In recent years he was intensely interested in the mechanism of sulfonamide action. He investigated the effect of the hydrogen ion concentration on the activity of sulfonamides *in vitro* and found an interesting correlation between the acidic dissociation constants of the sulfonamides and the effect of the pH upon their activity. The conclusion could be drawn from the data collected by him and his associates that the anionic form of sulfonamide is a great deal more active than the undissociated sulfonamide molecule and that the activity of the latter is negligible in comparison. The activity of sulfanilamide, in particular, was found to be greatly enhanced by the adjustment of the pH. The activity of sulfanilamide at the optimal pH, although not directly measured, was calculated to be greater than that of any other known sulfonamide. The practical conclusion was drawn that the local chemotherapy for wound infections should be carried out with sulfanilamide and a buffer.

He was a strong advocate of the theory that sulfonamide activity is due to the blocking of the *p*-aminobenzoic acid receptor in an enzyme system, and on the basis of this theory he and his associates synthesized various *p*-aminobenzoic acid derivatives, some of which showed a typical sulfonamide activity, that is, anti-bacterial activity which could be reversed by *p*-aminobenzoic acid. He realized the practical importance of inactivating the *p*-aminobenzoic acid which is the antagonist of sulfonamide in local chemotherapy and he worked intensely on the study of the use of N,N′-dichloroazodicarbonamidine for this purpose.

Since Pearl Harbor, he has concentrated all his efforts on the medical aspects of the war. He developed an ingenious treatment of burns, using a membrane which contains buffered sulfanilamide as a chemotherapeutic agent.

Franz Schmelkes' interest was not limited to science but embraced political, social and economic problems. He had beliefs and convictions for which he was always ready to fight. His greater interest was in his fellowmen, many of whom he helped when in need. He was a member of many scientific societies and was popular at the Chemists' Club. One of his favorite sports was golf. His guiding spirit and stimulating influence will long survive among his friends and associates who will miss him greatly.

L. REINER

RECENT DEATHS

DR. EDGAR ALLEN, professor of anatomy and head of the department at the Yale University School of Medicine, died on February 3 at the age of fifty years.

DR. EARLE RAYMOND HEDRICK, a member of the faculty of the Brown University Graduate School in Advanced Instruction and Research in Mechanics, formerly vice-president of the University of California at Los Angeles, died on February 3 at the age of sixty-six years.

DR. LEONARD MAGRUDER PASSANO, professor emeritus of mathematics of the Massachusetts Institute of Technology, died on January 30 in his seventy-seventh year.

DR. J. FRANK FRASER, consulting dermatologist at the Memorial Hospital for the Treatment of Cancer and Allied Diseases and other New York hospitals, has died at the age of seventy-two years.

MISS CAROLINE HARRISON, better known to her friends as "Carrie Harrison," died at her home in Washington, D. C., on about January 19. She entered the government service in the division of botany of the Department of Agriculture in 1887. The division later became a part of the Bureau of Plant Industry. Miss Harrison gave special attention to tannin-bearing plants. She was an enthusiastic rosarian, and was an active member of the American Rose Society up to the time of her death. She retired from government service in April, 1926.—F.A.W.

SCIENTIFIC EVENTS

THE BRITISH NEW YEAR HONORS LIST[1]

THE following names of scientific men and others associated with scientific work appear in the British New Year honors list:

Baron: Sir Charles Wilson, president of the Royal College of Physicians.

Baronet: W. M. Goodenough, chairman of the Nuffield Trust for the University Medical School, Oxford.

G.B.E.: Sir Henry Dale, lately director of the National Institute for Medical Research, president of the Royal Society.

[1] From *Nature*.

K.C.B.: Sir Wilson Jameson, chief medical officer, Ministry of Health and Board of Education.

Knights: Professor J. H. Clapham, president of the British Academy; Professor F. Clarke, professor of education, University of London; Dr. A. C. G. Egerton, professor of chemical technology, Imperial College of Science and Technology, and joint secretary of the Royal Society; Jhanendra Chandra Ghosh, director of the Indian Institute of Science, Bangalore; S. H. Howard, inspector-general of forests and president of the Forest Research Institute, Dehra Dun; Pestonji Rustom Masani, lately vice-chancellor of the University of Bombay; W. A. Stanier, chief mechan-

ical engineer L.M.S. Railway and scientific adviser to the Minister of Production; Brigadier E. O. Wheeler, surveyor-general of India; J. Wright, chief engineer, Central Electricity Board.

