

HARPERS FERRY AND ITS FIREARMS

by C. Meade Patterson



MEADE C. PATTERSON

Members of the American Society of Arms Collectors, it is a pleasure for me to speak to you this morning on Harpers Ferry, which is on the other side of West Virginia from Herman Dean. Last night we heard about West Virginia and how Herman's interest in history had been stimulated through his collecting of guns, and he mentioned Harpers Ferry as one of the places of historic importance within his State.

EARLY HISTORY

Harpers Ferry derived its name from Robert Harper who was born in Oxford, England, in 1703. He came to Philadelphia as a young man and established himself as a millwright and an architect. In 1747, he was hired by the Society of Friends (Quakers) to build a meeting house near what is now Winchester, Va. He traveled from Philadelphia toward the present site of Winchester. When he reached the present location of Frederick, Md., he was advised to go by way of "The Hole." The Hole was the site of Harpers Ferry. There in The Hole, as it was called in those days before Harper's name had been given to the location, lived Peter Stevens and an Indian in a log cabin. The Indian's name was Gutterman Tom. Peter Stevens had built his log cabin at the confluence of the Shenandoah River and the Potomac River just before the Potomac River passed through the water gap in the Blue Ridge Mountains on its way eastward to Chesapeake Bay and the Atlantic Ocean.

About the time George Washington was born in Virginia in 1732, Peter Stevens built his cabin and became the first settler on the future site of Harpers Ferry. He did not own the land; he had just settled there, and only had squatter's rights. The land was part of the great domain of Lord Fairfax, and, as you know, young George Washington was a surveyor for the Fairfax properties. In 1747 when Robert Harper made his way with Peter Hoffman from the site of Frederick, Md., down through The Hole (which is now Harpers Ferry) on his way to near where Winchester would be, he met Peter Stevens and bargaining ensued. He liked the scenery, which was charming and still is today, and he bought out Peter Stevens for 50 British guineas and the property involved was 125 acres. As it turned out, Peter Stevens had only squatter's rights and so about all Robert Harper purchased was his log cabin, a canoe, and Stevens' good will. Later Harper obtained legal title to the land by negotiating with the agents of Lord Fairfax. Robert Harper was the first legal owner of property there after Lord Fairfax.

In 1749, George Washington arrived at The Hole for the first time as a surveyor for Lord Fairfax, and he surveyed Robert Harper's property. It was not yet known as "Harper's Ferry." By 1760, Robert Harper had established his ferry across the Potomac River to carry people, their baggage, and their domestic animals back and forth between Maryland and Virginia, and the name "Harper's Ferry" became attached to the place from that time forth. High water flooded Robert Harper's cabin he had bought from Peter Stevens, so he built another cabin a little higher on the hillside. During the Revolutionary War, Robert Harper built an enduring home on the hillside, carving away much bedrock. Today, this Harper house still stands at Harpers Ferry. The house was not completed until the end of the Revolutionary War, although it was started about 1775. Robert Harper had trouble finding workmen because so many had gone away to fight the Revolutionary War. It was completed about the time of his death in 1782. Robert Harper died without children and his brother's daughter Sarah became the heir to Harper's property. She married a man by the name of Wager from Philadelphia. Wager was American-born but his grandfather had come from Hesse Darmstadt, Germany. From Sarah Wager the U. S. Government bought the 125 acres of the original Robert Harper property at the confluence of the Potomac and the Shenandoah rivers.

Reprinted from the American Society of Arms Collectors Bulletin 11:21-31

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ESTABLISHMENT OF HARPERS FERRY ARMORY

President Washington and Secretary of War Henry Knox decided in 1794 that Harpers Ferry would be an excellent place to build a second national armory in addition to the Springfield Armory at Springfield, Mass. There were several reasons why Harpers Ferry was a good location for a national armory.

1. There was abundant water power. It was at the confluence of two large rivers, the Potomac River flowing from the north-northwest and the Shenandoah River flowing from the west. Water power, of course, was the prime motive power in those days. The steam engine was just appearing at the end of the 18th century and only in a few places.

2. The river location was such that it prevented attack from the sea. Although armories had to be built along rivers in those days, they were preferably built along rivers that could not be navigated from the sea. The United States was constantly in fear of enemy attacks from ships entering estuaries, bays, and river mouths and passing upstream into the interior. We recall how during the Revolutionary War a chain was stretched across the Hudson River at West Point to keep British ships from passing up the river. The Potomac River, however, has natural barriers to navigation. It has two waterfalls, the Great Falls of the Potomac and the Little Falls of the Potomac. These falls prevented any warships from sailing farther up the Potomac than the present site of Washington, D.C., and Harpers Ferry was on the banks of the Potomac 55 miles above the falls. It was impossible for enemy ships to reach a manufactory and storehouse of firearms at Harpers Ferry.

3. The location was favorable for serving the firearms needs of the Southern, Western, and Middle Atlantic States, as Springfield readily served the firearms needs of the New England States.

4. It would be near the Nation's Capital to be built only 55 miles to the east. As it developed, there was easy communication between the ordnance officers in Washington, D.C. and the gun designers at Harpers Ferry. Pattern guns were sent back and forth with greater dispatch, Harpers Ferry being only a day's travel by horseback, stagecoach, or canal boat. It was much quicker than having to send pattern arms from Springfield, Mass. to Washington, D.C. and back.

In contrast to Harpers Ferry, Springfield, of course, had already been established as an armory and military storehouse as early as the Revolutionary War. Little needed to be done at Springfield by comparison to initiate musket production there during Washington's administration. At Harpers Ferry, on the other hand, there was absolutely nothing but a few dwellings and Robert Harper's ferry which was being continued by other people in 1794, Harper having died 12 years earlier. The region around Harpers Ferry, though rugged and hilly, was strictly agricultural to the extent that it was settled. There were some settlers in the area, woodlands, rugged hills and mountains.

