

tained for him an admiration and affection which lasted throughout his life. In the success of these men lay his greatest pride.

While the larger classes and the restriction of his teaching to the subjects of histology and neurology, after the establishment of the medical school, lessened his contact with students, it hardly diminished his influence, for he remained always a living ideal and the noblest ornament of the medical school.

Dr. Miller was born at Stirling, Mass., on March 29, 1858, the son of the Reverend William and Harriet Emily (Snow) Miller. With the foundation of his education laid in this cultured home, he attended Williston Academy at East Hampton, Mass. Afterward following a preceptorship under Dr. C. H. Hubbard at Essex, Conn., he entered Yale Medical School, from which he was graduated M.D. in 1879. Following graduation, he studied under Dr. Francis Delafield at the College of Physicians and Surgeons in New York for several months and then returned as laboratory instructor under Dr. Benjamin Silliman, Jr., at Yale. An infection, received at a post-mortem examination, led to a long illness. Upon recovery he deserted the laboratory for medical practice, which he carried on first at Clinton and later at Southbury, Conn.

His great tribulation, slowly developing deafness, drove him from medical practice back to the laboratory in 1889, when he became pathologist to the City and Memorial Hospitals in Worcester, Mass. A year later he became a fellow at Clark University, where he came under the influence of Dr. F. P. Mall and began his study of the lung. With the disruption and dispersion of the scientific faculty in 1892, Dr. Miller accepted an appointment as instructor in zoology at the University of Wisconsin. There he spent the rest of his academic life, with the exception of three years, one of which was spent in Leipzig and two at Johns Hopkins. He became emeritus professor of anatomy in 1924.

The honorary degree of doctor of science was con-

ferred upon Dr. Miller by the University of Cincinnati in 1924 and by the University of Wisconsin in 1926.

Other honors came to him. He was honorary member of the National Tuberculosis Association and in 1934 the association honored him with its Trudeau medal. He was an honorary member of both the Connecticut and Wisconsin Medical Societies. He was a Harvey Society lecturer in 1924. He was a fellow of the American Association for the Advancement of Science; the American Medical Association; the American Association of Anatomists (vice-president, 1909); American Association of the History of Medicine; Medical History Society of Chicago; Milwaukee Academy of Medicine; Wisconsin Academy; Deutsche Gesellschaft für Geschichte der Medizin und der Naturwissenschaften; Société Internationale d'Histoire de la Médecine; Union Internationale contre la Tuberculose.

Dr. Miller was twice married. His first wife, Carrie M. Bradley Miller, of Clinton, Conn., died in 1901. In 1912 he married Miss Alice Burdick, of Madison, who survives him.

C. H. BUNTING

RECENT DEATHS

DR. ARTHUR WHIPPLE SMITH, since 1920 professor of mathematics at Colgate University, died on February 11 at the age of sixty-three years.

REV. FRANCIS J. WENNINGER, professor of zoology and dean of the College of Science of the University of Notre Dame, died suddenly on February 12. He was in his fifty-second year.

DR. RALPH DANIEL REED, chief geologist of the Texas Company, Los Angeles, past president of the American Association of Petroleum Geologists, died on January 19 at the age of fifty-one years.

COLONEL R. E. CROMPTON, of London, pioneer electric lighting engineer, twice president of the Institute of Electrical Engineers, died on February 15 at the age of ninety-four years.

SCIENTIFIC EVENTS

A MINERAL MAP OF CANADA

THE diversity of mineral wealth of Canada and the wide-spread distribution of the mineral resources of the country are shown in a new mineral map of the Dominion issued recently by the Department of Mines and Resources, Ottawa. The map, which is on a scale of 100 miles to the inch, measuring 18 inches by 35 inches, shows the active sources of supply of the metals and minerals being produced in Canada, together with the known, but as yet non-productive sources of supply. On it are shown also the locations of lode gold and placer gold areas; of all lead, zinc,

copper, nickel, precious metals, iron and steel and other metallurgical plants; and of cement plants, petroleum refineries and fertilizer plants. Shown in colors are the geological provinces of the Dominion, the largest and most important of which, from the viewpoint of mineral production, is the Canadian Shield, which covers an area of approximately 2,000,000 square miles.

