

Thomas Miller, M.A., LL.D. By J. S. Mackay, LL.D.

(Read February 15, 1892.)

Thomas Miller was born at Greenbrae, in the parish of Ardoch, on the 16th October 1807. His father, William Miller, was a farmer, and intended the son to follow his own calling. The son, however, had a thirst for learning, and wished to enter the Church. He was sent—perhaps it would be more correct to say he was allowed to go—to St Andrews, for the expenses of his first session (1825–26) were defrayed from his own earnings as a teacher. He took the usual Arts course of four years, distinguishing himself in all his classes, and particularly in those of mathematics and natural philosophy, and graduated the first man of his year. He had come up to the University with what would now be considered rather a slender stock of knowledge, for he knew no algebra or geometry, his Greek was entirely self-acquired, and the instruction he had in Latin was such as could be obtained from one year's attendance at a country school. But if his preparation for college studies was inadequate, it was more than compensated for by his enthusiasm and his indomitable industry, two qualities which remained with him to the end of his life.

In accordance with his design of entering the Church, Mr Miller spent four years more at St Andrews in the study of theology. During this time he had not only many private pupils, but he was engaged by his friend, Professor Duncan, to superintend his competitions, to correct his class exercises, and to revise his *Elements of Solid Geometry*, which was then in manuscript. All this, with his own work for his divinity classes, kept him employed with little intermission from six in the morning till midnight.

At the close of his theological course the appointment of a mathematical master in the Madras College, St Andrews, fell to be made, and he was urged by Principal Haldane to become a candidate for the post. Diffident though he was of his qualifications (it is

usually the best candidates who are diffident), he sent in his application, and was unanimously elected. This event changed the current of his life. He remained four years in the Madras College, teaching not only mathematics, but geography and elementary science with much efficiency, for the number of his pupils increased very greatly during his term of office.

On the death of Professor Jackson in 1837, Mr Miller became a candidate for the vacant chair of natural philosophy, but the appointment was given to Dr Adam Anderson, who was then Rector of the Perth Academy. Mr Miller became Dr Anderson's successor, and in October 1837 commenced his first session in Perth. The classes he had at first were not large, and in leaving St Andrews he knew he was making a heavy pecuniary sacrifice. The number of his pupils, however, increased considerably as time went on.

During his first sessions his leisure was occupied in compiling courses of mathematics and natural philosophy for his students (he always called his pupils "students," addressing them individually as "Mr" and collectively as "Gentlemen"), and making himself acquainted with the progress of scientific discovery. While he was interested in science mainly for its own sake, and for the sake of the benefits which its discoveries have conferred upon mankind, he was keenly alive to the educational importance of its historical development, and familiarised his pupils with the names and the achievements of the great masters from Euclid downwards. For many years he devoted special attention to the Differential and Integral Calculus, and was an assiduous student of the works of Biot, Poisson, Lagrange, and Laplace. In 1852 he was elected a fellow of the Royal Society of Edinburgh, and in 1853 he was offered the degree of LL.D., both by his own University and that of Aberdeen. He chose to accept the St Andrews doctorate. In 1854 appeared his *Treatise on the Differential Calculus, with its Application to Plane Curves, to Curve Surfaces, and to Curves of Double Curvature*. A corresponding volume which he drew up on the Integral Calculus was never published, the demand for books treating of the higher mathematics being extremely limited, and publication entailing a serious pecuniary loss. Not long after he came to Perth he helped to found a Mechanics' Institute, and for several years in succession delivered to

the mechanics courses of lectures on natural philosophy, astronomy, chemistry, and geology. These lectures were given gratuitously, and he was much pleased with the only reward they brought him, beyond the enlightenment and the gratitude of his audiences,—a copy of Laplace's *Mécanique Céleste*.

For four and forty years Dr Miller discharged the duties of Rector of the Perth Academy, and (in the words of one of his distinguished pupils) “under his reign the Academy was less a school than a notable provincial college.” It may be worth while, for purposes of pedagogic comparison, to give a general statement of the course of study through which he conducted his junior and senior classes. The course consisted of the theory of arithmetic, algebra, plane and solid geometry, geometrical conics, plane and spherical trigonometry, dynamics, elementary physics and astronomy, and inorganic chemistry. Occasionally he had pupils who gave a third or even a fourth year's attendance, for which he would accept no fee, and he took particular pleasure in initiating them into the mysteries of the calculus.

In 1881 he retired, and not long afterwards his friends and former pupils presented him with his portrait painted by J. M. Barclay, R.S.A. He had long been prominently connected with the charitable and philanthropic schemes of the city, and he continued to give them his support. He was a Justice of the Peace for the county, and at the time of his death had been for more than half a century an office-bearer in St Paul's Church. He died on the 9th September 1891.

Dr Miller possessed the qualifications which go to form a great schoolmaster. He was a man of high ability, he never ceased to be a student, he had genuine sympathy with youth, and while he was patient with the dullest, he could rouse the enthusiasm of all. No master was ever prouder of the successes of his pupils, or took a livelier interest in their after welfare. His culture was not that of science alone, for he was widely read in literature, and he could grapple with the philosophical and theological questions of the day. To the young men who were his assistants no head-master could be kinder or more considerate. With peculiar appropriateness one may say of him, in the words of a well-known writer, “he had the esteem of his fellow-citizens, and the love of his fireside; he bore

good fortune meekly; he suffered evil with constancy; and through evil or good he maintained truth always."

Dr Miller was married in 1847 to Ann Buchanan, who now survives him. He has left also three sons, Surgeon-Major W. B. Miller, Rev. T. D. Miller, Mr R. H. Miller, LL.B., and a daughter, Mrs H. K. Davson.