can Mathematical Society in 1897, and he served as its secretary from 1897 to 1905.

Dean Holgate published a number of mathematical papers between 1892 and 1908, his most important ones dealing with certain ruled surfaces of the fourth order. His translation of "Reye's Geometrie der Lage," published in 1898, was an important contribution to our mathematical literature. Three years later he brought out a text-book, "Elementary Geometry, Plane and Solid," which was widely used in high schools and colleges. In 1911 he contributed an encyclopedic monograph on "Modern Pure Geometry" to J. W. A. Young's well-known volume entitled "Monographs on Modern Mathematics." Because of heavy administrative duties he made no further mathematical contributions for many years, but in 1930, at the age of seventy-one, he published his "Projective Pure Geometry," an excellently written book designed for college seniors and graduate students.

In recognition of his scientific standing, Dean Holgate's name was starred in the first edition of "American Men of Science," in which he was ranked among the forty leading American mathematicians in 1903. He served as a secretary of the International Congress of Mathematicians at Rome in 1908.

Starting in 1902, he served for seventeen years as dean of the College of Liberal Arts. To this office he gave unsparingly of energy and thought. He had a flair for such work, and demonstrated a remarkable ability for mastery of the details of the activities of the college and the university. Faculty and students alike found in the dean's office a genial clearing-house. No problem was too trivial to receive careful consideration; none too large to be faced courageously. Twice he was called upon to serve as acting president of the university, from 1904 to 1906 and again from 1916 to 1919. It was thus his responsibility to lead the university during the strenuous days of World War I, and he carried out the assignment with energy, patience and sound judgment. During these decades of administrative service he was a valuable member of many educational and civic committees, commissions and organizations. To mention only one, he was a leader in the formation of the North Central Association of Colleges and Secondary Schools, and was its president in 1917–1918. He won a high place for himself in the annals of his university by his success as an administrator.

In 1919, at the age of sixty, he retired from major administrative duties with the title of dean emeritus, but he continued his teaching for fifteen years. He spent one year, 1921–1922, as visiting professor of mathematics at the University of Nanking. This experience served to intensify his interest in foreign students, by whom he was regarded as an illustrious friend and an ever available adviser. During his long teaching career he inspired a host of students by his quiet enthusiasm, his clarity of expression and his scientific integrity.

To refer to Dean Holgate's university activities alone would give an inadequate account of his life, for he was long prominent in civic and religious affairs, particularly in administrative problems of the Methodist Episcopal Church. Serving five times as a member of the General Conference of the church, while momentous changes were being considered, he became a respected and influential participant in their sessions. He also served the church as a member of its Board of Education for Negroes, giving advice and guidance to several Negro colleges in their formative stages, in recognition of which they have named buildings in his honor. From 1924 until his death he was a member of the Board of Education of the church, being treasurer of the organization for four years. From 1923 to 1925 he was president of the Chicago Church Federation. This incomplete account of the official positions which he held is indicative of the wide influence which he exerted in fields outside the sphere of the university.

Dean Holgate was thrice honored with the LL.D. degree—by the University of Illinois in 1905, by Queen's University in 1919, and by Northwestern University in 1937.

We have mentioned the high points of Dean Holgate's scientific and public career, but those who knew him well will longest remember him as a generous and considerate friend, a man to whom his friends naturally turned for assistance or sane advice. To thousands of students of Northwestern University he will forever be "the Dean," a friend who always remembered their names and continued to have a personal interest in them. All who knew him will remember him for his staunch dependability, for his unfailing poise and dignity and for his granite integrity.

Dean Holgate is survived by four children—Eleanor (Mrs. Owen Lattimore), Robert Burdette, Barbara and Frances Burdette.

E. J. MOULTON

## RECENT DEATHS

THE death by suicide is reported of Dr. George Vaillant, director of the University of Pennsylvania Museum, previously of the American Museum of Natural History. He was forty-four years old.

DR. HAROLD ORVILLE WHITNALL, head of the department of geology of Colgate University, died on May 18 at the age of sixty-seven years.

DR. ELLEN B. FOOT, assistant professor of anesthesiology at the Cornell University College of Medicine

and chief of the department of anesthetics at the New York Hospital, died on May 11 at the age of thirty-two years.

