Royal Society of Chemistry

Historical Group

NEWSLETTER
and SUMMARY OF PAPERS

No. 66 Summer 2014

Dr Alphonse René le Mire de Normandy (1809-1864) – A Brief Biography

In the summer of 1850 a French-born chemist moved with his young family into a house in Judd Street, Brunswick Square [1]. It was from this Bloomsbury address that Dr Alphonse René le Mire de Normandy wrote several books on analytical chemistry [2], taught chemistry to students [3] and registered a number of patents for improvements to a wide variety of items [4] including the development of an apparatus to turn seawater into drinking water [5], which became the foundation of a successful family business.

Alphonse René le Mire (the 'Normandy' was added later) was born in Rouen in 1809 [6]. He was descended from a reasonably wealthy mercantile family and initially trained as a surgeon. As the industrial revolution gained momentum, there was a surge of interest in chemistry and Alphonse seems to have followed this trend, moving first of all to Germany to study under Leopold Gmelin [7] and then to London some time during the late 1830s. Alphonse Normandy lived with his wife and two children in Cripplegate and Dalston during the 1840s, at 67 Judd Street from 1850 to 1859 (his third son, Frank was born in 1851) and died at Odin Lodge, Clapham Park, in 1864 [8].

Dr Normandy's first English patent was taken out in 1839 and was concerned with inks and dyes [9]. He followed this with a number of inventions and improvements relating to soap, thimbles, balloons and the design of playing cards. His interest in making money from his inventions led him to be involved in several business partnerships, which did not always succeed, such as the Patent Elastic Pavement and Kampulicon Company [10].

In 1851 he patented an apparatus to apply a pioneering multi-effect process to seawater desalination. This was developed and improved during the 1850s and resulted in the formation, in 1856, of Normandy and Co., which manufactured and distributed seawater stills from a factory in Hollybush Place, Bethnal Green.

In 1858 Alphonse applied for the registration and incorporation of his firm under the formal name of Normandy's Patent Marine Aërated Fresh Water Company. At that time he published a prospectus, including testimonials and a report on his technology, which showed he was supplying ships, naval vessels and isolated forts in the USA, South America, Aden, Suez, Heligoland and elsewhere [11]. The company was awarded a medal for this apparatus at the International Exhibition of 1862. The factory eventually moved to Phillip Street, near Custom House, Victoria Docks in the east end of London. Following Alphonse's early death in 1864, the business was run by his sons until it folded in about 1910.

Alphonse Normandy's literary accomplishments included the translation, with additions and amendments, of two volumes of work written by Professor Heinrich Rose [12]. Dr Normandy was the author of several chemistry textbooks, one of which, *The Commercial Handbook of Chemical Analysis* (1850) became a valuable aid in exposing the perils of food adulteration in the nineteenth century. To quote from one of many flattering reviews, as advertised in his subsequent book *The Farmer's Manual of Agricultural Chemistry*: "Very ably executed...Of universal interest....We strongly recommend it to our readers as a guide alike indispensable to the housewife as to the pharmaceutical practitioner". - *Medical Times* [13]. This Commercial Handbook was reprinted in 1875, eleven years after Alphonse Normandy's death, with a preface and additional information provided by his friend and colleague, the chemist Henry Minchin Noad. The latter was among those (including Michael Faraday, John Barlow, Jacob Bell, J.H. Gladstone, and Warren de la Rue) who recommended Alphonse Normandy for membership of the Royal Institution in March 1857 [14]. Noad was also a witness at the wedding of Normandy's daughter in 1862 [15].

As a well-known analytical chemist, Dr Normandy was asked to provide evidence on the contamination of food (especially bread) to a House of Commons Committee in 1855. In his view, "adulteration is a widespread evil which has invaded every branch of commerce; everything which can be mixed or adulterated, or debased in any way is debased" [16]. He was often asked to endorse products [17] and to be an expert witness in cases relating to food adulteration [18]. He was very concerned about the cleanliness of London's drinking water and submitted a proposal (not accepted) for purifying the water of the river Thames with activated charcoal [19].

In addition to being a member of the Royal Institution from 1857, Dr Normandy was elected as a Fellow of the Microscopical Society on 26 October 1853. He was elected as a Fellow of the Chemical Society on 20 May 1854 and was a member of its Council between 1860 and 1863. Alphonse Normandy's personal life seems to have been complicated and unhappy. We have not found any document that records his marriage to Louisa Taynton, although he acknowledges her as the mother of his three children in his will, which leaves her nothing, and rants at length about her relatives. It is possible that Louisa separated from Alphonse sometime between 1851 (when she appears as his 'wife' in the census) and October 1860, when he writes his will. She is not registered as living with the family in Clapham Park in the 1861 census.

In 1866, two years after Alphonse's death, there is however a certified marriage record of Louisa Taynton Normandy to a Scot called Alexander Fotheringham [20], whose wife died in 1865. The certificate states she has been living in Islington as a spinster, not a widow. Perhaps this relationship with Alexander caused the rift between Louisa and her husband. Their three children moved with Alphonse from Bloomsbury to Clapham Park late in 1859, and were presumably looked after by their French grandmother, Eugenie le Mire, as the youngest son, Frank Normandy was only 8 at the time.

