

Four days previously, on March 21, 1693, Hooke wrote: "In MF I saw near 100 of Mr Boyles high Dutch German Chymicall books ly exposed in Moorfields on the railes . . ."⁵ It seems, therefore, that some at least of Boyle's books were sold to a bookseller in Moorfields. Later, at Tom's coffee-house, Hooke, on March 28, 1693, "Read a *Catal.* of Morgans and Boyles books at Toms"⁶. Next day, he called at Tom's for a catalogue "for Mr Waller".

These entries by Hooke make it practically certain that Boyle's library was dispersed and that there is no hope of its now being recovered, as Newton's was.

The Descent of Pierre Joseph Macquer (1718-84)

Pierre Joseph Macquer (1718-84), compiler of the first dictionary of chemistry and professor of chemistry in the Jardin du Roi, is said to have been descended from a noble Scots family who had lost all for the Stuart cause and the Catholic faith. Macquer does not, however, seem to be a corruption of a Scots name; even if it were derived from Ker, the noble families of that name were not supporters of the Stuart cause⁷. It appears that Macquer's family came to France, not after the rising of 1715, but with James II in 1689⁸. This would suggest the possibility of an Irish origin.

Search in the parish registers of St. Germain-en-Laye, the refuge of James II and his Court, reveals the name of Maguire, the family name of Lord Enniskillen, and in various spellings such as Magoire, Mackower, Magower, Makaire, Magaire and other forms, as well, of course, as the correct one⁹. In most cases the entries relate to members of the ill-fated house of Enniskillen. The peerage had been forfeited in 1645, when Connor, second baron, was hanged at Tyburn for his share in the rebellion (1641) of Owen Roe O'Neill. The family continued to use the title, and Roger, fifth baron, was appointed Lord Lieutenant of Fermanagh by James II in 1689.

The curious varieties of spelling in the registers of St. Germain leave no doubt of the possibility of the corruption of Maguire to Makaire. French pronunciation would make no difficulty in corrupting Maguire to Macquer. In fact, the Irish officer, Richard McGuire, who was associated with Richard Crosbie (1755-1800), the first Irish aeronaut, is described by Tissandier as "un jeune aéronaute nommé Quer"¹⁰.

The established corruption in spelling and the descent from a noble family suggest, therefore, that Macquer may have been a descendant of the Maguires, Barons of Enniskillen, and of Irish, rather than Scots, origins.

Sir Thomas Browne and Biringuccio's "Pirotechnia"

The recent publication of a complete English version of the "Pirotechnia" (1540) of Biringuccio¹¹ has once again raised the question of the currency of this work in earlier times, and the alleged preference for the "De Re Metallica" (1556) of Agricola. The translators directed attention¹² to an entry in Hooke's diary for November 12, 1675¹³, referring to Biringuccio's treatise, but pointed out that known references to this great book are few. Another is, however, to be found in Hooke's diary under the date March 1, 1677/8, when Hooke acquired a copy for two shillings¹⁴. Attention is also directed to a further reference by Sir Thomas Browne in his

"Hydriotaphia" (1658)¹⁴, where he refers to the preservation of charcoal underground for more than four hundred years as described by Biringuccio¹⁵.

¹ Fulton, J. F., "A Bibliography of the Honourable Robert Boyle . . ." (Oxford, 1932), reprinted from the *Proceedings and Papers of the Oxford Bibliographical Society*, 3, pt. 1, 4.

² Addenda to a Bibliography of the Honourable Robert Boyle, 2-8 (Oxford, 1933) (reprinted from *ibid.*, 3, pt. 3).

³ Gunther, R. T., "Early Science in Oxford" (Oxford, 1935), 10, 225. MF = Moorfields.

⁴ *ibid.*, 224.

⁵ *ibid.*, 223.

⁶ *ibid.*, 225-26.

⁷ Thomson, Thomas, "The History of Chemistry", 1, 295 (London, 1830).

⁸ "Nouvelle Biographie Générale, 32, 595 (Paris, 1860).

