everywhere comes the question: "Where can I learn more about this? Is there anything printed in simple language that I can understand?"

Here again, something can be done, and is being done. I can refer you, for instance, to the American War Standards in the field of quality control. With remarkable foresight, perceiving the coming need for statistical methods in war industries and ordnance inspection, the War Department in December, 1940, asked the American Standards Association to develop concise treatments for the application of statistical methods, for use both in acceptance inspection, and during manufacture. A committee was appointed, with the result that two standards appeared in May, 1941, and a third in July, 1942, with titles as shown below:[6]

1. Guide for Quality Control, 1941
2. Control Chart Method of Analyzing Data, 1941

(Nos. 1 and 2 are bound together and sell at 75¢)

3. Control Chart Method of Controlling Quality During Production, 1942: 75¢.

These serve as guides in application and for introductions to texts and other books on the subject, and they contain references to texts and monographs on the subject for further study. Similar brochures on procedure could be produced for other statistical techniques.

v. *References to current articles and books in various fields.* The Institute of Mathematical Statistics and the American Statistical Association could perform a valuable service by running in each issue of their journals a list of references to current articles and books on applied statistics, broken down into various fields—sampling in social and economic surveys, quality control, psychological tests, presentation of data, and other subjects. Promptness is more necessary just now than completeness. Work should be commenced at once, with a three months' deadline for the first list, which should be an attempt to show important articles and books that will be helpful to statisticians in practice. The list would be kept current, and omissions filled in, by lists in subsequent issues.

Not all statisticians take the journals. The lists should be offprinted and advertised for sale separately: people would be glad to pay for them; the question is where can they buy them? Offprints of this nature, readily obtainable, would be excellent advertising for both the association and the institute, because they would show the public that these organizations are alive to present statistical needs and are perhaps worth belonging to.

Here is a splendid opportunity for some one not already overburdened by war work to get into it. The project could even be expanded, by the right person, to provide abstracts or films of foreign or rare articles worth looking at.

vi. *Exposition of methods in published articles.* In both journals, there could be more serious attempts to show the reader how to apply the methods that are presented. No matter how theoretical an article may be, it should nevertheless describe how its contents affect present practices. It should contain directions for application, plainly marked, "Step 1, Step 2, do this, do that, . . ." The hypotheses and conclusions and logic should be described in non-mathematical terms, as well as by strict mathematics. In other words, when a writer has something useful, he should say so, and make it possible for others to see why and how to use it. Incidentally, he should not expect the editor to do this for him.

vii. *Expert assistance.* This is the most vulnerable of my suggestions, but I think that some good might come of it, even if it leads to numerous failures. The fact is that there are not enough good men in applied statistics nor in mathematical statistics. There never have been. Right now, all over the country, there are young men grasping, groping, struggling with statistical problems on which action will be taken on a deadline. To whom can they look for assistance? If it could be made known, and if we were prepared, the association and the institute could assist by acting as a clearing house for statistical questions, by referring them to the right man, or by sending the names of experts who can and will go outside of Washington, New York, Chicago, and a few other places, and get their hands dirty. Expenses and a consulting fee would of course be paid; that presents no difficulty. What we need is some one in one or both of the organizations to take active charge of this project.

OBITUARY

EARLE RAYMOND HEDRICK

PROFESSOR EARLE RAYMOND HEDRICK, vice-president and provost of the University of California at Los Angeles, emeritus, died on February 3, 1943, at Providence, R. I.

He was born at Union City, Indiana, on September 27, 1876. He attended the University of Michigan (A.B., 1896), and was Parker Fellow from Harvard (A.M., 1898) at the University of Göttingen 99–01, receiving his Ph.D. in 1901. He attended the École Normale Supérieure, Paris in 1901. Dr. Hedrick was an instructor in mathematics at Yale University from 1901 to 1903, and professor at the University of Missouri from 1903 to 1924. He was professor of mathematics at the University of California at Los Angeles from 1924 to 1937, and served as provost and vice-president from 1937 to 1942. Since October, 1942, he was visiting professor at Brown University.

