

conducted solely for the increase of knowledge, should receive more adequate financial support, so that it may be prosecuted with ever-increasing vigor. If this is done, I believe that in the fulness of time, by further scientific discoveries, the physical development of man will be improved, that many diseases will be entirely eliminated, and that immunity to the others will be achieved, and that feeble-bodiedness and feeble-mindedness will disappear. Thus will be removed some of the greatest barriers to social progress.

In the great plan of evolution, the part assigned to the engineer calls for the highest exercise of his creative faculties, for he is to direct the evolution of man's extra-corporeal powers, providing him with more numerous and still more powerful additions to his feeble bodily equipment.

The ideals of the engineer will not be realized until man has achieved his destiny in that social organism which is foreshadowed "with its million-minded knowledge and power, to which no barrier will be insurmountable, no gulf impassable, and no task too great."

JOHN J. CARTY

AMERICAN TELEPHONE AND
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SCIENTIFIC EVENTS

CONFERENCE OF LAKE ERIE BIOLOGISTS

SINCE the initiation of active field investigations in Lake Erie by the U. S. Bureau of Fisheries in the summer of 1927, it has become evident that several investigators and research institutions are already interested in biological research in these waters and that others are either planning to undertake such studies or are in a favorable position to do so.

To stimulate interest in Lake Erie and to center attention upon fisheries conservation, the commissioner of fisheries called a conference of the various biologists working independently or as members of the staffs of research institutions and universities with the hope of effecting closer coordination of the work and to prevent duplication of effort. Dr. Francis H. Herrick, of Western Reserve University, offered the facilities for the meeting, and the conference, therefore, was held in Cleveland on February 6.

The New York Conservation Department was represented by Alexander McDonald, commissioner, and Dr. Emmeline Moore; Dr. R. H. Pegrum represented the Buffalo Society of Natural Sciences; N. R. Buller, Fisheries Commissioner of Pennsylvania, was present; Dr. R. C. Osburn, of Ohio State University; E. L. Wickliff, W. M. Tidd, and M. K. Young, of the Ohio Division of Fish and Game, and Dr. R. V. Bangham, of Wooster College, Wooster, Ohio, also were present.

A number of the faculty of Western Reserve University attended, including Dr. Herrick and Dr. J. Paul Visscher. The Ohio State Department of Health was represented by Messrs. B. F. Hatch and Paul Mason; G. F. Simmons represented the Cleveland Museum of Natural History. Michigan was represented by C. L. Hubbs, curator of fishes of the State University, and the Province of Ontario by W. J. K. Harkness and J. L. Hart, of the University of Toronto. Besides Commissioner Henry O'Malley, who presided at the conference, the Bureau of Fisheries was represented by Lewis Radcliffe, Elmer Higgins, Dr. John Van Oosten, Stillman Wright and E. J. McClure. In addition to these official delegates a number of commercial fishermen and fish merchants evidenced their interest in the solution of fishery problems in Lake Erie by attending the conference and entering into the discussions.

After an address of welcome by Dr. Herrick, Mr. O'Malley took the chair and the following program was taken up:

1. Conservation in Lake Erie and the need for cooperative investigation, Henry O'Malley.
2. The condition of the Great Lakes fisheries, Lewis Radcliffe.
3. Review of the present state of knowledge concerning the biology of Lake Erie, Dr. R. C. Osburn.
4. Biological problems in Lake Erie, Dr. C. J. Fish (read by Dr. R. H. Pegrum).
5. Survey of research programs and research facilities:
 - a. State of New York, Mr. McDonald and Dr. Moore.
 - b. Buffalo Museum of Natural Sciences, Dr. Pegrum.
 - c. State of Pennsylvania, N. R. Buller.
 - d. State of Ohio, Dr. R. C. Osburn.
 - e. Western Reserve University, Dr. J. Paul Visscher.
 - f. University of Toronto, W. J. K. Harkness.
 - g. University of Michigan, Carl L. Hubbs.
 - h. U. S. Bureau of Fisheries, Dr. John Van Oosten.
 - i. Other agencies:
 1. Cleveland Museum of Natural History, G. F. Simmons.
 2. Ohio State Board of Health, B. F. Hatch.