DR. STANLEY WELLS KEMP, since 1936 director of the Plymouth Laboratories, England, secretary of the Marine Biological Association of the United Kingdom, died on May 16. He was sixty-four years old.

DR. HAROLD HIBBERT, professor of industrial and cellulose chemistry at McGill University, who retired in 1943, died on May 4 at the age of sixty-seven years.

# SCIENTIFIC EVENTS

## ACTIVITY OF PARICUTIN VOLCANO

DURING March, the effusive activity of Paricutin diminished while the explosive activity increased in intensity. All the lava vents close to the western base of the cone that were active during February died early in March. Of the two principal ones, that which opened on January 12 was extinguished on March 5, by which time a narrow, branching stream had extended northward for almost a mile. The other main vent in that vicinity, which opened on February 4, continued to discharge lava until approximately March 10. It sent a longer stream northward that first cascaded down steep slopes and then buried most of Paricutin Village not already inundated by the flows of 1943 and 1944. The "Aguan vent," which opened at the south base of the cone on or about November 10, 1944, continued to emit lava throughout March, though in diminishing amount. At the vent itself no fresh lava could be seen, only an active hornito shaped like a beehive. Apparently the lava, after flowing for half a mile through a concealed tunnel close to the southeast foot of the cone, broke through its crust and set out many new tongues that spread over the earlier already solidified Aguan lava to the east of the cone. One of these new tongues was injected beneath and thus upheaved the heavily ash-laden lava erupted from the parasitic cone of Zapicho in 1943. Such sill-like injections of new into old lavas have been a recurrent phenomenon at Paricutin.

Meanwhile the explosive activity of the main cone has been unusually intense. Indeed, during the latter part of March the pall of ash was so heavy and the mantle of newly fallen material was so stirred by winds that for most of the daylight hours the cone was completely hidden from view. At night, when the winds subsided, the flanks of the cone were brilliantly lit by showers of glowing bombs.

No new lava vent has opened at Paricutin since February 4; whether or not this crescendo of explosive activity heralds a new effusion remains to be seen. When the cone was last climbed, on March 5, it contained a single, deep, runnel-shaped crater within which were two small, more or less cylindrical pipes, one of which was lined with incandescent magma.

COMMITTEE OF THE NATIONAL RESEARCH COUNCIL ON THE STUDY OF THE PARICUTIN VOLCANO

## THE BAUSCH AND LOMB OPTICAL LIBRARY OF THE UNIVERSITY OF VIRGINIA

MEMBERS of the optical manufacturing industry have collaborated in recent months to bring up to date the Adolph Lomb Optical Library at the University of Virginia. When this collection on the science of optics was placed at the university, no provision was made for purchase of works published currently in that field of learning. Consequently the passage of twelve years found the library deficient in certain important aspects in which research has made advances. When this situation was brought to the attention of the optical industry, the following firms joined in establishing a fund of $1,100 with which to purchase the most significant recent publications for addition to the library: the Anchor Optical Corporation, New York City; Applied Optical Industries, New York City; Bonschur and Holmes Optical Company, Philadelphia; Libbey-Owens-Ford Glass Company, Toledo; the May Oil Burner Corporation, Baltimore; Minneapolis-Honeywell Regulator Company; Zenith Optical Company, Huntington; and Richard B. Tucker, '06, vice-president, Pittsburgh Plate Glass Company, Pittsburgh. Now that provision has been made for bringing the collection up to date, a movement is under way in the industry to establish a modest fiduciary fund, the income of which will be used to purchase books and thus ensure the continuance of the library as the outstanding collection in its field of science. Companies or individuals wishing to have a part in this movement are advised to communicate with Dr. Harry Clemons, librarian, University of Virginia, Charlottesville, Va.

A catalogue of the library is now in process of publication for complimentary distribution among the members of the industry who have participated in this service. The catalogue will carry an introduction by Dr. James P. C. Southall, for many years professor of physics at Columbia University.

## PITTSBURGH GEOLOGICAL SOCIETY

A REGIONAL society "to advance and disseminate geologic knowledge, and to provide a forum for geological problems" has been organized at Pittsburgh under the name of the Pittsburgh Geological Society. The first meeting was held on October 27, 1944. Details of organization have been worked out at the five