Throughout his life he was always greatly interested in the teaching of mathematics from secondary school to graduate school. In collaboration with the late C. A. Noble he translated the first third of Klein's "Elementarmathematik vom höheren Standpunkte

[6] Published by the American Standards Association, 29 W. 39th Street, New York. Reissued in Great Britain by the British Standards Institution, 28 Victoria Street, London, S. W. 1. The committee consisted of H. F. Dodge, Leslie E. Simon, W. Edwards Deming, Ralph Wareham, A. G. Ashcroft and John Gaillard.

aus," which rendered great service to teachers of mathematics in this country. A similar service was also rendered by his publication (with the late O. D. Kellogg) of "Applications of Calculus to Mechanics," in 1909. He was author of a college algebra and editor of some 25 volumes in the Series of Mathematical Texts.

But the most important activity during most of this long period was as member or director of various national organizations. He was one of the founders and the first president of the Mathematical Association of America, an organization which has moulded the development of collegiate mathematics since its foundation in 1916.

His contribution to the American Mathematical Society may be summarized by stating that he was editor-in-chief of its *Bulletin* from 1921 to 1937, a member of its board of trustees three full terms of five years each, president from 1929 to 1931 and representative of the society in the National Research Council from 1931 to 1934. Volume 44 of its *Bulletin* was dedicated to him.

Mr. Hedrick was married to Helen Breedon Seidenstricker on October 21, 1901, who, with eight children and one adopted daughter, survives him. Their home in Los Angeles has long been a welcome center for various social activities.

The American people and humanity generally suffer a great loss in the death of this man. Although always tremendously active, he never failed to give time and sympathetic interest to the affairs of a host of friends.

VIRGIL SNYDER

BROWN UNIVERSITY

RECENT DEATHS

DAVID GROSH THOMPSON, geologist of the U. S. Geological Survey, known for his work on the development of water supplies from underground sources, died on February 19 at the age of fifty-four years.

DR. FRANCIS J. POND, professor of chemistry and director of the Morton Memorial Chemistry Laboratory of the Stevens Institute of Technology, consultant in chemical research, died on February 18 at the age of seventy-one years.

LIEUTENANT COMMANDER FRANK K. MOSS, of the United States Naval Reserve, died on February 16. He was forty-four years old. Since 1933 he had been research physicist in the lighting research laboratory of the General Electric Company at Nela Park, Cleveland.

Nature reports the death of Sir Arbuthnot Lane, the well-known surgeon, on January 16, aged eighty-six years, and of Sir Henry Maybury, president in 1933 of the British Institution of Civil Engineers, on January 7, aged seventy-eight years.

DR. C. C. FARR, F.R.S., emeritus professor of physics at Canterbury College, Christchurch, the University of New Zealand, died on January 27 in his seventy-seventh year.

THE death is announced of Dr. David Hilbert, professor of mathematics at the University of Göttingen. He was eighty-one years old.

SCIENTIFIC EVENTS

POST-WAR FOOD SUPPLIES

IN a report prepared by allied agricultural experts and considered by the British Technical Advisory Committee on Agriculture in London, it is stated that the estimated decline of livestock in enemy-occupied allied countries as a result of lack of feeding-stuffs, requisitioning and slaughter is about 11,000,000 cattle, 3,000,000 horses, 12,000,000 pigs and 11,000,000 sheep. The *Times*, London, points out that the decline constitutes a very serious menace both to post-war food supplies and to the future of European agriculture. Milk production has gone down by more than a third, and meat production by nearly half. Recovery to pre-war numbers of breeding animals will take many years, and the lack of draught animals may be a serious hindrance to cultivation for the first post-war harvest.

Only a small proportion of this huge livestock loss could be made good by the supply of live animals. The first need will be for a policy of conservation of livestock, for the preservation of all animals capable of breeding and for the supply of an equivalent quantity of meat from overseas. At the same time feeding-stuffs will be needed, as well as veterinary measures to check the spread of epidemics among livestock already weakened by undernourishment. In countries where the numbers of draught animals have declined below the minimum needed for cultivation it may be necessary to replace them with tractors.

In connection with this last problem, the Technical Advisory Committee has taken note of the probable need to introduce mechanical cultivation into countries where few agricultural engineers or mechanics are to be found. The committee has therefore recommended provision for the training of allied nationals in Britain, such training to include tractor-driving, maintenance and the organization of mechanized services in agriculture generally.