

The Origin of the Palmetto Pistols

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Arms associated with the effort of the Southern states to rapidly equip themselves during the Civil War have always been of special interest to students and collectors. The arms that were actually fabricated in the South generate the most interest. The variety of arms associated with the Southern cause illustrate the tremendous effort made by the Confederate Government and individual states to attempt shifting from an agrarian society to one capable of obtaining suitable arms to wage a war. The rumblings of secession were heard long before the actual firing on Fort Sumter, so it would have seemed advisable on the part of the Southern states to consider their ability or lack thereof to produce arms. During the secession crisis of 1850, South Carolina attempted to rectify its arms making limitations by establishing an arms industry within the state.

On the eve of the Civil War, most of the arms located in the Southern states were those received through the Militia Act of 1808. The states were allowed to requisition arms based on the number of personnel annually reported on the state's militia muster roles. Although arms were originally allocated by stands of muskets, states could choose to substitute artillery, swords, rifles, pistols, or accouterments. The exchange was achieved by a mathematical pricing formula that related substituted arms and equipment to the cost of a musket. The regulations specified that arms designated for the state militia were whenever possible to be produced in private armories on contract with the US Ordnance Department.

Many of these arms contractors were located in the Connecticut River Valley, where they were close to skilled labor, water supply, transportation, and materials. Arms makers such as Nathan Starr, Robert Johnson, Simeon North, Henry Aston, and Ira N. Johnson were all located in Middletown, Connecticut (Fig. 1). Not far away in Springfield, Massachusetts, was the National Armory. Nathan P. Ames was located in nearby Chicopee. The Asa Waters armory stood just a little further north in Millbury, Massachusetts. Before the Civil War, Virginia was the only state to establish an armory, but they ceased manufacturing arms in 1821 and began to receive arms through the Militia Act of 1808.¹

The sectional differences between North and South that eventually led to armed conflict were a complicated web of economics, political power, and the issue of slavery. The



South politically tried to maintain its power in the Senate in the face of growing Northern power in the House of Representatives. The possibility of conflict between North and South began years before the firing on Fort Sumter. The Nullification Crisis in 1832 was ended by President Andrew Jackson by a combination of the threat of military action and compromise. The annexation of Texas and the war with Mexico threatened the political balance. An attempt was made by the growing abolitionist movement in 1846 to 1847 to block the spread of slavery into new territories. By 1849, Southern Rights Associations were being formed. The secession crisis was flourishing, and political activity was so intense that the South Carolina General Assembly established a Board of Ordnance in 1850 to purchase the munitions of war and voted \$350,000 for that purpose. One of the contractors selected to supply arms under this act was William Glaze of Columbia South Carolina.²

William Glaze was a businessman who had no previous experience in arms making. His primary business in antebellum Columbia was selling jewelry, silver articles, and repairing clocks. However, the secession crisis put Glaze in the arms business. Glaze was active as a member of the militia unit called the Richland Light Dragoons (Fig. 2). In 1849, the firm of Glaze and Radcliffe purchased arms for the State of South Carolina from Northern suppliers; swords from the Ames Manufacturing Company of Chicopee, Massachusetts, and muskets from Benjamin Flagg of Millbury, Massachusetts, who was the foreman and later the business partner of Asa H. Waters.³ Both these firms had been in the business of



Figure 1. Henry Aston and I. N. Johnson pistol factory, Middletown, CT.

supplying arms to the United States for decades. It was with these Northern firms that Glaze formed his first arms business associations (Fig. 3).

In 1850, Glaze formed a new company, The Palmetto Armory, with Benjamin Flagg and James Boatwright as his partners. This seemed like a good alliance. Flagg had vast experience as an arms maker for Asa H. Waters & Co., and Boatwright was a successful business man and a politically well-connected southerner. Politically connected, it is not surprising that Glaze's new firm won a state contract, signed April 15, 1851.⁴

The details of the contract underscores the desire of South Carolina to establish an arms industry within the state. Specifically, the contract requires "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 foresaid." The original contract specified one thousand pair of pistols at \$14.50 per pair. In addition, the contract specified limited numbers of muskets, rifles, cavalry sabers, and artillery swords to be furnished by the Palmetto Armory.⁵

For years, students of arms and collectors have accepted the premise that William Glaze actually fabricated the contract arms for the State of South Carolina at the Palmetto Armory in Columbia. Numerous written sources have alluded to the fact that that Glaze imported the necessary arms manufacturing machinery from Waters through Flagg. This information may have first been published in 1893 in *Old Springfield, Its Inhabitants and Mansions*. A section on Thomas Warner, who had been Master Armorer at Springfield until 1842, states, "Mr. Warner was associated with the arms company at Millbury, Massachusetts in getting up gun machinery for arms works at Columbia South Carolina."⁶ There is little doubt that some equipment was shipped to Columbia

from Millbury. In February of 1853 an article appeared about the Palmetto Armory in *The Southern Agriculturist*.⁷ The two-column article takes the reader on a brief tour of the Palmetto Armory. Throughout the article, the reporter writes about seeing and having explained to him the various machines that are in place and capable of making arms. The machinery includes boring, trimming, and polishing machines, a stock lathe, and browning facilities. He also reports the presence of a steam-driven fan to provide a forced draft for the furnace. He implies the presence of a trip hammer and milling machines⁸ (Fig. 4).

Students of arms making and anyone with a background in business or manufacturing have reason to view Glaze's contract with considerable skepticism. There appears to be no "economy of scale" in such a venture. Could the firm establish the physical plant, buy the machinery and material for such a variety of arms, and make any money on such few arms completed? In comparison, Henry Aston's contract was for 30,000 Model 1842 pistols. Ira N. Johnson's contract, using the same facilities, was for 10,000 pistols. Experienced federal contractors in the North had never agreed to fabricate such a variety of arms consisting of muskets, rifles, pistols,

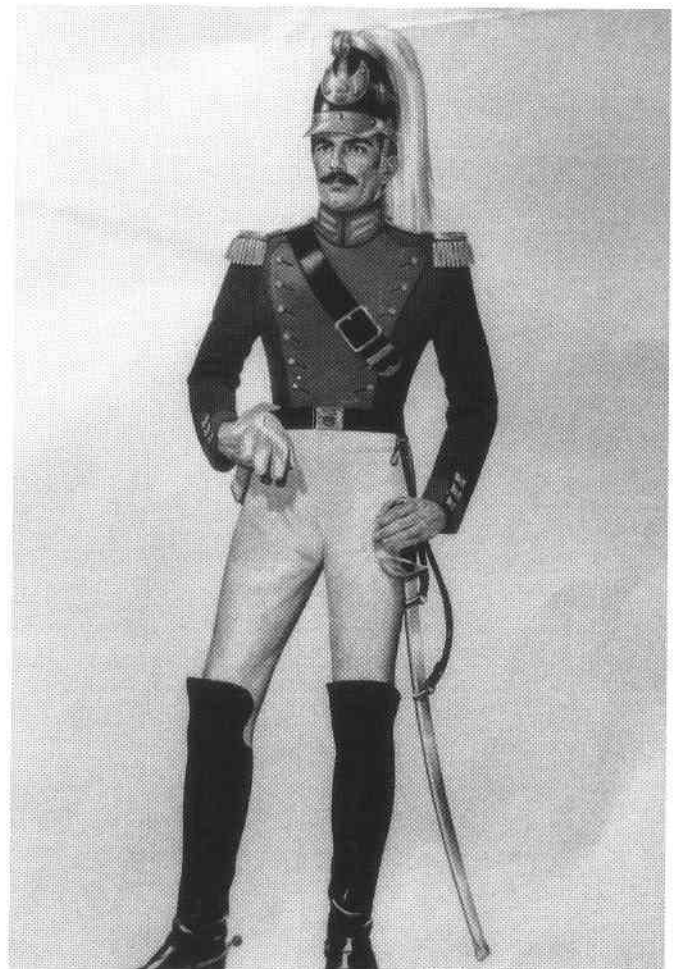


Figure 2. South Carolina Dragoon, circa 1850.



