have been using the figure 450 grams as the amount of nitrogen excreted per capita per year. This is an important figure in all calculations. We are omitting mention of one type of nitrogen reclamation cycle in which the soil and agricultural crops are by-passed and excreted nitrogen is used directly for conversion into animal tissues without being converted first into agricultural product!

Food Relief and Rehabilitation

One of the questions of immediate importance is the problem of food relief. The war in China, which has been under way now for seven years, has badly disturbed the delicately balanced factors of food supply and demand. Not only have 10 million people or more migrated from occupied China into free China, but the army of several more million tends to be fed from the area in which it is stationed. The army itself continues to suffer from a deficient ration. The need as far as it is a need for calories can be met by simply sending in more cereals and organizing transport which will bring these additional calories to the point where they are to be used. But for a long-term relief program something more adequate must be done and there is a growing conviction that it will be desirable to concentrate on proteins. This is not an easy problem. It is only partly economic. A concerted research program is necessary. We will need to know more about some of the less common foods. China has made some use of the soybean, but only to a limited extent. Why?

From one angle a beginning has been made by the agronomists. By crop selection a millet has been produced which contains over 14 per cent. of protein instead of the usual 9 per cent.; this would represent a possible out-and-out increase of 50 per cent. in the gross protein production. If the need is for a better quality of protein, is the only answer to be found in a meat industry or in a dairy industry? The war and the present cooperative undertakings in China offer an unusual opportunity for a first step in solving these problems. Nutritionists in the Far East have for too long a time concerned themselves merely with the problem of *enough* food. It is appropriate that they now approach the problem of the *right kind* of food.

Summary

(1) The protein intake of China is approximately 80 grams per capita per day, 5 per cent. of which is animal protein. (2) The lower digestibility of the protein in vegetarian diets causes the effective protein intake to be much less than is indicated by this figure. (3) Attempts in the laboratory to devise an adequate diet using foods from vegetarian sources only have not met with marked success. (4) The use of mixed cereals in the diet has provided protein of higher biological value; this habit may reflect the attempt on the part of the rural peoples to work out a more effective protein intake. (5) It is suggested that in China some of the cereal protein in the dietary intake be replaced by more leaf vegetable protein. (6) The question is raised as to how far it is feasible in the war economy to replace animal protein by vegetable protein. (7) In long-term plans for food relief in the Far East it is urged that an emphasis be placed on the protein factor.

OBITUARY

ARCHIE SCOTT WOODS

THE untimely death of Archie Scott Woods in an automobile accident near San Diego, Calif., on April 20, 1944, is mourned by men of medicine and by the institutions which they serve. Through his association with the John and Mary R. Markle Foundation he was well known to them and had become not only a friend but a sympathetic and eager helper in their efforts to advance medicine in this country. It was in connection with problems in tropical medicine in the Armed Forces in which lately he had become greatly interested that he had journeyed to the West Coast and there met his death. He should be numbered among the casualties of war.

Archie Woods' career was an unpredictable achievement, its starting point a fortunate circumstance. Born in London, Ontario, Canada, in 1895, and spending his early life in eastern Pennsylvania, he had not, through his parents or family connections, any association with medicine. He graduated from Lafayette College in 1916 with a degree in mechanical engineering and worked for a time for Wood, Dodson and Company, coal operators in Bethlehem, Pa. He later was with E. B. Smith and Company, investment bankers in Philadelphia. In 1925 he went to New York City to be secretary to John Markle, anthracite coal operator and philanthropist. With the formation of the John and Mary R. Markle Foundation in 1927, Archie Woods became its vice-president, treasurer and director. The decision having been reached to devote the funds of the foundation largely to research in medicine, he was entrusted by his board of directors with the responsibility wisely to distribute them.