As mentioned before, Harpers Ferry is at the point where the two rivers come together and their combined waters have carved a gap through the Blue Ridge Mountains of Virginia where they pass northward into Maryland. The mountains are not called the Blue Ridge Mountains at Harpers Ferry. It is called Loudoun Heights on the Virginia side and Maryland Heights on the Maryland side. Through this water gap, the Potomac rushes onward to the east to Chesapeake Bay, having acquired the waters of the Shenandoah River first. You can see why the name, The Hole, was first applied to Harpers Ferry. It is in a hole between the Blue Ridge Mountains of Virginia and Maryland.

There was nothing military or industrial at Harpers Ferry in the beginning. The entire armory had to be built from the ground up. Joseph Perkin was appointed the first superintendent of Harpers Ferry Armory in 1796. He has been called an English Moravian. Some say he came from Virginia, and others claim he went

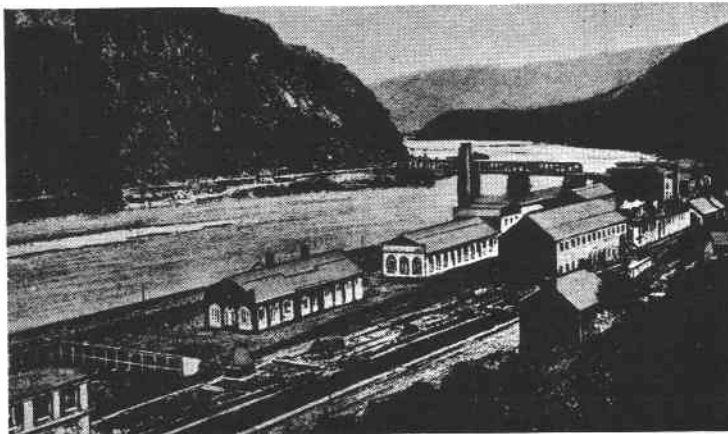


The stone walled enclosure on the right contains the grave of Robert Harper beside the large tree.

there from Pennsylvania. There is a J. Perkin, Philadelphia flintlock pistol in William T. Stroud's collection that formerly belonged to Henry M. Stewart. This pistol seems to indicate that perhaps Joseph Perkin was actually a Philadelphia gunmaker before coming to Harpers Ferry in 1796. Perkin was superintendent until his death at the end of 1806.

EARLY FIREARMS MANUFACTURE (1800 to 1835)

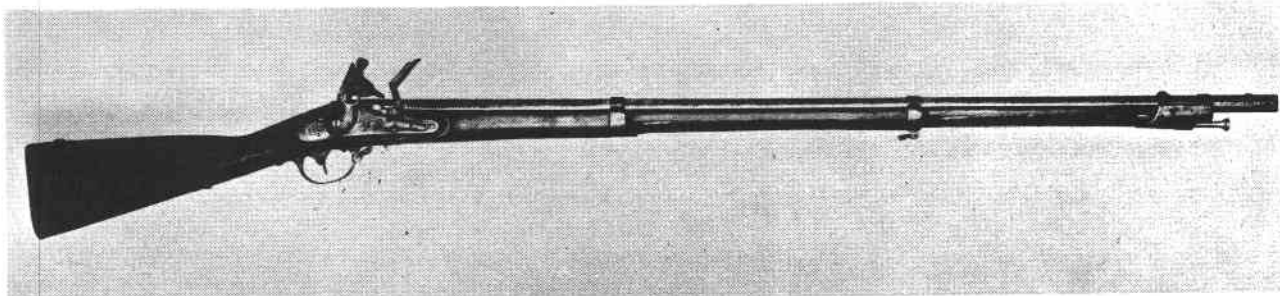
Production of firearms began at Harpers Ferry in 1800 after a few buildings had been erected and some waterwheels and machinery had been installed. The first production was of .69 caliber flintlock muskets that followed the design of the French Model 1763 Charleville musket. The earliest of these muskets have locks dated 1800. These first Harpers Ferry muskets are U.S. Model 1795 flintlock muskets but they differ from the U.S. Model 1795 flintlock muskets manufactured at Springfield. The U.S. Model 1795 Springfield flintlock musket has been very well defined by Claud E. Fuller in "Springfield Shoulder Arms," but perhaps if he had been interested as much in Harpers Ferry muskets and had used Harpers Ferry instead



The U. S. Army buildings which John Brown took possession of. Harper's Ferry, W. Va. junction of the Potomac and Shenandoah Rivers, Meeting of the States of Maryland, west Virginia and Virginia.

of Springfield as his standard to go by, he would have noted a few differences in his book. The U.S. Model 1795 musket made at Harpers Ferry has a rounded pan instead of the angular, beveled-edge, and flat-faced pan that is on the U.S. Model 1795 Springfield muskets. Furthermore, the comb of the cock does not have a curl at the top in the U.S. Model 1795 Harpers Ferry muskets, as it does in the U.S. Model 1795 Springfield muskets. The comb of the cock is straight all the way up to its rounded end. Also, the curl in the foot of the battery on the U.S. Model 1795 Springfield musket is missing in the U.S. Model 1795 Harpers Ferry musket. These are some of the differences between the U.S. musket as made at one national armory compared with the U.S. musket made at the same time at the other national armory. There never was 100-percent agreement between Springfield and Harpers Ferry flintlock muskets in the early years of manufacture. There were then and for many years afterwards differences in the muskets produced at each of the two national armories. Not until a few years after the end of the War of 1812 in 1815 did the two national armories make muskets which were exactly alike except for their markings.

