

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 ; 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, APRIL 9, 1897.

CONTENTS:

<i>The War with the Microbes</i> : E. A. DE SCHWEINITZ.....	561
<i>The Growth of Children</i> : FRANZ BOAS.....	570
<i>The Promise and Potency of High Pressure Steam</i> : R. H. THURSTON.....	573
<i>The Origin of the Teeth of the Mammalia</i> : HENRY F. OSBORN.....	576
<i>Zoological Notes</i> :—	
<i>The Sharp-tailed Finches of Maine</i> : A. K. FISHER.....	577
<i>Current Notes on Physiography</i> :—	
<i>Yellowstone National Park ; Bearpaw Mountains, Montana ; Laurentian Highlands of Canada ; Maps of Mt. Desert</i> : W. M. DAVIS.....	577
<i>Current Notes on Anthropology</i> :—	
<i>The Progress of Anthropology ; The Lumbar Curve ; Native American Mysticism</i> : D. G. BRINTON.....	578
<i>Scientific Notes and News</i>	579
<i>University and Educational News</i>	584
<i>Discussion and Correspondence</i> :—	
<i>Diffraction of X-Rays obtained by a New Form of Cathode Discharge</i> : R. W. WOOD. <i>The Height and the Velocity of the Flight of a Flock of Geese Migrating Northward</i> : H. HELM CLAYTON. <i>Archæological Discoveries made in the Gravels at Trenton</i> : G. FREDERICK WRIGHT, D. G. BRIN- TON. <i>An Imaginary Fleet</i> : G. D. HARRIS. <i>The Metric System</i> : BURT G. WILDER.....	585
<i>Scientific Literature</i> :—	
<i>The Formation of the Quarternary Deposits of Missouri</i> : O. H. HERSHEY. <i>Peters' Angewandte Elektrochemie</i> : EDGAR F. SMITH.....	587
<i>Scientific Journals</i> :—	
<i>American Journal of Science ; The Astrophysical Journal</i>	589
<i>Societies and Academies</i> :—	
<i>Zoological Club of the University of Chicago. The Anthropological Society of Washington</i> : J. H. McCORMICK. <i>The New York Academy of Sci- ences—Biological Section</i> : BASHFORD DEAN. <i>The Torrey Botanical Club</i> : EDWARD S. BUR- GESS.....	592
<i>New Books</i>	596

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.

THE WAR WITH THE MICROBES.*

FROM the moment that man made his appearance in the world there has been perpetual warfare between himself and everything animate and inanimate upon the earth. To a great extent this has been an aggressive strife, man's every effort being exerted to compel nature to contribute to his comfort, welfare and advancement by the subjugation of her materials and forces. It was many centuries, however, before he recognized that there were certain unknown insidious enemies, which often rendered fruitless his simple household occupations, defied his every effort at control and sometimes menaced even his well-being and life. Though in 1675 Leeuwenhoek discovered, with a powerful magnifying glass, certain minute organisms in decomposing animal matter, it was not until nearly two centuries later that their true significance was recognized, and Davaine first demonstrated the positive connection between these minute forms of life and disease. When animal and vegetable life ceased, in accordance with the laws of nature, they were supposed to be changed by purely chemical actions, so that their elements were again returned to the earth and air to supply food for other plants and animals. This destruction was considered to be wrought simply by the oxygen of the air, and the process of

* Address of the President before the Chemical Society of Washington, March 9, 1897.

Science

5 (119)

Science 5 (119), 561-596.

ARTICLE TOOLS

<http://science.sciencemag.org/content/5/119.citation>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. The title *Science* is a registered trademark of AAAS.

Copyright © 1897 The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works.