

## The Great Invention | Inventors | John Logie Baird (1888 - 1946)

Dogged by ill health for most of his life, Baird nonetheless showed early signs of the ingenuity that would later bring him fame, rigging up a telephone exchange to connect his bedroom to those of his friends across the street. His studies at Glasgow University were interrupted in their final year by the outbreak of war in 1914. Rejected as unfit for the forces, he served as superintendent engineer of the Clyde Valley Electrical Power Company, but when the war ended he set himself up in business, with mixed results. He successfully sold medicated socks, but his jam factory and soap projects in Trinidad made little headway.

Moving back to Britain in 1922, he applied himself to creating a television, a dream of many scientists for decades. His first crude apparatus sat on a washstand. The base of his motor was a tea chest, a biscuit tin housed the projection lamp, scanning discs were cut from cardboard, and he also utilised four-penny cycle lenses. Scrap-wood, darning needles, string, and sealing wax held the apparatus together.

By 1924 he managed to transmit across a few feet the flickering image of a Maltese cross and on 26th January 1926 he gave the world's first demonstration of true television in his attic workshop before some fifty scientists. In 1927 his television was demonstrated over 438 miles of telephone line between London and Glasgow, and he formed the Baird Television Development Company, Ltd. (BTDC). In 1928 the BTDC achieved the first transatlantic television transmission between London and New York and the first transmission to a ship in mid-Atlantic. He also gave the first demonstration of both colour and stereoscopic television.

In 1929 the German Post Office gave him the facilities to develop an experimental television service based on his mechanical system, the only one

operable at the time. To begin with, sound and vision had to be sent alternately, and only began to be transmitted simultaneously from 1930. However, Baird's mechanical system was rapidly becoming obsolete as electronic systems were being developed, chiefly by Marconi in America. Although he had invested in the mechanical system in order to achieve early results, Baird had also been exploring electronic systems from an early stage. Nevertheless, a BBC committee of inquiry in 1935 prompted a side-by-side trial between Marconi's all-electronic television system, which worked on 405 lines to Baird's 240. Marconi won, and in 1937 Baird's system was dropped.

Although Baird is chiefly remembered for mechanical television, his developments were not limited to this alone. In 1930 he demonstrated big-screen television in the London Coliseum, as well as Berlin, Paris, and Stockholm. He televised the first live transmission, of the Epsom Derby, in 1931, and the following year he was the first to demonstrate ultra-short wave transmission.