Figure 3. Asa Holeman Waters, Photo *Centennial History, Town of Millbury*.

and two kinds of sabers at the same time and in such a short time. Glaze's first deliveries of each type of arm on his contract were due in only 9 months. Henry Aston, an experienced arms maker with an available skilled work force, took almost 2 years from the receipt of his contract in January of 1845 to deliver the first 750 pistols in late October of 1846. It can be argued that the Palmetto Armory was expecting additional contracts, perhaps with other Southern states, and therefore the investment seemed justified. However, no additional contracts materialized. It would seem Glaze was in serious danger of forfeiting his contract before the ink was dry.

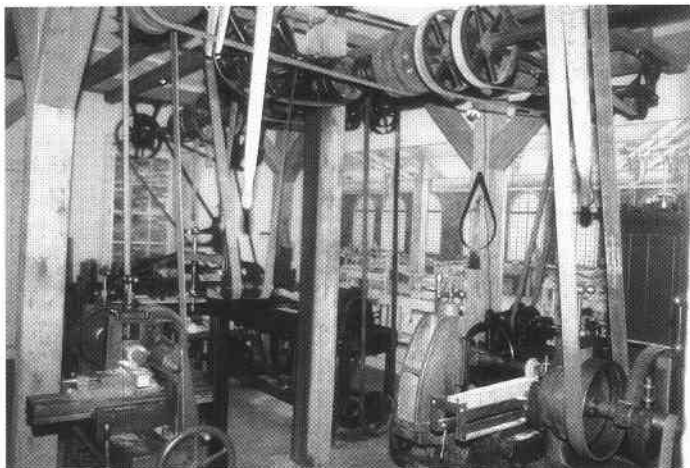


Figure 4. Example of arms-making machinery of the period.

Assume for the moment that Glaze did in fact obtain enough arms-making equipment from Millbury, Massachusetts, to set up a factory fully capable of manufacturing such a variety of arms called for in his contract. If true, then there are a lot of questions that beg to be answered. Why on the outbreak of the Civil War, when the South was desperate for arms, did the State of South Carolina not return to the seat of their "successful" venture in arms making at the Palmetto Armory? Why did Glaze not return to profitable arms fabrication for the war effort? Why would South Carolina leave a productive factory and "experienced" arms maker underutilized? Glaze's activity at the old Palmetto Armory seems to have been confined to altering a few arms to percussion and casting a few cannon balls. Perhaps the Palmetto Armory never was a factory fully capable of a variety of arms fabrication. The inquiry provides information that begins to explain possible answers to some of these questions. Although a variety of arms associated with the Palmetto Armory are extant, this inquiry focuses on the pistols named in the contract to illustrate some of the possible answers to questions about the arms fabricated in Columbia (Fig. 5).

Glaze's contract required the specified arms to be like the current US Models. At that time, the correct model for the pistol was the M1842 single-shot percussion pistol being manufactured under federal contract with Henry Aston of Middletown, Connecticut. By October of 1852, Aston had completed his contract. Ira N. Johnson, who was a partner of H. Aston & Co., received the next contract for M1842 pistols and began deliveries in May 1853 (Fig. 6).

Recently both physical and documentary evidence has been uncovered that points to a business relationship between Glaze and New England arms makers in relation to the fabrication of the Palmetto pistols. It is important in the research of arms to follow two lines of inquiry, the physical evidence and the written evidence. One without the other may lead to serious false conclusions. The physical evidence is presented first, followed by the written documentation. To understand the physical evidence, one must briefly explore the contract arms and inspection system that was in place during this era.



Figure 5. Palmetto pistol.



Figure 6. Model 1842 Aston pistol, dated 1846.

The Regulations for the Inspection of Small Arms, 1823, provide guidance for the inspection process and the placement of inspectors marks on completed arms. The Regulations also called for a comparison of the finished arm to a pattern.⁹

The Ordnance Manuals of 1841 and 1850, which updated the Regulations of 1823, provided additional instructions for the inspection of arms. One of the major changes was that the individual components were fitted to gauges. Thirty-eight numbered gauges for the M1842 pistol are listed in the 1850 Ordnance Manual¹⁰ (Fig. 7). The pistols produced by Aston and Johnson were inspected following the prescribed instructions by fitting each part to a gauge rather than by the old method of comparing them to a pattern. On all approved M1842 pistol parts, the initials of the subinspectors appear as a small letter representing the last name of the inspector. The full initials of the inspector appear on the barrels when they approved the proofing and as subinspectors on the stock flat opposite the lock (Fig. 8). The complete assembled pistol was inspected by a subinspector from Springfield, and a final inspection was made by the inspecting officer for the contract service. Most of the final inspections were made by William Anderson Thornton (WAT), and on the later I. N. Johnson Pistols the final inspection was made by R. H. K. Whiteley (RHKW), who replaced Thornton in

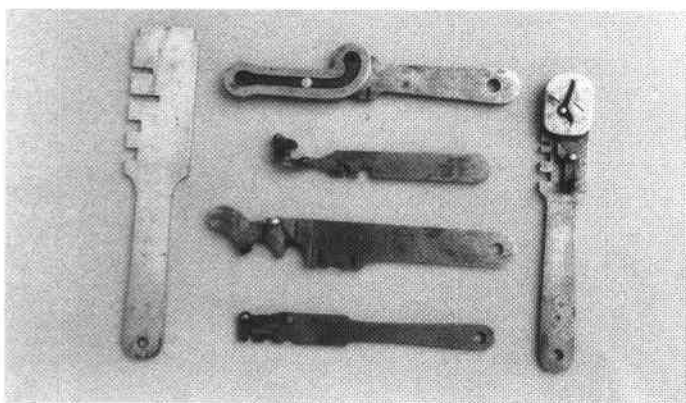


Figure 7. Inspection gauges for the Model 1842 pistol. Author's collection.



Figure 8. Inspectors John Hawkins (JH) and William A. Thornton (WAT) initials on the stock of Model 1842 pistol.

1855. Each pistol accepted by the government had to pass this rigid inspection process.

The barrel was the first component of the arm to be inspected. On M1842 pistols, the letters *US*, *P* and the inspector's initials were placed on the barrel after proof but before final finishing and inspection by gauge. The barrel when finished was again inspected by fitting it to the size gauges. A small letter representing the subinspector's last name was stamped on the left barrel flat, indicating final approval. Proofed barrels that were rejected after final finishing for improper gauge or other defects were marked with a "C" for *condemned*.

