THE INTERNATIONAL TECHNICAL CONSULTING COMMITTEE ON RADIO COMMUNICATION

IN the International Radiotelegraph Convention, adopted at the international conference held in Washington in 1927, provision was made for an International Technical Consulting Committee on Radio Communication. The general regulations adopted at the same time specified that this advisory committee should be formed, for each meeting, of experts representing either governments or private radio-operating companies. Meetings were to be held normally at two-year intervals, and the first one was to be convened by the government of the Netherlands.

In accordance with these agreements a meeting was arranged to take place at The Hague in September. American proposals for consideration at this meeting were prepared with great care by a joint committee of government and commercial radio engineers, acting under the auspices of the International Radio Advisory Committee. Subcommittees were organized to deal, respectively, with (1) frequency maintenance, (2) systematization of frequency allocation, (3) transmitter interference, (4) research organization, (5) definitions and ratings and (6) amateur licensing. Members of the bureau's staff have served as chairmen of three of these subcommittees.

Commercial companies in this country sent about ten representatives to the meeting, and the United States Government had three official representatives supported by four technical advisers. The three delegates were Major-General C. McK. Saltzman, member of the Federal Radio Commission; Major-General George S. Gibbs, chief signal officer of the Army, and Captain S. C. Hooper, head of the communication division of the Navy. The technical advisers include Dr. J. H. Dellinger and Dr. C. B. Jolliffe, of the Bureau of Standards.

The first essential for proper allocation and effective use of the radio-frequency bands available for communication is uniform and accurate measurement of the frequencies. The best method for comparing frequency measurements of various laboratories is the exchange of quartz piezo-oscillators. Consequently, in connection with this international meeting the bureau sent abroad a portable oscillator with thermostatic temperature control, on which measurements will be made at the national laboratories in France, Germany, Great Britain and Italy. Comparisons have already been made with the Bell Telephone Laboratories and the Naval Research Laboratory, so that the series of measurements abroad will serve to give a direct comparison between nearly all the laboratories in the world which are doing fundamental work on frequency measurements.

LAKE ERIE COOPERATIVE SURVEY

THE United States Bureau of Fisheries steamer *Shearwater* was used on the cooperative survey of Lake Erie from May 15 to September 20, 1929. The organizations participating in the survey were the Bureau of Fisheries, the Ontario government, the states of New York and Ohio and the Buffalo Museum of Science.

The bureau provided the vessel and ship's force, the State of New York contributed largely to the maintenance of the survey, the Ontario government, the State of Ohio and the Buffalo Museum of Science contributed most of the special equipment and scientific personnel. The United States Coast and Geodetic Survey furnished hydrographic instruments and the hydrographer.

The extreme western end of the lake was covered by the State of Ohio and the Bureau of Fisheries. Except for this western portion, the entire lake was covered by the cooperative survey.

The scientific staff consisted of Dr. Charles J. Fish, director; Dr. Paul Burkholder, planktonologist; Arthur H. Louden, scientific assistant; C. J. Munter, chemist, and Lieutenant Chas. K. Green, hydrographer.

Four regular cruises were made, one each in the months of June, July, August and September. The cruises started on about the third of each month from Buffalo and terminated at Put in Bay about the eighteenth. All the fifty stations were occupied in each of these four cruises. The intercruise interval was utilized in special work and in steaming back to Buffalo for the next regular cruise. During the survey 4,435 statute miles were covered.

The limits of the cold bottom water in the vicinity of the Deep Hole were found to shift considerably with meteorological changes, and therefore the stations in this area were occupied on the intercruises as well as the regular cruises. Stops were made at eight ports on each cruise, and the staff was able to get the view-point of many commercial fishermen at the principal fishing ports. Most of the fishermen, as well as the staff, are of the opinion that the only solution to the Lake Erie fish problem lies in the establishment of uniform laws regulating the type and size of nets throughout the lake, of limiting the catch to the months in which there will be least interference with reproduction and increasing the number of fry released by the hatcheries.

THE FORESTS OF LIBERIA

G. PROCTOR COOPER, field assistant in tropical forestry at Yale University, has returned to New Haven after nearly a year's investigation of the forests of Liberia, West Africa. This work has been done by