

with the help of the trained man we are trying to look beneath the surface. We are reaching out into new fields of research endeavor, we are gathering facts and deductions from the outlying regions of science, we are multiplying and sharpening the tools of research workers, and are constantly widening the perspective of agriculture. Much is being given to agricultural research and much is expected from it. Will the Department of Agriculture and our colleges and experiment stations measure up to the task? The answer must be an affirmative one if we are to gauge future achievement by the more ample facilities for study at our colleges and universities and the zeal, the integrity and the humility of our research workers.

J. G. LIPMAN

RUTGERS COLLEGE

FRITZ WILHELM WOLL

DR. FRITZ WILHELM WOLL, professor of animal nutrition in the University of California, well known as a writer on animal feeding and dairy subjects, died at Berkeley on December 6.

Dr. Woll received his early education in Christiania, Norway, obtaining the degree of Ph.B. from the Royal Fredericks University, Christiania, 1883. Later, degrees of M.S. and Ph.D. were conferred by the University of Wisconsin in 1886 and 1904, respectively. After graduation as Master of Science at Wisconsin Dr. Woll was appointed second assistant chemist, Wisconsin Agricultural Experiment Station, 1887, and rose to the position of chemist for the station in 1897. He became professor of agricultural chemistry, University of Wisconsin, in 1906, which position he held until 1913, when he was called to the University of California as professor of animal nutrition, holding that chair until his death.

He was the author of many works, each of which has been reissued in a number of editions; among these may be mentioned:

"A Book on Silage," revised edition, 1900.

"A Translation of Modern Dairy Practice" (from Swedish of G. Grotenfelt), 1894, third edition 1905.

"A Handbook for Farmers and Dairymen," 1897, sixth edition, 1914.

"Testing Milk and Its Products" (with Pro-

fessor E. H. Farrington), 1897, twenty-fourth edition, 1918.

"Productive Feeding of Farm Animals," 1915, second edition, 1916, third edition, 1921.

"Feed Manual and Note Book," 1917.

Dr. Woll accomplished a large amount of scientific work while at the universities of California and Wisconsin, as is well shown by the series of important and timely bulletins of the respective agricultural experiment stations. He was also an extensive contributor to technical publications and agricultural and dairy papers. His articles were always replete with valuable aid to dairymen and feeders in general.

It is primarily due to the untiring efforts of Dr. Woll that the cow-testing associations of so much value and importance to the dairy industry of California have been developed and placed on a business-like and permanent basis.

He was a member of many agricultural and scientific societies, including: Wisconsin Academy of Sciences, Arts and Letters; Society for the Promotion of Agricultural Science; American Society for Animal Production; Association of Official Agricultural Chemists, (president, 1909-11); American Dairy Science Association; Sigma Xi; Member International Jury Panama Pacific International Exposition, 1915.

The passing of Dr. Woll is a great loss to the University of California and to the animal industry of the whole country.

SCIENTIFIC EVENTS

INTERNATIONAL TELEPHONY

THE inaugural address delivered by Mr. Frank Gill, as president of the British Institution of Electrical Engineers, as reported in the London *Times*, discussed the problem of establishing efficient international telephonic communication among the different countries of Europe, including Great Britain.

He expressed the opinion that, given adequate facilities, there is traffic waiting to be handled between the cities of Europe, and urged that there are weighty reasons for providing those facilities, such as the present necessity for improving the relations between nations, in addition to the normal commercial advantages. So far as distance is concerned,