

utation.<sup>1</sup> Edinburgh had also one of the earliest chairs of chemistry. It grew into an independent centre of original scientific work when in 1783 the Royal Society of Edinburgh was incorporated. Ever since the foundation of the Scotch universities, mathematics had been studied independently in Scotland, where John Napier of Merchiston had at the end of the sixteenth century invented logarithms. "Whether we consider the great originality of the idea, the difficulty of carrying it into effect in the state in which algebraical analysis then was, or the immense practical and theoretical value of the invention, we shall have little difficulty in claiming for Napier the honour of a discovery unsurpassed in brilliancy in the whole history of mathematics."<sup>2</sup> From that time the

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The Royal  
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Edinburgh.

<sup>1</sup> "In 1738 the foundation-stone of that building which was till recently the Royal Infirmary of Edinburgh was laid, and a great public enthusiasm on the subject was manifested. Drummond, the greatest *Ædile* that has ever governed the city of Edinburgh, and Monro, were appointed the Building Committee, and they paid the workmen with their own hands. All classes contributed: landowners gave stone; merchants gave timber; farmers lent their carts for carriage of materials; even the masons and other labourers gave one day's work out of the month gratis, as it was a building for the benefit of the poor" (Sir A. Grant, *loc. cit.*, vol. i. p. 306).

<sup>2</sup> Quoted by Sir A. Grant (*loc. cit.*, vol. ii. p. 293) from Chrystal's unpublished Inaugural Address, 'John Napier, Baron of Merchiston' (1550-1617). The 'Mirifici Logarithmorum Canonis Descriptio' appeared in 1614. The 'Logarithmorum Chilias prima' of Henry Briggs

(1556-1630), professor at Oxford, contains the first table of common or decimal logarithms. Kepler (1571-1630) received the invention with great enthusiasm as of immense importance to astronomy. "The more one considers the condition of science at the time, and the state of the country in which the discovery took place, the more wonderful does the invention of logarithms appear. . . . It is one of the surprises in the history of science that logarithms were invented as an arithmetical improvement years before their connection with exponents was known. It is to be noticed also that the invention was not the result of any happy accident. Everything tends to show that it was the result of many years of labour and thought undertaken with this special object; Napier succeeded in devising, by the help of arithmetic and geometry alone, the one great simplification of which they were susceptible — a simplification to