⁹ "The Parochial Registers of Saint Germain-en-Laye. Jacobite Extracts of Births, Marriages and Deaths", ed. C. E. Lart, 1, 4, 21, 25, 53, 93, 94, 108, 109, 139, 158, and 2, 16, 22, 23, 35, 67, 73, 82, 93, 102, 107, 163 (London, 2 vols., 1910-12).

¹⁰ Tissandier, G., "Histoire des Ballons et des Aéronautes Célèbres, 1783-1890", 1, 103 (Paris, 2 vols., 1887-90).

¹¹ "The Pirotechnia of Vannoccio Biringuccio . . .", trans. C. S. Smith and M. T. Gnudi (New York, 1943).

¹² *ibid.*, p. xvii. See also "The Diary of Robert Hooke . . . 1672-1680", ed. H. W. Robinson and W. Adams, 193 (London, 1935).

¹³ "Diary", 347.

¹⁴ "Hydriotaphia, Urne-Buriall, etc.", 36 (London, 1658). "The Religio Medicil and other Writings" (Everyman ed.), 113.

¹⁵ "Pirotechnia" (English trans.), 177.

OBITUARIES

Prof. C. H. Lander, C.B.E.

CECIL HOWARD LANDER was born at Stockport, Cheshire, in 1881. After receiving his early education at private schools in Cheshire, he decided to prepare for engineering as his career. His first step was to obtain practical training. To this end, on leaving school, he joined the engineering staff of the Manchester Ship Canal Company, then moved to become an assistant to the late Mr. Charles Hopkinson, and eventually was on the staff of Heenan and Froude, by whom he was employed on the design and testing of refuse destructors. In consequence, Lander had acquired a background of varied practical experience over about five years before he entered the University of Manchester in 1902 as a student in engineering. At the University his ability was soon recognized. He graduated in 1905 with first-class honours and was awarded the Fairbairn Prize.

On graduation, Lander continued as a research student. A year later he was appointed a demonstrator, and in 1910 was promoted to a lectureship in engineering in the University of Manchester, a post which he held until he joined the R.N.V.R. in 1916. Lander's research work while he was in Manchester included a series of investigations on problems of heat flow, surface friction and allied phenomena, on the results of which he was awarded the degree of M.Sc. in 1908 and D.Sc. in 1916. During this period he was also a part-time engineer to the Home Office in charge of experimental work on heating and ventilation for the Humidity Committees; this work was the basis of regulations since included in the Factory Acts.

During 1916-20 Lander served as a lieutenant in the R.N.V.R., and his important work in relation to several war-time requirements was recognized by an award on the recommendation of the Royal Commission on Awards to Inventors. On leaving the R.N.V.R. in 1920, Lander was appointed assistant to the director of fuel research (the late Sir George Beilby) in the newly established fuel research organization of the Department of Scientific and Industria.

Research. Two years later he was promoted to the post of deputy director and in 1923, on the retirement of Sir George Beilby, he became director of fuel research, a post which he held until 1931. Under his guidance the fuel research organisation undertook important investigations on the carbonization and gasification of coal and coke, on the production of oil from coal by hydrogenation, and on many other fuel problems. In association with the late Dr. F. S. Sinnatt, he organised and developed the Physical and Chemical Survey of the National Coal Resources. In recognition of his work as director of fuel research, Lander was made a C.B.E. in 1928.

In 1931 Lander returned to academic life as professor of mechanical engineering at the Imperial College of Science and Technology, London, a post which he held with distinction until 1946. Under his guidance, based on his broad experience and deep interest in education, a high standard in the training of mechanical engineers was achieved. He also played a prominent part in the systematic training of chemical engineers, and was the first chairman of the Board of Studies in Chemical Engineering in the University of London. The branch of research in which he was most keenly interested was that in relation to problems of heat transfer, on which he led and inspired teams of investigators for more than twenty-five years. His notable papers on the subject included that which he presented to the Institution of Mechanical Engineers in 1942, and for which he was awarded the Hawksley Gold Medal and Premium.

