SCIENCE

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MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

SECTION K—PHYSIOLOGY AND EXPERIMENTAL MEDICINE.

SYMPOSIUM ON YELLOW FEVER AND OTHER INSECT-BORNE DISEASES. II.

Without Mosquitoes there can be no Yellow Fever: JAMES CARROLL.

It seems incredible, but is, nevertheless true, that at the present time there are still in the United States many physicians who oppose the idea that the mosquito is the sole means by which yellow fever is carried from one person to another. They refuse to believe that the natural disease can not be contracted in any other way than through the bite of the mosquito. The fact, however, has been repeatedly demonstrated and the evidence in its support has now become overwhelming. The tremendous importance of this subject, in a city which, by reason of her location and commercial intercourse with Central and South America, may be regarded as the gateway through which a disastrous epidemic may at any time be introduced into the United States, is my apology for again taking up so trite a subject. It is the duty of those who are familiar with the facts to communicate them to the members of the profession, for the people must rely upon their

since 1891 in the chapter on the phenomena of irritability (Ch. VII.), although a large part of the most important literature, on the theory of tropisms especially, is more recent; and he has not included any of the data concerning cell-lineage or germinal localization in the parts dealing with the theory of embryonic development, although (or because) these data render his own point of view untenable.

In general, then, though the author has included some of the new literature on certain subjects with which he deals, there are grave omissions of data necessary to the discussion of other subjects with which he also deals. It would be unreasonable to expect an exhaustive treatment of the vast field covered by general biology, and no criticism is due for the omission of certain problems entirely; it is due, however, for the omission of the most significant data in subjects actually discussed.

Professor Hertwig occupies precisely the same theoretical ground that he did at the time of the publication of the first edition. He declares himself in advance against all purely physico-chemical conceptions of the cell (pp. 15 and 16), "since they are fundamentally irreconcilable with the conception of the elementary organism, which runs through this text-book like a red thread." This point of view constitutes at the same time an apology for an inadequate and antiquated treatment of the chemistry of protoplasm. Most biologists will no doubt agree with the author that 'protoplasm is a biological conception,' not a name for a simple chemical substance, and that, even if the chemist could synthesize all kinds of proteids, he would still be far from the synthesis of an organism; but most would value more highly than does the author the contributions from the physico-chemical side to our comprehension of protoplasm.

The second part of the book is essentially a theory of ontogenetic development with its phylogenetic implications; it was originally published as a separate work in 1898, and was reviewed at that time by the present writer.[1] The second edition contains very little matter that was not included in the first, and the theoretical standpoint is exactly the same; so that the review of the first edition might serve equally well for the second. The author believes in the inheritance of acquired characters, and adopts a Lamarckian point of view in regard to evolution, without seriously examining the difficulties or availing himself of new data; for instance, de Vries' 'Mutationstheorie' is not mentioned, though it bears a date of publication three years earlier than Hertwig's book. Similarly on the side of ontogeny the author finds the full and sufficient explanation of development in the multiplication of cells and in their manifold relations with the environment, again without serious examination of the difficulties and with scant respect for important recent literature.

What was really needed was not a second edition, but a new book, for which Professor Hertwig either had no leisure or lacked realization of the need. It is unfortunate that he should have permitted himself to issue a second edition under such circumstances.

FRANK R. LILLIE.

[1] SCIENCE, N. S., Vol. VIII., No. 198, 1898.

SCIENTIFIC JOURNALS AND ARTICLES.

The Journal of Infectious Diseases, Supplement No. 2, February, 1906. Some of the papers presented to the laboratory section of the American Public Health Association at the Boston meeting, September 25, 1905:

WILLIAM HALLOCK PARK: 'Some Observations upon the Agglutinization of Bacteria.'

EDWARD K. DUNHAM: 'Comparative Studies of Diplococci Decolorized by Gram's Method, Obtained from the Spinal Fluid and from the Nares of Cases of Epidemic Cerebro-Spinal Meningitis.'

MARY E. GOODWIN and ANNA I. VON SHOLLY: 'The Frequent Occurrence of Meningococci in the Nasal Cavities of Meningitis Patients and of Those of Direct Contact with Them.'

OSKAR KLOTZ: 'Temporary Alteration of Character of an Organism Belonging to the Colon Group.'

H. L. RUSSELL and C. A. FULLER: 'The Longevity of Bacillus Typhosus in Natural Waters and in Sewage.'

GEORGE C. WHIPPLE and ANDREW MAYER, JR.:

'On the Relation between Oxygen in Water and the Longevity of the Typhoid Bacillus.'