Compared with a similar map issued several years ago, the new map brings to light much evidence of the rapid headway that has since been made in Canadian mining. One instance is the appearance of many new

fields of mining activity, among them being the radium-silver operations at Great Bear Lake, and the new gold camp in the Yellowknife River area in the Northwest Territories. Another is the appearance of the air routes serving the mining fields across the Dominion. Few such services had been developed when the former map was issued. One of the longer of the air routes is shown extending from Edmonton to Resolution south of Great Slave Lake, from where it branches off to Aklavik and to Port Radium and Coppermine. Another extends from Edmonton to Whitehorse and other centers in Yukon.

Most of the principal metals and many of the principal non-metallic minerals are being produced in the Dominion, some of them, including sulfur, rock wool, nepheline syenite, radium and magnesite dolomite being fairly recent additions to the list.

ENTOMOLOGY AT DARTMOUTH COLLEGE

THE establishment at Dartmouth College has been announced of the Henry Clinton Fall Fund for the promotion of the study of entomology. The fund is a memorial to the late Henry Clinton Fall, entomologist of Tyngsboro, Mass., from whose estate a capital fund of \$5,000 has been received by the college. So that income for entomological research may be available at once, the bequest provides an additional amount for immediate expenditure.

The first use of the Fall Fund by the college will be to purchase entomological equipment for the Dartmouth College Museum, which plans a survey of insect fauna of the Hanover region as part of its program to promote knowledge of the economic entomology of the region. The survey will also result in important additions to the 40,000 specimens already possessed in the various entomological collections at Dartmouth.

Dr. Fall, who died last November in his seventy-seventh year, was an authority on American beetles. During the research which he carried on in addition to his work as high-school teacher, he collected some 200,000 mounted specimens. A graduate of Dartmouth in 1884, he was honored with the degree of doctor of science in 1929. He was a member of the permanent committee of the International Congress of Entomology at Brussels, and also held membership in the Entomological Society of America, the American Association for the Advancement of Science and the American Academy of Arts and Sciences.

The entomological collections in the Dartmouth College Museum have grown in the last ten years from virtually nothing to more than forty thousand specimens. Three quarters of these were acquired in 1929 through two gifts—the John Dexter Locke collection of moths, butterflies and beetles, numbering over 25,000 specimens, which was presented by Mrs. Moses Dyer Carbee, of Haverhill, N. H., and the Charles

Pliny Whitney collection of North American butterflies and moths, containing nearly 5,000 specimens, which was presented by Dr. Herbert Stillman Hutchinson, Dartmouth, '75, and recently transferred from the department of biology to the museum. The remaining 10,000 specimens are the result, in large measure, of the collecting activities of the staff and students, directed chiefly to the filling in of groups of insects not represented in these two collections. Numerous small collections have also been presented in recent years, and the foundation for a good general collection now exists.

Until now, however, the growth and development of the collections have been severely handicapped by insufficient storage containers and other equipment, and field work has necessarily been curtailed. The income from the Henry Clinton Fall Fund will be used primarily for this purpose, so that storage and study facilities may keep pace with the growth of the collection.

While the aim of the museum is to build up a general teaching collection of insects, field work will naturally be chiefly in Vermont, New Hampshire and Maine, where a thorough survey is being planned. In so far as New Hampshire is concerned, the museum will work in close cooperation with the recently organized Biological Institute of the University of New Hampshire, where a comprehensive survey is being organized.

REPORT OF THE PRESIDENT OF THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

ON June 30, 1939, the Carnegie Foundation for the Advancement of Teaching had resources of \$26,917,932. During the preceding year it received \$998,714 as income from securities. It disbursed \$1,963,279 on account of retiring allowances and widows' pensions, \$61,898 for studies conducted in its Division of Educational Enquiry and \$91,350 on grants for special research projects carried forward at American universities and by various bodies and associations.

Pertinent facts concerning the retiring allowances and widows' pensions of the foundation for the year ended June 30, 1939, are as follows:

Year's total expenditure for retiring allowances and pensions, \$1,963,279.

Increase over year ended June 30, 1938, \$2,073, as contrasted with \$38,372 for the preceding year.

New allowances and pensions begun, 174, as contrasted with 170 during the preceding year.

Retired teachers receiving new allowances, 123.

Average amount of new allowances, \$971.12.

Average age of 123 teachers retired during 1938-39, 68.17 years.

Average length of service of 123 teachers retired during 1938-39, 38.37 years.