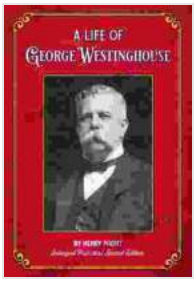
The Life of George Westinghouse: Engineer, Inventor, and Businessman

George Westinghouse was a prolific inventor who revolutionized the electrical industry. He is best known for his work on the alternating current (AC) system, which is used to transmit electricity over long distances. Westinghouse also developed the air brake, which made trains much safer.



A Life of George Westinghouse: Enlarged Illustrated Special Edition

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Westinghouse was born in Central Bridge, New York, on October 6, 1846. He showed an early interest in mechanics and engineering, and he built his first steam engine at the age of 15. After graduating from Union College in 1867, Westinghouse worked as a railroad engineer. In 1869, he invented the air brake, which greatly reduced the number of train accidents.

In 1884, Westinghouse founded the Westinghouse Electric Company. The company quickly became a leader in the electrical industry, and it played a major role in the development of the AC system. Westinghouse's AC system was more efficient than the direct current (DC) system that was used at the time, and it allowed electricity to be transmitted over much

longer distances. This made it possible to electrify cities and towns across the country.

Westinghouse was a brilliant inventor and a successful businessman. He was also a generous philanthropist, and he donated millions of dollars to educational and charitable causes. Westinghouse died in New York City on March 12, 1914.

Westinghouse's AC System

Westinghouse's AC system is based on the principle of electromagnetism. When an electric current flows through a wire, it creates a magnetic field around the wire. If the current is alternating, the magnetic field will also alternate. This alternating magnetic field can be used to induce an electric current in another wire. The induced current will also be alternating, and it will have the same frequency as the original current.

Westinghouse's AC system has several advantages over the DC system. First, AC can be transmitted over much longer distances than DC. This is because the alternating current does not cause the same amount of energy loss as the direct current. Second, AC can be transformed from one voltage to another using a transformer. This makes it possible to distribute electricity at different voltages, which is necessary for different applications.

Today, the AC system is the most widely used electrical system in the world. It is used to transmit electricity from power plants to homes and businesses. The AC system is also used in a wide variety of electrical devices, including motors, generators, and transformers.

Westinghouse's Air Brake

Before Westinghouse invented the air brake, trains were stopped by applying a mechanical brake to the wheels. This was a slow and dangerous process, and it often resulted in train accidents. Westinghouse's air brake solved this problem by using compressed air to apply the brakes. The air brake was much more efficient and reliable than the mechanical brake, and it greatly reduced the number of train accidents.

The air brake is still used on trains today. It is a vital safety device that has saved countless lives.

Westinghouse's Legacy

George Westinghouse was a brilliant inventor and a successful businessman. He made major contributions to the electrical industry, and he played a key role in the development of the AC system and the air brake. Westinghouse's inventions have had a lasting impact on the world, and they continue to be used today.

Westinghouse was also a generous philanthropist, and he donated millions of dollars to educational and charitable causes. He was a true visionary, and he dedicated his life to making the world a better place.

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