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Philo T. Farnsworth: The inventor of the first fully electric television

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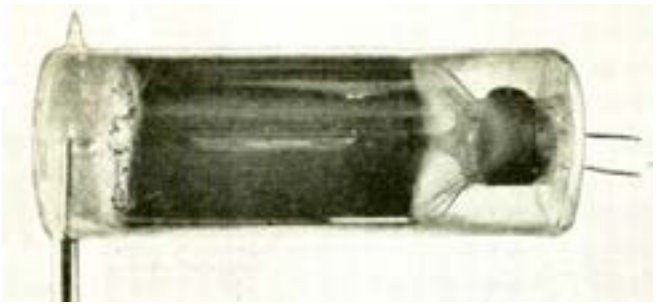
Most people cannot claim that they thought up a world changing device by fifteen, yet Philo T. Farnsworth did precisely that when he conceived the first all-electric television.

When sitting down to watch Saturday morning cartoons or the news, many do not recall that today's stunning picture quality of televisions was not always the standard. Before the 1920s, televisions consisted of hole-punched disks that when spun around, provided a small, shaky image scanned onto a screen. Farnsworth found it pertinent to innovate this system, ultimately conceiving the idea of what became the first fully electronic television. This idea has since become an integral portion of modern TV design.

Born in 1906, the illustrious inventor experienced a humble upbringing, spending his early years in a Utah log cabin. From childhood, he became enamored with science, often reading Popular Science. Molecular theory and motors were among his dearest interests. At that time in history, Thomas Edison's gramophone, which had been invented 30 years prior, held the technological spotlight. While building his wealth of electronic knowledge, Farnsworth realized the inefficiency of the mechanical system being used for what was then called television. As a matter of fact, while in high school, Farnsworth drew up a plan for a system containing a vacuum cylinder that shot a beam of electrons in lines onto a light-sensitive screen. This allowed for the electronic projection of images. On top of envisioning a world-changing invention in high school, Farnsworth also entered Brigham Young University as a special student before his high school days even concluded. Unfortunately, Farnsworth only stayed at the university for a year before his father passed away, forcing him to work to support his family while he finished high school. Despite this obstacle, the young scholar brought his idea to fruition.



The cathode ray tube: "The image dissector" that was used to channel electrons onto a screen to produce an image.

Many of the world's greatest inventions had more than one actor behind it, a fact that also applied to Farnsworth's television concept. In 1926, two years after his father's passing, Farnsworth went to work for George Everson and Leslie Gorrell, both fundraisers for charity. He convinced Everson and Gorrell to enter into a partnership with him to produce his television system. The next year, in 1927, Farnsworth demonstrated the first all-electronic television while working in his lab in San Francisco. He then managed to demonstrate it for the press in 1928. This massive accomplishment allowed Farnsworth and his partners to secure more funding and establish themselves in the technological rat race.

Farnsworth received a patent for his electric television in 1930, but the backers that owned his lab wanted to be bought out. Therefore, later that year, the Radio Corporation of America (RCA) sent the head of their own television project, Vladimir Zworykin, to inspect Farnsworth's lab. Farnsworth's invention competed against RCA's work, prompting Zworykin to offer $100,000 for Farnsworth's work, which the latter rejected. This eventually led to a ten-year battle over patents, leading to RCA paying Farnsworth one million dollars.

By the end of his life, Farnsworth, known by that time as one of the "fathers of television," became fascinated with nuclear fusion. He also received patents in that field for tubes that produced a 30-second fusion before passing away in 1971 due to pneumonia. The scientific community and users of technology lost something dear within the mind of Philo T. Farnsworth. Farnsworth's life proved impactful and purposeful, offering inspirational insight into the early development of modern TV. Farnsworth was a model scientist whose work undoubtedly will continue to influence technological advancements. One may hope that upon learning of Farnsworth's invention, a greater appreciation can be gained for something considered technologically essential.

Sources:
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