During the barrel fabrication and proofing process of Aston and Johnson pistols, corresponding assembly marks consisting of a letter and number were placed adjacent to each other on the breech plug and the rear of the barrel. The letter mark was probably placed on the barrel first during proofing and the number during the final finishing when it was necessary to separate the barrel and breech. The marks assured the breech plug would be returned to the proper barrel and line up perfectly. This indicates the breech plugs and barrels were not interchangeable.

Collectors and students have observed that the Palmetto pistols do not exhibit the normal inspection marks

found on the government-accepted pistols. However, the federal inspection process on the pistol barrels provided the first avenue of research into the origin of the Palmetto contract pistols. Interestingly, the first clue was not provided by a Palmetto Pistol! Apparently, on the completion of the Ira N. Johnson contract in 1855, a number of pistols were assembled from surplus parts for private sale. These pistols, like the Palmetto, lack the government sub-inspector or final ordnance acceptance inspection marks. To date, six of these "assembled" Johnson pistols have been located, and five have been disassembled and examined in detail. Five of the six were found to be in very good condition. The Pistols examined have I. N. Johnson locks dated either 1854 or 1855, with proofed and dated Aston barrels. Each of the barrels on the five pistols examined is marked with a "C" for condemnation on the barrel flat under the bolster (Fig. 9). On one pistol, a "C" was found on the interior of the lock plate (Fig. 10).

Additionally, a completely unmarked pistol has recently been located that is assembled with mostly "C"-stamped condemned parts. The normal barrel proof and inspection marks are absent (Fig. 11). The lock plate is also unmarked; however, the rear of the barrel and the breech plug exhibit the usual letter and number assembly marks. On this unmarked pistol, a "C" was found on the barrel, on all of the brass mountings, and on the stock inside the lock mortise (Figs. 12, 13). The trigger, hammer, and the interior of the lock plate were all marked with a single punch mark (Fig. 14).

It is important to note there is a major difference between Aston and Johnson barrels, besides the obvious dates of production stamped on the tang. The difference is explained in a letter from Ira N. Johnson to Colonel H. K. Craig, Chief of Ordnance, in Washington, requesting that he be allowed to make steel barrels.

25th June 1852

Colonel H. K. Craig

Sir

After careful consideration, I have concluded that it will be as well for me to make steel barrels. I therefore propose to make the ten thousand pistols (for which I have an order) with steel instead of iron barrels. Believing that they will be better in all respects, I therefore ask of you the privilege to make steel barrels.

Ira N. Johnson
of Middletown Conn.¹¹

In a letter to Johnson, dated 26 June 1852, Colonel Craig granted permission to proceed with the steel barrels.¹² Ira N. Johnson contracted for the steel barrels with Henry North and Edward Savage at a cost of sixty-two cents each. The original Accounts Received Ledger book of Edward Savage was examined by the author. Johnson's account

shows, beginning in December of 1852 and continuing until 5 January 1855, he received and paid for 10,771 cast steel pistol barrels in 24 deliveries.¹³

The use of cast steel for barrels was relatively new in the arms industry. In a letter dated 14 July 1848 Colonel George Talcott, Chief of Ordnance, allowed Simeon North to use cast steel barrels in the fabrication of Hall Carbines.¹⁴ The Board of Ordnance had first considered cast steel barrels made by Samuel Remington in 1845. The advantages listed by the Ordnance Board in their final report included fewer flaws in the bore, superior strength, greater hardness, and greater smoothness to the bore of the barrel. Some Model 1843 Hall carbines made by North beginning in 1848 are marked "STEEL" on the barrel.¹⁵ All I. N. Johnson pistol barrels are similarly marked STEEL on the barrel flat (Fig. 15).

The business relationship between Aston and Johnson explains the presence of proofed iron Aston pistol barrels on nongovernment Johnson pistols assembled after 1855. Following the completion of Aston's contract, Johnson took over the factory by paying each partner one thousand dollars and an additional 21 cents for each pistol he completed. Using the same machinery, Johnson completed his contract for 10,000 pistols in May 1855. With the exception of the barrels marked "STEEL" and lock and date markings on the Johnson pistols, they are identical to the ones produced by Aston.¹⁶ Any surplus or condemned Aston "iron barrels" were of no use to Johnson in fulfilling his government contract. The fact that Johnson switched to cast steel may have been from experience in the failure rate of Aston's iron barrels. Johnson ordered and paid for 771 more barrels than he needed to complete his contract, perhaps because of anticipated inspection failures. This implies a 7.7% inspection failure of even steel barrels. If the same rate is conservatively applied to the total production of Aston pistols, then over 2,500 barrels would have failed to meet government inspection standards. The condemned Aston iron barrels found on assembled Johnson pistols indicates that as late as 1855 rejected barrels were still available at the factory.

The Palmetto pistol is similar to the Johnson assembled pistols in that no inspector's marks are present. When the author's Palmetto Pistol was disassembled, a "C" for *condemned* was found to be present on the barrel under the bolster (Fig. 16).

The "C" mark is identical to those found on the assembled Johnson pistols. The same breech and barrel assembly marks were present on the Palmetto pistol as found on government-inspected pistols and on the unmarked example (Fig. 17). A systematic study of Palmetto pistols in private collections revealed a consistency in the marks on the barrels. The study of Palmetto barrel markings leads to the

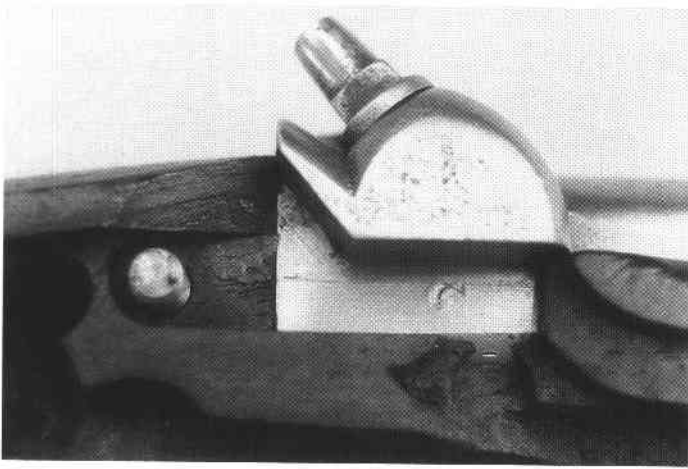


Figure 9. "C" for *condemnation* on assembled I. N. Johnson pistol. Author's collection.

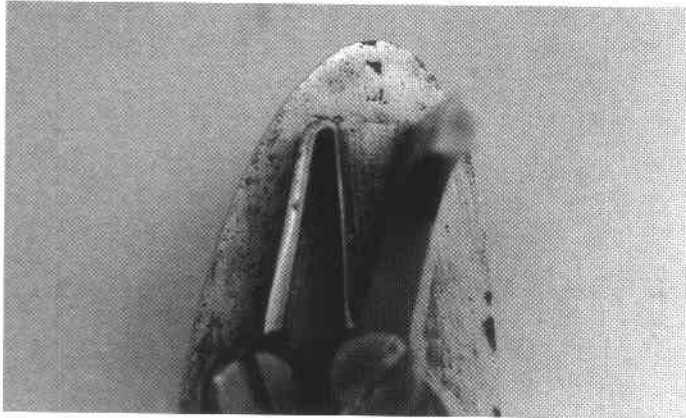


Figure 10. "C" for *condemnation* on the interior of the lock plate of an assembled I. N. Johnson pistol.

