

# SCIENCE

FRIDAY, OCTOBER 18, 1918

## THE AMERICAN CHEMIST IN WARFARE<sup>1</sup>

### CONTENTS

<i>The American Chemist in Warfare:</i> DR. CHARLES L. PARSONS .....	377
<i>Scientific Events:—</i>	
<i>The Cawthron Institute of Scientific Research; The International Institute of Agriculture at Rome; The Museum of the University of Pennsylvania; Western Reserve University Medical Group; The New York Post-graduate Medical School</i> .....	386
<i>Scientific Notes and News</i> .....	390
<i>University and Educational News</i> .....	393
<i>Discussion and Correspondence:—</i>	
<i>Correlation of the Hydrogen-Ion Exponent and Occurrence of Bacteria in Soil:</i> L. J. GILLESPIE. <i>The Need of Another Philanthropist by Organic Chemists:</i> DR. CLARENCE AUSTIN MORROW. <i>Color Association:</i> ARTHUR B. SMITH .....	393
<i>Quotations:—</i>	
<i>War and Engineering Education</i> .....	396
<i>Scientific Books:</i>	
<i>Annals of the Astronomical Observatory of Harvard College:</i> PROFESSOR GEORGE C. COMSTOCK. <i>Sherman on the Chemistry of Food and Nutrition:</i> PROFESSOR GRAHAM LUSK .....	397
<i>Special Articles:—</i>	
<i>The Formation of the Fat Droplets in the Cells of Tissue Cultures:</i> MARGARET REED LEWIS .....	398
<i>The American Mathematical Society:</i> PROFESSOR F. N. COLE .....	399

It was the fortune of the writer in the latter part of 1916, a few months before the United States entered the war, to be sent by the Ordnance Department to study in England, France, Italy, Norway and Sweden certain chemical processes, particularly those having to do with the fixation of nitrogen.

On this trip many chemical plants were visited. In all of them the same story was told of depleted chemical personnel owing to the loss of chemists in the trenches and the consequent handicap under which all these plants were laboring in their attempts to furnish the armies with the sinews of war. The whole munitions program had been retarded owing to lack of technical men, chiefly chemists, and the statement was everywhere made that the greatest mistake that the Entente countries had made had been in giving too little attention to brain power and too much to physical strength. On the other hand, it was pointed out that Germany had carefully conserved her chemists for the development of the new and terrible forms of warfare she was forcing on mankind. Science was being used as it had never been used before, to aid a relentless power, and the only means of combating the new form of warfare was with its own weapons.

Already France, England, Italy and Canada had withdrawn all chemists remaining in the service for chemical duty at home, but many had already been lost and their loss was seriously felt. France had drawn so far as possible on the chemists and engineers of Norway, and England drew on her colonies. Indeed, the chemist who perhaps more than any other in England is responsible for the success

<sup>1</sup> Presented at the fifty-sixth meeting of the American Chemical Society, Cleveland, September 10, 1918.

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

# Science

**48 (1242)**

*Science* **48** (1242), 377-400.

**ARTICLE TOOLS**

<http://science.sciencemag.org/content/48/1242.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 © 1918 The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works.