

ever inadequately, to the great loss that has come to the university in the departure of one of her most efficient and devoted servants, and to their profound sense of personal bereavement in the death of a staunch friend and wise counsellor.

With the exception of a three-year period of service in the United States Navy, Professor Spangler has been a member of the faculty of the university since 1881. For more than a quarter of a century he has labored for the advancement of the important interests committed to his trust, with a singleness of purpose and a self-sacrificing devotion that served as an inspiration to his associates, from the humblest to the highest. Endowed with quick initiative, resourcefulness, courage and self-reliance, his qualities of leadership stood out at their best at times of emergencies, such as the destruction by fire of the old Mechanical Engineering Building, and the almost immediate and orderly resumption of activities in an incomplete, new building, with such facilities as could be quickly improvised. A strict and almost military disciplinarian, he was no less rigid in the standards which he applied to himself. The respect and admiration in which he was held by his students ripened into affection as they came to see him at closer range, and recognized the bigness of heart and the warmth of friendship that lay, poorly concealed, by a certain mantle of austerity. There were few graduates who failed to turn to him at some time for helpful counsel in the perplexities of later years, or who had failed to accept it, even though it ran counter to their own promptings. They had implicit confidence in his judgment, and knew that his advice sprang from genuine, almost paternal solicitude for their welfare, and that it was never given lightly. For some years before his death, he published, at his own expense, and sent monthly to every graduate of his department, a little pamphlet called the *Connecting Rod*, designed to give them information about the department and about each other, in a simple, unaffected way. Everything he did, for that matter, was done in a like manner, for none

had a more wholesome contempt for the vanities, affectations or shallow pretenses of man.

He possessed to a remarkable degree the faculty of perceiving clearly, and almost intuitively, the essential elements of a seemingly difficult problem or complex situation, and he was as quick in action as in perception. Few excelled him in the clear discernment of the fallacies of an argument or in the directness of the challenge of such fallacies. Of a thoroughly progressive bent, he did not allow himself to be carried away by the educational fads and follies of the hour. The business of education was, to him, a serious business, with which liberties were not to be lightly taken. Although his talents were frequently brought into requisition in outer circles, his duties as a teacher were, to him, ever of paramount importance, on which he allowed no professional obligations of a busy lifetime to trench unduly.

His university friends find it hard, indeed, to realize that his commanding figure has been seen upon the campus for the last time, and that in their councils his voice is stilled forever. None know better than they the sterling worth, the far-reaching significance of his performances in the service of the university, and especially of the department for which he had planned and labored so indefatigably, with such wholehearted devotion, and on which he has left the enduring impress of his rare powers.

THOMAS HARRISON MONTGOMERY¹

THE University of Pennsylvania has suffered an irreparable loss in the death of Dr. Thomas Harrison Montgomery, Jr., Professor of Zoology, who has done so much to illumine his favorite science, and who has endeared himself to his colleagues, both in this and other universities, at home and abroad.

Professor Montgomery was a son of the late Thomas Harrison Montgomery, for many years president of the American Fire Insurance Company of Philadelphia, who was a descendant of the Montgomerys of Eglinton, an

¹ Minute adopted by the faculties of the University of Pennsylvania.

ancient Norman family long settled in Scotland. He was also a great, great grandson of William White, D.D., LL.D., a graduate and trustee of the University of Pennsylvania, and first Bishop of the Protestant Episcopal Diocese of Pennsylvania. Professor Montgomery's mother, Anna Morton, was the daughter of Samuel George Morton, one of the founders of the science of craniology, and president of the Academy of Natural Sciences of Philadelphia, which is but this week celebrating its centenary.

Professor Montgomery was born in New York, March 5, 1873, and early manifested traits worthy of his ancestors. After two years as a student in the University of Pennsylvania, 1889 to 1891, he resolved to continue his studies in the University of Berlin, and secured his family's consent to the plan. His indefatigable industry immediately attracted the attention of his fellow-students, one of whom has related his astonishment at seeing a boy of eighteen working with unflagging zeal eighteen hours a day, with almost no rest or recreation, in the simultaneous acquisition of a difficult language and a group of the natural sciences. He received his degree of Ph.D. from the University of Berlin in 1894, and shortly after his return to America, was assigned by the University of Pennsylvania, a room for research work in the Wistar Institute, being the first person so appointed. During the next four years he labored with the same never failing energy, issuing a series of brilliant monographs upon some of the most difficult problems of zoology. In 1898 he was appointed assistant professor of zoology in the University of Pennsylvania. In 1903 he was called to the University of Texas as professor of zoology, but in 1908 he was recalled to take charge of the department of zoology in the University of Pennsylvania. Shortly afterward he was intrusted by the university with the chief responsibility for the planning and construction of the new Zoological Laboratory. Into this labor he threw himself with his usual untiring energy, giving personal attention to every detail. This building was completed and dedicated in 1911, and will

stand as a monument to his foresight and his executive ability.

