

# SCIENCE

Vol. 73

FRIDAY, APRIL 24, 1931

No. 1895

<i>Michael Faraday</i> : DR. W. F. G. SWANN .....	433	<i>Sap for Analysis by Bleeding Corn Plants</i> : M. W. LOWRY and PAUL TABOR .....	452
<i>Scientific Events</i> :		<i>Special Articles</i> :	
<i>The Imperial Agricultural Research Bureaus; Mineral Values in Alaska; The Forest Service and Highway Commissions; Lectures in Physics at the University of Michigan; The Botanical Society of America</i> .....		<i>Humidity and Comfort</i> : DR. W. H. HOWELL. <i>Modification of Therapeutic Sera with a View of Avoiding Complications of Allergic Nature</i> : DR. J. BRONFENBRENNER, D. M. HETLER and I. O. EAGLE. <i>Hemoglobin and Chlorophyl</i> : PROFESSOR ORAN RABER. <i>The Life Cycles of Trichogramma Minutum in Relation to Temperature</i> : S. E. FLANDERS .....	
<i>Scientific Notes and News</i> .....	442		453
<i>Discussion</i> :		<i>Science News</i> .....	
<i>The Central Bodies Again</i> : PROFESSOR EDMUND B. WILSON and PROFESSOR ALFRED F. HUETTNER. <i>A New Posterior Pituitary Preparation</i> : PROFESSOR C. G. MACARTHUR. <i>The Occurrence of Filterable Forms of Bacteria in Nature</i> : DR. JAMES M. SHERMAN and CLAIR E. SAFFORD. <i>Positive Gas and Water Pressure in Oaks</i> : C. A. ABELL and DR. C. R. HURSH. <i>Analyses of the Blood of Idiots</i> : PROFESSOR SIDNEY S. NEGUS. <i>Drawings from Photographs</i> : G. E. MACGINITIE			10
	447	<hr/>	
<i>Quotations</i> :		SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKEEN CATTELL and published every Friday by	
<i>Industry and Scientific Research</i> .....		THE SCIENCE PRESS	
	450	New York City: Grand Central Terminal	
<i>Societies and Academies</i> :		Lancaster, Pa. Garrison, N. Y.	
<i>Annual Meeting of the Ohio Academy of Science</i> : WM. H. ALEXANDER .....		Annual Subscription, \$6.00 Single Copies, 15 Cts.	
	451	SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.	
<i>Scientific Apparatus and Laboratory Methods</i> :		<hr/>	
<i>An Adjustable Double-Slit</i> : R. WILLIAM SHAW. <i>A Fused Quartz Féry Prism</i> : NORA M. MOHLER.			

## MICHAEL FARADAY<sup>1</sup>

By Dr. W. F. G. SWANN  
BARTOL RESEARCH FOUNDATION

It is a characteristic of the march of progressive in natural philosophy that from time to time we seem to see the end of all that man may hope to learn. There arises before our mental vision a barrier, a barrier in which the horizon of knowledge seems also its boundary. The things that have not already been done seem trivial, or at best so hopelessly complex and involved in relation to our previous fields of thought that nothing but discouragement and waste of time offer themselves as the probable lot of any one who seeks to unravel them.

The tremendous development in electrical science which has taken place in the last hundred and fifty years acts in two diametrically opposite ways in moulding our appreciation of the contributions to

<sup>1</sup> An address given on February 14, 1931, at the Massachusetts Institute of Technology, under the auspices of the Department of English and History.

science of such a man as Michael Faraday. On the one hand they emphasize to us the fundamentality of his work. They emphasize the fact that it is to investigations made for merely altruistic reasons that the world must look, ultimately, for returns in the form of material progress in the applications of science to everyday life. If we could picture that kindly philosopher who worked in his laboratory a century ago as having a prophetic vision of the results of his labor, we might suppose him well encouraged by the vision of the future in the many discouragements of his present. Wide as was his vision, however, we can hardly imagine that even Faraday could foresee the glorious maturity to which his efforts have grown to-day. To him those strange phenomena concerned with the behavior of light, those effects produced by the mutual motions of magnets and wires, those curious powers possessed by certain fish to give

# Science

**73 (1895)**

*Science* **73** (1895), 10-458.

**ARTICLE TOOLS**

<http://science.sciencemag.org/content/73/1895.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. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.