

Mr. Tingley was a quiet scholar deeply interested in marine meteorology and in long-range forecasting. After many years of feeling that the importance of marine meteorology was underestimated he lived to see the growing recognition of the last three years take tangible form in the rapid expansion of his Division. Forecasting a year in advance by projecting the trends of recent years yet keeping these within the usual ranges was Mr. Tingley's hobby. He claimed he could forecast mean monthly temperatures within one degree F. and monthly rainfall within one inch about 75% of the time, but with scientific caution, was always carrying his experiments further before thinking of publishing.—*C. F. B.*

### NORTH AMERICA'S ABNORMAL WINTER WEATHER

From the latter part of November to the first week in February, pressure was persistently high over the inter-mountain region of United States and abnormally low over southwestern Alaska and the Aleutian Islands. Barometer readings were usually near 30.3 inches or higher over the Plateau and 29 inches or lower—nearly an inch below normal—in the Alaskan area.

The barrier of cold air over the greater portion of western North America caused off-shoots from the Aleutian Low to enter the continent through eastern Alaska and the Yukon Territory, while a few managed to move across extreme southern California, survived the crossing of the mountains of northern Mexico, entered the Gulf of Mexico south of the Rio Grande and moved northeastward. These southern lows produced moderate to heavy rains in southern Texas and generally light to moderate precipitation elsewhere in the Gulf States and along the Atlantic seaboard. In December, a few of these southern lows brought general precipitation to the entire region east of the Mississippi.

Lows from the Far Northwest moved generally southeastward to the Lake Region and thence east or northeastward, producing generally moderate precipitation, mostly snow, in the Upper Lake Region, New England and portions of the Middle Atlantic States.

The remainder of United States has been dominated by high pressure areas, and precipitation, in consequence, has been deficient. Exclusive of Texas and Louisiana, the great agricultural regions west of the Mississippi as well as of the Ohio valley (regions already deficient in precipitation from the great drought of 1930) have felt the brunt of this winter's dry spell. Only a few sections received more than an inch of precipitation during the eight-week period following December 15th. January was abnormally warm and dry and nearly all sections mentioned above had a 50% or greater deficiency in precipitation. The Ohio and lower Missouri valleys received only a quarter of their normal amounts. The driest period, however, began on January 19th and continues at the time of this writing (February 7th)—although the storm of February 6-7th, relieved conditions somewhat in the Ohio valley. Many towns in this region had already exhausted their water supply before the storm set in.—*J. Henry Weber.*