

Asa Holman Waters and the 1842 Musket

John R. Ewing

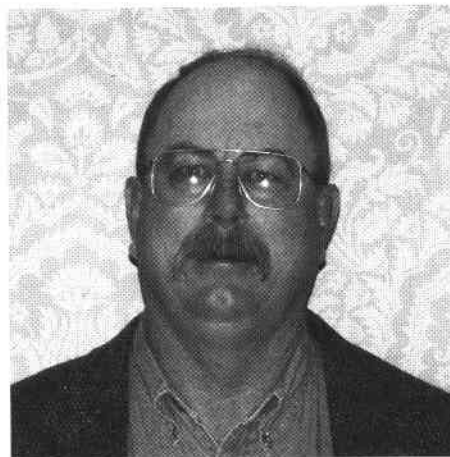
Asa Holman Waters played a major role in the arms trade during the mid-1800s and is the central figure in one of the more intriguing arms deals before the Civil War. For a long period, collectors have thought that the model 1842 Musket was made by the two National Armories, Harpers Ferry and Springfield, and by Waters, Benjamin Flagg, William Glaze at the Palmetto Armory, and Eli Whitney. With the assistance of empirical evidence and some recently discovered documentation, the actual source of these arms will be elucidated.

HISTORY

To provide sufficient background, a brief history of Asa H. Waters is necessary. He was born in 1808 into a family whose involvement in arms manufacture dates back to the Revolution. From well before his birth, the Waters family had made muskets under state and federal contracts. He grew up in this business. Asa attended Yale and graduated in 1829. Afterward, he returned to work in the armory at many tasks, including filer. Subsequently, he entered law school at Harvard and graduated in 1835. He was accepted to the Massachusetts Bar and made preparations to embark on a legal career, but at his father's urging he returned to the family arms business.¹

In the 1830s, the Federal Government began to scale back contracts to private firms for arms manufacture. These contracts provided considerable income to the Waters family business, and the cutbacks caused considerable concern. New musket contracts were not forthcoming; however, the Government was in some need of pistols, and these were the only contracts let at that time. Waters had not made pistols before they signed a contract to make 4,000 flintlock pistols on 22 September 1835.² With this contract in hand, they began to tool up for pistol manufacture.

As the Waters Company began preparations for the production of the 1836 Pistol, they were involved in finishing the last of the contract muskets. During the pistol production, the elder Asa Waters, Asa Holman Waters' father, who was still running the company, did a very interesting thing. On 1 October 1838, he made an agreement with Thomas Harrington and Benjamin Flagg to lease them one half of the operation for pistol production in return for a royalty of 1



dollar 12 and ½ cents for each pistol purchased by the United States.³ Another agreement was signed on 14 November 1839, and this one effectively made the elder Waters, Asa Holman Waters, Thomas Harrington, and Benjamin Flagg partners in the Company.⁴ The elder Asa Waters died 24 December 1841, and with his passing the firm became "Asa H. Waters & Co." In the period from 1837 to 1845, the Waters Company delivered 29,750 pistols to the Ordnance Bureau.

Throughout the existence of the Waters Co., muskets for state contracts and sales to militia companies and individuals had supplemented the U.S. contracts and filled in when contracts were lacking. The company was also involved in making or dealing in gun parts. Some of these sales were made directly, and others through arms agents in Boston and New York. Most transactions were for 10 to 100 muskets, and these were probably assembled from parts bought as surplus or on hand from the 1816 Model contracts.⁵ As the deliveries of the 1836 Pistols came to an end, Asa H. Waters sought additional government contracts to no avail. With no new contracts forthcoming, Waters turned to selling arms in the open market, inquiring about arms needs in various states and even Mexico. Arms offered included muskets, carbines (cut-down muskets), and flat-lock pistols, which were side-drum percussion variations of the 1836 Pistols.⁶ Along with the arms repair and cleaning that the armory did at this time, Waters was also involved in the textile business, and some of the machining capability of the shop was applied to spinning and weaving machinery.

From 1835, Asa H. Waters held a number of public offices and worked with the courts and the legislature. He served for a time as postmaster and was an officer in the Massachusetts Militia. It was during this period he became involved in the Free-Soil movement as an ardent supporter and participant and provided financial assistance for Abolitionist groups.

In 1844, Harpers Ferry and Springfield began production of the Model 1842 Musket. This was the first percussion musket produced by U.S. Armories as well as the last smoothbore. One additional first was the effort to make this musket completely interchangeable so that Springfield parts would interchange with Harpers Ferry parts. The Model 1842 Musket was a percussion version of the 1835/40 Musket, which was produced only at Springfield between 1840 and 1844.⁷ Because the Government wanted to have complete interchangeability and depend solely on National Armory production for weapons, no contracts were let for the Model 1842.

A war with Mexico and a border dispute with England involving British Columbia sharpened hopes that arms contractors would soon have more work. However, James K. Polk was able to settle the dispute with the English, and troops in the field against Mexico were armed from the stocks of flintlock muskets on hand. Conflict with Mexico had varying support across the country. Support was high in the South and in the Mississippi Valley, but the Northeast saw the war as a potential expansion of slavery. Indeed, during this period, Southern states viewed Mexico and its holdings as well as Cuba and Central America as areas conducive to slavery. Some Southern politicians quietly supported filibustering expeditions to overthrow the governments in places such as Nicaragua and Cuba with an eye toward eventual slave-state status.

After the war with Mexico, Governor Seabrook of South Carolina set out to improve the arms situation in the state. Distributions from Ordnance under the Act of 1808 were not able to replace the number of militia arms damaged, lost and stolen, and therefore Seabrook sought other sources of weapons.⁸ To this end, he contracted with William Glaze and Thomas Radcliffe, partners in a hardware and military supply business in Columbia, to provide 274 percussion rifles and 100 percussion muskets.⁹ Glaze and Radcliffe apparently contacted William H. Smith & Co. of New York about the order.

William H. Smith & Co. was one of the dealers that had handled muskets and pistols for Waters. Smith and Waters corresponded about the order in August 1849, noting the possibility of a larger order in the future.¹⁰ In early 1850, Seabrook contracted with Glaze and Radcliffe for an addi-

tional 660 percussion muskets, and this order followed the same route to Asa Waters. It seems that the orders were combined, and between 16 April and 17 May 1850, 761 percussion muskets were shipped and invoiced to William H. Smith & Co. for delivery to Glaze and Radcliffe for the State of South Carolina.¹¹ Payment was due 60 days after inspection and acceptance.

As the muskets for South Carolina were being completed and shipped from Millbury, Massachusetts, events were conspiring against Asa H. Waters. On 31 March 1850, John C. Calhoun died. He was a towering figure in South Carolina politics and author of Nullification, and the State decided to give him a hero's funeral. The money to fund such an event came from the appropriations for the arms purchased from Waters and Co.¹² To justify failure to pay, the State of South Carolina condemned all the muskets. This failure to pay obviously caused stress for all parties concerned, but particularly for Waters, who had put out the money for manufacture.

