

founder, Mr. Charles C. Worthington, will erect and endow, on his estate at Shawnee, Monroe County, Pennsylvania, the necessary buildings and equipment.

The Worthington Society will have for its purpose the consideration of bird life as it is found in nature, and will also have many birds under confinement for study and experiment.

The following is a summary of the chief topics that will present an immediate field for experimentation, which it is proposed by the liberality of the foundation to make continuous and exhaustive in the hope of reaching conclusive results.

1. The study and consideration of a bird as an individual. It is believed that by means of observation carried through the entire life of the individual, with a daily record, brief or elaborate, as exigencies may require, much will be learned regarding matters that are now obscure. Facts, such as growth, habits, health, temper, etc., will be daily reported.

2. The study of the occurrence, extent, nature and cause of variations in different representatives of the same species.

3. Changes in color and appearance correlating with age, sex and season.

4. Changes in color and appearance due to light, heat, presence or absence of moisture, and to food. How rapid a change in appearance can be effected by a new environment or a new set of conditions?

5. Heredity. What general characteristics are transmitted? Are acquired characteristics transmitted? The consideration of atavism, prepotency and telegony.

6. Experiments in breeding. Hybridity and the fertility of hybrids. The possibility of establishing a new physiological species.

7. Experiments in change of color due to moult.

8. Adaptability. The plasticity of animals. How great a factor is this in domesticating new kinds of animals?

9. The leisure of animals. How is this acquired? Being acquired, how is this employed?

10. Instinct, habit and the development of intelligence.

11. The possibility of breeding insectivorous and other beneficial kinds of birds to restock

a given region or to increase native birds, as has been done in the case of fish, by the United States Fish Commission.

A temporary laboratory and aviary is being equipped, and preliminary work will begin with the installment of a large number of native and foreign birds early in September. Mr. Worthington has procured the services of Mr. William E. D. Scott, Curator of the Department of Ornithology at Princeton University, as director of the proposed work. Mr. Bruce Horsfall has been engaged as chief assistant and artist. The corps of assistants and workers will be increased as the plans of the Worthington Society develop.

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#### SCIENTIFIC NOTES AND NEWS.

DR. S. WEIR MITCHELL, of Philadelphia, has been elected a corresponding member of the Paris Academy of Medicine.

DR. WILLIAM OSLER, professor of medicine at the Johns Hopkins University, has been appointed regius professor of medicine at the University of Oxford in the place of Sir John Burdon-Sanderson. *The Medical Record* says: "This news will be received with deep regret by a host of friends and admirers of Dr. Osler in this country, who have long looked on him as one of the leaders in American medical thought. Dr. Osler has passed all his professional life as a teacher of medicine, a vocation for which he is eminently qualified by his broad culture, profound medical learning, and an inborn gift of expression. He was born in Tecumseh, Ontario, in 1849, and was graduated in medicine from McGill University, Montreal, in 1872. For ten years, from 1874 to 1884, he was professor of the institutes of medicine at McGill, from 1884 to 1889 he was professor of clinical medicine at the University of Pennsylvania, Philadelphia, and since 1889 he has held the chair of medicine at the Johns Hopkins University, Baltimore. We beg to offer our congratulations to the new regius professor of medicine at Oxford, and at the same time to send anticipatory greetings to Sir William Osler, Bart. The Oxford School of Medicine is also and especially to be congratulated."

THE Department of Agriculture at Washington is making definite arrangements concerning the work which will be carried on with the Guatemalan ants found by Mr. O. F. Cook in Guatemala to kill the cotton boll weevil. Mr. Cook has been assigned to the Bureau of Entomology for especial work on the ant, although he is to continue the personal direction of the work in tropical agriculture by the Bureau of Plant Industry. He has authority under the chief of the Bureau of Entomology to carry to completion the study of the life history of the Guatemalan ant and of such other species of ants as may be involved in order to properly understand the life history of this species. He will also direct and superintend the further introduction of the *kelep* ant from Guatemala if the same is deemed necessary, and will supervise and carry out the work connected with the colonization of the ant in the southern United States. All publications on the work will be issued by the Bureau of Entomology. Cooperation with the Bureau of Plant Industry will continue in so far as such cooperation may be useful in the utilization of the ant in practical cotton culture and in incidental studies on the varieties of cotton best adapted to support the ants, and other collateral considerations which involve problems of plant life history, plant introduction, plant breeding and plant pathology. Results of any such collaboration, where they have a botanical or plant industry bearing, are to be published by the Bureau of Plant Industry.

UNTIL such time as a successor to the late Dr. J. B. Hatcher, as curator of paleontology in the Carnegie Museum, shall have been chosen, the work of the Section of Paleontology in that institution will be under the immediate supervision of Dr. W. J. Holland, the director of the museum.

THE University of Freiburg has conferred an honorary doctorate on the anthropologist, Otto Ammon, of Karlsruhe.

PROFESSOR BLONDLOT, the physicist of Nancy, has been made an officer of the French Legion of Honor.

*The British Medical Journal* states that Professor von Esmarch, of Kiel, who recently celebrated his eightieth birthday, who was recently the victim of an accident which disabled him for a time, has now recovered and is able to take his customary walks in the environs of the town.

