



Wilhelm Röntgen

1845 - 1923

Awarded the first Nobel Prize for Physics in 1901

Wilhelm Röntgen, the famous German physicist, was famous for his discovery of X-rays in 1901. He was born in 1845 in Lennep in the Rhineland, Germany, into a merchant's family. His mother was the first cousin of his father; Wilhelm was an only child.

Röntgen graduated from the Federal Polytechnic School of Zürich in 1868 and there he received his PhD. He was accepted as an assistant in the University of Würzburg and then as an assistant professor in Strasbourg. He was 34 years old when he became Professor of Physics at the University of Giessen, and later, in 1887, he was invited to be Professor of Physics and the Director of the new Physical Institute of the University of Würzburg.

It is said that on the famous day, November 8th, 1895, Wilhelm Röntgen had taken a pear-shaped cathode ray tube, surrounded it with black cardboard and, having completely darkened the room, passed a high tension discharge across it. About a yard from the tube he saw a glimmer of light. He lit a match to see where it was coming from. He found it to be a small card coated with barium platinocyanide, which was luminescing, in spite of the fact that it was completely shielded from the cathode ray tube by a thick sheet of cardboard. He switched off the tube: the barium coated card stopped glowing. **He switched it on, and it glowed again.** Röntgen had discovered penetrating rays, to which he gave the name X, because this was the physicist's usual symbol for the unknown. He began to study the property of X-rays. Several weeks later he gave the first public lecture on his discovery; at this lecture he asked permission from a distinguished old anatomist to photograph his hand. He agreed; when Röntgen later held up the developed plate showing the old man's bone structure, the audience burst into loud cheers.



He was a keen mountaineer



An early example of Röntgen's X-ray photographs

The news was shouted across the world. It is known that within four days of the reports of Röntgen's experiment in America, X-rays were used to locate a bullet embedded in a human leg. Very soon X-rays were being used in medicine to investigate the human body in all sorts of ways. It was found out later that if used to excess these rays may give rise to skin burns, impaired vision and other injuries.

Röntgen did not patent his apparatus nor seek financial gain from his discovery. He gave his Nobel Prize money to the University of Würzburg to advance the cause of science. The rays he discovered were called 'Röntgen rays'.

Röntgen married Bertha Ludig. They had no children of their own, but they brought up Bertha's niece. They loved mountain climbing. Röntgen was also very fond of hunting in spite of his colour blindness which made it hard for him to see the animals.

Friends remember him as a strong, honest and powerful man, with a great sense of humour and a willingness for self-sacrifice for other people.