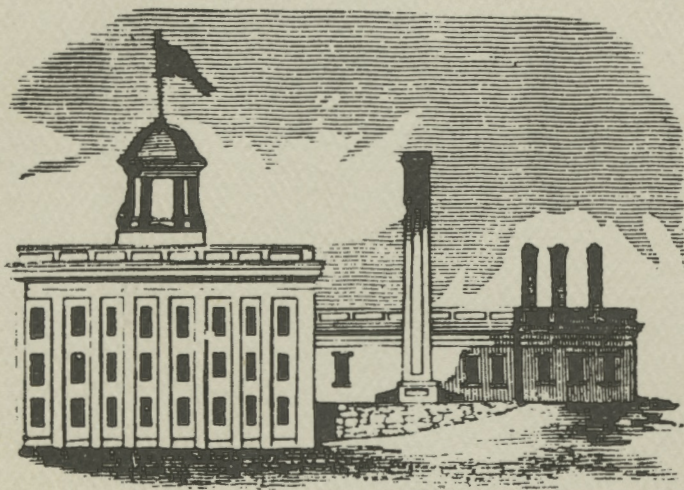


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WILLIAM GLAZE



AND THE PALMETTO ARMORY

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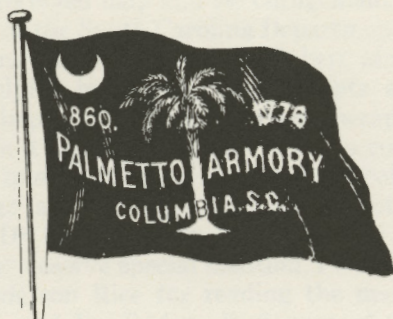
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Jack Allen Meyer



MUSEUM BULLETIN NUMBER 6
SOUTH CAROLINA STATE MUSEUM



WILLIAM GLAZE
and
THE PALMETTO ARMORY

by
Jack Allen Meyer

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Jack Allen Meyer
Winnsboro, 1982

INTRODUCTION

No period of South Carolina history is more discussed than that encompassed by the nullification movement of 1832 and the Civil War. The political history of those turbulent times has been extensively examined, but comparatively little serious effort has gone into the study of the state's attempts to procure arms to defend its interests.

Nothing is more "glamorous" to the South Carolinian of today than the relics of that era, especially the weapons which were used in the defense of the Southern Confederacy during the Civil War. Weapons were scarce and the southern fire eater's claim, "We can lick 'em with cornstalks," was soon silenced by the realization that "them damn Yankees wouldn't fight that way." One of the pitifully small number of manufacturers who provided weapons to the South prior to and during the Civil War was William Glaze of Columbia, South Carolina.

Glaze's active career as a jeweler, entrepreneur and manufacturer almost exactly spans the period from Nullification to Reconstruction, and his fortunes in many ways parallel those of the state. Glaze was one of a small group of South Carolinians who hoped to prosper through industry rather than through agriculture. This group was atypical in that they believed the future security of the state required a broad industrial base at a time when most felt that cotton was king. Indeed, Glaze's business outlook was more akin to the Yankee ideal than to the southern.

As the crisis atmosphere ebbed and flowed throughout the period, considerable thought was given to the state of the militia in South Carolina. The militia, seen as a cheap solution to the problem of defense by the national government, was the sole military force available to the state if secession were to take place. Its readiness and equipping were of concern right up to the outbreak of war in 1861. William Glaze played a significant part in equipping South Carolina's militia. The weapons produced by Glaze at the Palmetto Armory constitute the majority of South Carolina's small arms production during the antebellum and Civil War years. Because of their use during the war, Palmetto Armory weapons have become prize collector's items today and, because of their rarity, are extensively faked. This short paper is intended not only to highlight the career of William Glaze but also to assist collectors in identifying and authenticating Palmetto Armory weapons.

CHAPTER I

THE EARLY CAREER OF WILLIAM GLAZE

William Glaze was born in Chester County, South Carolina, in March 1815. He may have been related to Middleton Glaze, who in 1806 was a partner of James Boatwright, making cotton gins, mills and, possibly, carriages and wagons.¹ William Glaze entered the business world as a very young man. At the age of twenty-three he owned a jewelry business in Columbia, maintaining a store in the "Brick Range." On 7 July 1838 the *Columbia Telescope* carried the announcement that Glaze and John Veal had joined forces to become the firm of Veal and Glaze, selling jewelry and repairing clocks and watches at "the store of Wm. Glaze." The partnership apparently lasted until 1841. Burton notes the existence of silver marked VEAL & GLAZE in a rectangle.²

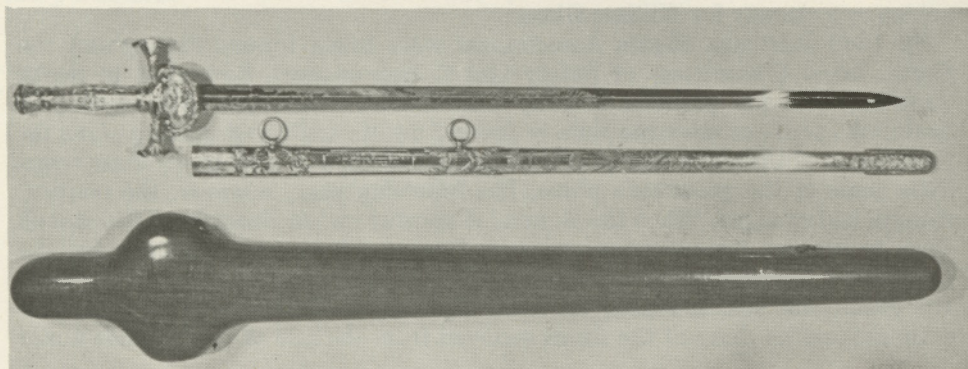
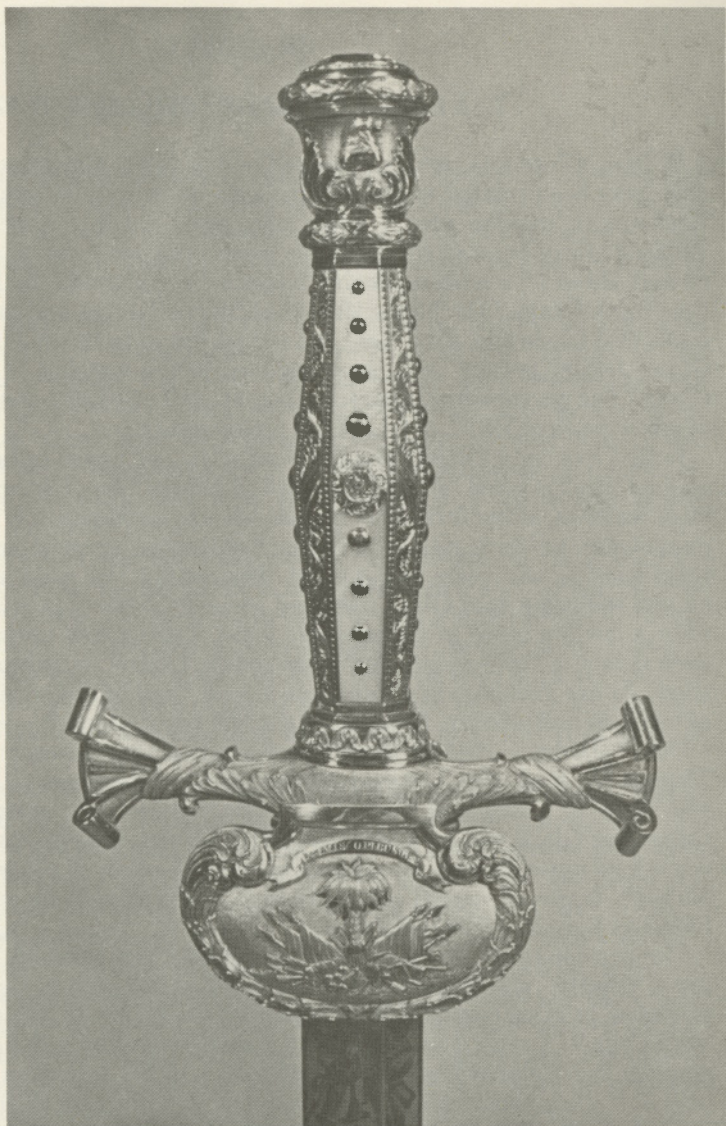
From 1841 until 1848 Glaze apparently worked alone, selling a wide variety of goods from his store "At the Sign of the Drum." Among the articles he offered were watches, silver forks and spoons, mugs, plated goods, a variety of firearms, gunpowder, military goods, andirons, fireplace equipment, castors, candlesticks, spectacles, flower vases and mantel ornaments.³ The wide assortment of goods clearly indicates that Glaze operated something more akin to a hardware store than a jewelry store in the modern sense. During this period it seems to have been common for jewelers and silversmiths to deal in military goods and hardware. James Peckham and Benjamin Rawls, both of Columbia, sold guns as well as watches and jewelry. Rawls even did blacksmith work!⁴

On 17 January 1848 William Glaze notified his customers that he had taken Thomas W. Radcliffe into partnership. The business was to be carried on under the name of Glaze and Radcliffe "from the first of January, 1848." Shortly thereafter Glaze was notifying his old creditors to settle their accounts or execute new notes as soon as possible in order to clear up old business. He was apparently involved in real estate as well, for in March he was offering a small house on Blanding Street for rent.⁵

The previous year had been an exciting one. The Mexican War had generated great popular support in the South and many South Carolinians had participated, at great cost.⁶ Of the 974 men of the Palmetto Regiment who landed at Vera Cruz in August 1847, over half were killed or died of disease, including the commander, Colonel Pierce Mason Butler, and his second in command, Lt. Colonel J. P. Dickinson. Major A. H. Gladden, who replaced Dickinson, was severely wounded.⁷ The war, and the Secession Crisis which grew out of it, proved to be a golden opportunity for William Glaze.

By 1849 Southern Rights Associations were being formed throughout the South. Local Committees of Safety and Correspondence flourished in South Carolina, and the political activity was intense. Governor Whitemarsh B. Seabrook spent considerable time reviewing militia units and making plans for the defense of the state. Except for an appropriation of \$7,500 to purchase arms, little came of the governor's plans. The following year, however, the political climate had changed. When the General Assembly met in December 1850 it took steps to prepare for secession and war. Governor Seabrook recommended the purchase of fieldpieces, the establishment of factories capable of producing arms and munitions, and increased funds for the militia. He also proposed that the state request its share of the funds received from the sale of public lands under

**PIERCE
MASON
BUTLER
SWORD**
S. C. State
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the Act of 1841 to pay for these measures. Previously the state had refused such funds on the grounds that the sales were unconstitutional.⁸

A Board of Ordnance was established in 1850 when the General Assembly passed *An Act to Provide for the Defense of the State*. The Board was instructed to purchase "munitions of war" and to report on the status of coastal defenses. A total of \$350,000 was appropriated for military purposes.⁹ Among the contractors who provided arms under this act was William Glaze.

