

SCIENCE

FRIDAY, AUGUST 11, 1911

CONTENTS

<i>The Chemistry of Anesthetics:</i> PROFESSOR CHARLES BASKERVILLE	161
<i>Cyrus Guernsey Pringle:</i> C. R. ORCUTT	176
<i>Students in the German Universities</i>	177
<i>The Astronomical Fellowship of the Nantucket Maria Mitchell Association</i>	177
<i>Scientific Notes and News</i>	178
<i>University and Educational News</i>	180
<i>Discussion and Correspondence:—</i>	
<i>The Pythagorean Theorem:</i> PROFESSOR ALEXANDER MACFARLANE. <i>A Bright Aurora of September, 1908:</i> PROFESSOR WILLIAM FRANCIS RIGGE	181
<i>Quotations:—</i>	
<i>State Support of Medical Education</i>	183
<i>Scientific Books:</i>	
<i>Bernard on Some Neglected Factors in Evolution:</i> J. P. McM. <i>Jepson's The Silva of California:</i> PROFESSOR J. W. HARSHBERGER. <i>Hitchcock's Hawaii and its Volcanoes:</i> WHITMAN CROSS	184
<i>Special Articles:—</i>	
<i>The Permeability of Living Cells to Salts in Pure and Balanced Solutions:</i> PROFESSOR W. J. V. OSTERHOUT	187
<i>The American Chemical Society:</i> PROFESSOR CHARLES L. PARSONS	189

MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

THE CHEMISTRY OF ANESTHETICS¹

IDIOSYNCRASY has in the past accounted for—serves now to account for—unusual observations in the use of drugs, and perhaps will continue to cover much of our lack of information as to their real therapeutic action, but I am of the opinion that it is a “magic skin.”

Sacred, profane and mythological literature abound in incident, fact and fancy, showing that from earliest times man has sought to assuage grief and pain by some means of dulling consciousness. Recourse was had to the inhalation of fumes from various substances, weird incantations, application of drugs, both external and internal, pressure upon important nerves and blood vessels, and the laying on of hands, or animal magnetism. Each has played its part in the mitigation of human ills. It was not until the close of the eighteenth century, however, that modern surgical anesthesia was foreshadowed. Then it was that the discovery of hydrogen, nitrogen, oxygen and nitrous oxide—pneumatic chemistry, as it were—created a field of pneumatic medicine. In 1789, the Pneumatic Institute was founded for the purpose of investigating the “medical powers of factitious airs or gases” and was set up at Clifton by Dr. Beddoes. The immediate idea to be followed out was the treatment of phthisis and other lung troubles by inhalation of various gases. Humphry Davy was assigned the office of superintending the experiments. Davy actually inhaled nitrous oxide, and re-

¹ A lecture delivered at the general meeting of the American Chemical Society, Indianapolis, June 28, 1911.