

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE
OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION
FOR THE ADVANCEMENT OF SCIENCE.

FRIDAY, OCTOBER 23, 1908

CONTENTS

<i>The Function of the Engineer in the Conservation of the Natural Resources of the Country</i> : PRESIDENT CHARLES S. HOWE ..	537
<i>The Increasing Importance of the Rarer Elements</i> : PROFESSOR PHILIP E. BROWNING ..	548
<i>Scientific Notes and News</i>	555
<i>University and Educational News</i>	558
<i>Discussion and Correspondence</i> :—	
<i>The Proceedings of the Association of Official Agricultural Chemists</i> : PROFESSOR F. W. WOLL. <i>Appointments in Colleges and Universities</i> : PROFESSOR G. A. MILLER. <i>On the Origin and Age of the Sedimentary Rocks</i> : DR. J. M. SCHAEERLE. <i>Clouds over a Fire</i> : WM. F. WALLIS	559
<i>Quotations</i> :—	
<i>Daniel Coit Gilman</i>	565
<i>Scientific Books</i> :—	
<i>The Harvey Lectures</i> : PROFESSOR FREDERIC S. LEE. <i>Jackson on the Pollution of New York Harbor</i> : A. ARSÈNE GIRAULT	566
<i>Scientific Journals and Articles</i>	569
<i>The Loco-weed Disease</i> : DR. REID HUNT ...	570
<i>Special Articles</i> :—	
<i>The Effect of Lesions of the Dorsal Nerve Roots on the Reflex Excitability of the Spinal Cord</i> : CLYDE BROOKS. <i>A Note on the Occurrence of two West Indian Fishes at Beaufort, N. C.</i> : BARTIS MCGLONE. <i>Catalytic Reduction of Fats and Oils</i> : PROFESSOR J. BISHOP TINGLE	571
<i>Societies and Academies</i> :—	
<i>Joint Meeting of Geologists of the North-eastern United States with the Section of Geology and Mineralogy of the New York Academy of Sciences</i> : DR. CHARLES P. BERKEY	573

THE FUNCTION OF THE ENGINEER IN THE CONSERVATION OF THE NATURAL RESOURCES OF THE COUNTRY

THE prosperity of a country depends primarily upon its natural resources. The raw material which the farmer and the manufacturer use and the products of which furnish business for the merchant, come from or depend upon timber, fuel, minerals, soil, water. These are the natural resources of any country, and as they exist in large or small quantities, as they are easy of access, as their quality is good or bad, must depend the agricultural and industrial prosperity and success of the nation. Some countries have large supplies of one or more of these natural products and a few are blessed with them all. This country is especially fortunate in that it originally had within its bounds not only all of these natural resources, but large quantities of each of them, and that they were rich in quality and easy of access. When the country was first settled by Europeans, the new inhabitants gave little thought to the question of natural resources except in so far as these directly concerned their daily life. They established themselves where the soil was rich because they wished to pursue agriculture as a vocation, but they made no study of soils further than this. Forests were regarded as an encumbrance to be cleared away as soon as possible, for they interfered with agriculture, which was the chief business, and they were the lurking places of wild beasts and wilder men. They were useful only for the purpose of furnishing lumber and