

Robert M. Ferguson, Ph.D., LL.D. By Dr Andrew E. Scougal.

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Robert M'Nair Ferguson was born at Airdrie, in July 1828. But he may be accounted as to all intents and purposes an Edinburgh man; for his father removed to Edinburgh when Robert was only three years old, and it was in Edinburgh that the son was brought up and educated, and there that he had his home during all the rest of his life.

From a very early period in his life the lad—or boy—would seem to have made up his mind to be a teacher. At the close of his primary school course as a pupil at the practising school attached to what was then the Free Church Training College at Moray House, he became a monitor in that school, then an assistant master there, and afterwards one of the lecturers on the Training College staff. During this period of training for the teaching profession—which lasted from 1843 to 1858—he attended classes at the University and at the New College, proving himself to be a first-rate student and gaining the highest honours in philosophy, mathematics, and natural philosophy; he passed the examination of King's College, London, for a lectureship in physics and chemistry; and, perhaps most important of all in view of what his main future work was to be, he studied in Germany under Professor Bunsen and other distinguished teachers, and finally graduated, in 1855, as a Doctor of Philosophy of the University of Heidelberg, with mechanics, physics, and chemistry as his special subjects.

From his residence in Germany he brought back with him not only increased attainments in science, but also an intimate knowledge of German life and literature and such a command of the German language that he could use it really "like a native." He had also a good knowledge and command of French—an acquirement which doubtless had something to do with his being entrusted later on with the instruction in chemistry of three young Orleanist princes, the great-grandsons of Philippe Égalité.

In 1858, at the age of thirty, he found a favourable opening for entering on what was to be the main work of his life. In that year he and his friend Mr Bickerton, in partnership, took over from Dr Alexander Reid the Edinburgh Institution (8 Queen Street, Edinburgh), a private secondary school which had already made for itself a good and widespread reputation. Under its new headmasters the Institution steadily increased both in efficiency and in numbers, until it gained such a secure position among the

secondary schools of the city that it was one of the very few private schools in Edinburgh that managed to survive the crisis for such schools which was occasioned by the starting of the Merchant Company's new educational scheme in 1870. The Institution, although somewhat shaken for a little while, ere long fully regained its former prestige and success. In 1875 Mr Bickerton retired, owing to the state of his health, and Dr Ferguson continued to manage the school, as its sole head, until 1898. Thus, when he then retired he had been at the head of this important Edinburgh school for no fewer than forty years.

But Dr Ferguson was a man of wide and varied interests and of much energy. During these forty years he did not confine his activities merely to the work of his school, heavy and taxing though that must have been.

In 1875 he had been elected a fellow of the Scottish (now the Royal Scottish) Society of Arts. Of this Society he became one of the leading members, and was its President for two years. Between 1863 and 1893 he contributed to its *Proceedings* eight papers, two of which were of such importance as to be awarded the Society's silver medals.

He became a member of the Edinburgh Mathematical Society on its foundation in 1883, was its President in 1885-86, and for many years took an active share in its proceedings.

It was in 1868 that he was admitted as a Fellow of the Royal Society of Edinburgh. From an early period of his membership down to very shortly before his death—that is, for more than forty years—he took an active share in the work of the Society, with much acceptableness to his fellow-members. Between 1869 and 1880 he contributed three papers, on magneto-electric and physics subjects, that were published in the Society's *Proceedings* (vols. vii., ix., and x.); for three separate terms (1877-80, 1886-89, 1899-1902) he served on the Council; and from 1902 till 1911 he was the Society's representative on the Board of Governors of George Heriot's Trust. His election to this last office Dr Ferguson highly appreciated, not only as in itself an honour, but also as affording him a sphere of thoroughly congenial public work. He took great interest in the affairs of the Trust, and rendered valuable service on its governing body, especially in connection with its educational schemes. It was with great regret that he resigned this post because his growing deafness had made him feel that he should give up all work that involved attendance at public meetings.

The Heriot Trust work was the last work of that kind that he did give up.

In 1866 Dr Ferguson published, through Messrs W. & R. Chambers, a text-book on *Electricity*, which was very well received. After having been more than once reprinted, it appeared in 1882 in a new edition, revised by

Professor Blyth of the West of Scotland Technical College. Dr Ferguson was also the author of several articles on natural philosophy subjects in the earlier editions of *Chambers's Encyclopædia*.

