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# Kelvin: An Irishman's Tale

BY ANDY PEARSON, PH.D., C.ENG., MEMBER ASHRAE

The most highly educated, well-respected and well-traveled of the three most famous names in refrigeration (Joule, Kelvin and Watt) is undoubtedly Prof. William Thomson, better known as Baron Kelvin of Largs, or simply Lord Kelvin. Unlike Joule, who was single-minded in his devotion to the study of one key topic, Thomson's interests were immensely varied, ranging from theoretical abstractions such as the theory of light or the nature of heat through practical applications such as calculating the tides around the coast of Britain or applying observations of ships' wakes to the design of the hull.

He also was widely involved in industrial ventures, including the laying of the transatlantic telegraph cable, the development of the hydro power station at Niagara and the shipping of beef and lamb from Australia and New Zealand to Europe. Although he is assumed by many to be Scottish and, indeed, he spent over 50 years as professor of natural philosophy at Glasgow University, Thomson was born and raised in Belfast, Northern Ireland, and received his university education at Peterhouse College, Cambridge, England. His family moved to Glasgow when he was nine years old, and his father was appointed professor of mathematics at the university.

William was a precocious child, learning French, German, Latin and Greek as well as showing a keen interest in natural philosophy. However he was not simply a bookworm; he enjoyed sports at Cambridge, particularly athletics and rowing, and he played the French horn in a chamber music group.

He undoubtedly was given great opportunities through his family connections (in addition to being personable and intelligent), but he also made the most of what he was given, working hard and investing time, talent and money in ventures that caught his imagination and offering unstinting support to friends and colleagues who needed his help. He was not always right, and was terrible at mental arithmetic, but he was always willing to listen to reason and evidence and was always willing to change his mind.

In 1870 the university moved from its city center location, which it had occupied for over 400 years, to a

spacious new, custom-built facility on a hill overlooking the city. Professor Sir William Thomson, as he was known at this stage, moved out of the dingy, cramped cellars he had used as laboratories for 24 years through the most creative, productive period of his career. However, he remained professor in the department of Natural Philosophy for a further 30 years, bringing international recognition not only to himself but also to his colleagues, his department and his university.

Despite lucrative offers from around the world he refused to leave Glasgow. His devotion to his adopted home explains the famous name given to the absolute temperature scale; when citi-

zens are granted the honor of a peerage, they can choose their title, usually adopting a place name that is particularly dear to them. Thomson selected the title Lord Kelvin when he became a baron in 1892, taking the name from the river that flows past his laboratory and the park in which the new university buildings were situated.

My great-grandfather, who trained as a doctor at Glasgow University, attended Kelvin's physics lectures in the 1870s. These were often deeply theoretical; one student is reported to have said "I listened to the lectures on the pendulum for a month and all I know about the pendulum yet is that it wags."

However, Kelvin had a reputation for livening up the classes with hair-raising practical demonstrations. To illustrate the principle of conservation of momentum, Kelvin is said to have fired a blunderbuss-style elephant gun across the lecture hall at a steel plate hanging on the other side of the room. The reaction of the students is not recorded, but the lesson clearly made a big impression. ■



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