Thomas Edison: The Most Famous And Influential Engineer Of All Time

Thomas Edison is arguably the most famous and influential engineer of all time. He enforced the principle of teamwork and organized science into his endeavors. Edison made a powerful impact with his innovative ideas while working with various researchers and employees. The American economy owes him credit for helping build the economy during the industrial revolution age. Below is the historical development, designs, and operations he contributes to as well as the impacts within society, and the American industry. Furthermore, he had innovative ideas with a tactical way of applying his mind to his design and operations.

Historical Development

By the time Edison was 18 years old, he was viewed as the driving force to many inventions. Some of his most notorious inventions include the earliest motion pictures, phonographs, the microphone, and the incandescent light bulb (Nye,16). Also, he was responsible for making one of the first industrial research laboratories. Apart from his inventions, he was a successful businessman and manufacturer. He had high skills in the marketing of the inventions he created. His early life began in 1847 in Milan, Ohio where he was only in a formal school for a short period. After that, since his mother was a teacher, he was homeschooled. He then decided to leave school to work on the railroad where his family lived. During the civil war, Thomas Edison got wind of the rising telegraphy technology and traveled the nation as a telegrapher (Nye, 4). He had a serious hearing problem, and with the rising of auditory telegraph signals, he had a disadvantage continuing to work. Edison then began looking into devices that would make work easier for him, despite his deafness. He then decided to quit telegraphy to partake full time in his inventions.

From the year 1870 to 1875, Edison worked in New Jersey where he developed products for the western union telegraph company (Gorman, Michael, & Carlson 133). He had a proficient telegraph career but still endured financial problems. As a result of having financial problems, he needed help from his father to build a laboratory and machine shop. In 1877, he invented the carbon transmitter to improve the sound quality of the telegraph. This made it possible for voices to be transmitted at a higher volume with more clarity (Gorman, Michael, & Carlson, 145). It led him to the invention of the phonograph. Edison's journey into innovation with electric light began in 1878. By replacing the gaslight with electric light, he found that it was a more efficient and less expensive way of producing light. This was also a safer alternative. He set up the Edison Electric Light Company with encouragement from eminent financial backers and began research along with development in the industry (Gorman, Michael, & Carlson, 164). In 1879, Edison made a breakthrough with the platinum filament light bulb which served as a way to provide an inexpensive and long-lasting light bulb. He also created alkaline batteries, which produced a longer-lasting battery. Edison’s last years in invention consisted of a research laboratory and a large estate in New Jersey. His rise from having a poor formal educational background to becoming a famous inventor and a brilliant scientist made him a folk hero.

Current Design and Operations

The inventions that Edison developed made a great impact on the present modern life. All of his inventions have grown and developed into new designs. The incandescent light bulb is still used today, but due to Edison's brilliant innovation lightbulbs are far more advanced. The original incandescent bulbs are less expensive because the initial cost is cheaper. They provide a high source of light but can also be dimmed. As a result of being heated, they produce light, which causes them to not be as energy-efficient as newer light bulbs. After Thomas Edison successfully created the incandescent light bulb, he began to put his focus on what was next to come. The fluoroscopy was a commercially available x-ray machine for taking radiographs (Nye, 22). It is still in use with fundamental designs from the original invention of Thomas Edison. His assistant, however, who tested every x-ray tube he produced with his hands had died of metastatic cancer. This scared Edison tremendously causing him to abandon the project. A few years later came the invention of the motion picture camera. A motion picture camera is a machine that was designed to record a series of images. These images were on a reel of film that had to be repositioned after every exposure. Digital cinematography is the current design and operation in movie and film production. This design captures images using digital image sensors rather than film. This means that images are produced instantly whereas the motion picture camera requires a dark room to fully develop images.

Impact on society and Industry

The refined devices introduced by Thomas Edison made a profound impact on society. The incandescent light bulb is the most famous of his inventions that revolutionized indoor lighting and made the unique separation between light and fire. He also designed the alkaline storage batteries, which stored electric energy. Since the invention of this battery, it has been used in almost every electronic device. Alkaline batteries have become the central power station that has improved the lives of individuals within American society. He enhanced the inventions of Graham Bell’s telephone, and original designs of the telegraph (David & Paul, 134). The inventions Edison developed have improved the American lifestyle to what exists now. He opened up his laboratory to boost the curiosity of knowing. Throughout the laboratory, he managed to improve his inventions and allow them to be astronomical to the American people.

Thomas Edison revolutionized the industry system single-handedly by providing many companies that produced his inventions and distributed them worldwide. He permitted the United States to run day and night making it a leader in the industrial revolution worldwide. The music industry also got a taste of Edison's invention through creating a practical, affordable, and portable device that may record and play music. Its decentralized music from a group experience to a single undertaking. Thomas Edison's experiments of various utilization of electric power led to the installation of street lamps for electric lighting (Conot, Robert, Edison, 34). It also led to the shift and displacement of steam power as a major power resource for industries, thus sparking the second industrial revolution. Among other inventors, he assisted in the discovery of electricity's ability to transfer information and sound. It further led to the creation of media industries from telecommunication stations to the radio industry.

Application in Industry

Thomas Edison's inventions in the industry consist of fluoroscopy, where Edison designed and produced the first commercially available fluoroscope. A fluoroscope is an x-ray machine that takes radiographs. Edison also created the tasimeter which is a highly sensitive device that

measures infrared radiation. Motion pictures are another invention that has been operative since it has been created. While Edison does the electromechanical design, his employee is working on the photographic end. If it wasn't for Edison, the world would be a very dark place. Thanks to him, a system was created that is capable of delivering direct current electricity to large areas. In 1882, Edison Electric Illuminating Company of New York was formed. This company produced the first commercial electricity generation and distribution system. A one-mile square of residencies, as well as businesses, were powered. It offered Americans a more cost-effective and efficient way of having electricity.

Revolutionized sound recording, also known as the phonograph, is considered to be one of Edison's treasured inventions. Other devices were, in fact, capable of recording sound, but they were not able to reproduce sounds that were previously recorded. The phonograph could do so. His phonograph led to the development of recorded telecommunications, phonographic books for the blind, music portability, improvements in dictation and letter writing, as well as music boxes and toys. After this was created, Edison spent many years trying to invent the motion picture camera. He formulated a motion picture production studio for filming. However, Edison was beaten by Jenkins and Arnat's vitascope before he could create the projectoscope, which was used to display movies to large groups. Edison also wanted to produce a lighter, powerful and reliable battery for electric cars. Edison then discovered the alkaline solution. This solution ended up producing a more efficient lasting battery. However, cars fueled by gasoline ended up taking over the market before Edison's battery completion. Nevertheless, his creation was still enormously successful in industrial applications.

Despite all of the hardships Thomas Edison went through, he still managed to change the American economy. Not only did he create major components of the modern world, but he also taught the American people that anything is possible if you work hard. Without Edison's brilliant mind, there is a very good chance that we would not have electricity, microphones, telephones, phonographs, motion picture filming, and so much more until later years. Thomas Edison showed the American people what it means to be driven, even if others are implying that it cannot be done. He built the platform for all of the other brilliant inventions that came in the following years. After one invention, he quickly had an idea of what he wanted to invent next, and how he could make a difference in the modern world. Thomas Edison is one amongst many others that have successfully changed the world that exists today.

Work Cited

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