C.M.G.: D. Yates, a leading metallurgist of South Australia.

C.I.E.: Bhagavathulu Viswanath, officiating director, Imperial Agricultural Research Institute, New Delhi; R. A. MacGregor, chief metallurgist, Department of Supply, Calcutta.

C.B.E.: Dr. W. R. Aykroyd, director of nutritional research, Coonoor; E. Barnard, director of food investigation, Department of Scientific and Industrial Research; R. Gushue, chairman of the Fisheries Board, Newfoundland; E. H. E. Havelock, administrative secretary of the Agricultural Research Council and Secretary of the Development Commission.

THE TINGO MARIA EXPERIMENT STATION

A SPECIAL correspondent in Lima, Peru, of *The New York Times* reports that Dr. Benjamin J. Birdsall, of the Office of Foreign Agricultural Relations of the U. S. Department of Agriculture, has been appointed director of the agricultural experiment station at Tingo Maria. He arrived in Peru at the end of July. The United States, through the Department of Agriculture, in cooperation with the State Department is contributing financial and technical aid, while Peru is contributing land, buildings and other facilities.

The station at Tingo Maria is one of a series of agricultural experiment stations being established throughout the American tropics designed to assist and encourage the production on a large scale of rubber, quinine and other products formerly obtained from the Far East. As assistants, Dr. Birdsall has William Wickline, formerly in the U. S. Government service in entomology and plant quarantine work, and Rolland Lorenz, a rubber expert, formerly with the Firestone Company in Africa. In 1940 Dr. Lorenz was a member of one of the U. S. missions which made a survey of the rubber possibilities of tropical America. The American group at Tingo Maria works in direct cooperation with Pedro Recavarren, director of forest lands and colonization. Pedro Beltran is serving as government aide in the organization of the undertaking.

The experiment station at Tingo Maria, which is situated on the Huallaga River on the eastern slopes of the Andes, according to *The New York Times* correspondent, will consist of three main buildings and twenty residences all constructed of brick with enternite roofing. The principal building or "head house plant," as it is called, will comprise the main laboratories and greenhouses. In addition there will be an administration building with offices and library, and a dormitory or club-house for single men. The cost will be in excess of $160,000, and the building program is expected to take two years. A plant for fabricating the brick is now being completed at Tingo Maria. The grounds of the station cover five hectares, along the Central Highway of Peru, within the urban limits of the town of Tingo Maria. Additional land is being acquired for the experimental work.

GIFTS RECEIVED BY THE UNIVERSITY OF WISCONSIN

AT a recent meeting of the Board of Regents of the University of Wisconsin, it was announced that gifts had been received amounting to $38,811.

The sum of $5,500 was given by Lever Brothers Company, Mass., for the continuation of an industrial fellowship in biochemistry, under the supervision of Professor Harry Steenbock. A grant was made also by the Wisconsin Alumni Research Foundation for the support of the general research program of Professor Steenbock.

Federal aid amounting to $4,720 was accepted for the Public Health Nursing program of study for the training of twenty-two public health nursing students.

In addition to a number of smaller gifts, $1,000 was received from the State Rural High Schools Committee for a field study in rural community education by Clarence E. Ragsdale, associate professor of education; $1,000 from the National Canners Association, Washington, D. C., an addition to the original grant of $3,000 for an industrial fellowship in biochemistry; $1,500 from General Mills, Inc., Minneapolis, for the continuation of an industrial fellowship in the department of biochemistry, under the supervision of Professor C. A. Elvehjem; $1,200 from Eli Lilly and Company, Indianapolis, for the renewal of an industrial fellowship in the department of biochemistry, also under the supervision of Professor Elvehjem, and $3,000 from the National Canners Association for the establishment of an industrial fellowship in the department of biochemistry under the supervision of Professor Elvehjem and Professor F. M. Strong; $1,000 from the Oscar Mayer Company, Madison, for the establishment of an industrial fellowship in the department of animal husbandry under the supervision of Professor A. E. Darlow; for the support of scholarships of $75 each for farm boys, $750 was given by Oneida Farms, Inc., and $300 by the Oscar Mayer Company.

Five hundred dollars was received from the Wisconsin Alumni Research Foundation, as an addition to the $5,000 grant for an industrial fellowship in biochemistry, under the direction of Professor Karl Paul Link; and $2,000 from the Upjohn Company, Kalamazoo, for the establishment of a research assistantship in the department of pharmacology and toxicology, under the supervision of Professor A. L. Tatum.