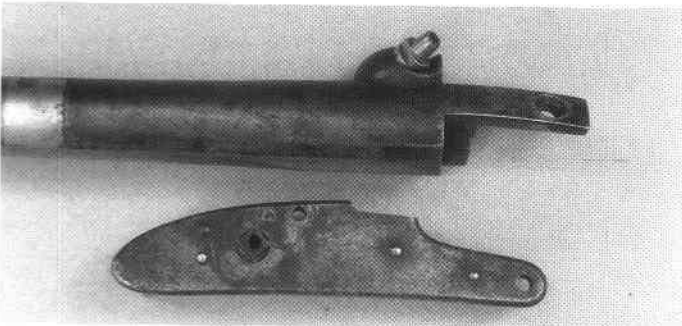


Figure 11. Unmarked barrel and lock of a pistol made from condemned parts. John Maas collection.

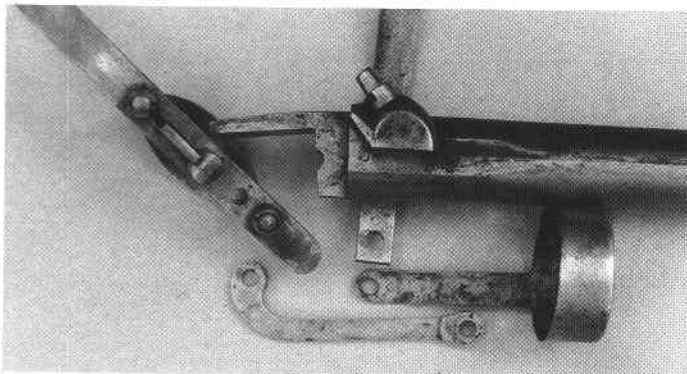


Figure 12. "C" markings on the mountings and barrel of an unmarked model 1842 pistol.

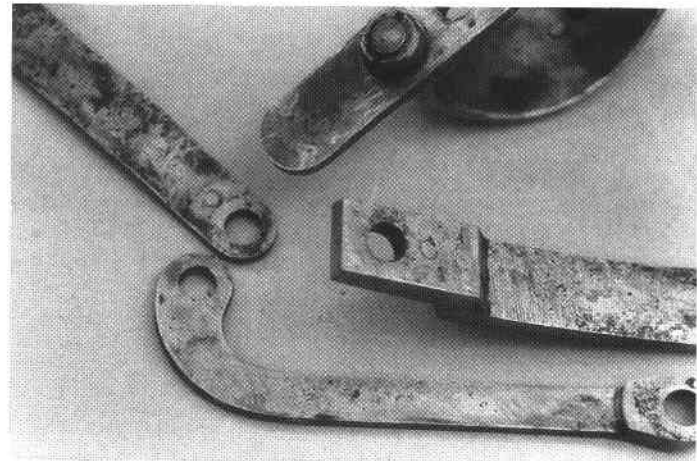


Figure 13. Inspector's "C" for *condemned* mark on the interior of the brass mountings.

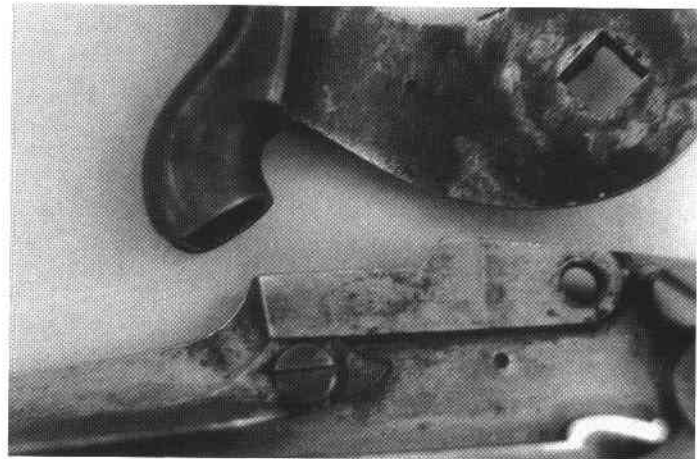


Figure 14. Punch marks on the interior of the lock and hammer of the unmarked pistol. John Maas collection.

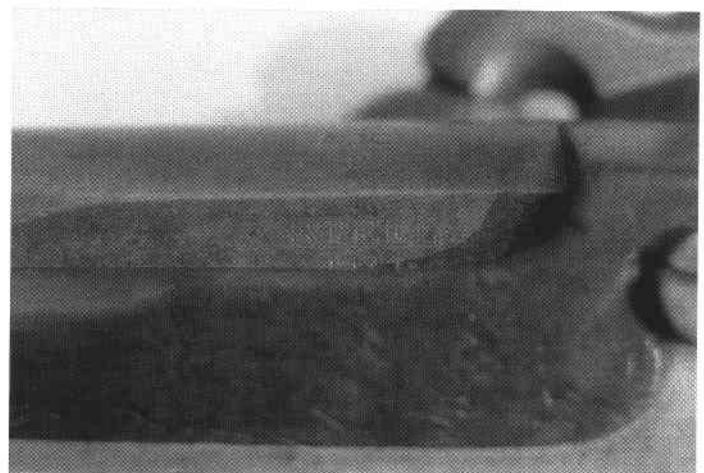


Figure 15. STEEL on the barrel flat of Model 1842 I. N. Johnson pistol.

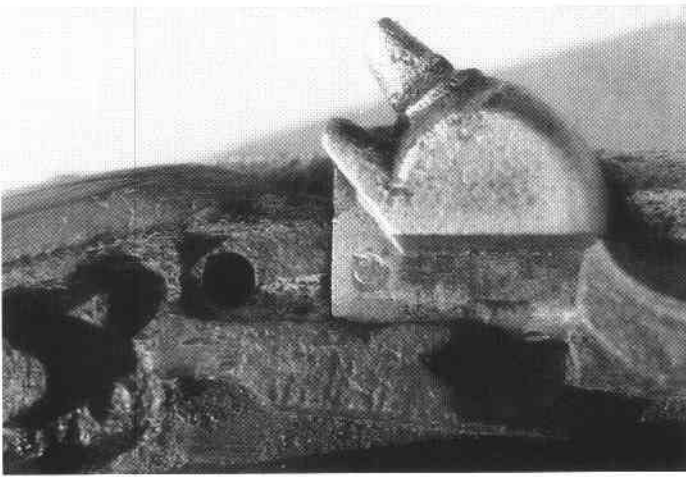


Figure 16. "C" for *condemnation* on a Palmetto barrel. The lower half of the "C" has been damaged by a punch. Author's collection.

