

Remington—The Early Years

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The story of the Remington Firearms Company, *America's Oldest Gunmaker*, began in Suffield, Connecticut, more than 213 years ago. It was there that Eliphalet Remington Junior, the founder of the company that would bear his name, was born on October 28, 1793, to Eliphalet Senior and Elizabeth Kilbourn Remington. The father left the relative security of Connecticut to seek a new life for his family in the wilds of sparsely settled upstate New York. A man of some means, he purchased land in remote Litchfield in 1799. Within a year, Eliphalet moved his wife and three children to their new home.



Figure 1. Hunting in the late 1700's in central New York State.



Figure 2. Eliphalet Remington Senior built this imposing stone house for his family in Litchfield, New York, just a short walk to the forge he established in the gorge.



In 1807, Eliphalet Senior bought 195 additional acres of land, including almost a mile of Steele's Creek, which flows northward through a very steep-sided Ilion Gorge, the bottom of which has, at its northerly end, only enough room for the stream and a road. The father wanted this unusual real estate for its water power—the land had hardly any other plausible use. Here he built an ironworks of the type called a finery forge, used for converting cast or pig iron to wrought iron. Soon thereafter, Remington's ironworks was producing about six or seven tons of finished iron products per year. The original forge was built about 1810 and by 1814 it was operating for upwards of 200 working days a year.



Figure 3. The Ilion Gorge ran from south to north and provided water power to Eliphalet Remington's forge trip hammers and grinding stones.

Eliphalet Remington, Jr., the son, married in 1814. In 1816, his first child, Philo, was born, followed in 1818 by Samuel. Daughter Mary Ann was born in 1820, and another daughter, Maria, was born in 1824. Eliphalet III was born in 1828. Remington's forge was described as an "*Iron manufacturing establishment to convert cast iron into wrought iron.*" By this time, Eliphalet Senior had transferred the property to his son, Eliphalet II. The wrought iron produced by Remington's finery forge was formed into agricultural tools—axes, wedges, plowshares, crowbars, and so on. These implements found a ready market in the newly settled country, which was not even fully cleared yet. The Census report of 1820 listed no gun materials at all among the forge products.

For well over a century the story had been told, that, in 1816, Eliphalet II asked his father for money for a rifle and was refused. Thereupon—so runs the tale—the young man went out to the smithy and forged and welded a rifle barrel. Putting it on his shoulder, he walked to Utica to have a gunsmith ream and rifle the barrel. The gunsmith is reported to have praised Eliphalet's work. Young Eliphalet hiked home, finished the rifle, and he was in the gun business!

This story, which seems to have originated as early as 1872, has been retold countless times since. While it is unlikely that a country boy would have possessed the skills to make up an entire flintlock rifle, there is little doubt that young Eliphalet forged his first rifle barrel in 1816. After all, he was a commercial iron forger with the facilities of an iron-works at his disposal—a works that had power-driven machinery for just such tasks. Whether he "*finished up the rifle after the Utica gunsmith had reamed and rifled the rough barrel*" is questionable. To make a full-length stock for a muzzle-loading rifle—and in 1816 a rifle almost certainly had a full-length stock—is a job for an experienced gun maker who has specialized tools. It is difficult to imagine that young Eliphalet's skill with tools was advanced enough to undertake such a task successfully. A flintlock (which a rifle of 1816 must have had) requires that the relationship of the lock to the barrel and the trigger to the sear of the lock



Figure 5. In 1816, young Eliphalet Remington fabricated his first rifle barrel and took it to a gunsmith in Utica to have it assembled into his first flintlock rifle. Thus began the story of Remington firearms.

be exactly right or the rifle will not fire. Proper functioning of the rifle depended on precisely in letting these components into the wood of the stock, and a single small error would have been fatal to success. If it is true that Eliphalet forged a barrel in 1816, it seems very likely that he would have left completion of the rifle to the Utica gunsmith, who finished the bore.

