MAGNETIC SURVEY OF THE PACIFIC OCEAN—SECOND CRUISE.

BY L. A. BAUER.

The yacht "Galilee," engaged in the magnetic survey of the Pacific Ocean under the auspices of the Carnegie Institution of Washington, left San Diego, California, on March 2d to enter on her second cruise. She is expected to make the following circuit of about 20,000 miles by the end of this year: San Diego, Fanning Island, Samoan Islands, Fiji Islands, Marshall Islands, Guam, Yokohama, Aleutian Islands, Sitka, and back again to San Diego.¹

It was necessary to reorganize the scientific personnel, as the members of the staff of the first cruise belonging to the Coast and Geodetic Survey were obliged to return to their official duties at the expiration of their furloughs. The command of the vessel has accordingly now been entrusted to Mr. W. J. Peters, formerly of the astronomical and topographical corps of the United States Geological Survey. He has had considerable experience in difficult exploring work, was second in command and in charge of the scientific work of the recent Ziegler Polar Expedition as the representative of the National Geographic Society.

In connection with the latter expedition Mr. Peters obtained a valuable series of magnetic, meteorological and tidal observations at Teplitz Bay, Franz Joseph Land.

The other members of the present staff are: Mr. J. P. Ault, magnetic observer (likewise a member of the former staff); Mr. J. C. Pearson, magnetic observer (formerly instructor of physics at Bowdoin College, Maine), and Dr. E. C. Martyn, surgeon and recorder.

While the vessel was at San Diego some additional changes and improvements were made both in the ship and in the instruments employed. Sufficient funds have been allotted so as to permit carrying on the work continuously throughout the year.

The first cruise covered the following route: San Francisco, Hawaiian Islands, Fanning Island, Magnetic Equator, Hawaiian Islands, San Diego. Already most interesting results have been obtained both with reference to the accuracy of the present magnetic charts and as to the accuracy with which the magnetic elements can be determined at sea. These results will be embodied in an early publication. Although the "Galilee" is not entirely non-magnetic, she has smaller magnetic constants than any vessel (including the "Gauss" and the "Discovery") thus far engaged in magnetic work.

¹While the Journal is passing through the press, a dispatch announces the safe arrival of the vessel at Fanning Island on March 31st, and the successful execution of the magnetic work on the cruise of 3,500 miles from San Diego to Fanning Island.
—L. A. B.