George A. Johnson, William R. Copeland and A. Elliott Kimberly: 'The Relative Applicability of Current Methods for the Determination of Putrescibility in Sewage Effluents.'

George A. Johnson and A. Elliott Kimberly: 'A Comparative Review of Current Methods for the Determination of Organic Matter in Sewage.'

A. Elliott Kimberly and M. G. Roberts: 'A Method for the Direct Determination of Organic Nitrogen by the Kjeldahl Process.'

A. Elliott Kimberly and Harry B. Hommon: 'The Practical Advantages of the Gooch Crucible in the Determination of the Total and Volatile Suspended Matter in Sewage.'

H. W. Clark: 'The Resistance to Decomposition of Certain Organic Matters in Sewage.'

Stephen DeM. Gage and George O. Adams: 'The Collection and Preservation of Samples of Sewage for Analysis.'

Ernest C. Levy: 'A Ready Method for Preparing a Silica Turbidity Standard.'

George C. Whipple and Andrew Mayer, Jr.: 'The Solubility of Calcium Carbonate and Magnesium Hydroxide and the Precipitation of These Salts with Lime Water.'

George C. Whipple and Francis F. Longley: 'Experience with the Use of a Nonbasic Alum in Connection with Mechanical Filtration.'

H. W. Clark and S. DeM. Gage: 'The Use of Copper Sulphate in Water Filtration.'

H. W. Clark and Stephen DeM. Gage: 'On the Bactericidal Action of Copper.'

Fred B. Forbes and Gilbert H. Pratt: 'Notes in Regard to the Determination of Copper in Water.'

Hibbert Winslow Hill: 'A Notable Source of Error in Testing Gaseous Disinfectants.'

Francis H. Slack: 'Methods of Bacteriological Examination of Milk.'

Hibbert Winslow Hill: 'Suggestions for Change in the Schedules for Making Broth, Gelatin and Agar, Recommended in the Last Report of the Committee on Standard Methods of Water Analysis.'

Hibbert Winslow Hill: 'A Device for Filtering Toxins, etc., by the Use of Water Pressure.'

SOCIETIES AND ACADEMIES.

THE AMERICAN MATHEMATICAL SOCIETY.

The one hundred and twenty-seventh regular meeting of the American Mathematical Society was held at Columbia University, on Saturday, February 24, 1906. Professor W. F. Osgood, the president of the society, occupied the chair. Thirty members attended the meeting. The council announced the election of the following nineteen persons to membership in the society: Mr. M. J. Babb, University of Pennsylvania; Mr. William Betz, East High School, Rochester, N. Y.; Mr. G. D. Birkhoff, University of Chicago; Mr. W. D. Breuke, Harvard University; Mr. B. E. Carter, Massachusetts Institute of Technology; Dr. H. L. Coar, University of Illinois; Miss Anna Johnson, Harvard University; Mr. W. D. Lambert, U. S. Coast Survey; Mr. W. A. Luby, Central High School, Kansas City, Mo.; President W. J. Milne, New York State Normal College; Professor Richard Morris, Rutgers College; Mr. W. J. Newlin, Harvard University; Miss R. A. Pesta, Wendell Phillips High School, Chicago, Ill.; Dr. H. B. Phillips, University of Cincinnati; Mr. A. R. Schweitzer, University of Chicago; Mr. C. G. Simpson, Michigan College of Mines; Mr. A. W. Stamper, Columbia University; Mr. F. C. Touton, Central High School, Kansas City, Mo.; Mr. M. O. Tripp, College of the City of New York. Ten applications for membership were received.

The following papers were read at the meeting:

W. H. Bussey: 'On the tactical problem of Steiner.'

Ida M. Schottenfels: 'On linear fractional transformations of functions of the complex variable $u + \epsilon v$, when $\epsilon^2 = 0$' (preliminary communication).

C. J. Keyser: 'On the linear complex of circle ranges in a plane.'

E. B. Wilson: 'Note on integrating factors.'

Miss R. L. Carstens: 'A set of independent postulates for quaternions.'

W. B. Ford: 'On the analytic extension of functions defined by double power series.'

Oswald Veblen: 'Remark on a measure of categoricalness.'

Virgil Snyder: 'Surfaces generated by conics cutting a twisted quartic curve and a line in the plane of the conic.'

Clara E. Smith: 'Development of a function in terms of Bessel's functions (second paper).'

L. P. Eisenhart: 'Surfaces with the same