It has been said that Eliphalet's finished rifle was so successful that neighbors wanted one for themselves, and he



Figure 4. This is Remington's original "*Forge in the Gorge,*" where thousands of rifle barrels were made from 1816 to 1828.

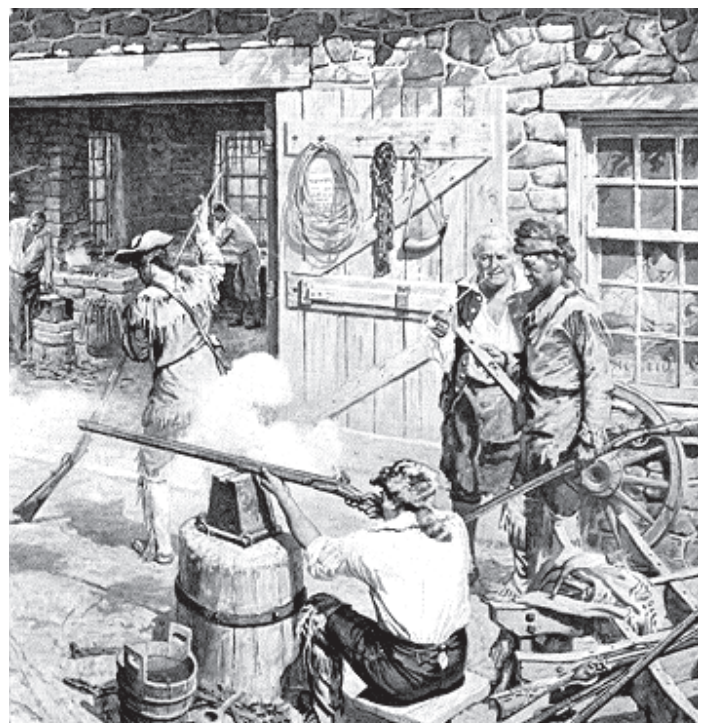


Figure 6. Flintlock rifles were among a frontiersman's most important tools . . . for hunting and protection.

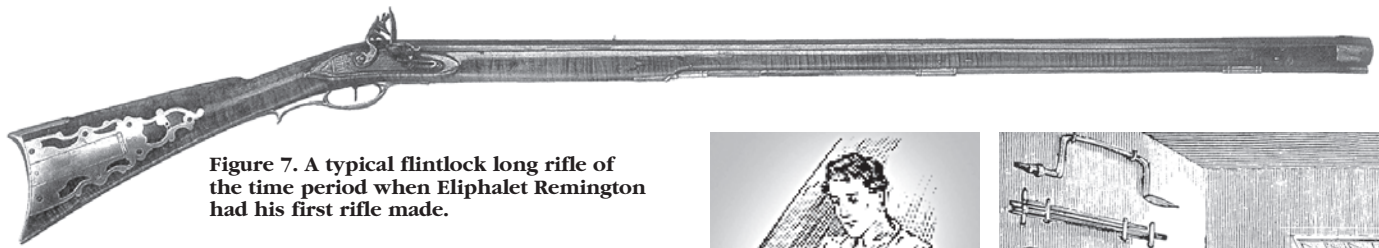


Figure 7. A typical flintlock long rifle of the time period when Eliphalet Remington had his first rifle made.

found himself in the gunsmith business. However, the 1820 Census of Manufactures report shows no gun materials at all among the products of the Remington forge. By the middle 1820's, there were several gunsmiths making rifles in the Mohawk Valley, including those with establishments in Utica, Johnstown, Schenectady, and Albany. However, no real evidence has turned up to indicate that Eliphalet Remington II made complete flintlock or percussion sporting or hunting rifles for others until much later. By the middle 1820's, Remington's finery forge was making rifle barrels, as well as numerous agricultural tools.

