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## CONTENTS

<i>Bacon's College of Research</i> : DR. MARK H. LIDDELL .....	25
<i>The Terminology of Certain Physical and Biological Effects of Light</i> : DR. ENOCH KARRER .....	30
<i>Thomas Corwin Mendenhall</i> : GEORGE R. PUTNAM .....	33
<i>Scientific Events:</i>	
<i>Progress in Preparation of International Critical Tables; The New Engineering Buildings of University College; The Section of Psychology of the British Association; School of Hygiene in the University of Toronto; Appointments at the Rockefeller Institute</i> .....	35
<i>Scientific Notes and News</i> .....	37
<i>University and Educational Notes</i> .....	39
<i>Discussion and Correspondence:</i>	
<i>The Fossil Elephants of Minnesota</i> : PROFESSOR CLINTON R. STAUFFER. <i>Is there an Entomogenous Fungus Attacking Citrus Rust Mite in Florida?</i> A. T. SPEARE and W. W. YOTHERS. <i>Prevention of Weak Legs in Experimental Chickens</i> : JANE COLLIER. <i>Permanent Photographs</i> : DR. CLARENCE H. KENNEDY .....	40
<i>Scientific Books:</i>	
<i>Sellards, Tharp and Hill on the Investigations on the Red River</i> : DR. F. E. CLEMENTS .....	43
<i>Special Articles:</i>	
<i>The Chromosome Complexes in the Somatic Cells of Male and Female of the Domestic Chicken</i> : P. J. SHIWAGO. <i>Note on the Average Numbers of Brothers and of Sisters of the Boys in Families of n Children</i> : PROFESSOR H. L. RIETZ .....	45
<i>The American Chemical Society:</i>	
<i>Division of Organic Chemistry</i> : PROFESSOR J. A. NIEUWLAND .....	47
<i>Science News</i> .....	viii

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## BACON'S COLLEGE OF RESEARCH<sup>1</sup>

It is a common trick of the human mind to estimate the progress of science in a sort of backward survey, reversing the perspective glass of history by turning its eye-piece away from the observer. We unconsciously project into the record the connotations of a later experience and thus distort its true values. The process is as prejudicial to our judgment as it is flattering to our vanity. This is what Sir Henry Wotton means when he says, "we are extremely mistaken in the computation of antiquity by searching it backwards."

Nowhere is the computation of antiquity backwards more fatal to a clear understanding of the past than in dealing with language. We think of Shakspeare, for example, not as employing the English of the early 17th century, the only English that he could possibly know, and doing it with a fullness and accuracy that has never been surpassed by any of the great masters of human speech; we think of him as patiently endeavoring to clothe his resistant genius in the connotations of twentieth-century English, and hitting them not quite happily.

So it is with Bacon. We think of him as attempting to formulate science in the terms of our modern concepts, and project into his words scientific connotations that were not born until a century later.

Let us, then, on this three-hundredth anniversary of the publication of a book which revolutionized scientific method and set in motion a "new Philosophy," whose infant society of a handful of enthusiasts was to be the parent of great scientific organizations like the British and American Associations for the Advancement of Science—let us, then, take 1623 as a bench-mark for our theodolite and make a forward survey of the "proficiency and advancement" that learning has achieved during the last three centuries.

Putting ourselves in Bacon's position at the beginning of the seventeenth century and surveying the then state of learning through his eyes, we find an intellectual system that is based upon Plato and Aristotle. These great thinkers, master and pupil, had assumed as the foundation of knowledge certain self-existent and predetermined principles—Plato calls them "ideas," Aristotle, "forms"—which it was the business of nature to illustrate and of man to realize. Plato had concerned himself chiefly with the manward relations of his "ideas," and organized them into

<sup>1</sup> A paper read before Section L of the American Association for the Advancement of Science on the 300th anniversary of the publication of Bacon's *de Dignitate et Augmentis Scientiarum*, December 31, 1923.

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