During the Secession Crisis, Glaze was active in the Richland Light Dragoons, serving as secretary and treasurer in 1848.¹⁰ Since this was an elite unit, it is obvious that William Glaze was a man of some means. A year earlier Glaze had purchased a pair of 2-pounder field guns at his own expense and had them mounted for use by a Flying Artillery Company of the Dragoons. Since he had purchased them because the state arsenals had been unable to provide suitable cannon, Glaze petitioned the General Assembly for reimbursement of the cost, \$311. His petition was favorably received and Glaze finally got his money in January 1849.¹¹

At the suggestion of Governor Seabrook, Glaze also purchased additional "2-inch" brass cannon at a cost of \$2,200. The cannon were not received until after Seabrook left office, and Glaze was again forced to petition the General Assembly for relief. This time the Committee on the Military recommended that the state not purchase the cannon. Apparently Glaze was never paid for these guns.¹²

Glaze and Radcliffe actively sought state business during the time Governor Seabrook was attempting to rearm the state's militia. In November 1849 the firm was paid \$1,450 for 100 rifles and in December a further \$3,550 for 174 rifles and 100 muskets. The source of these arms is obscure, but they were of the latest type, using the percussion system.¹³ Glaze and Radcliffe also provided the swords ordered in December 1848 by the state for Colonel Gladden and the eldest son of Colonel Butler, for which they received \$1,000.¹⁴ The swords were made by the Ames Manufacturing Company of Chicopee, Massachusetts.

Glaze and Radcliffe obtained a further contract for 660 muskets in 1849 at a cost of \$14.50 each (\$9,570). These muskets were purchased from Benjamin Flagg and Company of Millbury, Massachusetts, and had been delivered to the state, but not yet inspected, by December 1850, when the Committee on the Military reported to the General Assembly on the transaction. The funeral of John C. Calhoun had depleted available funds, and Glaze and Radcliffe had not yet been paid. The Committee recommended paying the account if the muskets were found "worthy."¹⁵

In December 1853 the Committee on the Military again took up the problem. This time it noted that the muskets "were not of the best quality" but recommended an appropriation of \$9,280 to satisfy the account. This amount appears on an account between the State of South Carolina and William Glaze and Company dated 28 November 1853. The account states that the payment was made on 22 November 1851 [*sic*] for 640 muskets (B. Flagg & Co.).¹⁶ Apparently twenty of the muskets failed to pass inspection.

Glaze continued his partnership with T. W. Radcliffe at least until March 1851, when the firm announced that a "Splendid Raffle" of silver, plated ware, gold and silver watches, guns and fancy articles valued at \$1,500 would be held on the 25th. At the same time Glaze and Radcliffe were advertising for 10,000 feet of black walnut boards 2½ inches by 12 inches by 10 feet.¹⁷ The boards were obviously intended for the manufacture of gun stocks for the arms contract Glaze was negotiating with the state.



TEAPOT

Marked "W.
Glaze" and
"W & H"
Made by Wood &
Hughes, New
York, c. 1845.
S. C. State Museum



CHAPTER II

THE ANTEBELLUM OPERATION OF THE PALMETTO ARMORY AND IRON WORKS

The Palmetto Armory was founded by William Glaze, Benjamin Flagg and James Boatwright, using a building originally constructed about 1850 on the corner of Laurel and Lincoln Streets by Glaze and Boatwright.¹⁸ Boatwright seems to have dropped out fairly soon as he is mentioned in only one agreement, but Flagg continued on with the firm for some time.¹⁹ Benjamin Flagg had considerable experience in arms production. He had worked with Asa H. Waters of Millbury, Massachusetts, and seems to have taken control of the Waters firm about 1849, when he received the order for muskets from Glaze and Radcliffe. Since the federal government was not purchasing muskets from independent contractors at this time, the offer from Glaze to come to South Carolina was undoubtedly too good to pass up. To Glaze, the experience of Flagg and the gun-making machinery he brought with him, were invaluable.

The new firm quickly won a contract from the state to manufacture arms for the militia as part of the military build-up called for in the Act of 1850. The contract, signed on 15 April 1851 by William Glaze, Benjamin Flagg and James Trapier, Major of Ordnance for South Carolina, provided for the manufacture of 6,000 muskets with bayonets (\$14.50 each), 1,000 rifles (\$15.50 each), 1,000 pair of pistols (\$14.50 per pair), 1,000 cavalry sabers with scabbards (\$6.50 each), and 1,000 artillery swords with scabbards (\$6.50 each). The arms were to be manufactured entirely within the state, including all component parts, and were to conform to the patterns "adopted and now in use in the Army of the United States." Delivery was to begin in January 1852 and be completed the following December. Glaze and Flagg provided a bond for \$260,000 as surety for completion of the contract.²⁰ The following month the company received another contract, this one for the alteration of the state's flintlock muskets to the new percussion system.²¹

As with any new operation, there were delays and problems. On 28 April 1852, a committee from the state Board of Ordnance visited the Palmetto Armory and reported on the progress being made. They found that:

all 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 the 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. No Cavalry or Artillery Swords have yet been made. . .

The committee went on to recommend that Glaze be allowed an extension of time on his contract, and in April 1852 the completion date was extended to 1 December 1853, the requirement for 1,000 artillery swords was deleted, and the number of cavalry swords increased to 2,000.²²

By the time Major Trapier presented his annual report to the Board of Ordnance on 20 November 1852, Glaze and Flagg had delivered 2,500 muskets out of 3,365 which had been submitted to proof. Seventy-five had burst during proof and a further 139 had been rejected for other reasons. The remainder had not yet been inspected. No rifles had been completed but the manufacture of components was progressing well. A few swords had been finished and a larger number were expected to be ready by January. In addition, 5,860 muskets had been altered from flintlock to percussion.²³ Less than six months later the contract was terminated because of a shortage of funds.²⁴

By the time the contract was terminated, Glaze and Flagg had either delivered, or had brought to an advanced stage of completion, most of the weapons called for under the contract. These were delivered, probably by agreement, after the contract was terminated. A return of ordnance stores received and on hand at the state arsenal at Columbia between 1 October 1852 and 1 October 1853 includes 4,520 muskets, 2,000 cavalry swords and 510 artillery swords received from Glaze and Company. A note at the bottom indicates that, of the arms on hand on 1 October 1853, 6,000 muskets, 1,000 rifles, 2,000 cavalry swords and 430 artillery swords were new. A further eighty artillery swords had been issued in the period. Thus, it would appear that Glaze had completed his contract, except for the pistols. Interestingly enough, Glaze had apparently produced at least 510 artillery swords before the contract was terminated and still went on to deliver the full 2,000 cavalry sabers as well. The artillery swords are listed the following year as "Artillery Swords (Horse)," indicating that they conformed to the pattern of the Model 1840 Light Artillery Sabers.²⁵

The report for the following year shows the delivery of 1,000 pistols. The fact that Glaze agreed to manufacture only 1,000 pistols instead of the 2,000 (1,000 pair) called for in his contract is confirmed by the report of the Committee on the Military in December 1853. The Committee reported that most work was "done, or nearly finished before they were notified of the condition of things" but that "they [Glaze and Company] gave up their right to make a thousand dragoon pistols."²⁶

Shortly before Glaze's contract was terminated, an interesting article on the operation of the Palmetto Armory appeared in the *Southern Agriculturist*, published in Laurensville, South Carolina. The main building was described as being three stories high and sixty-four feet long, with a one-story extension of ninety feet. Because of its site, on Arsenal Hill across from the State Arsenal, the factory was "commanding and imposing [in] appearance." The cost of setting up the armory was reported to have been \$35,000. Over forty skilled workmen were employed, along with an unstated number of common laborers.

The reporter was impressed at the manner in which the workmen fashioned swords and muskets. In a long paragraph he described the process of forming a musket barrel, using a variety of machinery, including a trip hammer capable of 1,200 blows per minute. In addition to swords, rifles and pistols, the writer reported seeing several "fine fowling pieces, single and double barrelled" which had been made at the Armory "with much taste, and of a superior quality." The article concluded with the hope that the establishment "will be patronized liberally by all the Southern States."²⁷ Such was not to be the case.

South Carolina's ardor for secession was not matched in the rest of the South, where secession parties were handily defeated. Even in South Carolina the tide turned against the secessionists, who were soundly defeated in the election of

1851. The "Convention of the People of South Carolina," held in April 1852, was anticlimax. After much oratory it resolved, in effect, "that it could secede if it wanted to - but it didn't want to."²⁸ With the waning of "secession fever" the state reverted to the old habit of neglecting the militia, and money for "munitions of war" dried up.

After completing his contracts with the State of South Carolina, Glaze obtained no further arms contracts, either from his native state or from the other southern states prior to 1861. The state returned to its old practice of obtaining weapons from the federal government, and the Palmetto Armory was transformed into the Palmetto Iron Works. Glaze turned to the manufacture of steam engines, boilers, cotton gins, farm implements and sugar mills. His letterhead advertised that all kinds of iron and brass castings, millwork and iron railing could be manufactured. George A. Shields, who had joined the firm shortly after his arrival from Scotland about 1850, was listed as foreman. Benjamin Flagg seems to have left the firm by this time.

Glaze appears to have prospered during this period. He kept a running account with Stanley's China Hall of Columbia and purchased such luxury items as a gilt chandelier.²⁹ In 1858, to further his sales, Glaze edited and published a small pamphlet on Chinese Sugar Cane (sorghum) which, quite naturally, highly recommended his own sugar mills and sugar boilers. An article by Henry C. Davis, extracted from the *Fairfield Herald*, outlined the process, using, of course, a mill purchased from William Glaze.³⁰ Much of his business was with local planters, supplying castings, millwork and parts for mills.³¹

In 1860 William Glaze was comfortably well off. He owned \$25,000 worth of real estate and \$30,000 worth of personal property. The Palmetto Iron Works had a capital of \$30,000 and employed thirty-five men with an annual production of 500 tons, including steam engines, saw mills and all kinds of castings; yet in less than ten years William Glaze would be bankrupt and the Palmetto Iron Works sold to satisfy his debts.³²

CHAPTER III

CIVIL WAR AND RECONSTRUCTION

When war broke out on 12 April 1861, the arsenals of South Carolina contained a motley assortment of weapons, ranging from ancient flintlocks to Colt Navy revolvers purchased prior to the outbreak of hostilities and modern rifled muskets captured from the United States. Commanders never knew what they would receive when they requisitioned arms for their troops. Colonel O. E. Edwards' 13th Regiment, for example, received, among other things, seven Colt Navy revolvers, while Captain R. G. M. Berry of the Palmetto Guard was issued ninety flintlock cavalry pistols.³³ There was an immediate need for arms of all kinds, and Colonel Edward Manigault of the Ordnance Department had his hands full.

As a patriotic South Carolinian, William Glaze quickly offered his services to the state. In December 1860 he offered to cast shot, shell, cannon or mortars and claimed he would be able to produce rifles or muskets within six months.³⁴ When his initial offer was either ignored or mislaid in the confusion, Glaze tried again. On 26 February 1861 he wrote to General D. H. Jamiesson offering to put up "a complete armory capable of manufacturing all kinds of Small Arms," provided the state would agree to purchase \$50,000 worth of arms each year for two years. He claimed that he would be able to turn out twenty-five to thirty guns a day. However, he would need an advance of \$25,000 to get started.³⁵ Inexplicably, considering the state's need for arms to meet the coming crisis and Glaze's proven capability, his offer of a general contract was not accepted. But other state work was forthcoming.