THE REMINGTON ARMORY

In 1824, the Erie Canal was completed, running through what is now downtown Iliion, New York. Eliphalet Junior decided to move his iron works north from the gorge, to the south bank of the canal, probably to take advantage of this efficient means of delivering Remington products. On January 1, 1828, he bought one hundred acres of land in the Town of German Flatts, a swath of land running from the Mohawk River along present-day Otsego Street for a little more than a mile to the south. He built a stone forge shop, installing additional forge hammers for increased capacity.

The peak of 19th century population of most of rural upstate New York counties and towns came about 1840. Gunsmiths had been among the settlers who had flooded into the area, and the prosperity of upstate New York that was fostered by the highly successful Erie Canal provided customers for the products of gunshops. At that time, rifle barrels were



Figure 8. Remington moved his rifle-making facility from Iliion Gorge to alongside the newly completed Erie Canal in 1828.



Figure 9.

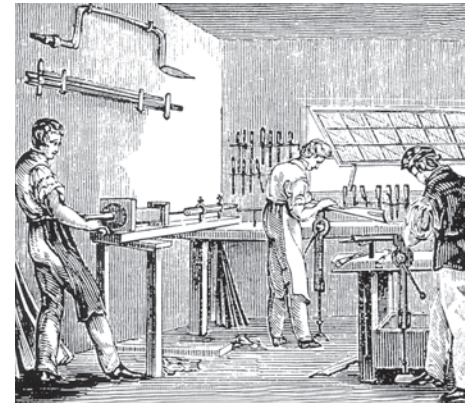


Figure 10. Typical gunsmith shops of the early 19th century were one-man operations with one or two apprentice workers.

commonly welded by hand with sledge hammers, but certain enterprising individuals began to set up forges to weld iron barrels under power-driven hammers. By this time, Remington had become a major supplier of rifle barrel

blanks to gunsmiths in upstate New York, and soon to much more distant customers.

Eliphalet's rifle barrels were not finished, rifled, or ready for assembly by gunsmiths. Remington started with barrel blanks, welded under the hammer out of flat wrought iron bars. Power hammers eased the tedious, laborious process of hammer welding by hand. The resulting barrels were wrought iron tubes of suitable length, apparently rough-reamed on the inside and ground to the traditional octagon form on the outside. The gunsmith-customer finish-reamed and rifled the barrel blank and fitted a breechplug, sights, and ramrod thimbles. He also made a flash hole (or if the rifle were to be a caplock, fitted a drum or bolster and nipple) and a stock and did all the other work required to turn out a finished rifle.

In 1832, less than four years after moving his establishment to the location alongside the canal, Remington built a large, frame factory building on a stone foundation. Soon thereafter, 20 workmen were busy making gun barrels and other metal goods.

Gunsmith shops—whose main products were rifles—opened all across New York State, and Remington's move to the banks of the Erie made it possible for his goods to be economically shipped far and wide. Remington's product became exclusively rifle barrels.

In 1837, Eliphalet Remington's son Philo came of age and entered his father's business—which became E. Remington & Son. In 1839, son Samuel entered the business—

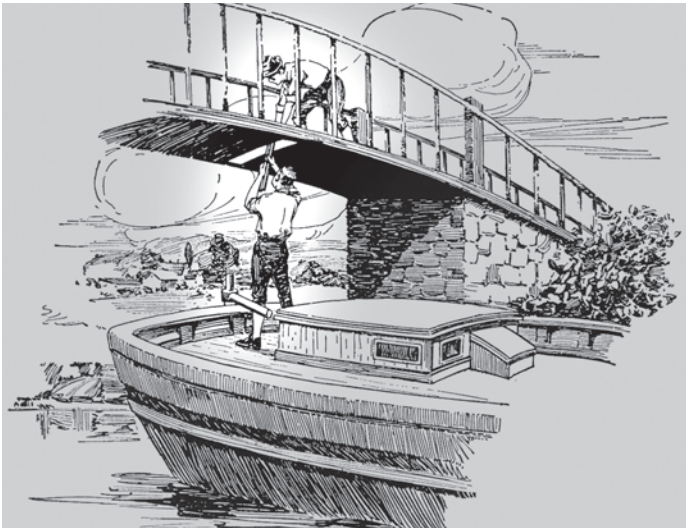


Figure 11. Remington found it less expensive to ship his heavy rifle barrels to customers via the canal . . . east to Albany (and thereafter to New York City along the Hudson River) or west to Buffalo, New York, and points along the burgeoning frontier.

