doing this. Seldom, indeed, is it that we find in any one individual more than one of these distinct functions eminently developed, yet Newton takes foremost rank in all. There have been experimenters who have equalled, perhaps surpassed him in fertility of device and acuteness of observation, but in both the other classes he stands unrivalled; and taken in conjunction, not only is there no one like him, but hardly second to him, perhaps Laplace the nearest, but that only *longo post intervallo.* To write then a full account of the discoveries of such a man would require for the task one who is able to appreciate him in all these departments. Now, Sir David Brewster is undeniably a splendid experimental Philosopher, but we are not aware that he has ever laid claim to eminence in pure, (and, by consequence, in applied) mathematics; accordingly, while a great portion of his bulky volumes is devoted to matter we cannot help considering irrelevant, such as the lives of Tycho Brahe, Galileo, and Kepler, Lord Rosse's Telescope, the discovery of Neptune, and a good deal of ambitious writing, which we could well have spared, there are but about ten pages devoted to an analysis of the Principia, and those disfigured by blunders, (slips we would willingly call them) which we can hardly credit our eyes on reading. Still worse do Newton's inventions and researches in pure mathematics fare, numbers of them being passed over without comment, some not even mentioned. To make up for this omission we have nearly a third of the work taken up by the optical researches of Newton and of others, both before and after him. Now, Newton's discoveries in optics, though enough to make half-a-dozen reputations, are those on which his fame least rests, for, though he discovered the composition of colours in white light, by an accident of manipulation he missed its corollary, the irrationality of dispersion; and though his experiments on the colours of plates and in diffraction and interferences, were beautiful and valuable, yet by an accidental mismeasurement he was confirmed in referring them to a theory which is now universally rejected. The relation between Newton and his Biographer is here somewhat curious. Newton's analysis of the solar spectrum was met at first by much opposition and controversy, though it speedily triumphed over assault, and has been accepted by all down to the present time, (except, indeed, by Göethe, of whom we need not here speak) when it has found an assailant in Sir David himself. The substitute proposed by him he has been unable to persuade his contemporaries to accept, and thus in the present work we find a running parallel implied between Newton and his detractors on the one hand, and Sir David and the present generation on the other. Newton condescended to reply with great tem-