On 4 January 1861 Glaze wrote to the Board of Ordnance offering to cast round shot at five cents per pound and shell at six cents per pound.³⁶ He received a contract eight days later. On the 25th he sent Colonel Manigault two sample 10-inch shells, one "lackered" and one "as it left the sand," so that the colonel might decide which method he preferred. By 12 February he was in full production, casting forty 10-inch shells a day.³⁷ On 20 February Glaze also sent a box of 24-pounder shot and two of 10-inch shells. Shipments of shot and shell were made regularly thereafter. Glaze completed his contract on 8 April 1861.³⁸ He seems not to have received any more orders for these items.

Glaze also obtained a contract to rifle and refurbish some of the state's muskets. On 20 February 1861 he reported shipping to the Citadel at Charleston a box of rifled muskets and one hundred pounds of balls to fit them. Such shipments became a regular occurrence until, by August, 3,720 muskets and 154,000 musket balls had been forwarded. From Glaze's description of the muskets, "the guns made hear [sic] that is the guns with Brass Bands of date 1852," it appears that he was rifling the muskets his armory had produced under the contract of 1851.³⁹ Many of these rifles were issued from the factory directly to the units in the field. Colonel Jenkins' 5th Regiment received a total of 406. Smaller shipments went to the Beaufort Artillery (20), Kershaw's 2nd Regiment (20), and Captain Humphrey's company (92).⁴⁰

Glaze was continually looking for contracts during 1861. On 8 June an advertisement appeared in the *Richmond Daily Examiner* seeking \$1,000,000 in capital for the establishment of the "C. S. Armory and Foundry Co.," which was being formed to fabricate artillery, rifles, pistols, swords, rockets, bayonets and

other munitions.⁴¹ William Glaze, Thomas W. Radcliffe, his former partner, and Thomas E. McNeill, were involved in this scheme. They hoped to raise enough capital to establish an armory at Macon, Georgia. Through the help of Colonel James Henry Burton, Superintendent of Armories of the Confederacy, they obtained a contract on 5 May 1862 to manufacture 20,000 carbines, based on the Sharps pattern, for the Confederate government. Nothing came of the plan and the carbines were later made at Richmond, Virginia.⁴² Apparently, Glaze and his partners were unable to raise sufficient capital.

Glaze made another proposal to Colonel Manigault for the manufacture of cartridges by "some young ladies of this place," including his daughters. Five hundred cartridges a day were promised if he received an order.⁴³ On 3 September he offered 200 "old style of bayonets" for sale. There were "about 50 or 60" that were eighteen inches long, and the rest were sixteen inches long. The sixteen-inch bayonets were "made for the Stud on top of Barrel." Undoubtedly these bayonets were left over from Glaze's 1851 contract. When the bayonets did not pass inspection, he asked for their return "as I can dispose of them to Georgia."⁴⁴

On 10 September Glaze wrote to Colonel Manigault with an offer to make sword bayonets. Seventeen days later he quoted a price of \$6.50 each with scabbard or \$5.00 without.⁴⁵ Shortly thereafter, Colonel O. E. Edwards of the 13th Regiment wrote to Colonel Manigault that he had heard that Glaze was making saber bayonets and asked if he might be authorized to have Glaze provide eighty-eight for his regiment.⁴⁶ Glaze experienced some initial difficulty with the manufacturing process but eventually produced at least 275 saber bayonets. He delivered 165 to the Citadel in March 1862, and a further 110 in June. In a letter to Colonel Manigault dated 14 November 1861, he also claimed to have an order from Georgia for 5,000. It is not known if he completed this order.⁴⁷

Two days earlier Glaze had offered to make fuzes for 8-inch and 10-inch shells, claiming to have made "a large number" for the Confederate government.⁴⁸ He did not get an order, and by the end of 1861 Glaze seems to have ceased his efforts to obtain state contracts. Perhaps he was fully occupied with other work or discouraged by his lack of success. By August of 1862 he was content to advertise his readiness to make steam engines, mills and iron castings. No mention was made of military goods.⁴⁹ He continued to supply items to the state when requested. In July 1863 he provided casting sand to the State Military Works at Greenville, South Carolina, and in August 1864 he furnished them with four crucibles.⁵⁰

Glaze was also involved in the production of the prototypes of Asa George's revolving cannon. On 2 December 1862 Asa George petitioned the House of Representatives for aid in constructing a revolving cannon he had invented.⁵¹ According to J. F. Williams, who, as a boy in Columbia, saw several tested, George's cannon operated "on the order of the Colt's revolver, only the cylinder revolved horizontally."⁵² It could fire thirty or forty times at minute, cover an arc of seventy degrees without moving the carriage, be fired during a retreat and was light and simple to construct.⁵³ The Senate Committee on the Military recommended an appropriation of \$10,000 to construct six prototypes for testing, with sheet-iron defensive armor added to the design. The House committee concurred.⁵⁴

The prototypes were constructed by Glaze and Shields. Governor Milledge Luke Bonham reported to the General Assembly on 23 November 1863 that five cannon had been completed and two more were in progress. Three were being tested at Charleston by General Beauregard, one was in the arsenal in Columbia

and one had been taken to Virginia by General Wade Hampton.⁵⁵

General Hampton was impressed by George's cannon. In a report to Governor Bonham he said that he regarded the gun "as a decided success" but thought that experiments should be made to see if the bore could be increased to two or two and a half inches. He asked permission to take the gun to Virginia to test it in the field and offered to have Glaze make a replacement for the state.⁵⁶ A year later he had not completed field testing the cannon, owing to a variety of personal and military reasons, including the fact that the cartridges made at Richmond did not work.⁵⁷ By then it was too late.

General William Tecumseh Sherman's army moved into Columbia on 17 February 1865. The Palmetto Iron Works, with its vast potential for the production of munitions, was one of the buildings deliberately burned by Sherman's troops during the next two days. This act was part of a deliberate policy to reduce the Confederacy's capability to wage war and was in no way connected with the accidental burning of much of the center of the city on the evening of the seventeenth and eighteenth. Other establishments intentionally destroyed were the Confederate Powder Mill on the Congaree River, the State Arsenal, across from the Palmetto Iron Works, and all of the railroad facilities.

With the war over, William Glaze attempted to recoup his losses, but the effort proved difficult and, ultimately, impossible. The buildings were partially rebuilt, and Glaze went north to purchase machinery.⁵⁸ By this time George Shields seems to have become the senior partner. A broadside advertising the Utley Cotton Press lists the firm as Shields and Glaze, reversing the listing that had been used earlier.⁵⁹

On 6 April 1868 William Glaze petitioned the United States District Court as a bankrupt.⁶⁰ Six days later the *Daily Phoenix* carried the announcement that a sheriff's sale would be held on the first Monday and Tuesday in May at the Court House. Among the properties listed for sale were:

3 acres of Land, with the buildings thereon, in the city of Columbia, and on which is erected a large Machine Shop and Foundry, and a fine Dwelling House, now occupied by the defendant, and bounded on the North by Richland street and E. W. Marshall's lot, on the East by Gates street and E. W. Marshall, on the South by Laurel street, on the West by Lincoln street; levied on as the property of Wm. Glaze, at the suit of Edward J. Arthur vs. Wm. Glaze. Terms cash.⁶¹

The property sold for \$7,300.⁶² On 20 May George A. Shiells [sic] was advertising for sale "At Palmetto Iron Works" several engines, a saw mill, sugar mills, mill gearing and iron and brass castings to order.⁶³ William Glaze's association with the Palmetto Armory and Iron Works was at an end.

Glaze returned to his former occupation as a jeweler on 1 October 1869. He advertised in the *Daily Phoenix* on 24 September that he would open with "an excellent assortment of fine English watches, English and French JEWELRY of the latest styles; a large stock of English GUNS and cutlery, clocks, silver and plated goods."⁶⁴ By 1872 Glaze had come a full circle. In no less than six advertisements he offered a wide range of wares from fishing tackle to military goods and eyeglasses. In one such notice he advertised as "Formerly Glaze & Radcliffe."⁶⁵

In 1873 Glaze's son-in-law, R. N. Richbourg, joined the business and in 1882 assumed control due to his father-in-law's declining health. William Glaze died

on 11 October 1883 and was buried in the family plot in Elmwood Cemetery, Columbia, the following day. His obituary made only a brief reference to "Glaze's foundry" concentrating instead on his long years in the jewelry business and his civic service as city alderman and as a founder and projector of Sidney Park.⁶⁶

CHAPTER IV

PALMETTO ARMORY WEAPONS

All the weapons produced by William Glaze under the contract of 1851 were required to conform to the standard patterns "now in use in the Army of the United States," and generally they did, but with some differences in detail. This conformity has produced a lively industry "manufacturing" Palmetto Armory weapons using the more common varieties as a starting point. Spurious Palmetto pistols and cavalry sabers marked "Columbia, S. C." are particularly common. It is hoped that the following detailed discussion of each type, along with examples of marks, will help the reader determine the authenticity of individual examples.

The Palmetto Musket

The Model 1842 musket was produced in large quantity at the Springfield and Harpers Ferry armories between 1844 and 1855. It was a smoothbore percussion weapon of .69 caliber with an overall length of 57 $\frac{3}{4}$ inches and a 42-inch barrel. The barrel was retained by three shouldered iron bands, the top band being double strapped.

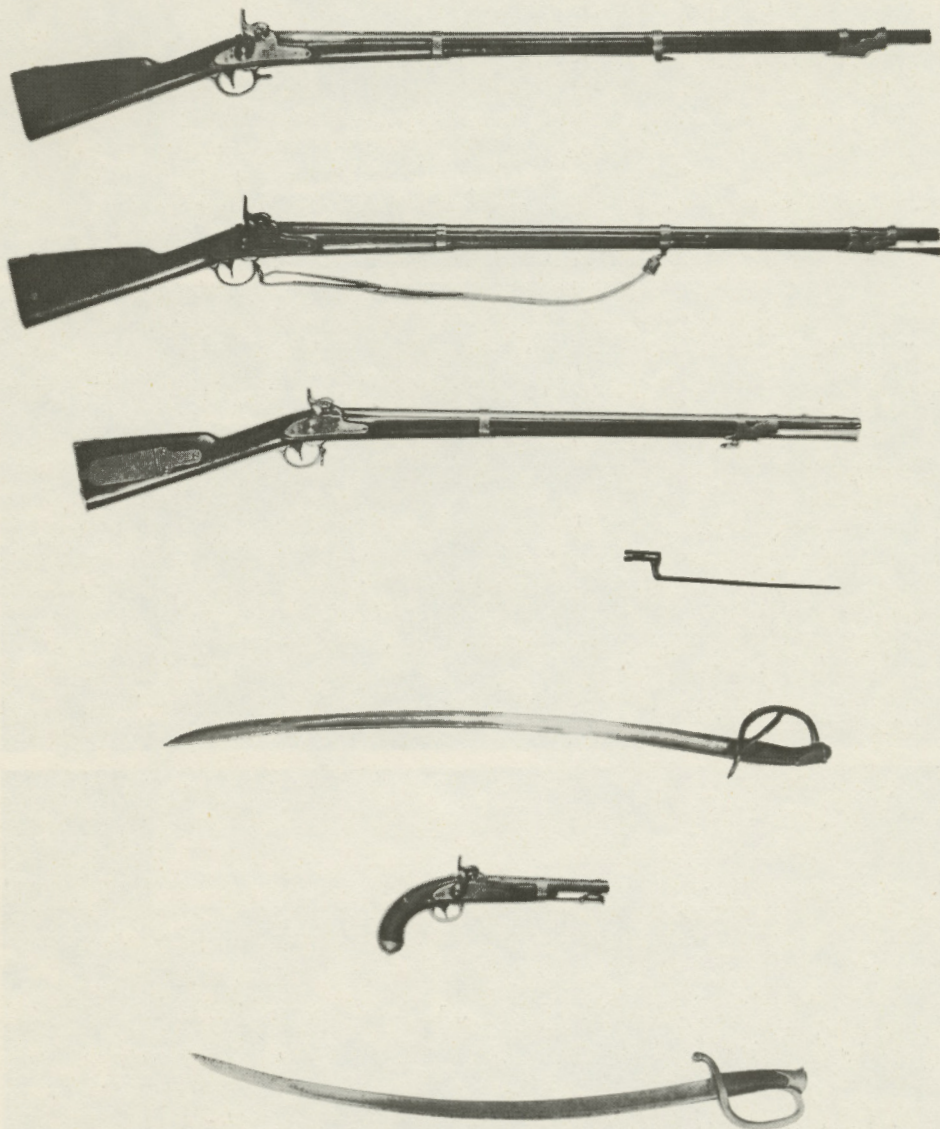
By the time the Model 1842 was adopted, the government was not procuring longarms from private contractors, but some Model 1842 muskets were made by A. H. Waters and Co., and B. Flagg and Co., both of Millbury, Massachusetts. Besides the lockplate markings, the Waters muskets differ from the standard pattern in using three shouldered brass bands rather than iron ones to retain the barrel. It is possible that Waters provided the 100 muskets purchased by Glaze and Radcliffe in 1849 for South Carolina.

