mechanical notion that is put before us by Fresnel and his followers, to take up the so-called electro-magnetic theory of light in the way it has been taken up by several writers of late."

But whilst, no doubt, the train of reasoning started by Maxwell, and developed by his followers, has somewhat destroyed the simplicity and directness which the older vibratory theory of light and the kinetic theory of gases had brought into our mechanical views of natural phenomena, the subsequent experimental proof of the existence of electric waves by Hertz has done much popularly to strengthen that view. The discovery of other kinds of rays, by Lenard, Röntgen, and others, has likewise tended in the same direction, though their exact nature is still a subject of much conjecture.

Nor can it be denied that the practical usefulness also of these lately discovered forms of radiation has tended in the same direction; as has, all through the last thirty years, the enormous development of electrical industry in its many branches. Up to the beginning of the nineteenth century the principal electric and magnetic phenomena known were what we term statical; the study of these centred in the conception of electric and magnetic charges concentrated on or in conductors and acting at a distance. The practical interest was limited to mariners' compasses and lightning-conductors. The discovery of the galvanic current, and still more its applications by Davy to the decomposition of the most refractory chemical compounds, introduced an entirely new class of phenomena. Continental science, in Coulomb, Ampère, and Weber, first