Thrust into a field of activity of which previously he completely lacked both knowledge and experience, he became an ardent student of medicine and at the

time of his death few men had a greater appreciation of the trends of research in medicine, a more intimate knowledge of the research in progress throughout the country and a closer association and friendship with the men engaged in it. He made a sincere effort to understand the problems for which grants-in-aid were sought. He adopted the usual practice of seeking advice from medical men regarding the merits of research projects. But in addition he pursued a course of self-education in medicine. His frequent visits to institutions in which research supported by his foundation was in progress, his attendance at medical society meetings, his reading of medical books and journals and particularly, perhaps, his discussions with his medical friends gave him a very considerable knowledge of medicine. He had the ability to assemble and arrange his variously acquired information; and if he could be drawn out, was able to discuss intelligently and with comprehensive knowledge many of the fields of medicine which actively are being advanced to-day.

Archie Woods thoroughly enjoyed his association with medical men. He was eager to assist them in their work; yet was equally concerned that the funds which his board of directors entrusted to him should not be wasted. He had a real skill in judging the merits of research projects submitted to him and the ability to select, for financial support, the promising ones. He was known as honest and fair-minded in his dealings with men and he commanded their respect. In the years of his association with the Markle Foundation he made himself an expert in many matters relating to medicine and an important figure in the advancement of medical knowledge. Toward the end of his career he, a layman, had become, on occasion, a consultant in medicine; for his advice was sought and his assistance obtained in the organization of some of its teaching and research programs.

GEORGE J. HEUER

NEW YORK HOSPITAL

LESTER S. GUSS

LESTER S. GUSS, professor and head of the department of chemistry of South Dakota State College, died following a heart attack on May 17 at the age of forty years. Dr. Guss received the B.S. degree in 1923 and the M.S. degree in 1925 from the University of North Dakota. After teaching in high schools of Minnesota he came to South Dakota State College in 1928 as instructor in chemistry. He continued graduate study in chemistry at the University of Minnesota during 1936–38, receiving the Ph.D. degree at the end of that time. In 1940 he was made head of the chemistry department at South Dakota State College. He held a reserve commission of Captain in the CWS until the spring of 1941, when he resigned in order to better serve his country as a chemist. He worked on the WPB rubber program with Dr. I. M. Kolthoff at the University of Minnesota during 1943, his research covering indicators in anhydrous solvents, acidity in anhydrous solvents and properties of soap solutions. During 1943–44 he was chairman of the Sioux Valley section of the American Chemical Society, and on May 6 was elected president of the South Dakota Academy of Science for the ensuing year.

G. L. BROWN

SCIENTIFIC EVENTS

A COLLEGE OF CHEMICAL ENGINEERING AT SÃO PAULO

THE following official announcement of the establishment of a College of Chemical Engineering at São Paulo has been sent to SCIENCE.

Social Action, a Jesuit organization in Brazil, is planning to open in São Paulo a College of Chemical Engineering with a capacity for 1,000 students. Father Saboia de Medeiros, president of Social Action in Brazil, has retained certain officials of the University of Detroit as his advisers.

One of the most important problems is the selection of the faculty. To conform with Brazilian laws, members of the faculty must, except for possibly one or two, have been born in Brazil. But to conform with the educational aims of Father Saboia, the curriculum, the faculty and the facilities must represent the best ideas of chemical engineering education in the United States. This means that those selected as faculty members, in addition to having been born in Brazil, should have had considerable teaching experience in the United States. However, since instructors in the field of chemical engineering will also need to have had considerable industrial experience, this will make up to a large extent for lack of previous teaching activity. All instruction will be conducted in Portuguese—the official language of the country. Members of the faculty will be appointed in all divisions of chemistry, mathematics, physics, metallurgy, mechanical and electrical engineering, mechanics, chemical engineering, economics, and in business organization and management. It is hoped that a student registration for the first freshman class will be made about March 1, 1945. Members of the faculty will be appointed to meet instructional needs as students enter and as they advance through the curriculum. It will be necessary that all members be practical Catholics.

It is hoped that information about the new college will be extensively circulated in the Catholic educational circles and will be brought to the attention of all Brazilians residing in the United States. Any person desiring to teach