The U.S. Model 1795 Harpers Ferry flintlock musket of 1800 (choosing the earliest known lock date on any surviving specimen) really looks like a U.S. Model 1808 flintlock musket, as made at Springfield, except that it has the French Model 1763 Charleville trigger-guard straps with the pointed ends having the teardrop finial. Harpers Ferry Armory continued to make this style musket with about a 45-inch barrel, with three barrel bands, and with the barrel-band springs behind the bands through the War of 1812. The last of what I would call the U.S. Model 1795 muskets were manufactured at Harpers Ferry as late as 1816, long after the U.S. Model 1795 musket produced at Springfield had been discontinued from production, though not from service. A Harpers Ferry flintlock musket of 1816 with a 45-inch barrel, pointed trigger-guard straps, flat and beveled-edge lock plate, rounded horizontal iron pan with fence that is integral with the lock plate looks very much like the musket that was made at Harpers Ferry in 1800, except for the date and a change in the design of the spread eagle stamped on the lock plate under the pan.

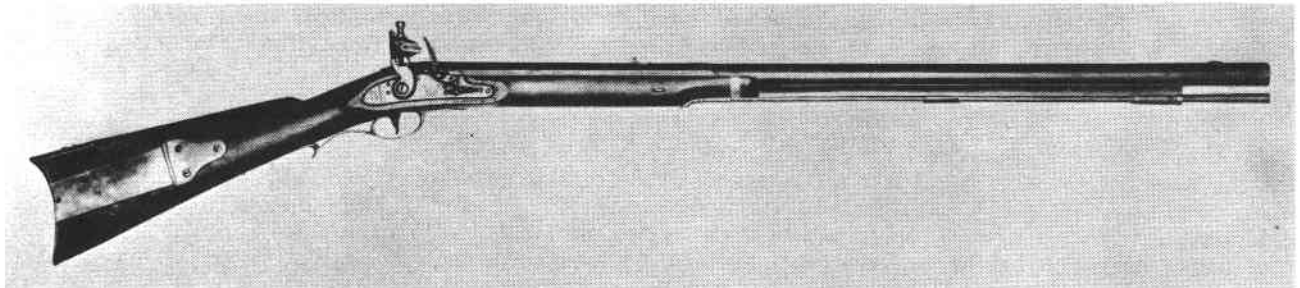


Harpers Ferry Musket dated 1823.

Early musket production at Harpers Ferry was usually less than that at Springfield. More mechanics were available in the New England States than in agricultural Virginia. It was more difficult to attract mechanics to Harpers Ferry, but some came from Pennsylvania and other neighboring States. Herman Dean mentioned how Benjamin Mills went to Harpers Ferry from Harrodsburg, Ky. and then after a few years returned home to continue making rifles. Mechanics had to be brought into Harpers Ferry. Germans, Irish, and Pennsylvania Dutch came but they had to be paid attractive wages. Costs at Harpers Ferry were always somewhat higher than at Springfield. When it came to the unit cost of a musket, Harpers Ferry was always a dollar or two higher.

The second firearm made at Harpers Ferry was the U.S. Model 1803 Harpers Ferry .54 caliber half-stock flintlock rifle. This half-stock rifle, which resembles the Kentucky rifle, was made with a part-round and part-octagonal barrel, measuring a little less than 33 inches in some instances and 33 inches exactly in other instances, at first. It fired a one-half ounce patched ball and is rifled with seven narrow grooves with broad lands between them. The rifle barrel has an 11-inch octagonal breech in the 33-inch length and the rest of it to the muzzle is round. An iron rib is mounted under the barrel forward of the half-length stock, and there are two iron thimbles on the rib for holding the tapered iron ramrod. A brass thimble at the forestock tip guides the ramrod into the stock. This first Harpers Ferry rifle has a brass rectangular patch box with a spring-button release. The lock plate is marked just like the musket lock plate, but the markings are scaled down in keeping with its smaller size. It has the same eagle, "HARPERS FERRY," and the date.

This rifle has been called both the U.S. Model 1803 rifle and the U.S. Model 1804 rifle recently. At one time, it was referred to as the U.S. Model 1800 rifle, but no justification for that designation having been found, it is no longer used. I prefer the U.S. Model 1803 designation because I have seen them with locks dated 1803. I do not believe in assigning a firearm a model year that is later than the date of the earliest specimens. If we are going to designate it according to the earliest date observed on existing specimens of this first Harpers Ferry rifle, we must call it the U.S. Model 1803 rifle. This rifle in the short barrel length was made first continually from 1803 into 1807. Then a lapse of several years ensued without any production. During the War of 1812, additional regiments of riflemen were raised, and in 1814 a second period of manufacture of the Harpers Ferry rifle began in order to fill the need for more rifles. Additional Harpers Ferry half-stock rifles were produced from 1814 continuously into 1819. They were exactly like the rifles of the period 1803 through 1807, insofar as hand manufacture could make them alike, except the barrel length was increased from 33 inches to 36 inches and the octagonal breech-end of the barrel was lengthened from 11 inches to 13 inches during this second period of manufacture.



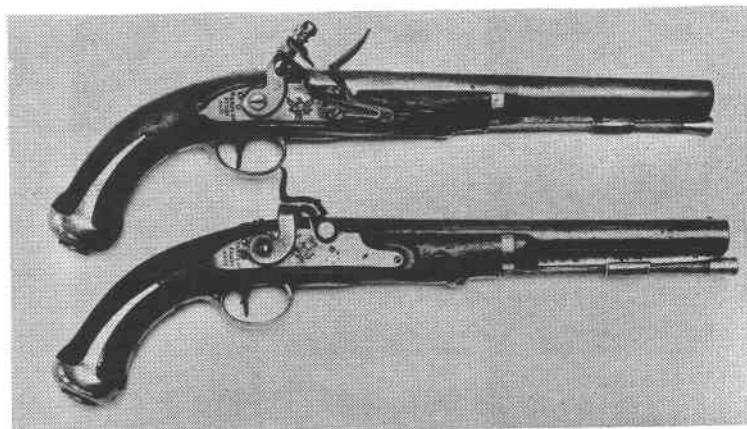
Harper's Ferry Rifle dated 1814.

