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; JOSEPH LE CONTE, Geology; W. M. DAVIS, Physiography; O. C. MARSH, Paleontology; W. K. BROOKS, Invertebrate Zoölogy; C. HART MERRIAM, Vertebrate Zoölogy; N. L. BRITTON, Botany; HENRY F. OSBORN, General Biology; H. P. BOWDITCH, Physiology; J. S. BILLINGS, Hygiene; J. McKEEN CATTELL, Psychology; DANIEL G. BRINTON, J. W. POWELL, Anthropology.

FRIDAY, FEBRUARY 8, 1895.

CONTENTS: An Historical Survey of the Science of Mechanics:

R. S. WOODWARD141

The Five Books of History: J. W. POWELL157
Unity of Nomenclature in Zoölogy and Botany:
C. Hart Merriam
Scientific Literature:—162
Can an Organism without a Mother be Born
from an Egg? W. K. B. Schorlemmer's Rise
and Development of Organic Chemistry: EDGAR
F. SMITH.
Notes and News:164
Hygiene; Physics; _ Anatomy; Carnivorous
Plants; Toads on the Seashore; General.
Societies and Academies:
New York Academy of Sciences, Section of Bi-
ology; Biological Society of Washington.
Scientific Journals
Non Pools

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Prof. J. McKeen Cattell, Garrison on Hudson, N. Y. Subscriptions (five dollars annually) and advertisements should be sent to the Publisher of SCIENCE, 41 East 49th St., New York, or Lancaster, Pa.

$AN\ HISTORICAL\ SURVEY\ OF\ THE\ SCIENCE\ OF\ MECHANICS.*$

OUR age is at once the age of excessive specialization and the age of excessive popularization of science. Every smallest field of scientific activity has its gleaners and classifiers and builders of technical terminology. The workers in each field proceed, as a rule, without much regard to the inter-

*Address delivered by Professor R. S. Woodward, at a meeting of the New York Academy of Sciences, November 26, 1894.

ests and objects of the workers in adjoining fields, and it may easily happen that the precise and lucid, if not romantic, literature current in one field will be well-nigh unintelligible in another. So far, indeed, has this specialization gone that the various classes of specialists have but little common ground on which to meet, and it is sometimes difficult, if not impossible, for them to dwell together in peace and harmony. In a general scientific assembly, for example, the naturalists feel great uneasiness in listening to a paper from a mathematician or physicist, while the latter are almost certain to seek relief in the open air from the depression induced in them by the wealth of terminology essential to the description of a new species. The general public, on the other hand, busy though it be with multifarious affairs, is quick to appreciate the results of science and eager to know how they have been attained. To meet this legitimate demand for information, scientific and pseudo-scientific men have given us a flood of popular literature explaining almost every discovery, principle, theory, and speculation known to scientific thought. Nay more, and worse, this popularization has gone so far that many have come to think that the royal road to learning has been found; that it is only necessary, in fact, to acquire a little of the technical terminology, to read a few books, and to witness a few pyrotechnic experiments to come into possession of