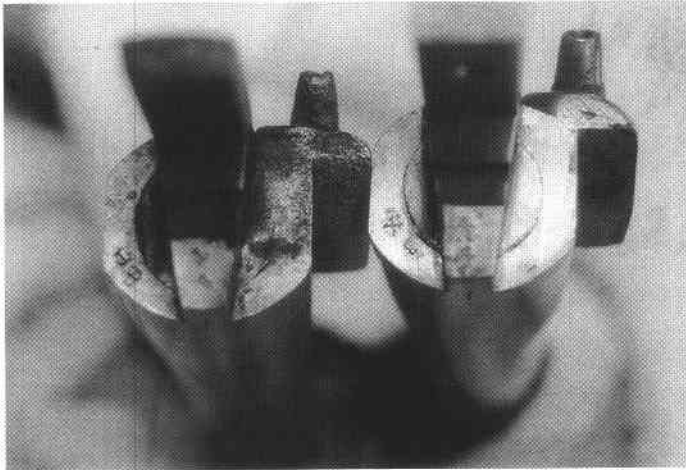


Figure 17. Comparison of the breech assembly marks of an Aston barrel, right, marked X3 and a Palmetto barrel, left, marked T 8.

conclusion that they are in fact condemned Aston barrels. The marks present on most of the Palmetto pistols examined in this study reveals the presence of the "C" for *condemned* or a punch mark placed to obliterate the "C" mark (Fig. 18). In all cases, the "C" mark has been damaged in some manner. Some efforts were just more successful than others. On three Palmetto Pistols, the "C" mark is not present but the pistols examined show a problem with the fit of the breech plug to the barrel. These pistols exhibit only the letter assembly mark on the breech plug and barrel, indicating perhaps they were rejected before final finishing and inspection.

In addition, the interior of the Palmetto locks are marked with a single punch mark in the same location as the one observed on the unmarked pistol made from condemned parts (Fig. 19). This single punch mark may be factory mark denoting parts that will not pass inspection. Locks marked with a C on the interior, like the example found on the assembled Johnson pistol, are likely the result of a lock failed by the inspector and marked according to regulations.

A selection of condemned barrels with or without

federal proof marks could have easily been remarked with the V, P and Palmetto tree. Many Aston and Johnson pistols exhibit comparatively weak inspector stamping and proof marks on the barrels. Measurements diagonally across the Palmetto barrels in the area of the proof marks compared with Aston barrels are inconclusive because of the curved surface. However, measurements of condemned barrels, Palmetto barrels, and Aston barrels also did not reveal gross variations (Figs. 20, 21).

The author is fortunate to own five of the original Aston shop gauges and one of the US inspection gauges. When the parts from the Johnson assembled pistols or the Palmetto Pistols are applied to those six gauges, the parts do not quite fit the gauge. The individual parts, on visual inspection, do not seem to exhibit any glaring defects. Approved Aston and Johnson pistol parts applied to the gauges resulted in a perfect fit. Because most of the Palmetto components examined are not marked condemned, they were perhaps rejects that were set aside after being checked with a factory gauge knowing that further work would not bring them into compliance with US ordnance inspection gauges (Figs. 22, 23, 24). Also, the "C" mark found on the brass mountings of the unmarked pistol are faint enough to be easily removed (see Figs. 12, 13).

The physical evidence to this point indicates that William Glaze used overrun and condemned parts from the production of the Aston pistols to assemble the Palmetto pistol. This would have been in direct violation of both the specific content and the spirit of the contract. It certainly does not meet the intended objective of the State of South Carolina to establish an arms manufacturing facility in the south. Glaze was visited by a committee from the State Board of Ordnance on April 28, 1852. The Committee reported that Glaze and Flag were "induced to purchase brass castings and lock plates beyond the limits of the state." The reason given was that an extensive conflagration had occurred in the machine shop where the machinery had been ordered. The committee reported that "all the requisite machinery for making muskets and pistols complete was now on hand." The committee recommended that the completion date be extended to 1 December 1853¹⁷ (Fig. 25).

If, as it appears, Glaze obtained the parts for the Palmetto pistols from Northern suppliers, what was the complicity of Northern manufactories in passing off rejected and condemned parts to the state? It appears this was an accepted practice. In 1836, N. P. Ames offered swords to Virginia that were like the US model but without inspection marks.¹⁸ No doubt these swords were those that would not finish to federal standards. However, the best evidence is the records of Commission on Ordnance and Ordnance Stores,

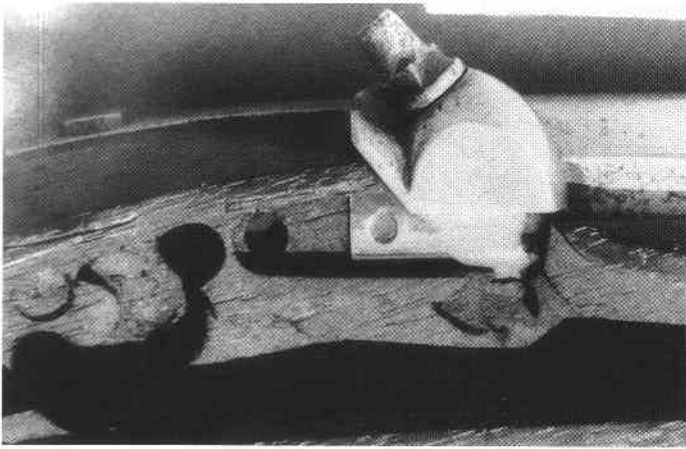


Figure 18. Palmetto pistol barrel with the "C" almost obliterated by a punch. Fred Edmunds collection.

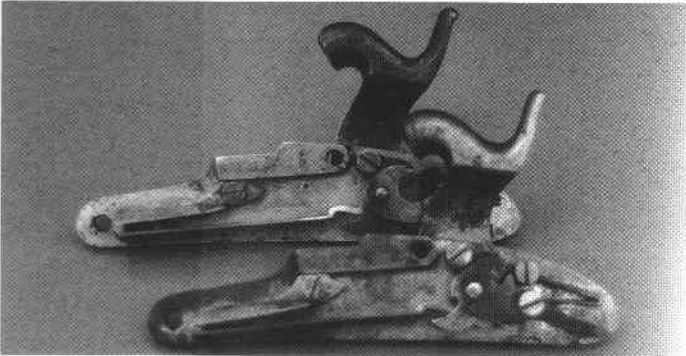


Figure 19. Single punch marks on the interior of the lock plates; unmarked pistol above; Palmetto lock below.

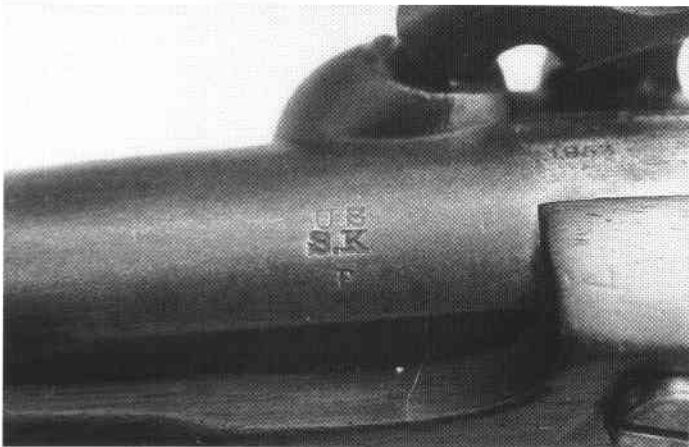


Figure 20. Inspector and proof marks on a I. N. Johnson pistol dated 1853.

