

Simeon North and the Pattern 1811 Army Pistols

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Simeon North's name is perhaps the most well-known of any of the period arms contractors to collectors and students of early arms making. One of the reasons for this awareness is the availability of published material. At least four books have been written featuring North and he has been mentioned in numerous publications.¹

Another reason that North's name is so well known is that his working life as an arms contractor for the United States spanned over five decades. He fabricated more different patterns of pistols than any other contractor and was able to retool for the machine age; a challenge that eluded his contemporaries. North fabricated the complex Hall Carbine under the scrutiny of Inspector Nahum Patch, who had been recommended by John Hall, the inventor of the Model 1819 breechloader rifle. In 1842 six of North's employees formed H. Aston and Company and successfully delivered the first pistol with interchangeable parts in 1846.



Figure 1. Picture of Simeon North taken later in life.

The greatest disadvantage of researching North's operations is the absence of his personal papers, including his ledgers and account books. Often heard, while lamenting the absence of Simeon North's records, is that North's will provided that his papers were to be burned after his death. Simeon North ended his long career on

August 25, 1852. His will, dated September 6, 1849, recorded in the in the District of Middletown, Probate Court, makes no provision for the destruction of his papers. The will does say:

"The said secretary, valise, chests, boxes and trunks are reserved for the accommodation of my books and papers during the settlement of my estate and as much longer as may seem to be expedient for the custody and preservation of said books...."²

The idea that the papers were destroyed may have originated with authors of *Simeon North First Official Pistol Maker*, who, lamenting the absence of North's papers in 1913 wrote: "The unfortunate provision of the will was carried out to the letter, as a most careful search fails to disclose any of his private books or papers..."³ The last part of the statement is true. It is interesting to note that Nathan Starr's will is probated next to North's. Starr's papers fortunately have been preserved and allow insight into the organization of an arms operation in Middletown, CT.

Another legend associated with Simeon North is his invention of "Interchangeable Parts." This claim originates with the wording in his contract for the 1813 Army pistols. "The component parts of each pistol are to correspond so exactly that any limb or part on one pistol may be fitted to any other pistol of the 20,000."⁴ In a Testimonial dated April 21, 1852, North reminded the Ordnance Department: "That he was the first gunsmith who manufactured firearms upon the uniform system he matured about the year 1816 and that he first invented the mode of milling iron and of turning gun barrels."⁵ A letter from Lettes Hammond Dated June 25, 1815 states that both North and Johnson had purchased lathes for turning pistol and rifle barrels.⁶

It is important to keep in mind this time frame is a period of transition, from skilled artisan fabricating a pistol to a system of uniformity with a skilled worker focusing on manufacturing a single component of the pistol; from needing component parts made for each pistol towards a system where parts would be more uniform and fitted to other pistols with a minimum of filing (at a later date ultimately resulting in parts that were fully interchangeable); and from a less centralized inspection system to a more structured system with inspections done by trained armorers holding the manufacturer more strictly to the terms of the contract. The manufacture of the Pattern 1811 pistol was caught squarely in this transition, making it difficult at times to fully understand what transpired in the production process that accounts for the variation observed among surviving 1811 examples; the fact that important archival information is missing from the records further complicates analysis. In an effort to bring some clarity to the analysis the following discussion will examine the move toward uniformity of parts for government contracts and how this influenced subsequent pistol contracts that North had that ultimately influenced the completion of his 1811 contract.



The Uniform System

The term “Uniform System” requires some explanation because it is the key thread that connects the events that occur in arms manufacturing in the early 1800s. The Uniform System occupies a place between handicraft industries and interchangeable parts. Felicia Deyrup writing in *Arms Making in the Connecticut Valley* states; “Interchangeability, machine tools production and precision measurement, three of the salient features of modern American industry were well established in arms plants when much of the country was still on the handicraft level.”⁷ Eventually these systems would evolve into the American System of Manufacturing.

The term interchangeable parts means the components of a product are made to specifications that ensure that they are so nearly identical that they will fit into any assembly of the same type product. One such part can freely replace another, without any custom fitting, such as filing. Producing corresponding parts, which are so nearly alike that any part may be fitted with any other, is best referred to as the Uniformity of Parts System.



Figure 2. Filing jig for hammer used in an effort to provide some uniformity of parts.

Congressman Samuel W. Dana uses the term uniformity in a letter to Commissary General Callender Irvine on November 9, 1812, which provides a look inside North’s shop on Spruce Brook:

As the uniformity of the work proposed to be furnished must be of evident advantage for real service, I have lately been present at Col. North’s factory in Berlin with a view to observe the work in this respect. The principle parts of the pistols as there made appeared so uniform as to answer indiscriminately. Breech screws, lock plates, hammers, cocks, tumblers, bridles, springs, and screws are formed so exactly alike, the proportions of the respective parts being ascertained by means of a regular mechanism so as to produce uniformity of the work.⁸

Perhaps North’s greatest asset in the manufacturing of arms was Samuel Whittlesey Dana, local man, Yale graduate, Lawyer, Congressman, and later Senator from Connecticut. Each and every

time there was a problem with North’s contracts, the appropriate letter was sent or a visit made by Senator Dana. Considering the number of arms contracts awarded in Middletown and in the State of Connecticut, the Senator was very effective.⁹



Figure 3. Congressman Samuel W. Dana.

The concept of the uniformity of work was first promoted in the manufacture of French Arms, perhaps as early as 1733, primarily for the purpose of building artillery carriages. The concepts of the Uniformity System was first published in 1772 and republished in 1777. The work was translated into English at West Point in 1800 and published.¹⁰ So this concept was not unknown to the newly formed Ordnance Department in 1812.

Simeon North

Simeon North was born July 13, 1765 into an extended family in Berlin, Connecticut.¹¹ The North genealogy is quite extensive and is well documented. However, the marriages and resulting extended North family is important for understanding his partnerships and arrangements. The surnames Savage, Cheney, and Willcox are part of that extended family and play a role in the pistol making efforts of Simeon North.

Elisha Cheney came to Berlin about 1793 and married Olive North, Simeon North’s sister. The Cheney family also married into the Savage family. Elisha Cheney would have been about 30 years old at the time the North and Cheney pistols were made in 1799. The specific business arrangements Simeon North had with Elisha Cheney remain unknown. In a document dated November 28, 1810 provided to Tench Coxe, the Purveyor of Public Supplies, contained an “Estimate of the cost of 2000 pistols by Simeon North,” Elisha Cheney is listed, along with North, as “superintending & aiding the business of the factory for 1,100 days”. Since this document clearly references the pistols made on the 1808 contract with the U.S. Navy, Cheney maintained some form of partnership with North through the 1808 pistol contract and into the initial stages of the 1811 pistol contract.



Figure 4. Headstone for Elisha Cheney in Roscoe, Illinois.

Norths Facilities

North began his arms manufacturing career with the 1799 North and Cheney pistols in a small converted sawmill and blacksmith shop on Spruce Brook in Berlin, Connecticut. After successfully negotiating the 1808 contract with the Navy, North realized he had to expand his facilities for manufacturing arms. North visited the Springfield Armory and Eli Whitney's factory in New Haven, Connecticut to learn about large scale arms manufacturing. In his letters to Secretary of the Navy Robert Smith he provides some insight into his facility on Spruce Brook:

I shall not put out any part of the work for speculation; but have built an addition to my old factory, which makes it convenient for manufacturing every part of the pistol under one roof.

In December of 1808 North reported that his new workshop was near completion and was 37 feet long and 28 feet wide and three stories high. The new shop according to North was divided into compartments convenient to manufacturing every part of a pistol. North had also added a trip hammer, other water works and machinery.



Figure 5. Remnants of the Spruce Brook factory circa 1925.

Spruce Brook

It is unknown how North became interested in arms making. There is no evidence that he was ever trained as a gunsmith or had

any background in manufacturing arms. Perhaps, like many New Englanders, he saw an opportunity to make money in the winter when farming was impossible. He acquired a sawmill on Spruce Brook, adjacent to his farm and residence. The sawmill is first recorded under the ownership of Jacob Willcox in the deeds of the area in February 15, 1797. The area was heavily impacted by a cataclysmic regional flooding event in August 1797. On September 7, 1797 at the Berlin town meeting it was decided to rebuild the bridge across Spruce Brook to function as both a bridge and mill dam. The stone structure still stands (Fig. 6). With the improved dam, the facility was rebuilt as a blacksmith shop. Records indicate that North rented the factory for the first several years. As "winter work" he manufactured scythe blades. On June 3, 1805 Willcox sold the mill site "where North's blacksmith shop now stands." to Simeon North. It was in this improved shop on Spruce Brook that the Pattern 1811 North pistols were primarily made. The Spruce Brook factory was damaged by flooding in the winter of 1842-43. The structure was still standing the winter of 1856-57 and later completely destroyed by flooding.



Figure 6. Spruce Brook mill dam.

Pattern 1811 Pistols: Part I, The Contract

The story of Simeon North's 1811 Army pistols begins with a trip to the nation's capital in late fall 1810. Despite the move of the Federal Government to Washington, the bulk of purchased military goods were received at Schuylkill Arsenal in Philadelphia. On November 28, 1810 North visited Tench Coxe, the Purveyor of Public Supplies at Schuylkill Arsenal, and left with him a document titled "Estimate of the cost of 2000 pistols." In forwarding this document to the Secretary of War Coxe added "At which time he was here--called on his way to Washington--exhibited patterns. On December 4, 1810 Simeon North visited with Secretary of the Navy, Paul Hamilton. The meeting resulted in an extension of his 1808 contract for an additional 1,000 Navy Pistols. The last pistols of this contract extension were delivered by July 6, 1814.



Figure 7 – S. North Pattern 1808 Navy pistol extended contract (1810-1814).

On November 29, 1810 Coxe wrote the Secretary of War, William Eustis enclosing the “Estimate” document and informing him that North stopped in Philadelphia on his way to Washington:

I have conferred with Mr. Simeon North upon the subject of pistols & muskets. His pistols may be a good size for the Navy, but I think it would be too heavy for our Light Dragoons. His pistol butt is complicated & though the locks are highly polished, I am not pleased with the form & combination within, I wished to have them examined, but both inspectors were absent on duty. His estimate is for a pistol heavier than ours and it does not include the benefits of a permanent advance. Many tools would be left and of value. In short I am inclined to consider, that considering that our pistol ought to be lighter that there would be an advance & more simple construction. Mr. North could make them at \$10 our price and that nothing more would be necessary than fixed patterns in his and our hands & mild, firm & intelligent inspection...



Figure 8. Tench Coxe Purveyor of Public Supply.

On December 4, 1810 Secretary Eustis responded to Coxe, implying that North also visited with him and exhibited a Pattern 1808 Navy pistol:

Your letter of the 29th November is received. From the proficiency in the manufacture of pistols, which have been made by Simeon North and from specimens that he has exhibited,

it appears to be desirable that he should be continued to be employed, provided his terms are as reasonable as others, and that he should confine his operations to pistols.

He will make and transmit to your office several patterns of the same caliber with the musket, and as a pair each will be sent to you, one of each may be transmitted to this office. When a selection shall be made and a contract entered into, provided his terms are reasonable.

On December 7, 1810 North traveled back through Philadelphia and left an 1808 Navy pistol with Tench Coxe. Coxe wrote a note to Jacob Shough, Inspector of Arms, asking him to examine a pistol for Simeon North. Coxe asked that Shough “please look at lock, breeching etc. let me know your sentiments. It is a Navy pistol.” No written comment has been found, but Shough likely gave a verbal report. Coxe may have had Shough’s comments in mind when he penned a letter to Secretary Eustis on January 21, 1811:

The vast importance of good arms makes me wish very much that you would have the locks of three pistols taken down by Major North for the Navy Department examined. He did not insist on the goodness of all of them...



Figure 9. Example of an early S. North Pattern 1808 pistol (1808-1811), note the pointed lock plate tail and position of the trigger.

Several months passed and North had not made the pattern pistols. North was heavily engaged in finishing first Navy 1808 Contract. North’s wife Lucy died on February 24, 1811. North’s June 30, 1808 contract was completed by July 8, 1811. North delivered a total of 2001 pistols and began the 1810 contract extension for an additional 1,000 Navy pistols having arranged a “reasonable time” to complete this extension.

On August 14, Coxe inquired of Secretary Eustis if the pattern pistols have been received from North, and again on September 25th. Coxe received an answer on September 30 from Secretary Eustis stating; “The pattern pistols have not come to hand from Mr. North.”

On November 5, 1811 Coxe informed Eustis that North had delivered the pattern pistols;

Major North called on me Saturday night (November 2) with six pistols for the War and Navy Departments one of which, after I had examined the whole, he left with me. I want an order to pay him for this & any of them which you retain or advise of the number. I have sent the pistol to Mr. Wickham to examine it and give his remarks. The caliber of four of the pistols is enlarged. I observe to the size of the musket caliber, which appears to me an important change. The locks are strong but it will be more in the power of an inspector or judge to pronounce that they are also well constructed, than in

my power. They seem to be very much better than the locks of those I saw last year. The pistols are well finished except that I think, the securities if the barrel to the stock are not of a good kind and there is the want of a firm band to the upper part of the stock to keep it from splitting. I am of the opinion that the butt is too curved to admit of strength of the wood. The grain goes directly across it, the ramrod wants a security on the top. The arms are, however, a respectable evidence in favor of Mr. North...

Coxes description of the “firm band to the upper part of the stock to keep it from splitting” refers to a feature of the Pattern 1798 Army pistol (Fig. 10). That pattern pistol was kept at Schuylkill.

