OBITUARY

CASWELL GRAVE

January 24, 1870—January 8, 1944

CASWELL GRAVE was born and raised on a farm near Monrovia, Indiana. His parents were industrious and prosperous members in good standing of the Society of Friends, to which nearly every one in the community belonged. He was therefore from childhood surrounded by wholesome religious and social influences. He carried his full share of the responsibilities and often arduous duties of life on a farm until he graduated from Earlham College and entered the Johns Hopkins University in 1895, where he soon came under the influence of the eminent philosophical zoologist, W. K. Brooks. He remained in this institution as student, teacher and investigator until 1919, when he was called to Washington University, St. Louis, as professor of zoology and head of the department. He held this position until he retired in 1939 and moved to his new home in Winter Park, Fla.

Soon after graduating from the Johns Hopkins University with the Ph.D. degree he began investigations during the long summer vacations in the laboratory of the U. S. Commisison of Fish and Fisheries, first at Woods Hole, Mass., and later at Beaufort, N. C., where he was director of the laboratory for four seasons (1902–6). Here he became interested in the biology and the culture of the oyster, and later, after having devoted nearly his entire time to this subject for six years (1906–12) as shellfish commissioner of Maryland, he was widely recognized as the foremost expert on the subject in this country.

His investigations were extraordinarily ingenious, thorough and comprehensive and his writings rich in thoroughly substantiated, wise counsel concerning especially the oyster industry; counsel which although unfortunately frequently disregarded, has nevertheless been of great practical value.

Dr. Grave was for many years closely associated with the Marine Biological Laboratory at Woods Hole, Mass., as student, instructor, investigator and trustee (1901–44). Here and in the Carnegie Laboratory at the Dry Tortugas, Fla., he devoted much time to a comprehensive series of wisely planned and meticulously executed studies concerning the structure, development and interrelationship of ascidians. These studies were still in progress at the time of his death. The results obtained are profound in significance, especially those concerning the factors involved in the metamorphosis of the tadpoles.

In his extensive experience as a teacher and an executive Dr. Grave was eminently successful. He was always clear, precise, sympathetic, sincere and above all absolutely honest. The climax of his life's work in these fields was reached in Washington University, where in some ten years he built up a department from almost nothing to one of the foremost in the country, in research as well as in teaching.

For more than thirty years Caswell Grave was one of my most intimate associates. He was ever most generous in collaboration and very helpful and encouraging in criticism; wise in counsel and congenial in social intercourse, a true and trusted friend.

S. O. MAST

JOHNS HOPKINS UNIVERSITY

RECENT DEATHS

DR. LEO HENDRIK BAEKELAND, honorary professor of chemical engineering of Columbia University, inventor of bakelite, died on February 23. He was eighty years old.

DR. EDWARD OSCAR ULRICH, geologist and paleontologist, died on February 22 at the age of eighty-seven years. Dr. Ulrich was a member of the U. S. Geological Survey from 1897 until his retirement in 1932. Since then he has continued his work at the U. S. National Museum, of which he had been an associate since 1914.

DR. DOUGLAS WILSON JOHNSON, Newberry professor of geology and chairman of the department of geology of Columbia University, died on February 24. He was sixty-five years old.

DR. FREDERICK GARDNER CLAPP, consulting geologist and petroleum engineer of New York City, died on February 18. He was sixty-four years old.

ELTON DAVID WALKER, professor emeritus of civil engineering at Pennsylvania State College, died on February 24 at the age of seventy-four years. He had been affiliated with the college since 1900, serving as head of the department of civil engineering from 1907 until his retirement in 1939.

DR. ROY E. DICKERSON, petroleum specialist for the technical branch of the Foreign Economic Administration, died on February 24 in his sixty-seventh year.

MILLER REESE HUTCHISON, of the Hutchison Laboratory, New York City, engineer and inventor, died on February 16 at the age of sixty-seven years.

DR. LEE WALLACE DEAN, professor emeritus of otolaryngology of the School of Medicine of Washington University, St. Louis, died on February 8. He was seventy-one years old.

DR. CHARLES W. BURR, professor emeritus of mental diseases at the School of Medicine of the Univer-

sity of Pennsylvania, died on February 19. He was eighty-two years old.

