

were occupied with the many researches indicated here. But as the contents of the 'Principia' became familiar and intelligible to men of science, a large army of workers, collected from all sides, had within the first century after its publication accumulated a great mass of research. It is the glory of the old French Academy of Sciences, in spite of the opposition to Newton that ruled there for some time, to have in all earnest taken up his great bequest, and to have made such a summary possible as was given by Laplace in the two works above referred to. To Laplace belongs also almost exclusively the merit of having recognised the importance which attaches in all human science to the existence of error, and of having founded the theory of probability. The element of error cannot be eliminated from our observations and our reasonings: the only true scientific method is to measure and study it.

15.  
Laplace and  
Newton.

The gravitation formula of Newton not only brought precision and definiteness into scientific work in the three directions mentioned above—it not only produced strict definitions of the fundamental notions of dynamics, promoted accurate measurements of physical quantities, and inaugurated a new literature in pure mathematics; but it had, as all other great generalisations have had since, a very far-reaching influence on scientific thought in other ways. There always have been, and always will be, several distinct interests which induce men to study nature. Some are driven to it by curiosity, or a pure love of nature. To those who belong to this class the end of the study of nature is to describe and to portray the objects which surround us, to see and know them

16.  
Several  
interests  
which  
promote  
science.