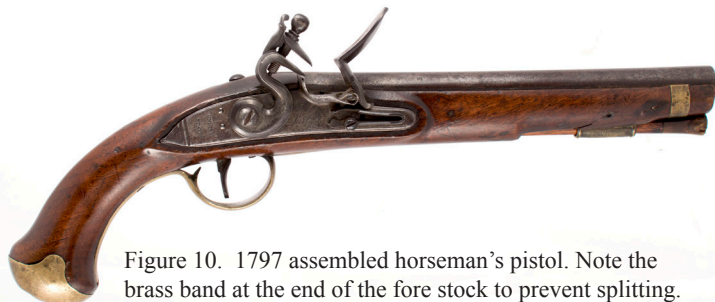


Figure 10. 1797 assembled horseman's pistol. Note the brass band at the end of the fore stock to prevent splitting.

Coxe continues in his letter noting that he has sent a French pistol to the Secretary. In describing the pistol he states...“the whole of the pieces of this pistol are so interlocked that they are banded together in one compact frame. The black walnut of France appears inferior to ours.” In 1808 George Ingles, Military Storekeeper at Schuylkill Arsenal, recorded in his account book that he purchased of Dederick and Co., one pair of pistols French caliber mounted in brass.

The Patterns pistols were presented by North on Saturday, November 2, 1811 and some interesting concepts were described in Coxe's letter. It opens the first discussion of the future iron bands added on the military pistols. However, the letter referring to the French Pistols provides a key point “the whole of the pieces of this pistol are so interlocked.” This statement could refer to a “branch band”, which would become a feature of the future Model 1836 pistols. The most current model French pistols would be the French An XIII, September 23 1804-1805. This model features a brass branch band (Fig. 11).



Figure 11. French model AnXIII pistol.

This letter is the beginning of the concept of the iron band introduced on the later deliveries of the 1811 pistols and all of the Pattern 1813 pistols. Perhaps just as intriguing is Coxes comment on the locks. Coxe observes “The locks are strong but it will be

more in the power of an inspector or judge to pronounce that they are also well constructed, than in my power. They seem to be very much better than the locks of those I saw last year.” This comment may imply that North had “improved” his locks by this date. The locks on the Navy pistols attributed to the contract extension, although larger than those noted on the 1811 pistols, do resemble the same general shape as those on the 1811 Army pistols (Fig. 12).



Figure 12. Comparison of lock plate found in North Pattern 1808 and 1811 pistols.

On his trip to Washington North brought a combination of Army and Navy pistols. Four were described as musket caliber (.69) which leaves two which were Pattern 1808 Navy pistols (.65 caliber). By November 5 no pistols had been delivered on the extended Navy contract. The purpose of the two Navy pistols have served to show the Navy Secretary the changes noted on pistols delivered under the 1810 contract extension. A comprehensive investigation of the 1808 Navy pistols was undertaken at The American Society of Arms collectors meeting in Sturbridge MA in April 2013 highlighted the differences in the later pistols.

Coxe kept one of the new army pattern pistols and North took the remaining three on to Washington. The Secretary of War selected one and affixed a “Department Seal” denoting it as “The Pattern.”

...The pattern pistols exhibited by Mr. North seem to be specimens of faithful workmanship. His contract with the Navy Department has, as I have been informed, been satisfactorily executed. And as it is considered desirable to keep his works in operation, a contract for the War Department may be entered into providing his terms are reasonable for 1,000 pairs of the largest pattern, and of the same caliber as the standard musket. Mr. North will deliver to you the pattern, which you may know to be the one approved by its having the seal of the Department affixed to the stock. The inspection and proof will be made by Mr. Williams or some other of the public inspectors.

On November 18, 1811 Tench Coxe executed a contract with Simeon North for 2,000 pistols. There are several points of interest. North was to deliver the pistols in 6, 12 and 18 month intervals and the numbers were respectively 250, 750 and 1,000 pistols. The pistols were to be made according to the sealed pattern and the

same size of the standard musket. Ramrods were to be included with each pistol and for each pair a worm to draw the ball was to be included or 1,000 ball pullers.

On November 19, 1811 Coxe informed the Secretary of his progress in a long letter explaining that the Navy contract was for \$12.00 a pair and since the Army pistols did not require a belt hook and one ball puller was certainly enough for one pair of pistols he reduced the cost to \$11.87 ½ cents per pair. This strange number allows the tracking of these pistols through the Auditors records in the Treasury Department. Coxe informs the Secretary: "I regret that Mr. Wickham has been absent on inspection since Major North left the pistols on the way down so I have lost the benefit of his inspection and remarks, but the contract is closed."

When Marine T. Wickham returned a few days later, Coxe presented him with the pistol initially left by North, not the "approved" Pattern Pistol. Wickham responded with a detailed written report. The report pointed out numerous defects in the pistol. When Coxe gave him the Secretary's "Official Pattern" Wickham appended a comment stating that the official pattern had the same faults.

Wickham's Report November 29, 1811

Wickham's response to Tench Coxe dated November 29, 1811 was thorough. The details in this report allow some insight into Wickham's thinking about the features that should be included in the fabrication of pistols. The elements of this report will explain some of the changes to the Pattern 1811 pistols during their period of manufacture.

On initial observation Wickham liked the form of the pistol and even commented that it was "superior to any I have ever seen." But on taking it apart Wickham was very critical of the internal workmanship.

"Agreeable to your request I have examined the pistols you sent to me made by Mr. S. North Berlin Connt. And I am much pleased with the outward form but the workmanship is so very indifferent that I could not think of passing such work for military service while at liberty to exercise my own judgement. From the external appearance I on first sight concluded it to be equal to if not superior to any I have ever seen. But on taking it apart it was evident that it was made more for show than service.

The form of the stock I am much pleased with, but there is not one part of mounting, lock or barrel let in in a workmanship like manner. The wood is gouged and cut away unnecessarily and the strength of the stock is impaired thereby.

The caliber, length and circumference of the barrel is [sic] well calculated for the service. But the barrel has not been chambered with a bit sufficiently large, therefore the thread of the screw is raised above the edge of the bore and will receive more or less injury every time the barrel is bored or scraped with the breech out. Also the unequal iron round the bore at the breech end, especially on the touch hole side, which is most exposed to the powder and wears away faster than other used parts is a considerable fault for so light a barrel, that has to receive a heavy charge. This last fault is common throughout the United States, but nevertheless a great one. The barrel ought to be ground to within two inches of the butt then gauged and filed somewhat of an oval form so that after the flats are filed for joining the lock and the opposite side there would remain a thickness of iron equal to the other part.

Certainly the tang of the breech extending to tang connecting with the cap is an advantage to the pistol. But a small improvement in the form might be made which is to do away with the square offset at the lower end of the tang, by letting it taper in gradually. The present form wakens the stock too much at one place.

The lock is badly calculated both for fire and durability. The pitch of the hammer does not correspond with the sweep of the cock and the short bend in the hammer spring causes the hammer to fly open with such rapidity on receiving the stroke of the cock that the flint makes no impression on the face of the hammer except that the part first touched, which also scatters the fire so much that it is entirely owing to chance that any part enters the pan.

The tumbler and sear is [sic] also badly formed. The end of the sear, that acts on the tumbler, is too long from the center of action or screw which destroys the power of the lever and it compels the filer to make the bents in the tumbler so shallow that the handling of the pistol after it has been in use a short time will be attended with considerable danger owing to its going off too easy.

The side plate is formed to weaken the stock. The common form is both plain and preferable.

The pipe might be a half an inch further from the muzzle and the length increased so as to cover the rise on the stock where the rammer enters.

In lieu of the present formed guard I would make the trigger plate strong and the full length of the guard then let it be screwed on by the two pins that pass through the tang of the breech and it will so effectively bind the grips of the stock that the soldier may safely fire his pistol after the wood is cracked through. The bow of the guard can be connected with the trigger plate conveniently.

The trigger is in its proper place but the bow of the guard is placed too near the cap, which puts the trigger in the center of the bow and leaves an opening behind as great as that before it when in fact there ought not to be room for the finger to pass. This undoubtedly is a fault that ought to be attended to in firearms of every description. The soldier when facing his enemy and perhaps somewhat agitated would as often place his finger behind the trigger as before it. He would then pull to no effect and probably before the error is discovered; it might prove fatal to him.

PS The pistol approved by the War Department and forwarded out of the arsenal for my examination is equally defective. I should truly be sorry if either of those pistols is to be considered in every respect as a standard. A pattern should be precisely what is required from the contractor. It then answers the double purpose to the workmen and inspector.

I have been engaged for some time past in laying down the principle of a musket systematically and it was my intention as soon as that was completed to proceed on that of the pistol. It would be presumption in me to suppose that I could lay down a perfect principle in every respect. But my ambition will be gratified if it should answer for a foundation for improvement for at present what we are doing and undoing and cannot reasonably expect to ever arrive at any degree of perfection in the art of gun making unless there is a proper foundation to build upon."

This report of North's pistol includes the information that Wickham is considering perfecting a Standard Pattern Pistol, in addition to the Musket, sets the stage for events occurring in the next five years that eventually conclude with the 1816 Army pistol. Wickham's comments in the report suggest what type of pistol North actually submitted. The first clue is his comments on the side plate, which infers that he is looking at the more complex 1808 side plate (Fig 13). Wickham's comments concerning the barrel further clarify North's submission. North reworked an 1808 Navy pistol! Comments on the barrel suggest that North bored out an 1808 barrel to .69 caliber leaving the original breech plug with exposed threads. Observations of the earlier Navy pistols clearly show the triggers are in fact set in the center of the guard bow. Some examples have more clearance at the rear of the trigger than in the front. Observations of triggers on the Navy pistols delivered under the contract extension and the Pattern 1811 Army clearly show the trigger has been repositioned as Wickham had suggested (Fig. 14).



Figure 13. Comparison of side plates on North Pattern 1808 and 1811 pistols.



Figure 14. Comparison of trigger position inside the trigger guard on North Pattern 1808 and 1811 pistols.

All of Wickham's suggestions were not followed. His suggestion for the trigger guard was not implemented, however, it is a feature on the Pattern 1813 Army pistol and all the models that followed. Missing from Wickham's comments is any mention of a "barrel band."

The first thing that comes to mind in reading Wickham's comments is why would North present such a pistol to the Secretary of

War as a pattern? He had almost a year to execute a pattern. Again Wickham provides a clue in his opening comment "From external appearance, I on first sight concluded it to be equal if not superior to any I have ever seen, but on taking it apart it was evident that it was made more for show than service." At this point the old and new thinking collide. North's idea of a pattern was to represent a basic design not to be an "official" pattern. In contrast, Master Armorer Marine T. Wickham's vision is exactly what he states in his report: "A pattern should be precisely what is required from the contractor. It then answers the double purpose to the workmen and inspector."

North's visit to Washington was timely. On January 7, 1811 Secretary Eustis firmly rebuked Tench Coxe, the Purveyor of Public Supplies, for the purchase of the 1807-08 contract pistols. As a result of the poor inspection of contract arms Marine T. Wickham, Master Armorer at Harpers Ferry, was appointed Inspector on March 15, 1811. He was specifically tasked by the Secretary to re-inspect the 1807-08 arms contracted for Tench Coxe. Wickham condemned the lot in his report to the Secretary dated October 10, 1811. With the War of 1812 looming the government just lost about one third of the pistol inventory. The appointment of Marine T. Wickham would prove to be one of the major milestones in arms development.



Figure 15 – Example of an 1807/8 contract pistol.

While the critical professional comments about North's pattern pistol provided by the former Master Armorer from Harpers Ferry appear damaging, they were not critical to keeping the contract. Wickham's visions expressed in the letter would form the basis for the design of the Pattern 1813 Army. One noted improvement was the comments on the trigger plate and the location of the trigger. Marine T. Wickham incorporated this feature into the design of the Pattern 1813 Army pistol. Wickham enjoyed the confidence of the Secretary of War and Calendar Irvine. On February 12, 1812 Wickham was given latitude by the Secretary of War to develop his musket design, which became the Standard Musket Pattern of 1815. For a complete review on this fascinating story see *U.S. Military Flintlock Muskets* by Peter A. Schmidt.⁴² Wickham was well respected, his opinion counted and unlike Coxe, knew what he was talking about.

On December 5th 1811 Coxe sent Wickham's report to Eustis and North. Eventually the inspectors also received copies;

I have the honor to convey to you Mr. Wickham's report upon the two pistols from Major North. I have had it copied and send it on with a friendly letter of precaution to Major North. After you shall have read and considered this letter of Mr. Wickham and shewn it to the Secretary of the Navy, if you will prove the suggestions I will thank you to cause it to be returned to this office.

Mr. Simeon North

On the return of the inspector, Mr. Wickham, I received the above report and observations on the pistols. I beg you to examine and consider them & show this sheet to Mr. Williams and Mr. Moore, inspectors when you see them. I only write now to put upon your guard and will write you again.

On December 9, 1811 Eustis responded to Wickham's observations:

Your letter of the 5th inst. has been received. The report to Mr. Wickham (after critical examination which he has made) on the defects of Mr. North's pattern pistol is considered important. In addition to what you may have already stated to Mr. North on that subject he should be informed that it is expected he will comply with the improvements suggested by Mr. Wickham.

Pay Mr. North for the two pairs of pistols, which have been retained. Mr. Wickham's report has been returned.