Because of the difficulty of dealing with the condemnation of all of the musket at long distance, Asa Waters sent Benjamin Flagg to South Carolina in October 1850. On 16 December 1850, Waters wrote Glaze and Radcliffe:

On arriving at the Arsenal at Charleston, our Mr. Flagg presented the Report to Capt. Matthews also the pattern musket to Maj. Covick who after consulting with his Inspector concluded to send to the Gov for instruction. And in the meantime he re-commenced the inspection of the Muskets. He admitted that by the terms of the Report these guns were all accepted, but still claimed the privilege of inspecting & rejecting such parts as he considered unworthy. Mr. F remained with him two days & explaining the manner in which the Bayonets were adjusted and other things. He seemed much better satisfied & Mr. F left with the understanding that if he found any stocks or other parts inferior to the patterns so that he would not consistently receive them he would box them up, send them back & we will replace them by others.¹³

In spite of these efforts, the State of South Carolina did not appropriate the funds to pay for the muskets until December 1853. The debt was apparently settled at this time.¹⁴

With his trip to South Carolina to hasten the inspection process of the muskets, Benjamin Flagg became well known to William Glaze and others in the state. This association appeared to be advantageous to both Waters and Glaze. There were indications at this time that the State of South Carolina may be interested in establishing an armory for the fabrication of arms, and, with his political connections, William Glaze seemed to be the logical agent for the

enterprise. In a letter to Glaze on 16 December 1850, Waters told him:

If the State should determine upon incipient measures for the establishment of an Armory in that State and should want any of our services, we think we can give them the most undoubted testimonials as to our experience & abilities in that line of business. For three successive generations that has been the business of our establishment & for more than a quarter of a century we have actively engaged in manufacturing various kinds of arms for the United States and others.¹⁵

Shortly after this correspondence, Asa H. Waters received a letter from Glaze, and in January 1851 Waters responded:

Your letter of the 27th has just arrived from which it appears that the Govern of S. C. has made appropriation for Militia, defenses & we deem your prop made by the Executive to you & by you to be of sufficient magnitude to require our immediate personal attention. Our Mr. Flagg will hasten down in coach in a few days for your careful proposal to make such suggestions & arrangements as you may naturally think be advisable.¹⁶

With Benjamin Flagg in South Carolina, things began to move along. In February 1851, the South Carolina Ordnance Board decide to purchase 6,000 muskets, 1,000 rifles, 1,000 pairs of pistols, 1,000 cavalry sabres, and 1,000 artillery sabres.¹⁷ By March 1851, Glaze's partner Radcliffe gave up his interest in the Palmetto Iron Works, and the firm became William Glaze & Co. On 15 April 1851, Glaze and Flagg concluded a contract with the State of South Carolina to produce the aforementioned arms. The contract states in part:

This Agreement made and entered into between the State of South Carolina by Major James H. Trapier, ordnance officer for the State of South Carolina aforesaid, for and in behalf of the said State, of the first part and William Glaze and Benjamin Flagg of Columbia in the said State, of the second part, Witnesseth:

That the said William Glaze and Benjamin Flagg agree and promise to furnish to the said Major J. H. Trapier or his successor in office for the use of the State aforesaid, the following arms to wit: Six thousand Muskets, One Thousand Rifles, One Thousand Pair Pistols, One thousand Cavalry sabres and one Thousand Artillery Swords, with their equipments complete. These arms and their component parts, to be manufactured within the State of South Carolina, of the best material and workmanship, and as far as practicable, of material and by mechanics obtained in the State aforesaid. . . .¹⁸

It also stated that deliveries be complete by the end of 1852 and that the arms be of regulation U.S. Army pattern

with the State reserving the right to alter the patterns if it saw fit.

With all the players on the stage, it was now time to make muskets. First came the need for skilled labor. Throughout the Fall and Winter of 1851-52, Asa Waters contracted with a number of skilled laborers specifically to go to South Carolina and fabricate muskets at the Palmetto Armory.¹⁹ Through the first 3 months of 1852, there were no muskets produced as had been stipulated in the contract, and in April 1852, the South Carolina Ordnance Board visited the Armory and issued a report stating:

. . . all of the requisite machinery for making muskets & pistols complete, is now on hand and ready for immediate use. In consequence of an extensive conflagration in the Machine Shop where a part of their machinery had been ordered, an unavoidable delay was caused in its receipt at the Armory, and also on account of the difficulty of having brass castings of the musket bands made here, your contractors Messrs Glaze & Flagg were induced to purchase beyond the limits of the State, 5 or 600 lock plates & the same number of brass bands, both of which were palpable departures from the letter and spirit of their contract. The lock plates by the arrival of additional machinery, will now be made in this city, and the casting of the bands be contracted for with Mr. Bull of Charleston.²⁰

There has been no evidence found of any fire at the Waters facility or any related operation during the period before the report. It also seems that the tactic was to admit to a small transgression in order to hide the larger one. If they admitted to receiving a small number of parts from other sources it was better than the Board finding out the real scope of the importation. The Ordnance Board was satisfied enough to give Glaze and Flagg an extension for completion of the muskets to December 1, 1853.

Observations, which are discussed in detail later, show that the Flagg 1842 muskets and Waters 1842 muskets were both made by the Waters Co. The largest single source of parts for these muskets was rejected or condemned parts from the Springfield Armory. Smaller amounts of parts were either made by Waters or ordered from other companies in the arms business. Asa H. Waters & Co. for the most part were assemblers of 1842 muskets with parts acquired from various sources. The hand of Asa Holman Waters fell heavy on the Palmetto Armory as seen in this letter dated 22 July 1852:

Yr favor of the 9th instant requesting to know what parts of Muskets we have sent out, what parts finished & on hand, & what parts are in progress has been rec'd. Agreeably to your request we hereby enclose a tabular statement of the whole items. . . .

From this you will observe that the full compliment of some parts for the whole 6,000 muskets is already made up

and forwarded. Of the other parts, nearly so and of all, is in good state of progress. We have sent you all of the machinery required for the manufacture of Muskets except on parts supplied by ourselves and have understood your men putting them up at the rate of about four hundred a month. To that we supposed the Armory was moving on the full tide of successful operation.

We were informed & somewhat surprised to learn that you very much dissatisfied with the manner in which the business is being conducted. We know not to what you particularly refer but if there is anything wanting on our part and you will inform us, we will endeavor to conform to your wishes.

At one time we were charged with doing too little . . . at another, too much. The less we do here and the more there is done there on the work, the more we are relieved from the responsibility. We want you to note your own pleasure about it and do what you think is best for all the parties concerned.

