The Coast and Geodetic Survey, representing the United States, took part in this project by making the observations at 2 of the 40 stations—one near Honolulu and the other near Manila. The publication includes a description of the instruments, some of which are illustrated, and the methods employed at these two stations, together with complete details of the observations and a summary of results.

Many of the stations of the network are at astronomical observatories where elaborate equipment, such as precision clocks and large astronomical instruments, was available. The Honolulu and Manila stations of the Coast and Geodetic Survey were strictly field stations where portable equipment had to be used, and where many formidable difficulties were encountered.

For many years the determination of longitude, especially at sea, was a very serious problem. Near the beginning of the nineteenth century, prizes amounting to many thousands of pounds in value were offered by British organizations to any one who could devise more accurate methods than the ones then available.

The invention of the chronometer was the first great step in the solution of the problem, as it enabled the mariner to carry the time of his home port quite accurately and to compare this time with his time determined at sea. The difference in the two times gives the difference in longitude.

The next great improvement in longitude determination which, however, could be used only on land, resulted from the invention of the electric telegraph, which gave a means for the direct comparison of the times between some known point and a new point.

The last great advance in longitude methods came with the advent of the radio. The radio made possible a very precise comparison of times over both land and sea and was at once adopted for practically all longitude work. This was the method used for the international longitude net in 1926.

THE OHIO ACADEMY OF SCIENCE

THE forty-first annual meeting of the Ohio Academy of Science has been arranged as a joint meeting with the Indiana Academy of Science and the Kentucky Academy of Science. It will be held at Miami University on April 2, 3 and 4.

The program will conform in the main to the following outline, the details of which will be announced later:

THURSDAY, APRIL 2:

Afternoon—Short field trip to points of local interest for those who arrive in time and care to go.

Evening—An informal gathering probably with a short address on some subject of general interest, followed by a social hour for acquaintance sake.

FRIDAY, APRIL 3:

Forenoon—Short business session, Ohio Academy of Science, followed by a general scientific session with three 30-minute addresses by the presidents of the three academies. Demonstrations.

Afternoon—Sectional meetings.

Evening—Banquet, popular address, social hour.

SATURDAY, APRIL 4:

Forenoon—Short business session, Ohio Academy, followed by sectional meetings, beginning at 9:30.

Afternoon—Sectional meetings and another field trip if desired by a sufficient number.

The membership of the program committee is as follows:

Secretary: William H. Alexander, Columbus, *chairman.*
Zoology: Wencel J. Kostir, Ohio State University, Columbus.
Botany: J. Hobart Hoskins, University of Cincinnati, Cincinnati.
Geology: Frank J. Wright, Denison University, Granville.
Medical Sciences: Charles G. Rogers, Oberlin College, Oberlin.
Psychology: James P. Porter, Ohio University, Athens.
Physical Sciences: L. W. Taylor, Oberlin College, Oberlin.

Assisted by

N. E. Pearson, *chairman,* Program Committee, Indiana Academy of Science.
Alfred M. Peter, secretary, Kentucky Academy of Science.

THE YALE OCEANOGRAPHIC EXPEDITION TO THE BAHAMA ISLANDS

A STUDY of the physics and chemistry of the ocean, and the effect of various environmental factors upon deep sea life will be made by an expedition undertaken under the auspices of the Bingham Oceanographic Foundation of Peabody Museum, Yale University, to explore the water around the Bahama Islands. Plans of the expedition, of which Gifford C. Ewing, Yale '26, of New York, is sponsor and director, have been announced by Dr. Albert E. Parr, curator of the Bingham Oceanographic Collection.

The expedition has sailed for the Bahama waters on Mr. Ewing's schooner *Abenaki,* a 50-foot gaff-rigged Alden schooner, equipped with an auxiliary 50 h. p. gasoline engine giving it a speed of eight knots under power. For the purposes of the expedition a specially designed winch with 7,000 feet of 5/32 inch steel aircraft cable on a drum was installed, taking its hoisting power by chain drive directly from the main engine of the boat. By means of this winch and wire it will be possible for the expedition to carry on observations of the physics and chemistry of the ocean down to a depth of 1,000 fathoms, and an intensive study will be made by the modern method of