DR. ELEANOR ROWLAND WEMBRIDGE, psychologist, investigator of the Supreme Court, Los Angeles County, California, died on February 20 at the age of fifty years.

DR. ALEXANDER PRIMROSE, from 1918 to 1931 professor of surgery and from 1920 to 1932 dean of the faculty of medicine of the University of Toronto, died on February 8. He was eighty-two years old.

SIR JOHN FARMER, F.R.S., professor emeritus of botany, formerly director of the biological laboratories of the Imperial College of Science and Technology, South Kensington, died on January 26 in his seventy-ninth year.

DR. WILLIAM WHITEMAN CARLTON TOPLEY, from 1927 to 1941 professor of bacteriology and immunology at the University of London, and director of the School of Hygiene and Tropical Medicine, died on January 21 at the age of fifty-eight years. He was a member of the Scientific Advisory Committee of the War Cabinet and of the Colonial Research Advisory Committee.

SCIENTIFIC EVENTS

THE IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The Times, London, for January 14 prints the following letter from R. V. Southwell, rector of the Imperial College of Science and Technology, South Kensington:

Shortly after the last world war various colleges of Oxford and Cambridge "paired" in a voluntary and informal arrangement whereby each college so allied extends to members of its "opposite number" hospitality during occasional visits and the normal privileges of its common room. To-day a somewhat similar engagement is announced. The Massachusetts Institute of Technology has accepted proposals made by the Imperial College of Science and Technology to its president, Dr. Karl T. Compton, during his short visit to this country last summer, and the two institutions are planning to maintain, after the war, a regular interchange both of staff and of post-graduate students.

Somewhat exceptionally, of the two the American has the longer history. Its charter, stating among its purposes "the advancement, development, and practical application of science in connection with arts, agriculture, manufactures and commerce," was granted by the Commonwealth in 1861. Not until nearly fifty years later (in 1907) was Imperial College established with a charter stating closely similar aims: ". . . to provide . . . the most advanced training and research in various branches of science, especially in its application to industry." Thus "M.I.T.," as it is known throughout the world, has had a life of more than 80 years, and those years of peace; Imperial College has existed hardly half as long, and of its life nearly one quarter has been lived in time of war.

In view of this inequality, it need not be matter for surprise or jealousy that the American institution has the wider fame. It had, moreover, the advantage of being planned for its technological purpose from the beginning (by William Barton Rogers, of Virginia, its first president); Imperial College (as is the English way) was formed by an incorporation of three existing colleges, founded independently and with different aims. Add to this that in general the British bent has been towards pure science, that of America towards the side of practical application, and the fame of "M.I.T." requires no further explanation. It is ground for the more satisfaction to Imperial College that she should thus be recognized as its "opposite number"; and the alliance is an earnest of her intention to develop to the utmost, after the war, advanced technological instruction and research.

THE PROPOSED SURVEY OF MARINE AND FRESH-WATER FISHERIES

SENATOR JOSIAH BAILEY, of North Carolina, chairman of the Senate Committee on Commerce, introduced in the Senate on January 26 a resolution directing the Fish and Wildlife Service to conduct a survey of the character, extent and condition of the marine and fresh-water fishery resources and other aquatic resources of the United States and its territories, including the high seas resources in which the United States may have interest or rights. The resolution sets forth in detail the type of information desired and requires a report on commercial and recreational fisheries to be submitted to Congress not later than January 1 next. If the resolution is adopted, it will be the first time since 1871 that Congress has of its own initiative directed a report of this nature.

Charles E. Jackson, assistant deputy coordinator of fisheries, in his remarks before the consultants of the Office of the Coordinator of Fisheries on February 3 spoke in part as follows:

To carry on proper exploration of the possibilities of our fisheries, a research vessel or vessels are essential. The United States is the only important maritime nation that is without a fishery research vessel, although our coastline is far more extensive than that of nations that have long had adequate research equipment. The history of our recent efforts to obtain a vessel are worth recounting briefly. The old *Albatross II* which the former Bureau of Fisheries operated was practically worn out in 1934, and since the Government policy at that time was to reduce expenses we could not justify its operation ex-