On December 13, 1811 North replied to Tench Coxe on the content of Wickham report:

Yours of the fifth enclosing Mr. Wickham's reports had been duly received and I very much regret that he had not candor enough to examine those pistols and state the defects without accusing me of fabricating them for deception, if Mr. Wickham had taken into view the price which the United States are now paying for arms I presume he must have excused me. I think Sir, that my ambition will lead me to bestow as much labor on every part of the pistol as the prices will possibly admit of and if you will forward to me one of those pistols I left with you I will show it to Mr. Williams and Mr. More together with the report of Mr. Wickham and any alteration that they shall think proper to have made on the pistol with your approbation, will be agreeable to me provided the United States will pay all the extra bills arising thereon.

On December 16, North suggested that Coxe forward him the pattern pistol and the French pistol. This letter offers proof that Coxe did discuss the variations in pattern directly with North:

Provided you have as not yet had any opportunity to forward to me the pattern pistol that I left with you at your office by the way of New York. Please send it by the bearer Mr. Nathan Starr and if you would be so good as to send me one of those French pistols that I saw at your office. I should except it as a great favor and will see it returned to your office again the first opportunity. I think that one of those pistols would be of great use to me in making those 2000 pistols. Note on bottom of the letter; Shall this be done BM The BM is likely Benjamin Mifflin.

On December 19 Benjamin Mifflin, Clerk in the Office of the purveyor wrote to Mr. Charles Williams on the subject of North's inspections. Charles Williams was the lead inspector of contract arms and was also a former Master Armorer at Harpers Ferry. His V over CW in a trefoil cartouche is present on the first groups of pistols submitted by North. Mifflin's letter addresses North's comments;

By direction of Mr. Coxe, I send you a copy of Mr. M. T. Wickham's report on Major North's pistols. Although there is not delivery of Mr. North's pistols to be made immediately,

yet it is Mr. Coxes object in sending the report at this time that you might receive the information and have leisure to consider the remarks made by Mr. Wickham. A letter dated 13th inst, from Mr. North is received and will obtain due attention from Mr. Coxe, who is now at the seat of government. I cannot, however, refrain at this time to notice an observation of Mr. North's that if Mr. Wickham has taken into view the price which the United States is now paying for arms I presume (says Mr. North) that he must have excused me? The price of arms is either fixed by contract or it is optional; for him to accept it. At all events the United States must have "good and efficient arms which are subject to a strict inspection (and to be accepted) to be approved and passed by the United States Inspector of Arms.

I would have you Sir, to communicate to Major North these ideas, that he may know in the progress of business what the United States require and of which I presume Mr. Coxe will more fully explain to him. If it should be needful your letter of the 14th is received and will be transmitted to Mr. Coxe.

For some reason the pattern pistol was not promptly returned to North. The Pattern Pistol was eventually hand carried by Nathan Starr. Amazingly the original receipt for the pistol was located in the National Archives (Fig. 16).

April 12, 1812 Receipt for pistol

Received of Tench Coxe package a blue paper sealed parcel said to contain a pistol made by Simeon North directed to Alexander Wolcott Esq. and to be to him delivered.

Signed by Nathan Starr

*Rec^d of Tench Coxe, p^{er} a blue paper sealed parcel, said to contain a pistol made by Major Simeon North, directed to Alex^r Wolcott, Esq, & to be to him delivered - Nathan Starr
April 12. 1812*

Figure 16. Receipt for 1811 pattern pistol signed by Nathan Starr.

Contract November 18, 1811

Simeon North shall and will manufacture and deliver within 6, 12 and 18 months from the date heretofore in one parcel of two hundred fifty, in a second parcel of seven hundred fifty and in a third parcel of 1000 pistols the quantity of 1000 pairs of the form substance dimensions, proportions and quality of the sealed pattern pistol made by and marked with the name of the said Simeon North and the seal of the War Department and fully equal to the said pattern. The said Simeon North agrees to make the bores or calibers of the said pistols of the same size or standard as the standard musket of the United States and to affix to one ramrod of each pair of pistols one good screw or worm fit to draw a ball. Boxes of good and fit seasoned stuff are to be furnished at one dollar per box capa-

ble of containing 42 pistols provided the said boxes shall cost that sum. The barrels shall be proved and the pistols inspected at the Armory of the said Simeon North and at the expense of the United States and the pistols to be delivered at the public store of the United States at New Haven.

The price of the said pistol will be 11 and seven eights money of the United States for each pair. (\$11.875 or 11. 87 and ½ cents per pair). Advance not exceeding 20 percent shall be made.

Written on the back of the contract is a notation signed and dated by Callender Irvine dated April 16, 1813 granting North an extension of time of one year. It should be noted that at this time North had already entered into the 1813 contract for the next model of pistol, hence the text noting the new contract for 20,000 pistols.

In consequence of Simeon North not receiving the pattern pistol until six months subsequent to the date of the within contract that he should have received it immediately therefore and in consequence of this day having entered into a new contract to furnish the Govt. 20,000 pistols it is agreed that he may have one year from this date to complete the other contract.

On the original contract are notations on folded outside of document which are easily read if the document is filed upright. The contract was extended to April 16, 1814

November 18 1811 Simeon North with the United States Contract for 1000 pairs of Pistols

To be delivered viz

125 pair 18 May 1812

375 pair 18 May 1813

500 pair 18 November 1813

Changes in the System

North now had in hand contracts for 3,000 pistols with both the U.S. Army and Navy. At this point in the history of U.S. Military pistols things get very complex. Due to the War of 1812, the burning of Washington and reorganizations in procurement and in the Offices of the Accounts and the Ordnance Department the archival trail is difficult to follow. Robert Jeska diligently researched this period in the National Archives and published many of the period documents in his book *Early Simeon North Pistol Correspondence*. This work provided some much needed clarity in North's early manufacturing and delivery of pistols. However, there are still uncertainties that need to be explored. Although the archival records offer a tremendous volume of records, often issues were discussed and decisions made verbally.

Initially contracting for arms in this period was the responsibility of Tench Coxe, the Purveyor of Public Supplies, located in Philadelphia. The Schuylkill Arsenal was completed in 1801 and Coxe remained in Philadelphia when the Nation's Capital moved to Washington in 1801. Due to the *Chesapeake-Leopard* conflict in 1807, the nation began to put itself on a war footing. Coxe contracted with a several Pennsylvania gunsmiths to make pistols and rifles. These arms are known today as the 1807-08 contract pistols. Due to a series of events the quality of the pistols came under scrutiny and Secretary Eustis issued Coxe a strong rebuke.

These events probably played some part in the end of Tench Coxe's public service career. On the eve of the War of 1812 Coxe was removed from office by Congressional establishment of the Quartermaster Department, which abolished the position of Purveyor effective May 31, 1812. Coxe's procurement responsibility was assumed by Callender Irvine, who was appointed in the new position of Commissary General of Supplies and served until his death in 1841.

Marine T. Wickham's report on the 1807-8 contract pistols rendered roughly one third of the nation's pistol supply unserviceable. Secretary Eustis was in the market for pistols when North presented himself in November.

During the tumultuous years of the War of 1812 (June 18, 1812-February 1815 and the burning of Washington, August 24, 1814) Irvine served as the contracting officer. The Ordnance Department was initially organized on May 14, 1812. Following the War if 1812 a central corps of officers was authorized for the U.S. Ordnance Corps on February 5, 1815. Colonel Decius Wadsworth was appointed to head the new corps. Lieutenant Colonel George Bomford was second in command, both officers of ability and distinction. Although Irvine remained in his position until 1841 the Ordnance Department took over the procurement of arms.



Figure 17. Colonel George Bomford.

On March 3, 1817 a major reorganization on the accounting office took place. The Office of the Second Auditor took the place of The Office of the Accountant which was established May 8, 1792. With these changes there was a major review of outstanding contracts. Due to these reorganizations old records systems were transferred into new books and records. The major archival records for the Auditors begin in 1817 with some few materials from 1816.

Peter Schmidt in *U.S. Flintlock Muskets* sums up this period in his opening statement in the section on the Standard Musket of 1815 Pattern Development. "The period of 1812 through 1815 has been one of the most confusing periods in the history of arms procurement" In this environment Simeon North was contracting

for pistols with the Army and Navy while expanding his operation from a converted blacksmith shop on the Spruce Brook to a modern three story brick factory on the Coginchaug River in nearby Middletown, CT.

Pattern 1813 Army Pistols: Part I

Before North can deliver any pistols on his 1811 contract, Marine T. Wickham begins work on the Standard Pistol Pattern of 1813, thus opening the next chapter in pistol evolution well before the former one even begins. Wickham began work on the Pattern Musket in the spring of 1812 in the small armory at Schuylkill Arsenal. On December 2, 1812 Irvine wrote to Wickham requiring him to proceed to Washington City and present the patterns to the Secretary of War:

You will also take with you the draft of the pistol which we wish to have drafted as a standard to govern in future contracts and inspections. The letter continues to instruct Wickham if the patterns were approved to proceed to Harpers Ferry to superintend the making of up to twelve pistols.

On December 8, 1812 Secretary Eustis approved of the Patterns and ordered James Stubblefield at Harpers Ferry to “make six pistols comfortable to the enclosed drawing and the directions of Mr. Wickham.” (Fig. 18)

Pattern 1811 Army Pistols: Part I



Figure 18. Pattern 1813 pistol.

Charles Williams writing to Tench Coxe March 21, 1812 from Middletown inquires about the proofing of barrels for North:

Major North at Burlin [sic] has requested me to prove sum[sic] pistol barrels for him. I should like to now [sic] his agreement and my government instructions. Mr. Cox will be pleased to direct his letter to Middletown, Connecticut. (Fig. 19)

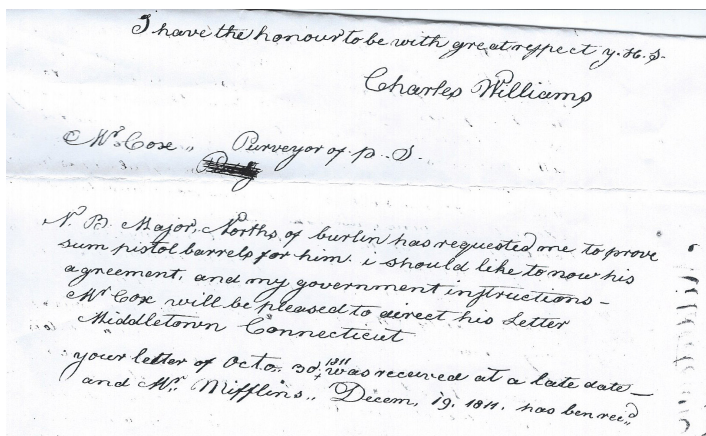


Figure 19. Hand written comments on the 1811 contract.

Williams letter suggests these are likely the first 1811 barrels proved. Ten months later on January 2, 1813 Charles Williams inspected 42 pair Pistols (84) delivered by North on the 1811 contract. (Fig. 20)

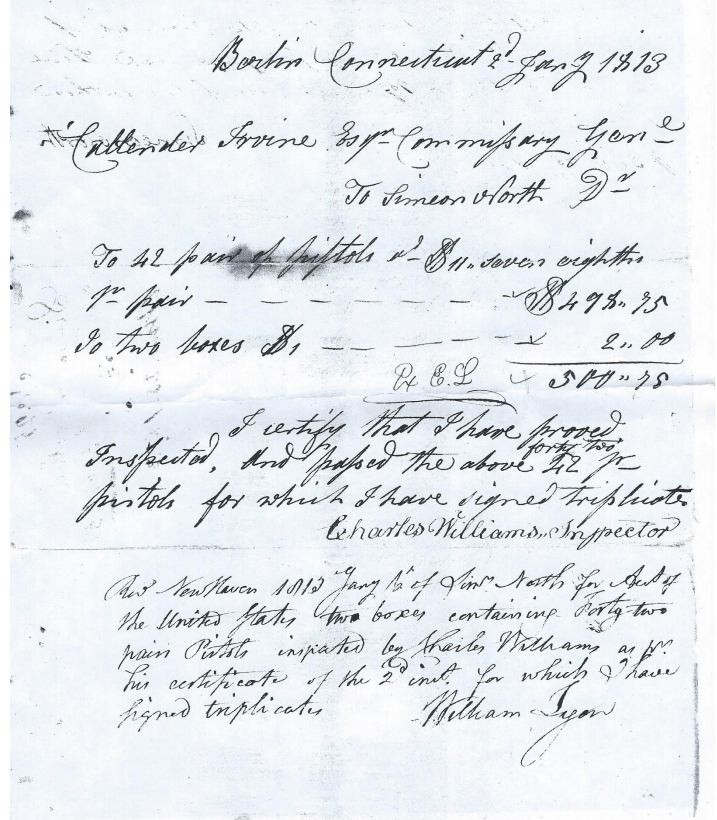


Figure 20. Inspection receipt from Charles Williams accepting the first delivery of 42 pairs of pistols.

In a letter dated January 11, 1813 Simeon North sums up his contractual obligations and is looking for more work. A key point in this letter is that North describes a meeting with Irvine and Wickham in Philadelphia just before Wickham begins work on the Standard Pattern pistol;

I enclose my bill to you for 42 pair of pistols together with Mr. Charles Williams Certificate of inspection and Mr. William Lyons receipt for the same I hope you will be so good as to pardon me for troubling you with so small a bill at this time. When I engaged to furnish those pistols I was then under a contract for three thousand pistols for the Navy Department which contract I expect to close in a few days from this and shall then turn my whole attention upon the pistols I agreed to furnish for the War Department. I would also inform you that I have employed from 15 to 20 armorers upon the different parts off the pistols I contracted to furnish for the War Department for more than twelve months past although I have not as yet delivered but a few pistols but at the same time I have gone to a great effort at preparation of the whole expense of the contract. The plan or model for a pattern pistol that Mr. Wickham agreed to draft when I was at your office in November last I have not as yet received but from the conversation I had with him at that time I think I can make them very near without any model and if it should not be convenient for him to forward it on in a short time. I would propose making a pair of pistols with and without and will bring them on for your

examination for my business is now in so much forwardness that I must soon enter into a new contract of discharge a part of my workmen.

