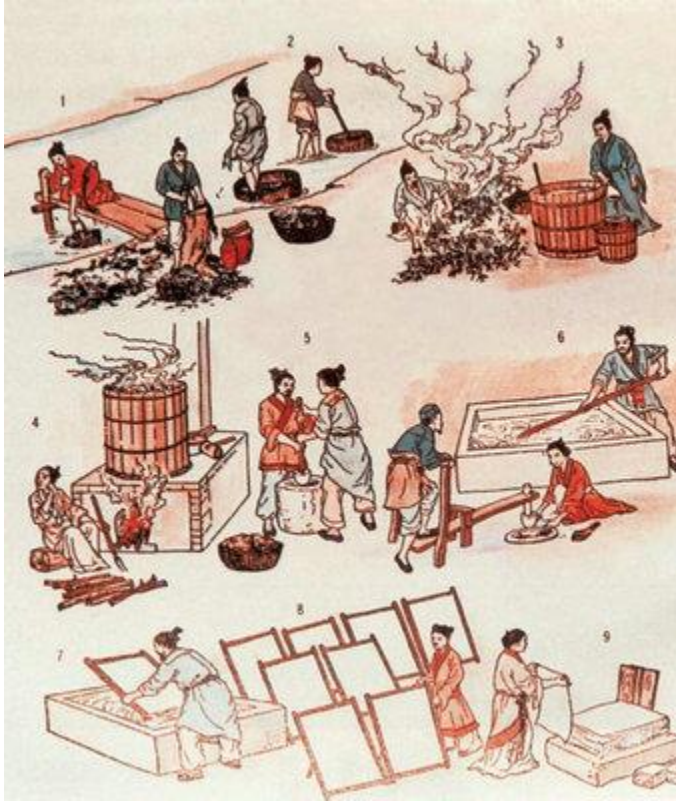
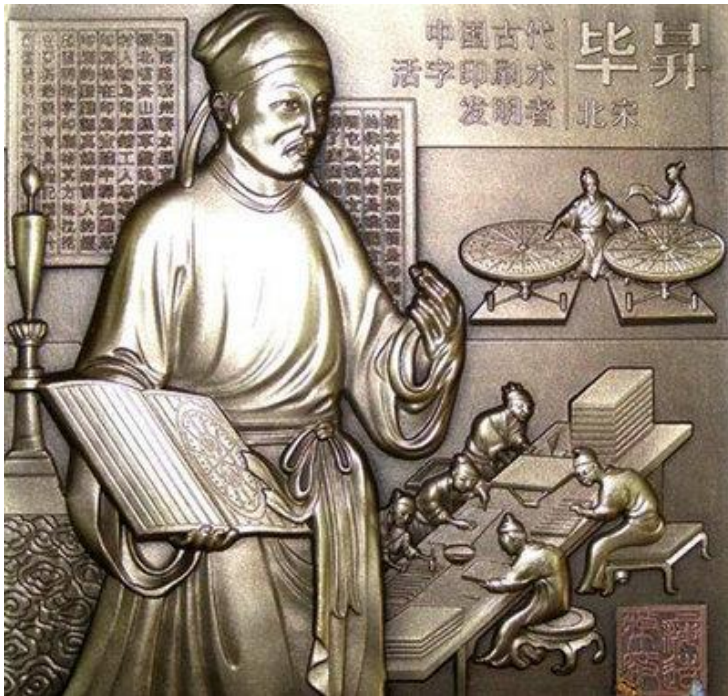


