

respective fields should be preserved and their growth fostered, as agencies for the investigation of local questions and of the more individual scientific problems. The federal agency, on the other hand, should cultivate the almost limitless field offered by questions having national or interstate relations and by those broad scientific problems requiring heavy expenditures, elaborate equipment, long continued study and the correlation of the results of many investigators, which efforts are usually beyond the means of an individual station. On many questions the harmonious cooperation of the two agencies is essential to the highest efficiency of effort.

6. Any research agency charged with a single main line of investigation should be so organized that it may employ within itself all necessary processes in any branch of science. The cooperation of any or all the departments of an experiment station on a single problem, when necessary, should be a fundamental requirement.

7. Research work, both national and state, should be provided for by separate, lump-sum appropriations, to be distributed according to the discretion of the responsible executive head of each agency.

8. Investigation into the business, economic, social and governmental conditions affecting agriculture should be undertaken and should be maintained on a permanent and effective basis.

9. An advisory board is suggested consisting of members appointed by the Secretary of Agriculture and by the Association of American Agricultural Colleges and Experiment Stations, respectively, which shall confer with the Secretary of Agriculture regarding the mutual interests of the department and the stations and shall consider the promotion of agricultural investigation in general.

#### THE RHODES SCHOLARSHIPS

THE number of scholars in residence at Oxford under the Rhodes bequest during the academic year 1907-8 was 156. Sixty-six were from colonies of the empire, 11 from Germany and 79 from the United States of America. In addition to these, 11 men whose scholarship term had expired continued to reside in the university for a whole or part of the year; 1 as an official fellow, 2 as lecturers, 1 as a Senior Demy of Magdalen and 6 for further study in various subjects. At the end of the summer term 54 scholars completed

their course at the university and took their examinations. At the beginning of the October term 1908 there was an entry of 78 new scholars, while 3 other scholars (colonial) who had temporary leave of absence returned to complete their course. The whole number of scholars in residence for the academic year 1908-9 is therefore 178. These are distributed as follows among the colleges: 15 at Balliol, 14 at Christ Church, 13 each at Exeter and Queens, 12 at St. John's, 11 each at Hertford, New College and Worcester, 10 each at Merton and Wadham, 9 at Oriel, 8 each at Lincoln and Pembroke, 7 each at Brasenose, Trinity and University, 6 at Magdalen, 4 at Jesus and 2 at Corpus. There are, in addition, 11 ex-scholars in residence for the October term, engaged either in teaching, research or special study for examination. The total so reached of 189 is the highest point in numbers hitherto attained. The work of the scholars now in residence is distributed as follows over the different courses of study organized in the university: Literæ Humaniores, 20; natural science (geology, chemistry, physiology and physics), 18; jurisprudence, 38; history, 20; mathematics, 4; theology, 9; English literature, 7; oriental languages, 1; modern languages, 4; Honor Moderations—classical, 3.

#### THE DARWIN CENTENARY

IN addition to the exercises in New York, Philadelphia, Chicago and elsewhere in honor of the hundredth anniversary of Darwin's birth, which have already been noted in SCIENCE, memorial exercises were arranged by several other institutions.

At Cornell University the event was commemorated by two lectures by Professor J. H. Comstock on "The Basis of the Theory of Evolution," a lecture on "The Relation of Darwinism to the Modern Theories of Evolution," by Professor Herbert J. Weber, and an address by President Schurman on "Darwinism and Modern Thought."

At a special meeting of the Scientific Association of the University of Missouri, held on February 12, in commemoration of the

one hundredth anniversary of Darwin's birth and the fiftieth anniversary of the publication of the "Origin of Species," the following addresses were delivered: "Biographical Sketch of Darwin," by Professor W. C. Curtis; "Darwin's Contribution to Evolution," by Professor C. Stuart Gager; "Pre-Darwinian Evolution," by Professor A. O. Lovejoy; "Post-Darwinian Evolution," by Professor George Lefevre; "The Influence of Darwin's Work on Ethics," by President A. Ross Hill; "The Influence of Darwin's Work on Sociology," by Professor C. A. Ellwood; "The Influence of Darwin's Work on Psychology," by Professor Max Meyer; "The Influence of Darwin's Work on Theology," by Rev. Dr. W. W. Elwang. Mr. F. A. Sampson, secretary of the State Historical Society of Missouri, read a most interesting series of letters written by Darwin about 1878 to Mr. R. A. Blair, of Sedalia, Missouri, concerning what was at first supposed to be a case of the inheritance of a mutilation in a flock of geese.

ON Thursday evening, February 11, Dr. J. M. Reade, of the University of Georgia, delivered a lecture on "Charles Darwin," before the University Club. Commemoration exercises were held at the home of Professor H. C. White, of the University of Georgia, on Friday, Feb. 12, in honor of Darwin. The program consisted of: "Biographical Sketch," by Dr. H. C. White; "Organic Evolution," by Dr. J. P. Campbell; "Evolution in History," by Dr. J. H. T. McPherson; "The Church and Evolution," by Rev. Troy Beatty.

A SPECIAL meeting of the Boston Society of Natural History was held on the evening of February 12, in commemoration of the centenary of Charles Darwin's birth and of the fiftieth anniversary of the publication of his "Origin of Species." After introductory remarks by Vice-president R. T. Jackson, the following brief addresses were made: By Professor W. H. Niles on the "Early Life of Darwin and his Contributions to Geology"; by Professor E. S. Morse on "The Factors of Darwinism"; by Professor G. H. Parker on "A Mechanism for Correlated Characters," and by Professor W. M. Wheeler on "Pre-Darwinian and Post-Darwinian Biology."

AT the general meeting of the American Philosophical Society on the evening of Friday, April 23, a Darwin celebration will be held. Charles Darwin and his grandfather, Erasmus Darwin, were members of the society, and his son, Sir George Darwin, is at present a member. On this occasion there will be three special addresses by members of the society: The first by the Right Hon. James Bryce, the British ambassador, who will give some personal reminiscences of Darwin and of the impression made by the appearance of the "Origin of Species" in 1859; the second by Professor Goodale, of Harvard University, on "The Influence of Darwin on the Natural Sciences," and the third by Professor James Mark Baldwin, of Johns Hopkins University, on "The Influence of Darwin on the Mental and Moral Sciences."

#### SCIENTIFIC NOTES AND NEWS

PROFESSOR CHARLES B. RICHARDS, professor of mechanical engineering at Yale University since 1884, and Dr. W. G. Sumner, professor of political and social science since 1872, will retire from active service at the close of the present academic year.

THE Rumford Committee of the American Academy of Arts and Sciences has recently made the following grants: To Director W. W. Campbell, of the Lick Observatory, \$250, for the purchase of a Hartmann photometer; to Professor R. W. Wood, of the Johns Hopkins University, \$150, in aid of his research on the optical properties of mercury vapor.

MR. O. J. R. HOWARTH has been appointed assistant secretary of the British Association in succession to Mr. A. Silva White.

SIR DANIEL MORRIS, K.C.M.G., late British commissioner of agriculture for the West Indies, has been selected for the newly-created office of scientific adviser to the secretary of state for the colonies on matters relating to tropical agriculture.

DR. R. PILGER has been appointed custodian of the Botanical Garden in Dahlem, Berlin.

THE committee of the Athenæum Club has elected, under the provisions which empowers the annual election by the committee of nine