There are several key points in this letter from North, he states he is following his Uniformity System in the fabrication of the 1811 pistols. This first meeting at Schuylkill Arsenal between Wickham, North and Irvine presented an opportunity to exchange ideas on the need for a System of Uniformity and a basic pattern from which arms are made and inspected.



Figure 21. One of the original buildings of Schuylkill Arsenal, Philadelphia completed in 1801.

Pattern 1813 Army Pistols: Part II

On January 21, 1813 Irvine informed North "...With regard to the pistols as patterns I concluded it was best to have some made under the direction of Mr. Wickham they are now progressing..." The same day Irvine pressed Stubblefield to use all expedition practicable in completing the patterns and when you have two or three muskets and as many pistols complete forward them to this office without a moments delay. On February 4, 1813 Stubblefield informed Irvine that the patterns were not complete but he would "endeavor to forward three muskets and as many pistols by the 15th of this month"

On February 24, 1813 Irvine sent Wickham on a journey north. "You will prepare for immediate journey to the States of Connecticut and Massachusetts in order to attend to the following objects..." Wickham was to first go to Nathan Starr's at Middletown, then to examine Muskets at Springfield rejected by Inspector Benjamin Moore and then proceed to Berlin, CT to inspect pistols. Wickham went to Springfield first apparently seeing no reason for the back and forth trip or to attend to the greater need to resolve the musket issue. On March 1, 1813 Simeon North informed Irvine:

I shall be in want of an inspector in a short time from this. Mr. Nathan Starr informs me that he expects Mr. Charles Williams to his factory in the course of this month for the purpose of inspection some swords. If you will let him call on me at that time and prove some barrels, I shall accept it as a great favor.

In your letter to me of the 21st January last you made mention of having some pattern pistols then making under the direction of Mr. Wickham. Will you be so good as to inform me if they are finished and likewise when it would be convenient for you to attend on closing a contract with me provided I should do myself the honor of calling upon you?

On March 23, 1813 Irvine informed Henry Perkins that:" The Storekeeper at Harpers Ferry has informed me that he has deposited at the Arsenal on Schuylkill 3 pattern muskets and 3 pistols, please send them to this office.

The next day, March 24, 1813, Wickham writing from Springfield to Irvine, states that tomorrow evening I shall leave this place for Middletown and Berlin where I expect to be detained a week. It is about 40 miles from Springfield to Middletown. Wickham was likely in the area by March 25. It is unknown what series of events transpired between March 26 and April 13 when Wickham writes the next letter from Schuylkill Arsenal, but he and North would have had ample time for discussion before leaving for the 200 miles trip to Philadelphia in April.

By April 13, 1813 Wickham had returned to the Schuylkill Armory and in a letter to Irvine reported on his examination of the three pattern pistols made at Harpers Ferry. On their examination he must have been sorely disappointed. The last sentence in his letter reads "I find it impracticable to make one of the Harpers Ferry pistols uniform with the pattern." In short the three pistol patterns were not uniform to each other and he could not eliminate the defects he observed by switching the parts. Wickham recommended in his letter that a clarification was necessary:

There are a few deviations required from the pattern, which perhaps would be well to insert in the contract, Viz, Hammer pin too large and enters crooked to be the same size as the small pins in the lock. The threads on the small lock pins to be increased one size. The thread on the cock defective and the cock pin and jaw too loose, the sear pin hole in the plate to be the same distance from the axel hole as the sear pin is.

Wickham also recommended that component parts should be made with the pistols. This would be required with every 100 pistols:

Main springs and cock pins 15 each, Hammer Springs, sear springs, hammers and set of side pins 10 each; cocks, tumblers, sears and jaws bridles band springs bitt screws triggers sets of small pins a sets of breech pins 5 each.

Wickham then added specific recommendations correcting the deficiencies in the Harpers Ferry Pattern Pistols which were added verbatim into the contract with North for the Pattern 1813 pistols:

There are a few deviations required from the pattern, which perhaps would be well to insert in the contract, Hammer pin too large and enters crooked to be the same size as the small pins in the lock. The threads on the small lock pins to be increased one size. The thread on the cock defective and the cock pin and jaw too loose, the sear pin hole in the plate to be the same distance from the axel hole as the sear pin is.

These recommendations are included in the Pattern 1813 contract along with additional provisions including the statement "The component parts of each pistol are to correspond so exactly that any limb or part on one pistol maybe fitted to any other pistol of the 20,000."

One thousand pistols were due the first year April 16, 1814

Four thousand pistols were due on April 16, 1816

Five thousand in each succeeding year until complete.

It was not until July 21, 1813 that North signed his contract bond and received a check for the advance of \$20,000. With the 1813 contract the Uniformity System has been made a standard against which future pistols will be judged. At this point the 1811 Army and new Pattern 1813 pistols begin to flow into one another and eventually blend into the 1816 Army. Meanwhile, North remains obligated to the Navy for his contract extension of 1,000 pistols. It must be kept in mind that this is all occurring during the War of 1812. The following listing of deliveries provides a summary:

August 27, 1813: North delivered 272 pistols completing a total of 356 pistols of the 1811 contract.

April 14, 1814: North had completed 840 pistols on his 1808 Navy contract extension.

April 16, 1814: One thousand pistols were due on the 1813 Army contract, none delivered.

July 6, 1814: North had delivered 168 pistols completing the 1808 Navy contract extension, delivering a total of 1008 pistols.

June 22, 1814 North delivered 200 Army 1811 pistols.

September 26, 1814 North delivered 50 Army 1811 Pistols. These were the last of the pin fastened pistols.

Middletown Factory

The April 16, 1813 contract provided North with a \$20,000 advance to build a new factory in Middletown. The funds will allow North to retool with new machinery far in advance of what he could employ at Spruce Brook.



Figure 22. The Simeon North factory in Middletown, CT, front view circa 1900.

In September of 1813 Irvine began to press North for deliveries of pistols and on November 29, 1813 issued a stern letter to North: “Your failure to comply with the terms of your contracts November 18, 1811 and April 16 1813 and the consequent injury which is likely to result to the service of the United States....” The letter continues to enumerate North’s failed deliveries and concluded: ... “Mr. Vaughn of this city has informed me that you had proposed to enter into a contract with his agent Mr. Westphall to furnish pistols. I consider it my duty to protest against you making any contracts till those made with the United States are complied with.”

North answered Irvine in long letter dated December 4, 1813. The letter contains a lot of detailed information on the establishment of North’s new factory at Middletown (Fig 22). It also lays out North’s strategy to get the factory into production. Some of the key points in the letter are as follows:

The new factory together with my old one will allow me to furnish the pistols much sooner than I agreed excepting the first deliveries.

North states he has had up to 60 men working on erecting the building and working on the pistols

The locks on the first contract are nearly all filed and the men are now to work on the locks for the last contract.

North states: “The barrels being the most essential part of the pistol and a part that requires the best of machinery to make them complete and my former contracts being so small that they would not warrant the expense of such machinery as was necessary to make a first rate barrel. I have therefore omitted that part for the purpose of finishing the machinery in the new factory, which will be completed in a short time from this. I shall be in a situation to make 20 to 30 barrels per day.”

The suspension of producing barrels at Spruce Brook for the 1811 contract is an important point in the evolution of the barrels North is making. The subsequent deliveries of pin fastened pistols indicate that he had considerable barrels made before the suspension. However, it is not certain in making this decision he considered the likely “start up” problems that might arise. As this study continues it will be clear how this decision is resolved.

North concludes with a long paragraph addressing and dismissing the idea and report that he is providing arms to other private people or contracts. To sort out this complexity it is necessary to look at the physical evidence.

Survey of Army 1811 Pistols: Warwick RI 2015

Any thorough study of arms must consider the physical evidence and the archival evidence. In the absence of North’s ledgers and waste books definitive details are missing. Verbal conversations, decisions and agreements do not leave much evidence. When these two elements do complement each other a clear picture emerges from the past. However, the period being examined is notorious for confusion rather than complement. To better understand this difficult period the American Society of Arms Collectors sponsored a gathering of Army 1811 pistols at the society meeting in Warwick RI in the fall of 2015. With this survey the physical evidence informs the gaps in the written material and allows a more complete understanding of these arms.

The gathering of a large group of pistols allows for a critical study of firearms. The response was very successful. A total of 56 pistols were examined during the duration of the study. Included were two with brass barrels and British proofs and five “privateer pistols.” The remaining 49 pistols examined comprised examples from the six documented deliveries, or about 4% of the total delivered to the United States. Sixteen collections were represented in the survey. Additional pistols from three collections of non-members were also included. In this particular period the pistols were going through changes in design. A large sample allows observations to be made that can identify actual evolutionary design changes from those that occur due to handcraft fabrication.

One of the goals of the authors was to examine the Pattern 1811 pistols in detail to see if North was making any progress at Spruce Brook in the fabrication of the pistols using the “System of Uniformity.” Emerging from the handicraft era, was North able to improve his processes so that the parts of the pistols became more uniform? A second goal was to examine the archival material, along with the physical evidence to determine North’s role in the design of the 1811 Army pistol.

A particular interest of many collectors is the evolution of the firearms industry from its beginnings as a handicraft industry to what became “The American Manufacturing System.” Beginning in 1800 Military Officers and Ordnance personnel understood the need for consistency in firearms. A uniform system was an advantage to a contractor because he could employ efficiencies in similar parts. In less than 50 years the United States moved from a handicraft system of firearms to interchangeable parts. This process was not one of a smooth continuum, but one of starts and stops, success and failure. Author Peter Schmidt says it best in stating, “Remember, we are in this era closer to the beginning than we are the end.”

The pistols were displayed in a large area where they were tagged and numbered. A new format was designed to guide the recording of various attributes of the pistols. These include precise measurements of the dimensions and observations of the marks on the locks, stocks and barrels. The ASAC members helped with the collection of data and a discussion period was held for interested members. Using the inspection and delivery records as a base the participants began to group the pistols in a manner that would illustrate a likely production schedule.

Pattern 1811 Pistols Part II: Production, Inspection and Delivery

The total pistol production run of the Pattern 1811 Army Pistols accepted by the United States is 1,156 pistols. These were received over a period of two and a half years in six deliveries from January 1813 to June 1815. These pistols are usually divided into two major groups based primarily on the method of securing the barrel to the stock. Robert Jeska’s archival research finally sorted out these deliveries after, according to Bob, “The expenditure of a great deal of brain cells.”

Pin Fastened barrels: Total delivered 606

- January 6, 1813: 84 pistols inspected by Charles Williams
- August 27, 1813: 272 pistols inspected by Charles Williams
- June 22, 1814: 200 pistols Inspected by Henry H. Perkin
- September 26, 1814: 50 pistols inspected by Henry H. Perkin

Iron Banded barrels: Total delivered 550

- November 26, 1814; 150 pistols inspected by Henry H. Perkin
- June 7, 1815; 400 pistols inspected by Henry H. Perkin
- Total Pattern 1811 pistols delivered 1156.

The contract for 2,000 pistols was not completed due to the change to the Pattern 1813 pistol. However, in the final accounting North was held accountable for \$2,400 of the advance funds to cover the pistols not delivered,

Another way to sort these pistols for study is by the inspector and barrel proof marking. The first two groups of 356 pistols were inspected by Charles Williams and his trefoil V over CW

cartouche can be observed on the left stock flat (Fig. 23). These comprise the earliest pistols. The last four groups of 800 pistols were inspected by Henry H. Perkin and his V over HHP inspection mark is stamped on the left stock flat. Perkin pistols include both pin fastened and the iron band examples.

Lock, Stock and Barrel



Charles Williams

Henry H. Perkins

Figure 23. Inspector’s cartouche for Charles Williams and Henry H. Perkins found on the left stock flat.

The traditional components of a firearm comprise the lock, stock and barrel. Measurements of some of these component parts may be found in Appendix 1.

General comment on assembly marks – assembly marks are found on a number of the pistol’s furnishing, including side plate and screw heads (Fig. 24; lock plate marks will be discussed below). It was interesting to note that the presence/placement a “P” stamped onto the back strap corresponded with inspector’s cartouche and barrel proof stamps: CW inspected examples were not stamped; HHP, eagle CT barrel stamp did not have a “P” except for 2 out of 14 examples; pin fastened HHP, P US barrel stamp the “P” was behind the barrel tang screw (2/10 had no stamp visible, 1/10 had it in front) while iron banded examples had the “P” stamped in front of the barrel tang screw (2/14 had no visible stamp).

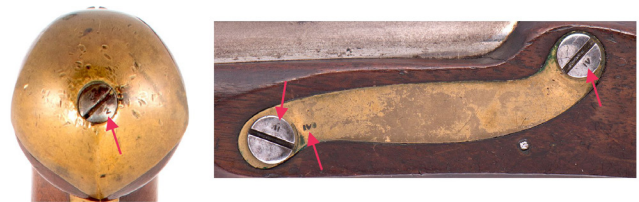


Figure 24. Assembly marks on the butt cap screw head, heads of the lock plate retaining screws and side plate.

