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Mathematical instruction at St. Patrick's College Maynooth, 1795-1847.
Abstract :
The Royal College of St. Patrick was founded in 1795 and was established by an act of the Irish Parliament. The College has gone through many changes since then, but its original principal role was as a Catholic seminary and mathematics played a key role in the education it provided. In this paper, we will start with a brief description of some of the political factors which led to the establishment of the College at Maynooth and how they influenced mathematical instruction. We will spend the majority of the paper focusing on what we know about the role of mathematics in the first 50 years of student education in the College. We will address this through a number of sources, particularly the House of Commons Parliamentary Papers relating to the Royal College of St Patrick Maynooth from the years 1808, 1827, 1846, and 1847. These will be presented along with material relating to mathematical instruction from the Maynooth College Archives and further detailed information from biographies of some of the lecturers and staff involved. For example, in 1808, the general course for Natural or Experimental Philosophy involved 'different branches of Elementary Mathematics, Algebra, Geometry, Conic Sections, Astronomy, Mechanics, Optics, Hydraulics, &c. &c. &c. chymistry' [1, p.33]. From 1826, through the Very Reverend Bartholomew Crotty D.D., we have considerable detail on the course of Mathematics and Natural Philosophy at Maynooth. It started with 'pure mathematics' where students read 'arithmetic, algebra, geometry, trigonometry, both plain and spherical, and conic sections' [2, p.73]. Differential calculus was undertaken only by the more advanced students who were 'privately taught fluxions by the Professor' [2, p.74]. Some insight into the purpose of teaching advanced mathematics to clerical students is revealed in Crotty's statement that the study of mathematics at Maynooth was undertaken 'more for its tendency to introduce correct habits of reasoning upon other subjects, than for any immediate value or necessity of mathematical knowledge to a clergyman' [2, p.75]. He added that 'a knowledge of mathematics affords them [clergymen] a rational mode of amusement' [2, p.75]. In 1847 the Rev. Nicholas Callan, inventor of the induction coil and the Maynooth battery, was Professor of Mathematics and Natural Philosophy. The visitors' report for that year includes information on textbooks used, the material covered in each year and entrance exam requirements: Candidates were expected to 'answer satisfactorily in…Algebra, as far as Quadratic Equations included; and six books of Euclid' in order to enrol as students in the class of Humanity (1st year) [3, p.5]. We close this paper with a look at some of the mathematical textbooks referenced and used during this period. There was a significant continental presence in the College at the time and the earliest Professors of Natural Philosophy, Pierre-Justin Delort and André Darré, were both from France [4]. We will

discuss, in detail, how this continental connection may have influenced the formation of mathematical education at Maynooth in the early years of the 19th century. 1 - Papers presented to the House of Commons relating to the Royal College of St Patrick, Maynooth ([London?], 1808). Accessed from House of Commons Parliamentary Papers Online, 25/03/2017. 2- Eighth report of the commissioners of Irish education inquiry (London, 1827). Accessed from House of Commons Parliamentary Papers Online, 25/03/2017. 3- Second report of the visitors of Maynooth College (London, 1847). Accessed from House of Commons Parliamentary Papers Online, 25/03/2017. 4- Patrick J. Corish, Maynooth College 1795-1995 (Dublin, 1995).