mind so equipped, trained and stored, the new "Death Valley Flora" would have been a fitting sequel to his earliest and most important botanical work. That he could not complete this upon retirement from government service, which would have followed shortly, will be a matter of general regret. But to those who knew Dr. Coville well a sense of personal loss will prevail, in the passing of a friend in whom steadfast loyalty and consideration were never wanting.

WILLIAM R. MAXON

SMITHSONIAN INSTITUTION

RECENT DEATHS AND MEMORIALS

DR. ELIHU THOMSON, of the Thomson-Houston and General Electric Companies, director of the Thomson Research Laboratory at Lynn, Mass., died on March 13 at the age of eighty-three years.

DR. WILLIAM HARDING LONGLEY, professor of biology at Goucher College since 1919, in administrative charge of the Marine Laboratory in Tortugas of the Carnegie Institution of Washington, died on March 10 at the age of fifty-six years.

DR. RANDOLPH WINSLOW, emeritus professor of surgery at the school of medicine of the University of Maryland, died on February 27 at the age of eighty-four years.

DR. ARTHUR RUDOLPH MANDEL, professor of clinical pathology at New York University Medical School, died suddenly on March 7. He was fifty-nine years old.

DR. ALFRED DOUGLAS FLINN, since 1922 director of the Engineering Foundation, formerly deputy chief engineer of the Board of Water Supply of the City of New York, died on March 14 at the age of sixty-seven years.

WILLIAM TAYLOR, inventor and maker of improvements in scientific apparatus, especially lenses, governing director of Taylor, Taylor and Hobson's, Leicester, England, died on February 28 in his seventy-second year. He was elected a fellow of the Royal Society in 1934, and was a member of the Council of the National Physical Laboratory and past president of the Institution of Mechanical Engineers.

Nature states that to commemorate the services of

the late Sir Grafton Elliot Smith to University College, London, and to the advancement of anatomical and anthropological teaching and research, it is proposed that a bust of him should be modeled in bronze by A. H. Gerrard, of the Slade School, and placed in the Thane Library of the college. Contributions towards the cost of the bust, made payable to "The Elliot Smith Memorial Fund," should be sent to Professor J. P. Hill, University College, Gower Street, London, W.C.1.

SCIENTIFIC EVENTS

JOINT MEETING ON AGRICULTURAL PROCESSING

THE American Society of Agricultural Engineers and the Process Industries Division of the American Society of Mechanical Engineers and Farm Chemurgic Council held a one-day meeting on agricultural processing, at Rutgers University, on February 26.

This meeting was planned to bring together the chemists and physicists who originate processes of making new useful products from various farm-grown materials; the processing engineers who develop and apply the processes on a commercial scale, and the agricultural engineers who are interested in enabling farmers to deliver the basic materials to processing plants within the required limits as to cost, physical condition and time and quantity of delivery.

L. F. Livingston, past-president of the American Society of Agricultural Engineers and manager of the agricultural extension section of the E. I. du Pont de Nemours and Company presided at the morning session which opened at 10 o'clock. Papers read at this session included "Processing Research in Agriculture," by John F. Ferris, acting director of the agricultural industries division of TVA; and "Hemp and Flax from the Seed to the Loom," by George A. Lowry, of Lowry and Grant.

A "research luncheon" was held at the Elks Building at 1:00 P. M. Dr. W. H. Martin, director of research at Rutgers University, addressed the group on "Agricultural Research Work," and Dr. Paul L. Hoover, director of the New Jersey Engineering Experiment Station, spoke on "Engineering Research."

Victor Wichum, chairman of the Process Industries Division of the American Society of Mechanical Engineers, presided at the afternoon session. In the afternoon Mr. Livingston gave an address on "Processing Engineering in Agriculture." He was followed by C. E. Thomas and A. Weisselberg, of the drying committee of the Process Industries Division, with a paper on "Drying of Agricultural Products—The Technical and Economical Aspects."

R. C. H. Heck, of the department of mechanical engineering, and E. R. Gross, head of the department of agricultural engineering, Rutgers University, were in charge of local arrangements for the meeting.

COSMIC RAY RECORDING STATION IN MEXICO

DR. ARTHUR H. COMPTON, of the University of Chicago, accompanied by Professor M. S. Vallarta, of the Massachusetts Institute of Technology, established during his recent visit to Mexico a permanent cosmic ray recording station, the fifth of the series that he is using for the measurement of the rays. Dr. Joaquin Gallo, director of the Mexican National Magnetic Observatory, and Dr. Mongez Lopez, director of the study of physical sciences of the National University of Mexico, of which the observatory is a part, are cooperating in the work.

The cosmic ray observatory is a small frame building erected on the grounds of the National Magnetic Observatory at Teolyucan, thirty miles north of Mexico City at an altitude of about 7,500 feet in a region far from any high mountains or buildings. The building is constructed with good thermal insulation so that both the diurnal and annual temperature variations are very small, amounting to a maximum of about 5° C.

The cosmic ray meter is one of the "Model C" meters of the type prepared for the Carnegie Institution of Washington. Its ionization chamber consists of a 20-liter steel sphere filled with argon at 40 atmospheres. The ionization by the cosmic rays is normally balanced by that due to the beta rays from a uranium rod, which enter an auxiliary chamber. This balance is unaffected by changes in temperature or pressure of the gas. The sensitivity is so adjusted that the maximum changes in the cosmic rays give variations in the reading of the meter which remain on the scale of the instrument. The records are made continuously on photographic paper and are being analyzed at Chicago.

A feature in connection with the operation of an observatory at this site is that because of the high altitude the cosmic ray bursts are more frequent than at sea level. For this reason the variations in the cosmic rays are greater and the sensitivity at which the meter operates must be lowered in order that the deflections of the meter shall remain on the scale. The immediate program is one of study of the diurnal and seasonal variations over a period of eighteen months. It is hoped, however, to continue the records for a longer time.