

Society of the Pacific in the Cabot Observatory, March 27, on "Globular Star Clusters."

PROFESSOR D. W. JOHNSON, of Columbia University, lectured on the "Physiography of Western Europe as a Factor in the War" before the Rochester Academy of Science on the evening of March 29; before a general convocation of the Case School of Applied Science in Cleveland on March 30; before a similar convocation of the students of Denison University at Granville on March 31; and before the annual meeting of the high school teachers of the state of Michigan at Ann Arbor on April 1.

THE following lectures have been delivered under the auspices of the Syracuse University Chapter of Sigma Xi, during the second semester. On February 5, John A. Matthews, Ph.D., D.Sc., addressed a joint meeting of the Sigma Xi and the Archeological Society of Syracuse, on the subject of "Iron in Antiquity and To-day" and on March 5 Professor H. S. White, of Vassar College, addressed the chapter, students and public, taking as his subject "Mathematics in Nineteenth Century Science."

DR. A. A. W. HUBRECHT, professor of embryology at the University of Utrecht, died on March 21, in his sixty-fourth year.

UNIVERSITY AND EDUCATIONAL NEWS

PRINCETON UNIVERSITY has received from Mrs. William Church Osborn \$125,000 to establish the Dodge professorship of medieval history, and \$100,000 from an anonymous giver to endow a professorship of economics.

THE Schools of Mines, Engineering and Chemistry of Columbia University have received an anonymous gift of \$30,000, to be applied to the reconstruction and new equipment of the laboratories of quantitative, organic and engineering chemistry in Havemeyer Hall. A gift of \$20,000 is announced from Mrs. Samuel W. Bridgham, daughter of the later William C. Schermerhorn, who was a trustee of Columbia University from 1860 to 1903. An anonymous gift of \$4,000 has been made for surgical research in the College of Physicians and Surgeons.

MR. GEORGE W. BRACKENRIDGE has given to the University of Texas his yacht *Navidad*, valued at \$100,000, to be assigned to the biological department of the institution. A preliminary survey of the Texas coast is to be made in the *Navidad*, starting from Port Lavaca.

THE trustees of Emory University, Atlanta, which is being developed under the auspices of the Methodist-Episcopal Church, have agreed to take over the Atlanta Medical College as its medical department. For this department it is proposed that \$250,000 be set aside as an endowment. The trustees have also agreed to erect a new teaching hospital near the medical school, to cost from \$300,000 to \$350,000.

THE University of South Dakota has just completed the erection of a fire-proof chemistry building at a cost of \$100,000. Dr. Alfred N. Cook is head of the department.

THE new buildings of the Washington University Medical School will be dedicated with suitable ceremonies on April 29 and 30. Among those who will deliver addresses are Dr. Eugene L. Opie, dean of the medical school; Dr. William H. Welch, of Johns Hopkins University; President A. L. Lowell, of Harvard University; Dr. William C. Gorgas, surgeon general, United States army; Dr. William T. Porter, Dr. R. J. Perry, Dr. George Dock, Dr. Abraham Flexner and President Henry S. Pritchett, of the Carnegie Foundation for the Advancement of Teaching.

DR. GEORGE HARRISON SHULL, botanical investigator at the Carnegie Station for Experimental Evolution, has been appointed professor of botany and genetics at Princeton University. Steps will be taken immediately to develop gardens, greenhouses and laboratories for his work at Princeton.

DR. RAYMOND G. OSBURN, assistant professor of zoology in Barnard College, Columbia University, has resigned to accept the professorship of biology in the Connecticut College for Women.

DR. B. F. McGRATH has resigned as a member of the staff of the Mayo Clinic, Rochester, Minn., and has accepted the position of di-

rector of the laboratories of pathological and surgical research in Marquette University, Wisconsin.

DR. HAROLD B. MYERS, Portland, formerly connected with the University and Bellevue Hospital Medical College of New York City, has become professor of materia medica and pharmacology, and Dr. Howard D. Haskins, Cleveland, formerly connected with Western Reserve University School of Medicine, professor of physiologic chemistry at the University of Oregon.

DR. H. ROY DEAN, professor of pathology in the University of Sheffield since 1912, has been appointed to the chair of pathology and pathological anatomy in the University of Manchester.

DISCUSSION AND CORRESPONDENCE

BOTANY IN AGRICULTURAL COLLEGES

IN SCIENCE for February 5, 1915, Professor C. V. Piper, of the United States Department of Agriculture, calls attention to botany in agricultural colleges. The article referred to directs attention to the previous article by Dr. E. B. Copeland on the same subject in SCIENCE for September 18, 1914. It would seem to be especially true that "this opens up discussion of a many-sided question of high pedagogical importance to agriculture." The articles, referred to above, have presented valuable views and the discussion ought to be continued, perhaps by those more able to do so than the writer. The present is desired to be taken as discussion rather than argument, and certainly not adverse argument.

Dr. Copeland apparently emphasized that "the raising of crops is essentially nothing more or less than applied botany." Professor Piper has forcefully presented the idea that "in striking contrast with chemists, botanists have shrunk from what may be a major application of their science, namely, that of crop production." It would seem that these writers might be on common ground in the belief that the problem of crop production must of necessity be solved with the attention of botanists.

It is possible that the writer may call attention to some difficulties of administration that

are bound to exist in agricultural colleges, so long as the boundary lines are not clear between botany and applied botany and possibly agricultural botany, on the one hand, and agronomy and horticulture on the other.

If it be true, as Dr. Copeland suggests, "the raising of crops is nothing more or less than applied botany," then there is small need for agronomy as a collegiate subject.

If it be true, as per Professor Piper, that the whole field of plant culture, or crop production, being one of plant ecology and plant physiology, must be so recognized by botanists, before progress in crop production will continue, then likewise the future of agronomy, at least the crop side of it, must necessarily trust to the mercy of the conservative botanist.

What is agronomy?

Agronomy is the sum of information or of research directly concerning soils and crops grouped essentially in relation to the business of farming.

Agronomy may be called a science where it is understood that a science is a group of related facts, or, again, it may be called an applied science where it is understood that it has use for many kinds of information which may be drawn from pure science. But any effort to define agronomy as a pure science or to accomplish the work of agronomy by conforming it to any given pure science must result in confusion or in begging the question of agronomy entirely.

It is a perfectly logical question to ask whether agricultural colleges need to recognize any such subject as agronomy. It is perfectly logical to inquire whether the purposes of such colleges may not be better accomplished without any departments of agronomy. It is conceivable that the work of agronomy in all agricultural colleges and experiment stations might be accomplished, or at least attempted, through the efforts of the several departments of pure science, which severally furnish sources of information from which agronomy must constantly draw.

The organization of agronomy as a group of facts in agricultural colleges is thus not absolutely necessary. It is no more absolutely necessary to organize departments of agronomy