Some designate the Harpers Ferry .54 caliber half-stock rifle produced from 1814 into 1819 the U.S. Model 1814 rifle, and distinguish it from the earlier U.S. Model 1803 .54 caliber half-stock rifle manufactured from 1803 into 1807. In my estimation, the rifle does not really deserve another model designation because it is still the same rifle, in practically all respects, except the barrel has been extended from a little under 33 inches, or exactly 33 inches, to 36 inches. It is debatable whether extending a barrel 3 inches justifies calling it by another model name. There are innumerable examples of firearms made in different barrel lengths that are considered to be all of the same model. Furthermore, not all of the Harpers Ferry rifles made during the second period of production from 1814 into 1819 have 36-inch barrels. Many were manufactured early in this second period with 33-inch barrels like those of 1803 through 1807. From 1814 to 1816, most Harpers Ferry rifles were made with the short barrel, judging from existing specimens. The long-barrel rifles are usually dated 1816 through 1819. There are some 36-inch barrel Harpers Ferry rifles with 1814- and 1815-dated locks on them. I am always skeptical that maybe the lock is earlier than the rifle. Possibly an older lock was built into the rifle at a later date, or the original lock was replaced by an earlier lock. One cannot invariably consider the date on the lock as being the date of the firearm. Gunmakers were prone to reach into the parts bin and use older, perfectly serviceable locks on rifles and muskets that they were assembling. It was economical for them to do so when they could, thereby avoiding making a new lock for the new firearm being assembled.

After the manufacture of U.S. Model 1803 Harpers Ferry half-stock rifles was well underway, the third firearm to be produced was the Harpers Ferry .54 caliber half-stock flintlock pistol. The first firearm

manufactured at Harpers Ferry was the musket, the second firearm was the rifle, and the third firearm was the pistol. I consider that this was very likely the order of need for the three kinds of firearms in the U.S. Army at the time. Muskets were needed most, then rifles to a lesser extent, and least of all pistols. By 1805, musket and rifle manufacture had been established at Harpers Ferry and was continuing so attention was turned to the production of horsemen's pistols. The handsome pistol that was designed and then mass-produced has been designated either the U.S. Model 1805 pistol or the U.S. Model pistol. It was the first pistol produced at a U.S. national armory. I favor the U.S. Model 1805 pistol designation because this pistol was authorized by the Secretary of War in late 1805, and pattern pistols were made at Harpers Ferry according to his instructions at the end of 1805 and the beginning of 1806. The Military Store Keeper at Harpers Ferry, through whom all shipments of firearms were made from the Armory, forwarded a pair of pattern pistols with half stocks and a pair of pattern pistols with full stocks to the Secretary of War in Washington, D.C., early in 1806. However, the pattern pistols had been in process before the end of 1805. The Secretary of War preferred the half-stock pistols, perhaps because they more closely resembled the half-stock rifles, and he suggested some changes, such as the addition of the brass band near the end of the forestock, which the rifles also had.

The Harpers Ferry flintlock pistols are dated 1806, 1807, and 1808. According to the official records of the Ordnance Department, 8 pattern pistols were manufactured at Harpers Ferry in 1806, 2,880 pistols in 1807, and 1,208 pistols in 1808. These annual totals add to a total production of 4,096 Harpers Ferry flintlock pistols. Through the efforts of Samuel E. Smith, we have a very good list of serial numbers of Harpers Ferry pistols still in existence. It is a surprising observation that of all the recorded serial numbers of all the Harpers Ferry pistols in original flint and converted to percussion that are known, no serial number has ever been reported higher than 2048. This is remarkable because 4,096 pistols were made. Where are the pistols with serial numbers in the 2000's, 3000's, and at the beginning of the 4000's? After careful consideration, it appears that there never were any. That the two pistols of each pair carried the same serial number, that 2,048 is exactly one-half of 4,096, that 2048 is the highest serial number that has ever been found, and coincidentally that the highest serial number used at Harpers Ferry on these pistols was 2048. I believe Sam has seen that Harpers Ferry pistol (No. 2048) and so have I.



Harpers Ferry pistols dated 1807 flintlock and converted to percussion, America's most beautiful martial pistol.

Why did they number both pistols of a pair with the same serial number? In those days, they customarily spoke of a pair of pistols as a single entity. Government contracts were for so many pairs of pistols and the contract prices were set at so much per pair. The contract price for a pair of pistols then was figured as equal to the contract price of a single musket, or a stand as they expressed it. Therefore, I feel safe in stating that Harpers Ferry pistols were originally made with every two consecutive pistols having the same serial number. Instead of consecutively numbered pistols being a pair, Harpers Ferry pistols with matching serial numbers were originally meant to constitute a pair. Appropriate to this remark, may I point out that there is displayed here in the room supporting evidence for this statement. Dr. James R. Lucie has thoughtfully displayed a Harpers Ferry flintlock pistol with its serial number on the barrel at the breech (I forget what the serial number is); he also has a barrel with it from another Harpers Ferry flintlock pistol and that barrel has the identical serial number as his complete pistol. This evidence seems to confirm what I have just said.

The 1806-dated Harpers Ferry pistols are the scarcest. They have serial numbers that run up to over 100. The 1807-dated pistols are the commonest. Their serial numbers continue approximately from where those of the 1806 pistols stop and then run up to about serial number 1600. The 1808-dated pistols continue from about 1600 to 2048, which is the highest serial number ever seen in our time.

