The Atlantic Cable Story[1]

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It was June 24, 1824 in Belfast, Ireland, where university professor James Thomson and his wife, Margaret had their second son, William. Little did they suspect the many tragedies and triumphs that lay ahead for little William and the world-changing effect that his work in physics and engineering would have. William, later to become Sir William, Baron Kelvin of Largs, achieved a monumental work in his lifetime, publishing 661 scientific papers and achieving 75 patents. He had a key role in the successful laying of the first transatlantic communications cable, he established the absolute (Kelvin) temperature scale, and he contributed significantly to the understanding of thermodynamics. Many things that we take for granted, today in physics were begun by Kelvin.

A Scientific Genius

William's family was prone to illness and, tragically, his mother died when he was only six. William's grieving father became especially attached to the young boy and the two became very close. The father home schooled William and his older brother James. When William was nine, his father was offered a job as professor of mathematics at Glasgow University, Scotland and the family dug up its roots and moved in 1883. At that time, William became very ill with a heart ailment, and almost died. Almost miraculously, he recovered and remained relatively healthy for the rest of his life.

While it was traditional at that time to enter university at age 16 – 17, William enrolled at the early age of ten. Inspired by his father, he had very high expectations for himself and for what opportunities a good education could provide him in life. Being highly motivated, William pushed himself to excel above his classmates, winning a medal for his paper, "An Essay on the Figure of the Earth" and began to publish papers at the age of fifteen. However, despite being academically inclined, William was still a regular teenage boy known for his good sense of humor and infectious laughter.

After seven years studying at the University of Glasgow, William Thomson's father encouraged him to continue his education and to get a degree at Cambridge University, where his passion for science, mathematics, and electricity grew. By his father's suggestion, William went to work with a French Physicist and Chemist named Henri Victor Regnault in order to improve his skills in performing experiments. During this time, with Regnault as his mentor, William managed to solve some fundamental problems in electricity, which later led other scientists to important discoveries. It was in Regnault's laboratory that he began to study the science behind the steam engine, which remained an interest to him when he returned to Cambridge after four and a half months in Paris. At the young age of 22, William was elected as

[1] This document is based, in part, on an extract from Klassen 2007.

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