

already in World Meteorology something further can be accomplished. World Meteorology is essential to the success of weather forecasting. The Reseau Mondial has accomplished a great deal in giving us some idea of the distribution of world weather. Two stations are chosen in every five degree square of latitude and longitude. The weather map of the northern hemisphere is now prepared daily both in Toronto and Washington. It is evident from these that conditions in the north Pacific react continually on those of this continent.

Further discussion was prevented by the luncheon engagement at the Chamber of Commerce.

*(To be continued in March BULLETIN)*

**Weather Proverbs and Paradoxes.** By W. J. Humphreys, Meteorological Physicist, U. S. Weather Bureau. Small 8vo. Baltimore, Md., Williams & Wilkins Co., 1923. Pp. viii and 125. Illustrated. Price \$1.50.

There have been three stages in the development of weather forecasting. The first stage came before the invention of meteorological instruments, when men observed weather signs, and gradually built up a body of weather proverbs which embodied the results of their experience in the use of these prognostics. The second stage came when the readings of the ordinary instruments, especially of the barometer, could be combined with the weather signs. This is the stage in which hundreds of navigators who are out of touch with radio weather reports still find themselves. The third stage is that in which daily weather maps are available.

Weather proverbs still have, and always will have, real human interest. They are still in universal use. They represent an immediate daily contact which millions of people have with current and with coming weather conditions. Therefore collections of weather proverbs are not only interesting in themselves, but are worth study. There have been several such collections, but there have been practically no serious attempts to separate the "good" from the "bad" proverbs. Many proverbs are merely the relics of past superstitions. Many are useful in one climate and of no use in another land into which they have been imported. Most of our own proverbs came from Europe, or even still farther away, and do not fit into our climatic environment.

There was, therefore, a real need for such an attractive and readable little volume as that which Professor Humphreys has given us. In it the author has classified his selected proverbs under appropriate headings; has given clear and simple explanations of the "good" ones, and has not hesitated to point out the absurdity of some of the "bad" ones. The book therefore serves a distinct purpose in disseminating sound meteorological knowledge. The last fifty or more pages are concerned with Meteorological Paradoxes, to which Professor Humphreys has lately been giving attention. This is by no means the least interesting part of the book. The mere listing of a few of these paradoxes will stimulate thought, and a desire to read the author's discussion of them:—"rain dries air;" "more air goes up than ever comes down;" "to cool air, heat it;" "the coldest air covers the warmest earth," and so on.

This little volume is most attractively gotten up. There are several unusually effective illustrations of cloud forms, and also three photographs of optical phenomena, viz., a double rainbow, a corona and a halo. The publishers seem to us to have fully lived up to their highly praiseworthy motto, "Sans Tache."

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#### ORIGIN OF DUSTFALL

As a result of my note in the May, 1923, Bulletin, telling of a heavy dustfall at Ludington, Mich., on March 25th, last, and requesting reports of duststorms that might have produced the dust, a letter was received from W. T. Lathrop, of Helena, Mont., director of the Weather Bureau climatological service in that State, telling that heavy duststorms occurred in extreme western Montana on the 19th and 16th, about a week before. Further inquiry established that the origin of the Montana dust was in eastern Washington and northeastern Oregon. In those sections the weather was unusually dry and strong winds occurred. Heavy duststorms occurred at many points. In some localities so much soil was blown away that reseeding was necessary. Whether some of this dust reached high altitudes and drifted slowly eastward is a question that can not at present be answered. One circumstance against the theory is that in the Dakotas and Minnesota, across which states the dust should have come, no unusual haziness or other obscuration is reported. Perhaps the origin was nearer Michigan. And yet the fact that the unusual duststorms in the far West occurred shortly before the heavy dustfall in this section is at least significant.—C. H. ESHLEMAN, Weather Bureau Office, Ludington, Mich.

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On the morning of January 21, 1924, a temperature of 57° below zero was reported from White River, Ontario. This occurred after a calm, clear night, with the ground covered with about 12 inches of snow. It is the lowest temperature reported from White River since January 6, 1912, when the reading was —58° F.

Aitken, S. C., Feb. 7.—Weather conditions here are ideal. All of the spring foliage is in full bloom.—*N. Y. Evening Post*, Feb. 9, 1924.

Mr. Edgar W. Woolard has been elected a Fellow of the American Meteorological Society. For the past five years Mr. Woolard has made many contributions to meteorological optics and the applications of mathematics in dynamical meteorology. One of his latest papers was "The Role of Mathematics in the Development of Science as illustrated by the History of Meteorology." (Presented before the Mathematical Association of America, December 8, 1923.)

A report of the Cincinnati Meeting was published in *Science* for January 25, 1924.

The Royal Meteorological Society presented, on January 16, the Symons gold medal for 1924 to Dr. Takematsu Okada, director of the Central Meteorological Observatory, Tokyo, Japan.—*Science*.