Taming lightning

Back to the roots

Natural amber

We think it's a fact that lightning has always existed. But how did mankind “tame it” and hide it into a socket?

Actually, more than 2000 years ago, the greek mathematician and philosopher Thales of Miletus discovered the electric charge of particles. He made this discovery using amber, which he statically charged.

In 1874 this discovery received the name "electron", which we still use today.

Fun fact: Elektron is the ancient Greek word for amber.

Let's travel back in time a bit: What did electricity look like 100 years ago?

After our ancient Greek came various scientists like Benjamin Franklin, André-Marie Ampère and many others and pushed electricity in the direction we know today. The invention of artificial light was one of the first and far, most important steps in the globalization of the world.

This calculator was used in the 1920s.

Some of the things that were used a hundred years ago include: telephones, washing machines, vacuum cleaners, motorcycles, cars, telephone poles, airplanes, watches, radios, calculators, ships, cash registers and loudspeakers.

But of course, these devices have been overhauled, improved and changed quite a bit since the last 100 years. Not only in appearance, size and how they were operated. Young people today have no idea what these devices looked like in the past, and we count ourselves among them.

Electricity was not only used to propel mankind, but to provide punishment. This is how shock therapy, and the electric chair were invented. We can be glad that these things are no longer popular today.

Back to the 21st century

Today, electricity is particularly popular in motors - it can run them silently and is better for the environment. Electricity can be used in a variety of ways: it heats the iron or stovetop, turns on the light, puts pictures on the television or drives escalators.

Because we have done a lot of research on electricity and not just left it as a natural phenomenon (lightning), we were confronted with new dangers. You can not only get burned by electricity (or get your veins boiled), but your heart can lose its rhythm. You can die from both.

Today there are even more ways of producing electricity than back then. In addition to coal-fired power plants and nuclear power plants, there are solar power plants, hydroelectric power plants and wind turbines.

Sadly, we are so dependent on electricity nowadays that our world would function poorly without it.

Comparison:

Even if everything used to be clumsy, larger and impractical- many things were simpler. In contrast to the past, the use of electricity has also become more dangerous - whether this is due to the stupidity of mankind is an open question.

A more recent topic is: People are trying to make electricity "green" and making sure that things like the batteries in electric vehicles can be properly disposed of or recycled.

In general, it can be said that the electrical appliances have simply evolved but not necessarily improved. Since many devices used to have a much longer lifespan than today.

Some companies do this nowadays even on purpose so that when they bring a new product on the market the old must be replaced.

Calculation:

Watt, abbreviated with the unit sign "W", was created by the Scottish scientist James Watt. Watt is used to measure the power of an object, for example, how brightly a light bulb shines.

Volt is used as "U" in formulas although it has the unit sign of "V". It was named after the Italian physicist Alessandro Volta. It measures the voltage.

Ampere is interpreted with the unit sign of "A" and comes from the French mathematician and physicist André-Marie Ampère. It tells the amount of current that an object needs.

We have briefly shown you these three terms because we need them for our calculation. We have decided to calculate how many watts the bulb from the film needs to light up. The bulb has 60mA (milli Ampere) and the battery has a voltage of 9. Fun fact every small battery has a voltage of 9. And our power grid in Switzerland has a voltage of 230.

Please watch the movie first so that you understand what we have calculated!

Formula: **U x A = W**

9 x 0.06 = 0.54

So, our light bulb in the movie needs *0.54 Watt* to light up.

Conclusion:

Electricity is one of the most important inventions that changed our world. We were very surprised to learn that electricity was already present in the world so early, but only appeared in the 19th century.

Links:

Sammelblatt 100 Jahre.pdf (energiegeschichte.de)

15 Alltagsgegenstände, die vor 100 Jahren noch ganz anders aussahen (giga.de)