PROFESSOR EWALD HERING, the well-known physiologist, celebrated his seventieth birthday at Leipzig, on August 5.

DR. GEORG THILENIUS, professor of anthropology at Breslau, has been appointed director of the Hamburg Museum of Ethnology.

THE British Admiralty has appointed a standing committee on machinery designs, with Professor A. B. W. Kennedy, LL.D., F.R.S., as president.

THE Royal College of Physicians, London, has appointed lecturers for next year as follows: The Goulstonian lecturer, Dr. W. C. Bosanquet; the Milroy, Dr. T. M. Legge; the Lumleian, Dr. W. H. Allchin; the Oliver Sharpey, Dr. L. E. Hill; the FitzPatrick, Dr. Norman Moore.

WE learn from *Nature* that a statue to Jan Pieter Minckelers, the reputed discoverer of coal gas, was unveiled last month in Maas-tricht, Holland. Minckelers was born in 1748, and became in 1772 professor of physics in the University of Louvain, where in 1784, in endeavoring to discover a substitute for hydrogen, he succeeded in obtaining from the distillation of powdered coal a gas which he called 'inflammable air.' It was in 1785 that he first utilized the gas for lighting purposes, when a class-room in the Louvain University was illuminated by his method. He died in 1824 at the age of seventy-six years.

DR. JOSEPH DAVID EVERETT, F.R.S., formerly professor of natural philosophy at Queen's College, Belfast, died on August 9, at the age of seventy-three years. In 1871 Dr. Everett moved the appointment of a committee of the British Association for the selection and naming of dynamical and electrical units, and in 1873 drafted a report in which the terms 'dyne,' 'erg,' and 'C. G. S. unit' were introduced at his suggestion. His 'Illustration of

the C. G. S. System' was translated into many languages.

THE deaths are also announced of Professor Karl Weigert, director of the Laboratory of Pathological Anatomy of the Senckenburg Foundation, Frankfort on Maine, well-known for his important contributions to histology; of Dr. Friedrich Eisenlohr, associate professor of mathematics at Heidelberg, on July 21, aged seventy-three years; of Dr. Lobry de Bruyn, professor of chemistry at Amsterdam, on July 22 at the age of forty-seven years; of M. Jean Gabriel de Tarde, the author of well-known works on social psychology, at Paris at the age of sixty-one years, and of M. Robert Bieri, aged twenty-six years, recently appointed professor of natural sciences at the Berne Normal School, who was killed by an Alpine accident on August 4.

WE call attention to advertisements in SCIENCE announcing that applications are invited for the professorship of geology and mineralogy in the University of Melbourne and for the post of assistant entomologist in the Department of Agriculture, Cape Colony.

THE annual meeting of the Association of German men of science and physicians will be held at Breslau, from September 18 to 24.

THE Sixth International Congress of Zoology met at Berne from August 14 to 19. When the preliminary program was issued in July 250 members had joined the congress and 70 papers had been placed on the preliminary program. Among the papers was a discussion on recently discovered stages in the evolution of the horse and contemporary mammals in North America, opened by Professor H. F. Osborn; a paper on changes of animal cells during youth and old age, by Professor Charles S. Minot, and on peculiarities in the development of *Chimaera collici*, by Professor Bashford Dean.

THE Society of Chemical Industry will meet in New York, from September 7 to 12, under the presidency of Sir William Ramsay, who will give his address at Columbia University on September 8. About one hundred British members will attend the meeting. After the adjournment in New York a tour has been

arranged ending at St. Louis on September 19 in time for the Congress of Arts and Science.

THE British Medical Association will meet next year in Leicester, under the presidency of Mr. G. C. Franklin. The meeting in 1906 will probably be in Toronto.

THE twelfth National Irrigation Congress will be held at El Paso, Texas, from November 15 to 18. The congress will meet in four sections, the names of which indicate that attention will be paid to popular interests. They are: 'Save the Forests,' 'Store the Floods,' 'Reclaim the Deserts' and 'Homes on the Land.'

It is stated in *Nature* that a board of agriculture has recently been established in the Bahamas, and a botanic station is to be started in connection with it for which a curator will be required. Applications for the post should be made in the first instance to the Imperial Commissioner of Agriculture for the West Indies, Barbados.

THE field parties sent out by the Carnegie Museum in the spring in order to make paleontological collections report unusual success in the field. The party operating in Montana has succeeded in finding some valuable specimens of *Triceratops*. Good collections have been made in western Nebraska, and the collections of invertebrates made in New York and Canada are extensive.

INVESTIGATIONS carried on during the last year by Mr. S. W. McCallie, assistant state geologist of Georgia, acting in cooperation with the United States Geological Survey, have revealed the presence of interesting and perhaps valuable properties in some of the artesian waters in the Coastal Plain of that state. Water taken from a deep well at Baxley showed on analysis 5.5 parts per 1,000,000 of phosphoric acid, which would indicate that it might be used for fertilizing as well as for irrigating barren fields. In other words, it may be acceptable to the desert land as both food and drink. It is estimated that a layer of this phosphoric acid-bearing water 12 inches deep over one acre of land would exert a fertilizing effect equal to that of 200 pounds of commercial fertilizer.