

a general and unbiassed glance at the world outside, leaving our study, our observatory, our laboratory, our dissecting- or our measuring-room, and ask ourselves the simple question, By the work carried on in these various secluded places, in the "sapientum templa serena," how much of the world outside have we really learnt to comprehend, or even only to describe and picture to ourselves correctly and completely? The answer is hardly encouraging. The first thing we notice in stepping out of our door is a phenomenon still as incalculable as it has ever been, and yet bound up with the enjoyment of our lives and the success of our work as much as ever—the weather. What do we know of it which is practically reliable and useful? The reply must be, "Next to nothing." Some general astronomical and some more detailed physical and chemical relations permit us to describe a few general meteorological and a few recurring seasonable events, but scarcely with more practical detail and certainty than the unscientific ancients or the untaught children of nature of to-day. We know in general the cause of storms, of changes of temperature, of the seasons, of rain, hail, drought, and cold, but we do not know much more of the exact when and where of these various changes than did our forefathers. The natural atmosphere and climate which surround us are still elements of conjecture and uncertainty.

Assume, however, that we go a step further, and having accustomed ourselves to take the weather, good or bad, as it is, enter into the artificial atmosphere and surroundings of practical life, of industry, trade, and