approach the problems in his special field with methods characteristic of science in general. This involves among other things the intelligent use of refined instruments and mathematical tools of precision, to aid him in exact observations and fact finding. Such technique may be intelligently applied and appropriately modified for optimum use in the field of horticultural science only if the underlying principles as well as the limitations and the possibilities of these "aids to our infirmities" are understood.

In advocating a very thorough training of horticulturists in the underlying sciences, we are not unmindful that advances in our own field as well as in others may sometimes come about in an unexpected or an incidental manner, or even, in accordance with the laws of chance, as a result of hit-or-miss methods. By and large, however, only those whose training induces thoughtfulness and breeds well-balanced judgment and understanding are in a position to recognize that "they've got something there" if the unexpected or accidental happens. The greater the variety of fundamental subjects which the young horticultural scientist can effectively explore, the better his chances of greater accomplishments through either patient and systematical experiment or through so-called intuition or flashes of insight.

The motto of those whose duty it is to select recruits for our profession might well be: Let no one presume to enter the field of horticultural science unless he loves to work with plants and folks and has ability and the patience to acquire a thorough understanding of the basic and supporting sciences.

Such standing as our society has attained has been due in no small part to the ideals of scientific scholarship, fostered by our charter members, and carried forward by their pupils. We are especially honored in having as our guiding spirit and shining example the distinguished scientist and dean of American horticulture, Liberty Hyde Bailey. In a very real sense he has been the teacher of us all. As president during the first five years of its existence, he established the organization on a firm foundation, and helped to mold its policies for future usefulness. We are all grateful for his continuing and helpful interest in our meetings. Even though he has already passed the threescore years and ten allotted to the average man, his industry and enthusiasm for painstaking work might well tax the endurance of one half his age. His career as an inspiring teacher, an instructive and stimulating author, a helpful and sympathetic administrator of institutions and scientific organizations, and as a thorough, productive and untiring research scholar, will always serve as a challenge to workers in the field of horticultural science.

OBITUARY

GEORGE HENRY FALKINER NUTTALL

ON December 10, 1937, died in Cambridge, England, a scientific worker whose career was associated in significant fashion with an unusually large number of new scientific fields and of research activities in different countries. Nuttall was born in San Francisco on July 3, 1862. His father was a physician of standing; his sister Zelia Nuttall is widely known as an investigator of high rank in archeology. He was broadly educated at home and abroad, receiving the M.D. at California in 1884 and the Ph.D. at Göttingen in 1890. After four years on the medical faculty at Johns Hopkins and a little longer on the staff of the Hygienic Institute in Berlin, he went to Cambridge (Eng.) in 1899 as university lecturer, and was appointed in 1906 Quick professor of biology. There his research and writings in bacteriology, microbiology, entomology and transmission of disease led to the foundation and endowment of the Molteno Institute for Research in Parasitology, established in 1919; Nuttall was made its director and continued as such until he became emeritus professor in 1937.

Nuttall's work opened up new fields of importance in which at an early date he felt the need of journals to represent these growing activities and to publish the results of the work. Accordingly he established first the *Journal of Hygiene* (1901) and later as a supplement thereto *Parasitology* (1908); he edited both for many years. Firmly established, they now rank as leaders in these fields of research.

As an investigator Nuttall early won prominence in hygiene and the etiology of disease. Among the long series of his papers those on hygienic measures in relation to infectious diseases, on blood immunity and blood relationship, on the bacteriology of diphtheria, ticks, insects and disease, and canine piroplasmosis deserve especial mention as opening new and important lines of research in biology and medicine. They also show clearly his versatility and ability as a researcher. This pioneer work led to his appointment on many government commissions in the newly developing field of tropical diseases which opened up in the closing years of the last century and spread rapidly after 1900. His services were recognized both by various governments and by election to honorary membership in many academies and societies.