There is a little variation from pistol to pistol. The forestock is a little longer on the late pistols than on the early pistols. In some pistols, the brass band near the end of the forestock is wider than in others. In general, the early pistols have a wider brass band and the late pistols have a narrower brass band. These variations may be more the natural result of hand manufacture and of variation in the size of the material used than any intention to alter slightly the design of a well-designed pistol. The only fault of the Harpers Ferry pistol was that its graceful stock was not as thick and strong as it should have been for military service. The very feature that makes it so handsome may have been its military weakness. The Virginia Manufactory flintlock pistol that copied it in 1812 and for some years afterwards is less graceful than the Harpers Ferry

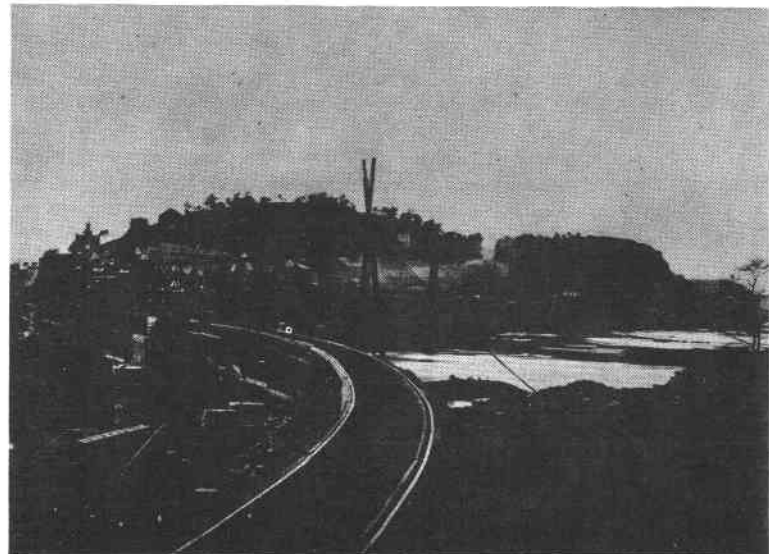
HARPER'S FERRY, W. VA. AFTER IT'S DESTRUCTION, APRIL 18, 1861



Harper's Ferry, W. Va. about 1865



Ruins at the Harper's Ferry assenal



Harper's Ferry, W. Va. 1862

pistol by being made with a thicker, more durable stock in an attempt to remedy the weakness inherent in the Harpers Ferry pistol design.

During the War of 1812, Harpers Ferry Armory, like Springfield Armory, worked harder, repaired many broken flintlock firearms carted in by wagons from the battlefields and seaports, and continued the production of Harpers Ferry muskets and rifles to win the war. After the war was over, it was decided that Harpers Ferry and Springfield ought to start producing the identical musket. While the Springfield musket had been developing through its various changes in New England, Harpers Ferry Armory was going along making practically the same flintlock musket it had started to make in 1800. In 1816, Harpers Ferry musket barrels were reduced from the 43- to 45-inch barrels it had been making since 1800 to the standard 42-inch length, which was the standard length of the flintlock musket barrel from 1816 until the end of flintlock-musket manufacture in the 1840's. Indeed until the end of smoothbore percussion musket manufacture in 1855, the 42-inch .69 caliber barrel was the standard at both national armories. Harpers Ferry Armory continued to use the old-style, flat-faced, beveled-edge lockplate with the flat-faced, beveled-edge cock, the integral horizontal iron pan with fence from 1800 until early 1819, when Harpers Ferry Armory finally began to mass-produce the inclined, detachable brass-pan flintlock musket, the U.S. Model 1816. Springfield Armory had begun the regular mass-production of the U.S. Model 1816 flintlock musket in 1817. Harpers Ferry flintlock muskets with locks dated 1819 are known with both the U.S. Model 1795-type lock and the U.S. Model 1816-type lock.

The U.S. Model 1816 .69 caliber flintlock musket was copied after the French Model 1777 Charleville musket. The U.S. Model 1816 musket has a detachable brass pan tilted slightly forward and without a fence, the cock is slightly rounded in cross section and is oval-surfaced, and the lock plate is also slightly rounded in cross section behind the cock. Whenever the U.S. Model 1816 flintlock musket is mentioned, there are always some who say, "No, that is the U.S. Model 1821 (or the U.S. Model 1822)." For years there has been a never-ending discussion between musket collectors as to what to call these muskets. I cannot see why it should be called the U.S. Model 1821 musket or the U.S. Model 1822 musket either, when surviving specimens clearly show that this model musket was already being mass-produced at Harpers Ferry Armory in 1819 and at Springfield Armory even earlier in 1817. It was being regularly produced in thousands of stands annually by both national armories and by private contractors several years before either year of model designation, 1821 or 1822. Justification for the U.S. Model 1822 designation arises partly from the fact that in 1822 Springfield Armory produced some pattern arms and sent at least one to each of the musket contractors with the stipulation that this is the pattern musket you must follow exactly in manufacturing the muskets you have contracted for. This 1822 standard musket was the first standard musket that was made by Springfield Armory for all the musket contractors, and consequently, from that time on the Ordnance Department referred to these muskets as being of the Model of 1822, according to historical records. The musket we know as the U.S. Model 1816 is practically the same as the U.S. Musket, Model 1822, the only difference being that the lower sling swivel is on a separate stud in front of the trigger-guard bow on the 1816 model, and in 1822 the lower sling swivel was moved from the separate stud onto the front of the trigger-guard bow and was integral with the trigger guard.

SUPERINTENDENTS

The superintendency of Harpers Ferry changed after Joseph Perkin died in December 1806. His wife, Wilhelmina Perkin, informed the Secretary of War of her husband's death. In the spring of 1807, James Stubblefield, a Virginian, moved to Harpers Ferry and assumed the superintendency of the Armory. He was called Colonel Stubblefield but he wasn't a military man and neither was Joseph Perkin. They were civilians familiar with gunmaking, and the title was strictly honorary, perhaps a State militia title or perhaps a title without that much standing.

A tragic event happened while Stubblefield was at Harpers Ferry. One of the workmen, Jacob Carman, was grinding a musket barrel before an enormous grindstone on August 29, 1821. The grindstone was drenched with water as usual, the centrifugal force was terrific, and the grindstone weakened and burst. Part of the broken stone struck Carman and drove him through the brick wall to the outside of the building. He was a lifeless, mangled corpse when they found his body a few steps from the grindstone building. During Perkin's superintendency, another workman, Michael McCabe, was drawn through an 8-inch space and crushed to a pulp by one of the water-powered machines at the Armory.

