schools in its vicinity, the same number at each of the two English universities, and perhaps four in Scotland, we shall hardly exceed a dozen, and yet we are fully persuaded that our reckoning is beyond the truth."

6. Babbage's criticisms.

The other opinion I am going to quote dates from more than twenty years later, and is contained in a pamphlet by Charles Babbage,[1] who with Herschel and Peacock had done much to introduce at the University of Cambridge that knowledge of Continental mathematics which, according to the Edinburgh Reviewer, was so much needed. His 'Decline of the State of Science in England' (1830) was directed mainly against the Royal Society, as the review

[1] Charles Babbage (1792-1871), a native of Devonshire, well known all over Europe through his calculating machine, was a very remarkable and original man. He lived during the age when the application of machinery to manufactures, trades, and arts produced the great reform in the industrial system of this country, and his talents, which might well have been employed in promoting pure science, were largely spent in solving problems of practical interest. An account of these several pursuits and schemes is given in his 'Passages from the life of a Philosopher,' London, 1864. Of his analytical machine we shall have occasion to speak hereafter (see p. 248). Of the beginnings of the new school of mathematics at Cambridge he gives the following account (p. 27). Having purchased for seven guineas a copy of Lacroix's 'Differential and Integral Calculus,' he went to his public tutor to ask the explanation of one of his difficulties. "He listened to my question, said it would not be asked in the Senate House, and was of no sort of consequence, and advised me to get up the earlier subjects of the university studies." Repeated experience of this kind had the effect that he acquired a distaste for the routine studies of the place, and devoured the "papers of Euler and other mathematicians scattered through innumerable volumes of the Academies of Petersburg, Berlin, and Paris." He then perceived "the superior power of the notation of Leibniz." It being an age for forming societies for printing and circulating the Bible at Cambridge, Babbage conceived the plan of a society for promoting mathematical analysis, and to parody one of the many advertisements he proposed to call it a society for promoting "the Principles of pure *d*'ism (*d* being Leibniz's symbol) in opposition to the *dot*-age (*dots* being Newton's notation) of the university." The most important result of this movement was the publication in 1816 of a translation of Lacroix's treatise, and of two volumes of examples in 1820.