

SCIENCE

FRIDAY, DECEMBER 10, 1909

CONTENTS

<i>The Food Supply of the Future: PROFESSOR H. P. ARMSBY</i>	817
<i>A Defence of Sanity: PROFESSOR FREDERIC S. LEE</i>	823
<i>Anton Dohrn, Founder and Director of the Naples Aquarium: DR. STEWART PATON ..</i>	833
<i>The Paleontological Society of America</i>	835
<i>The American Association for the Advancement of Science</i>	836
<i>The Convocation Week Meetings of Scientific Societies</i>	837
<i>Scientific Notes and News</i>	838
<i>University and Educational News</i>	840
<i>Discussion and Correspondence:—</i>	
<i>International Language: DR. W. J. SPILLMAN, KARL F. KELLERMAN. College Solidarity: F. M. PERRY</i>	841
<i>Quotations:—</i>	
<i>Secondary Education in Agriculture in the United States</i>	848
<i>Scientific Books:—</i>	
<i>Richards's Experimentelle Untersuchungen über Atomgewichte: DR. F. W. CLARKE. Johannsen's Elemente der Exakten Erblichkeitslehre: PROFESSOR CHAS. B. DAVENPORT</i>	850
<i>Special Articles:—</i>	
<i>The Action of Radium Salts on Rubies: PROFESSOR CHAS. BASKERVILLE. Demonstration of Electrical Oscillations: DR. WALTER G. CADY</i>	853
<i>Societies and Academies:—</i>	
<i>The American Philosophical Society. The Biological Society of Washington: M. C. MARSH. Northeastern Section of the American Chemical Society: K. L. MARK</i>	755

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

THE FOOD SUPPLY OF THE FUTURE¹

FROM various sources we have heard of late warnings of a deficiency in the food supply of the future population of the United States.

Thus President James J. Hill in his address before the Bankers' Association, and more elaborately in his recent article in *The World's Work*, sets forth in striking terms the growth of our population and the present limits of wheat production and predicts a shortage of not less than 400,000,000 bushels by the middle of the present century unless radical improvements in the prevailing methods of farming are speedily inaugurated.

Davenport, in his address at the dedication of Agricultural Hall at the University of Maine, calculates that if the rate of increase of population in the past one hundred years be maintained, the end of the twentieth century will see us with a population of twelve hundred millions, and emphasizes the fact that the agriculture of the future must be enormously productive in order to feed these teeming millions. He says:

The conditions that have just been discussed will not be temporary and transient; they will be enduring, yes, permanent, and they must be met by a permanent agriculture—a thing the world has never yet succeeded in establishing. No race has ever yet learned to feed itself except at the expense of the fertility of its own or some other country. Other races have come up against this problem and have gone down under it. . . .

There is to be, in the very near future, a struggle for land and the food it will produce

¹ Presidential address delivered before the American Society of Animal Nutrition at Chicago, Ills., November 27, 1909.