

discovery of the large striated chromosomes of the cells of the Malpighian tubes and of the salivary glands of Dipteran larvae by Heitz and Bauer and by Painter in 1933 opened the way for demonstrating some of the earlier conclusions reached by genetic analysis. They pointed out the constancy in the seriation of the banding along these chromosomes, and Painter emphasized the point to point apposition of the two homologous strands. He also went further and demonstrated the identity of particular sections of the salivary chromosomes with particular sections of the genetic map by utilizing the available materials for translocations, deficiencies and inversions. Bridges (1935) then made an elaborate study of the salivary chromosomes, and his more recent work has more than doubled the number of visible bands. These maps bid fair to become the standard ones for *D. melanogaster*. It should be pointed out that the identification of the salivary bands with the genetic map would not have been possible were it not that during the preceding twenty-three years the genetic maps had been built up to a point where such comparisons had a real, demonstrable basis. While many workers had contributed to bring the genetic maps to their status in 1933 it was Bridges in particular who had made a more detailed and critical study of the maps than had any single one of his contemporaries. It is generally recognized that the building up of stocks, containing efficient combinations of genes suitable for special genetic problems, was carried out by Bridges. Any one who is familiar with the labor and ingenuity involved in making such combinations will realize what a very great assistance Bridges has given to the workers in this field.

In the course of the 25 years that the map-making has been going on, more than 900 stocks have been constructed that are invaluable for the pursuit of many genetic problems. There is no other material comparable with this, and to-day the "Carnegie Group" is faced with the responsibility of maintaining these cultures, each of which is carried in three-fold for safety. This work involves most careful supervision to insure the purity of the material; for experience has only too well shown that if not carefully watched the stocks may deteriorate. These stocks are available to-day for research work anywhere in the world and have been widely used.

Since 1934 Bridges and Demerec have printed for private distribution (under the auspices of the Carnegie Institution of Washington) nine large volumes called "Drosophila Information Service" that bring together the vast amount of work in this field up to date. This undertaking was arduous in the extreme, and I am afraid it overtaxed Bridges and diverted him to some extent from his more important pioneering work. He has left behind a very large amount of unpublished data. Fortunately the requirements of

the Carnegie grant were such that each year a report of progress had to be made (see Reports Nos. 15-37). In consequence the twenty-three reports give in briefest summary the results that Bridges had obtained. Whether the elaborate data, that are on file, on which these reports rest, can ever be fully utilized is questionable; but Bridges accomplished so much other work they will not be needed to place him amongst the leading geneticists of his time.

T. H. MORGAN

HENRY VAN PETERS WILSON

HENRY VAN PETERS WILSON, Kenan professor of zoology in the University of North Carolina, died in Duke Hospital, Durham, N. C., on January 4, 1939, and was buried at Chapel Hill on January 6, a few weeks prior to his seventy-sixth birthday. He was born in Baltimore, Maryland, on February 16, 1863, and was a son of the Reverend Samuel A. Wilson and Sophia Anne Stansbury Wilson.

Professor Wilson was educated in the schools of Baltimore and Johns Hopkins University. Following graduation from Hopkins in 1883, he was registered for a short time in the Medical School of the University of Maryland, but soon found that his interests were primarily in biological science rather than in clinical medicine. He transferred to the graduate school of Johns Hopkins and began work in zoology under Professor W. K. Brooks, who at that time was drawing into his laboratory a number of able young men. Under the inspiring tutelage of Professor Brooks, and in company with these eager fellow students, many of whom have since added luster to American science, H. V. Wilson worked for a number of years. He received the degree of doctor of philosophy in 1888 and continued at Hopkins as Bruce fellow until 1889. From 1889 to 1901 he worked at Woods Hole in the laboratory of the U. S. Fish Commission.

In 1891 Dr. Wilson, then a young man of twenty-eight, went to the University of North Carolina as professor of biology. With the separation of the departments of botany and zoology in 1904 he became professor of zoology, and he continued as head of that department until 1936. He became Kenan professor of zoology in 1917. At Chapel Hill Professor Wilson soon came to be recognized as a critical and inspiring teacher. Severe discipline and rigorous thinking became outstanding characteristics of his department. His insistence on thorough scholarship and his enthusiasm for research, shared by a number of his young colleagues, were important influences in laying the foundation for a tradition of creative scholarship in what was then a small isolated institution with an honorable history but suffering from the post-war poverty of the South. This enthusiasm for research and for building up the facilities for research caused

him to exert his influence towards the establishment of the U. S. Fisheries Laboratory at Beaufort, N. C., and he served as director of it from 1898 to 1901. This laboratory was always near to his heart, and he spent many happy summers there engaged in the investigation of problems of marine biology.