During the Second World War, Lander's experience and ability were invaluable. He played a great part in the development of gas turbines and jet propulsion, flame-throwers, and oil burners (F.I.D.O.) for the dispersion of fog over airfields. His merit in this kind of work lay not only in the way he guided and inspired investigators under his immediate control, but also in the facility with which he co-ordinated the work of several teams under different leaders and ensured harmonious co-operation from all in achieving results rapidly.

Of the many organisations indebted to him for advice and help, only a few can be mentioned as examples. He was for many years vice-chairman of the British National Committee of the World Power Conference, a member of the Safety in Mines Research Board, a member of the Mechanical Engineering Research Board of the Department of Scientific and Industrial Research, and chairman of several war-time scientific committees. For two years, 1946-48, he was president of the Institute of Fuel and was awarded the Melchett Medal of that Institute in 1945.

On retiring from the professorship of mechanical engineering at the Imperial College in 1946, he accepted an invitation to become dean of the Military College of Science at Shrivenham, with the task of re-organising the College as the principal establishment for training army officers in the military applications of science and technology. In this new sphere of activity, Lander had already achieved notable success. It was while he was engaged on this work that Lander died suddenly at Shrivenham on March 17.

Apart from his professional work, Lander had other interests, including music; and he had looked forward to spending more time at his house at Shepperton and with his motor launch on the Thames. Of a kindly nature, he will be missed by his many friends and colleagues.

A. PARKER

In October 1946, Dr. Lander became dean of the Military College of Science, which was re-assembling after the War at Shrivenham in Wiltshire and was expanding its scope to prepare officer students for external degrees in science and engineering of the University of London as well as to train officers for the technical staff of the Army.

The re-organisation necessary to enable the College to carry out these extended functions at the same time as it was being reconstituted involved an enormous amount of work in the remoulding of the faculties, in discussions with the University of London, in the preparation of syllabuses and in the recruitment of lecturing staff. The co-ordination of this work in the College fell upon Dr. Lander, and his energy and enthusiasm and his connexions with the University contributed in great degree to the reconstitution of the College. That within two and a half years of its re-opening the first technical staff course passed out and the first degree courses took Part I of their degrees at London was largely due to his untiring work.

His wide contacts with the academic world resulted in the best of advice being available to the College, and his strong support of a policy of insistence upon high academic standard has laid sound foundations for the future.

Apart from his work on the academic side, Dr. Lander was a keen supporter of the sports and cultural activities of the College. He was a leading performer in the Musical Club and led the College orchestra.

But the quality by which he will be most remembered in the College was his kindly wisdom. In an assembly of soldier students and of academic and soldier teachers, most problems are viewed from several points of view and divergent opinions are strongly held. That varying opinions have been reconciled and canalized into channels which furthered the objects of the College has been in no small degree due to Dr. Lander's unflinching wisdom. His counsel both in wider policy and in day-to-day detail was invaluable, and the Military College of Science will look back on its first dean, with feelings of gratitude and deep affection, as one of the main founders of its modern constitution.

W. J. ELDRIDGE

Mr. H. E. Hadley

MR. H. E. HADLEY, well known as the author of many elementary text-books of physics, died on March 6, at the age of eighty-two. Mr. Hadley had lived rather a retired life. He was appointed headmaster of a small science school in Kidderminster, where he combined with physics a lectureship in chemistry. In those days, physics was considered of less importance than chemistry; but Mr. Hadley was always at heart a physicist. In spite of the almost total lack of physical apparatus, he made physics the career of three of his early pupils, for in three successive years his students gained national scholarships at the Royal College of Science, London, now the Imperial College of Science and Technology, a rather unique success for a small school.

Mr. Hadley was a contemporary of Sir Richard Gregory and H. G. Wells at the same College, and from his training there and association with C. V. Boys he acquired a special genius for making his own physical apparatus. His teaching equipment at Kidderminster was largely of his own making,