

Light bulb, invention and purpose

Science



**ASSIGN
BUSTER**

In 1880, Thomas Alva Edison invented the incandescent light bulb and patented it. It's an invention that has been around since the 1800's. This invention has significantly affected society by allowing the world to create a comfortable safe environment. Edison had come up with a 16-watt bulb that lasted for over 1,500 hours. Edison's light bulb needed improvements, and those improvements are the reason we have light bulbs today.

The light bulb was invented by using a low current electricity, a small carbonized filament, and an improved vacuum inside the globe; this was not an original invention by Edison this was an improved invention by Edison from 50 years ago.

Edison's bulb design had a pointy top but looked similar to the light bulbs you would see today. The socket was at the base, just as light bulbs used today. The electric light had a thin carbonized cotton thread filament sealed inside a fragile glass vacuum tube. The bulb worked by passing direct current through the filament.

Edison carried out experiments with over 6,000 filaments in order to pick the perfect one that would glow well and last a long time. He also tried many different materials and looked at the efficiency of different filament diameters, structures, and shapes.

He looked at stranded and unstranded wires. He tried oval and horseshoe shaped filaments. He also determined whether to use a vacuum pump or remove air from the tube or to let the filament burn out until it was out of oxygen. Edison was able to produce a reliable, long-lasting source of light. The idea of electric lighting was not new, and a number of people had

worked on, and even developed forms of electric lighting. If it hadn't had been for Thomas Edison we would be using candles, oil lamps, and gas lamps for light sources.

Today the light bulbs are used in lamps, ceilings, car headlights, street lights, christmas lights, and much much more. The light bulb has evolved into colored lights, compact fluorescent lamp(CFLs), and various other types.

The impact of Edison's breakthrough was significant in the history of electric lighting. His work helped point future inventors in the right direction. The vacuum tubes are still used today, that captures the improvements of the invention that Edison put into action. It provided the industry with the bases of an efficient lighting system.