Locks

Where possible the locks of the pistols were removed. The parts of the lock are mated with a variety of symbols (Fig. 25). These marking assure the parts fit to a particular lock and in turn mate with the stock and barrel. These markings were also on the top jaw and cock pin, the most often replaced parts. Some of the pistols examined retained completely original locks. Replaced parts on some locks lacked the matching marks. One of the goals was to look at the locks on the 1808 and the 1811 pistols. This goal was based on the idea that if both pistols were being made at the same time at Spruce Brook then perhaps North incorporated an economy of scale in the manufacture of the locks. Although there was an overlap, it is likely that North had the 1808 Navy lock plates forged well ahead. Keeping in mind the nature of handmade

locks, the length of the lock plate remains similar but the width of the lock plate is smaller by about an eighth of an inch on the Pin fastened 1811 pistols. Did the frugal North shave an eighth of an inch off the lock width figuring that he would “buy” the iron of one lock for every eight forged? More likely this is simply an artifact of retooling a new set of forging dies.

Several different lock plate stamping configurations were observed (Fig. 26), the most common being an Eagle over “U. STATES” stamped behind the pan, although examples were observed where the “U. STATES” was not stamped under the eagle with and without “S.NORTH/BERLIN./CON.” stamped on the lock plate tail as well as no stamping on the lock plate; it should be noted these atypical stampings were observed only on privateer

pistols. Two different sized font were recorded for the stamping on the lock plate tail (approximately 0.113 vs 0.128 inches; Fig. 27). The length of the lock plates were pretty consistent (5.15 inches) as was the height (range of 1.00 to 1.065 inches).

Stocks

The wood of all the pistols examined appears to be black walnut (*Juglans nigra*). Black cherry (*Prunus serotina*) was noted on one of the early 1808 Navy Pistols and was used by North on the first North and Cheney Pistols. The discovery of the use of cherry on the early stocks was made by Luke Woods at the ASAC meeting in Williamsburg, VA in 1981 during a survey of North and Cheney pistols. One of the obvious and interesting observations is that the

Lock Plate Assembly Marks

Some top jaws have the assembly mark here



Additional markings observed on some later examples

- Different assembly mark stamped
- bottom of frizzen
- lock plate
- inside of hammer

Seen on iron banded examples and some pin fastened examples with “P” “US” barrel proof

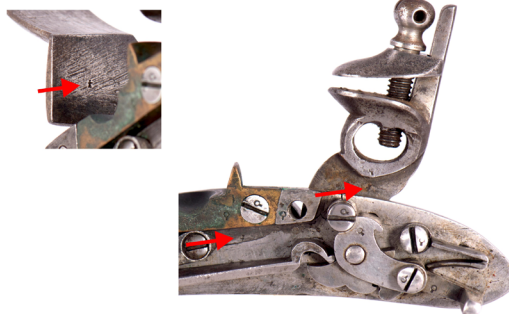


Figure 25. Assembly marks found on an 1811 lock plate used to keep all the fitted parts together.



Standard



No U. STATES



**No U. STATES
No marking lock tail**



No markings

Figure 26. Composite picture of the four different types of lock plate stampings observed in the study.



Figure 27. Different sized font observed on lock tail stamping.

iron banded pistols have the short stock of the Pattern 1813 Pistols. One of the features of North's pistols Wickham liked was the shape of the stock. He adopted the basic shape in designing the Pattern 1813 pistol. On occasion additional marking may be seen on the left stock flat (Fig. 28), the significance of which is unclear but it is believed to be the impression left from a vice like device to hold the stock (similar markings have been seen on leather goods; L. Southard, personal observation).



Figure 28. Additional markings may sometimes be seen on the left stock flat that are believed to be from a vice to hold the stock.

Barrels

The barrels seemed to be the most promising study of the traditional components. Barrels are the key component to the assembly of a pistol, on pin fastened pistols they are numbered on the breech plug and barrel and mated to a numbered stock to ensure they can be matched when taken apart (Fig. 29). This numbering system is not needed on the Iron Banded pistols due to the iron band retaining the barrels rather than the pin. In Figure 30 there is an example of an iron banded pistol that is numbered on the barrel, breech and stock that is believed to represent the transition from pin to iron band assembly. Note the barrel shows evidence of having been turned on a lathe and has a line scored on the bottom of the barrel that corresponds to the positioning of the retaining pin with pin fastened barrels (Fig. 30). This may be a witness mark to align the loop attachment on the bottom of the barrel for the pin, suggesting a jig was used to ensure a consistent placement. Since this barrel is mounted on an iron banded pistol it indicates that remaining pin fastened barrels were used in the new mounting system.



Figure 29. Example of numbering used to mate the barrel, breech plug and stock in pin fastened pistols. Number 5 stamped with a "c" and "I" to make the number observed on a privateer example (top) and iron banded example stamped with number 47 (bottom).



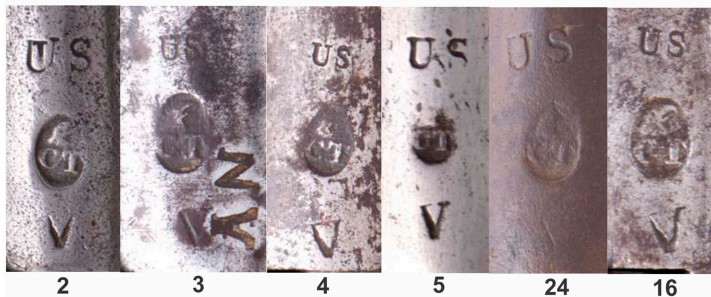
Figure 30. Bottom side of an iron banded example with numbered 47 on the breech and barrel, suggesting it was originally made to be a pin fastened barrel (in general, iron banded examples are not numbered). Note the lathe marks and the deeper score on the bottom of the barrel only (red arrow) that corresponds to placement of the retaining pin with pin fastened barrels. It is believed this was used to position placement of the loop on the bottom of the barrel through which the retaining pin passed.



Figure 32. Example of a Charles Williams inspected pin fastened 1811 pistol.

The barrel proofing suggests a time frame for certain examples. Since Williams inspected the first pistols before his resignation then logically the eagle head CT proof was the first used. These barrels are marked with an eagle CT in a sunken cartouche and V and US. Over time the eagle stamp deteriorated through use and the eagle begins to lose his regal looks. Some of these barrel markings also are in Perkins inspected pistols. A second type of eagle head is also observed that Jeska referred to as a “scrawny chicken”⁷³ that is observed mostly on Perkins inspected pistols. The V stamp is present in three forms⁷³ (early one with short horizontal bars across the top referred to as type III by Jeska with later a curved “gull wing” appearance referred to as type I and one with the middle of the V filled in referred to as type II; Fig 31 examples

Charles Williams cartouche



Note same barrel proof and “V”

Same Barrel proofs
-RIA lot 3000
10/13/13
-GMA lot 27
4/06 Howard



1 Murphy - 357
Different Barrel proofs

Henry H Perkins cartouche

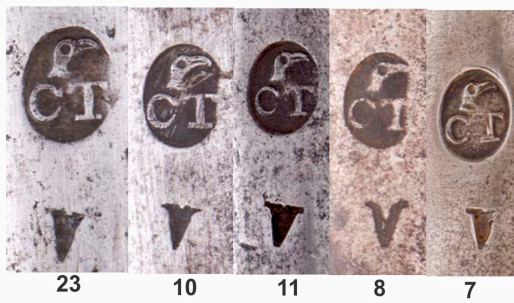


Same barrel proofs as CW

Different “V”

Jeska lot 5011
Bonham auction

Note top right of “V” broken off
Thought to be later production?



-Note different “V” for 10 and 8
-neck of eagle wider for 23 & 10 than 11 & 8
-“C” is also different between these groups



-Note shift in “T”, higher than C
-Note “C” gets shorter on the bottom, eventually bottom of the beak is missing
Due to wear and plugging of stamp?
-Note differences in “V” for 21



15

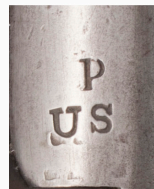


Figure 31. Composite picture of barrel proofs from pin fastened examples in the survey.

5, 17 and 11, respectively) with I and III appearing to lose detail over time. Williams used an assistant from time to time to help him with proofing barrels, but it is unclear which stamps would be attributed to them.

The survey suggested that a combination of Inspector and barrel proof could divide the two main groups into five sequential groups (Figure 31).

Groups Inspector Barrel Proof Chart

Group	Inspector	Date	Number	Barrel Proof	Barrel	Survey
1	Williams	1/6/13	84	Eagle CT	Pin	7
1	Williams	8/27/13	272	Eagle CT	Pin	
2	Perkin	6/22/14		Eagle CT	Pin	4 Eagle CT
3	Perkin	6/22/14	200	Eagle CT	Pin	10 Eagle CT
4	Perkin	9/26/14	50	P US	Pin	10 P US
5	Perkin	11/26/14	150	P US	Band	
5	Perkin	6/7/15	400	P US	Band	16

Group 1 William’s inspection, Pin Fastened: The survey contained fewer pistols with the V CW stock cartouche and Eagle CT proof, V US barrel marking. These pistols are considered the rarest because, most of them were immediately sent to NY for the War of 1812. Two of these pistols are additionally marked NY on the barrel providing physical evidence of NY issue. These are clearly the first pistols delivered. Survey had 7 examples and 3 from pictures of auction sales and another collection. It should be noted that 2 of the examples have the later “gull wing” V and eagle head observed in Group III HHP pistols (example 1 and from the Murphy collection). All of these examples have “US” stamped across the barrel axis on the muzzle side of the eagle CT.

Group II Perkin Inspections, Pin fastened: This group was inspected by Henry H. Perkin (HHP stock cartouche) and have the Eagle CT V US proof. The eagle stamp is the same as the one used

on the Williams barrels and may suggest these they were proofed by him and used in pistols inspected by Perkin. If so these would be among the first pistols inspected by Perkin. Survey had 4 examples (26, 47, 13 and 17) and one example from an auction. All of these examples have “US” stamped parallel to the barrel axis on the muzzle side of the eagle CT.

Group III Perkin Inspections, Pin fastened: This group has the Eagle CT V proof marks but the eagle head in the eagle CT stamp is different (referred to it as a “scrawny chicken” by Jeska). These examples have all three types of V on the barrel. Survey had 10 examples

Group IV Perkin Inspections, Pin fastened: This group has a barrel proof of P US, Survey had 9 examples.

Group V Perkin Inspections, Iron Band: The last two inspections by Perkin include all the iron bands. This group has a barrel proof of P US Survey had 11 examples. Four of those are marked S.N.Y. for State of New York.

Privateers Group One of the most interesting aspects of the survey was the presence of five pistols that were not inspected, nor were the barrels proofed and were considered in the category of “privateers.” The examination of these pistols, which failed inspection, allow an examination of the components of the pistol that were considered not suitable for government approval. It is a rare opportunity to view what went wrong.

Bore diameter

Since North and others agree that the barrel is the most important part of the pistol it is perhaps a good area to look at in detail. The examination of the barrels may help to unravel one of the mysteries of some of the pistols. In the study of the barrel bores in the 1808 survey they ranged from .61 to .68 caliber in a sample of 32 pistols (Fig. 34). In the 1811 pistol survey the barrel bore measurements were examined using the inspections and barrel proof grouping as a base criteria.

Group 1: Pin Fastened. Charles Williams inspected pistols. Eagle CT proof marks. Inspection dates January and August 1813. Total of 356 pistols. Survey had 7 pistols. **Bore range .69-.71.**

Group 2: Pin Fastened. Henry H. Perkin inspected. Inspection dates June and September 1814. Eagle CT proof marks. The Eagle CT stamp is the same as the Williams inspected barrels. Inspection



Figure 33. Example of a HHP inspected iron banded 1811 pistol.

1808 North Naval Pistol Barrel Caliber

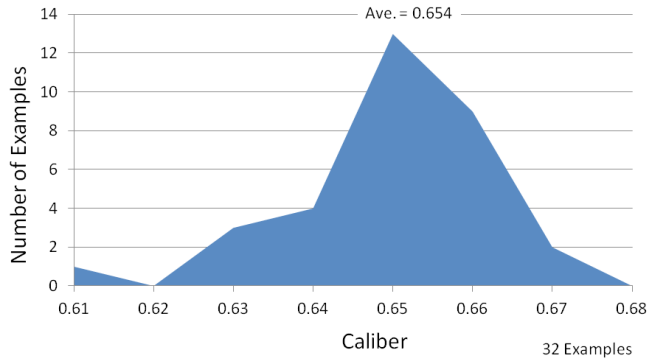


Figure 34. Graph of calibers observed in North Pattern 1808 Navy pistol.³⁵

dates Survey had 4 pistols. **Bore Range .68 to 72.**

Group 3: Pin Fastened Henry Perkin Inspected. Inspection dates June and September 1814. The Eagle CT stamp has a different eagle than the prior stamp. These are assumed to be the last of the HHP inspected pistol using the Eagle CT stamps. Survey had 10 pistols. The barrels range from **.68- .72 bore.**

Group 4: Pin Fastened. Henry Perkin Inspected. Inspection dates June and September 1814. Barrel Proof P US Survey had 10 pistols. Total of 250 pistols. **Bore Range 70-72.**

Group 5: Iron Band. Henry Perkin Inspected. Inspection dates November 1814 and June 1815 Barrel Proof P US These are assumed to be later HHP inspected pistol using the P US stamp. Survey 13 pistols. Total delivered 550. **Bore Range 70-72.**

The range of bore diameters is tighter than the 1808 pistols. Note in this grouping criteria that at the beginning of the use of the P US stamp on the pin fastened barrels and continuing into the Iron Banded the bore size becomes more consistent (Fig. 35). Missing from this later group are the “low flier” bore sizes of .68 and .69 caliber which fall below the overall average of .70 caliber

S. North Model 1811 Horseman’s Pistol Barrel Caliber

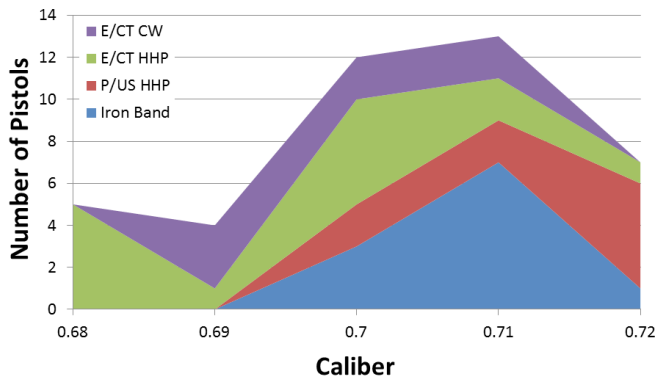


Figure 35. Graph of calibers observed in North Pattern 1811 Army pistols.