The muskets produced by Flagg were identical to the standard pattern except for the lockplate markings. At least 660 of these were purchased by Glaze and Radcliffe in 1849. Of that number, 640 passed inspection. Benjamin Flagg obtained his machinery from A. H. Waters and Co. when the latter concern went out of business. This machinery was moved to Columbia when the Palmetto Armory was founded.

In 1852-53 the Palmetto Armory produced a total of 6,020 muskets. These generally conform to the standard pattern but with numerous variations in detail. The most common version has the bayonet stud on the top of the barrel, which is held in place by three smooth brass bands, the top band double strapped. The breech is marked with a "P" "V" and palmetto. "Wm. Glaze & Co." is stamped on the left barrel flat. There may be an "SC" or a date on the barrel tang. The flat lockplate has a palmetto tree, of the thin "spiral tree" variety, surrounded by "PALMETTO ARMORY S * C" in front of the hammer. The tail of the lockplate is marked "COLUMBIA" and "S. C. 1852." The butt plate is stamped "SC."

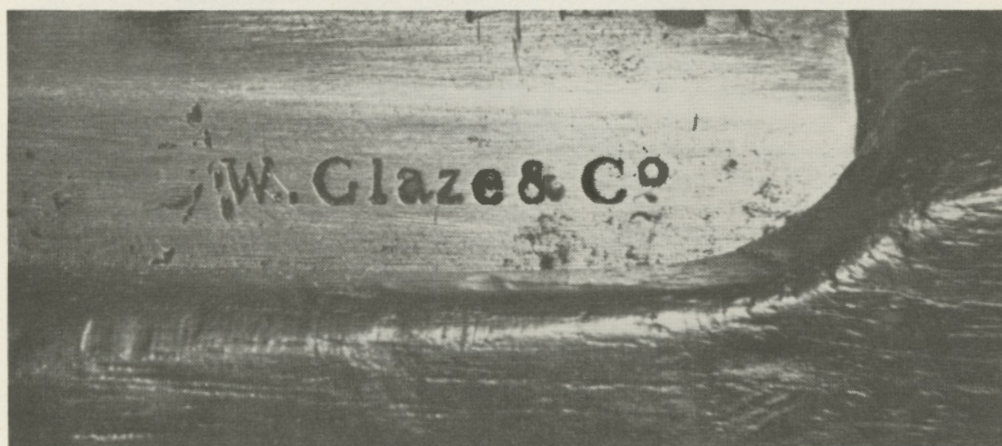
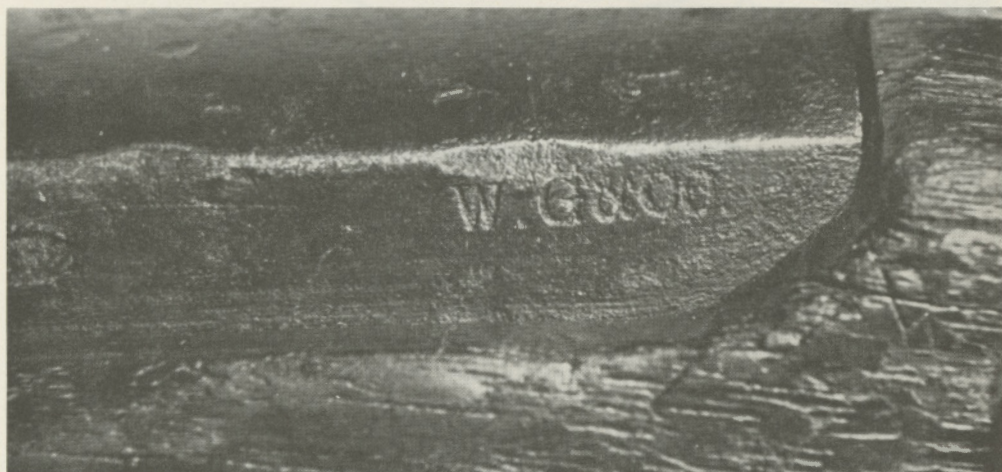
Variant barrel markings include "W. Glaze & Co." and "W. G. & Co." Examples with the latter mark often have the bayonet stud on the bottom of the barrel and shouldered iron bands. At least one example has been noted with shouldered brass bands of the Waters type and another with mixed shouldered and smooth brass barrel bands. The palmetto tree on the lockplate may also be found in a "bushy tree" variety.

At least 3,720 Palmetto muskets were rifled by Glaze in 1861 with a shallow three-groove rifling for use with the .69-caliber "minie ball." Rifling of this type

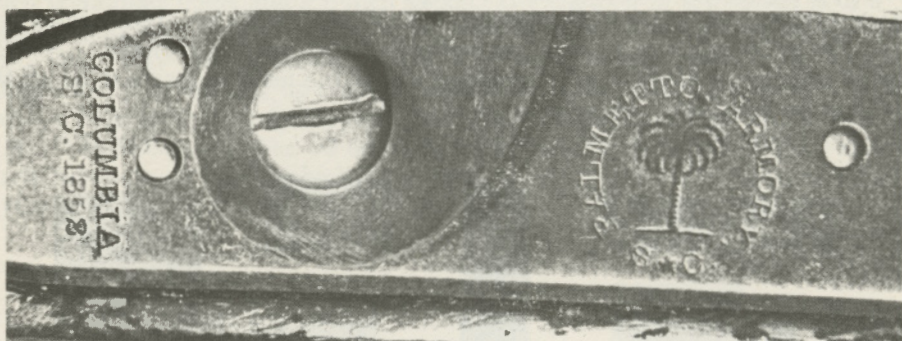
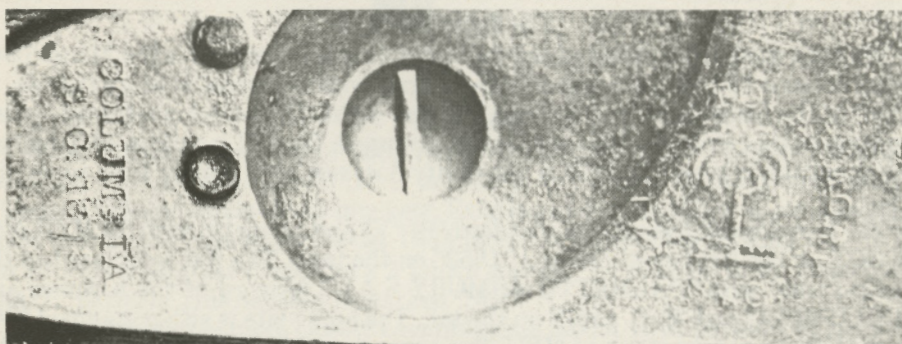
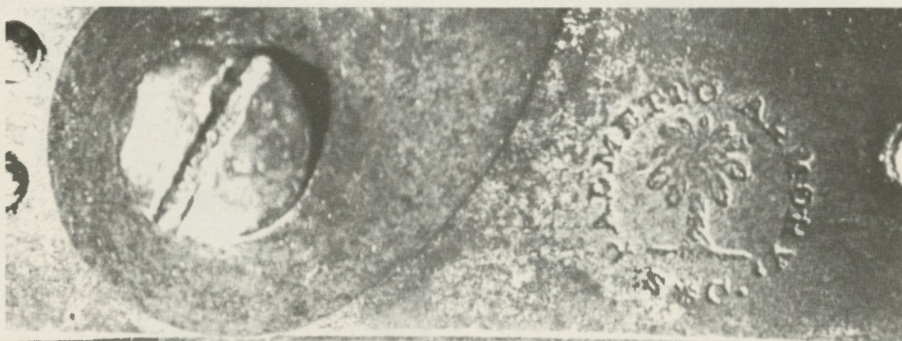
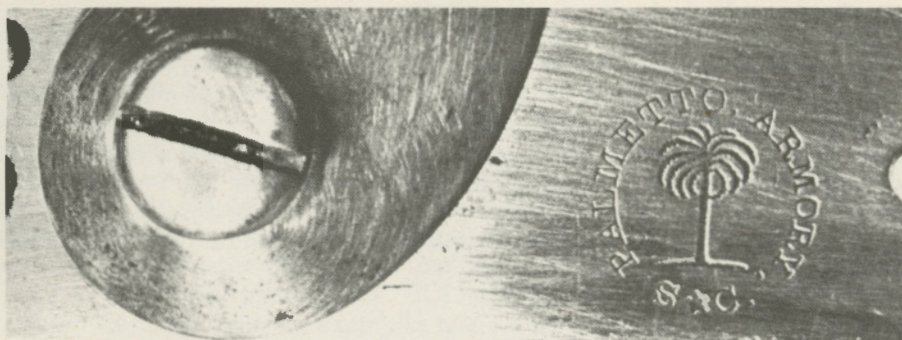


PALMETTO ARMORY WEAPONS

Top to bottom - Musket, spiral tree lock; Musket, bushy tree lock; Rifle; Bayonet; Cavalry Saber; Pistol; Artillery Saber.



BARREL MARKS

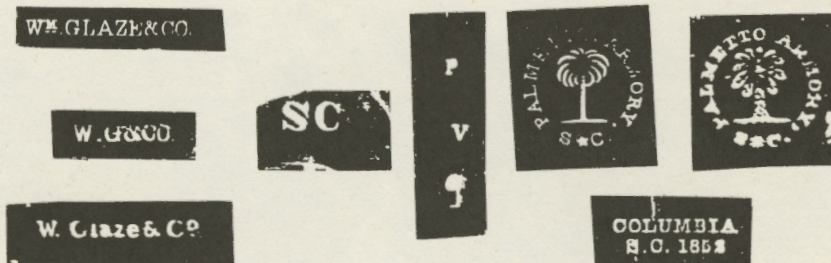


LOCKPLATES

Top to bottom - Musket, spiral tree; Musket, bushy tree; Rifle; Pistol

has been observed in conjunction with all the variations cited above. The rifled muskets all have, or had, provision for some form of rear sight.

