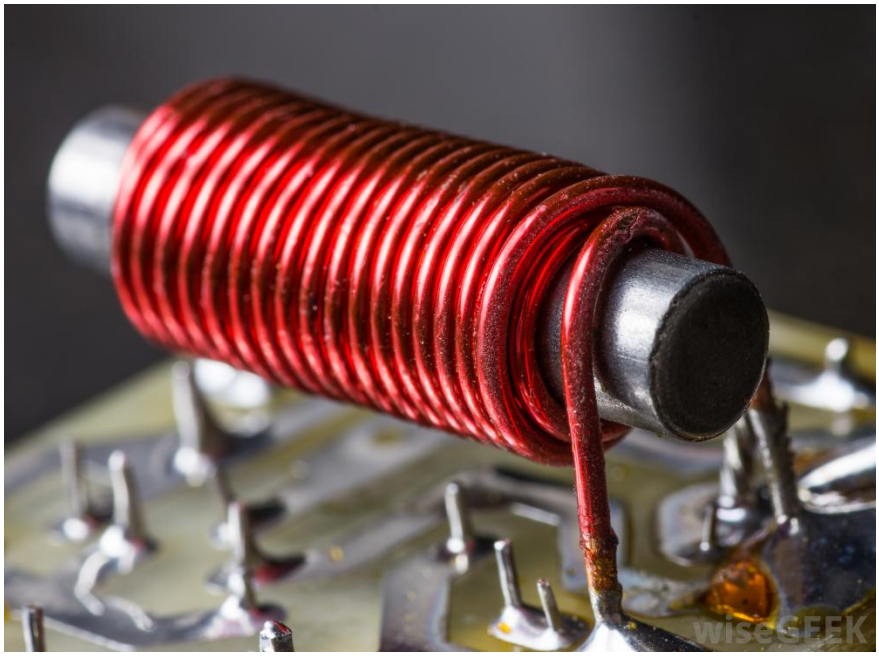
40 greatest inventions in human history (part 2)

The inventions underlie many important improvements in human history.

In **part 1** , **TipsMake.com** introduced you to the 20 greatest inventions in the history of the world and with this article will be the next 20 inventions that are sure, many of them are very close to you. You even use them every day and "it's hard to live without them" anymore!

21. Telegraph (1809): Telegraph - Telegraph is a telegraph communication system, marking the first development of the electric communication system. In fact, the idea of ??the telegraph was first initiated by Samuel Soemmering in 1809, but it was not until 1837 that Samuel Morse invented the Morse binary with variable length using a series of dots (.) and brick (-) to represent alphabet letters - are considered the basis for the development of a digital digital communication system at that time.

22. Electromagnet (1825): The origin of electromagnets was first invented in 1825 by the British scientist William Sturgeon (1783-1850). The electromagnet invented by Sturgeon is a young iron core in the shape of a horseshoe and has a number of coils around it. If there is an electric current generated by a small battery running through it, it will cause the iron core to be magnetized and the magnetic induction generated strong enough to draw up an iron box weighing about 7 ounces. If we disconnect the current, the magnetic field of the core will disappear.



23. Oil (1859): In the early days of the oil industry's history, US state Pennsylvania oil miners used whiskey barrels to hold oil, after they discovered oil wells. Firstly. Before the oil drilling operation officially started in the

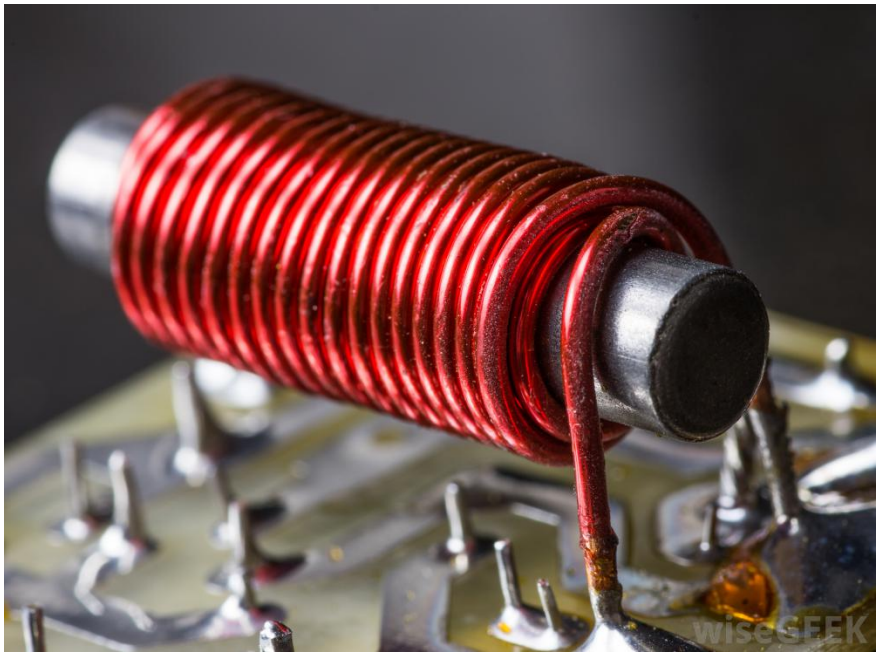
United States in 1859, crude oil was absorbed by rags, then squeezed out and used as a medicine to cure all kinds of diseases from headaches to tinnitus. Initially, Americans called crude oil "rock oil" (rock oil) to distinguish it from vegetable oil and animal fat. As demand for crude oil increased sharply for lighting while whale fat became scarce, oil rigs grew throughout the Pennsylvania state oil region in the 1860s.

