developed the line of reasoning and research suggested by statical phenomena and applied this to dynamical phenomena. Faraday, following Davy, approached the subject from the point of view of the chemist. It was soon suspected, and latterly proved by actual measurements, that the quantities which come into play in statical charges, and even in a violent thunderstorm, are small compared with those of a steady electrical current. The phenomena of electricity in motion became of infinitely more practical importance than those of electrical equilibrium or of static tension. The views of Faraday, Thomson, and Maxwell, which Helmholtz, educated though he was in the Continental methods, adopted and introduced into German scientific literature, lent themselves, as he recognised, more successfully and directly to the solution of the problems which applied science forced upon theorists.

Something, indeed, has been lost by this fundamental change which has come over modern reasoning in electrical matters. This has been most clearly and pointedly expressed by M. Poincaré, the eminent French mathematician, who has done so much to illumine physical and mechanical problems from the side of pure mathematics. "Maxwell," he says, "does not give a mechanical explanation of electricity and magnetism; he confines himself to the proof that such an explanation is possible." Accordingly, those who were brought up in the traditions of the school of Laplace and Cauchy feel dismayed at the indefiniteness which adheres to the expositions of Maxwell's latest and greatest work. "A great French philosopher," M. Poincaré proceeds, "one of those

56. Indefiniteness of the electro-magnetic theory.