discoveries of the seventeenth century. Leibnitz pictured the universe as formed of a finite number of particles each with its own velocity and direction; Laplace imagined a world-formula enabling all events past and future to be calculated from the motions of the atoms by the laws of mechanics; and Dalton's "discovery of the means of weighing the atoms" seemed but a prelude to the advent of that younger Newton who would reduce all science to "the mechanics of the atoms."

But the "younger Newton" has been long in coming; and the waiting world has had time to reflect on his great predecessor's motto *hypotheses non fingo*, and to realize that from the days of Galileo none of the founders of mechanics and astronomy made their reputations by inventing "explanations" of the motions of the planets or the fall of apples, but by observing facts, describing them accurately and simply in mathematical language, and collecting the results of their work in the form of a few unexplained generalizations, or "laws". As moreover, the atomic hypothesis (unlike the otherwise analogous hypothesis of a luminiferous ether) has not been as fruitful as was expected in opening up new fields for research, while in certain branches of chemistry it has proved a hindrance rather than a help, it is not surprising that much of the early enthusiasm for it has cooled, and that the present tendency is to keep the facts of the science sharply distinguished from the hypothetical explanation, with great resultant gain in clearness of thought and expression.

Who now-a-days would define an element as "a substance whose molecules consist of like atoms," and who cannot see that to explain the action of hydrogen on chlorine as due to "the attraction of the hydrogen atom for the atom of chlorine" is but to put oneself on a level with the Physician of soporific memory? Not so long ago, such definitions and explanations were to be found in every text-book, and did much to confuse the beginners whom they purported to instruct.