The fisheries situation in Lake Erie and the need for further investigations were discussed freely by various members of the conference. In surveying the research programs and research facilities of the various organizations it was apparent that the States of New York and Ohio are contemplating further investigations in Lake Erie on an extensive scale during the coming year. Included in the program of the State of New York is the employment of personnel from several cooperative institutions, such as Cornell University, Syracuse University, Rensselaer Polytechnic Institute and the Buffalo Museum of Natural Sciences. At the western end of the lake the Ohio Division of

Fish and Game is joining forces with the state university and the Franz Theodore Stone Laboratory in conducting studies there. In the central part of the lake the Fish and Game Department of Pennsylvania has promised cooperative action, together with the biologists of Western Reserve University. The province of Ontario is unable to cooperate actively because of the fact that biologists of the University of Toronto are already engaged in fishery problems in Lake Ontario; and while undertaking no active field work, the University of Michigan offers cooperation in problems concerning technical ichthyology. The bureau's staff of investigators, under the direction of Dr. John Van Oosten, is being built up, and by early summer seven workers will be engaged in investigations dealing directly with the fisheries.

At the close of the discussions, in which every one was given opportunity to express his views, it was determined that the Commissioner of Fisheries should appoint an executive committee to draft plans for coordinated research on Lake Erie, based on the individual plans submitted. Mr. O'Malley appointed Elmer Higgins chairman and Drs. R. C. Osburn and Emmeline Moore as members of this committee with instructions to draft the program and refer it back to the individual cooperative investigators for their approval and action. The committee was directed further to prepare a bibliography on equipment, with special reference to experimental fishing gear, and to make an effort to standardize collecting equipment among the investigators as far as possible. It is believed that material progress has been made in stimulating research on the problems of conservation and the rebuilding of a valuable but sadly depleted fishery in Lake Erie.

ELMER HIGGINS

U. S. BUREAU OF FISHERIES

MEETING OF THE AMERICAN ELECTRO-CHEMICAL SOCIETY

THE American Electrochemical Society will hold its annual meeting at Bridgeport, Conn., on April 26, 27 and 28. This district was chosen owing to the epoch-making developments in the electric manufacture of brass. The president of the society is Professor S. C. Lind, head of the department of chemistry of the University of Minnesota and the American representative of the International Radium Standards Commission. Professor Lind will show the members a number of gas reactions brought about by radium emanations.

On April 26, the society will convene at the new Hotel Stratfield, and will devote Friday morning to the discussion of electric heating, molting and electric furnace linings. Among those who will participate in

this discussion are Mr. R. E. Talley, president and chief engineer of George J. Hagan Company, Pittsburgh; Mr. R. M. Keeney, industrial heating engineer of the Connecticut Light and Power Company; Mr. John L. Christie, metallurgist of the Bridgeport Brass Company; Dr. B. D. Saklatwalla, vice-president of the Vanadium Corporation of America, and others.

The Thursday morning session at the Hotel Stratfield will be devoted to a discussion of new batteries, and Dr. George W. Vinal, of the U. S. Bureau of Standards, will preside. Owing to the development of the radio industry, the battery business has increased by leaps and bounds. The Burgess Laboratories of Madison, Wisconsin, will present the results of their latest discoveries. The storage battery will be analyzed by experts in this field, and there will be reports on improved types of wet primary cells such as the Edison and Waterbury cells. Finally, there will be a demonstration of new rectifiers and eliminators. On Thursday afternoon the members will proceed upon a tour of inspection of the factories in Bridgeport and vicinity. On Thursday evening there will be a public lecture by Professor Bergen Davis, of Columbia University, who will demonstrate the use of the X-ray in the study of metals and compounds.

The local committee is headed by Mr. John L. Christie, metallurgist of the Bridgeport Brass Company. Mr. Christie has been working for many weeks in arranging for plant visits and social functions. Other members of his committee include the following: Messrs. F. M. Turner, Charles J. McElroy, W. G. Stratten, Raymond O'Connor, W. O. Mitscherling, Karl Pitschner, Walter M. Bradley, William Delage, George B. Hogaboom and J. C. Bradley. The main social event of the electrochemists' convention will be a dinner and dance on Friday evening.

The final session will be held Saturday morning, and will be devoted to the presentation of papers on electroplating of nickel, gold, silver, chromium and thallium. Professor E. M. Baker, of the University of Michigan, and expert for the G. C. Spring and Bumper Company, will preside over this session.

ELECTION OF FELLOWS TO THE ROYAL SOCIETY OF EDINBURGH

THE following candidates have been recommended by the council for election as Fellows of the Royal Society of Edinburgh:

Baker, Edwin Arthur, assistant at the Royal Observatory, Edinburgh; Barbour, George Brown, professor of geology, Yenching University, Peking, China; Brown, Hugh Wylie; Bruce, William Straton, parish minister of Banff; Clark, Alfred Joseph, professor of materia medica in the University of Edinburgh; Coutie, Alexander, assistant in the chemistry department, University of Edin-