24. Phone (1860): The first concept of the phone was devised by Johann Philipp Reis in 1860, which introduced an electromagnetic device capable of transmitting understandable sounds. A few years later, the first call was made between inventor Alexander Graham Bell and his assistant sitting 4.5 meters away on March 10, 1876 with a brief conversation: *"Watson, you Come here, I have a job! "* is an historic event that officially marks the birth of a contact phone.

25. Vacuum lamp (1883): In Thomas Thomas, Thomas Edison first discovered that electric current could travel in vacuum or gas without wires. 10 years later, Lee De Forest invented the Audion Tube - a simple but very important invention in the 20th century that at that time many people in the US Telegraph Company thought to be useless. Years later, he invented the Amplyfing Tube, founded the De Forest Radio Telephone company to manufacture amplified light bulbs and radio radio operators. . It was this continuous effort that helped him get the attention of many people. Journalists visited his lab and interviewed the scientist about the future of telephony.

26. Semiconductor (1896): In 1896, the first semiconductor was discovered and used commercially by Jagadish Chandra Bose. These are substances with an electrical conductivity between the insulator (dielectric) and conductor.

27. Penicillin (1896): In 1896, Ernest Duchesne used Penicillium mold to cure typhoid in hamsters - an experiment that showed he understood penicillin's abilities. However, at that time, scientists had not seriously considered this work, so Duchesne never received a patent. It was not until 1928, Alexander Fleming - a bacteriologist who studied at Saint Mary's Hospital in London, during a test of the culture plates containing bacteria, found patches of bacteria lying around the destroyed mushroom. . Ten years later, Australian pathologist Howara Walter Florey and Ernst Boris Chain studied the biochemical characteristics of lysozym, the enzyme that destroys bacteria that Flemming discovered, and conducted research. deeper on Penicillin and the possibilities that this antibacterial agent can bring to humans.



28. Radio (1897): Guglielmo Marconi, an Italian inventor demonstrated the feasibility of transmitting radio information in space. He successfully sent and received the first radio signals in 1895. And in the early years of the 20th century, Marconi began investing in an idea of ??transatlantic signaling to compete with the type of transmission. Branded by cable. In 1901, he transmitted the first wireless signal through the ocean from Poldhu, Cornwall - a county in the southwestern United Kingdom to Signal Hill at St John's, Newfoundladn - now an archipelago owned by Canada. The distance between the two points is about 3500 km. The feedback signal that Marconi receives is 3 click sounds - corresponding to the letter S according to Morse code. In 1909, Marconi and Karl Fedinand Braun both received the Nobel Prize in physics for *"remarkable contributions to the development of wireless communications technology"*.

29. Electron (1897): JJ Thompson was the one who discovered and proved the existence of electrons even though he could not see or separate them. The electron is the first subatomic particle to be discovered and confirmed as the first particle to make matter smaller than an atom. This discovery provides us with evidence of a basic electrical unit and its description. JJ Thompson's experiments and discoveries opened up a new field of science - Particle Physics.

30. Quantum Physics (1900): Quantum physics was born in 1900 when the best scientists were focusing their attention on a "hot issue" in many ways, that is the explanation. wavelength distribution of radiation emitted from a heated object. Max Planck proposed the hypothesis of the interruption of electromagnetic radiation emitted by objects - quantum hypothesis - to explain the experimental results of the radiation of black objects. The emergence of quantum physics and relativity is a revolution of physics at the end of the early 19th century and the 20th century and is the scientific basis of many high-tech fields today such as electrical technology. electronics, microelectronics, telecommunications technology, photonic technology, automation technology, information technology .

