

or to which we have to submit, in later life. These do not touch the essence, though very frequently they may succeed in destroying the depth, of our convictions.

6.  
Method of  
scientific  
inquiry.  
Practised  
first by  
Galileo,  
Newton, &c.,  
defined by  
Bacon,  
Comte,  
Mill, &c.

In the place, then, of the high-sounding but indefinable search after truth, modern science has put an elaborate method of inquiry: this method has to be learnt by patient practice, and not by listening to a description of it. It is laid down in the works of those modern heroes of science, from Galileo and Newton onward, who have practised it successfully, and from whose writings philosophers from Bacon to Comte and Mill have—not without misunderstanding and error—tried to extract the *rationale*. These methods will take up a large portion of our attention. For the moment it is important to note that the result or aim of scientific inquiry does not dictate the methods,—the purely scientific inquirer does not know where the path will lead him: it is sufficient that it be clearly marked. Modern science defines the method, not the aim, of its work. It is based upon numbering and calculating—in short, upon mathematical processes; and the progress of science depends as much upon introducing mathematical notions into subjects which are apparently not mathematical, as upon the extension of mathematical methods and conceptions themselves. The terms “exact” and “positive” are current in the Continental and English languages to denote these methods and their application. Now to any one who does not stand in the midst of the scientific work of the age, it might appear as if by merely following a defined method which is capable of numerous modifications,—by treading a clear path which in its course leads us to endless equally defined ramifications,—the scientific

7.  
Disintegra-  
tion of  
learning  
only ap-  
parent.