So far as the management of the business and there is concern we suppose you have it pretty much all your own way and rely entirely upon your discretion and fidelity with Mr. Flagg jointly for its success. If you want more workmen, please specify what kinds you want and when and we will endeavor to hire them.

We had supposed, however, that you have sufficient force on the musket for now. When you decide to work upon the Rifle and Pistol jobs, other workmen will be necessary, but this cannot done (so we think) until after the summer solstice is passed. We have on hand the Pistol.²¹

The following is the tabulation referred to in the letter to William Glaze cited above: This correspondence establishes the source of the musket parts that were used to construct the Model 1842 Musket assembled at the Palmetto Armory.²² Some of the totals do not add to 6000 on such items as ramrods, buttplates, tumbler screws, and rod springs. These are items that may have been manufactured at the Palmetto Armory.

Glaze settled the accounts with the State of South Carolina on 28 November 1853; this included the delivery of 6020 muskets. After the completion of the contract, Benjamin Flagg, many of the workers, and probably most of the machinery appear to have returned to Massachusetts. During the Palmetto Armory work, it seems that the Waters Company continued to make 1842 muskets and sell them to small-lot buyers. This production appears to have continued to 1856 or 1857.

OBSERVATIONS OF THE WATERS 1842 MUSKETS

The following discussion deals with information acquired by examination of 31 examples of Waters and Flagg

	Number Sent	No. on Hand	No. in Progress	Total
Barrels finished	524	400	1475	2704
do unfinished	1571	600	1571	3676
Bayonets	1304	500	1500	3204
Rods	1771	500	500	2771
Stocks	5435		1000	6438
Lock Plates	2037	1228	1685	6000
Hammers	6850			6850
Tumblers	6165			6165
Bridles	6247			6247
Sears	6084			6084
Mainsprings	3154	800	2046	6000
Sear Springs	1700	1225	2175	6000
Breech Pins	2362		2704	6066
Upper Bands	1325	400	700	2421
Middle Bands	1351	600	849	6000
Lower Bands	1508	600	3849	6000
Breech Plates	3491	1509		5000
Guard Plates	2910	1200	1890	6000
Side Plates	1896	1000	3104	6000
Guard Bows	1980		1500	3430
Nuts	6934		5066	12000
Upper Band Springs	1071	400	1000	2971
Middle Band Springs	1494	400	1000	2894
Lower Band Springs	1461	400	1000	2861
Tang Screws	6211			6211
Tumbler Screws	4974			4974
Side Screws	11172			11172
Triggers	3291	3100		6391
Spring Screws	6956			6956
Sear Spring Screws	7018			7018
Sear Pins	5218		800	6018
Bridle Pins	2400		2600	6000
Guard Bow Screws	6000			6000
Breech Screws	12106	7250		19356
Rod Springs	4153			4153

1842 Muskets. These include those in the author's collection as well as museum pieces and those in other private collections. Because these arms were not made to specific gauge but rather loosely to pattern, it is difficult to cite defining dimensions; however, some production trends and markings help identify these arms.

Much useful information is available in examining the locks of the Flagg and Waters muskets. Because a large number of the lock plates were purchased as surplus from Springfield, these provide some interesting findings. Apparently, Waters received some lock plates from the 1840 flintlock muskets, and some of these were used to make 1842-style muskets with both Flagg and Waters marks (Fig. 1). The Model 1840 was identical to the Model 1842, except

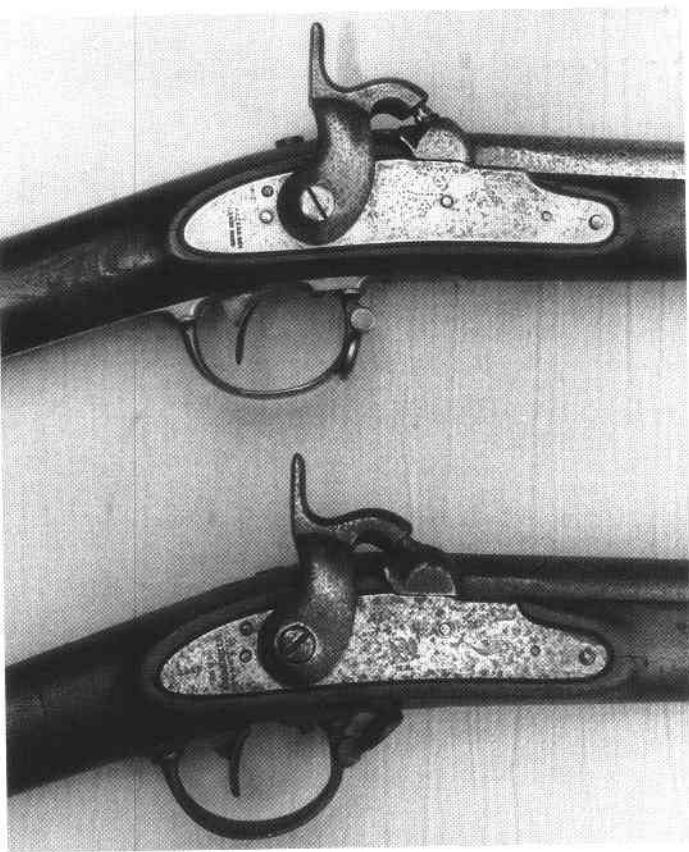


Figure 1. Model 1840 lock plates used to make 1842 muskets, Waters-marked above and Flagg-marked below.

that the former was flintlock and the latter percussion. Lockplates from the 1840 musket were longer to accommodate the pan; however, none of the plates examined were cut for a pan.²³ These arms made with the 1840 plates represent a small number of the guns examined, but it did give Asa H. Waters an avenue to recover the cost of the parts in complete arms.

External markings on the lock plates provide considerable information on time frame in which the arms were made and by whom they were made. Flagg muskets are stamped on the tail of the lock plate, with the stamping perpendicular to the axis of the barrel. The most frequently observed stamping is "B. FLAGG & Co." on the first line with "MILBURY" below and "1849" on the third line (Fig. 2). One noted variation has "MASS." on the third line and "1849" on the fourth line, either parallel or perpendicular to the other lines (Fig. 3). The letters and figures in the stampings are 0.08 inches high. "1849" is the only date noted of the Flagg lock plates, and two undated Flagg plates have been examined.