James Stubblefield was well liked at Harpers Ferry, but then as now there was always somebody jockeying to get him out of his position in order to put somebody else in his place. All sorts of charges were trumped up against him after a period of service of nearly 20 years. So he was tried by a court martial. I don't know why it was a court martial because he wasn't an officer in the military organization, but probably because it was a military establishment. They had a big trial at Harpers Ferry and a number of charges were brought up against him by people who were jealous of him and workmen who didn't like him. Lt. Colonel Roswell Lee, who was the commanding officer and superintendent of Springfield Armory, came to Harpers Ferry and served as the pro tem superintendent while the trial of Stubblefield was going on. This was along in 1826 or 1827. Stubblefield was cleared of all charges, there was a big celebration, and Lee went back to Springfield and resumed the superintendency of that armory. But they wouldn't let the matter rest and so 2 or 3 years later they brought Stubblefield on the carpet again in 1829. Again they made all sorts of charges; that he had been

lending out Government equipment at Harpers Ferry to his friends, that some of his friends had been getting special consideration from the Government, and so forth.

Again, the Army brought in an ordnance officer to take over while Stubblefield was relieved of duty to defend himself. This time Lieutenant John Symington served as the pro tem superintendent at Harpers Ferry, and once more Stubblefield was cleared of all charges. Stubblefield had won twice, but Stubblefield had had enough. He resigned, he said this is enough for me, and after the longest superintendency that any man would have at Harpers Ferry, from 1795 to 1861, he left in 1829.

The next superintendent was a man by the name of Dunn. He came from a manufactory on Antietam Creek, Maryland. Colonel Dunn was a very strict disciplinarian. He too was not a military man, but he also had the honorary title of Colonel. One of the men who had been discharged while Lieutenant Symington was the acting superintendent at Harpers Ferry came back after Symington left and applied to Dunn for reinstatement. Colonel Dunn considered the cause for the dismissal of this man, whose name was Ebenezer Cox, and told Cox he didn't want him on the premises so Cox left. Yet Cox, was a native of Harpers Ferry. His grandfather before him had lived in Harpers Ferry. For some reason, Dunn had it in for Cox, even to the point that he told Cox's brother-in-law that if he continued to allow Cox to live in his house, he would discharge him from the Armory also, and anyone else who worked there who took Cox in. Colonel Dunn was determined to drive Cox out of Harpers Ferry by bringing pressure against him in every way he could to force him from the place where he lived and to make his relatives and friends abandon him. Finally Cox could not endure any more persecution from Dunn, and on January 30, 1830, he put a flintlock musketoon under his coat and visited Colonel Dunn at the Armory. Nobody was present when Cox went into the superintendent's office after lunch. They had a brief exchange of words, then a shot was heard, and everybody nearby rushed into the office to see what had happened and who was there. Cox walked out the door, Dunn lay on the floor with a hole in his stomach, and the rice he had eaten for lunch was on the floor beside him, having issued from the gaping wound. Spectators wondered why the rice still looked so good. Cox was soon arrested, tried, and hanged at Charles Town, the county seat of Jefferson County, Va. (now West Virginia), on August 27, 1830.

Colonel Dunn was succeeded by General George Rust of Loudoun County, Va. He was superintendent of Harpers Ferry for the next 7 years. Probably the most notable things that happened during Rust's superintendency was that there was a severe flood in the winter of 1831-32 and an epidemic of cholera. Such epidemics completely put the Armory and Rifle Works out of commission for a while. Many would become sick and operations would come to a halt. They didn't know what to do about it, and the cholera epidemics seemed to be associated with the periodic floods, either in the Potomac River, or in the Shenandoah River, or in both rivers, which, of course, could be the worst flood of all. In 1837, Colonel Edward Lucas became superintendent of Harpers Ferry. He served as the last of the civilian superintendents in the first period of civilian superintendency (1796 to 1841).

Finally in 1841, after 45 years of arguing back and forth whether a civilian or an Army officer should superintend the two national armories, the military obtained control over the armories and ordnance officers were installed as superintendents at Harpers Ferry and Springfield. Named after President Washington's Secretary of War, Major of Ordnance Henry Knox Craig, who had just been the superintendent of inspectors for contract arms in the New England States and the commanding officer at the U.S. Watertown Arsenal, Watertown, Mass., was transferred to Harpers Ferry in the spring of 1841 to become the superintendent. Major Craig had been a soldier in the War of 1812, had served under General Winfield Scott on the Canadian Border, had been wounded there, and throughout the rest of his life he had a noticeable limp. He was an excellent ordnance officer and a strict disciplinarian, but he was not a West Point graduate. After leaving Harpers Ferry in 1844, he continued to serve the Ordnance Department with distinction, and finally he became Chief of Ordnance during the 1850's.

In 1844 John Symington, who had served as pro tem superintendent at Harpers Ferry during the second term of James Stubblefield with the rank of lieutenant, attained the rank of major, took over the superintendency from Major Henry K. Craig, and remained superintendent until 1851. An epidemic of Asiatic cholera broke out in Harpers Ferry in 1850. Symington was succeeded by Colonel Benjamin Huger, who was a South Carolinian and superintendent of Harpers Ferry until 1854. Benjamin Huger became a general in the Confederate Army during the Civil War. In 1854, Major Bell became superintendent of Harpers Ferry, and he remained only 1 year.

When Major Bell left in 1855, the superintendency went back into civilian hands after being a military position from 1841 until 1855. Henry W. Clowe, who was an expert mechanic from Prince William County, Va., became the superintendent of Harpers Ferry in 1855 and continued in charge until he angered the congressman from the district in which Harpers Ferry was located and he was removed late in 1858. Alfred M. Barbour, who was a Virginia lawyer and knew little about the manufacturing of firearms, became superintendent in January 1859. He was the last superintendent of Harpers Ferry and was in charge until Virginia seceded from the Union in April 1861. Barbour went with the Confederacy and he took as many of the Harpers Ferry workmen with him as he possibly could.

