

HUGHES, DAVID EDWARD (1829 - 1900), physicist and inventor

Name: David Edward Hughes

Date of birth: 1829

Date of death: 1900

Spouse: Anna Merrill Hughes (née Chadbourne)

Parent: David Hughes

Gender: Male

Occupation: physicist and inventor

Area of activity: Business and Industry; Engineering, Construction, Naval Architecture and Surveying; Science and Mathematics

Author: Edwin Augustine Owen

Born 18 June 1829 in London (some authorities contend that he was born in Green y Ddwyrdd, near Corwen), son of David Hughes, originally of Bala, afterwards of London. Migrating with the family to Virginia in 1840, he was educated at S. Joseph's College, Bardstown, Kentucky. At 19 years of age he was appointed professor of music at the college, and the next year was given also the chair of natural philosophy. At twenty-one he invented a printing telegraph of his own which had features of great ingenuity. In 1854 he resigned his teaching appointments to devote himself entirely to his invention which he completed and patented in 1855. The following year it was adopted by the American Telegraph Company. The instrument was not favourably received when he brought it to England in 1857, so he proceeded to France, when it was purchased in 1860 by the Government and installed on their lines. Within a few years it was in use all over Europe. The instrument brought him fame and laid the foundation of his wealth. He settled in London in 1875 but he never abandoned his American citizenship. In 1878 he brought out the microphone; this simple instrument caused a remarkable sensation at the time. With the aid of a few rusty nails he could make the tread of a house-fly audible to a large audience. He worked on many other subjects with successful results, and was elected F.R.S. in 1880.

For many years towards the end of his life Hughes experimented with inductive circuits, and (without knowing it) generated electromagnetic waves which he was able to detect with his 'coherer' at distances of at least 200 yards from the source. Hughes was essentially an experimenter. He produced sensitive instruments from the most crude objects such as common nails, pill-boxes, and sealing-wax. It was said of him that 'he thought with his hands.' He died 22 January 1900 in London.

His brother, [Joseph Tudor Hughes](#), is separately noticed.

Authors

Edwin Augustine Owen, (1887 - 1973)

Revised by the editorial team, 2023

Sources

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Nature, 1900, 325

Further Reading

Ivor Hughes, David Ellis Evans, *Before we went wireless: David Edward Hughes, FRS, his life, inventions, and discoveries (1829-1900)* (Bennington 2011)

Hughes, David Edward (1829/31-1900), *Oxford Dictionary of National Biography*

Wikipedia Article: [David Edward Hughes](#)

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