

felt, although it has been practised for many years. But in this country, municipal ownership has been less successful, except in the case of municipal water supplies.

There have been three stages in the modern history of natural monopolies. In the first they went unregulated, being operated for the profit of the owners and exploited for the benefit of financiers. In the second stage, regulation was by legislation and lawsuit. In the third, regulation is by commission; the regulation is more complete, as well as more intelligent, and co-operation and publicity are keynotes of the method.

The large industrial corporations which have virtual monopolies, are mainly in the first stage, although some are in the second. Whether they will finally come to the third stage, and be regulated by the methods now applied so successfully to natural monopolies, remains for the future to determine.

If state regulation of natural monopolies becomes as general within a few years as it promises to be, and if it is as successful generally as it has been in the few states which took it up first, it will solve the problem of public utilities and largely solve the problem also of good municipal government.

The signal success of the Wisconsin Commission was largely due to the influence of the University of Wisconsin. In its personnel and methods it was a scientific commission, and entered into its work with the spirit of investigators. Its spirit and its methods have been adopted by some of the other state commissions, of which a large number have been created recently and are now taking up their work.

If the administrative officers of the commissions are assisted by scientists, engineers and economists, and the work is done in a judicial spirit, as new problems being

taken up as a scientific research would be, the states and federal government acting in full cooperation, with the experience of each available to all—if the work is done in that way we may be certain that success will be sure and permanent.

EDWARD B. ROSA

BUREAU OF STANDARDS

THE NINTH INTERNATIONAL CONGRESS OF ZOOLOGY AT MONACO

UNDER the presidency of Prince Albert I. of Monaco, the congress was formally opened in the beautiful Museum of Oceanography on March 25. In his opening address the prince, after referring to the basic importance of the study of marine life and the conditions under which it exists, for one who desires a reasonable conception of the problems of biology, spoke of the prime value of the study of zoology as an aid in the solution of many of the problems confronting human social groups. He very cleverly pointed to the Principality of Monaco as a community where the life of the people is illumined by the light of science, and where the climax of all the activities of the state is a noble scientific institution devoted, not only to the investigation of the deep sea and its life, but to the application of the facts thus discovered to the daily life of the people.

For the reading of papers the congress was organized into eight sections, which, with the number of titles on the program of each, were as follows:

- I. Comparative Anatomy and Physiology. 32 titles.
- II. Cytology. General Embryology. Protistology. 25 titles.
- III. Systematic Zoology. Behavior. 26 titles.
- IV. General Zoology. Paleozoology. Zoogeography. 13 titles.
- V. Oceanic Biology. Plankton. 8 titles.
- VI. Applied Zoology. Parasitology. Museums. 15 titles.
- VII. Nomenclature. 9 titles.
- Sub-Section VIII. Entomology. 10 titles.

Three general sessions were held, upon the

programs of which there were thirteen additional titles.

An American zoologist could not fail to be struck with the relatively small number of titles lying in the experimental phases of zoology, and so complete has become the divorce between continental zoology and genetics that the program of the congress contained but two titles within the latter field.

The topic subtending the widest angle, both in informal discussion and in the business of the congress, was that of nomenclature, more specifically, the advisability of continuing the application of the rule of priority adopted by the International Commission on Nomenclature. This question was discussed first in the section on nomenclature, where the opinions of American zoologists were presented chiefly by Dr. Stiles, Professor Williston and Dr. Field. The section first resolved to recommend to the congress the proposal of Dr. Field, that an author might, in special instances, present to the commission a request that a name be established although not in accordance with the strict priority rule. Such cases were to be transmitted to a sub-committee of specialists and to be published before their adoption. If the commission were unable to accept the decision of the sub-committee, an appeal might then be had to the congress at its next meeting.

Later, however, the section on nomenclature reversed this action and made a recommendation which was finally presented to the congress and adopted by a large majority. A precise statement of this action will doubtless be published later, but in substance it is as follows. The International Commission on Nomenclature is given full power to suspend the rules of nomenclature, including that of priority, in special cases presented to it by authors, with the understanding that the commission will confer with specialists in the groups concerned before coming to a decision. If then, the vote of the commission should be unanimous, the suspension of

the rule in that case becomes effective immediately; if two thirds of the commission favor the suspension, the question is to be laid before a special committee of three, to be appointed by the president of the section on nomenclature, at the subsequent meeting of the congress, this committee to consist of one member favoring the suspension, one opposed to it, and a third, whose opinion has not been formed.