This evidence suggests that the barrels bearing the Eagle CT are those made at Spruce Brook while those with the P US are those made at Middletown due to greater consistency in caliber. This bold suggestion requires further reinforcement.

Middletown: The Pattern 1813 Influence on the Pattern 1811 contract pistols.

The physical evidence for the iron banded pistols clearly shows the influence of the Wickham designed Pattern 1813 pistol. The iron band, the stock shape and the barrel all show this influence (Fig. 36).



Figure 36. Comparison of North Pattern 1811 iron banded and 1813 pistols.

The archival evidence does not provide any detail about the decision to change the pattern of a pin fastened barrel to the iron band. The agreement may very well have been verbal. However, the price was raised \$1.00 a pair for those pistols delivered with the iron band. Some written approval of this change had to be lodged with the Treasury in order to pay the inspection invoice. Since these changes occurred before the establishment of the office of the 2nd Auditor, whose records begin in 1817, the records were likely stored and lost or possibly burned. A new set of books began with the 2nd Auditor.

In North letters dated December 4, 1813 provided Irvine with detailed information on the progress of his new factory at Middletown. In that letter North stated:

The barrels being the most essential part of the pistol and a part that requires the best of machinery to make them complete and my former contracts being so small that they would not warrant the expense of such machinery as was necessary to make a first rate barrel. I have therefore omitted that part for the purpose of finishing the machinery in the new factory, which will be completed in a short time from this. I shall be in a situation to make 20 to 30 barrels per day.

On December 23, 1813 Irvine answered North’s letter: “I rely on the assurance you have given me. I want 1,000 pistols immediately to comply with an urgent requisition for the Southward.” Irvine also requested the Pattern pistols and two or three like it made by North. On December 30, 1813 North responds saying he cannot furnish the pistols due to the suspension of making the barrels. North adds that he will meet with Irvine next week at his office and provide him with a complete statement of the business. North agreed to bring the Pattern Pistol but had not completed any pistols of this pattern but states ...“I will bring with me some particular parts that shall give you a correct idea of the workmanship of the whole pistol...”

As a result of meeting with North, Callender Irvine ordered El-isha Tracy, Deputy Commissary General, on January 19, 1814 to execute a bond for North and enclose a check for \$5,000. North responded on February 3, 1814 that he could not cash the check and execute the bond, which required North to complete his contract for the 2,000 pistols by spring. North reminds Irvine that he was completing a new factory and that the current contract was for a new pattern pistol. He requested the bond delivery date be extended from 3 to 6 months. In the end, North agreed to deliver in the next six months as many pistols as the \$5,000 advance would cover. On February 10, 1814 Irvine agrees to extend the time to six months and informed North to show Tracy the letter. The bond required North to pay \$2,400 due on his contract with Coxe as Irvine was required to settle those accounts. The bond was signed February 18, 1814. North wrote to Irvine thanking him for the advance and informed him that he had executed the bond.

On March 1, 1814 due to the expected workload at Middletown Henry H. Perkin was stationed there full time. On April 14, 1814 Perkin reported to Irvine that “Col. North has no pistols ready for inspection. I am doubtful he will have five hundred in two months as he is not ready for a proof.” On April 22, 1814 Irvine notified Secretary of War John Armstrong that Charles Williams had given his notice to resign and Henry Perkin would be appointed as principle inspector. Perkin was notified of the official appointment on April 30, 1814.

North suspended his barrel operation at Spruce Brook by December 1813 and had no barrels ready for inspection in April of 1814 according to Perkin. Although there are no barrels ready for proof clearly North is in operation at Middletown. He makes two deliveries in June and September totaling 250 pistols. Since these are the last of the pin fastened pistols and have the P US proof and exhibit the wider breech diameter. He must have had his factory operating at Middletown by the early spring of 1814. The last pin fastened barrels bearing the P US proof stamp also have a consistency of bore caliber and are likely products of Middletown. Therefore the earlier Eagle CT proofed barrels then represent last of the barrel production at Spruce Brook (Fig. 37).



Figure 37. Examples of proofs on barrels made at Spruce Brook.

Only two months later on November 26, 1814 the first Iron Banded pistols are delivered and then the last 400 are delivered in June 1817 six months later! It is at this point that the full force of the Pattern 1813 contract intersects and puts an end to the Pattern 1811 pistols. The “startup” of the Pattern 1813 at North’s Middletown factory may provide answers to some of this complexity.

On an “Intuitive Hunch” the authors returned to Wickham’s criticisms of North’s pistols, especially Wickham’s comments about the barrels. His concerns about the breech in particular were most informative. In designing the Pattern 1813 pistol Wickham attempted to correct the defects he had noticed in North’s pistol

and other period arms. Wickham incorporated North’s idea of the reinforced stock, which he comments on favorably. He retains the curved grip, which design he also approved. He also incorporated his own suggestion of the trigger guard and the intersection of the tang screw with the trigger guard plate. Then the signature change was added, which was the iron barrel band. The idea of a barrel band was used on French Pistols as early as 1763 (Fig. 38). An example of a French pistol was also available for study in Philadelphia as noted by Tench Coxe. Collectors have at times called the Iron Banded Pattern 1811 pistols “Wickham improved”, “Transitional Pistols” and “Wickham Banded” and finally settled on “Iron Banded” as the *nom de plume* for describing these pistols. To be clear, and give Wickham his due credit he designed the entire Pattern 1813 Army pistol. He strengthened the breech, added the flats, designed the trigger guard, the truncated stock, incorporated North’s iron back strap and shape of the stock and added the signature iron band. Although he borrowed the idea of the band from a French pistol, all of the mountings on the 1813 are iron. In short he designed the entire pistol...including the Iron Band. These basic elements would remain in the designs of single-shot pistols for the rest of their use (Fig. 36).



Figure 38. Example of a 1763 French pistol with a brass band retaining the barrel.

Being assured by Wickham’s own statements that he certainly strengthened the breech in the Pattern 1813 the authors re-examined a number of pistols that were in the survey. The barrels were measured across the breech at the touch hole to determine the width of the barrel at that point (Fig. 39). The “Intuitive Hunch” was based on the idea that when North suspended his barrel making at Spruce Brook and resumed manufacture at Middletown there would be a difference in the barrels. The P US proof may have more significance than just the Eagle CT stamps wearing out. North likely made the P US, Perkin proofed barrels at Middletown. However, when the barrel mounting switched to the iron band, things assuredly changed. There is no archival material to support this decision to change the Pattern 1811 design from pin fastened to the iron band, but change it did and took on features of the 1813 pistols, notably the band and the shortened stock. Measurements of barrels across the breech for the pin fastened pistols with Eagle CT inspection reveals they average 1.101 inches (10 examples, range from 1.047 to 1.19 inches). Measurements of pistols with the P US inspection show a measurement averaging 1.154 (6 examples, range from 1.113 to 1.21 inches) and those of the iron band averaging 1.167 inches (8 examples, range from 1.102 to 1.203 inches). The Pattern 1813 Army pistols average 1.153 in the 5 examples measured (range 1.125 to 1.188 inches). With the exception of the Eagle CT pin fastened pistols, these are all Middletown barrels! When North suspended barrel production he ended the Spruce Brook barrels and when he started at Middletown he was making Pattern 1813 barrels. Wickham designed pattern barrel with a breech width of about 1.150 inches!

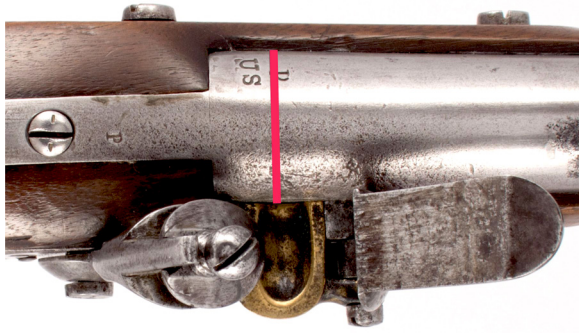


Figure 39. Measurement of barrel width at the touch hole.

There is one last piece of evidence concerning the first of the Pattern 1813 Pistols. On October 10, 1816 Henry Perkin inquired if he should receive 85 Pistols offered by North. Perkin describes them as “like those contracted for by the Commissary General of Purchases (Irvine, Pattern 1813) with exception of the locks, which are of the old Tench Coxe pattern (Pattern 1811 Army). These pistols are referred to today as “flatlocks” (Fig. 40). These pistols were accepted by Perkin and the rare examples bear his V HHP. There are at least a dozen forms of the Pattern 1813 pistols; they were the subject of a presentation by F.L. Starbuck for the ASAC followed by an article in Bulletin Number 86, Fall 2002. Mr. Starbuck also published a booklet with drawings and descriptions to aid in the identification of these pistols. The flat lock examples are considered the earliest deliveries on this contract. Measurement across the barrels at the breech of a sampling of these pistols average 1.186 inches (4 examples, range from 1.16 to 1.2 inches). A measure clearly over a standard 1813 barrel.

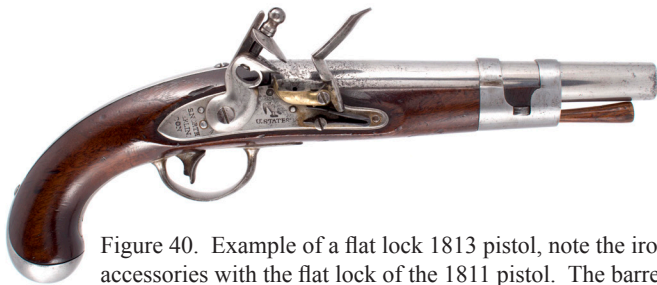


Figure 40. Example of a flat lock 1813 pistol, note the iron accessories with the flat lock of the 1811 pistol. The barrel was also in the configuration of an 1811 pistol as it lacked the facets at the breech.

It occurred to the authors to examine the barrels intended for the 1813 Army that were incorporated into 1813 Navy Pistols delivered in 1816. These pistols are of the Pattern 1813 with the addition of a belt hook style used in the last of extended contract the 1808 Navy pistols. Measurements across the breech indicate a width averaging 1.118 inches (6 examples, range of 1.10 to 1.139 inches). This measurement is clearly under a standard 1813 barrel and more in line with the Eagle CT pin fastened barrels.

Conclusions

If the pistol manufacturing efforts of this era are viewed as a continuum of at least five contracts for pistols rather than five separate contract events, the confusion becomes understandable, but not necessarily clearer. The most important element is the attempt to standardize the pistols with the Contract of 1813 with the Uniformity System and North’s contractual agreement. With the astounding monetary advances of \$25,000, North was able to build and equip a new factory in Middletown. He was able to harness

the water power of the Coginchaug River (Fig. 41). In transferring operations from Spruce Brook to Middletown North made a critical decision to suspend the making of barrels until he could get the machinery set up at Middletown. This decision occurred while he was still preparing barrels for the Model 1811 contract and retooling for the new Pattern 1813, which in North’s own words was unlike anything made before. The pistols in the survey provide the physical evidence of changes during this period. Since the change from the pin fastened design to and iron band was accompanied with an increase of \$1.00 per pair this has to be a sanctioned change. Treasury would not have made an increased payment without written authority. Copies of contracts were deposited with the auditors. The changes in the pattern 1811 pistol not only incorporated an iron band but a different style stock and a clearly different barrel, all accompanied with a price increase to support these alterations. This increase price alone is clearly an amendment to Pattern! Yet researchers in the National Archives beginning as early as 1940, followed by thorough search by Robert Jeska in the 1990s and another diligent search by Lewis Southard and Pete Schmidt 2000 to 2012 have found no trace of archival evidence officially supporting these changes in 1814. The turmoil of the War of 1812 created verbal understanding and may also account for the actual destruction of records. The loss of North’s personal records also leaves a huge gap in our knowledge. References in letters do suggest a concern for disruption by British Forces. Finally the answer likely rests in the ashes resulting from the burning of Washington in August of 1814 ...right in the middle of the last two deliveries of the June and September pin fastened pistols and three months before the first deliveries of the iron band examples! Precisely in the very period of the dearth of archival documents.



