

Victorian invention fact file

Invention: The electric telegraph/Morse code

Date invented: 1837



Inventor(s): Samuel Morse, Joseph Henry and Alfred Vail

Since the mid-1700s, scientists and inventors had been working on a new way to send messages over very long distances through the use of signals. Previously, this method of communication, called telegraphy, was very basic, mostly using smoke signals and lights, and these methods were rife with problems. So people such as the French scientist Jean-Antoine Nollet began experimenting with electronic communication - Nollet actually electrocuted about two-hundred monks during his research on the speed of electricity!

Whilst this development continued, progress was slow, and it wasn't until 1836 that three American scientists, Samuel Morse, Joseph Henry and Alfred Vail, came up with a successful, practical electric telegraph design that could send messages in the form of beeps over long distances with poor quality wire, meaning that it would be much easier to implement.

Meanwhile, in England, two inventors called William Cooke and Charles Wheatstone invented a similar electrical telegraph, but instead of using electrical beeps, their device pointed to certain letters on a chart. Later, in 1841, Cooke and Wheatstone developed a version of device that printed out letters instead of pointing to them- essentially the first text messages! However, the English inventors never found customers for their device, and only two of the devices were ever built.

Of course, because this new telegraph was so revolutionary, and designed to communicate over such long distances, it would quickly become widely used across America and soon the rest of the world - so a widely accepted method of signalling was required, so that strangers could understand each other's signals. Luckily Morse and his colleagues anticipated this, and so in 1837 they came up with Morse code - a method of reading, observing or listening to the signals, and understanding them easily.

This signalling method, which they named Morse code, was a series of long and short beeps which could be transmitted and understood easily by skilled operators. For instance, a short beep (.) followed by a long beep (--) would be the letter A, or (.-). The same method of dots and dashes was used to transcribe the signals, so they could be read. In addition, both types of beep were given a name, with short beeps being called 'dits' and long beeps being called 'dahs'.

What happened next?

Though not widely used anymore, Morse code was often used in the military, such as in the air force and the navy, as well as by amateur radio operators. Morse code also became widely known as the best way to send an SOS or 'save our souls' message in an emergency. In fact, save our souls is only a way of remembering the message, rather than its actual title - the signal is simply called SOS because it is one of the easiest signals to remember in an emergency, as an S in Morse code is three dits, and an O is three dahs. So SOS is easily remembered as three dits, three dahs, three dits, or '...---...'.