LATE FIREARMS MANUFACTURE (1835 to 1861)

Flintlock firearms were manufactured exclusively at Harpers Ferry Armory and Rifle Works from the beginning of Armory production in 1800 until 1837 when the first percussion Hall breech-loading carbine was made at the Hall Rifle Works. In 1835 a new flintlock musket was designed at Harpers Ferry, the U.S. Model 1835, which was patterned after the French flintlock musket, Model 1822. The U.S. Model 1835 musket is rare. This weapon has a very large detachable brass pan that is horizontal and has a fence and a very wide battery to correspond, the battery spring includes the forward lock screw, the barrel bands are relatively narrow, and there is a comb in the butt stock which is quite different from the combless butt stock of the U.S. Model 1816 flintlock musket. This new musket that was designed at Harpers Ferry in 1835 was manufactured there as a few pattern muskets only. They are stamped "USM" for "U. S. Model" and the smaller parts are stamped "M" simply for "model." The lock plate is stamped with the Harpers Ferry eagle of the period, "USM," and "HARPERS FERRY 1835." Various meetings of ordnance officers were held to discuss this musket, to amend it, and to approve it as the standard musket. However, it was not until 1840 that an amended musket, that was practically identical to the U.S. Model 1835 but slightly different, was adopted by an ordnance committee on weapons of the U.S. Army. Thus, the U.S. Model 1840 .69 caliber flintlock musket came into existence. The U.S. Model 1840 musket, also made as patterns at Harpers Ferry, was a little shorter in barrel length than the U.S. Model 1835, the comb of the butt stock was a little longer than on the U.S. Model 1835, and the finger ridges on the trigger-guard strap behind the trigger-guard bow were eliminated in the U.S. Model 1840. The finger ridges of the U.S. Model 1835 Harpers Ferry pattern musket were copied directly from the French Model 1822 musket.

After all the work of making pattern muskets at Harpers Ferry in 1835 and in 1840, Harpers Ferry Armory itself never produced the improved musket except for the committee adopting it and for the manufacturers of it (Springfield Armory, Nippes, and Pomeroy). Harpers Ferry continued manufacturing the U.S. Model 1816 flintlock musket at least into 1843 and perhaps some were made there as late as 1844. I have never seen a musket of the U.S. Model 1816 made at Harpers Ferry in 1844 nor even a lock plate converted from flint to percussion that was made at Harpers Ferry in that year. As far as I know, judging from existing evidence, 1843 was the last year in which Harpers Ferry manufactured flintlock muskets.

The next musket that followed in 1844 was the U.S. Model 1842 .69 caliber percussion musket. The U.S. Model 1842 percussion musket is practically the same as the U.S. Model 1840 flintlock musket, except it has a percussion lock instead of a flint lock. The iron mountings are the same, the barrel bands are the same, the bayonets are the same, the internal lock parts are the same and interchangeable, the trigger guards are the same, the swivels are the same, and the stocks are the same. So all that really happened was the change of ignition in the U.S. Model 1842 from the U.S. Model 1840 flintlock musket, which was the first completely interchangeable musket in the United States. I am excluding the Hall flintlock rifle in this connection. The Hall has not been mentioned, and there will not be time to discuss it. About 100,000 U.S. Model 1842 .69 caliber percussion muskets were manufactured at Harpers Ferry from 1844 through 1855. The earliest dated specimens I have seen were dated 1844. I have heard of 1843-dated U. S. Model 1842 percussion muskets made at Harpers Ferry, but whenever I see one the date looks more like "1848" than "1843" to me, part of the second "8" is faint or missing and it resembles a "3." Many of these muskets in new condition were in the Harpers Ferry Arsenal when it was burned on the night of April 18, 1861, to prevent its approximately 15,000 firearms from falling into Confederate hands.

A new model musket (or rifle-musket), a new model rifle, a new model carbine, and a pistol-carbine were authorized by Secretary of War Jefferson Davis in 1855. All the new model arms except the carbine had Maynard tape-primer percussion locks, which was the invention of Edward Maynard, a Washington, D.C. dentist. He had patented this self-priming device in 1845, and the Government had made arrangements with him in 1854 for the unlimited use of the Maynard tape-primer lock on military weapons. Accordingly, the Maynard tape-primer lock was used on the U.S. Model 1855 rifle made only at Harpers Ferry, the U.S. Model 1855 rifle-musket made at Harpers Ferry and Springfield, and the U.S. Model 1855 pistol-carbine made at Springfield. The U.S. Model 1855 carbine made at Springfield did not have the Maynard tape-primer lock. It was produced with the regular smaller size percussion lock as used on the U.S. Model 1847 musketoons and the U.S. Model 1842 cadet muskets.

The caliber of the musket was reduced from .69 to .58 in 1855, and the smooth bore gave way to the 3-groove Enfield rifling. After producing the pattern arms in 1855, Harpers Ferry mass-produced the new model .58 caliber rifle from 1856 until 1861 and the new model .58 caliber rifles during the same period. The rifle-muskets have 40-inch barrels and three barrel bands, and the rifles have 33-inch barrels and two barrel bands. Both the U.S. Model 1855 rifle-musket and the U.S. Model 1855 rifle are rifled with the Enfield, Minie-type rifling of three grooves and three lands of equal width, the grooves becoming progressively deeper from the muzzle to the breech.