The result of this action is primarily to free the commission from the obligation of a strict adherence to the application of the priority rule. Whether this action will permit a reasonable flexibility in the interpretation of the rules of nomenclature, of course remains to be seen. To many it seems regrettable that so much of the time and work of these congresses must be devoted to the discussion of so special a topic, and one so indirectly related to the advancement of zoological knowledge.

At the last general session on March 29, the award of the Emperor Nicolas II. prize was made to Professor Ernst Bresslau, Strassburg, for his work on the mammary organs of the lower mammals, and to Professor Th. Mortensen, Copenhagen, for his investigations of the invertebrates of the Arctic oceans. The O. Kowalewsky prize was awarded to Professor Paul Pelseneer, Gand, for his well-known work on the phylogeny of the Mollusca. At this meeting Budapest was selected as the place of the tenth congress, in 1916, and Professor G. Horvath, of the Hungarian National Museum was elected president of that congress.

The social events of the congress were especially brilliant, thanks to the hospitality of Prince Albert I., and these added to the wonderful natural beauties and charms of Monaco, combined to render the congress a memorable occasion.

The congress was very largely attended, the enrollment of members reaching approximately seven hundred, a considerable number of whom were, however, not able actually to be in attendance. While the date of the ses-

sion was particularly favorable for European members, a general attendance of American zoologists was practically impossible.

Following is a list of the members present from North America:

Dr. J. A. Allen, American Museum of Natural History. "Individual variation in musk oxen."

Mr. E. Phelps Allis, Menton.

Professor and Mrs. Ulric Dahlgren, Princeton University. (a) "A remarkable polarity in the motor nerve cells of the electric apparatus of *Tetronarce occidentalis*." (b) "Embryonic history of the electric apparatus in *Gymnarchus niloticus*."

Dr. and Mrs. H. H. Field, Concilium Bibliographicum, Zurich.

Miss Katherine Foot, New York City. "Results of crossing three Hemiptera species with reference to the inheritance of an exclusively male character" (with Miss Strobell).

Professor F. H. Herrick, Western Reserve University.

Professor and Mrs. W. E. Kellicott, Goucher College.

Dr. and Mrs. Leonard Stejneger, Smithsonian Institution.

Dr. and Mrs. C. W. Stiles, U. S. Bureau of Public Health. "The distribution of *Necator americanus* in the United States, its medical and economic importance and the campaign for its eradication."

Miss E. C. Strobell, New York City.

Professor S. W. Williston, Chicago University. (a) "The Amphibia and Reptilia of the American Permo-Carboniferous." (b) Communication on "Nomenclature."

Professor and Mrs. R. Ramsey Wright, University of Toronto.

WM. E. KELLICOTT

THE TARR MEMORIAL WINDOW

ON March 23, 1913, a memorial window, by Tiffany, was unveiled in Sage Chapel of Cornell University. It was given by Mrs. Tarr and accepted, for the university, by acting president T. F. Crane. The presentation and description of the window, by Lawrence Martin, follows.

This memorial window, dedicated to the late Ralph Stockman Tarr, is given by Mrs. Tarr to Cornell University. Thus the present and

future generations of Cornell students and of worshipers in this chapel will be reminded of one who was a faithful and inspiring teacher and a great scientist. During the score of years through which he was professor of dynamic geology and physical geography at Cornell University he made a deep impression upon the minds and in the hearts of those of us who were so fortunate as to come in contact with him in the home, in the lecture room or laboratory, or in God's great outdoors.

The memory of Professor Tarr is fresh with all of those present. It is just a year since we were gathered here to pay our last respects at his funeral. Upon this Easter afternoon and in presenting this memorial window I may perhaps be permitted to say briefly some of the things with which all our hearts are filled.

Professor Tarr's life was a wonderful example to young men. I may speak of his determination to get an education, a determination which led him to enter Harvard University and to work his way through college, and, in the early years, even to travel sixty miles each day to and from his recitations while he lived at his parents' home.

I may speak of his hard work while he was a professor at Cornell, sparing no pains to make his lectures and his laboratory and field work clear, interesting, disciplinary and scientifically sound. The hundreds of students who have taken Professor Tarr's courses are the best fruits of this work, for none of them but gained with their knowledge of geology and physical geography a sense of admiration and affection for the teacher.

I may speak of the imparting of his knowledge of the facts of geography to the hundreds of thousands of readers of his books—books which were written with the utmost regard for truth and for the upbuilding of character by the example gained in learning how one's fellow men are utilizing the great resources of the earth and adapting themselves to the diverse environments in which the Almighty has placed them.

I may speak of his years of investigation. Professor Tarr was always a student. The success of his teaching and of his writing of