

ogy and by simple models how to make his subject as "anschaulich" as possible. With his interest in pedagogical problems, he was strongly attracted to youthful beginners, to whom he never failed to give encouragement and with whom he shared his great enthusiasm, so essential for their further progress and development.

Paul Ehrenfest was born in Vienna in 1880, where he became the outstanding pupil of Ludwig Boltzmann. He clarified the curious difficulties and paradoxes which still remained in Boltzmann's life work, the kinetic interpretation of the second law of thermodynamics. In their famous article in the *Enz. der Math. Wiss.*, Vol. IV (1911), P. and T. Ehrenfest showed conclusively that there were no inner contradictions in the work of Boltzmann. His interest in statistical theory kept him in close contact with the development of the quantum theory; Ehrenfest's "adiabatic hypothesis" was an essential step forward. Paul Ehrenfest worked in Göttingen and spent also a considerable time in Russia. In 1912 he was invited by the late H. A. Lorentz to succeed him in the chair of theoretical physics at the University of Leiden. He visited the United States in 1924 and in 1930, when he lectured at Pasadena and in the Theoretical Symposium at the University of Michigan.

The general upheaval, political and economic, of post-war Europe and especially the recent tragic fate of many of his dearest friends in Germany, depressed him deeply. Ehrenfest's death, lamented by all who knew him, is an irreparable loss to his pupils.

G. E. UHLENBECK  
S. GOUDSMIT  
G. H. DIEKE

#### F. FÜLLEBORN

TROPICAL medicine and parasitology has suffered a great loss in the death, on September 9, of Geh. Medizinalrat Professor Dr. Friedrich Fülleborn. When the Institut für Schiffs- und Tropenkrankheiten was founded at Hamburg in 1900, he was called to head the department of tropical medicine, and on the retirement of Dr. Bernhard Nocht in 1930 he became director of the institute. Thirty years of achievement as physician, teacher and investigator led naturally to the position of administrative leadership, and he was active until stricken by a fatal heart attack.

During his student days he came under the influence of Rudolph Leuckart at Leipzig and acquired an interest in the biology of animal parasites and their pathological effects. This early interest became the directive influence of his mature years. Over a hundred published researches, especially in the field of helminthology, bear witness to a life of tireless and brilliant investigation. An outstanding figure in the field of tropical medicine, he had received many honors in all parts of the world and was an honorary foreign member of the American Society of Parasitologists.

But for those who knew him personally, and I was privileged to spend the year 1931-1932 in his laboratories, it was his nobility of character and his qualities of mind and heart that endeared him to his associates. A truly great man has left us.

H. W. STUNKARD

#### RECENT DEATHS

DR. EDWIN SCHOFIELD CRAWLEY, professor emeritus of mathematics at the University of Pennsylvania, died on October 18. He was seventy-one years old.

DR. JAMES ABRAHAM FARIS, senior pathologist, in charge of cereal smut investigations, Division of Cereal Crops and Diseases, Bureau of Plant Industry, U. S. Department of Agriculture, died on September 24 at Washington, D. C., at the age of forty-three years.

DR. CHARLES C. PLITT, professor of botany at the University of Maryland School of Pharmacy, known for his microscopic investigation of drugs and the taxonomy of lichens, died at his home on October 13, at the age of sixty-four years.

*Nature* reports the death of Professor Leonard J. Rogers, formerly professor of mathematics in the University of Leeds, on September 12, aged seventy-one years; of G. M. Thomson, founder of the Dunedin Technical College and the Portobello Marine Biological Station, an authority on the natural history of New Zealand, aged eighty-four years, and of Lieutenant-Colonel R. H. Rowe, commissioner of lands, Nigeria, known for his work on the topographical and trigonometrical survey of Nigeria, on September 6, aged fifty years.

## SCIENTIFIC EVENTS

### THE TERCENTENARY OF THE ASTRONOMICAL OBSERVATORY AT LEIDEN

THE tercentenary of the Leiden Astronomical Observatory, the oldest in Europe, was celebrated on October 6 at Leiden University. A correspondent of the London *Times* reports that among those who were

present at the ceremonies were Professor Stratton, England; Professor Silva, Italy; Dr. Bergstrand, Scandinavia; Dr. van Oort, United States, and Professor E. Bianchi, of the International Astronomical Union.

The Rector Magnificus, Professor D. van Blom, de-