

the atomic view of matter. Similar uncertainties in the definitions exist in both theories all through the century, down to the most recent times. There are those who still look upon both conceptions as merely convenient symbolisms, as ideal instruments of thought or scientific shorthand; and on the other side we have it as emphatically stated, that the question, What is ether? "is *the* question of the physical world at the present time," "that it is not unanswerable," in fact, "that it is not far from being answered," that "it is probably a simpler question" than the other question, What is matter? <sup>1</sup> The whole domain of physical science is even divided into two portions, the physics of matter and the physics of ether,<sup>2</sup> and the older, more empirical, and common-sense divisions, treating separately of light, electricity, and magnetism, are assembled in one great doctrine, the "doctrine of the ether." It is, indeed, somewhat astounding, if not disheartening, to hear at the same time from an authority who has done more than any other living philosopher to enlighten us in these

<sup>1</sup> Professor O. Lodge, in the Preface to the first edition of 'Modern Views of Electricity,' p. xi. "It is simpler," he continues, "partly because ether is one, while matter is apparently many; partly because the presence of matter so modifies the ether that no complete theory of the properties of matter can possibly be given without a preliminary and fairly complete knowledge of the properties and constitution of undisturbed ether in free space. When this has been attained, the resultant and combined effect we call matter may begin to be understood."

<sup>2</sup> See *inter alia* Professor Paul Drude's 'Physik des Aethers' (Stuttgart, 1894). In the Preface, p. vi, he speaks of the philosophical "desire of using the same fundamental conceptions for the physics of the æther as for the physics of matter, whereby it remains an open question whether it is more serviceable to reduce the equations in the physics of the æther to those expressions which can be got from the observable phenomena in the physics of matter (the equations of dynamics), or whether the opposite road can be chosen with advantage."