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Experimental Epidemiology: DR. LESLIE T. WEBSTER 445

Obituary:

Louis Agricola Bauer (1865-1932): J. A. F.
Wilhelm Ostwald: PROFESSOR WILDER D. BANCROFT. *Recent Deaths* 452

Scientific Events:

The International Congress of Mathematicians; Zoological Sessions at the Summer Meeting of the Association; Award of the Osborne Medal to Dr. C. H. Bailey; The American Philosophical Society 455

Scientific Notes and News 457

Discussion:

The Field Naturalist in the Final Interpretations of Life: H. A. ALLARD. *Spontaneous Combustion in the Marshes of Southern Louisiana*: PERCY VIOSCA, JR. *Rhythmic Phenomena in Gels*: J. M. JOHLIN. *Behaviorism in Science*: PROFESSOR WILLIAM D. TAIT 460

Quotations:

International Cooperation 463

Scientific Apparatus and Laboratory Methods:

Influence of Method of Shaking on Amount of Phosphate Dissolved from Soil by Water: PROFESSOR P. L. HIBBARD. *A Method of Artificially Feeding the Sugar-beet Leafhopper*: J. M. FIFE 464

Special Articles:

Visual Purple in Snakes: DR. GORDON L. WALLS. *A Note on the Flow of Fluids through Porous Media*: DR. GEORGE H. FANCHER and JAMES A. LEWIS 467

Science News 10

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EXPERIMENTAL EPIDEMIOLOGY¹

By Dr. LESLIE T. WEBSTER

ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

EPIDEMIOLOGY, according to common usage, is knowledge of the mode of spread of infectious diseases. This knowledge is especially concerned with epidemics and endemics, long-time and short-time cycles of disease prevalence, general and local extension of disease and relative severity of disease in racial and familial groups and in individuals. Data, mostly descriptive and poorly organized, accumulating for centuries, were simplified in part by experimental pathologists and bacteriologists at the close of the nineteenth century into several principles, a postulate and a theory.

Considered chronologically, the first two principles are the communicability of certain diseases and the living specific nature of their known incitants. This

¹ Cutter Lecture on Preventive Medicine, 1932. Harvard University.

knowledge was present in substance 4,000 years ago in popular superstitions and beliefs but was not established on an experimental basis until Bassi transmitted silkworm muscardine in 1835, Remak transmitted favus in 1840, and Brauell, Pasteur, and Koch transmitted anthrax in 1857 to 1890. Three additional principles, namely, the operation of host resistance, diet and climatic factors influencing the spread of infectious disease, were likewise recognized from earliest times, but are only recently being studied experimentally. The last two, the doctrines of the carrier state and of specific immunity, established by Koch and by Behring and Kitasato, respectively, are modern both in concept and experimental proof.

Knowledge of infection underwent further organization during the Pasteur-Koch period. Theurgical and supernatural doctrines of epidemics were dis-

GENERAL BOTANY FOR COLLEGES

By

RAY ETHAN TORREY, PH.D.
*Assistant Professor of Botany
Massachusetts State College*

In method of presentation, this book is a distinct departure from the traditional botany text-book. It gives a more vivid and picturesque treatment of the subject; imbues it with greater vitality by introducing some of the subtler significances toward which the facts of the science undoubtedly point; and encourages original investigation controlled by orderly thinking and based upon accurate facts.

The book presents an articulate body of botanical knowledge infused with the breath of life and humanized through contact with universal principles. The historical note dominates its pages. Part I starts with the slight botanical knowledge which the student may be expected to possess. From a study of familiar seeds it progresses to the developing seedling and then to the external morphology of the adult plant. The material is interpreted in the light of evolutionary principles, and the dependence of the plant world upon universal law is shown. Part II considers the anatomy and physiology of seed plants. Part III deals with the different groups of plants, unfolding the progression of plant life. The homologous theory of alternation of generations is here applied in preference to the antithetic, and the basis of the theory is finally established among the brown algae.

The text is written in a style that is clear and concise, and is illustrated with half-tones and numerous drawings of which some are original and others are modified copies. *Royal 8vo, 449 pages. Illustrated. \$3.50.*

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