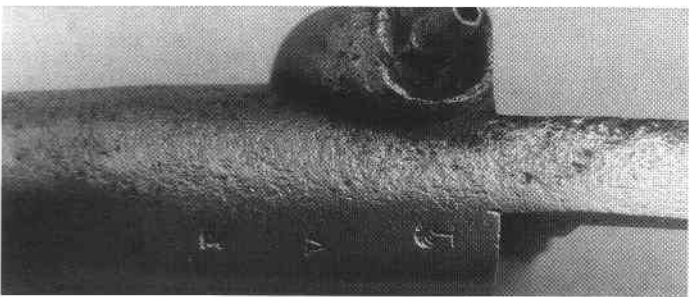


Figure 21. Palmetto pistol inspection and proof marks *P*, *V*, and the Palmetto Tree. Pitting has obscured the 1853 date on the tang.

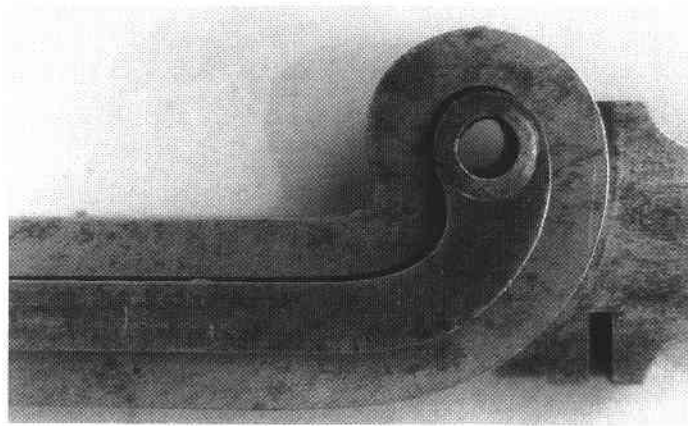


Figure 22. Imperfect fit of a Palmetto pistol side plate to the factory gauge.

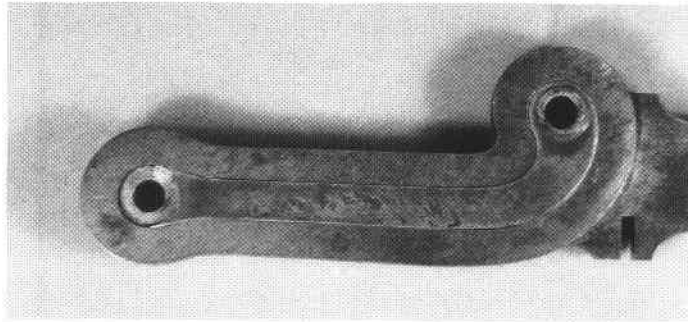


Figure 23. Perfect fit of an inspected Model 1842 pistol side plate.

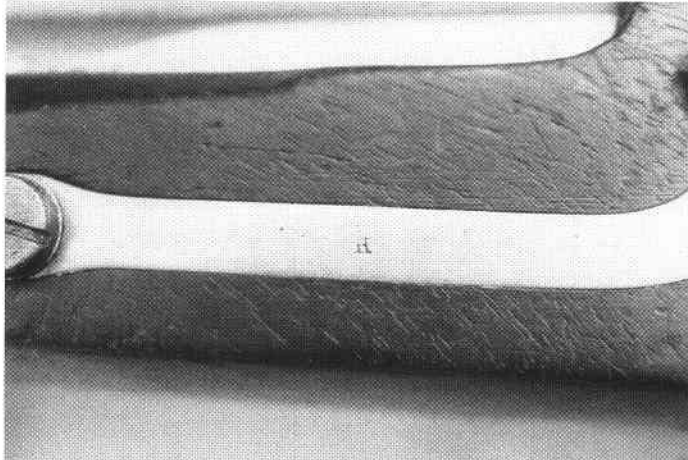


Figure 24. Inspector's initial *H* on the Model 1842 pistol side plate.



Figure 25. The Palmetto Armory, Columbia, SC, as it appears today.

which was established in 1862 to review all the existing federal arms contracts. In testimony before the Commission, it was revealed that P. S. Justice sold to the Pennsylvania Militia arms with condemned marks and supplied items in which the "C" had been marked out.¹⁹ Evidence of a different standard for acceptance by the states was presented by Eli Whitney before the Commission on 11 April 1862. Whitney testified, "I expect to be more particular in my government work than in my state work, as the state inspection is not with gauges. The inspector only examines the finished gun, which we agree to furnish good and serviceable."²⁰

This simply means it was acceptable in the arms industry for state contact arms to be inspected by the older method of comparison to a pattern and not by gauging each part. According to the standards of the day, it would be perfectly acceptable for rejected parts that did not gauge to federal inspection to be sold and assembled into arms for the states as "good and serviceable arms."

Although the physical evidence seems to point to the Northern contractors as the source for the components for the Palmetto Pistols, the research of a firearm should be exposed to two areas of investigation. Neither the physical evidence nor the written record can stand completely alone.

The contract between the Aston partners was specific that Johnson would maintain the company records.²¹ An exhaustive search for documentary evidence that William Glaze was directly associated with either Henry Aston or Ira N. Johnson was conducted in Middletown, Connecticut, and the State Archives in Hartford. Disappointing news was finally located in the old Middletown newspapers. The 23 September 1879 issue of *The Constitution* reported that the pistol factory of Ira N. Johnson was consumed by fire. The fire occurred about 4 A.M. on a Sunday morning, and all the contents of the building were destroyed. At the time of the fire, Johnson had been in partnership with Otis Smith, who was manufacturing a small revolver at the old pistol factory. It is assumed all the old factory records and ledger books were destroyed in the fire. The factory was rebuilt on the same site in 1882 by Otis Smith.²²

Fortunately, the research effort took a positive turn when fellow researchers discovered that the Waters Family Papers are still in existence. The blotter copy letters of Asa H. Waters preserved in The American Antiquarian Society finally provide the documentary evidence that allows the mystery on the origin of the Palmetto pistols to be exposed. Glaze's contact with the Northern contractors was through his partner Benjamin Flagg, who was in turn associated with Asa H. Waters, who in turn communicated directly with Ira N. Johnson in ordering the parts for the Palmetto pistols (Fig. 26).

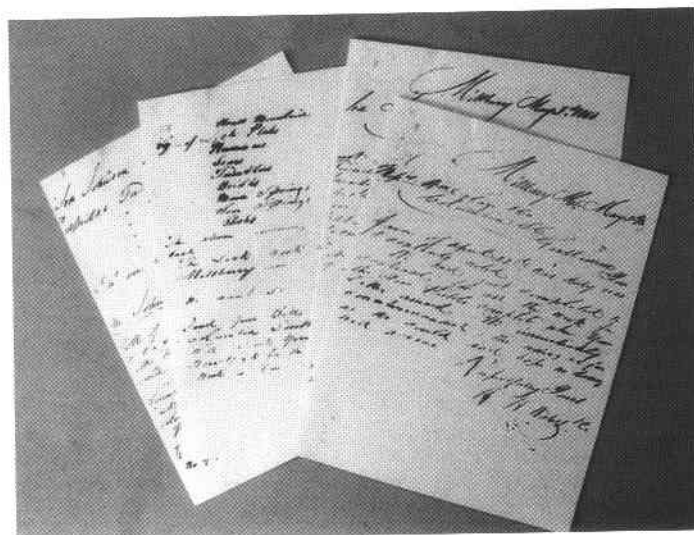


Figure 26. Blotter copies of letters in the Waters Family Papers.