which now became E. Remington & Sons. In 1849, the third son, Eliphalet III, was old enough to join his brothers in the family business.

Eliphalet Remington made few (if any) complete long guns for sale to the public prior to the Civil War. The guns that exist from this period are the product of many independent gunsmiths throughout the United States. Eliphalet Remington stamped his rifle barrels **REMINGTON** near the breech. Remington markings in straight-line and half-moon shape are known, but the exact significance of the form is not known. It is thought that the curved form is the earlier of the two markings.

Flintlock and percussion barrels have been found with Remington's stamping underneath, on one of the bottom flats, hidden from view when the stock is fitted. This was the individual choice of a gunsmith to hide the barrel maker's name, as he assembled the barrel into his finished

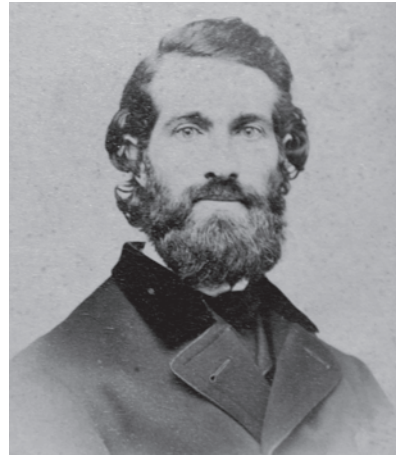


Figure 14. Eliphalet Remington III joined his father's company in 1849.



Figure 15. Remington stamped his barrels with a flat or arched **REMINGTON**, and in the 1840's, **CAST STEEL**.

gun. If a name is exposed, it is customarily that of the gunsmith who made the rifle.

Remington barrels came to dominate the trade by the 1840s, but despite its dominance, E. Remington & Sons was not yet a large firm. By 1850, the company had 50 employees, including the four Remingtons. By 1855, the number of workers in Remington's Armory had only risen to 75.



Figure 12. Remington's first-born son, Philo, joined his father's business in 1837.



Figure 13. Samuel Remington joined his father's rifle-barrel manufacturing operation in 1839.



Figure 16. A rare image of E. Remington & Sons' Armory in the mid-1850's.

REMINGTON "MISSISSIPPI" RIFLES AND JENKS' CARBINES

By the mid-1840s, Remington was producing large numbers of gun barrels. The next logical step, Eliphalet believed, was for his company to take on government contracts to fabricate military firearms. Such contracts could be lucrative, since they involved making nearly identical weapons by the thousands. Eliphalet decided that the future of his family business lay not only in supplying rifle, shotgun, and pistol barrels to gunsmiths throughout the Americas, but in filling large military orders for firearms.