## 1. Paper Making 105 A.C



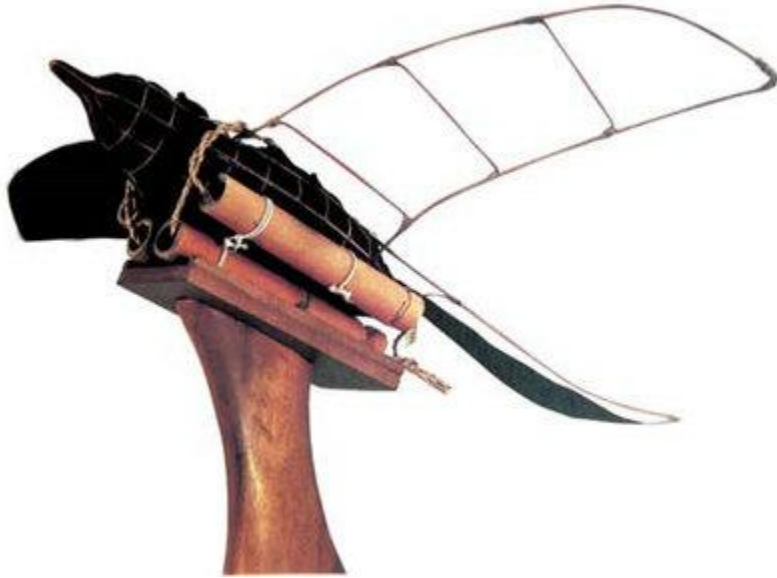
The invention of paper greatly affects human history. Paper already existed in China since 105 A.C, however, a eunuch named Cai Lun (ca. 50 AD – 121) made significant innovation and helped drive its widespread adoption. His advanced papaer-making technology then spread to central Asia and the world through the Silk Road.

## 2. Movable Type Printing 960-1279 AD



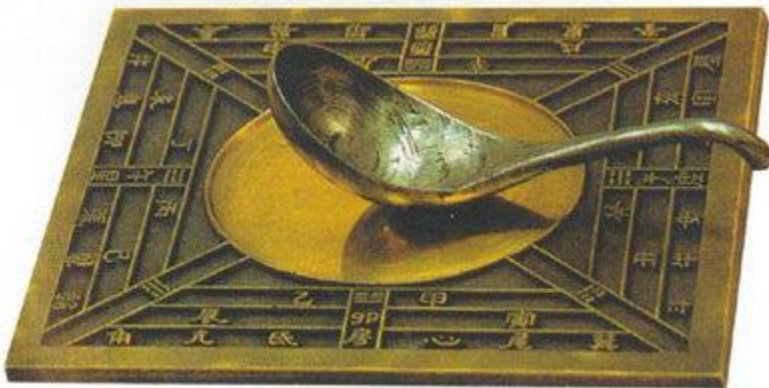
Woodblock printing was already a widely used technique in the Tang Dynasty. However, this kind of printing tech was expensive and time-consuming. In the Song Dynasty (960-1279), a man named Bi Sheng invented movable type printing, making it quicker and easier. He first carved individual characters on pieces of clay and then hardened them with fire. These movable type pieces were later glued to an iron plate to print a page and then broken up and redistributed for another page. This kind of printing rapidly spread across Europe and the rest of the world.

### 3. Gunpowder 1000 A.D



Gunpowder was invented by Chinese Taoist alchemists about 1000 A.D. when they tried to find a potion to gain human immortality by mixing elemental sulfur, charcoal, and saltpeter. It is generally believed that gunpowder spread to Europe during the Mongol expansion of 1200-1300 A.D.. The interesting fact is that Chinese used this discovery mainly for firecrackers while Europeans created cannons and guns and dominated China in the mid-1800s.

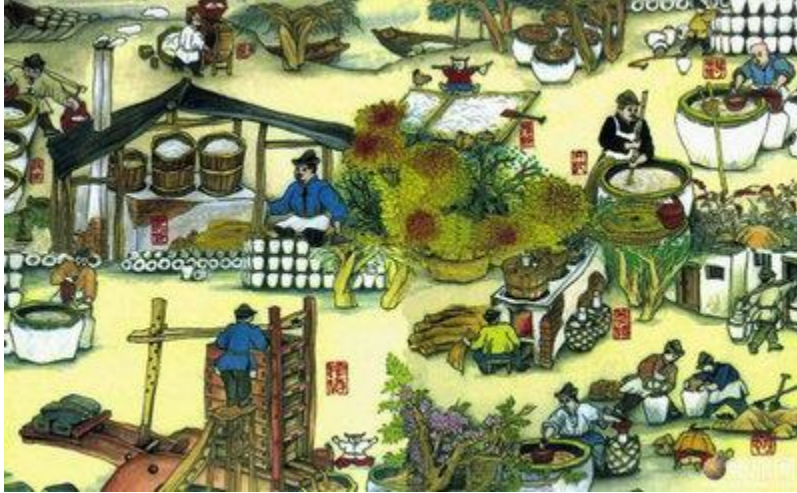
### 4. Compass 1100 A.D.