Throughout his long productive life he was nearly always working but never hurried. Despite a heavy load of teaching and administrative duties, his research accomplishments are impressive. He was one of the foremost authorities of the world in the classification of the sponges, and some of his papers in other fields are classical. It is appropriate to mention here his work on the embryology of the sponges, coelenterates and lower vertebrates and his dramatic and widely known work on the regeneration of sponges and coelenterates from dissociated cells. Just a few months before his death he reported to the National Academy of Sciences his final fundamental research dealing with the participation of vacuoles in the formation of cell membranes.

Dr. Wilson's qualities of character and mind made him a vivid and forceful personality and a delightful and stimulating companion in his hours of relaxation. Simple in his habits, inherently and inescapably honest, he had no patience with pretense or complacency. His opinions and criticisms were searching and straightforward, sometimes to the point of sharpness, but, being kindly and tolerant by nature, he gained not only the respect but the affection and devotion of all those who knew him well. Although primarily a biologist, his intellectual interests were far-ranging. The writer, who was closely associated with him for several years, recalls with a feeling of stimulation and pleasure how his incisive mind would cut through the superficialities investing any subject and how his comments would illuminate a wide variety of topics.

Although he was not aggressive for publicity and honors, Dr. Wilson's merit was recognized by his fellow biologists throughout the world. He served as president of the American Society of Zoologists and was a member of the National Academy of Sciences, American Philosophical Society, American Society of Naturalists, Boston Society of Natural History, Société Linnéenne de Lyon, etc.

In 1893 he married Edith Theresa Stickney, of Boston. He is survived by two daughters, Mrs. Thorn-dike Saville, of New York City, and Mrs. Howell Peacock, of Philadelphia, and by one son, Dr. H. V. Wilson, Jr., of Dover, Delaware.

W. C. GEORGE

RECENT DEATHS AND MEMORIALS

DR. ALBERT SAUVEUR, emeritus professor of metal-lurgy and metallography at Harvard University, died on January 26 at the age of seventy-five years.

PROFESSOR JOHN HENRY SCHAFFNER, since 1911 professor of botany at the Ohio State University, with which he had been associated since 1897, died on Janu-ary 27 at the age of seventy-two years.

DR. EDWARD SAPIR, since 1931 professor of anthro-pology and linguistics at Yale University, died on February 4 at the age of fifty-five years.

DR. GEORGE H. GIRTY, geologist and paleontologist of the U. S. Geological Survey, a specialist on carbon-iferous formations and faunas, died on January 27. He was sixty-nine years of age.

PROFESSOR RALPH CLEMENT BRYANT, a member of the faculty of the Yale School of Forestry, since 1911 as professor of lumbering, died on February 1 at the age of sixty-two years.

ARTHUR N. LEEDS, research associate in botany at the Philadelphia Academy of Natural Sciences, died on January 26 at the age of sixty-eight years.

EDGAR HERBERT WELLS, since 1921 president of the New Mexico School of Mines at Socorro, N. M., com-mitted suicide on January 8. He was fifty-one years old. Mr. Wells had been professor of geology and mineralogy of the college from 1917 to 1925 and state geologist from 1925 to 1927.

FORMER associates of the late Dr. T. Wingate Todd, professor of surgery of the School of Medicine of Western Reserve University, who died on December 28, held a memorial service in his honor on January 15. Dr. Elliot C. Cutler, professor of surgery of Harvard University, formerly of Western Reserve University, and the Hon. Harold H. Burton, Mayor of Cleveland, gave the principal addresses.

SCIENTIFIC EVENTS

THE NATIONAL HEALTH PROGRAM

A NATIONAL health program, which would pro-vide for expenditures by 1949 of up to \$850,000,000 annually from state and Federal funds, was recom-mended to President Roosevelt last July by his special Inter-Departmental Committee on Health and Welfare. While the proposal stirred up some opposition in med-ical circles, the American Medical Association agreed

last September with the Inter-Departmental Committee that there is a vital need for an extension of existing medical facilities, and Senator Wagner has prepared a bill calling for an appropriation of \$50,000,000.

Money appropriated for the health program would, according to recommendations, be used to:

Pay physicians to care for those too poor to afford med-ical care; assist existing hospitals and build new ones