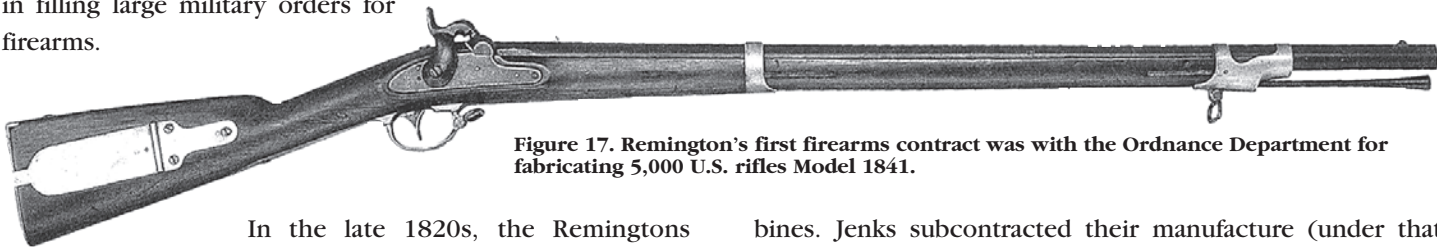


Figure 17. Remington's first firearms contract was with the Ordnance Department for fabricating 5,000 U.S. rifles Model 1841.

In the late 1820s, the Remingtons experimented with the use of cast steel, a form of hardenable tool steel that was melted in the process of making barrels. This was later known as crucible steel. In February 1845, Samuel Remington appeared before the Ordnance Trial Board held at Washington Arsenal to urge the advantages of Remington cast steel barrels for military firearms. The Trial Board looked favorably upon the process and directed the Ordnance Department to conduct further tests. As it was, William Jenks (designer of the Jenks breech-loading carbine) and Dr. Edward Maynard (inventor of the tape-priming system that would dominate ignition systems in U.S. small arms in the 1850's) were both at the Ordnance Trials. Young Samuel probably conferred with them, which may have been the spark that ignited his interest in entering the full arms manufacturing field.

In July 1845, Eliphalet Remington journeyed to Cincinnati, Ohio, where he negotiated the taking over of a contract to build 5,000 U.S. Model 1841 rifles, which later came to be called *Mississippi rifles*. The initial contract had been given by the U.S. Army Ordnance Department to John Griffiths in December 1842. He was to be paid \$15.00 for each rifle delivered, but failed to produce any of the rifles under this contract. This failure to perform opened the door for Eliphalet Remington to enter the gun-making business in a big way. Eliphalet came to terms with Griffiths quite quickly, it seems, and the deal included transferring specialized gun-

making machinery and tooling to Remington, none of which Eliphalet possessed. The Ordnance Department's approval of Remington's arrangement with Griffiths became final on September 8, 1845, and the government agreed to pay Remington \$13.00 for each Model 1841 rifle delivered.

At about the same time, Eliphalet had become involved in negotiations for another government contract for firearms. In 1841, William Jenks (a South Carolinian who had drifted north) had signed a contract to supply the U.S. Navy with a large number of his patented breech-loading, *mule-ear* car-

bines. Jenks subcontracted their manufacture (under that and succeeding contracts) to N.P. Ames & Co. of Chicopee Falls, Massachusetts. On September 22, 1845, Jenks signed yet another contract with the U.S. Navy, this time to supply 1,000 of his carbines with Edward Maynard's patented tape-priming mechanism, instead of with percussion cap ignition. Shortly thereafter, Eliphalet Remington contacted the proprietors of N.P. Ames, and after some negotiations, purchased their contract in late 1845.

Most importantly for Remington, with both the Jenks and the *Mississippi* contracts, he was to acquire essential gun-making machinery and precision tooling. Prior to this date, Remington's facility in Herkimer County had only produced forged barrels for firearms and other metal goods. Remington did not possess the precision woodworking or metalworking machinery and tooling to make firearms.

Eliphalet and his sons awaited in vain for the arrival of the machinery and tooling from Cincinnati and Chicopee Falls. Remington was unable to begin production on any of the rifles or carbines in 1846. N.P. Ames & Co. was unable to send the machinery and tooling to Remington, because it was still being used to make the last of their Jenks carbines for the Navy, and they did not make their final delivery until July 1846.