A compass is a navigational instrument that shows directions. The compass was invented by Chinese between the 2nd century BC and 1st century AD. It was first used in Feng Shui, the layout of buildings. By 1000 AD, navigational compasses were commonly used on Chinese ships, enabling them to navigate. Arab traders sailing to China might learned of the the tech and brought it to the West.

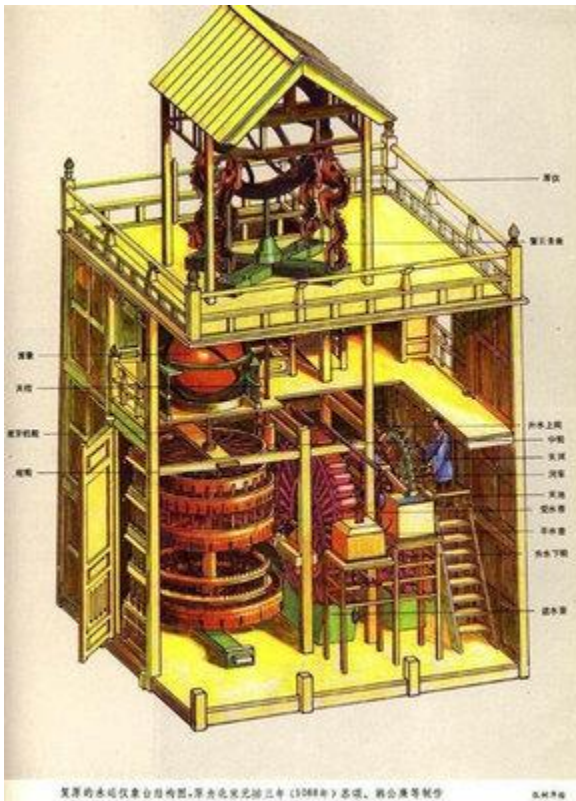


## 5. Alcohol About 2000 BC— 1600 BC



The inhabitants of the Arabian peninsula were widely believed to be the first brewers. However, in 2013, a 9000-year-old pottery found in Henan province revealed the presence of alcohol, 1000 years before Arabian. Alcohol is known as Jiu in Chinese and is often used as a spiritual offerings to Heaven and the Earth or ancestors in ancient China. Study shows that beer with an alcoholic content of 4% to 5% was widely consumed in ancient China and was even mentioned on oracle bone inscriptions of the Shang Dynasty (1600 BC–1046 BC).

## 6. Mechanical Clock 725 A.D.



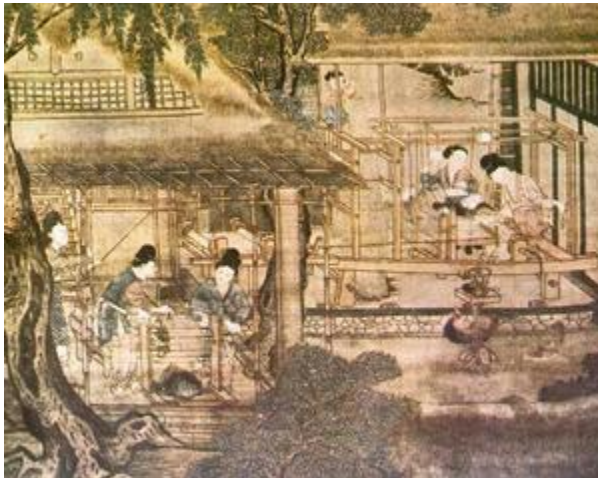
The world's first mechanical clock -Water-driven Spherical Birds – was invented by Yi Xing, a Buddhist monk in 725 A.D.. It was operated by dripping water which powered a wheel that made one revolution in 24 hours. Hundreds of years later, the inventor Su Song developed a more sophisticated clock called the Cosmic Empire in 1092, 200 years earlier before the mechanical clock was created in Europe.