Amid all this varied and strenuous activity he found time to take, with the keenness and energy characteristic of him, a prominent part in political affairs in Edinburgh and the East and North of Scotland. Details as to his labours in this field were given in the full and interesting obituary notice of him which appeared in the *Scotsman* newspaper, and need not be repeated here. But, the politician apart, it may be permissible to quote here from that notice a few lines which reveal personal traits of the man: "Dr Ferguson took a keen interest in politics. . . . He was one of the most indefatigable of members and office-bearers. In spite of his years, no weather was too inclement, and no meeting was too late, for him to attend. . . . Frequently he presided at public meetings, and the well-chosen character of his remarks and his conduct of the business always gave satisfaction. . . . In addition to such services, which he gave freely, he was also a generous subscriber to the . . . party funds."

In 1892 he received from the University of Edinburgh the honorary degree of Doctor of Laws, in recognition, as the Dean of Faculty said in presenting him, of the importance of his educational and scientific work.

As a teacher and headmaster Dr Ferguson stood in the very front rank. He understood boys, and had that sympathetic insight into both their good points and their failings that is one of the best possessions of the "born teacher." We his pupils soon came to feel that it would be a shame—"low" we ourselves would have called it—to be "mean" or "caddish" or "slackers" with "the Doctor" (as we called him), who himself *played the game* so keenly, so straightly, and so fairly. Thus he succeeded in establishing a high and hearty and thoroughly healthy tone in his school. His wide range of attainments stood him in good stead there; for in staff emergencies he could and did take, with much acceptance among the boys, the higher classes of the school in any subject in the curriculum. But his own special subjects were mathematics and science, and of these he was a supremely good teacher. Many of his pupils who went on to more advanced work in these subjects found reason to be deeply grateful for the thoroughness of the grounding they had received under Dr Ferguson. He was one of the pioneers in the teaching of practical experimental science in schools. Very few secondary schools in the early 'sixties had science laboratories. But Dr Ferguson contrived, in spite of serious limitations as to suitable accommodation, to fit up one at the Edinburgh Institution; and in it, cramped and ill-equipped though it was in contrast with what is nowadays demanded,

he succeeded, by his resourcefulness and enthusiasm and skill as a teacher, in doing no little genuine and stimulating work in this then much-neglected branch of an all-round school curriculum.

By a strange fatality this same little laboratory was, in the end of 1897, the scene of a sad accident by which Dr Ferguson was physically crippled for the rest of his days. An attendant's blunder in connection with the use of oxy-hydrogen apparatus caused an explosion which dreadfully injured Dr Ferguson's right foot; in spite of all surgical care, the mischief spread; and at last the leg had to be amputated at the knee-joint. It was specially sad that this accident should have happened just at the time when Dr Ferguson was concluding his arrangements for retiring from the Institution, and that it should have befallen one who was so fond of physical exercise. He had been accustomed to spend his autumn holidays, generally in company with his friend Mr Bickerton, in travelling, mostly on foot, through various countries in Europe; he was fond of long rambles; and he was keenly devoted to golf. But he bore what must have been to him such a sore deprivation bravely and uncomplainingly; and, having handed over the Edinburgh Institution to his successor, he cheerfully, and with unimpaired spirit and energy, resumed, as far as was now possible for him, his former pursuits and activities, and continued so working until almost the very close of his long life of over eighty-three years.

Dr Ferguson died in his own house in Edinburgh on the 31st of December 1912, leaving behind him the record of an honourable and honoured career of strenuous, able, and fruitful work for his day and generation. His loss was deeply mourned by all who knew him. He was a most attractive personality—frank, manly, keen and alert in intellect, cheery and buoyant in spirit, generous-hearted, and absolutely straightforward. His well-furnished mind, broadened and quickened by wide reading and much travel, made him a delightful companion. He drew very close to him those who had the privilege of being his intimate friends, and he will long be fondly remembered by them. But his most fitting and most lasting memorial—that, too, which he himself would have most highly valued—will assuredly be the affectionate and grateful remembrance of their old teacher and true friend that will live so long in the minds and hearts of his many—so many—former pupils.