On November 11, 1847, the Chief of Ordnance wrote to Remington, asking what had become of the 5,000 *Mississippi* rifles contracted for in 1845. Eliphalet answered

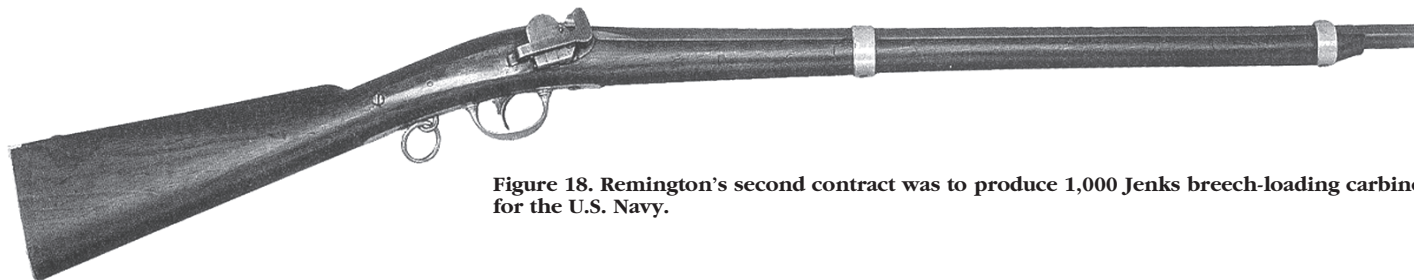


Figure 18. Remington's second contract was to produce 1,000 Jenks breech-loading carbines for the U.S. Navy.

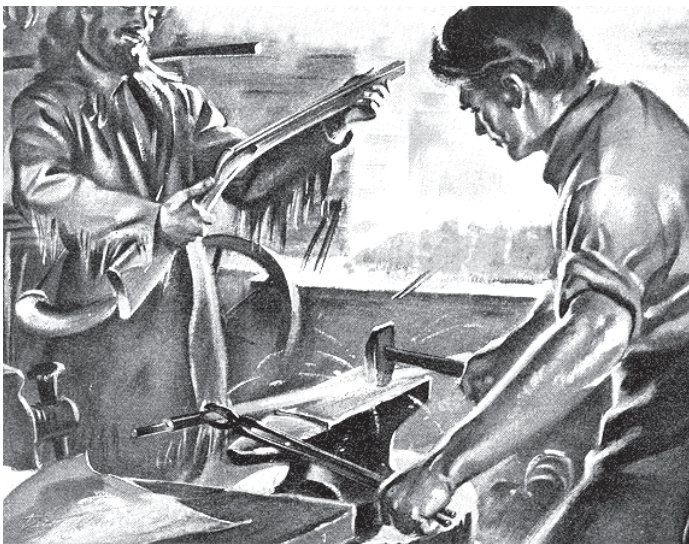


Figure 19.

In mid-1848, Remington's armory finally turned its attention to producing U.S. Model 1841 rifles. Finally, in April 1850, the initial lot of 300 finished *Mississippi* rifles was shipped to the Ordnance Department. Lots of 500 at a time followed every 60 to 90 days thereafter, and the contract for all 5,000 rifles was fulfilled by September 1852. Buoyed by the success of their sojourn into gun making, E. Remington & Sons sought, and were awarded, another contract for 5,000 Model 1841 rifles in November 1851. In all, Remington delivered a total of 10,000 *Mississippi* rifles by December 1854: 1,240 in 1850; 2,000 in 1851; 2,500 in 1852; 2,000 in 1853; and 2,260 in 1854.

Meanwhile, Remington's prosperity reflected upon the community, and the assembly of shops, dwellings, and other establishments finally incorporated into the *Village of Ilion* in 1844, which was incorporated in October 1852.

