

# 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, MAY 22, 1908

## CONTENTS

<i>The Usefulness of Chemistry in the Industries:</i> W. D. RICHARDSON .....	801
<i>Some Results of the Magnetic Survey of the United States:</i> DR. L. A. BAUER .....	812
<i>Scientific Books:—</i>	
<i>Case's Revision of the Pelycosauria of North America:</i> DR. W. D. MATTHEW. <i>Störing's Mental Pathology and Normal Psychology;</i> <i>Pillsbury's Attention:</i> J. J. ....	816
<i>Scientific Journals and Articles</i> .....	819
<i>Societies and Academies:—</i>	
<i>The Utah Academy of Science:</i> ALBERT O. GARRETT. <i>The Botanical Society of Washington:</i> DR. HAVEN METCALE. <i>The Chemical Society of Washington:</i> J. A. LECLERC. <i>The Onondaga Academy of Sciences:</i> F. H. CHASE .....	820
<i>Discussion and Correspondence:—</i>	
<i>Are Pensions for College Teachers a Form of Socialism?</i> PROFESSOR SIMON N. PATTEN. <i>The Length of the smallest known Sirenian Fetus; Gyre preferred to "Convolution":</i> PROFESSOR BURT G. WILDER. <i>Amethystine Glass;</i> PROFESSOR T. D. A. COCKERELL ...	822
<i>Special Articles:—</i>	
<i>Some Notes on Malacological Nomenclature:</i> DR. HERMANN VON IHERING; DR. W. H. DALL. <i>The Ecological Formations of Pittsburg and Vicinity:</i> OTTO E. JENNINGS. <i>The "Permanent Phase":</i> WM. P. MUNGER	825
<i>Current Notes on Meteorology and Climatology:—</i>	
<i>Bulletin of the Mount Weather Observatory; Evaporation in the Salton Sink; Tropical Temperatures; Frost in California:</i> PROFESSOR R. DEC. WARD .....	831
<i>Botanical Notes:—</i>	
<i>Fungus Notes; Notes on Algae and Archeogoniatae:</i> PROFESSOR CHARLES E. BESSEY	832
<i>The National Conference Committee on Standards of Colleges and Secondary Schools:</i> PROFESSOR FREDERICK C. FERRY .....	834
<i>Scientific Notes and News</i> .....	835
<i>University and Educational News</i> .....	839

## THE USEFULNESS OF CHEMISTRY IN THE INDUSTRIES<sup>1</sup>

ONE month ago I had the pleasure of addressing the University of Illinois section on the subject, "Chemistry and Industry." On that occasion I departed somewhat from the orthodox position of loyal chemists, which is that manufacturing industry could not long survive in the absence of chemists and a science of chemistry, and that manufacturing industry owes a large debt of gratitude, if not of worldly goods, to the chemical profession; and I endeavored to show how, long before a science of chemistry developed, a sufficient amount of chemical knowledge and a sufficient number of chemical facts were accumulated by the earliest civilizations of which we have a record, to enable them to establish and conduct chemical manufactures in a rather creditable manner. I felt it was necessary to emphasize this fact, which is frequently lost sight of in the pursuit of laboratory chemistry, in the interest of a fair understanding of the relationship between the science of chemistry, and manufacture, and in the interest of fair play, too, because I should not care to give chemistry more than its due.

There are, broadly considered, but two kinds of manufacture; one of them is concerned with those processes which change the form of matter only, mechanical manufacture, and includes such industries as the founding, metal-working, wood-working

<sup>1</sup> Address delivered before the Indianapolis Section of the American Chemical Society, March 20, 1908.