I can bear grateful witness to the freedom of opportunity which can exist under an enlightened organization and control, exercised on behalf of the government. I have no reason to suppose that the conditions are otherwise under the other research councils. Nor should we lose sight of the fact that a further large proportion of the free scientific research of the country is now indebted to support from the state through grants to the universities, administered without any trace of detailed government control.

While, therefore, the existing mechanisms for the support of science by the state are doubtless susceptible of improvement at one point or another, I find no reason to fear any threat to the freedom of science from them, or from any natural development on those lines. Nor do I fear it from a wider use of the organized application of science and scientific method to problems of public welfare; nor, again, from a more effective access of scientific knowledge to those responsible for government. A year ago Sir William Bragg told the society of the formation of the Scientific Advisory Committee to the War Cabinet, under the chairmanship of Lord Hankey, with the president and two secretaries of this society as members *ex officio*. The representation of the society has, indeed, been strengthened since then, and in a manner most welcome, by the fact that, though I have succeeded him *ex officio*, Sir William Bragg still gives his wisdom and experience to the work of that committee, as an extra member.

There is one direction, however, in which I do find some reason to fear for the freedom of science. If science should become entangled in controversial politics, through the over-eagerness of its advocates and champions to invoke the sanction of science, or to claim its potentialities, in support of any special political doctrine, then indeed I believe that the threat to its freedom might become a real danger. Let there be no misunderstanding of my meaning. I am not abusing the privilege of this chair by using "controversial" as an epithet, to be applied to political opinions which I do not happen to share. I see danger if the name of science, or the very cause of its freedom, should become involved as a battle cry in a campaign on behalf of any political system, whether its opponents would describe it as revolutionary or reactionary. If science were allowed thus to be used as a weapon of political pressure, it would be impossible to protect science itself eventually from the pressure of sectional politics. If that should happen the dangers are, I believe, beyond dispute—the danger, for example, that fundamental researches, having no immediately practical appeal, would be allowed to fall into arrears through relative neglect; or the danger that the rigid standards of true science would be relaxed, by allowing the convenience of results for policy or for propaganda to enter into the assessment of their validity as evidence. This society, with its firm and unbroken tradition of complete aloofness from political controversy, may still find it an important part of its function, to keep watch and, if necessary, to stand without compromise, for the right and the duty of science to seek the truth for its own sake, in complete freedom from any kind of extraneous influence. I hope, indeed, that there will never be need thus to invoke our tradition, to protect the freedom and the integrity of science from the enthusiasm and the advocacy of any of its friends.

OBITUARY

FREDERICK HUTTON GETMAN

DR. FREDERICK HUTTON GETMAN, physical chemist, died suddenly on December 2, 1941, at the Stamford Hospital in Stamford, Conn. He had been in failing health for several months but in September attended the meeting of the American Chemical Society in Atlantic City, where he presented a paper.

He was born in Oswego, N. Y., on February 9, 1877. He was the son of Charles Henry and Alice (Peake) Getman. The family had a very considerable fortune, made in the lumber business, and young Getman had an assured position in business if he chose to follow his father's calling. However, his natural inclinations were along other lines. He early developed a taste for music, which remained with him throughout life. He was an excellent organist. Just when he decided to make science his major interest in life is not known to the writer, whether it was under Mallet or Remsen; but we have his own testimony of his love and admiration for the latter. He was educated at Rensselaer Polytechnic Institute, Lehigh University and the Department of Chemistry at the University of Virginia, from which he graduated in 1896. He was an instructor in chemistry and physics in the Stamford High School from 1897–1901. He then went to the Johns Hopkins University, where he received his doctorate in physical chemistry in 1903. He was fellow in physical chemistry at the Johns Hopkins University from 1901 to 1903 but remained as fellow by courtesy during the following year. He then became Carnegie research assistant for the year 1903–1904. Dr. Getman's first position after leaving the Johns Hopkins was as lecturer in physical chemistry at the College of the City of New York. He was then lecturer at Columbia University in physics from 1907 to 1908. In 1909 he became associate pro-

fessor in chemistry at Bryn Mawr College, where he remained for six years.

