

# 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.

EDITORIAL COMMITTEE: S. NEWCOMB, Mathematics; R. S. WOODWARD, Mechanics; E. C. PICKERING, Astronomy; T. C. MENDENHALL, Physics; R. H. THURSTON, Engineering; IRA REMSEN, Chemistry; CHARLES D. WALCOTT, Geology; W. M. DAVIS, Physiography; HENRY F. OSBORN, Paleontology; W. K. BROOKS, C. HART MERRIAM, Zoology; S. H. SCUDDER, Entomology; C. E. BESSEY, N. L. BRITTON, Botany; C. S. MINOT, Embryology, Histology; H. P. BOWDITCH, Physiology; J. S. BILLINGS, Hygiene; WILLIAM H. WELCH, Pathology; J. MCKEEN CATTELL, Psychology; J. W. POWELL, Anthropology.

FRIDAY, SEPTEMBER 12, 1902.

SCIENTIFIC RESEARCH: THE ART OF  
REVELATION AND OF PROPHECY.\*

## CONTENTS:

<i>Scientific Research—the Art of Revelation and of Prophecy: PROFESSOR R. H. THURSTON</i> .....	401
<i>On Some Recent Advances in the Fireproofing Treatment of Wood: SAMUEL P. SADTLER</i> .....	424
<i>American Association for the Advancement of Science:— Twentieth Annual Report of the Committee on Indexing Chemical Literature</i> .....	428
<i>Scientific Books:— Jahrbuch der Chemie: E. T. ALLEN. Kükenthal's Leitfaden für das zoologische Praktikum: PROFESSOR HENRY F. NACHTRIEB</i> .....	431
<i>Scientific Journals and Articles</i> .....	431
<i>Discussion and Correspondence:— 'Effective Forces': PROFESSOR L. M. HOSKINS. Reference Books in Nomenclature: HENRY E. BAUM</i> .....	432
<i>Shorter Articles:— The Physiology of Sea Water: RODNEY H. TRUE. Bertiella, New Name for the Cestode Genus Berthia Blanchard: DR. CH. WARDELL STILES and ALBERT HASSALL. Notes on Canker and Black-rot: P. J. O'GARA</i> ..	433
<i>Paleontological Notes:— The Generic Name Omosaurus; A New Generic Name for Stegosaurus Marshi: F. A. LUCAS</i> .....	435
<i>Anthropology in America</i> .....	436
<i>Forestry in the Hawaiian Islands</i> .....	436
<i>Scientific Notes and News</i> .....	437
<i>University and Educational News</i> .....	440

## I.

SCIENTIFIC research is the highest work undertaken by the man of science, and it can be undertaken with confidence only by him who has made himself familiar with the state of his art, to date, or by the genius whose inspiration may, now and then, make learning, for the time and the occasion, less essential. Yet it is particularly true, in science, that genius involves a talent for hard work. That talent first achieves learning, then seeks further knowledge through research, skillfully interrogating Nature.

Scientific research may be defined as 'the Art of Revelation and of Prophecy.' By investigation, commonly experimental, the research is directed toward the acquirement of new facts in a field in which, at the moment, earlier gleaners either have done little or, having explored the field extensively, yet lack knowledge of certain fundamental elements of the problem of formulation of the laws relating to its phenomena. It is sought to reveal a new system of scientific phenomena, of natural science, or to complete the partly developed theory. When the facts are thus learned,

\* An address delivered before the Pennsylvania Chapter of Sigma Xi, by Robert H. Thurston, Philadelphia, June 14, 1902.

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.