In a letter dated 22 July 1852, from Waters to Glaze, that primarily discusses musket work, Waters adds, "... When you decide to work on the rifle and pistol jobs, other workman will be necessary, but this cannot be done (so we think) until after the summer solstice is passed. We have on hand the pistol. . . ." ²³ This letter is interesting because it implies that Waters has a pattern or a production Model 1842 pistol. Another interesting point is his reference to the "summer solstice," which had already passed on June 21, a month earlier. Waters was a highly educated man and certainly knew the correct solstice dates, so perhaps he was referring to the "winter solstice," which was five months away on December 21st. This would imply a delay of the completion of any pistols into the year 1853.

The key piece of evidence of an association between Glaze, Flagg, Waters, and pistol maker Ira N. Johnson is found in a letter to Johnson from Waters on 26 April 1853. The first part of the blotter copy letter is apparently an acknowledgment of a bill for pistol parts recently received from Johnson.

April 26, 1853

Ira Johnson to A. H. Waters Co.

For 81 Pistol Sears	@ 4c—3.24
For 328 Pistol Bridles	@ 3c—9.84
For 366 Pistol Main springs	@ 6c—21.96
For 216 Pistol Tumblers	@ 4c—8.60
For 89 Pistol Lock Plates	@ 3c—2.67

Ent. on sent (Entry on parts sent)

Mr. Johnson,

Above we have your bill of pistol work sent this day by express—We want you to go ahead with the job of pistol work just as agreed upon you and Mr. Flagg as fast as possible—All the stocks and mountings we want you to put in casks or boxes—and sent as directed by the enclosed card.

Please send the work without delay 1 set of taps by mail as requested by Mr. Flagg to Millbury.

Number of parts wanted would be as follows;

Brass Mountings	2060
100 doz. of Lock plates	1200
Hammers	867
Sears	1800
Tumblers	2060
Bridles	2060
Main Springs	2060
Sear springs	2060
Stocks	1400

The above includes the parts sent back. The lock work we want sent to Millbury. We want 500 sent immediately.

Send your bills to William Glaze & Co. Columbia South Carolina as delivered & they will send you cash checks on New York for the same as fast as the work is done and the bills presented.

Very Respectfully Yours

A. H. Waters & Co.²⁴

This single letter firmly establishes the association between, Glaze, Flagg, Waters, and Johnson. It also establishes that the components for the Palmetto pistols were being supplied by Johnson. The letter clearly instructs Johnson to bill Glaze directly for the components. The shipment of the lock components to Waters implies that the locks for the Palmetto pistols were fabricated at Millbury. Depending on the degree the locks were finished, this letter may also imply the lock plates were stamped in Millbury, since this would have to have been done before the lock was completely finished. The address on the "enclosed card" is not known but it can be reasonably assumed the stocks and mountings were sent as directed to the Palmetto Armory in Columbia. This letter further implies the Palmetto pistols were actually assembled in Columbia.

However, additional letters only a few days later indicates that there is a problem in Columbia. A letter from Waters to Glaze amends the order to Johnson for 2000 pistols complete.

Millbury Mass.

May 3, 1853

William Glaze and Company,
Columbia SC

Gentlemen,

Your favor of April 22 was duly received, contents noted. We had just completed the contract for all the work for the 2000

pistols complete when your letter arrived. We immediately countermanded the order as far as we could and hope no damage will be done.

Respectfully Yours,

A. H. Waters & Co.²⁵

The same day Waters communicated the problem in Columbia to Johnson and advised reducing the number of pistol components.

Millbury Mass.

May 3, 1853

Mr. Johnson esq.

Middletown, Conn.

Dear Sir,

We have just received a letter from our Southern Friends saying there is some uncertainty about the number of pistols which will be wanted. It may be 100— [1,000?] it may be more and it may be less. The authorities not having fully decided.

They advise as therefore for the time being not to start over say 720 which will require you say;

720 Brass Mountings

720 Tumblers

720 Bridles

720 Main Springs

720 Sear Springs

470 Sears

As soon as we hear further we will write you again.

Very Truly Yours

A. H. Waters²⁶

Although the letters in the Waters collection are blotter copies, the number 100 appears to be clear. However, since the rest of the letter proceeds to order an excess of 100 components, it can be assumed that the number should have been 1,000. The earlier bill for components received alluded to in the letter to Johnson on April 23 would indicate that some parts were already ordered.

The dates of the above letters are interesting in comparison to events occurring in South Carolina resulting in the cancellation of the Palmetto Armory contract. A summation of events and correspondence will put the situation in prospective.

15 April 1851 The contract signed

January 1852 600 pistols are due complete.

28 April 1852 The Committee from the State Board

of Ordnance visits the Armory. The contract was extended until 1 December 1853.

- 22 July 1852 Waters writes to Glaze implying that no work has started on the pistols and will not until Glaze informs him he is ready. Waters has a pattern pistol.
- February 1853 An article about the Palmetto Armory appears in the *Southern Agriculturist*.
- 22 April 1853 Glaze writes to Asa Waters reducing the numbers of pistol components.
- 26 April 1853 Waters writes to Johnson with instructions and orders components for 2,000 pistols complete, apparently before he received Glaze's letter dated April 22, 1853.
- 3 May 1853 Waters writes to Johnson after having received Glaze's letter of April 22, 1853 apparently reducing the order to about 720 additional parts.
- 3 May 1853 Waters writes Glaze and says he has countermanded the order for 200 pistols complete.
- 8 May 1853 William Glaze's contract is canceled.

Glaze's contract had been extended until December 1853; however, on May 8, 1853 he received notice from Major W. R. Calhoun, State Ordnance, that his contract was canceled.²⁷ The letters indicating the "recent agreement" between Flagg and Johnson, information on where to ship components, and where to send the bills establish that the work on the Palmetto pistols had not been initiated much before late April 1853. When Glaze wrote Waters on 22 April 1853, he apparently had some idea his contract was about to be amended. Although the specific content of Glaze's letter is unknown, it implies he wants to proceed with at least 1,000 pistols. The official cancellation notice arrived on 8 May 1853.

