

He discussed twenty-five different species and described observations made in eastern Ontario. The lecture was illustrated with living specimens and lantern views.

THROUGH the courtesy of the regents and secretary of the Smithsonian Institution, a reception was tendered there on the evening of February 28 by the Chemical Society of Washington to the five hundred chemists temporarily residing in Washington for war duty. Addresses of welcome were made by Dr. Frederick B. Power, president of the society, and by Dr. George P. Merrill, head curator of geology of the Smithsonian Institution, after which brief addresses were made by Professor Frank W. Clarke, Dr. Charles L. Parsons, Major Samuel J. M. Auld, the British chemist cooperating with this government in the Gas Defense Service, Chancellor Samuel Avery, of the University of Nebraska and Professor Wilder D. Bancroft. A large proportion of the guests were in uniform and included many of academic distinction.

G. A. LEBOUR, for many years professor of geology at the University of Durham, died on February 7, at the age of seventy-one years.

THE death is announced of C. I. Istrati, professor of organic chemistry and dean at the University of Bucharest and president of the Roumanian Academy of Sciences.

DR. A. W. E. ERLANDSEN, professor of hygiene at the University of Copenhagen, has died at the age of thirty-nine years.

OWING to greatly increased activities in the Public Health Service, there is urgent need of the services of medical officers for field duty in connection with the sanitation of numerous civil sanitary districts. The salaries of the positions in question vary from \$1,800 to \$2,500 per annum, depending on the qualifications and experience of the appointees. Men who have been disqualified physically for the Medical Reserve Corps are eligible for appointment, provided they are not suffering from complaints which will seriously interfere with the performance of their duties. It is especially desired to secure the services of competent sanitarians and those who have had previous

experience in health work. There are also numerous vacancies for sanitary engineers, scientific assistants, sanitary inspectors and others. Applications for appointment to these vacancies should be made to the Surgeon-General, U. S. Public Health Service, Washington, D. C., and in order to avoid unnecessary correspondence should include complete data concerning age, nativity, experience and training, and other necessary information.

UNIVERSITY AND EDUCATIONAL NEWS

A GIFT of a large tract of land has been made to Harvard University by Mr. Andrew Carnegie, President A. Lawrence Lowell, Mr. Henry L. Higginson and ten others. The tract, which comprises 2,344,000 square feet, is adjacent to the Soldiers' Field. There are no buildings on the land, and, according to university authorities, no plans have been made for the immediate use of the property.

GIFTS reported at the recent Corporation meeting of Yale University, included one of \$5,000 from Mrs. James Wesley Cooper, of Hartford, for the establishment of a publication fund in memory of her husband, who graduated from the college in 1865 and who was for over thirty years a member of the corporation, and \$5,000 in memory of the late William A. Read of New York by his widow, to assist the work of the Yale University Press. Two bequests were also announced: \$10,000 from the late Samuel J. Elder, for the college, and \$5,000 from the widow of Amory E. Rowland, for the benefit of the Sheffield Scientific School.

By the will of Mrs. Eliza C. Farnham \$1,200 is left to the Howard College for two Horace Farnham Scholarships.

ASSISTANT PROFESSOR HERBERT L. SEWARD, '06 S., of the Sheffield Scientific School of Yale University has been granted leave of absence to become head of a new school being organized by the Navy Department to train engineers for the naval service. The leave of absence granted by the corporation begins on May 1, but Professor Seward will continue in charge of the engineering instruction of the

Yale Naval Training Unit for the rest of the year.

DR. W. F. G. SWANN has accepted a professorship in the department of physics at the University of Minnesota, the appointment to take effect on August 1, 1918.

DISCUSSION AND CORRESPONDENCE SCOTT ON THE CANONS OF COMPARATIVE ANATOMY

IN a recent number of this journal (N. S., Vol. XLVII., No. 1204) my esteemed friend, Dr. D. H. Scott, the distinguished foreign secretary of the Royal Society has published a review of my recent volume on "The Anatomy of Woody Plants." He objects, with delightful British vigor, to the Canons of Comparative Anatomy described in the seventeenth chapter. His criticisms, in fact, of the volume mainly involve these canons, which he regards as highly controversial and based on deductive evidence. Dr. Scott naturally has his own opinions on many anatomical subjects, and these are often different from my own. The question, however, as to whether the Canons of Comparative Anatomy are deductive or inductive appears to be not a matter of opinion but a matter of fact. Inductive reasoning, which is ordinarily defined as the drawing of general conclusions from particular facts, was brought into prominence nearly three hundred years ago by Sir Francis Bacon, an eminent Englishman. I must urge that the Doctrine of Conservative Organs is based on purely inductive reasoning. In accordance with that doctrine it is stated that root, leaf and reproductive axis retain ancestral anatomical features approximately in the order named. This is an induction from the facts that the reproductive axis of the Calamites and Equiseta, the reproductive axis and root of the Araucarian and Abietineous Conifers, the reproductive axis and root of *Ginkgo*, the reproductive axis and root of the higher Gnetales, all retain notable the features of organization of older or extinct allied forms. It appears to me that Dr. Scott confuses the origin of the Canons of Comparative Anatomy with their application. The Canons are derived inductively by the comparison of older

with modern forms, and are employed deductively to elucidate the relations of modern forms among themselves.

The soundness of the general principles of the seventeenth chapter of my volume on anatomy has a very sincere and flattering testimony in the attitude of a small coterie of critics of the anatomical work of "Jeffrey and his school." These critics use the canons in every case, but if I may be forgiven a pun are unable to aim straight. The most recent instance of this defect is furnished by an article on the vessels of *Gnetum* in the January number of the *Botanical Gazette*. This author calls attention to the fact that vessels of the lower *Ephedra* type having end walls with many large open bordered pits are found in the root, reproductive axis, and seedling of *Gnetum*. He argues very properly from this that the *Gnetum* type of vessel has come from that found in *Ephedra* and persists in the conservative organs of the first-named genus. This conclusion is correct as far as it goes, but when the author states that the type of vessel found in *Gnetum* is different from that found in the Angiosperms he shows a surprising ignorance, since in DeBary's classic text-book of comparative anatomy published over forty years ago a number of cases of angiosperms with the *Gnetum* type of vessel terminated at either end by a single large-bordered pore have been cited. I might go on to enumerate a number of other equally sincere and flattering testimonials to the soundness of the Canons of Comparative Anatomy, although not to the accuracy of their utilizers, from recently published works. If imitation is the sincerest flattery, I am indeed flattered. A number of lines of work being carried on in my laboratory, and among these, notably an investigation on a large amount of material of Comanchean and Laramie Cretaceous Conifers, will, I think, add much strength to these generalizations.

A frank and friendly criticism such as Dr. Scott has written always helps to clear up differences of opinion by bringing forth clearer and more forcible statements from either side.

E. C. JEFFREY