## 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; J. LE CONTE, Geology; W. M. DAVIS, Physiography; O. C. MARSH, Paleontology; W. K. BROOKS, C. HART MERRIAM, Zoology; S. H. SCUDDER, Entomology; C. E. BESSEY, N. L. BRITTON, Botany; HENRY F. OSBORN, General Biology; C. S. MINOT, Embryology, Histology; H. P. BOWDITCH, Physiology; J. S. BILLINGS, Hygiene; J. MCKEEN CATTELL, Psychology; DANIEL G. BRINTON, J. W. POWELL, Anthropology.

FRIDAY, AUGUST 26, 1898.

## CONTENTS:

Address of the President before the American Associ-
ation for the Advancement of Science: PROFES-
SOR WOLCOTT GIBBS
A Half Century of Evolution, with Special Reference
to the Effects of Geological Changes on Animal
Life: PROFESSOR ALPHEUS S. PACKARD243
Botanical Notes :
Asparagus Rust; Poisonous Plants; Edible and
Poisonous Fungi: PROFESSOR CHARLES E.
Bessey257
Current Notes on Meteorology :
Report of the Chief of the Weather Bureau; The
Mauritius Observatory; West Indian Hurricanes:
R. DEC. WARD259
Current Notes on Anthropology:
Pygmy Tribe in America; The Turanians Again;
The Influence of Cities in Modern Life: PROFES-
SOR D. G. BRINTON
Scientific Notes and News :
Degrees Conferred by the University of Edinburgh;
General
University and Educational News
Discussion and Correspondence :
An American Blue Grotto: DR. H. CARRING-
TON BOLTON. The Delusion of Atavism: F.
A. L
Scientific Literature :
Lafar's Technical Mycology: PROFESSOR H. L.
RUSSELL. Anderson on Extinct Civilizations of the
East : PROFESSOR D. G. BRINTON. Davies' Nests
and Eggs of North American Birds: F. A. L267
New Books

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

## ADDRESS OF THE PRESIDENT BEFORE THE AMERICAN ASSOCIATION FOR THE AD-VANCEMENT OF SCIENCE.\*

THE time-honored custom of our Association makes it incumbent upon the retiring President to deliver an address upon some subject connected, if possible, with his own work, and not purely elementary or historical, but with at least some fresh ideas and some new facts. The task is a difficult one for a chemist, for there is perhaps no branch of science in which, of late years, there has been so much mental activity, and it is hard to find any subject which has not been worn threadbare in discussion.

Trusting to your indulgence, I will here present some theoretical points connected in part with my own work, and will treat them as briefly as the nature of the subjects will permit.

All chemists are familiar with the terms atom and molecule. The use of these two words, with a clear conception of their meaning, forms an era in the history of the science. Our modern chemistry is built up of atoms and molecules, as we now define them. Our modern physics deals for the most part and, as I think, too exclusively with atoms, except, perhaps, in the case of what we now term physical chemistry, the new branch of science, which makes it difficult for us to determine where chemistry

\*Delivered before the Boston meeting, August 22, 1898.