accounted for if the H nuclei were outriders of the main nucleus of mass 12. The close approach of the α-particle leads to the disruption of its bond with the central nucleus, and under favorable conditions the H atom would acquire a high velocity and be shot forward like a free hydrogen atom. Taking into account the great energy of the particle, the close collision of an α-particle with a light atom seems to be the most likely agency to promote its disruption. Considering the enormous intensity of the forces brought into play in such collisions, it is not so much a matter of remark that the nitrogen atom should suffer disintegration as that the α-particle itself escapes disruption. The results, as a whole, suggest that if α-particles or similar projectiles of still greater energy were available for experiment, we might expect to break down the nucleus structure of many of the lighter atoms.

ERNEST RUTHERFORD

SECOND AWARD OF THE ELLIOT MEDAL

THE Elliot Medal is awarded annually by the National Academy of Sciences to the author of the leading publication of the year in zoology or paleontology. The first award was made for the year 1917 to Frank M. Chapman for his volume "The Distribution of Bird-Life in Columbia," published by The American Museum of Natural History. The second award for the year 1918 was to William Beebe, of the New York Zoological Society, on the completion of the first volume of his work on the "Pheasants."

In presenting Mr. Beebe to the Academy for the award, Professor Henry Fairfield Osborn made the following remarks:

Daniel Giraud Elliot, to whom the Academy is indebted for the Elliot Medal, was a leading ornithologist and mammalogist of the old school. He produced a series of splendid monographs on birds and mammals, and closed his scientific career with an exhaustive revision of the Primates. With the exception of a journey in Africa the greater part of his life was spent in museums, yet I believe if he were living he would not hesitate a moment to award the Elliot Medal for the Year 1918 to William Beebe on the completion of the first volume of his great work "A Monograph of the Pheasants."

This is a profound study of the living pheasants in their natural environment in various parts of eastern Asia. There are nineteen groups of these birds; eighteen were successfully hunted with the camera, with field-glasses, and when necessary for identification, with the shotgun. The journey occupied seventeen months, extended over twenty countries, and resulted in a rare abundance of material, both literary—concerning the life histories of birds—and pictorial, photographs and sketches. The journey extended over 52,000 miles; it ended in the great Museums of London, of Tring, of Paris, and of Berlin, for the purpose of studying the type collections. Thus the order of the work was from nature to the museum and to man, rather than from man and the museum to nature. It is this distinguished note of direct observation of natural processes, under natural conditions, which is needed to-day in biology to supplement the note of the laboratory and of experiment. Living birds and living mammals have as much to teach us in their natural surroundings as they taught Darwin and Wallace and we must endeavor to keep the eyes and minds of these great naturalists in our modes of vision.

The monograph covers the blood partridges, the tragopans, the impeyans, the gold and silver pheasants, the peacocks, the jungle fowl, and the history of the ancestry of our domestic fowls. It has important bearings on the Darwinian theories of protective coloration and of sexual selection, and on the De Vries theory of mutation. The full-grown male and female characters, the changes of plumage from chick to adult, the songs, courtships, battles, nests and eggs of nearly one hundred species are included and systematically described. The illustrations are by leading American and British artists. The haunts of the pheasants are shown in the author's photographs ranging from the slopes of the Himalayan snow-peaks, 16,000 feet

above the sea, to the tropical seashores of Java. Like Chapman's "Birds of Columbia," to which the Elliot Medal was awarded last year, this monograph puts the living bird, in its living environment, into the forefront.

It is for these reasons that the committee was unanimous, especially when its decision was confirmed without hesitation by Dr. J. A. Allen, the Nestor of American zoologists. It is not the magnificence of this monograph, not the superb illustrations, not the delightfully written text, but the truly Darwinian spirit which animated the author and which sustained him through seven years of continuous research and his arduous labors in the preparation of this monograph. When completed, we believe that it will come nearer to depicting the actually living forms of this great group than any book which has ever been written on a single family of birds.

PROPOSED CONSTITUTION AND BY-LAWS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

This copy of the Constitution and By-laws is the one presented to the Committee on Policy by the subcommittee on revision. It was adopted by the committee and presented to the association at the Baltimore meeting. It will be presented for adoption at the St. Louis meeting.

Edward L. Nichols,
Chairman of the Committee on Policy

Constitution of the American Association for the Advancement of Science

Article 1. Objects

The objects of the Association are to promote intercourse among those who are cultivating science in different parts of America, to cooperate with other scientific societies and institutions, to give a stronger and more general impulse and more systematic direction to scientific research, and to procure for the labors of scientific men increased facilities and a wider usefulness.

Article 2. Membership

Persons willing to cooperate in the work of the Association may be elected to be members by the Council. Members who are professionally engaged in scientific work or who have advanced science by research may be elected to be Fellows. The admission fee for members is five dollars; the annual dues are four dollars.[1] A member who pays at one time the sum of seventy-five dollars to the Association becomes a life member and is exempt from further dues. A person who gives one thousand dollars to the Association may be elected to be a sustaining member and is exempt from further dues.

Article 3. Officers

The officers of the Association shall be elected by ballot by the Council, and shall consist of a President, a Vice-president from each section, a Permanent Secretary, a General Secretary, a Treasurer and a Secretary of each section. The President and the Vice-presidents shall be elected for one year, the other officers for four years. The officers shall perform the usual duties of these offices under the direction of the Council.

Article 4. Council

The Council shall consist of the President, the Vice-presidents, the Permanent Secretary, the General Secretary, the Secretaries of the Sections, and the Treasurer, of one fellow elected by each affiliated society and one additional fellow from each affiliated society having more than one hundred members who are fellows of the Association, and of eight fellows, two elected annually by the Council for a term of four years. There shall be an Executive Committee of the Council, consisting of the President, the Permanent Secretary, the General Secretary, and eight members elected by the Council, two annually for a term of four years. The Council may appoint standing or temporary committees to make reports, to assist in the conduct of the work of the Association and to promote its objects.

Article 5. Sections

The Association shall be divided into the following Sections: A, *Mathematics;* B, *Physics;* C, *Chemistry;* D, *Astronomy;* E, *Geology and Geography;* F, *Zoological Sciences;* G, *Botanical Sciences;* H, *Anthropology and Archeology;* I, *Psychology and Philosophy;* J, *Social and Economic Sciences;* K, *Historical and Philological Sciences;* L, *Engineering;* M, *Medicine;* N, *Agriculture;* O,

[1] The Committee on Policy recommends that the annual dues be five dollars and the life membership fee one hundred dollars.