

close together, with sunshine in between, it suggests the inquiry as to how common, or uncommon, such occurrences may be.—*Robert E. Horton, Voorheesville, N. Y.*

Tropical Cyclones in the Central and Eastern North Pacific

Surprising little has been published concerning the dangerous tropical cyclones of the southeastern North Pacific. There are few islands between Hawaii and Mexico, and relatively few ships passed that way before the Panama canal was opened. Now, however, it is very desirable that the danger be known. Recent studies by the author, who is preparing a monograph on the tropical cyclones of the Pacific, soon to be published by the Bishop Museum of Honolulu, indicate that on the average two or three violent tropical cyclones occur annually off the west coast of Mexico and Central America. A preliminary article on this region, in the *Monthly Weather Review* for June, 1922, led officials of the U. S. Weather Bureau to search the unpublished weather records of ships crossing that region during the past decade. A score of storms are mentioned. These are listed on the reverse of the Pilot Chart for Central American Waters for April, 1923, and the conclusion that this region is one of dangerous storms is officially concurred with. Five severe storms were recorded in 1922. The monthly distribution of the 94 storms discussed in that section of the monograph is as follows: January and May, one each; December, 3; June, 5; November, 7; July, 10; August, 14; October, 22; September, 31. The four months, July to October inclusive, had 82.5 per cent of the recorded storms.

The central Pacific likewise is not without dangerous storms, although fewer appear to attain hurricane violence than is the case in the eastern and western parts of the ocean. A study of the monthly weather summaries for the North Pacific, as published in the *Monthly Weather Review*, reveals that in the past three years about 27 cyclonic disturbances have occurred in longitudes 140W to 140E, in tropical latitudes. Of these, at least three per year, on the average, were accompanied by gales. Honolulu, which is reputed not to have severe storms, nevertheless suffered from a wind of 56 miles per hour on January 13-14, 1923.—*S. S. Visser, Indiana University.*

Climatic Laws, a Summary of Climate

By S. S. VISHER

96 pp., 9 figs. John Wiley & Sons, Inc., New York, 1924. \$1.50 net

Teachers will be most interested in Dr. Visser's summary of general climatology, by the method of concise statement of facts and principles. Climatology, being a science, is readily susceptible of such treatment, though this is the first American book in which the "laws of climate" have been thus conveniently presented. Faced with the inadequacy of our texts in climatology Visser has provided a book for his students, and for other struggling teachers and students of this subject. Ward's translation of Hann's comprehensive volume on general climatology has long been out of print, and his book "Climate, considered especially in