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, JULY 11, 1902.

CONTENTS:

American Association for the Advancement	
of Science:—	
The Pittsburgh Meeting: Dr. D. T. MAC-	
DOUGAL	41
Applied Botany, Retrospective and Pros-	
pective: Dr. B. T. GALLOWAY	4 9
Scientific Books:—	
Wolf's Histoire de l'Observatoire de Paris:	
Professor George C. Comstock. Pammel	
and Weems on the Grasses of Iowa: Pro-	
FESSOR W. J. BEAL. Parker and Parker's	
Practical Zoology: Dr. M. A. BIGELOW	59
Societies and Academies:—	
New York Academy of Sciences, Section of	
Astronomy, Physics and Chemistry: Dr.	
S. A. MITCHELL	63
Scientific Journals and Articles	63
Discussion and Correspondence:—	
Force and Energy: Professor Charles S.	

MINOT. Ether Waves from Explosions:	
PROFESSOR FRANCIS E. NIPHER. Ecology:	
W. F. GANONG. The European Pond-snail:	
DR. B. ELLSWORTH CALL. Text-books: J.	
STANFORD BROWN	64
Shorter Articles:—	
A New Meteorite from Kansas: Dr.	
OLIVER C. FARRINGTON. Notes on the	
Lafayette and Columbia Formations and	
some of their Botanical Features: ROLAND	
M. HARPER. Instinct in Song Birds: WIL-	
LIAM E. D. SCOTT. A New Short Method of	
Multiplication: Dr. D. N. LEHMER	67
Current Notes on Meteorology:-	
Eclipse Meteorology; Rainfall Variations;	
Notes: Professor R. DeC. Ward	74
Memorial of Haller: Professors Michael	
FOSTER and PAUL HEGER	75
Scientific Notes and News	77
University and Educational News	79

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

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE fifty-first meeting, held in Pittsburgh, from June 28 to July 3, may be held to be fairly typical of the general development of the Association during the last few years, and as one which goes far toward realizing some of the more serious purposes of the organization.

The total number of members in attendance was 431, which places the meeting far up toward the head of the list, so far as this feature is to be taken into account, and the roll includes an unusual proportion of the worthiest names among American men of science. Especially large attendance in physics, chemistry, mechanics and engineering may be attributed to the opportunity afforded the members of inspecting the great number of manufacturing establishments in and about Pittsburgh, which exhibit some of the most modern and interesting examples of the applications of the branches in question. This feature