## 7. Tea Production 2,737 BC



According to old Chinese legend, tea was first discovered by Shennong, Chinese Father of Agriculture, around 2,737 BC. In the Tang Dynasty (618—907) tea became a popular drink enjoyed by all social classes. *Cha Jing* (or *The Book of Tea*), written by Lu Yu in the Tang Dynasty, explicated ways to cultivate tea, tea drinking and different classifications of tea in details. The book is considered as the world's first monograph about tea. And the world's oldest and largest living tea tree can be found in Lin Cang, China, about 3,200 years old.

## 8. Silk About 6,000 years ago



Silk, one of the oldest fibers, originated in China as early as 6,000 years ago. The earliest evidence of silk was discovered at Yangshao culture site in Xiaxian County, Shanxi Province, China, where a silk cocoon was found cut in half, dating back to between 4000 and 3000 BC. Chinese people mastered sophisticated silk weaving tech and closely guarded secret, and the West had to pay gold of the same weight for the silks. In ancient times the silk was a very important item made in China and for many centuries businessmen transported this precious item from China to the West, forming the famous Silk Road.

## 9. Umbrella 1,700 years ago



The inventions of umbrella can be traced back as early as 3500 years ago in China. Legend has it, Lu Ban, a Chinese carpenter and inventor created the first umbrella. Inspired by children using lotus leaves as rain shelter, he created umbrella by making a flexible framework covered by a cloth.

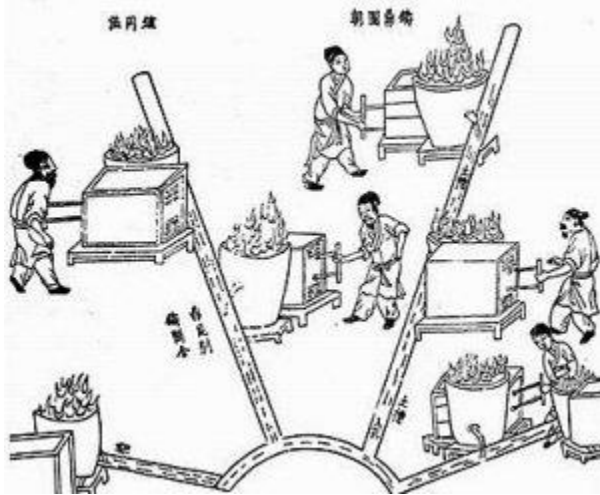
## 10. Acupuncture 2300 years ago



The oldest Chinese medicine book “Neijing”, also known as “The Classic of Internal Medicine of the Yellow Emperor”, shows that acupuncture was widely used as a therapy in China much before the time it was written. Besides, various kinds of acupuncture needles were discovered in the tomb of Prince Liu Sheng who died around 200 B.C. This is a further proof that acupuncture were already in use in China more than two thousand years ago



## 11. Iron smelting 1050 BC—256 BC



Archaeological evidence revealed that iron smelting technology was developed in China as early as 5th century BC in the Zhou Dynasty (1050 BC—256 BC). During The Spring & Autumn and Warring States periods (776-221 BC) China went into a flourishing period for iron smelting. In the Han Dynasty (202 BC—220 AD) central government monopolized the iron smelting, seeing remarkable development.

## 12. Porcelain 581 – 618 AD



Porcelain is a great invention of ancient China. The earliest porcelain emerged in Shang Dynasty (1600–1046 BCE) and matured during the Tang Dynasty (618-906). During the Song Dynasty (960–1279), porcelain production technology reached an unprecedented height due to its focus on shape and the tactile experiences of the glaze. Chinese porcelain was highly prized in the world and many artworks had been introduced to the West through the Silk Road.

### 13. Earthquake Detector 132 A D



According to court records of the later Han Dynasty, a seismograph was created by the brilliant inventor Zhang Heng (78-140 AD) in 132 AD. Its function is to determine the direction of an earthquake. In 138 AD, this instrument indicated an earthquake occurring in Longxi a thousand kilometers away. It was the first time that mankind to detect an earthquake. Modern seismographs only began development in 1848 in Europe.