External markings on the Waters muskets are also on the tail of the lock plate and also perpendicular to the axis of the barrel. The first line is "A. H. WATERS & Co.," and the second line "MILBURY, MASS." (Fig. 4). Note that there is only 1 "L" in Milbury compared to 2 "L"s in the Flagg stampings. Only one dated Waters musket was noted, and it

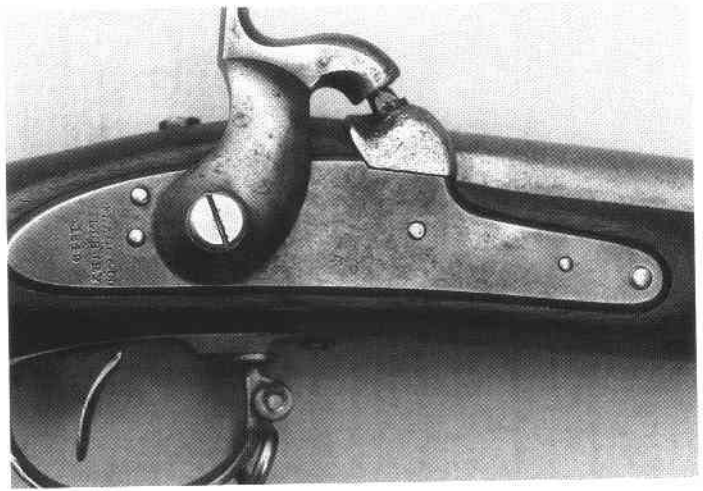


Figure 2. Musket marked "B. Flagg & Co." with the 1849 date. Note that the eagle is a Springfield stamping.

was dated "1849"; the balance have no dates on the lock plates. Stampings on the Waters lock plates have letters and figures that are 0.06 inches high. On one Waters plate, the "MASS." was replaced by "MS." There does not seem to be any rule or reason for the use of specific stampings on the guns.

Another external lock marking is the "Waters eagle." This is a large-headed, round-shaped eagle with an unmarked shield covering the front (Fig. 5).²⁴ This eagle has been noted on earlier Waters flintlock muskets and some pistols. It appears on both the Flagg and Waters muskets in a position in front of the hammer and below the bolster. On two of the Flagg lock plates, Springfield markings were ground off the tail, and the Flagg markings were stamped there, but the Springfield eagle with "U.S." below was left on the plate. On one plate, remnants of the Springfield markings can be seen under the Flagg stampings. There are also muskets that have only the "Waters eagle" and a small "U.S." as the exterior markings (Fig. 6).

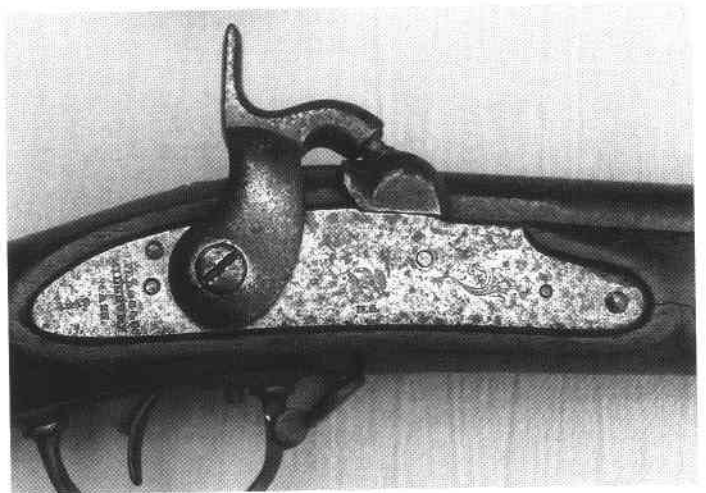


Figure 3. Flagg-marked lock with the addition of "MASS." in the third line and "1849" perpendicular to the stamping. The eagle is a Waters-style.

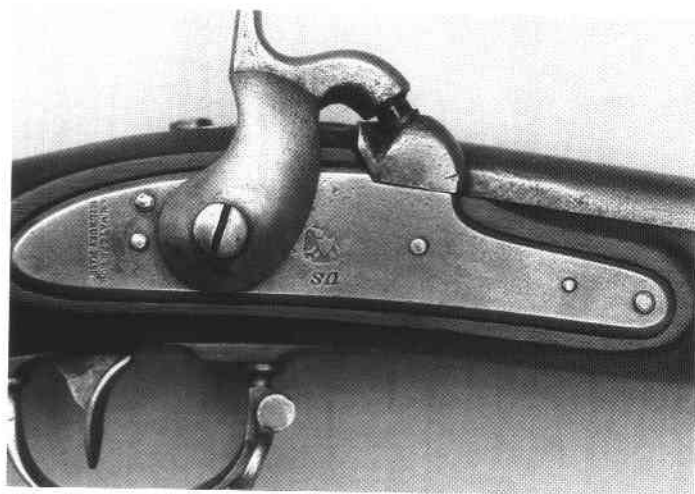


Figure 4. Musket marked "A. H. Waters & Co." with the Waters-style eagle in front of the hammer. Note that the "U.S." is upside down.

Interior lock markings found on the Flagg and Waters muskets are helpful in linking the manufacture of the two arms. From early flintlock musket manufacture, Waters used an internal lock marking system in which a single letter or two letters appeared together, such as "A" or "pp." These letters were placed on all the internal lock parts, including screw heads, tumblers, sears and bridles, and the lock plate. The same letter was used on all parts in the same arm. Use of this system is noted in a "Sutton" marked flint musket dated 1809 (the Waters lock mark before 1813), and it can be observed in Waters made arms from flint muskets (Fig. 7) and pistols (Fig. 8) to the 1842 muskets made with Waters or Flagg plates (Fig. 9). This is a strong indicator that the Flagg muskets were actually products of the Waters armory. The assembly marks letters, either single or double, have been noted on all the Flagg or Waters marked 1842 muskets. If internal parts have been replaced, these replacements are lacking the assembly letters or may have a different letter.

In contrast to the Flagg and Waters marked 1842

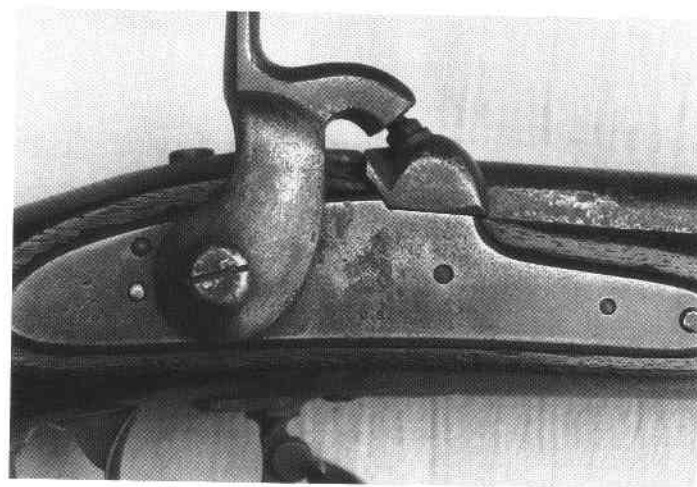


Figure 6. Waters lock plate showing only the Waters-style eagle and a small 'U.S.' below.

muskets, the internal lock markings of the Springfield 1842 musket are a group of small numbers and one letter "L" found on the tumbler. Harpers Ferry 1842 muskets have the internal lock parts marked with a "V," which is commonly associated with that armory.²⁵ Palmetto muskets generally have no internal lock markings, with the exception of punch marks on the lock plates (Fig. 10). The 1842 muskets marked with the "Waters eagle" only have no internal lock markings



Figure 5. A closeup of the Waters-style eagle from an 1842 Flagg musket. (From *The Eagle on U.S. Firearms* by John W. Jordan).