Nuttall often visited his native country, and here as elsewhere was warmly welcomed as counselor and lecturer. At various times he delivered the Herter lecture at Johns Hopkins, the Harvey lecture of the New

York Academy of Medicine, the Weir Mitchell lecture at Philadelphia, and other similar addresses. His last visit was arranged by the University of Illinois in December, 1926. By invitation he attended the fifth Philadelphia meeting of the American Association, addressed one of the evening general sessions, gave the annual public address before the Entomological Society of America and a special lecture for the American Society of Parasitology on piroplasms; in the last he paid tribute to the pioneer work in this field done in the United States. After the Philadelphia meetings he visited and lectured at several other places. At the University of Illinois he delivered the Gehrmann lecture on January 11, 1927, at the College of Medicine and a series of University and Graduate School lectures in Urbana during the next three days under the auspices of the department of zoology.

After his retirement Dr. Nuttall carried on his scientific work at his home in the country near Cambridge. His wife died several years ago. The last photograph received from him showed the family group, including grandchildren, gathered in the delightful garden of the home where he spent the closing years of his life.

HENRY B. WARD

RECENT DEATHS AND MEMORIALS

DR. GEORGE BIRD GRINNELL, naturalist, explorer, anthropologist and conservationist, died on April 11, in his eighty-ninth year.

DR. WALTER THOMAS TAGGART, professor emeritus of chemistry at the University of Pennsylvania, died on April 11 at the age of sixty-six years.

DR. BERTHA KAPLAN SPECTOR, research associate in medicine at the University of Chicago, known for her work in amebic dysentery, died on March 26 at the age of forty-one years.

THE death is announced of Dr. Gustav Jäger, professor of physics at the University of Vienna, and of Dr. Max Wien, professor of physics at the University of Jena.

DR. FELIX LENGFELD, of San Francisco, died on February 22. A correspondent writes: "Dr. Lengfeld received the degree of Ph.D. in chemistry for his work with Remsen at Johns Hopkins in 1888, and a little later spent eight or ten years in the University of Chicago with Nef and Stieglitz, having the rank of associate professor of chemistry. Shortly after the turn of the century his eye-sight failed him and he had to retire from active work. He was a man of remarkable mind and a fine sense of humor."

Nature reports the death of Sir Raymond Crawfurd, registrar of the Royal College of Physicians, London, known for his work on the history of medicine, on March 9, aged seventy-two years; of Major A. D. Lumb, of the Scientific and Technical Department of the Imperial Institute, known for his work on the geology and mineral survey of southern Nigeria and the Udi Okana coalfield; of A. Magnan, professor of animal mechanics applied to aviation in the Collège de France, aged fifty-seven years, and of Melville Hilton-Simpson, the distinguished traveler and ethnologist, on March 17, aged fifty-seven years.

A SERVICE to mark the one hundredth anniversary of the birth of John Shaw Billings, surgeon and librarian, was held at 8:30 P. M. on April 12 at the Hurd Memorial Hall of the Johns Hopkins Hospital. The commemoration services were sponsored by the Johns Hopkins Medical Society and the Johns Hopkins Medical History Club. Former Judge Henry D. Harlan, of the Baltimore Supreme Bench, presided. Those who spoke included: Lieutenant Colonel Edgar Erskine Hume, Medical Corps, U. S. A.; Dr. Alan M. Chesney, dean of the Medical School; Dr. Sanford V. Larkey, librarian of the William H. Welch Medical Library; Dr. Raymond Pearl, professor of biology in the School of Hygiene and Public Health, and H. M. Lydenberg, director of the New York Public Library.

SCIENTIFIC EVENTS

MEDICAL RESEARCH COMMITTEE FORMED BY NATIONAL RESEARCH COUNCIL OF CANADA

APPOINTMENT of a committee to study the organization of medical research in Canada has been made by the National Research Council. This action was taken on the recommendation of a nation-wide conference on medical research held in Ottawa four weeks ago, which was attended by representatives of all the medical schools, organizations and institutions concerned in medical research including the provincial departments of health, the Department of Pensions and National Health and the National Research Council. Sir Frederick Banting, discoverer of insulin and director of the department of medical research at the University of Toronto, has been named by the council as chairman of the new committee. Four *ex-officio* officers suggested by the conference and approved by the council are: the president of the National Research Council, the deputy minister of the Department of Pensions and National Health, the president of the Canadian Medical Association and the president of