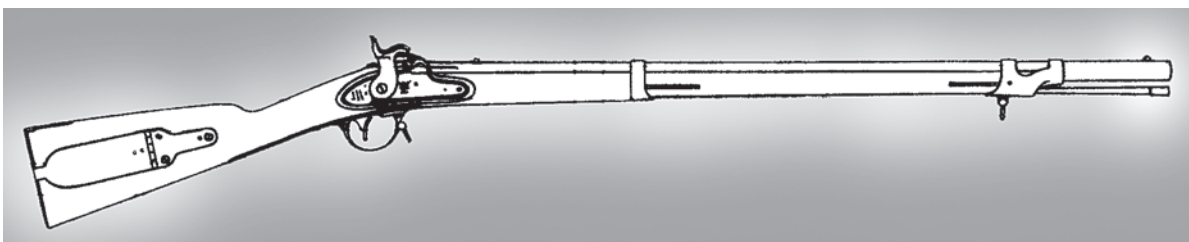


Figure 20. The village of Ilion was established in 1852 and flourished because of the Mohawk Valley's largest employer—E. Remington & Sons.

in a long and mournful letter, saying that his armory had more trouble than anticipated in acquiring the necessary gun-making machinery and tooling. Eventually, Ames shipped the gun-making machinery to Remington, along with the services of the carbine's inventor, William Jenks, and a promising gun maker, Fordyce Beals.

The first delivery of Jenks carbines to the Navy took place on April 5, 1848, and the whole lot of 1,000 carbines was completed and shipped by September, five months later. Even though they continued to produce thousands of gun barrels yearly for the civilian trade, E. Remington & Sons was squarely in the gun business.



Figure 22. In 1855 and 1856, Remington fabricated 170 Merrill, Latrobe, & Thomas breech-loading carbines for the U.S. Ordnance Department Trials.

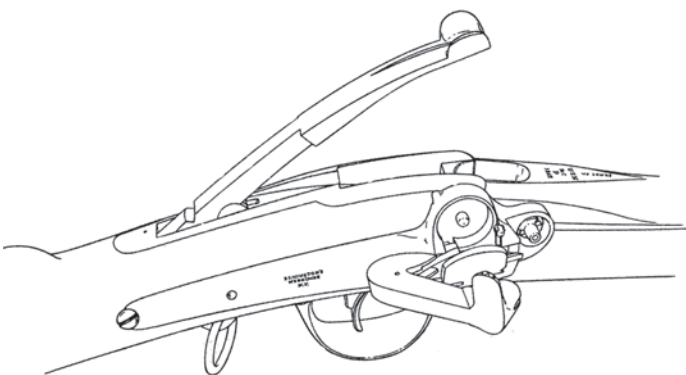


Figure 21. Remington fabricated a total of 20,000 percussion locks with Edward Maynard's tape-priming mechanism. These were shipped to Frankford Arsenal where workmen converted antiquated flintlock muskets to percussion.



Figure 23. Prior to 1860, Remington's operation grew from a fabricator of rifle barrels to a full armory manufacturing a variety of firearms.