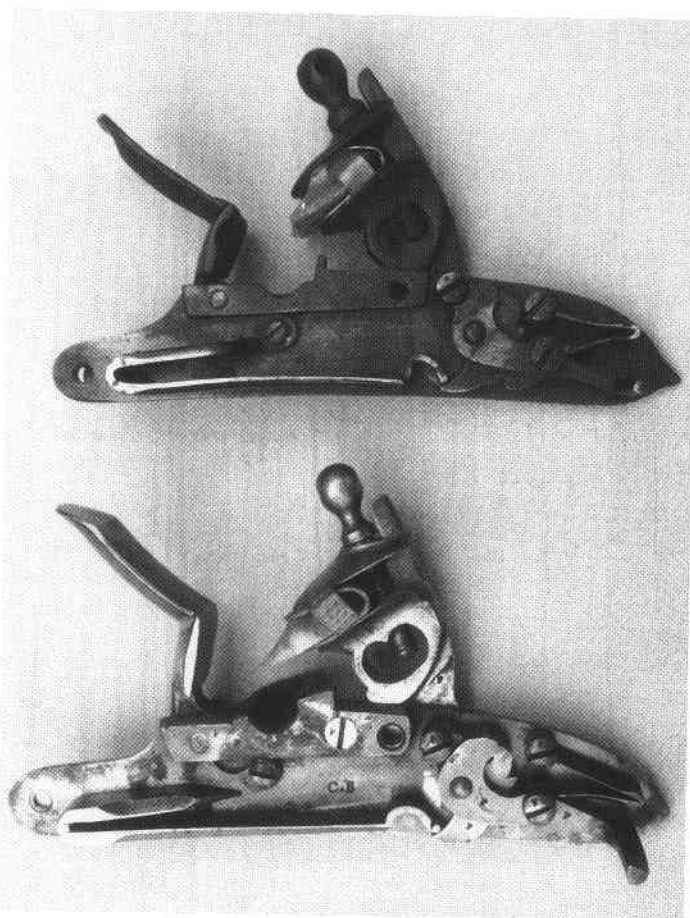


Figure 7. Lock marked "SUTTON" dated 1809, above, with small 'T' marks on the internal parts. "WATERS" marked lock dated 1827, below, with 'P' marks on the internal parts.

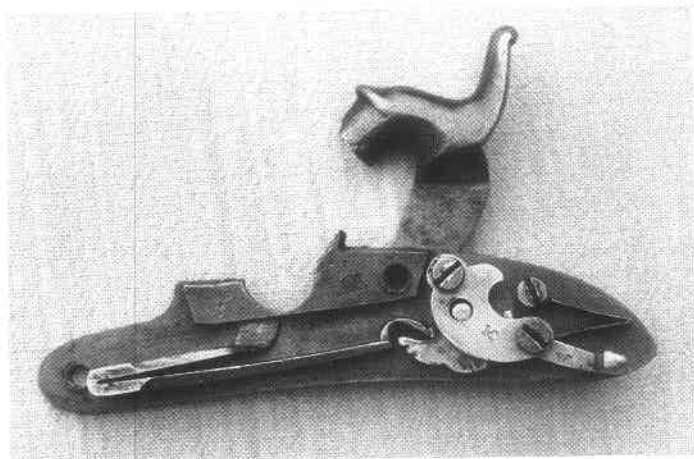


Figure 8. The lock of a Waters flat-lock pistol showing the 'M' marks on the internal parts.

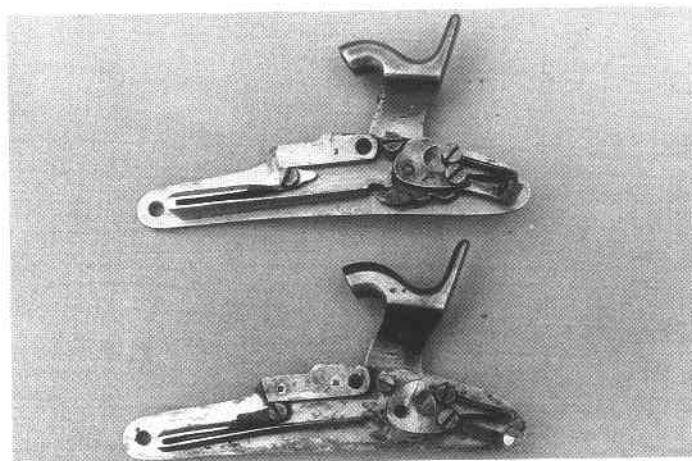


Figure 9. Waters 1842 lock, above, with 'J' marks on the internal parts and a Flagg lock, below, with 'B' marks on the internal parts.

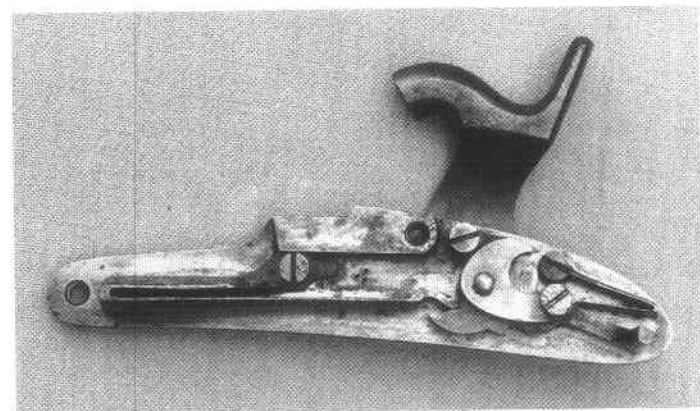


Figure 10. A Palmetto lock showing the punch marks but no other internal markings.

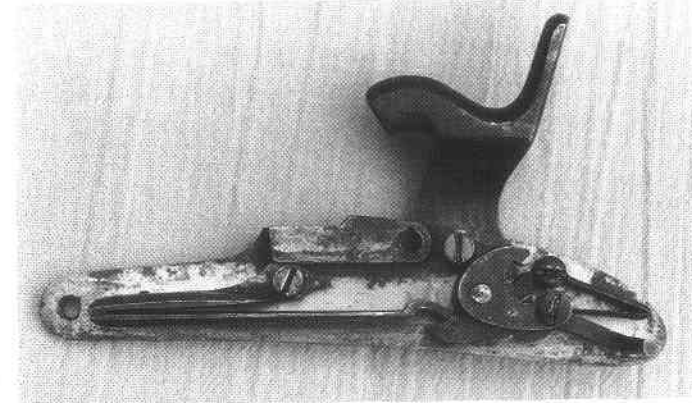


Figure 11. An 'eagle only' Waters lock plate showing the tear-drop on the top of the bridle and a "G" stamped on the bridle.

except for a "G" on the bridle, and an unusual "teardrop" on the top of the bridle (Fig. 11).