Figure 41. North’s Middletown factory rear view circa 1900.

It’s all about Barrels!

The Survey of Pistols in Rhode Island, knowledge of period manufacturing, and the events of history allow a venture into a scenario that offers an explanation of what was observed in the survey and what can be pieced together from the surviving documents. The barrels provide the key element in this discussion. When North began barrel making at Middletown he claimed he could make 30 barrels a day. The physical evidence of barrels on the Pattern 1811 suggests a switch to Middletown barrels likely in Perkin inspections of the last pin fastened pistols in 1814. The switch was synonymous with the P US proof marks. The switch to the iron bands was also a “barrel decision” as these barrels were certainly made at Middletown. The change to the 1811 iron band

form reflects the using of barrels and bands that will not pass the rigid inspection required under a Uniform System mandated in the 1813 contract. Remember North is making a pistol whose parts are made so alike they can be fitted into any other. The 1811 iron banded barrels are those for reasons of fabrication during the initial startup of a new factory, do not have the breech width to file into an 1813 barrel! The barrels are serviceable and passed proof. North and the decision makers figured out a way to allow the out of pattern parts to be received within the 1811 contract. The improvisational design must have been viewed as a marked improvement as North was allowed an extra \$1.00 per pair! This was probably to cover the extra iron cost over the Spruce Brook barrels and the band.

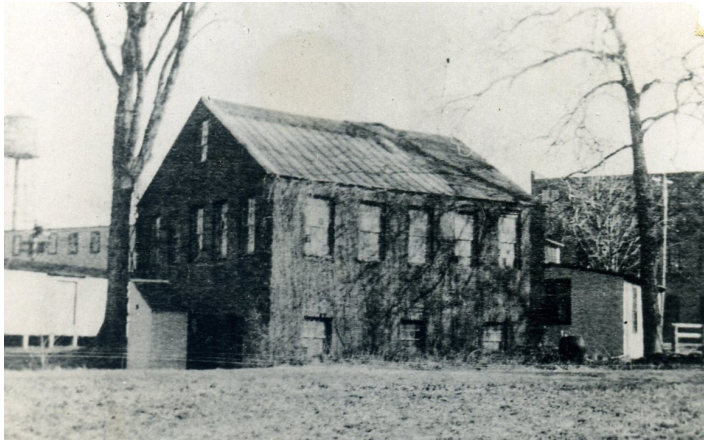


Figure 42. North's storage facility at the Middletown factory for finished arms awaiting inspection.

Startup Failures at Middletown

A delivery of 550 iron band pistols suggests a startup failure to make the 1813 barrels to pattern. This theory is reinforced in the sale of 1,000 Pattern 1813 pistols to the Navy. These were often thought to be the excess when the caliber was reduced to .54 for the 1816 Army pistols. However, preliminary measurements indicate these pistols are too small across the breech to make pattern. In contrast the 85 "Flatlock" pistols accepted having an 1811 pattern lock, and Pattern 1813 barrels, measured too large across the breech. They were fabricated with stocks, and mountings of the 1813 pistols. These pistols are symbolic of excess 1811 locks and that North has exhausted the brass casting for the 1811 mountings. North later was charged for \$2,400 that he had to pay back on his advance for the 1811 contract. That notice was given to North about this time, which points to an understanding to terminate this contract and go forward with the remaining 1816 Army pistols era pistols. All 19,374 pistols were delivered by 1820. A final point on the barrels is the Pattern 1813 are 9 inches in length and those on an 1811 are generally 8.5 inches, so barrels not being able to make the length would also be rejected, but could still serve for 1811 barrels. According to archival information only 626 pistols were delivered on the 1813 contract. Since the "85 flatlock's" were charged to the 1813 contract as deliveries the number is reduced to 543 Standard Pattern 1813 pistols. This number will be shortly be adjusted.

Assuming the barrels on the banded 1811 pistols as rejected 1813 barrels made in Middletown, adding the 85 flatlocks and the 1,000 Navy pistols suggests a failure to meet pattern of about 75% (this assumes all these barrels were fabricated at Middletown, which

would be logical as otherwise they would have been used in additional pin fastened deliveries of the 1811 contract). It is unknown if some these problems contributed to the decision to reduce the barrels to .54 caliber. But consider that the 1816 pistols, although they will not interchange, are certainly a uniform pattern. There is no known "private sale" or "out of pattern rejects" for the 1816 pistols. Whatever startup problems occurred with the fabrication of the larger barrels it was solved.

All that remains of the 1811 surveys are the "privateer" pistols (Fig. 43). These are pistols, according to North, that would not pass inspection. One again considering the barrels they are much too thin when compared to proofed barrels. They were not proved and the five examples vary from .67 to .73 caliber. The barrel lengths also vary greatly. On January 26, 1815 Irvine once again cautions North against private sales of pistols while, not delivering on his contracts. Irvine says, "I have strong grounds for believing that you have undertaken to furnish pistols deliverable east of you." North replied on January 31, "I have laid myself under no obligation that will interfere with said contract. But in so large an establishment as this there will be work that will not pass inspection. The work must be disposed in some other way, having a quantity of work of this description on hand. I thought it proper to send it to Boston for the purpose of furnishing the privateers." The survivorship of these five pistols raises a question. If seven pistols in the survey inspected by Charles Williams represent a total of 356 pistols delivered then what number does five privateer pistols represent in inspection rejects? The origin of the pistols with brass barrels and English barrel proofs is unclear (Fig. 44).



Figure 43. Example of two privateer pistol with belt hooks. Both examples do not have "U. STATES" stamped under the eagle on the lock plate nor do they have barrel proofs or a final inspector cartouche on the left stock flat.



Figure 44. Privateer pistols with brass barrels and English barrel proofs and no lock plate markings; otherwise these examples reflect a pattern 1811 pistol.

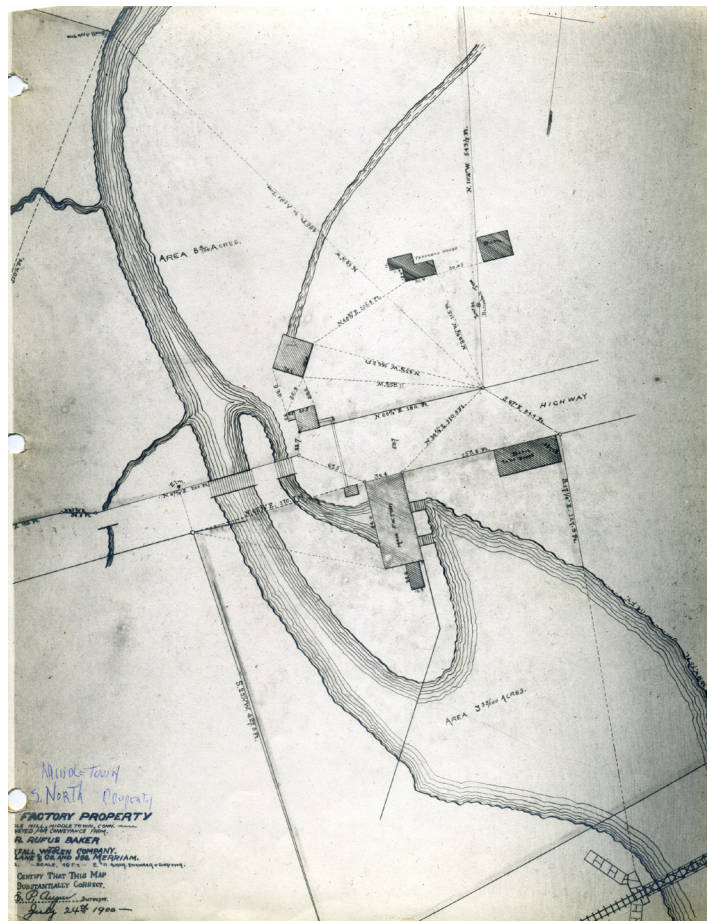


Figure 45. Map of North's Factory at Middletown, July 24, 1900.

Contract Amendment of 1816

On January 8, 1816, the April 16, 1813 Contract for the Pattern 1813 pistols was altered; The barrel of the pistol to be reduced to that of the rifle kept in the ordnance office; The barrel strap or tongue of the breech together with the iron mountings to be browned; A site to be put on the iron band of the pistols. On his way to Washington to sign the contract North visited with Callender Irvine. In a letter from Irvine to Lt. Col. George Bomford dated January 17, 1816 "Mr. North informed me on his way to Washington that his machinery and tools were complete and that he could now make considerable delivers monthly". The first delivery of 1816 pistols occurred on March 31, 1817 and concluded on January 31, 1820 as North retooled for a 20,000 order for the Pattern 1819 Pistols. Middletown is officially operational! The problems are all solved? A survey map of the area made in 1900 shows the extent of North's Facility and illustrates how the water power entered the factory (Fig. 45).

On January 1, 1817 Henry H. Perkin was discontinued as U.S. Inspector. Col. Wadsworth had been advised that Perkin was far from using diligence in inspecting the work. The new Ordnance Corps determined that in the future inspections would be done by skilled armorers from Springfield Armory selected by the Superintendent. The first selected by Roswell Lee was Luther Sage. The script LS in an oval cartouche is found on Pattern 1813 pistols. Oliver Allen was also assigned inspection duty on March 20, 1817. From this point on inspections would be carried out by trained armorers. North and other contractors must have realized that a new era of arms making had arrived. The era of confusion has ended...almost.

Epilog

A report dated February 22, 1830 on the number of pistols in storage at Watervliet Arsenal adds an interesting epilog to these period efforts. Note the specific descriptions of the pistols used by the Ordnance Department in the report:

- 244 Musket Caliber, Bright-Brass Mounted- without bands-whole stocks. (1811 Pin fastened, 40% of total delivered)
- 165 Musket Caliber, Bright -Brass Mounted-with iron bands-short stocks (1811 Iron Band, 30% of total delivered)
- 231 Musket Caliber, Bright-Iron Mounted- with iron bands-short stocks (1813 army)
- 414 Musket Caliber, Browned- Iron Mounted- with iron bands-short stocks (1813 browned)
- 8,586 Rifle Caliber, Browned- Iron Mounted- with iron bands-short stocks (1816 army 44% of total delivered)

Note the inventory numbers for the 1813s equal 645 Pistols, not the documented number of 626! This inventory suggests that 19 more 1813 pistols were delivered and assigned to the 1816 contract deliveries. Notice the 414 musket caliber pistols with browned barrels. Collector Luke Woods identified browned barrels on 1813 Army pistols some years ago. This inventory represents 100% of the Pattern 1813 pistols and a reasonable supply of the 1811 pistols. This may provide an answer to why although only a few were ever made they are still reasonable available today.

Although the Hall Breechloader and the Blanchard Lathe and the wide use of the milling machine are a few years in the future,

the line between the end of the Handicraft Era and the beginning of the Uniform System could be drawn somewhere between Spruce Brook in Berlin and the Coginchaug River in Middletown, Connecticut. Simeon North completed his 1813/1816 contract for a total of 20,000 pistols. North went on to a long career in arms making. He is buried in the Washington Street Cemetery in Middletown. Close by are Nathan Starr, Henry H. Aston and Senator Samuel W. Dana. Also buried nearby North is Deacon Selah Goodrich. Selah stated in a testimonial for North in 1852 that he was "fifty six years old and upwards and a resident of Middletown, that I am by occupation a gunsmith in the factory of Col. Simeon North since I was seventeen years old and then until the present time."

Acknowledgements

A sincere thanks to the following collectors who contributed pistols to the survey project; Dave Prawdzik, Joe Murphy, Frank Martin, Lewis Southard, Lee Bull, Bob Sadler, Rick Starbuck, Paul Doyle, Vince Rausch, Ken Thompson, Bill Reid, Alex Vereston, Larry Cooley Bruce Congdon, Mike Revesz and Richard Shea. Sincere thanks for the period advice and editorial comments of Pete Schmidt, Larry Cooley and Luke Woods. Also, as always, a sincere appreciation for the staff at the National Archives in Washington DC.