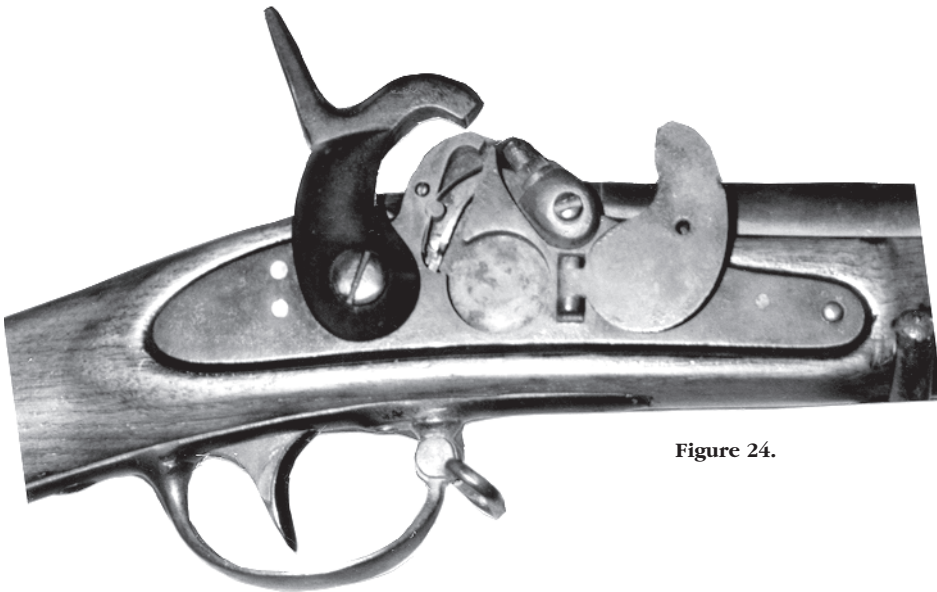


Figure 24.

Eliphalet Remington knew that in order to maintain their success, the Ilion armory must retain their skilled workmen, and to do so, he needed to secure a new contract. On September 9, 1854, E. Remington & Sons signed a contract with the U.S. Ordnance Department to fabricate 20,000 percussion locks with Maynard tape primers for \$3.15 apiece, complete with breech plugs. Later, these assemblies would be fitted by workmen at Frankford Arsenal to convert obsolete flintlock U.S. 1816 muskets to a more reliable form of ignition.

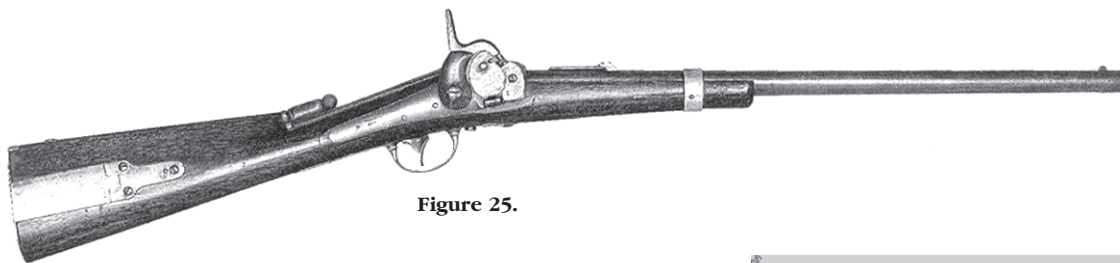


Figure 25.

In all, 20,000 lock assemblies and percussion bolsters were shipped to Frankford.

By March 1858, military contract work in Ilion ended, and Eliphalet needed to secure other orders, military or civilian, to keep his men busy, and to keep creditors away. In 1855, two businessmen from Baltimore, Ferdinand C. Latrobe and Phillip E. Thomas, along with James H. Merrill, the patent holder of a distinctive breech-loading carbine with a Maynard tape-priming device, made a prototype military-style carbine.

The U.S. Army Ordnance Department was impressed with the merits of their *Merrill, Latrobe, & Thomas carbine*, and on July 26, 1855, asked for 170 for further trials,

all to be delivered by December 31st at \$35.00 each. Merrill agreed to the request on August 1st and submitted a prototype carbine. Lacking the capacity to build such guns in quantity, the men approached Samuel Remington, as they wanted Remington's Armory to fabricate these intricate weapons.

Samuel Remington was involved with his father's armory operations and also operated a business utilizing the manufacturing capacity of the armory. Work commenced on the 170 carbines and all were completed by February 1856. Unfortunately, after they had been delivered to the government, it came to light that there were quality issues in their manufacture. Exact details as to the disposition of these carbines is not known, but they never were issued for field trials, as expected. Unfortunately for the Baltimore businessmen, no further military orders were forthcoming.

By the late 1850s, Remington's Armory was capable of manufacturing quality firearms in large quantities. With no more military work on the immediate horizon, Remington turned to the possibility of making pistols for the lucrative civilian trade. Little did he know that the small firm of E. Remington & Sons would grow to immense proportions within a decade.



Figure 26.