Technology of the 1800s Notes

1. One of the driving forces behind the American system of technological innovation was the United States Patent Office. The Constitution of the United States authorized Congress “to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and inventions.” In the early 1790s, the Congress established new procedures to secure patents, and this process remained in place until 1836. Under this system, some of the most famous inventors in American history secured patents including
2. Eli Whitney for the cotton gin in 1794,
3. Eleuthere du Pont for the improved manufacture of gunpowder in 1804,
4. and Robert Fulton for the steamboat in 1809.
5. In 1836, the US Congress radically changed the patent process and also provided funding for a new Patent Office building. Among the provisions of the 1836 law was a requirement for patent models to be submitted with each application. The models became highly effective tools to communicate the originality and special features of various inventions. The number of patents issued by the office rose in dramatic and spectacular fashion. From 1790 to 1840 the office issued a total of 11,500 patents; in the years between 1840 and 1900, the number of approved patents swelled to more than 682,000! “The patent system added the fuel of interest to the fire of genius,” noted Abraham Lincoln,
6. himself a recipient of a patent for a device to raise steamboats over sandbars.
7. The other major influence that drove America’s technological development was the spectacular expansion of the nation’s boundaries, population, and economy. The territorial size of the United States quadrupled from 1800 to 1900, a nation spanning the continent from Atlantic to Pacific. The census of 1800 recorded a total population of 5.3 million people; by 1900, the United States was home to more than 75 million. The need to connect and supply this expansive nation encouraged the development of innovations in transportation, communication, and manufacturing.
8. Samuel Morse’s invention of the telegraph (1835)
9. and Alexander Graham Bell’s telephone (1876)
10. made long-distance communication possible in a rapidly expanding nation.
11. In 1846, Elias Howe patented the sewing machine,
12. followed by Isaac Singer’s improved version in 1851.
13. The names of other inventors and innovators such as Charles Goodyear (vulcanized rubber in 1844);
14. George Pullman (sleeping car in 1859);
15. Oliver Winchester (repeating rifle in 1860);
16. and Richard Gatling (machine gun in 1862) were inextricably linked with their products.

Bibliography

“Technology Of the 1800s.” *Technology of the 1800s*. Web. 9 Dec. 2015. <https://www.gilderlehrman.org/history-by-era/jackson-lincoln/essays/technology-1800s>