

enhanced than otherwise by the seemingly incidental way in which the telescope was discovered. The observation of the polarity of the magnet is an example of the same kind—and with the same result, in multiplying, by an enlarged commerce, the enjoyments of life, and speeding onward the science and civilization of the globe. There cannot a purer instance be given of adaptation between external nature and the mind of man—than when some material, that would have remained

habitants of a planet so inconsiderable as our own, forget the style of the Divine Works, which is, to serve some great or principal end, compatibly with ten thousand lesser and remote interests. Man, if he would secure the greater, must neglect or sacrifice the less; not so of the Omnipotent Contriver. It is a fact full of meaning, that those astronomical phenomena, (and so others,) which offer themselves as available for the purposes of art, as for instance of navigation or geography, do not fully or effectively yield the end they promise, until after long and elaborate processes of calculation have disentangled them from variations, disturbing forces, and apparent irregularities. To the rude fact, if so we might designate it, a mass of recondite science must be appended, before it can be brought to bear with precision upon the arts of life. Thus the polarity of the needle or the eclipses of Jupiter's moons are as nothing to the mariner or the geographer, without the voluminous commentary furnished by the mathematics of astronomy. The fact of the expansive force of steam must employ the intelligence and energy of the mechanics of the empire during a century, before the whole of its beneficial powers can be put in activity. Chemical, medical, and botanical science, is filled with parallel instances; and they all affirm, in an articulate manner, the twofold purpose of the Creator—to benefit man and to educate him."