### 14. Rocket 228 A. D.



China is hometown of rockets, ancient Chinese inventors created rockets by applying counter-force produced by ignited gunpowder. According to history, in 228 A.D. the Wei State already used torches attached to arrows to guard Chencang against the invading troops of the Shu State. Later the Song Dynasty (960-1279) had adapted gunpowder to make rockets. A paper tube stuffed with gunpowder was attached to an arrow which can be launched by a bow. This kind of ancient rockets and improved ones were widely used in military and entertainment activities in China.

### 15. Bronze 1700 B.C.



The skill of produce bronze was mastered by ancient Chinese by 1700 B.C. The Shang Dynasty (1600–1046 B.C.) and Zhou dynasties (1046-256 BC) brought China into the Bronze Age and the making of bronze wares reached its peak in this period. Bronze was mainly used to make weapons, bronze tools and ritual vessels at that time. Compared to counterparts in other regions of the world, the Chinese bronze wares stand out for their inscriptions and delicate decorative patterns.

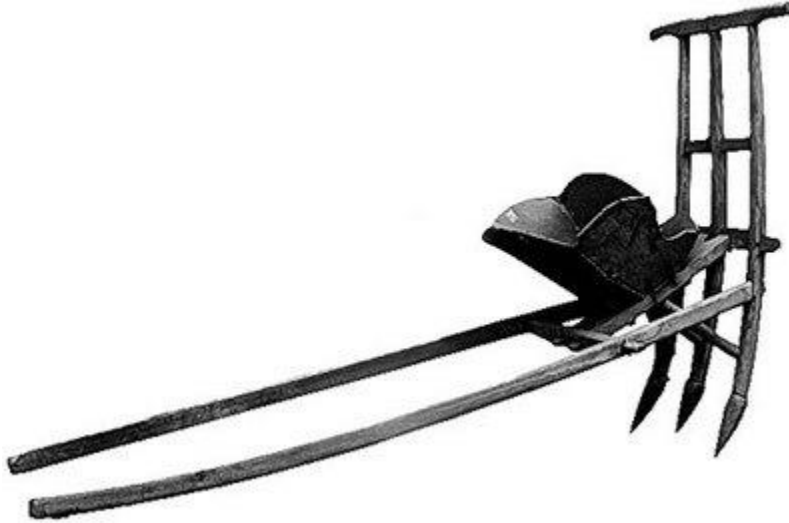
### 16. The Kite About 3, 000 years ago



The kite was developed around 3,000 years ago by ancient Chinese. The earliest kites were made of wood, called Muyuan (wooden kite). In early times kites were mainly used for military purposes such as sending a message, measuring distances, testing the wind and signalling. Over time kite flying developed into playthings and kite flying is now enjoyed worldwide.



### 17. The Seed Drill 3500 years ago



The seed drill is a device that plants the seed into soil at a uniform depth and covers it. If without this device farmers had to plant the seeds by hand, resulting in waste and uneven growth. According to records, the Chinese using of seed drills can be dated back to the 2nd Century BC. The device made farmers' job easier and highly improved the agricultural output in China.

### 18. Row Crop Farming 6 Century BC



In other parts of the world, farmers still scattered seed onto the fields randomly. While ancient Chinese started planting crops in rows from the 6th century BC. They planted individual seeds in rows, thus reducing seed loss and making crops grow faster and stronger. This technology was not used in the western world until 2200 years later.

## 19. Toothbrush 1498 in China



The bristle toothbrush was invented in 1498 by Chinese who made toothbrushes with coarse horse hairs attached to bone or bamboo handles. It was later brought to the new world by Europeans.

## 20. Paper Money 9th century A.D.



Paper money were first developed by the ancient Chinese, who started using folding money at the end of the 8th or beginning of the 9th century AD. Paper bills were originally used as privately issued bills of credit or exchange notes. A merchant could deposit his cash in the capital, receiving a paper “exchange certificate” which he could exchange for metal coins in other cities.