Because of the concern to give all appearances of adhering to the letter of the South Carolina contract, all marks on locks and barrels were to be of Palmetto, William Glaze, and South Carolina. To wit, the assembly letters were probably abandoned. It is likely that the appropriate stampings were applied in the factory at Millbury, Massachusetts.

Hammers on the Flagg and Waters muskets show considerable minor variations. The hammer spur tends to be shorter, thicker, and with much coarser knurling, and the hammer overall appears to be thicker in the shank and less well defined than the national armory hammer (Fig. 12). They generally carry the same assembly letter as the other parts of the lock. The letter is usually found inside the hammer but has been observed on the outer flat of the hammer nose or in both places. While assembling the muskets for the South Carolina order for 660 muskets in the spring of 1850, Asa Waters writes Mr. Belcher of Easton, Massachusetts, on 25 April 1850:

We have received this morning a box of work from you but do not find but 169 of the Musket hammers. . . . as we have 600

Muskets to deliver on or before the first of May, and they are all ready except for the hammers. Please forward us in lots by express fifty or more as fast as you possibly can. 440 more wanted.²⁶

Most of the muskets in this group were provided with hammers that were not government armory surplus, accounting for the minor variations in dimension.

Barrels for the Flagg and Waters 1842 muskets are close in dimensions to the government production barrels, with many having the "V" "P" eaglehead marks on the left side of the breech, and a few have dated barrel tangs (Fig. 13). Most of the barrels examined appear to be surplus or condemned U.S. barrels (Fig. 14). Two Flagg muskets with 1849 lock dates have barrel tangs dated 1849. One Waters musket has a tang date of 1853 but no lock date. In 1850, Asa Waters had correspondence with James Merrill of Baltimore and with Blunt and Syms concerning the purchase of percussion musket barrels.²⁷ This indicates that not all of the barrels used came from national armory sources (Fig. 15). One Waters musket has a breech plug of the 1816 pattern with the date 1828, so there was a certain amount of mixing and matching going on during production. A barrel on one musket appears

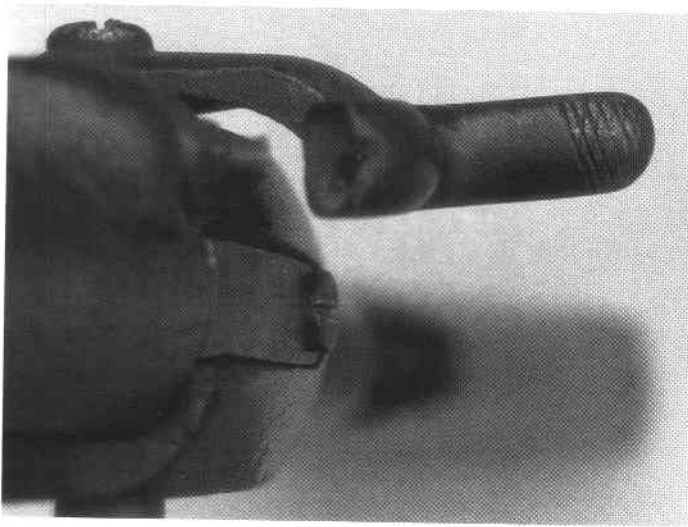


Figure 12. Coarse knurling seen on the hammer of a Waters-marked musket.

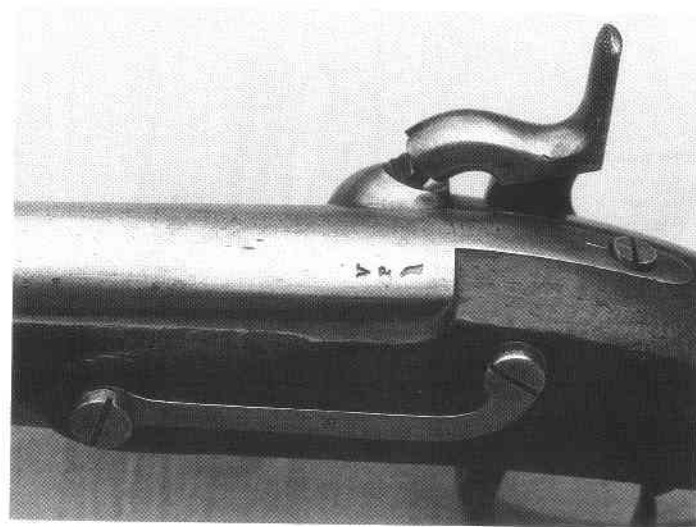


Figure 13. Government marks on the barrel of a Flagg-marked musket. The tang is dated 1849.

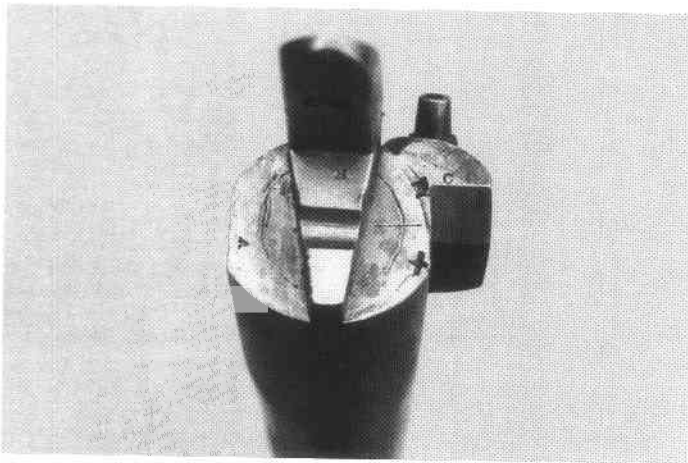


Figure 14. This is a U.S. barrel with a condemnation 'C' stamped on the back of the bolster. It is from a Flagg-marked musket.

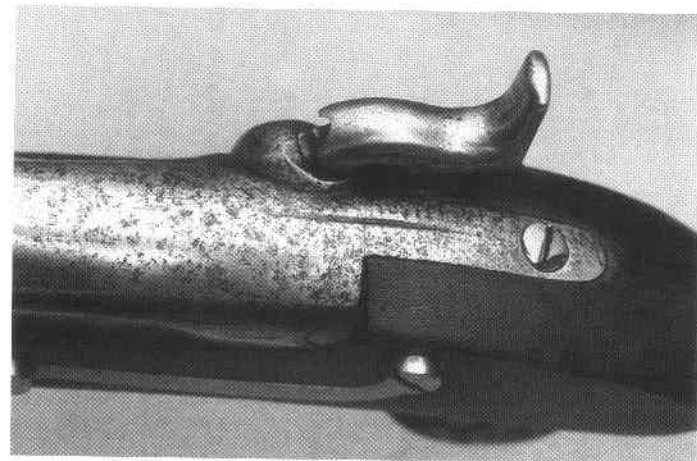


Figure 15. A barrel with no markings and a file cut extending onto the barrel tang from a Waters-marked musket.

to be an 1840 flint barrel on which a bolster has been brazed over the touch hole.

