OBITUARY

RECENT DEATHS

DR. WILLIAM FRANCIS MAGIE, Joseph Henry professor of physics at Princeton University from 1890 until his retirement with the title emeritus in 1929, dean of the faculty from 1912 to 1925, died on June 5. He was eighty-four years old.

DR. CHARLES F. MARVIN, who retired in 1934 after serving as chief of the United States Weather Bureau for twenty-one years, died on June 5 at the age of eighty-four years.

WESLEY P. FLINT, chief entomologist of the Illinois State Natural History Survey and of the College of Agriculture of the University of Illinois, died on June 3 at the age of sixty-one years.

DR. MARION A. AMES, professor of chemistry and chairman of the Division of Natural Sciences at Elmira College, died on June 4. She was forty-four years old.

EDWIN M. BAKER, professor of chemical engineering at the University of Michigan, died on May 26 at the age of fifty years.

MILNOR R. FREELAND, since 1930 resident chemist at the Presbyterian Hospital of Chicago, died on May 4 at the age of forty-two years.

DR. JOHN W. RITCHIE, science editor of the World Book Company, formerly professor of biology at Maryville (Tenn.) College and the College of William and Mary, Williamsburg, Va., died on May 29 at the age of seventy-one years.

The Cleveland Clinic Quarterly dedicated its April issue to the memory of the late Dr. George Crile, a founder and former president of the Cleveland Clinic Foundation, and prints the addresses that were presented at the memorial service for Dr. Crile at Western Reserve University on January 24.

THE Council of the American Mathematical Society has adopted the following resolution on the death of Professor E. R. Hedrick: "The Council of the American Mathematical Society records its deep sense of loss in the death on February 3, 1943, of Earle Raymond Hedrick. As an active member of the society during four decades of its unprecedented growth and development, he made contributions which were great in number and varied in character. He gave abundantly of his time, thought and energy to the society and served it in the official capacities of council member, trustee, vice-president, president and editor-in-chief of the *Bulletin*. Through membership on many important committees both within the society and outside of it, he labored unceasingly toward the advancement of the interests and prestige of mathematics at all levels. His activities in the Mathematical Association of America, the National Council of Teachers of Mathematics and in numerous engineering and other scientific societies were extensive and outstanding to a degree hard to comprehend in view of his heavy involvement in society and other responsibilities. Professor Hedrick had a rare combination of broad interests, outstanding skill at logical and thorough analysis, good judgment and ability to work effectively with other people. These characteristics invariably singled him out and placed him in a position of leadership."

SCIENTIFIC EVENTS

AVALANCHE RESEARCH IN SWITZERLAND[1]

DURING the War of 1914–18 the number of avalanche fatalities among the armies in alpine regions was very high; in the period between the two wars, the influx of winter visitors to the Alps was followed by an alarming increase in accidents due to inexperience in snow-craft. It became obvious that a proper study of snow and avalanches was needed. There followed the private research work of individuals in many parts of Central Europe, who in turn were succeeded by more elaborately organized groups. In 1934 the Swiss authorities inaugurated a small research laboratory on the Weissfluhjoch close to the upper end of one of the Davos funiculars at a height of 8,500 feet. Under the direction of Dr. H. Bader, a crystallographer, and Dr. M. Haefeli, a civil engineer, much valuable work was carried out ranging from the purely scientific to the severely practical. The former has given us a great deal of new knowledge of the structure and behavior of ice crystals, such as their rearrangement into regular order under stress with its clearly defined metallurgical analogy. Among the latter were such tests as the reaction of different types of snow to varying meteorological conditions and the resulting tendency to increase or decrease avalanche danger. The drawing together of the many threads of research followed and the results, combined with the investigations of practical men in the mountains, have been of the greatest value in bringing about a closer understanding of, and so mitigating, avalanche dangers. An excellent publication of some 340 pages was produced in 1939 recounting the field and laboratory work up to the end of 1938, and subsequent publications have also appeared.

[1] From *Nature*.

