A history of the telephone

The Telephone

In today's world we can reach into our pocket, grab our cell phone, and dial the person we wish to get in contact with and be conversing with them in seconds. In the present time, this seems like no big deal at all, but it all had to start somewhere. In the early 1800's this was not the case. In order to talk to someone, it had to be face to face, or through a letter. In researching the biographies of the inventors of the telephone, it became apparent that Alexander Graham Bell had the most influence and is credited the most with the invention of the telephone. The first telephone built by Bell along with Thomas Watson was constructed with a funnel, a dish of acid, a small amount of copper wire, all on a wooden stand. It's outstanding to witness the transformations of that time and compare it to the telephone technologies experienced in the present.

As with most inventions, Bell did not have the intentions originally of creating a device that would be able to transmit speech with the use of electric current. Instead, Bell originally was only focused on transmitting multiple tones and signals over a single wire. In order to get to this point though, the history of transmitting only electricity over a wire, to sound, to the telegraph needs to be understood somewhat.

Stephen Gray was one of the first known scientists to transmit electricity over a wire in 1729 (cite). After him came two men, Pieter van Musschenbroek and Ewald von Kleist, who developed what appears to be the first attempt at a battery known as the Leyden jar(cite), which would be used in experiments, lectures and demonstrations widely in the future. This sort of static electricity would stumble scientists for years doing experiments

involving creating and storing the static electricity, but it would never be powerful enough to control anything. The first actual battery was invented by Alessandro Volta, but it still was not powerful enough to have any use with machines. Batteries would become chemically based as they still are, but it was not enough to get to the transmission of voice over wire.

What was needed to be understood along with electricity to become closer to the invention of the phone was magnetism. Christian Oersted (cite) started the idea and around 1820 discovered electromagnetism. He founded that a magnetic field could be created by electricity, so the question was could the opposite be possible? One of the main factors that would eventually lead to the invention of the telephone was that of induction. Michael Faraday a year later is the person who reversed Oersted's findings and created, or induced, an electric current using an electric field. This major find in history meant that mechanical energy can produce electrical energy. This would eventually lead to hand cranking and winding, windmills, and watermills. This was the invention of the first generator.

Up to this point in history, the transferring of electricity had been completed, but there had been no practical use. In 1830 that changed when Joseph Henry used an electric current for the first time to show communication was possible. In his classroom he created an experiment where he completely an electric circuit, and when the circuit was completely it made a steel bar swing and strike a bell. While Henry did not pursue his findings more, Samuel Morse created the first working telegraph.

Samuel Morse is most famously known for coding system he developed in order to use the machine to transmit messages. Morse code uses the telegraph creating electric pulses and sending them from one station to another. At the receiving station the code is broken down into Morse’s system of dots and dashes. Tapping the telegraph creates a dot, while holding down creates a series of dashes. Morse code and telegraphy became increasing popular as it caused for the decline in the old methods of transporting messages such as the Pony Express.

What this all is important for and leads up to is that now inventors and scientists were beginning to focus on the transmission of speech over an electric current, but has not quite happened yet. Charles Bourseul was one of the first to write about transmitting human speech over a wire, but never practiced his idea. It would be Johann Phillip (cite) in 1861 who would create the first telephone seeming device, that did not work.