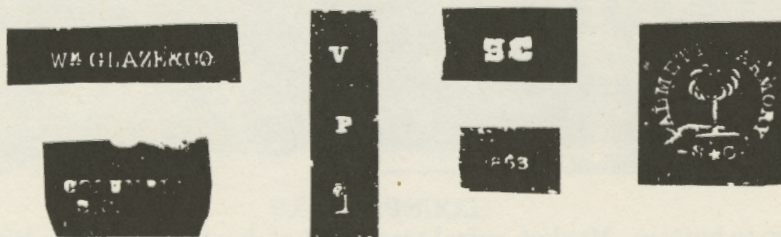
There is a group of Model 1842 muskets which have all the characteristics of standard Springfield or Harpers Ferry products but which have Palmetto locks. Unfortunately, it is all too easy to graft a lock from a cut-down or ruined Palmetto musket onto a standard musket to create a "Palmetto." There is always the possibility that this was done during the war, but to date no example has been noted that has a sufficiently well-documented pedigree to rule out the possibility of "faking."



The Palmetto Rifle

Without doubt, the rarest of the Palmetto Armory firearms is the Model 1841 rifle. It has a 33-inch, .54-caliber, rifled barrel with a bayonet stud on the top, in front of the blade sight, and an open "V" rear sight. The barrel is retained by two smooth brass bands, the top one double strapped. Overall length is 48 $\frac{3}{4}$ inches. All furniture is brass. The patch box cavity does not have a space for a spare nipple.

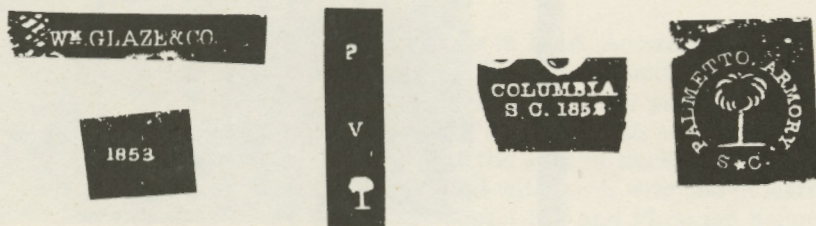
The barrel markings are the standard "P" "V" and palmetto with "WM GLAZE & CO." on the left barrel flat and "1853" on the tang. The flat lockplate has the "spiral tree" with "PALMETTO ARMORY S * C" forward of the hammer and "COLUMBIA" and "S. C. 1852" on the tail. The butt plate is either stamped "SC" over "US" or merely stamped "US." The appearance of a "US" on a Palmetto Armory weapon is automatically suspect, but every example of an otherwise genuine Palmetto rifle seen to date has either had the overstamp or the "US." The use of castings so marked may have been due to the need for haste to finish the contract before it was canceled.



The Palmetto Pistol

The Palmetto pistol conforms exactly to the Model 1842 pattern except for the barrel and the lockplate markings. It is 14 inches overall with an 8 ½-inch smoothbore barrel of .54 caliber. The barrel has a brass blade front sight and a swivel ramrod. All of the mounts are brass. The barrel is marked with a "P" "V" and palmetto at the breech, with "1853" on the tang and "WM GLAZE & CO." on the left flat. It should be noted that the dash under the "M" is really two short dashes. This is true for this mark on all three types of firearms. The flat lockplate is marked with a "spiral tree" surrounded by "PALMETTO ARMORY S * C" in front of the hammer and "COLUMBIA" and "S. C. 1852" on the tail.

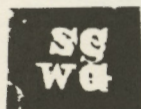
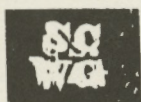
There are many spurious examples made from Aston or Johnson pistols. Genuine Palmetto pistols have no inspector's initials on the wood or mounts. When examining any "Palmetto," one should look closely for these and carefully compare the lettering and marks with genuine examples.



Bayonets

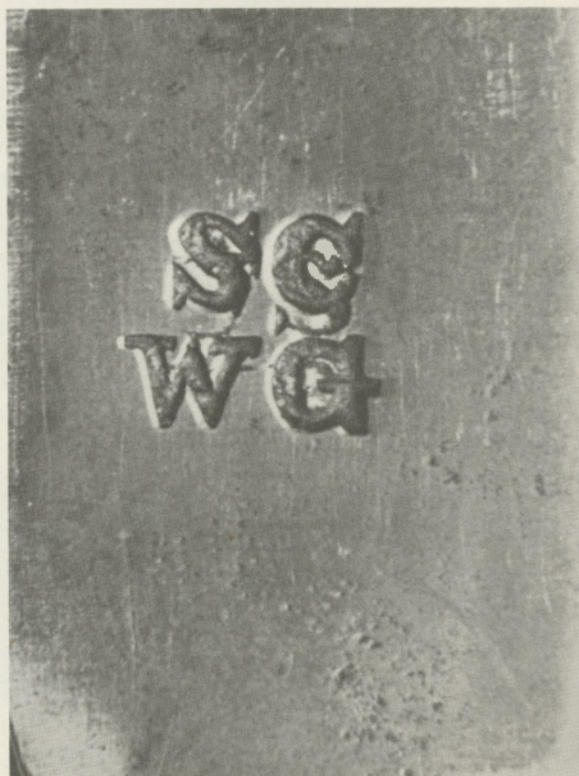
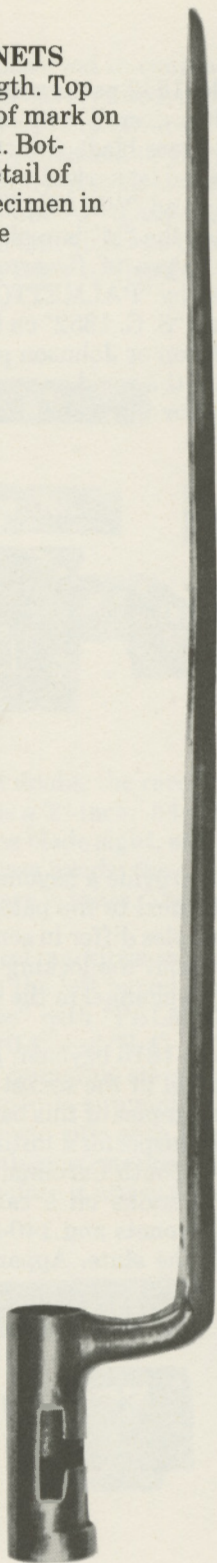
William Glaze's contract of 1851 required him to provide a bayonet with each musket. This bayonet should have, in theory, conformed to the pattern used on Model 1835 and Model 1842 muskets. Existing examples differ in some respects. One example is basically a Model 1835 bayonet without the locking ring. It has an 18-inch triangular blade and a 2 ⅞-inch socket. The channel in the socket is of the "L" pattern. This bayonet is marked "SC."⁶⁷

A second example more closely resembles the Model 1816 bayonet. It has a 16-inch triangular blade and a 3-inch socket. The channel in the socket is of a "T" pattern and there is no locking ring. At least three examples of this bayonet have "SC" and "WG" deeply stamped over "US" and the inspector's initials. One of these examples was dug up near Middleton Depot in South Carolina, at the site where Potter's troops destroyed some Confederate trains on a raid in April 1865.⁶⁸ In 1861 Glaze had 50 or 60 eighteen-inch bayonets and 140-50 sixteen-inch bayonets on hand, which he offered to sell to the state. Apparently both types were used in fulfilling the 1851 contract.



BAYONETS

Left - full length. Top right - detail of mark on dug specimen. Bottom right - detail of mark on a specimen in the S. C. State Museum.



There is little evidence concerning the sword or saber bayonets Glaze made in 1861-62. At least 275 were delivered to South Carolina and Glaze claimed to have an order for 5,000 from Georgia. Research in Georgia archives has so far failed to turn up any documentation to support this claim. These bayonets seem to have been unmarked. There are numerous unmarked saber bayonet types from this period, and at present it is impossible even to speculate as to which might have been made by Glaze.

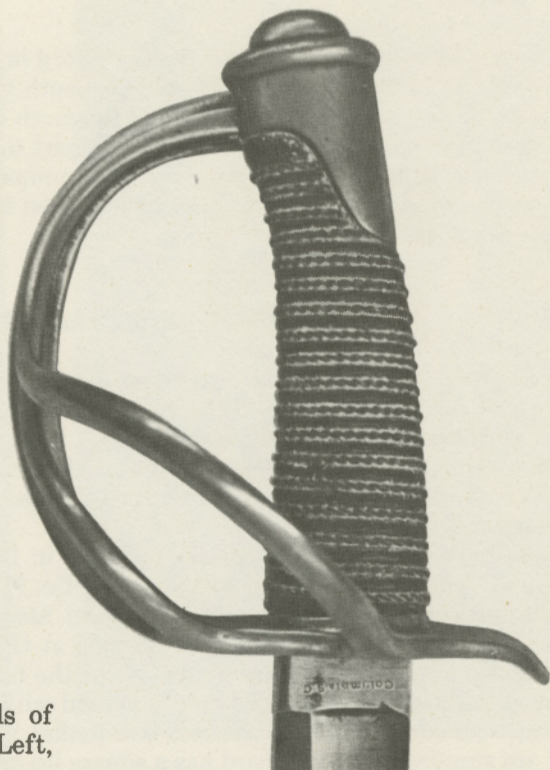
The Palmetto Cavalry Saber

Controversy has raged for years over a group of Model 1840 Heavy Cavalry sabers marked "Columbia S.C." These were thought to have been made by the Palmetto Armory, but this conclusion was open to criticism because all other known Palmetto Armory weapons were marked with some form of WM. GLAZE & CO. Examination of a specimen in the Charleston Museum has finally provided the solution.

The Charleston Museum acquired its saber in 1918. According to tradition, it was used by Corporal Alfred Manigault of Co. K, 4th South Carolina Cavalry. The saber conforms closely to the standard Model 1840 pattern. The 36-inch blade has two fullers, a broad one starting at the ricasso and ending 8 inches from the point and a shorter narrow one at the back of the blade ending 8 ¾ inches from the point. The wood grip is wound with cord, wrapped in leather and bound with twisted brass wire. The half-basket hilt and Phrygian helmet pommel are standard. The scabbard has a square lip at the throat with a single rivet in the rear.

The "Columbia S.C." marking on the Charleston sword conforms to the so-called "script a" class and shows the early stages of deterioration of the "l" and "u" that is commonly seen in this mark. It is on the obverse, or outside, of the ricasso. The reverse of the ricasso is stamped "W. Glaze & Co." The stamp is identical to that noted on one variety of musket barrel. There is an "AWZ" stamped on the shell of the hilt near the ricasso. Other examples have been noted with both "AWZ" and "RWZ" stamped on the shell. Most examples of the Palmetto saber are marked only with the "script a" mark on the reverse side of the ricasso.

