POLAR EXPLORATION

By Dr. ISAIAH BOWMAN

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By Dr. ISAIAH BOWMAN

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It was but yesterday in the procession of “the eternal years” that men sought knowledge of the higher will by consulting the oracle, the shrine where the voice could be heard that told what to do and what would happen. “There mighty Nations shall inquire their doom,” and there the individual, if powerful enough, might even hope “to work the oracle” and bring private wish and future event into harmony. What men were striving after was fore-knowledge of the event, forecast, or, in another connotation and using the modern term of a scientist of the Indian Meteorological Department, “foreshadowing.” It is rather striking that this early manifestation of human curiosity is reflected in the scientific era. Within the scope of its “laws,” or, better said, its generalizations, science to-day sets up forecast as one of its highest aims. Omitting California, the most common question of civilization is, “What will the weather be to-day?” and, as Mark Jefferson has phrased it, if the forecaster can not tell us whether or not it will rain at least we wish him to tell us if it is prudent to carry an umbrella. In a state so well supplied with observatories and in the presence of such eminent astronomers I do not wish to draw upon even that nearer heaven, the sky, for further illustrations of forecast, but you will perhaps permit me to mention the tides and the celebrated tide machine of the U. S. Coast and Geodetic Survey that permits an operator to pull levers and scan indices and, at length, by what to the layman seems mystery as deep as an oracle, derive the future time of occurrence of the tide at a given point on the earth with all but mathematical accuracy!

It happens that polar exploration has participated in this advance from the place of wish-and-guess to the eye-piece of an instrument of precision and a knowledge of the workings of natural laws, and I have

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1 Public address under the auspices of the National Academy of Sciences given at the University of California on the evening of September 18, 1899.
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