Stocks of the Flagg and Waters muskets are generally of the 1842 pattern, the one exception being the muskets made with the 1840 lock plate. These arms are stocked with the 1840 stock to accommodate the longer lock plate. It is likely that the bulk of the stocks came from the Springfield Armory. In 1837, during the production of the 1836 pistol, Asa Waters was having difficulty securing good wood for pistol stocks. To this end, he cut a deal with Ordnance to buy directly from Springfield spoiled or rejected musket stocks from which he could cut pistol stocks.²⁸ It is not known how long he bought these stocks, but it seems likely he acquired enough to stock some muskets as well. Stocks on some of the Flagg and Waters muskets show minor repairs to the wood, these being areas of wood replacement or internal flaws filled with glue and sawdust (Fig. 16). Some stocks show signs of being made from poorly seasoned wood with open grain and cracks and flaws. Inletting of the stocks is not as good as National

Armory work, especially around the buttplate, trigger plate, and the barrel tang. Most stocks show no cartouches, although one stock on a Waters musket has two cartouches and a knot flaw inside the barrel channel, which has been filled with glue and sawdust. A few of the stocks are not inletted for a ramrod spoon.

The trigger guard and trigger plate are the same configuration as the Model 1842; however, the spanner nuts that retain the bow are generally cruder than the U.S. type. One unique feature seen in a number of the Waters muskets was the lack of a wood screw in front of the trigger bow. The plates were never drilled for the screw, and the stocks on some are not drilled either (Fig. 17).

Buttplates on some of the muskets are marked "U.S.," but most are not. Many of the plates are thinner than the U.S. ones and flatter on the top. Screws for the buttplates are either of the 1842 pattern or the smaller screws used on the 1816 pattern.

Most of the Flagg and Waters muskets observed have

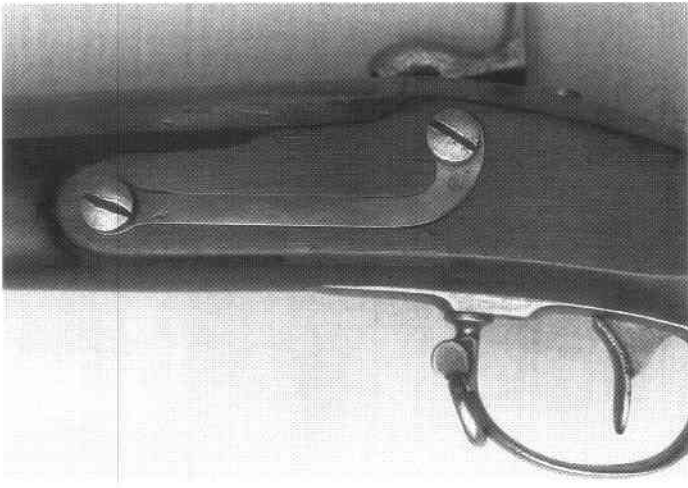


Figure 16. Repaired stock with wood added under the side plate from a Flagg-marked musket.

iron barrel bands, generally in the pattern of the 1842 musket. One Waters musket has a middle barrel band that is iron but without the typical shoulders, in the same pattern as the brass bands seen on most of the Palmetto Muskets (Fig. 18). Also noted is that the sling swivels where the rivet ends are visible because they were not polished down.

With the history reviewed and the observations complete, it is time to use the information to try to answer some of the questions concerning these arms. First is how the Flagg muskets fit into the scheme of things. It is obvious that Flagg did not acquire the machinery and produce muskets on his own. Being the more mechanical of the partners, he may have assembled some muskets from available parts to show that it could be done and make a salable arm. Another scenario might be that the first big order was going to the South for an operation of dubious legality and so Flagg plates were used to disguise the origin of the arms. Either way, it

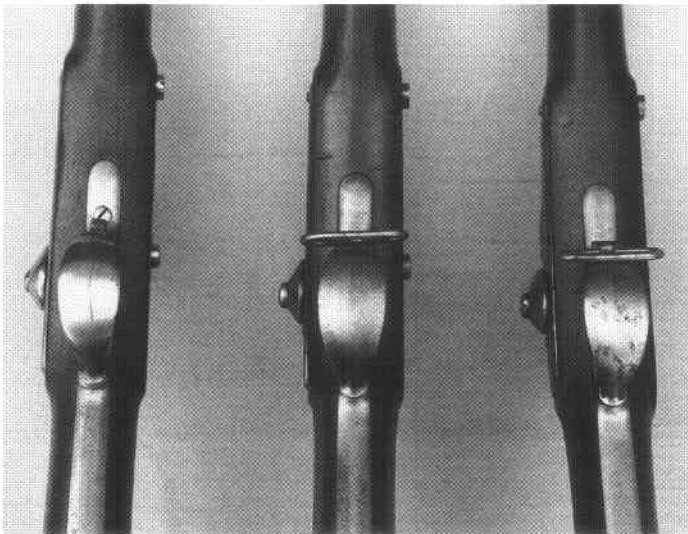


Figure 17. Three Waters-marked muskets, the one on the left has the wood screw on the front of the trigger guard plate. The other two have no front screw.

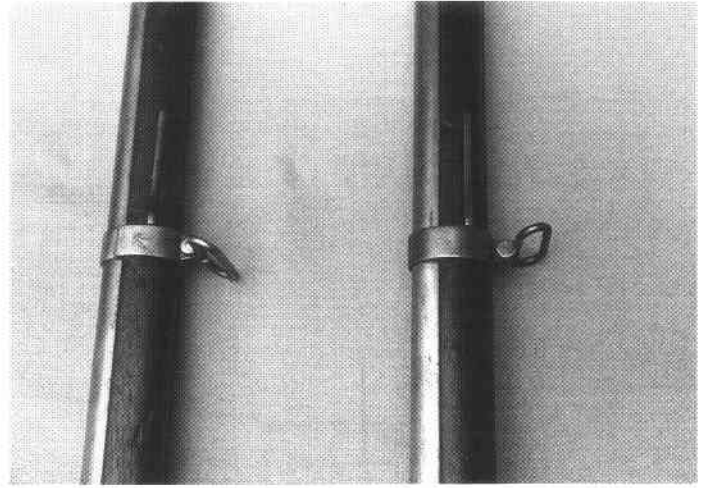


Figure 18. The top musket has a standard middle band with shoulders. The lower musket has an iron band with no shoulders. Both are Waters-marked muskets.

seems that the Flagg muskets were the earliest produced because of the 1849 date and the use of 1840 and 1842 lockplates. The use of the assembly letters in the locks and the "Waters eagle" show them to be Waters products. With the success of the assembled arms, it follows that Waters began to mark the plates with the company name. It is entirely possible that the first 100 muskets to South Carolina were Flagg marked, but it is most likely that the bulk of the next 660 were Waters marked. As far as the small sales that were ongoing to militia and individuals, these arms were probably marked *Waters*, with a few Flagg marked.