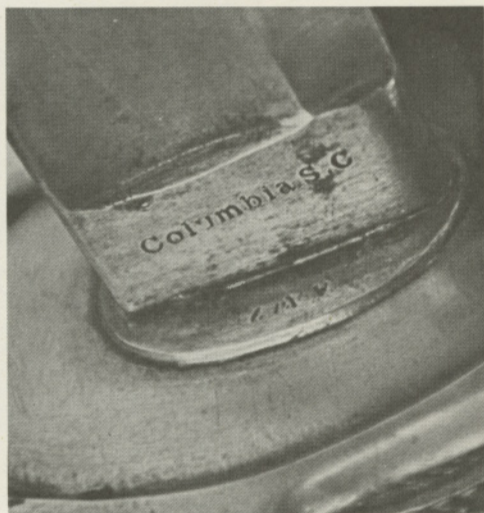
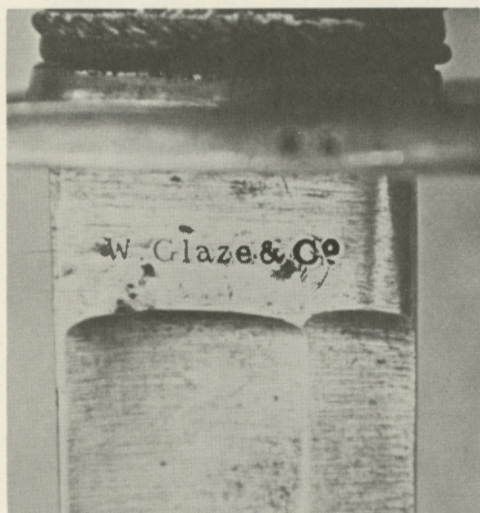




**MODEL 1840
CAVALRY SABER**

Top - hilt; Bottom - details of
the marks on the ricasso: Left,
reverse, Right, obverse.

Charleston Museum



Numerous spurious examples of the Palmetto saber have been noted. These usually have a more modern looking "a." Some of these marks are reproduced below.

WM. GLAZE & CO.

Columbia S.C.

COLUMBIA S.C.

Columbia S.C.

The Palmetto Artillery Saber

According to the account of 28 November 1853, Glaze was paid for 526 artillery swords in addition to the 2,000 cavalry sabers called for in his amended contract. At least 510 of these were entered on the records of the Columbia Arsenal in 1853 and 1854. Internal evidence in the inventories supported the theory that these artillery swords were of the Model 1840 Light Artillery pattern but no examples were known. Recently, a number of examples have come to light marked on the reverse side of the ricasso with the same "script a" noted on the "Columbia S.C." cavalry sabers. The artillery saber has a 32-inch curved blade, 1 ¼-inches wide at the ricasso. The guard is a simple brass knuckle bow. The wood grip is covered with leather and bound with twisted brass wire in the same manner as the grip on the cavalry saber. The brass pommel is of the Phrygian helmet pattern. None of the examples noted so far has had a scabbard, but it should be an iron scabbard with two suspension rings and a drag. Undoubtedly it has the square lip at the throat noted on the cavalry scabbards.

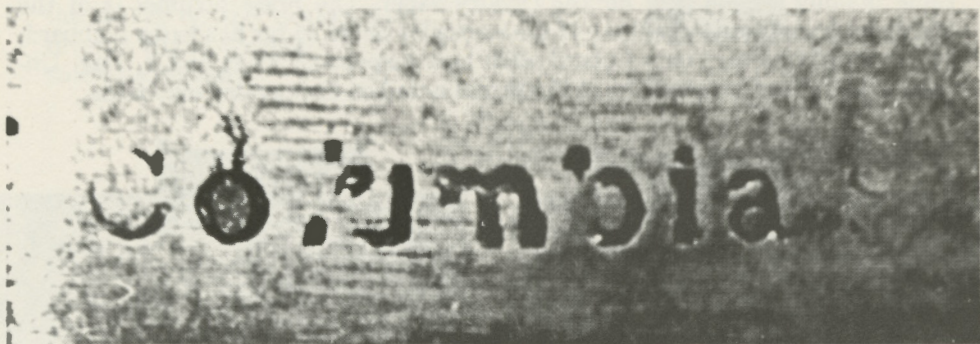
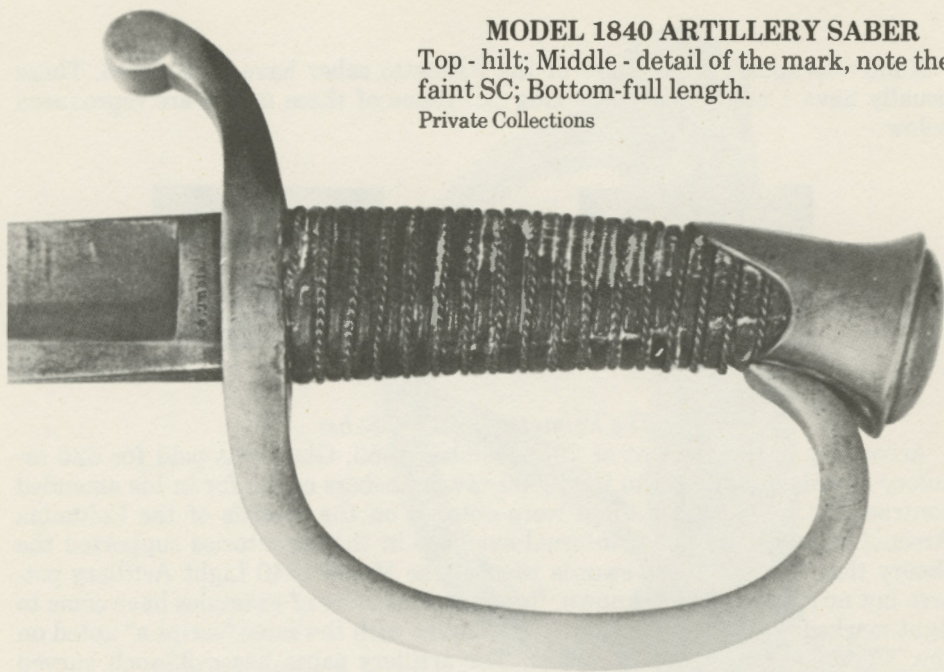
Examples

Columbia

MODEL 1840 ARTILLERY SABER

Top - hilt; Middle - detail of the mark, note the faint SC; Bottom-full length.

Private Collections



APPENDICES

APPENDIX I

	1849	Contract of 15 April 1851	Contract of 31 May 1851	Account of 28 November 1853	Production 1861-62
Percussion musket ^a	100				
Percussion rifle ^a	274				
Flintlock conv. to percussion			5860 ^b	5960	
M1842 musket B. Flagg & Co.	660			640	
M1842 musket ^c Palmetto Armory		6000		6020	
M1841 rifle Palmetto Armory		1000		1000	
M1842 dragoon pistol, Palmetto Armory		2000 ^d		1000	
M1840 cavalry saber		1000 ^e		2000	
M1840 lt. artillery saber		1000 ^e		526	
saber bayonet					275 ^f
musket balls					X
24-pdr round shot					X
10-inch shell					1000
M1842 muskets rifled					3720
accessories-nipple wrench, wipe, ball, screw, etc.					4800
fuzes-8" & 10" shell					X

^athese may have been marked GLAZE & RADCLIFFE; possibly made by A. H. Waters and Company.

^bnumber given in Major Trapier's report, 20 November 1852.

^cwith bayonets.

^dvoluntarily reduced to 1,000 when the contract was terminated early due to a lack of funds.

^econtract altered on 20 April 1852. The cavalry sabers were increased to 2,000 and the artillery swords were deleted. At least 510 artillery sabers were delivered to the arsenal at Columbia.

^fthis number was delivered to the Citadel at Charleston and represents the minimum production. Glaze also claimed to have a contract from Georgia for 5,000. The numbers in the case of the 10- inch shell and the accessories also represent minimum production as more may have been made than the amount reflected in surviving records.

APPENDIX II
Four letters of Glaze

26 February 1861 (transcript only)
10 June 1861 with photo of original
26 August 1861 with photo of original
14 November 1861 with photo of original

Columbia Feby 26 1861
Genl D H. Jamiesson

D Sir I Beg to make you a propishion to furnish the State with small arms it is this I propose puting up a complete armory capable of manufacturing all kind of small arms such as the State may select providid the State will take Fifty Thousand Dollars worth of arms for two years that is fifty thousand Each year. the State would only be bound to take one hundred thund Dollars worth to start it at once and in such a way as to be able to turn out say 25 to 30 guns pr day it will require about Twenty five Thousand Dollars and if the State would advance me this amount on my giving Bond and good securty in case I did not manufactur such guns as the State may adopt I shall be held bound for the amt secured with Intrest on the same the amt I will be willing to take in State Bonds if I had the means I would at once put into operation the manufactur of arms: I beleve it is what the State ought to have these arms could be made of any patern the Bord should slect. Should the State be disposed to give this a start by the lone of his bonds and at any tim the State wish to owen the armory I will agree to sell at price fixed by someone apointed By the State: I have stated nearly what I wish to submit to you to think over

I am yr Obt St.

Wm Glaze

Columbia, S. C., June 10 1861
M Edward Manigault

Dear Sir, I this day have received an offer to manufacture for the Ordnance department at Richmond Va five thousand of the U. S. Rifled Musket (5000). This order I will at once undertake to put through as it will Enable me to put in operation a Complet armory in this State which is my grate desire. this done than the South Carolina holds a proude position

I write this to beg you to remit the amt of my last bill as it will require all and more than I can Comand to put things in working order the most of the tools will have to be made & it require Cash to pay the hands in this work I will be pleased to heare from you and know whn I can look for the rest of the bill

I am your Obt St.

Wm Glaze



Palmetto Iron Works.

WILLIAM GLAZE,

MANUFACTURER OF

STEAM ENGINES, BOILERS, SUGAR MILLS, MILL WORK, IRON RAILING,

AND ALL KINDS OF

IRON AND BRASS CASTINGS.

Wm. Glaze, Jr.

Columbia, S. C., June 16, 1861

Mr. Edward Manigault

Dear Sir, I this day have
secured an offer to manufacture for the
 Ordnance Department at Richmond
 Va five thousand of the M. S. Rifle
 Musket (5770) this order I will at
 once undertake to put through as it
 will enable me to put in operation
 a complete armory in this State which
 is my great desire this day than the
 South Carolina holds a grand position

I write this to beg you
 to send the amt of my last bill
 as it will require all and more than
 I can demand to put things in
 working order the most of the
 tools will have to be made &
 it requires cash to pay the hands in
 this work I will be pleased to

Letter, William Glaze to Col. Edward Manigault, 10 June 1861

Columbia, S. C., Augt 26 1861

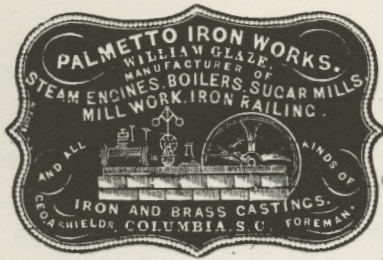
Col Edward Manigault

Dear Sir, I have closed the Rifling of all the guns that was Encluded in the order given by Govr Gist. I have Rifled sigted & put in good order 3720 of the guns made hear that is the guns with Brass Bands of date 1852 this is all that is hear of them. I have also turned in to the State one hundred & fifty four thousand (154,000) led Ball at 10 ct this dose not Enclude the Balls in the Bill of Iron shot & shell price as I am much in need of funds I must Beg you will at least write me & say what can be done if any thing.

