## Chapter 1 **INTRODUCTION**

## 25th February 1864

Royal Institution, London

"I hope I have answered Master C. Whitmell's questions to his satisfaction. It is not surprising to me to learn that being only fourteen years of age, Master C. Whitmell has not been able as yet to execute any extensive researches. But it must be borne in mind that Sir Isaac Newton and Mr Faraday were both at one period of their lives only 14 years old, and Master C. Whitmell has therefore time enough before him to become a famous man."

Professor John Tyndall

Thus, the Royal Institution's Professor John Tyndall rounded off his letter answering several earnest enquiries from a Leeds schoolboy. The grateful recipient of the letter, Charles Thomas Whitmell, was fourteen years old, brimming with enthusiasm for science and filled with a naive optimism, which would be a constant companion throughout his life. It never occurred to him that such an illustrious figure as Tyndall might not condescend to reply to his queries. Nor need it have done: the famous scientist responded promptly-the very day he received the youngster's enquiries. Even so, in a polite response to further questions from the same source, Tyndall tactfully said 'If a grown up man had written to me, I should have advised him to seek Fig 1-1 Professor John Tyndall in books for answers to these questions'.

Already, this same schoolboy was in correspondence with other famous scientists. Two months earlier Tyndall's predecessor at the Royal Institution, Michael Faraday, had responded to a series of his questions on electromagnetism and electrochemistry. Sadly, Faraday's cognitive powers were fast receding - a predicament of which he was sorely conscious. 'I am very glad to see such proofs of a love of scientific knowledge as your letter gives,' he wrote, 'but sorry that my own age, loss of memory & other head infirmity prevents me from assisting you in your desire to go on. Some of your questions could be [simply answered].... but all would require much more statement & consideration than I am allowed (by my physician) to give to any subject at pre-



(1820-93)



Fig 1-2 Michael Faraday (1791-1867)

**Fig 1-3** The gift of Whitmell's diaries and notebooks to Leeds University (Yorkshire Evening Post, 18 February 1920)

## GIFT TO LEEDS UNIVERSITY

Miss Whitmell, of Hyde Park, Leeds, has presented the library and scientific collection of the late Mr. C T. Whitmell to the Leeds University. This notable gift, which was made through the instrumentality of Dr. A. Gilligan, includes a telescope, a fine binocular microscope, spectroscope, and a large amount of appliances particularly devised for experiments upon electricity and light.

Mr. Whitmell's library, which consists of some 5,500 volumes, is especially rich on the mathematical and scientific side, including many rarities of great value, and complete sets of the publications of many scientific societies

sent, even to researches which being my own are obliged to stand still.'

Buoyed up by the comments of these great scientists, the youngster plunged further into his own investigations: optical & chemical experiments, the construction of telegraphic and other electromagnetic apparatus, animal dissection, botanical researches and observation of the heavens.

Whitmell never did achieve fame in scientific research let alone become another Newton or Faraday. Even so, by the time his life was over he had secured a place in the hearts of his fellow citizens across a remarkable range of activities. He became a well-known teacher and educationalist, a prolific writer on mathematics and astronomy, a campaigner for votes for women, girls' education, mixed-gender education, free education and working-class educational opportunity even a poet. He was appointed Her Majesty's Inspector of Schools successively in Sheffield, Liverpool, Cardiff, Leeds and West Yorkshire. His services were always in demand as an expert and humorous lecturer on literature, travel, philosophy, geology, astronomy and physics. As his enthusiasms expanded, so too did the reach of his correspondence with like-minded souls around the world.

'He will be widely missed by a large circle of friends, who welcomed his interesting and stimulating letters,' wrote Andrew Crommelin, from the Royal Greenwich Observatory, as Whitmell was laid to rest at the age of 70. 'The replies to these letters were carefully preserved and bound by him, forming a valuable record which deserves a place in some reference library.' Three years after Whitmell's death in 1919, his sister, Charlotte, donated his archives to Leeds University Library: two boxes full of papers; and an astonishing 217 volumes of notebooks and diaries.

> From his childhood until a few days before his demise, Charles Whitmell recorded every aspect of his life. Pasted into his notebooks are: newspaper-cuttings from every occasion that his activities were reported in the press (and there were many thousands); every article that he wrote; adverts and flyers for every meeting or rally at which he spoke; every membership card, brochure and programme for organisations he joined (and there were hundreds); train timetables, maps,



**Fig 1-4** Charles T Whitmell (1849-1919), pictured in later life, surrounded by his notebooks and diaries

hotel menus, and other ephemera, employed during his travels; records of donations, household accounts and Christmas tips to errand boys ... anything and everything! And more than this, as Crommelin had hinted, thousands of letters that he received from correspondents—lowly and illustrious throughout the world. Many of the most celebrated astronomers, physicists and mathematicians of the late 19th and early 20th centuries were amongst those whose missives he preserved.

Whitmell's notebooks and diaries form a fascinating record of what it was like to come of age in an industrial city of Victorian England, to be inspired by the quickening revolution in the sciences, and to develop a passion for spreading knowledge and education to one's fellow citizens, whatever their station.



**Fig 1-5** Bookplate from the Whitmell collection given to Leeds University Library (1920)