One of the Waters-marked muskets examined had a barrel tang date of 1853. This indicates that the musket was assembled in 1853 or after. With the passage of the Kansas-Nebraska act in 1854 and increasing agitation in the South, it might have become politically expedient for an arms maker who was dealing with both sides to limit the identification on his product. This could explain the 1842 muskets with nothing more than the "Waters eagle" and "U.S." on the lockplates. In April of 1856, Eli Thayer bought \$1,000.00 worth of "rifles" from Mr. Waters of Millbury for the New England Emigrant Aid Society.²⁹ These "rifles" were more likely muskets, and they were bound for "Bleeding Kansas," certainly a good reason to limit advertising. The eagle-only arms were probably the last of the 1842 Waters muskets.

Another question that has been raised is, what happened to the musket machinery? With the rather abrupt end to the Palmetto contract in 1853, there were no additional markets for arms open to the armory. Benjamin Flagg's work was done, and he and most of the imported workers returned to Massachusetts. It is likely that the machinery for assembling the muskets was returned as well. It is entirely possible that officials in South Carolina were aware that the Palmetto contract was not filled according to the letter of the agree-

ment, and William Glaze was viewed with some skepticism. The lack of machinery and the doubt regarding William Glaze's dealings with the State of South Carolina could explain the relatively small part that he played in arms manufacture during the Civil War. His operation certainly lacked the equipment and skilled labor to resume small arms production.

Establishing a total production number for the Waters 1842 musket is difficult. Production seemed to be driven by orders large and small, and to date no records of deliveries or sales have been found. Given the number of surviving arms, which is not particularly large, and including known production, 760 sold to South Carolina and the 6,020 done at the Palmetto Armory, the total number produced was 9,000 to 10,000 muskets.

The Waters family operation was multifaceted and stretched over three generations. It included gunmaking, gun repair, manufacture of gun parts, textile machinery construction and repair, real estate, and land development. Politically, Asa Holman Waters was a Whig/Republican and a staunch Free Soil man, but as a businessman he would limit his arms sales to those who could pay for them. Of all the non-U.S. Model 1842 muskets made, he had a part in all that were produced except those assembled by Whitney in the late 1850s. The Flagg, Waters, and Palmetto 1842 muskets all had Asa H. Waters as a major factor in production.

ACKNOWLEDGMENT

I wish to thank George Moller for his assistance in researching this subject, Susan Anderson of the American Antiquarian Society for help with the Waters Family Papers, and Lou Southard for his conspiratorial capabilities. I would also like to acknowledge the assistance of Pete Schmidt, Charlie Foster, and all of the other individuals who graciously allowed me to view arms in their collections.

NOTES

1. Moller, George D., "Waters Muskets for South Carolina—Part I," *The Gun Report*, 45(4): 18-24, 1999. This article includes a detailed and extensive history of Asa H. Waters and the operation of the Waters Co.
2. Reilly, Robert M., *United States Military Small Arms 1816-1865*, (Louisiana: Eagle Press, 1970), p. 179.
3. *Waters Family Papers*, (Worcester, MA: American Antiquarian Society, Asa Waters contract), 1 October 1838.
4. *Ibid.*, Asa Waters contract 14 November 1839.
5. *Ibid.*, Waters correspondence: Blunt & Syms, Lane & Read, William H. Smith, 1848-1850.
6. *Ibid.*, Waters correspondence: Lane & Read and William H. Smith, 1849-50.

7. Reilly, pp. 14-15.
8. Spangler, John H., *Arming the Militia: South Carolina Longarms 1808-1903*, (Thesis, University of Florida, 1977), p. 70.
9. *Ibid.*, p. 77.
10. *Waters Family Papers*, Waters to Smith 19 August 1849.
11. *Ibid.*, Waters to Smith, 18 May 1850.
12. Spangler, p. 77.
13. *Waters Family Papers*, Letter from Waters to Glaze 16 December 1850.
14. Meyer, Jack Allen, *William Glaze and the Palmetto Armory*, (South Carolina: 1994), p. 16.
15. *Waters Family Papers*, Letter from Waters to Glaze 16 December 1850.
16. *Ibid.*, Letter from Waters to Glaze January 1851.
17. Spangler, p. 80.
18. *Ibid.*, p. 82.
19. *Waters Family Papers*, Demming contract 7 March 1852.
20. Meyer, p. 18.
21. *Waters Family Papers*, Letter Waters to Glaze 22 July 1852.
22. *Ibid.*
23. Muskets observed with the 1840 lockplates showed no signs of arsenal finishing.
24. Jordan, John W., *The Eagle on U.S. Firearms*, Union City, Tennessee, 1991, p. 78.
25. A number of National Armory 1842 locks were examined and the markings of the internal parts were more like batch markings; e.g., all of the scars had a specific mark.
26. *Waters Family Papers*, correspondence Waters to Belcher April to May 1850.
27. *Ibid.*, Letters Waters to Blunt & Syms and to James Merrill.
28. *Waters Family Papers*, Waters to Talcott 1 August, 12 September 1837.
29. *Dr. Samuel Cabot Papers*, Massachusetts Historical Society Boston, Letter from T. W. Higginson, 6 September 1860.

BIBLIOGRAPHY

- Jordan, John W., *The Eagle on U.S. Firearms*. (Union City, TN: Pioneer Press, 1991).
- Lander, Ernest M., Jr.: *Reluctant Imperialists; Calhoun, the South Carolinians, and the Mexican War*. (Baton Rouge and London: LSU Press, 1980).
- Meyer, Jack Allen: *William Glaze and the Palmetto Armory*. (Columbia, SC: South Carolina State Museum, 1994).
- Patterson, Meade C.: *Waters Gunmaking Family*. The Gun Report, February through September, 1961.
- Reilly, Robert M.: *United States Military Small Arms 1816-1865*. (Highland Park, N.J.: Gun Room Press, 1970).
- Spangler, John H.: *Arming the Militia: South Carolina Longarms 1808-1903*, (Thesis, University of Florida, 1977).
- Waters Family Papers 1749-1873*. (Worcester, MA: American Antiquarian Society).
- Dr. Samuel Cabot Papers*, (Boston, MA: Massachusetts Historical Society).