life, the early stages of culture and society, of language and poetry, were connected with the elemental forces of nature. Nature was studied in a human interest as the *alma mater* of Mind.

15. Vague ideas of development kept back by mathematical spirit.

These aims and tendencies of the Philosophy of Nature were entirely opposed to the tendencies of exact science. The tendency of the latter was, as I have shown in the first section of this work, to discover everywhere fixed mathematical relations, to reduce everything to definite quantities which could be measured and calculated. The ideal of this view was the mathematical formula, the geometrical figure, or the mechanical model. Wherever these could be found or invented, the scientific mind could apply the powerful engine constructed with so much skill from the time of Newton and Leibniz onward: the infinitesimal calculus. Through the workings of this, every fixed relation, form, or movement discovered in natural phenomena became the starting-point for the development of new ideas. A whole train of abstract reasoning was set in motion; this in its course led to new relations and forms requiring only to be reinterpreted in order to reveal phenomena and events which, except for it, would have remained hidden and unknown. Through this powerful engine of research, through this independent movement of thought, the mind acquired an undreamt of mastery over nature, and could for a moment imagine that it had arrived at some of the fundamental data of reality, that it had laid bare the very foundations of existence.

It is not difficult to realise how the many triumphs achieved within a very short period in the regions of