Who invented the light bulb?

It was Thomas Edison in 1879, wasn’t it? That’s what many people think and that’s what is recorded in many places. Like most stories, however, there is a lot more behind this important invention than Mr Edison would have us believe.

The story of the light bulb really starts 70 years earlier. In 1809 an Englishman, Humphry Davy, demonstrated a powerful electric lamp to the Royal Society in London. Davy’s lamp produced its light by creating a blinding electric spark. This device, known as an ‘arc lamp’ was dangerous because the light was simply too bright. The device also needed a huge amount of power and the batteries, which powered Davy’s demonstration model, were ran out of power too quickly.

Back then, in the 19th century, other scientists thought that a completely new technique for making electric light held more promise. The new method of generating light was known as ‘incandescence’. Scientists knew that if you took some materials and passed enough electricity through them, they would heat up. Also, they knew that if the material got hot enough, it would start to glow and therefore give off light. This method had a problem though, because often the material would either burst into flames or melt into a puddle! If an incandescent light was to be made practical, both these problems had to be sorted out. Inventors discovered that one way to keep incandescent ‘burners’ from catching fire was to stop them being in contact with oxygen. Since oxygen is in the atmosphere, the only way to keep it away from the burners was to enclose the burner in a glass container, or ‘bulb’, and pump out the air.

In 1841, a British inventor, named Frederick DeMoleyns, created a bulb using just this technique. It was obvious that incandescent lighting would be a huge financial success if it could be perfected, so many inventors continued to work on finding a solution. So did Edison invent the light bulb? Not exactly. In 1850 Joseph Swan, an English physicist and chemist, began working on a light bulb using very thin material in a glass bulb with no oxygen. By 1860 he was able to demonstrate a working model and obtained a British patent.

Fifteen years went by while Joseph Swan tried to perfect his invention and he eventually received another patent for the incandescent light bulb in 1878. His house in Gateshead was the first in the world to be lit by a light bulb. In 1881 he started his own company, The Swan Electric Light Company, and started making light bulbs for people’s homes.

In America Thomas Edison had been working on copies of the original Swan design and also tried to register a patent. However the patent dates prove who won the race! Joseph Swan sued Thomas Edison and won. The British Courts forced Edison, as part of the settlement, to make Swan a partner in his company. Eventually Edison managed to acquire all of Swan’s interest in the newly renamed Edison and Swan United Electric Company. By 1882 Thomas Edison had established the Edison Electric Light Company in New York, which had a generating station, providing New York City with electric lighting. In 1883 the department store, Macy’s, in New York became the first shop to install the new light bulbs. Edison was extremely successful selling light bulbs that used this electricity! Within 10 years Edison had three million customers. And the rest, as they say, is history!