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THE PIONEERING PROCESS¹

By Dr. ISAIAH BOWMAN

DIRECTOR OF THE AMERICAN GEOGRAPHICAL SOCIETY OF NEW YORK

So long as men "looked for a sign" the way of life was easy to find. Pioneer colonists took what the land offered: "That with their miseries they opened a way to their new-lands." This was man the wayfarer and burden-bearer, not man the destiny-guider. At length science began to interpret the physical world round about—its amplitude or scale, its great variety of environments, its favored areas, the breeding grounds and the courses of the storms, the way of the currents in the sea, the natural food supplies, and finally the improvements that could be made here and there by inventions and by technical processes that grew out of the attempt to apply scientific discoveries to man's own well-being.

Locke held that "it is easier to believe than to be

¹ Address delivered at the annual banquet of the Society of the Sigma Xi, Yale University, March 19, 1932.

scientifically instructed." Even now, in the full morning of the scientific day, crude belief is the basis of most of our human acts and relationships—a hunch that a given law, condition, social or economic arrangement is better than some or any other. The "method of science," which means the experimental method, is good enough for all but the affairs of men. In a sense this has been fortunate, for civilization could scarcely have had a beginning if the law of demonstration had always held sway. What was first needed was a rough-hewn scheme and a faith-yielding people. As life got more complex it became more troublesome to think about and the effects of a given act harder to anticipate and to measure. Always men have sighed for the good old times, meaning the simpler times. Even among "scientific" men, the *curiosi*, the individual is as apt as the rest of man-

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