DeForest Audion Tube

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Donated by Marshall Soghoian

This artifact represents a pivotal moment in electronics history. At the turn of the 20th Century, radio technology, then known as "wireless," was in its infancy, relying on rudimentary detectors for radio signals. British inventor John Ambrose Fleming developed an early vacuum tube, or diode, but it was insufficiently sensitive. American inventor Lee de Forest improved upon this with his Audion tube around 1906, introducing a third element, the grid, which enabled signal amplification. This breakthrough transformed radio by allowing engineers to strengthen weak signals, significantly extending communication distances.

The Audion, resembling a spherical lightbulb, was initially manufactured by a light bulb company, H. W. McCandless Company, using adapted equipment. Although de Forest's initial explanation of its function was limited, further advancements by scientists at Bell Laboratories and General Electric greatly refined vacuum tube technology. For the next five decades until the advent of transistors in the 1950s, descendants of the Audion enabled radio, televisions, and early computers.

Today, original de Forest Audion tubes are rare and highly prized artifacts. The museum proudly displays one, commemorating its role in laying the foundation for modern electronics and communications.