31. Aircraft (1903): The first aircraft in the world that can make a successful flight is the invention of the brothers Orville and Wilbur Wright. On the first flight on December 17, 1903, the Wright Brothers' plane flew 40 meters in 12 seconds in the air and became the first aircraft in history to successfully take off, placed named Flyer I. Flyer has a wingspan of about 12 meters and weighs more than 300kg, this is a biplane and the operator will have to be on the lower wing. The aircraft is equipped with a 12-hp gasoline engine.

32. Television (1926): John Logie Baird - Scottish inventor is considered to be an important milestone in the history of television technology development. On January 27, 1926, the TV show was first broadcast as a puppet dance performed by Baird himself with two rubber filmed heads, returned to a series of cameras and then, sent image to a nearby screen. In 1928, Baird first broadcast a radio program abroad, from London to New York. This is considered the first color television broadcast in the world.

33. Transistor (1947): Transistor is a kind of active semiconductor device, often used as an amplifier element or an electronic lock. Transistor appears everywhere in everyday life, hidden in modern devices, acts as a brain cell controlling from large systems such as controlling the spacecraft to fly into space, determining targets for missiles. military to computers, mobile phones and microwaves in the kitchen. On December 16, 1947, John Bardeen, William Bradford Shockley and Walter Houser Brattain invented the first model. The first Transistor at Bell Labs and Sony was the first company to apply this transistor invention to the commercial field.

34. DNA (1953): In 1953, James Watson and Francis Crick discovered DNA while working at Cambridge University. The duo has found something roughly similar to what they say: the famous double helix structure of DNA, an achievement that will pave the way for countless biological advances later on, solve a mystery that has made headaches. scientists for decades. Even Francis Crick entered the Eagle wine bar and declared that *"We have found the secret of life."*

35. Microchip (Integrated Circuit, also known as IC - 1959): Microchips are electrical circuits containing passive components and passive electronic components (such as resistors) connected together, sized in size. Micrometer (or smaller) is made of silicon technology for the electronics field. On September 12, 1958, Jack Killby successfully created oscillating ICs with five simple components on a similar material called a "chip". This invention not only gave Killbly a patent in the Texas Instrucment but also gave him the Nobel Prize in physics in 2000.

36. Internet (1969): At the end of the 60s the US Department of Defense funded a group of students from many US Universities and Research Institutes to participate in a research program on a new way of communication. The research results are the introduction of ARPA network (The Advanced Research Project Agency - the name of the organization that sponsors research costs for this program). Later this network was developed jointly by Universities to become a common network for Universities called ARPAnet - the "ancestor" of the Internet today. Initially this network was used by Universities and the Army also began to leverage and eventually the US Government decided to expand the use of the network for commercial and community purposes. The Internet today has become a network of local computer networks and personal computers around the globe. So far, everyone has acknowledged that the Internet is one of the greatest inventions of mankind in the twentieth century and has a great influence on world economic development.

37. Processor (1971): Intel started developing microprocessors since 1969 under the project of Japanese computer maker Busicom. Busicom's original plan was to build 12 customizable chips. But Intel engineer Ted Hoff conceived the idea of ??a more efficient multi-purpose logic device. Initially, Busicom held the rights to the microprocessor and paid Intel $ 60,000. Realizing the potential of this "brain", Intel decided to return the money in exchange for the right to design the chip. On November 15, 71, they introduced 4004 to the world market for $ 200. 4004 has a speed of 108 KHz with 2,300 transistors.

38. Mobile phone (1973): M on March 3, **1973** , Dr. Martin Cooper of Motorola made the first call from his mobile phone. At that time, he took a walk on New York City's Sixth Avenue and carried a device weighing nearly 1 kg and none of the pedestrians realized it was a mobile phone. Later, the device was recognized as the first mobile phone in the world, it was called the Motorola DynaTAC.

39. Smart phones - Smartphone (2007): In 2007, Apple launched the first touch-screen phone and is also considered a pioneer in producing mobile devices with touch screens. application. These devices have built-in GPS, compass, voice recording, camera, map and web browser with app store, allowing users to download favorite apps and use them right on the device. Currently, smartphones have become a widely used communication medium with a lot of modern improvements in style, features and many other things.

Quantum Computer - Quantum Computer (2011): Quantum computing is a future technology trend. Perhaps more than 10 years later, servers, personal computers, smart phones and Internet of Things devices will all contain at least one qubit-active component of computing. quantum. Google's quantum computer - purchased from D-Wave System company - at the present time, only with a limited number of memory qubits can still run faster than current laptops about 100 thousand times - for some calculation task.