

Pens: Their Past and Future

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In today's world, everything that people do every single day now has advances in technology that makes common tasks easier to perform and takes less time to perform. For future expansion and use of these technologies, their function must be written and recorded. This is the part when pens come into action. The pen is the thing that people usually use in writing these functions. The pen is still evolving in function and form to cater today's needs.

The pen is a writing instrument that uses ink or another substance that leaves a mark on paper. The pen was a long time ago a nib of a writing instrument and as a bird's feather that is sharp at the broad end and split to form a nib. (Grolier, 1992)

The first "pen" in use during the ancient time, around 4000BC, is a bone tool, which later on become a bronze one. The Ancient Egyptians, after developing a writing form based on pictures, made marks on a clay tablet using thin reed brushes. The reed pen was not popular back then because it is in use as an "arrow" that fills poison. Later on, they acknowledge the fact that it is in use as a writing instrument. The Greeks, which made the predecessors of the modern pen and paper approach, used a stylus that is made of metal, bone, or ivory to place marks on tablets that have a wax coating. (Bellis, 2011) In 600AD, the Europeans discover that a quill pen writing on parchment can change their writing style. The quill pen's discovery in Seville, Spain during the Middle Ages changed the way people write in that time because it introduced the concept of lower-case letters and different styles or fonts of texts. The first inks in use were from China. The Chinese philosopher Tien-Lcheu was the one to invent and perfect the ink now commonly

used as “*India ink*”. For a long time, the quill pen dominated writing for more than a thousand years. Then, a new writing instrument surfaces and becomes the dominant type of it. This instrument, known as the dip pen, consists of a nib that goes in contact with the paper. The dip pen is popular during that time because it had nibs that consist of strong metals like iridium, rhodium, and osmium. (Bellis, 2011) However, its dominance was short-lived. Thirty years later, the fountain pen became the more prevalent pen in use. Lewis Edson Waterman invented it. Early models leaked and wasted ink, which made them hard to sell. The later models were better in form because of it having iridium nib tips that made it resistant to corrosion. Later on, the ballpoint pen becomes the most used writing instrument in the world. The Biro brothers, Lazslo and George, invented the ballpoint pen in 1943. The first models are named after them. The first mass-produced ballpoints started production in 1945. Marcel Bich developed the production process. He called these ballpens “BIC”. To this day, these pens still sell 14 million of these everyday. (About.com, 2012)

Nibs are in use in the making of the dip pen. The nibs that are in use for dip pens are woody. Nibs became later on made of steel that made them more complicated but cheap. Merriam-Webster’s (2012) definition of a fountain pen is that it contains a reservoir that automatically feeds the writing point with ink. The fountain pen just expanded the nib pen’s function by adding an air hole and three grooves inside the mechanism to control the ink flow. (Bellis, 2011) The ballpoint pen, also known to Filipinos as a ballpen, is a writing material that uses a small rotating ball made of brass, steel or tungsten carbide to disperse ink while writing. (Russell-Astley, 2000) This pen’s main design is for it to roll a continuous smooth ribbon of ink in paper and introduces heavy dark ink deposits called goopings and, striations of either coarse or fine lines called burr striations. (Hilton, 1984) The ball acts a buffer between the writing material

and the ink. (Russell-Astley, 2000) The ball can rotate in any way it wants. The rolling ball is acting by gravity that makes the ink transfer to the paper.

While there were already norms in the market, the general buying public looked for more. It was then when they found a need for newer pens that are fit for the changes in society during that time. During the 1960s, there was a dilemma regarding what writing materials is in use at space. A controversy with overpriced pencils prompted NASA to search for new ways to write in space. (Space Journal, 2006) Commonly used pens at that time were not viable to use in space because they are not able to write in zero gravity. The AG-7 anti-gravity pen was the first pen to be in space. Paul Fisher of the Fisher Pen Company developed a pen that would be able to do such thing and the space pen was born. The pen's use extended to extreme weather conditions, whether hot or cold. It was also able to write underwater and upside down. The ink only flows if the pens need it. These functions made the space pen popular among astronauts working on the International Space Station. It is still in use today. In 1979, a small innovation known as the erasable pen was introduced to the world. The erasable pen combines the functions of the two most used writing instruments during that time, the pen's more professional look and the erasing ability of a pencil. (EHow, 2012) Hilton (1984) said that the ink used in erasable pens is entirely different from the ballpoint pens. While the ink of the pen is erasable, the marks that these pens make looks like what would a ballpoint pen write. The first of these pens have an attached eraser like a common wooden pencil. (Hilton, 1984) While having its advantages, there were also consequences in using these pens. Many schools banned them for its use as a tool for cheating in examinations and tests. Now, it only serves a niche market that is still interested in using it. Another technology in the pen domain is the ring pen. The Grandee Corporation was the first company to create the ring pen in 1997. The ring pen calls itself as such because it has a ring on

the middle of the pen, which is in use to support the fingers. The ring in the middle's function is to avoid the formation of Carpal Tunnel Syndrome, also known as "Writer's cramp" that affects the wrist and fingers. Its target demographic is the old people suffering from arthritis and children with poor gripping. The last of the known pen technology is the stylus. Its use is trace back to the Romans. Its uses include handheld gaming devices, smartphones and tablets. It is an instrument used by the ancients in writing on clay. Its mechanics were in use in current technology for input in current devices. Its functions are not limited to amplify and dampen the user's input, and to see the output while users input something on their device using a stylus. (Coldewey, 2011) It uses circuitry that is uses power from batteries or inductance change in order to function.

In conclusion, the pen has gone a long way in regards to technology and its function. It has moved from the simplicity of the past to the complexity of the present. There are still a lot of things to improve on and to make it fit what tomorrow may bring to the world.

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