Originally the governing body of the Weissfluhjoch station was the Swiss Commission for Snow and Avalanche Research under the chairmanship of the head of the Federal Forestry Department and working in conjunction with many Swiss men of science, chief of whom was Professor P. Niggli, the mineralogist, of Zurich, and including many experts in cognate subjects such as Dr. Mörikofer, of the Meteorological Observatory at Davos. It was largely financed from unofficial sources. A recent press notice stated that the Swiss Government has opened a new research institute on the Weissfluhjoch, which is assumed to be a development of the earlier laboratory, perhaps more on the lines of the research institute on the Jungfraujoch. Possibly it means the commencement of its existence as a separate department of the Ministry for the Interior, with more adequate funds for effective research than its semi-private forerunner had been able to command.

THE TROPICAL PLANT RESEARCH FOUNDATION

THE Board of Trustees of the Tropical Plant Research Foundation met in Washington, D. C., on May 21, for the purpose of dissolving the foundation and distributing its assets to other organizations that are now carrying forward the avowed functions of the foundation. They also authorized and directed the officers of the corporation to institute proceedings in the United States District Court of the District of Columbia for the dissolution of this corporation as allowed and provided for by law.

The distribution of assets were as follows: (1) The Tropical Agriculture Library now housed at the Boyce Thompson Institute, including all copyrights, was given to the Inter-American Institute of Agricultural Sciences of Turrialba, Costa Rica. This is to be dedicated and marked with an appropriate plaque as a memorial to Dr. W. A. Orton, the organizer and director and general manager of the foundation from its inception in 1924 until his death in 1930. (2) Fifty copies of "The Soils of Cuba," including the accompanying maps, were given to each of the joint authors, H. H. Bennett and Dr. R. V. Allison. Fifty copies of "Tropical Forests of the Caribbean" were given to the author, Tom Gill. The remaining copies of these books, about 550 of the former and about 225 of the latter, were turned over to the Pan American Union to be advertised and sold. The returns from these sales are to be turned over to the Division of Biology and Agriculture of the National Research Council or to some other appropriate organization to be used to further tropical agriculture. (3) All residual cash and bonds, after payment of debts and expenses of dissolution, were given to the Division of Biology and Agriculture of the National Research Council to be used for the promotion of tropical agriculture. This contribution will net about $4,500. (4) The furniture, bookcases, steel cabinets, etc., are left to the Boyce Thompson Institute for Plant Research, Inc., Yonkers, New York, in appreciation of services rendered the foundation during the period following Dr. Orton's death.

WILLIAM CROCKER,
Acting Director and General Manager,
Tropical Plant Research Foundation

THE INDUSTRIAL RESEARCH INSTITUTE

THE Industrial Research Institute completed five years of activity with its recent annual meeting in New York on May 21 and 22. Seventy industrial executives and research directors, representing member companies, and their guests attended the meeting and participated in informal round-table conferences.

The organization of research in Great Britain and the United States, its support of the war effort and probable post-war trends, was discussed at the dinner session on the evening of May 21. Dr. G. S. Whitby, professor of rubber chemistry at the University of Akron and recently director of the chemical research laboratory of the Department of Scientific and Industrial Research, Teddington, England, presented the British picture, and Dr. Robert W. King, assistant vice-president of the American Telephone and Telegraph Company, discussed the situation in this country. Dr. Whitby explained the basic differences in the organization and effectiveness of research in Britain and the United States.

At a session on new research tools Dr. G. W. King, of Arthur D. Little, Inc., discussed improved calculating machines for scientific use, particularly in the field of chemistry. Dr. W. B. Rayton, director of the Scientific Bureau of Bausch and Lomb Optical Company, described new optical tools and their applications in various fields of industrial research.

Other sessions were devoted to discussions of industrial research management problems. R. C. Benner, director of research, and G. J. Easter, assistant director of research of the Carborundum Company, described a simple system which has proved of great help in the current control of research projects. It is based on the budgeting of time rather than money. Cooperative intra-industry research in seventeen industries represented in the institute was reviewed by J. M. McIlvain, administrative supervisor of the Research and Development Department of the Atlantic Refining Company.

The rating of research personnel was discussed in four simultaneous group conferences on Saturday morning, under the leadership of C. L. Bausch, vice-