The need for his counsel at Stamford in his father's business became so pressing that he then decided to change his base to Stamford, although continuing his scientific interests. He took an increasing responsibility in the Getman and Judd Company, of which he became vice-president, but at the same time he built and equipped the Hillside Laboratory, of which he was the director.

Dr. Getman's researches were begun with Dr. Harry C. Jones on the subject of "Hydration in Solution." They achieved notable results from their study of the freezing points of solutions. At Bryn Mawr Dr. Getman continued his work on solutions, making a study of the viscosity of various solutions. At Stamford he installed refractometric and spectroscopic equipment for the study of solutions. Later work was devoted to electrode potentials and chemical activity. The titles of his various papers taken from *Chemical Abstracts* are much too numerous to give in detail.

Dr. Getman was author of several books, of which two will be referred to here. His "Outlines of Physical Chemistry," of late years in cooperation with Dr. Daniels, has gone through many editions and has been a standard text-book in American colleges for nearly a generation, excelling in clarity, conciseness and scholarship. His "Life of Remsen" was published by the *Journal of Chemical Education* as a pioneering effort in the publication of the lives of American chemists. Dr. Getman was engaged at the time of his death in securing the material for the publication of the lives of other American chemists. It is hoped that this work may be continued in other hands.

The broad interests of Dr. Getman are indicated by the fact that he was director of the Stamford Hospital, the Stamford Trust Company, the Ferguson Library and president of the Stamford Symphony Society. On trips in the West he transcribed some of the songs of the American Indians which he worked over into themes suitable for performance by orchestras. He was also active in the Presbyterian Church of Stamford. On November 26, 1906, he married Miss Ellen M. Holbrook, of Plymouth, Mass., who survives him.

EUGENE C. BINGHAM

LAFAYETTE COLLEGE

RECENT DEATHS

DR. ALEXANDER LOWY, professor of organic chemistry at the University of Pittsburgh, died on December 25 at the age of fifty-two years.

DR. LEON PRATT ALFORD, professor of administrative engineering at New York University, chairman of the department of industrial engineering, died on January 2 at the age of sixty-five years.

JOHN W. KIDD, dean of the School of Engineering of the Texas College of Mines at El Paso, died on December 29. He was sixty years old.

J. H. RILEY, associate curator in the Division of Birds of the U. S. National Museum, died on December 17. Mr. Riley had been associated with the division since 1896.

SCIENTIFIC EVENTS

DEVELOPMENTS IN AGRICULTURAL RESEARCH IN GREAT BRITAIN[1]

THE extended field of activity and additional financial resources which have recently been granted by the government to the Agricultural Research Council have opened the door to new developments in this branch of applied science. A large part of the council's activities will still be devoted to coordinating, and advising on, the work of the various research institutes to which the Ministry of Agriculture and Fisheries and the Department of Agriculture for Scotland are making maintenance grants, and to furthering the interests of these institutes in every possible way; but it is the council's intention to devote some part of the funds to be expended at its own discretion, for which it is answerable to the Lord President of the Council, to the furtherance of agricultural research in university departments and to the enlargement of its own scientific staff. It is, in particular, the council's desire to encourage both senior and junior research workers in the biological sciences to enter the agricultural field. In pursuance of this policy, the council has established two new research units under its direct control, a Unit of Animal Physiology and a Unit of Soil Enzyme Chemistry.

The Unit of Animal Physiology will be under the direction of Sir Joseph Barcroft, with the assistance of Mr. A. T. Phillipson and Dr. R. A. McAnally. This unit will, by agreement with Professor E. D. Adrian, be housed in the Department of Physiology at Cambridge, and will work in close liaison with the Institute of Animal Pathology and the Institute of Animal Nutrition. In the first instance, the staff of this unit will devote a large part of their time to the study of ruminant digestion. The Unit of Soil Enzyme Chemistry will be under the direction of Dr. J. H. Quastel, assisted by Dr. P. J. G. Mann and D. M. Webley. By agreement with Sir John Russell,

[1] *Nature.*