with less favour, although it was entirely owing to Newton's gravitation formula that it ever obtained its great influence, the labour of Continental men of science being very largely spent in two directions: first, in drawing the purely mathematical consequences of Newton's formula—in this they have met with increasing success, unparalleled by that in any other domain of science; and secondly, in extending the principle of Newton, by experiment and analogy, into other departments. In some of these, very remarkable results have been achieved; but nevertheless at the end of the century no extension or analogue of the Newtonian gravitation formula has been generally accepted, and it still stands there as almost the only firmly established mathematical relation, expressive of a property of all matter, to which the progress of more than two centuries has added nothing, from which it has taken nothing away. The value, however, of all those partial attempts in another direction has been enormous; for with the aim of applying, extending, or modifying a rigorous mathematical formula, those philosophers have carried out a series of the most exact observations and measurements of physical quantities, very greatly extended our knowledge of natural phenomena and their mutual relations, and founded that general system of physical measurement which is now universally adopted. The names of Gauss and Weber stand out prominently as leaders in this work. I shall have to come back to this point later on, after I have shown that other views of nature besides the astronomical have also led up to it, and placed it in similar prominence.