Batteries 2 Essay, Research Paper

The invention of batteries was considered a great discovery by affecting our lives. Has it affected our lives for good or for bad, since the discovery of batteries in around 1800? Before the time of invention a number of discoveries had previously been made. Floriano Caldani (1756) observed that frog legs could be made to contract when a near-by static machine was discharged. Luigi Galvani (1786) rediscovered this phenomenon and apparently unaware of similar work by Jan Swammerdam more than a century earlier (1678), noted that a contraction occurred without external electrical force, when two different metals were placed into the muscles of a dead frog. The physicist Alessandro Volta (1792) discovered the difference in potential of metals in contact with electrolyte and developed the concept of the electromotive series. By 1800 Volta had perfected and described the first operating battery or pile which functions continuously, its charge being renewed after each discharge; it possesses in fine an inexhaustible charge.

Since this time a lot of changes have occurred within the technology of batteries throughout the world. Batteries have opened many doorways towards the future and better living. The improvement through the technology of batteries is apparent. People are now using batteries to help them live longer, hear better and move faster. Without the discovery of batteries the world of today would be completely different to what we know it as.

Cars are a prime example of the technology of batteries affecting them. Cars used to run with the use of steam engines. The steam run cars could not move off instantly because of the time required to boil the water for the car to start producing steam. Technological advancements introduced the magneto, a magnetic rotor with the introduction of combustion engines. The magneto was introduced to provide the car with enough energy distributed to the spark plugs for ignition. This gave people the hassle of having to turn a rotor anytime they wanted to travel somewhere. Another advancement was made with the discovery that a 12-volt lead storage battery could provide enough energy to the spark plugs for ignition. Without the discovery of the battery the use of cars could not have been harnessed and the luxury of travelling long distances in a relatively short time.

When minerals were needed for mining miners would have to tunnel down into the ground to mine the minerals needed. Before the invention of batteries, the use of candles and lit torches to light the tunnels were very important. The problem with flame is the fact that veins of natural gas could be accidentally tapped into causing a huge explosion if it was to come in contact with the flame. Leading up to the invention of battery powered torches many different ideas were thought of and trialed. One of those ideas concluded with the Davy Safety Lamp being made. This lamp was a state of the art lamp, which would go out when it was in a low oxygen region and glow brightly when approaching methane gas. Lead storage batteries are now strapped to the back of the miners backs with torches strapped to their heads. The lives of the miners have mainly been affected with this technological advancement.

Cardiac pace-makers have only been around for about 10 years. Within this time they have acquired many changes. When first constructed and put into use it was found the battery would run out and an operation would be made to take the pace-maker out and replace the battery. Research was done into the use of small, longer lasting batteries. This produced the findings of the Lithium cell. This cell is not only small but can long outlast the previous Zinc/Mercury batteries. Had the discovery of the battery not have been made, many people of today would now be deceased if not earlier.

Hearing aids would not have been able without the use of batteries. Hearing aids are not only helping the hard of hearing but also the people who are completely deaf to hear again. Hearing aids are powered by Zinc/Air cells which very small. Because the hearing aid is positioned on the outside of the body, the cells can be replaced easily with little or no fuss. Hearing aids have not only increased the quality of their life by helping them to join in conversations, enjoy plays and television shows, but probably helped to save the lives of many deaf people confused in a world run by sound. Many of the people who now have hearing aids could have been walking down the street, gone to cross the road and been hit by a silent car. Now with the development of batteries it has made the possibility of these peoples lives to be filled with wonderful sound. The invention of the hearing aids has immensely improved the quality of life to those who were deaf.

The majority of people wear some form of watch on their wrist. The watches were first powered with the use of cogs where an operation which involved turning a knob on the side would wind the watch up daily to keep it on time. This process would become annoying and with the invention of Silver cells the battery-powered watch was constructed. This let people keep the time handy for months, even years on end before the battery would eventually go flat and have to be replaced. The biggest disadvantage with this sort of cell is the fact that the discharging process could not be reversed to charge it again.

With the more technology presenting itself in today s society the construction of a more powerful battery will obviously occur. When the construction of a more powerful battery occurs, batteries will see the end of petrol and gas driven cars. They will help us to find new and easier medicines, which will be manufactured with the help of batteries. These medicines will be able to cure many things such as the basic cold, broken bones and eventually life threatening diseases such as AIDS or Cancer. People will be able to live their lives happily without any worry of such medical conditions. The technology is approaching it just needs to be grasped.

Batteries have already helped with the life quality of people around the world. Much of the quality has been for the human luxury although some less fortunate people have had their world enriched with a longer lifespan or just a higher quality of life. Adaptations will have to be made before the major energy contributors can be harnessed. Developments such as more powerful small batteries which discharging processes can be reversed need to be made to make batteries a better power storage source. When this is done the opportunities presented are endless.

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