The results of Professor Montgomery's research in the technically difficult problems of cellular structure and its relation to the phenomena of heredity and the determination of sex; in the activities, habits and development of spiders and birds; in the structure and development of various rotifers and insects and in the analysis of racial descent and of evolution, have been embodied in more than eighty published monographs. He has also published a volume, "Analysis of Racial Descent in Animals," 1906, and has left in manuscript a nearly completed work on cytology.

Professor Montgomery married, in 1901, Priscilla Braislin, daughter of John and Elizabeth Braislin, of Crosswicks, New Jersey. He is survived by his widow and three sons. Professor Montgomery was essentially a scholar and teacher, and for the greater part of his short life, his energies and interests were largely absorbed in his professional work, but he was much more; he was a man of the most sterling integrity, carrying into all the relations of life the sincerity, candor and faithfulness to truth which made him great in the realm of science. Those of his colleagues on the faculty, who came only professionally into contact with him, will, perhaps, remember these traits most vividly; but those of his friends who were privileged to know something of his home life, of his wholesouled devotion as husband, father and friend, will carry with them memories not less vivid and even more true of a noble and lovable man whose loss they will not cease to mourn.

We, his fellow-professors in the University of Pennsylvania, extend, therefore, to Mrs. Montgomery and the other members of his family, our sincere sympathy in their bereavement, and direct the secretary to transmit these resolutions to the public press and the scientific journals in testimony of Professor Montgomery's distinguished services to science, education and the University of Pennsylvania, and as an expression of the esteem

and regard in which he is held by all his friends and associates.

SCIENTIFIC NOTES AND NEWS

PROFESSOR RALPH STOCKMAN TARR, head of the department of physical geography at Cornell University, known for his important contributions to geology and geography, died on March 21, aged forty-eight years.

THE resignation of Charles Loring Jackson, Erving professor of chemistry at Harvard University, has been accepted to take effect on September 1. Professor Jackson has been on the teaching staff of the university for forty-four years.

DR. HENRY S. CARHART, late professor of physics in the University of Michigan, now retired on a Carnegie grant, has become connected with Throop Polytechnic Institute, in Pasadena, where he has taken up his home. He will have a special laboratory equipped with apparatus for his researches in the institute.

PROFESSOR JOHN F. HAYFORD, dean of the college of engineering of Northwestern University, has been appointed a research associate by the Carnegie Institution of Washington and has received a grant of \$6,000 in aid of his investigation of the laws of evaporation and steam flow.

M. BIGOURDAN, of the National Observatory, Paris, has been elected president of the Paris Bureau des Longitudes for the present year. M. Baillaud becomes vice-president and M. Andoyer, secretary.

THE Entomological Society of America has named Professor J. H. Comstock, Cornell University; Dr. Henry Skinner, Academy of Natural Sciences, Philadelphia; Dr. P. P. Calvert, University of Pennsylvania; Professor Herbert Osborn, Ohio State University; Professor Vernon L. Kellogg, Leland Stanford Jr. University, and Dr. W. J. Holland, director of the Carnegie Museum of Pittsburgh, as delegates to represent the society at the Second International Congress of Entomology, to be held at Oxford, England, from August 5 to 10, 1912.

PROFESSOR WILLIAM H. HOBBS, professor of geology, has been appointed by President Hutchins to represent the University of Michigan at the two hundred and fiftieth anniversary of the Royal Society of London, which will be held from July 16 to 18. Professor Hobbs has leave of absence for the coming year.

M. LIPPMANN, president of the Paris Academy of Sciences, will represent the academy at the celebration of the two hundred and fiftieth anniversary of the granting of the second charter to the Royal Society, which will be celebrated in July.

VICE-PRESIDENT T. J. BURRILL and Professor S. A. Forbes, of the University of Illinois, have been in the east attending the anniversary celebration of the Philadelphia Academy of Natural Science.

DR. ADOLF MEYER, professor of psychiatry in the Johns Hopkins Medical School, sailed on March 16 for Switzerland.

FREDERICK H. BLODGETT, Ph.D. (Hopkins '10), acting professor of biology and geology, has resigned from Roanoke College and assumed the duties of plant pathologist and physiologist at the Texas Experiment Station, College Station, Texas, on February 1. The work interrupted by the sudden death of Dr. Raymond H. Pond last summer will be resumed and some additional attention paid to plant diseases.

PROFESSOR ELLSWORTH HUNTINGTON, of Yale University, delivered three illustrated lectures on the "Desert," at the University of Michigan, beginning on Wednesday afternoon, February 28. In his first lecture he discussed Chinese Turkestan; Thursday, Palestine, and on Friday, March 1, "Historic Changes of the Climate in Relation to Geographical Effects."

ON March 1, Dr. C. F. Hodge, professor of biology in Clark College, lectured before a convocation of the students and faculty of Indiana University, on "Civic Biology." In the evening Professor Hodge addressed the members of Sigma Xi and invited guests on the teaching of biology.