During the second world war, Nazi Germany were struggling with intercepted messages being decoded in order have advanced intel on their troop’s whereabouts. Searching for ways to secure their coded messages, the Nazi’s found what was called the Enigma machine, created by engineer Arthus Scherbius in 1923. The machine was, in its time, a magical machine that could code messages into an impossible to break cipher. Of course, the impossible cipher was eventually broken by the famous Alan Turing and his team. Turing created what he named the Bombe in 1940. The Bombe was the first of its kind deciphering device and was used to break the enigma machine.

The Bombe wasn’t only one of the key reasons for the Nazi’s downfall, but it was a technological wonder. Alan Turing had created what most thought impossible. By using large arrays of electro-mechanical devices designed to operate similar to the enigma in series, the machine would brute force attack the cipher. The construction as you could imagine was complex. There were 36 total enigma equivalents each containing 3 drums. Inside the drums themselves, there were wire brushes to determine the position of the drum based on four concentric circles of 26 contact plates.

At the end of the war, Alab Turing was awarded the order of the British Empire as well as being appointed as a fellow of the Royal Society. On top of the official awards given by the British Parliament, the Association for Computing Machinery also named an award after him which celebrates and individual for a great contribution of technical nature with a 1-million-dollar funding. These honors were all awarded for the single creation of the Bombe. Without the infamous machine, would have had a much stronger hand and could have caused an even greater tragedy than what had already taken place. While the Bombe is considered outdated today, many of the methods Turing used were carried on into future encryption technologies. There is no telling what the world would look like if Turing never stepped up.