

and to administer these lands as permanent national forests. An appropriation of \$2,000,000 is made annually until July 1, 1915, for the examination and acquisition of these lands, together with \$25,000 additional annually for the expenses of the commission.

Eliminating the deficiency appropriations and that for the Forest Reservation Commission, these various appropriations, which are intimately connected with the work of the department, would, if added to the regular appropriations, make a grand total of \$22,570,016. This is a large sum, but as was pointed out by Chairman Scott in concluding the presentation of the bill, "the money appropriated for the Department of Agriculture is an investment and not an expense. And that it has been a good investment the statistics showing the expansion of agriculture and the improvement in methods throughout our country bear eloquent witness. During these past ten years, while the Department of Agriculture has been expending \$90,000,000, the farmers of the United States have added to the wealth of the world the stupendous and incomprehensible sum of \$80,000,000,000. Without anything like a corresponding increase in the area of land under cultivation, the value of the farm products of our country has risen from slightly more than \$4,000,000,000 ten years ago to nearly \$9,000,000,000 in 1910.

"The conclusion is inevitable, therefore—and that conclusion could be made incontestable by innumerable other proofs if time permitted—that the farmers of America are applying better methods and getting better results from their labors than ever before. And in devising these better methods, in pointing the way for better results, the Department of Agriculture has been the undisputed leader, as it should be, and has thus beyond cavil or question derived from the money it has expended a percentage of profit to all the people which can not be calculated."

*APPROPRIATIONS FROM THE BACHE  
FUND OF THE NATIONAL ACADEMY  
OF SCIENCES*

DURING the past year the following grants

have been made from the Bache Fund of the National Academy of Sciences:

May 20, 1910. Franz Boas .....	\$300
Investigation of head-forms of new-born children.	
May 20, 1910. John A. Parkhurst .....	500
Photometric and spectroscopic survey of circum-polar stars.	
June, 1910. Louis T. More .....	500
Continuation of investigation on discharge of electricity through gases; radioactivity and electro-magnetic action (second appropriation; first made in May, 1908).	
December 9, 1910. S. F. Acree .....	400
Investigation of reactions of alkyl halides with sodium ethylate.	
January 25, 1911. P. W. Bridgman .....	500
Effects of high pressure; variation of freezing point of liquids with pressure; compressibility of liquids and solids; and mechanical properties of metals.	
February 2, 1911. Francis B. Sumner ....	250
Experiments on effects of external conditions on growing white mice.	
April 17, 1911. E. W. Washburn .....	200
To prepare and measure the specific conductance of pure water.	
April 17, 1911. Gilbert N. Lewis .....	500
The determination of the electrode potentials of the alkali metals and of the metals of the alkaline earths.	
April 17, 1911. Charles C. Adams .....	125
For the expense of completing and preparing for publication a paper entitled "The Geographic Variations and Relations of CO."	

*SCIENTIFIC NOTES AND NEWS*

COLUMBIA UNIVERSITY has conferred its doctorate of laws on Professor C. F. Chandler, who retires this year from the chair of chemistry after forty-seven years of active service.

SIR WILLIAM T. THISTLETON-DYER, formerly director of the Kew Botanic Gardens, will receive the honorary doctorate of science from Oxford University on June 28.

DR. C. S. SARGENT, director of the Arnold Arboretum, Harvard University, has been elected an honorary member of the Société Nationale d'Acclimation de France, and an honorary member of the Royal Irish Academy.