The first of the U.S. Model 1855 Harpers Ferry .58 caliber rifles with 33-inch barrels and two barrel bands are brass mounted throughout, just as the U.S. Model 1841 Harpers Ferry rifle is all brass mounted. These brass-mounted U.S. Model 1855 Harpers Ferry rifles are dated 1856 through 1858. Then the composition of the mountings was changed from brass to iron in two steps in 1859. The U.S. Model 1855 Harpers Ferry rifle first underwent a change from all brass mountings to all iron mountings except for the brass nose cap

or fore-end tip in 1859. Then even this small brass fitting was displaced by an iron nose cap or fore-end tip the same year in the last of the U.S. Model 1855 Harpers Ferry rifles. Thus, there are three types of U.S. Model 1855 Harpers Ferry .58 caliber percussion rifles: The all-brass-mounted rifle, the intermediate iron-mounted rifle with only the fore-end cap of brass, and the all-iron-mounted rifle.

The U.S. Model 1855 Harpers Ferry .58 caliber rifle-musket with a 40-inch barrel and three barrel bands was iron mounted and made without a patch box from 1856 until 1859. An iron patch box was added to the Harpers Ferry rifle-musket in 1859 and was continued on the rifle-musket until the end of production in April 1861. I do not know how many rifles and rifle-muskets were manufactured at Harpers Ferry in the first 3-1/2 months of 1861 because the records apparently were destroyed when the Armory and Arsenal were burned the night of April 18, 1861.

FIREARMS PRODUCTION ENDS

Virginia seceded from the Union on April 17, 1861. There were three major Federal military establishments in Virginia that the Confederates wanted and needed: Gosport Navy Yard at Norfolk; Fort Monroe at Old Point Comfort; and Harpers Ferry Armory, Arsenal, and Rifle Works. Fort Monroe remained in Federal hands, but the officers at the other two establishments knew when Virginia seceded from the Union, they could not hold out, and their time was numbered in a very few hours.

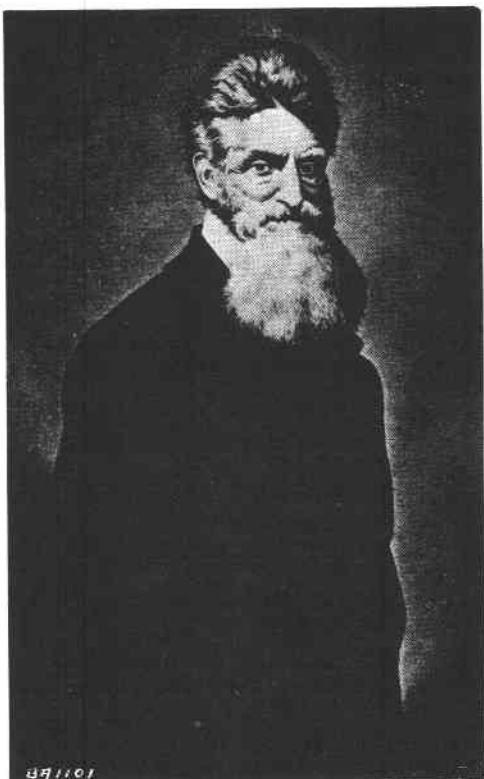
Lieutenant Roger Jones was in command of 42 U.S. soldiers at Harpers Ferry. He did not expect to hold out against the Virginians, who immediately on secession started to march on Harpers Ferry under the command of Turner Ashby. On the afternoon and evening of April 18, 1861, barrels of gunpowder were placed strategically under and through all the Armory buildings and the Arsenal where about 15,000 new rifles, rifle-muskets, and muskets of Harpers Ferry manufacture were stored ready for immediate use. The firearms could not be saved. They had to be destroyed or else fall into Confederate hands. The Confederates were coming. Between 9 and 10 o'clock that night the signal was given to set fire to the combustible materials and the gunpowder, and soon the whole place was turned into many conflagrations and explosions. However, there was not time enough to destroy the Rifle Works one-half mile up the Shenandoah River. The Confederates arrived at midnight and, of course, immediately went to work to put out the flames and to save whatever they could of the Armory. The Arsenal was burned beyond saving. The Rifle Works was saved and its machinery and parts were sent south with the machinery and parts that had been saved from the burning Armory buildings. The machinery and parts were used in Richmond, Va., in manufacturing the Richmond .58 caliber rifle-musket, and in Fayetteville, N.C., in manufacturing the Fayetteville .58 caliber rifle.

This is only a brief history of Harpers Ferry Armory (1794 to 1861) and its firearms that I am able to relate here in a short time. I have not discussed John H. Hall, the Hall rifles and carbines, and the U.S. Model 1841 rifle designed and produced there.

Harpers Ferry during the Civil War was on the border between the North and the South. The town was continually changing hands during the War. A bridge would be built and then the enemy would come in and destroy it to break communications. Harpers Ferry was passed back and forth; it would be Confederate for a while, then it would be Union. The Civil War ruined the town. It only had a population of about 3,000 on the average before the Civil War; a small community true, but an industrious one. With the Civil War and their principal industry destroyed, many inhabitants moved away. Churches were desecrated, converted to hospitals, and turned into jails for prisoners of war. Harpers Ferry could not be restored to what it had been before the War when the War was over. Finally in the winter of 1868-69 after much serious consideration, Congress decided to abandon all ideas of rebuilding the Armory and Rifle Works, and most of the Government property at Harpers Ferry was sold at public auction late in 1869. That was the end of Harpers Ferry as far as firearms manufacture was concerned. Since then Springfield Armory has been the sole surviving National Armory. Apparently it has been able to carry the load very well with the assistance of Rock Island Arsenal, other Government establishments, and contracting manufacturers.

Editor's note. . . The old photographs of Harpers Ferry are shown through the courtesy of The National Archives. The firearms loaned for photography by Jackson Arms of Dallas.

JOHN BROWN OF HARPER'S FERRY FAME



JOHN BROWN'S FORT WHICH WAS ORIGINALLY THE FIRE HOUSE FOR THE ARMORY, LATER MOVED TO STORER COLLEGE CAMPUS AT HARPER'S FERRY.



PLAQUE ON THE OLD "OLD BROWN'S FORT"

