

The number of particles in a cubic inch of air is about the number three with twenty cyphers after it, that is, 100,000,000,000,000,000,000,000. In a mass of hydrogen, at ordinary temperature and pressure, every particle averages 71,700,000,000 collisions the second, with other particles. Its course is deflected 17,700,000,000 times, and it moves at the rate of seventy miles in the minute. When rude voices say, "The Lord never passes by; not in the wind, not in the earthquake, not in the still, small voice;" we cannot but marvel that the mystic maze in which these tiny atoms run, with their occult powers, giving form to the worldly structure, and raising it storey above storey, with chambers of every dimension, furniture and embellishment, does not fill men with reverential awe of that Eternal Power, acknowledged by every accurate and comprehensive man of science, as the cause of these wonderful phenomena. We recognise a vast, an incomprehensible mingling of forces and substances to accomplish some great teleological purpose, by which the universe is a house of discipline to prepare sojourners for the eternal future. Splendour, from galaxies of stars afar off, arrives at the earth in widely separated intervals. It brings life and strength to our frames, it quickens and gladdens our minds. It comes from other worlds, other natures, as a symbol and promise of knowledge concerning wonders beyond the veil. We read it as an assurance that when the grass withers and earthly flowers fail there is another light, another life, another glory.

Probably, matter in all its varieties, and its molecules in all their mysteries, are due to one substance; simpler, yet so comprehensive that its potentialities were the sign and assurance of worlds to come. Differentiation of this substance would give birth to the so-called elements—dense invisible units. The grouping of these complex units—particles of specific weight, size, elasticity, affinity, differences of quality, with chronometric vibrations—account for the suns, the stars, and all that in them is. These many worlds, and all they contain, far from exhausting the forms, combinations, and conditions of force which the elements are capable of—only use a few: silicon, aluminium, iron, magnesium, sodium, chlorine,