Louisa was not married to Alexander for long, as in April 1872 he apparently committed suicide one night by cutting his own throat in the WC [21]. Louisa lived for another twenty years. Alphonse Louis Normandy, her eldest son, was present at his mother's death in 1892 so despite the break-up of the family in the 1850s, there appears to have been a level of ongoing contact [22].

Dr Alphonse Normandy died in May 1864 and was buried in West Norwood Cemetery. His gravestone was destroyed by Lambeth Council in 1991 but eventually reinstated in 2002, under pressure from the Friends of West Norwood Cemetery, English Heritage and Elizabeth Panourgias-Morrison, Dr Normandy's great-great-granddaughter, who wrote a detailed article about her distant relative in the *Friends of West Norwood Cemetery Newsletter* in January 2003 [23].

The obituary in *The Lancet* describes Dr Normandy as having formed "an intimate friendship with the late Dr Ure, with whom he was subsequently associated in many important chemical analyses" [24]. Normandy did indeed contribute material to Andrew Ure's posthumous fifth edition of *Dictionary of Arts, Manufacturers and Mines*, published in 1860. However, exploration of Ure's papers in Glasgow and contact with the Royal Society of Physicians has produced nothing of relevance. Normandy and Ure were both consultant analytical chemists in London during the 1850s; they lived relatively close by (Bloomsbury and Fitzrovia) and were both asked to endorse commercial products. As such, they had much in common and it is very likely they met socially and professionally. However, we have as yet discovered no specific evidence to support the theory of a close friendship, which is a frustrating anomaly.

Unfortunately, the living descendants of Dr Normandy - some of whom we have contacted - are unable to provide any letters or further information about his personal or professional life and it is possible that all relevant material was destroyed during the nineteenth century. Although he does have an entry in the *Oxford Dictionary of National Biography*, we are keen to revive interest in Dr Normandy and would welcome any suggestions of sources of further information, particular in connection with any research currently being carried out about the lives of chemists such as Andrew Ure and Henry Minchin Noad.

This research has been carried out by Debbie Radcliffe in collaboration with Jim Birkett, a USA-based researcher with a focus on industrial archaeology of desalination processes. In October 2013 a paper that included some of their findings was presented by Dr Birkett at the World Congress of the International Desalination Association in Tianjin, China. This has subsequently been published as "Normandy's Patent Marine Aërated Fresh Water Company: A Family Business for 60 years, 1851-1910", *IDA Journal of Desalination & Water Reuse,* 2014, **6**(1), 24-32.

If you can help Debbie please contact her directly on drjudd91@aol.com

Debbie Radcliffe and Jim Birkett

References

1. St. Pancras Rate Books, 1850-1859.
2. A. Normandy, *The Farmer's Manual of Agricultural Chemistry* (London: 1853); A. Normandy, *The Chemical Atlas* (London, 1857); A. Normandy, *The Dictionaries to the Chemical Atlas* (London, 1857).
3. Dr Normandy's Practical Course of General and Analytical Chemistry, advertised in A. Normandy, *The Commercial Handbook of Chemical Analysis* (London, 1850).
4. British Patents: No. 395, Manufacture of Articles Made of Gutta Percha (London, 1853); No. 1295, Regulating the Pressure of Steam (London, 1853); No. 1879, Manufacture of Soap (London, 1855); No. 2165, Improvements in the Application of Steam for Cooking Food (London, 1859).
5. British Patents: No. 13,714, Obtaining Fresh Water from Salt Water and Concentrating Sulphuric Acid (London, 1851); No. 275, Obtaining Fresh Water from Salt Water (London, 1852); No. 1252, Obtaining Fresh Water from Salt Water (London, 1856).
6. Birth Certificate [*extrait de naissance*], Service Archives et Documentation, Ville de Rouen, France.
7. *ODNB*.
8. London Census Returns and Street Directory Entries covering the period 1841 to 1861; General Register Office (GRO), Death Certificate 10 May 1864.
9. British Patent No. 8175, Manufacture of Inks and Dyes (1839). Address given as 142 Cheapside, City of London.
10. *London Gazette*, 14 June 1852.
11. Normandy's Patent Marine Aërated Fresh Water Company Limited, *Prospectus, Reports and Testimonials* (London: W. Collier, 1858).
12. H. Rose, *A Practical Treatise of Chemical Analysis* (London, 1847).
13. A. Normandy, *The Farmer's Manual of Agricultural Chemistry* (London, 1853).
14. Nomination form for Alphonse Normandy, Analytical Chemist, The Royal Institution of Great Britain, dated 2 February 1857.
15. GRO, Marriage Certificate, 18 September 1862.
16. A. Normandy, from *The Adulteration of Food, Drink and Drugs. Being the evidence taken before the Parliamentary Committee*, 1855, 85.
17. *Morning Chronicle*, 27 September 1861, 4.
18. *York Herald*, 8 March 1856, 11.
19. *Morning Post*, London, Wednesday 25 July 1855, 4.
20. GRO, Marriage Certificate, 9 November 1866.
21. *The Islington Gazette*, 2 April 1872.
22. GRO, Death certificate, 21 April 1892.
23. *FOWNC Newsletter,* No. 46, January 2003.
24. *The Lancet*, 21 May 1864, 598-599.