Considering the timing, it is interesting that The Committee on Military affairs reported on December 1853 that apparently most of the work was "done or nearly finished" before they (Glaze) were notified of the condition of things, but that they gave up the right to make 1,000 Dragoon pistols.²⁸ The original contract had been for 2,000 pistols. Apparently Glaze convinced the Committee of Ordnance that the first 1,000 pistols were "done or nearly done" when the contract was canceled. The letters clearly show if the Committee believed that at least 1,000 pistols were in an advance state of completion, they were badly misled. It could be argued that the lock plates were complete because all Palmetto pistol locks are dated 1852, but the barrels are dated 1853 (Fig. 27). However, the order placed with Johnson on

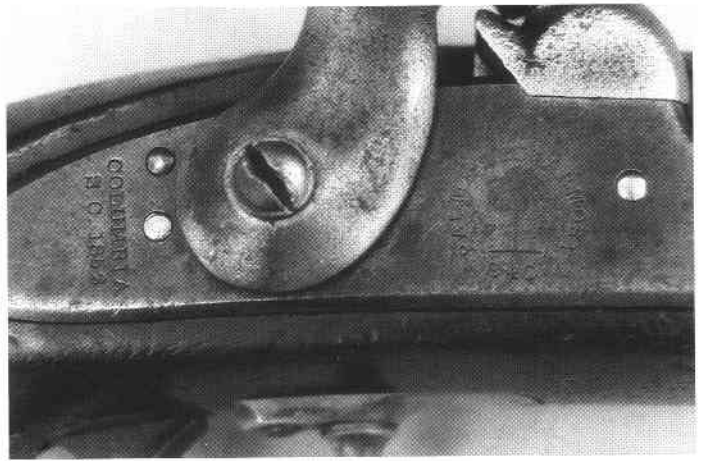


Figure 27. Lock of the Palmetto pistol.

26 April 1853 clearly includes 1,200 lock plates. Additional instructions included shipping the lock components to Waters in Millbury, presumably for completion. Depending on where the stamping was done, apparently either Waters or Glaze "back dated" the locks to 1852 to create the illusion the pistols had been "done or nearly finished" before the termination of the contract.

The Annual Return of Ordnance and Ordnance Stores at the arsenal in Columbia for December 1853 shows the delivery of 1,000 pistols.²⁹ Evidently at least 1,000 Palmetto Pistols were accepted by the State of South Carolina.

One of the best pieces of written evidence that Glaze was busy at work in his Palmetto Armory fabricating arms is an article that appeared in *The Southern Agriculturist* in February 1853. This article has been cited for number of years as positive proof of machinery and fabricating activity at the Palmetto Armory. The two-column article takes the reader on a brief tour of the Palmetto Armory several weeks before the date published. The article on superficial reading gives the impression that the reporter has visited and is writing about a major armory busy at work fabricating

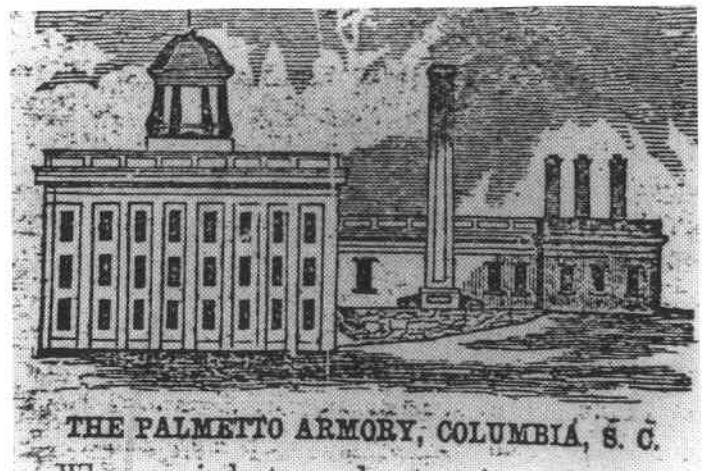


Figure 28. The Palmetto Armory as it appeared in the *Southern Agriculturist*, February 1853 article.

swords, bayonets, muskets, rifles, and pistols on contract for the State of South Carolina. The positive approach is what the readers then or now should expect. No one has taken a reporter on a tour through a facility and not attempted to give the most favorable impression. Nothing different should be expected from William Glaze. The reporter writes for his article both what he sees and what he is told. He is most likely not expert in arms making and must rely on the explanations provided. In fact, the entire concept of making interchangeable parts and the machinery to fabricate identical pieces was quite new, especially in the agrarian South. Imagine being led on a tour through an unfamiliar modern production factory today and having to write a detailed report on what the facility is doing (Fig. 28).

A more critical reading of the article leaves a different impression of the activity at the Palmetto Armory. Once the article is dissected and the phases studied, what the author actually saw, or more importantly what he did not see, becomes more apparent. Throughout the article, the reporter writes about seeing and having explained to him the various machines in place capable of producing arms.

What he actually reports "seeing," as far as fabrication activity is concerned, is several apprentices at work. He does not directly describe what they are doing. One group he describes as the "Sons of Tubal Cain"³⁰ appear to be fashioning iron skelps. A few sentences later in the article, he does say he saw several piles of bayonets "fresh" from the smith. If one assumes that the apprentices are also working in the smithing area, then the bayonet work is the total activity reported during his visit. He describes the methods of welding a gun barrel and colorfully describes the presence of the iron scalps for a musket barrel and a sword but stops short of saying he is observing them made. This process continues through the remainder of the tour. On careful reading, the impressions is he is being told the various functions of the machines and the fabrication of arms, rather than actually seeing them in use. In one area of the factory, he reports, "In the basement story as we observed are already placed the boring and trimming and polishing machines." The phrase "already placed" leaves the impression that the machines are waiting and not in full production, as they should be if the smithing is in full production welding gun barrels. Finally he is shown "several very fine fowling pieces which were manufactured with much taste." Where are the boxes of finished muskets, rifles, and pistols or examples of the contract products instead of fowling pieces? This article was written at least 10 months after the Committee from the State Board of Ordnance reported that all the equipment was in place to make muskets and pistols. The letters between Waters and Johnson clearly indicate that in February of 1853

there could not have been any Palmetto pistols for the reporter to see, because the parts to fabricate them would not even be ordered from Ira N. Johnson for another 2 months.

One can conjecture that the political and martial excitement of the era overcame William Glaze and caused him to enter into a venture in which he had no practical experience. This led to an association with Benjamin Flagg and a dependence on a Northern supply of resources. Socially, politically, and economically, Glaze placed himself in a difficult position. The committee inspections and the cancellation of his contracts allows one to speculate that all was not going well, and the authorities were suspect of his activity. The evidence provides little doubt that Glaze violated the specific clause and the overall intent of the contract to have the arms completely made in Columbia. Perhaps he more liberally interpreted the phrase in the contract "as far as practicable" to justify making the pistols from components, and by mechanics obtained outside the State of South Carolina. The documentation further indicates that Glaze continued to mislead the State Ordnance authorities into believing the pistols were nearly finished, when in fact the components had just been ordered only a few days before the contract was canceled.

The activity, or rather the lack of activity, of Glaze during the Civil War is perhaps telling evidence that he was not in a position mechanically, politically, or economically to execute arms manufacturing contracts. With his old contacts in the North severed, he attempted to secure several contracts for arms. Glaze was unsuccessful and ended his efforts by the end of 1861. The machinery to fabricate complete arms most likely did not exist to any extent at the Palmetto Armory at the beginning of the Civil War. The evidence casts serious doubts that any significant manufacturing of pistols took place at the Palmetto Armory in 1852-53. The armory most likely had only enough machinery to finish and assemble component parts.

Today, the rarity of an original Palmetto pistol, its association with the Southern cause, and its later use in the Confederate service make it one of the most desirable of collectable arms, even though its real origins may have been North of the Mason-Dixon line.

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28. Meyer, pp. 19-20.
29. *Ibid.*
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