I ame ready to doe any thing for the State or Confedret States you may see fit to order me.

I am yr Obt St.

Wm Glaze



Columbia, S. C. Aug 26 1861

Col Edward Manigault

Dear Sir, I have forwarded

the Rifling of all the
Guns that was included in the
order given by Govt. I have
received sight of in good order
3720 of the Guns made here that
is the Guns with Boats Bunch
of 1854. This is all that is here
of them. I have also turned in to
the State one hundred & eighty four thousand
(154,000) lead Ball at 10 ct this
does not include the Balls in the

Bill of Lard that I have paid
as I have much in need of
funds I must beg you will
at least write me & say what
can be done if any thing

I am ready to do any
thing for ^{the} State or Confederate States
you may see fit to order now
I am your obt. Servant

Wm Glaze

Columbia, S. C. Novr 14 1861

Col E. Manigault

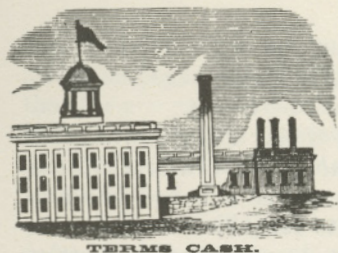
Dear Sir, I this morning sent by Express the remandr of the Comsinement Miss Rifle wipes fited to the large rod

I am truly sorrow it has so hapined I have not yet sent you at least a part of the Sword Bayonets but it is the hardes job I have had for some time, I have 250 of the blades done but the hendles have put me to a grate deal of trouble to get it all right I have at last I hope got it so and will in a few days send you a lot of them. I have done all I could doe to get them out and it has been with dificulty I got on for the want of means I have done a great deal of work for Geo and NC but I have not as yet been able to get the fund & I find it hard to get hands, as all must have their pay as yet I am unable to put on the hands (or?) I could Employ one hindred hands if I had the means to do So! I this morning receved an order from Georgia for 5000 Sword Bayonets at 6⁵⁰ but I will fill your order for you first if it is in

I wish to let you see that I am able to furnish as good Sword or Bayonet as has been bot North. I hope you will bear with me yet a littel longer for after I get all the tools right I will finsih up at least 30 pr day for you till you are suplyed

I am yr Obt St

Wm Glaze



TERMS CASH.

Palmetto Iron Works.

WILLIAM GLAZE,

MANUFACTURER OF

STEAM ENGINES, BOILERS, SUGAR MILLS, MILL-WORK, IRON RAILING,

AND ALL KINDS OF

IRON AND BRASS CASTINGS.

Columbia, S. C., Novr 14 1861

Mr E Manigault

Dear Sir, I this morning sent Mr
Elliott the remainder of the Corn sent me
- Miss Rife wishes fitted to the large road
I am truly sorry it
has so happened I have not yet sent
you at least a part of the second bag
yet. it is the hardest lot I have had
yet some time, I have 250 of the black
dum but the hands here put me
to a great deal of trouble to get it all
right I have at last I hope got it
so and will in a few days send you
a lot of them. I have done all I
could do to get them out and it
has been with difficulty I got on for
the load of meal I have done
a great deal of work for you and
all but I am not as yet able to
get the funds I find it hard to get
hands, as all want have their pay as yet
I am unable to put on the hands of

Letter, William Glaze to Col. Edward Manigault, 14 November 1861.

APPENDIX III

THE MILITIA SYSTEM IN SOUTH CAROLINA

The basic law governing the militia was the Act of 8 May 1792, *More Effectually to Provide for the National Defense by Establishing Uniform Militia Throughout the United States*. It provided that "every free able bodied white male citizen of the respective states" from eighteen to forty-five, with certain statutory exceptions, should be enrolled in a militia company in his district within twelve months. Each citizen was required to provide, at his own expense,

. . . a good musket, or firelock, a sufficient bayonet and belt, two spare flints, and a knapsack, a pouch, with a box therein to contain not less than twenty-four cartridges, suited to the bore of his musket or firelock, each cartridge to contain a proper quantity of powder and ball: or, with a good rifle, knapsack, shot pouch, and powderhorn, twenty balls, suited to the bore of his rifle, and a quarter of a pound of powder; . . . the commissioned officers shall severally, be armed with a sword or hanger, and esponton.

The requirements for artillery, light infantry and cavalry were equally specific. Members of mounted units, all volunteers, had to furnish their own horse "of at least, fourteen hands a half high," as well as a saddle, weapons and "regimentals," or uniform, "the colour and fashion to be determined by the brigadier commanding the brigade."⁶⁹

South Carolina implemented the Militia Act of 1792 through its Act of 10 May 1794, *An Act to organize the Militia throughout the State of South Carolina, in conformity with the Act of Congress*. The state was divided into two divisions, with five brigades in the first division and four in the second division. Each division was to be commanded by a major-general. Provision was made for the election of officers, musters, fines for failure to attend muster, uniforms of the officers, etc. The state also required each individual to equip himself at his own expense. However, those who did not hold commissions were not required to wear a uniform. A fine of five shillings was ordered for appearing at muster without the proper arms. Free "persons of colour" were expected to do fatigue duty.⁷⁰

In 1798 a small step toward the solution of the problem of weapons was taken when the Congress of the United States ordered that 30,000 stand of arms be provided for sale to state governments for the militia. A more effective measure was the authorization of \$200,000 in 1808 for the purchase of arms, which were to be issued to the states in proportion to the number of effective militiamen enrolled.⁷¹

With the increasing need for weapons to arm the militia, the federal government soon recognized the need for establishing arsenals and magazines. As early as 1793, Secretary of War Henry Knox recommended that three magazines be established, one each in the northern states, central states and southern states. Each would serve to supply the needs of its respective area for arms and ammunition.⁷² The need to establish national armories to manufacture weapons was also recognized, but both programs moved forward slowly at best. The Springfield (Massachusetts) Armory was in production in 1795 but the Harpers Ferry (Virginia) Armory was not completed until five years later.

In 1802 Secretary of War Henry Dearborn began looking for a site for the southern armory. His purchase of 523 acres of land at Rocky Mount (near present-day Great Falls) from Senator Thomas Sumter, whose title to the land

was in doubt, set in motion the sad saga of the Mount Dearborn Armory.⁷³ Construction began in late 1805 or early 1806. By 1809 work was far enough along that the arsenal was capable of receiving arms.⁷⁴ However, the site was apparently not in use by 1814 and was reported by Robert Mills as being in ruins in 1825. South Carolina obtained the property in 1829 but it was never used as an arsenal.⁷⁵

As early as 1840 there had been a shift away from the mass militia concept to a more modern system of volunteer units. The northeastern states were in the vanguard of this movement. Most observers, even in the South, admitted that mass musters of unwilling militiamen were a waste of time. By 1858 the South Carolina General Assembly was beginning to agree and appointed a military Commission to examine the question. The Commission recommended that compulsory service be eliminated and replaced by a tax. A Select Militia of 8,000 to 12,000 men, all volunteers, was proposed in its place.⁷⁶ The General Assembly had not acted upon this suggestion by 1860.

A sub-committee of the 1860 Association proposed much the same thing in 1860. Their plan proposed a force of 8,700 infantry, 630 artillery and 1,400 cavalry, all volunteers. To encourage volunteers, a tax exemption of up to \$500 and exemption from patrol and road duty was recommended. The infantry was to be armed with the rifled musket and used as light infantry in skirmishing order rather than in massed formations. The cost of providing the necessary weapons and equipment was estimated at \$384,510.⁷⁷ Nothing came of this suggestion either.

NOTES

¹*Columbia Daily Register*, 12 October 1883. Helen Kohn Hennig, ed., *Columbia, Capital City of South Carolina, 1786-1936* (Columbia, S. C., 1936), p. 319. Glaze apparently came to Columbia shortly before 1838. Scott calls him a "newcomer" to the city in 1839. Edwin J. Scott, *Random Recollections of a Long Life, 1806 to 1876* (Columbia, S. C., 1884), p. 147. Peter Horry's journal notes work done by a firm called Glaze and Prescott in 1814. In a footnote, the editor states that this firm also made guns and swords for the militia and calls the Shields Foundry a lineal descendant. This cannot be correct as William Glaze, who founded the Palmetto Armory/Iron Works, which became the Shields Foundry after 1860, was not born until 1815. The Glaze of Glaze and Prescott may have been Middleton Glaze. "Journal of General Peter Horry," *South Carolina Historical and Genealogical Magazine* 47 (April 1946): 123.

²E. Milby Burton, *South Carolina Silversmiths 1690-1860* (Charleston, S. C., 1942), pp. 230-31. The "Brick Range" consisted of two two-story buildings at the corner of Main and Taylor Streets. Julian Augustas Selby, *Memorabilia and Anecdotal Reminiscences of Columbia, S. C., and Incidents Connected Therewith* (Columbia, S. C., 1905), p. 125.

³*Columbia Daily Telegraph*, 23 December 1847. Glaze carried no less than six advertisements in this newspaper. A silver serving spoon in the collection of Historic Columbia Foundation marked WM GLAZE in a rectangle dates from this period. It belonged to Christopher Fitz-Simmons Hampton.

⁴Burton, pp. 225-28.

⁵*Columbia Daily Telegraph*, 17 January 1848; 26 February 1848; 14 March 1848.

⁶Southern states sent 43,232 men to 22,136 for the northern states. David Duncan Wallace, *South Carolina, A Short History 1520-1948* (Chapel Hill, N. C., 1951), p. 503.

⁷In a unanimous resolution of the General Assembly, the governor of the state was requested to procure swords for Colonel Gladden and for the eldest son of Colonel Butler. A "suitable memorial" was voted for the widow of Lt. Colonel Dickinson. A medal was voted for all of the members of the regiment. Resolution, House 8 December 1848, Senate concurred, 13 December 1848, MS, Military Affairs 1830-1859, General Assembly, S. C. Archives; hereafter cited as Mil. Affairs, Archives. In 1853 a similar sword was voted for Captain Barnard E. Bee, a South Carolina native who had served in Mexico with the Regular Army. Resolution, House 15 December 1853, Senate concurred 16 December 1853, MS, Mil. Affairs, Archives. The swords presented to Captain Bee and the son of Colonel Butler are presently in the collections of the S. C. State Museum.

⁸South Carolina General Assembly, *Journal of the Senate*, 1850, pp. 14-30; hereafter cited as *Senate Journal* and year. Governor Seabrook also took time to write to the President inquiring as to the reason for sending additional federal troops to Charleston. His letter was answered by Secretary of State Daniel Webster, who declined to give any reason, basing his position on constitutional grounds. Letter, Webster to Seabrook, 7 December 1850, MS, Mil. Affairs, Archives.

