cial branches of the several departments of science, whose mutual connection is indicated in the beginning of the work. Wherever it has been possible to do so, I have adduced the authorities from whence I derived my facts, with a view of affording testimony both to the accuracy of my statements and to the value of the observations to which reference was made. In those instances where I have quoted from my own writings (the facts contained in which being, from their very nature, scattered through different portions of my works), I have always referred to the original editions, owing to the importance of accuracy with regard to numerical relations, and to my own distrust of the care and correctness of translators. In the few cases where I have extracted short passages from the works of my friends, I have indicated them by marks of quotation; and, in imitation of the practice of the ancients, I have invariably preferred the repetition of the same words to any arbitrary substitution of my own paraphrases. The much-contested question of priority of claim to a first discovery, which it is so dangerous to treat of in a work of this uncontroversial kind, has rarely been touched upon. Where I have occasionally referred to classical antiquity, and to that happy period of transition which has rendered the sixteenth and seventeenth centuries so celebrated, owing to the great geographical discoveries by which the age was characterized, I have been simply led to adopt this mode of treatment, from the desire we experience from time to time, when considering the general views of nature, to escape from the circle of more strictly dogmatical modern opinions, and enter the free and fanciful do main of earlier presentiments.

It has frequently been regarded as a subject of discouraging consideration, that while purely literary products of intellectual activity are rooted in the depths of feeling, and interwoven with the creative force of imagination, all works treating of empirical knowledge, and of the connection of natural phenomena and physical laws, are subject to the most marked modifications of form in the lapse of short periods of time, both