FINIS

Endnotes

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2. Simeon North's Will, District of Middletown Probate Court 94 Court St, Middletown, CT 06457, Probate Records, Will Book 18, 1848-1855, Middletown page 392-394, Inventory 378-379 , Estate Court Report page 385 Personal visit August 2013
3. S.N.D. North LL.D and Ralph H. North, *Simeon North First Official Pistol Maker of the United States*, (Concord: N.H. The Rumford Press, 1913)28- 29
4. Simeon North Contract, Record Group 217, Extension 233, Box OV1, National Archives and Records Administrating ,Washington DC
5. Edward Savage proposals Letters Depositions and Petitions for Simeon North 1852 ,Record Group 156, Office of the Chief of Ordnance, April 21,1852, Entry 21 War Department {file letter W} 1852, letter number 84, NARA
6. Lettes Hammond to Seth Young, Letter, June 25 1815, Private Collection Lewis F Southard
7. Felicia Johnson Deyrup, *Arms Making in the Connecticut Valley* (George Shumway Publisher York PA 1970) 3
8. Samuel W. Dana to The Commissary General Callender Irvine November 9 1812 RG 92 Entry 2118 Box 108 NARA
9. Samuel Whittlesey Dana was a Representative and a Senator from Connecticut; born in Wallingford, Connecticut, February 13, 1760. He graduated from Yale College in 1775, studied law and was admitted to the bar in 1778. He practiced law in Middletown. He was a member of the State General Assembly 1789-1796 and was elected to the Fourth Congress and reelected seven times

- serving from January 3, 1797, to May 10, 1810, when he resigned to become Senator. He was reelected in 1815 and served until March 3, 1821. Politically he was a Federalist. He was the mayor of Middletown and the presiding judge of the Middlesex County Court from 1825 until his death in Middletown on July 21, 1830. He is buried in Washington Cemetery Middletown, CT. American National Biography; Dictionary of American Biography; Dana, Samuel Whittlesey [presumed author]. *A Specimen of Republican Institutions*. Philadelphia: James Humphreys, 1802; Dana, Samuel Whittlesey. *Essay on Political Society*. Whitehall: William Young, 1800.
10. Ken Alder, *Engineering The Revolution Arms & Enlightenment in France 1763-1815*, (The University of Press Chicago& London 1997), 160, Citing Philippe-Jean Baptiste Tronson Du Coudray, *L'artillerie nouvelle 1772*, and Heinrich Othon Von Steels *Memorie d Artillerie 1777*. This work was translated by Jonathan Williams, West Point, 1800.
 11. Simeon North, North and North, 24
 12. Catherine M. North, *History of Berlin Connecticut*, (New Haven CT The Tuttle Morehouse And Taylor Company, 1916) 27-31
 13. North, History of Berlin 289-294
 14. Simeon North, Estimate the cost of 2000 pistols by Simeon North November 28, 1810 Record Group 92 Entry 2118, Box 97 NARA; Robert Jeska, *Early Simeon North Pistol Correspondence with Comments by Robert Jeska*, (Published by the Author, Plainwell, Michigan, 1993 , 89
 15. Simeon North to Robert Smith, November 7, 1808, Page 64 North and North
 16. Simeon North to Robert Smith, December 12 1808 RG 45 M124 Miscellaneous Letters Received by the Secretary of the Navy 1801-1814 NARA; Robert Jeska, 63-64
 17. Jacob Willcox was born July 21 1758 and died November 3 1841 age 83. He is buried in the Willcox cemetery in East Berlin, CT near members of the North family. Sometimes spelled Wilcox in official records, however, his gravestone reads Jacob Willcox.
 18. Historical Floods of New England Geological Survey Water Supply Paper 1779-M, U.S. Government Printing Office Washington DC 1864 U.S. Department of the Interior, P 17
 19. Catherine M North, History of Berlin 256-57
 20. Catherine M North, History of Berlin 35
 21. Catherine M North, History of Berlin 27-32
 22. Catherine M North, History of Berlin 27-31
 23. Simeon North, Estimate the cost of 2000 pistols by Simeon North November 28, 1810 Record Group 92 Entry 2118, Box 97 NARA; Jeska 89.
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 30. Simeon North Bond, January 14 1811, Navy Contracts Book RG 45 Entry 235
 31. Coxe to Eustis August 14 1811 and September 25 1811, Eustis to Coxe, September 30,1811, NARA: Jeska 106-107
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 34. Robert Brooker, *Adaptation Paterick Resek , Armes De Poing, Militaries Francaises ,du XVI au XIX siècle et leurs influences a letranger*; (Publie par les editions de portail bp 69 La tour du pin cedex, 2006). English translation *Firearms, French Military, From the 16th to the 19th centuries and their influences abroad* (Published by the Editions of portal BP 69 The tower of the pine, Cedex France, 2006) 134-149
 35. Frank Martin and Lewis Southard, A Survey of Model 1808 S. North Naval Pistols, Bulletin No.109 Tucson AZ April 30-May 4, 2014.109/56
 36. Eustis to Coxe November 13,1811 Record Group 92, E 2117 Sub Entry 16, Volume 2, NARA
 37. Simeon North Contract between Tench Coxe and Simeon North, November 18, 1811 Record Group 92 Entry 37, Ledger A, NARA
 38. Coxe to Eustis November 19, 1811, Jeska 113-114
 39. Bent: Having a curved of angular shape, in this usage Wickham refers to the slots filed in the tumbler to hold the tip of the sear at half cock and full cock.
 40. Marine T. Wickham to Tench Coxe November 29,1811, Jeska, 115-117
 41. Marine T. Wickham, Statement-Exhibition the result of my inspection and proof of the pistols in the arsenal at Philadelphia. Together [with] the contractor names, date of contracts, the inspector names ,and mu opinion of what is best to do with them. October 10,1811, RG 92, Entry 2118 Box 15 NARA
 42. Peter A Schmidt, *U.S. Flintlock Muskets and their bayonets, The Early Years 1790-1815* (Woonsocket RI: Andrew Mowbray Incorporated Publishers 2006) 307-08
 43. Coxe to Eustis December 5 1811, RG 92, E 2117, V 37, p82; Jeska, 118
 44. Eustis to Coxe December 9, 1811, RG 92, E 2117, V37, p82; Jeska, 118
 45. Simeon North to Tench Coxe, December 13 1811 Record Group 92, Entry 225, Box 653 NARA
 46. North to Coxe, December 16, 1811 RG 92 E 225 Box 653 NARA
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 50. U.S. Army Center for Military History <https://history.army.mil/about.html>
 51. William F. Sherman ,Records of the Accounting Officers of the Department of Treasury, Inventory 14 (Revised) (Willow Bend Books, Lovettsville VA 1997) Record Group 217 Entry 523 NARA
 52. Schmidt, 307
 53. Schmidt, 309-311, citing Captain James E. Hicks, Notes on United States Ordnance, Volume I, Small Arms, 1776 to 1940 (Mount Vernon NY 1940) p 40
 54. Schmidt, 310
 55. Charles Williams to Tench Coxe March 21, 1812 RG 92, Entry 225, Box 1244 NARA
 56. Charles Williams, Inspection Certificate, January 2, 1813, RG 94, Entry 225 Box 521 NARA
 57. North to Irvine, January 11,1813, RG 92 E225 Box 653 NARA; Jeska 135
 58. Callender Irvine to Simeon North, January 21 1813, Record Group 92, Entry 2117 Sub Entry 35, volume 2 p 289 NARA
 59. Schmidt, 310
 60. James Stubblefield to Callender Irvine, February 4, 1813 RG 92, Entry 2117, NARA, Schmidt. 310
 61. Major James E. Hicks, *Notes on United States Ordnance ,Volume II, Small Arms ,1776 to 1940* (Mount Vernon NY 1940) 62
 62. Simeon North to Callender Irvine, March 1, 1813, RG 92 E , Box 653, Jeska 139
 63. Schmidt 311
 64. Jeska, 140
 65. Jeska, 143
 66. Simeon North Contract, RG 217, Extension 233, Box OV1, NARA
 67. Simeon North Bond, RG 217, Extension 233 Box 1, NARA
 68. Hicks Volume I, 45
 69. Hicks Volume I, 45-46
 70. Peter Schmidt, Personnel Conversation, Winter 2018, Quote issued in encouragement.
 71. Jeska, 186
 72. Luke Woods Spruce Pine NC, Personal conversation , April 14, 2018. Luke, in addition to being an advanced collector of U.S. single-shot-pistols, is an accomplished wood worker and noted the cherry wood on the pistols. Luke also examined the 1808 Navy pistol and concluded, with the owner Lewis Southard was that it is stocked in cherry. Lewis Southard is a professional forester, University of Georgia. 1971, ASAC meeting Williamsburg VA March 25-29 1981.
 73. Jeska, 155
 74. Hicks Volume I, 46
 75. Hicks Volume II, 109
 76. Hicks Volume II, 109
 77. Simeon North Bond RG 92 Entry 225 Box 653, Jeska 163, Hicks 110.
 78. North Irvine February 19,1814 RG 92, E 225 Box 653; Jeska 166; Hicks V II P110
 79. Jeska 166-172
 80. Jeska, 213
 81. Hicks, 109
 82. Contract Provisions 1816 Jeska 194-195
 83. Callender Irvine to George Bomford, January 17, 1816, Jeska 196
 84. Jeska, 225 245
 85. George Talcott to George Bomford February 22, 1830 Record Group 156 Entry 21 Letter 42 NARA
 86. Personal conversation with Luke Woods Spruce Pine NC April 11, 2018 confirming an 1813 Army Pistol with traces of browning the barrel.

Appendix 1. Pistol observations and measurement

Number	Barrel attachment	Stock Cartouche	Barrel Proof	lock length	lock height	Font height	barrel	Barrel	barrel	P on Backstrap
						lock tail	length	caliber	thickness	relative to tang screw
1	Pin	CW	E/CT	5.16	1.053	0.114	8.75	0.7	0.135	none
2	Pin	CW	E/CT	5.151	1.03	0.105	8.75	0.69	0.115	none
3	Pin	CW	E/CT	5.147	1.05	0.117	8.6875	0.7	0.111	none
4	Pin	CW	E/CT	5.155	1.057	0.11	8.6875	0.693	0.12	none
5	Pin	CW	E/CT	5.213	1.057	0.12	8.6875	0.712	0.115	none
16	Pin	CW	E/CT	5.233	1.037	0.112	8.6875	0.695	0.115	none
24	Pin	CW	E/CT	5.175	1.025	0.115	8.6875	0.714	0.085	none
13	Pin	HHP	E/CT	5.16		0.105	8.6875	0.685	0.11	none
17	Pin	HHP	E/CT	5.137	1.028	0.11	8.625	0.7	0.124	none
26	Pin	HHP	E/CT	5.185	1.065	0.112	8.75	0.685	0.142	none
47	Pin	HHP	E/CT	5.1	1.035	0.115	8.625	0.69	0.124	none
7	Pin	HHP	E/CT	5.153	1.045	0.11	8.625	0.72	0.112	none
8	Pin	HHP	E/CT	5.175	1.042	0.116	8.6875	0.7	0.114	none
10	Pin	HHP	E/CT	5.21	1.05	0.11	8.6875	0.7	0.116	none
11	Pin	HHP	E/CT	5.108	1.046	0.115	8.75	0.7	0.115	none
23	Pin	HHP	E/CT	5.063	1	0.125	8.625	0.7	0.112	behind
19	Pin	HHP	E/CT	5.16	1.039	0.121	8.625	0.68	0.12	none
21	Pin	HHP	E/CT	5.175	1.025	0.102	8.75	0.68	0.15	none
25	Pin	HHP	E/CT	5.14	1.041	0.11	8.6875	0.715		none
LAC	Pin	HHP	E/CT	5.1		0.106	8.4375	0.695	.115-.132	none
15	Pin	HHP	E/CT	5.15	1.05	0.112	8.625	0.71	0.1	behind
6	Pin	HHP	P/US	5.135	1.025	0.125	8.6875	0.705	0.085	none
9	Pin	HHP	P/US	5.185	1.034	0.122	8.4375	0.72	0.11	behind
12	Pin	HHP	P/US	5.145	1.031	0.126	8.5	0.715	0.13	behind
14	Pin	HHP	P/US	5.21	1.032	0.11	8.75	0.71	0.115	behind
18	Pin	HHP	P/US and V	5.23	1.042	0.116	8.5625	0.72	0.115	behind
20	Pin	HHP	P/US	5.085	1.05	0.124	8.5	0.72	0.125	behind
22	Pin	HHP	P/US	5.15	1.037	0.118	8.75	0.705	0.112	none
LAC	Pin	HHP	P/US			0.12	8.625	0.72	.122-.136	behind
45	Pin	HHP	P/US	5.131	1.021	0.112	8.75	0.72	0.132	front
54	Pin	HHP	P/US	5.215	1.039	0.1195	8.625	0.711	0.115	behind
27	Iron Band	none	P/US	5.16	1.03	0.12	8.625	0.7	0.13	front
28	Iron Band	HHP	P/US	5.22	1.04	0.135	8.75	0.71	0.13	front
29	Iron Band	none	P/US	5.141	1.02	0.11	8.5	0.7	0.125	front
30	Iron Band	HHP	P/US	5.05	1	0.12	8.625	0.71	0.105	front
31	Iron Band	V only	P/US	5.22	1.04	0.12	8.5625	0.71	0.97	front
32	Iron Band	none	P/US	5.142			8.6875	0.7	0.112	front
33	Iron Band	HHP	P/US	5.09	1.02	0.132	8.625	0.71	0.099	front
34	Iron Band	HHP	P/US	5.17	1.02	0.11	8.6875	0.72	0.106	front
35	Iron Band	HHP	P/US	5.139	1.016	0.127	8.625	0.71	0.136	front
42	Iron Band	HHP	P/US							none
43	Iron Band	HHP	P/US							front
44	Iron Band	none	P/US							none
48	Iron Band	HHP	P/US	5.116	1.03	0.125	8.375	0.71	0.1	front
LAC	Iron Band	HHP	P/US	5.1114		0.14	8.4375	0.715	0.1	front
55	Iron Band	HHP	P/US	5.107	1.04	0.111	8.5	0.7	0.124	front
56	Iron Band	HHP	P/US	5.103	1.04	0.114	8.625	0.71	0.98	front
Privateer Pistols										
39	Iron Band	None	P over 8	5.16	1	0.1	8.8125	0.73	0.07	none
40	Pin	None	None	5.48	1.14	0.13	8.8125	0.69	0.1	none
46	Pin	None	None	5.46	1.12	0.12	8.6875	0.69	0.1	none
36	Pin	None	Brittish -brass	5.16	1.05	none	8.25	0.67	0.1	none
37	Pin	none	Brittish - Brass	5.2	1.03	none	8.1875	0.67	0.11	none
38	Pin	None	None	5.13	1.02	0.11	8.594	0.67	0.1	none
41	Pin	None	V only	5.15	1.036	0.14	8.75	0.7	0.12	none