

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE
OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION
FOR THE ADVANCEMENT OF SCIENCE.

FRIDAY, AUGUST 4, 1905.

CONTENTS.

Recent Advances in Physiological Chemistry:

PROFESSOR J. H. LONG..... 129

Scientific Books:—

Haeckel's Evolution of Man: J. P. McM... 137

Scientific Journals and Articles..... 139

Discussion and Correspondence:—

Ancient Greek Fish and Other Names: DR. THEO. GILL. *Engineering Problems in a Course in Physics:* PROFESSOR JOHN L. TILTON. *Arguments alleged against the Doctrine of Organic Evolution:* DR. PHIL. B. HADLEY 140

Special Articles:—

Effect of the Concentration of the Nutrient Solution upon Wheat Cultures: J. F. BREAZEALE. *The Classification of the Ordovician Rocks of Ohio and Indiana:* AUG. F. FOERSTE..... 146

Recent Work of the Wisconsin Archeological Society: HARLAN I. SMITH..... 152

Nature of Man: PROFESSOR JOHN PERRY..... 155

Scientific Notes and News..... 157

University and Educational News..... 160

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

RECENT ADVANCES IN PHYSIOLOGICAL CHEMISTRY.¹

THE enormously rapid development of physiological chemistry in the last ten years may be well illustrated by a consideration of the new journals which have

been found necessary to publish the increasing literature, and also by the influence which this department of science is exerting on other sciences, particularly on medicine. For twenty years the *Zeitschrift für physiologische Chemie* and *Maly's Jahresbericht* were sufficient to represent the specialty, which had been considered a somewhat narrow one, but suddenly, and almost simultaneously, three other publications were called into existence to keep pace with the newly aroused interest. These are the *Biochemisches Centralblatt*, the *Beiträge zur chemischen Physiologie und Pathologie* and the volume on Biochemistry of the *Ergebnisse der Physiologie*, all since 1902.

Several causes have worked to bring about this situation and the most important will be touched on in what follows, but at the outset two things are apparent; on the one hand, there is the stimulating influence of pure organic chemistry, and on the other the requirements of physiology and pathology for a more rational chemical foundation. This last factor is an extremely potent one; some of the most interesting problems of physiological chemistry have been suggested by questions growing out of the discussion of the modern doctrines of immunity and the causation of disease.

It follows, therefore, that many of the advances in physiological chemistry are in lines which are comparatively new, but there are some noteworthy exceptions and of one of these I wish to speak first. This is concerned with the question of protein

¹ Read at Buffalo meeting of the American Chemical Society, June 22, 1905.