⁹South Carolina General Assembly, *Reports and Resolutions of the Session*, 1850, p. 230; hereafter cited as *Reports and Resolutions* and year. Major James H. Trapier, the new Major of Ordnance, submitted a progress report on 1 November 1851. Thirty-two 24-pounder guns, eight 10-inch mortars, four 8-inch columbiads, and four 8-inch howitzers were ordered from Joseph R. Anderson of Richmond, Virginia. Of that number, the 24-pounders had been completed and tested by 1 November and the remainder were expected by 15 December. Contracts for accoutrements for infantry, artillery and cavalry were given to S. M. Howell of Columbia and A. & R. B. McKensie of Charleston, with the stipulation that all the work be done in South Carolina. Another Charleston contractor, C. Werner, received an order for twenty-eight gun carriages. J. M. Eason & Brother, also of Charleston, were given a contract for 13,000 round shot, 2,000 10-inch shells and 500 8-inch shells. The Spartanburg Iron Works received a smaller contract for 1,000 8-inch shells and 500 24-pounder case shot. Eighty thousand pounds of cannon powder was ordered from the Hazard Powder Company of Enfield, Connecticut. Report of the Major of Ordnance, 1 November 1851, MS, Mil. Affairs, Archives. Accoutrements include belts and buckles, cartridge pouches, etc.

¹⁰*Columbia Daily Telegraph*, 13 April 1848.

¹¹Petition of Wm. Glaze, undated, MS, Mil. Affairs, Archives; *Reports and Resolutions*, 1848, p. 206; Account of Governor Seabrook, Military Contingency Fund, 23 January 1849, MS, Mil. Affairs, Archives. A cannon is rated by the weight of the solid iron ball which is fired from it. Thus, a 2-pounder fires a two-pound iron round shot, a 24-pounder fires a twenty-four-pound iron round shot, etc. Howitzers and mortars are rated by the diameter of their bore, thus an 8-inch howitzer or a 10-inch mortar, etc.

¹²Report, undated, (c. 1851), MS, Mil. Affairs, Archives.

¹³Account of Governor Seabrook, Appropriation for the purchase of arms, 12 November 1849, 15 December 1849, MS, Mil. Affairs, Archives. These arms may have been marked GLAZE & RADCLIFFE. A small number of Model 1842 muskets were made by A. H. Waters and Co. at this time. There is some reason to suspect that Glaze and Radcliffe obtained 100 of these. H. Michael Madaus, *American Longarms* (New York, 1981), p. 89.

¹⁴Account of Governor Seabrook, Military Contingency Fund, 6 December 1849, MS, Mil. Affairs, Archives.

¹⁵*Reports and Resolutions*, 1850, p. 111; *Senate Journal*, 1850, p. 23.

¹⁶Account of Wm. Glaze & Co., 28 November 1853, MS, Mil. Affairs, Archives; Report, Committee on the Military, House 19 December 1853, Senate 20 December 1853, tabled, MS, Mil. Affairs, Archives.

¹⁷*Columbia Daily Telegraph*, 10 March 1851.

¹⁸Hennig, p. 323.

¹⁹Boatwright was elderly by this time and may have been in poor health. He died on 13 May 1857 at the age of 84.

²⁰Agreement and bond, Glaze & Flagg with Major Trapier, 15 April 1851, MSS, Mil. Affairs, Archives.

²¹Agreement, Glaze & Co. with Major Trapier, 31 May 1851, MS, Mil. Affairs, Archives.

²²Report to the Board of Ordnance, 28 April 1852; Alteration to agreement, Glaze & Co. with Major Trapier, 30 April 1852, MSS, Mil. Affairs, Archives.

²³Report of the Major of Ordnance, 20 November 1852, MS, Mil. Affairs, Archives. The Board of Ordnance later ordered this report printed in 500 copies.

²⁴Letter, Major Calhoun to Glaze & Co., 8 May 1853, MS, Mil. Affairs, Archives.

²⁵Annual return of ordnance & ordnance stores at arsenal, Columbia, 1 October 1853; 1 October 1854, MSS, Mil. Affairs, Archives. Glaze was paid for 526 artillery swords. Account of Wm. Glaze & Co., 28 November 1853, MS, Mil. Affairs, Archives.

²⁶Report, Committee on the Military, House 18 December 1853, Senate 20 December 1853, tabled, MS, Mil. Affairs, Archives.

²⁷"The Palmetto Armory, Columbia, S. C.," *Southern Agriculturist*, February 1853, pp. 50-51.

²⁸Lewis P. Jones, *South Carolina, A Synoptic History for Laymen*, revised ed. (Lexington, S. C., 1978), p. 162.

²⁹Journal, 1849-1858, entry for December 1857, p. 283, Stanley's China Hall Papers, Caroliniana Library, University of South Carolina, Columbia, S. C.; hereafter cited as Caroliniana. William B. Stanley's shop was at 183 Richardson. He stocked a wide variety of luxury items as well as common household goods.

³⁰William Glaze, ed., *A Detailed Account of Experiments and Observations upon the Sorghum Saccharatum, or Chinese Sugar Cane: Made With the View of Determining its Value as a Sugar-Producing Plant*, by Joseph S. Lovering, of Oakhill, Philadelphia Co., Pa.; *Together With a Compilation of Articles on the Subject, From Other Sources* (Columbia, S. C., 1858), *passim*.

³¹He had extensive dealings with William W. Renwick, for example, providing mostly plates and balls, gears and the like. William W. Renwick Papers, Caroliniana. Glaze is reported to have sold a seventy-horsepower steam engine to Wade Hampton for \$1,600. E. M. Lander, Jr., "Columbia's Confederate Arsenal," *Columbia State*, 13 August 1950, *State Magazine*, p. 9.

³²U. S. *Census*, 1860, Population, Richland District, S. C., p. 93; *Ibid.*, Products of Industry, Richland District, S. C. The value of the production of the Palmetto Iron Works is listed as \$1,842.40. This must be an error. The Congaree Iron Works, also in Columbia, produced only 240 tons valued at \$9,500 for engines and \$31,000 for saw mills.

³³Receipts for arms, Colonel Edwards, 21 October 1861, Captain Berry, 4 October 1861, MSS, Ordnance Department Papers 1860-1864, S. C., Archives; hereafter cited as Ord. Dept., Archives.

³⁴William A. Albaugh, III, Hugh Benet, Jr., and Edward N. Simmons, *Confederate Handguns* (n. p., 1963; reprint ed., New York, n. d.), p. 180.

³⁵Letter, Glaze to Jamiesson, 26 February 1861, MS, Ord. Dept., Archives.

³⁶Letter, Glaze to Board of Ordnance, 4 January 1861, MS, Ord. Dept., Archives.

³⁷Letters, Glaze to Manigault, 25 January 1861, 12 February 1861, MSS, Ord. Dept., Archives.

³⁸Letters, Glaze to Manigault, 20, 27 February, 2, 12, 16, 26 March, 8 April 1861, MSS, Ord. Dept., Archives. Some of the shells were rejected by the Chief of the Military Department and Glaze had to refund \$1,500. South Carolina Military Department, *Report of the Chief of the Department of the Military of South Carolina, to His Excellency, Governor Pickens* (1862), p. 55.

³⁹Letters, Glaze to Manigault, 20 February, 2, 12, 16, 26 March, 8 April, 26 August 1861, MSS, Ord. Dept., Archives.

⁴⁰Receipts for arms, Jenkins, 23 April, 13, 29 May 1861; Beaufort, 2 May 1861; Kershaw, 20 May 1861; Humphrey, 5 June 1861, MSS, Ord. Dept., Archives.

⁴¹*Richmond Daily Examiner*, 8 June 1861.

⁴²William B. Edwards, *Civil War Guns* (Harrisburg, Pa., 1962), p. 390. Glaze also claimed to have received an order for 5,000 "U. S. Rifled Muskets" from the Confederate government. It appears that nothing came of this either. Letter, Glaze to Manigault, 10 June 1861, MS, Ord. Dept., Archives.

⁴³Letter, Glaze to Manigault, 25 July 1861, MS, Ord. Dept., Archives. It appears that Glaze did not receive an order as there is no further mention of cartridges in his later correspondence with Colonel Manigault.

⁴⁴Letters, Glaze to Manigault, 3, 20 September 1861, MSS, Ord. Dept., Archives.

⁴⁵Letters, Glaze to Manigault, 10, 27 September 1861, MSS, Ord. Dept., Archives.

⁴⁶Letter, Edwards to Manigault, 16 October 1861, MS, Ord. Dept., Archives.

⁴⁷Ordnance accounts, W. G. Eason, Acting Ordnance Officer, 31 March 1862, June 1862, MSS, Ord. Dept., Archives. The account for 27 January to 31 March 1862 also shows that Glaze was paid \$1,210 on 24 March for 4,800 "appendages" for muskets and rifles. The "appendages" are probably nipple wrenches, ball screws, wipes, etc., concerning which there are a number of comments in Glaze's letters in 1861.

⁴⁸Letter, Glaze to Manigault, 12 November 1861, MS, Ord. Dept., Archives.

⁹⁰*Charlotte (N. C.) Daily Bulletin*, 26 August 1862.

⁹⁰Abstract of disbursements at State Works, 31 July 1863, 30 September 1864, MSS, Ord. Dept., Archives.

⁹¹South Carolina General Assembly, *Journal of the House of Representatives*, 1862, p. 85; hereafter cited as *House Journal* and year.

⁹²J. F. Williams, *Old and New Columbia* (Columbia, S. C., 1929), p. 110.

⁹³Petition of Asa George, undated, MS, Hampton Family Papers, Caroliniana. George's idea was not unique. A revolving cannon had been produced by Pate, Tappey and Lumsden of Petersburg, Virginia, in 1861. One of the 4-pounder prototypes blew up during testing and the other was never used. Warren Ripley, *Artillery and Ammunition of the Civil War* (New York, 1970), p. 181.

⁹⁴*Reports and Resolutions*, 1862, pp. 205-206.

⁹⁵*House Journal*, 1863, p. 77.

⁹⁶Letter, Hampton to Bonham, 26 October 1863, MS, Hampton Family Papers, Caroliniana. The General Assembly "protested" that it was not necessary for Hampton to replace the gun he took to Virginia. *Reports and Resolutions*, 1863, p. 402.

⁹⁷Letter, Hampton to Bonham, 4 December 1864, MS, Milledge Luke Bonham Papers, Caroliniana.

⁹⁸Among the items he obtained was a large lathe. Glaze told the individual he was dealing with that he did not want a New Haven lathe. The man happened to have such a lathe so he cut off the name, repainted the area, and sold it to Glaze as a different type. Williams, p. 127.

⁹⁹Broadside, undated [c. 1868], Caroliniana.

¹⁰⁰*Columbia Daily Phoenix*, 9 April 1868, 28 May 1868.

¹⁰¹*Ibid.*, 12 April 1868.

¹⁰²*Ibid.*, 5 May 1868.

¹⁰³*Ibid.*, 20 May 1868.

¹⁰⁴*Ibid.*, 24 September 1869.

¹⁰⁵*Ibid.*, 21 March 1872. The shop was at 126 Richardson.

¹⁰⁶*Columbia Daily Register*, 12 October 1883.

¹⁰⁷Albert N. Hardin, Jr., *The American Bayonet* (Pensauken, N. J., 1964), p. 48.

¹⁰⁸A "bushy tree" lockplate was also found at this site.

¹⁰⁹Benjamin Elliott and Martin Strobel, *The Militia System of South Carolina, Being a Digest of the Acts of Congress Concerning the Militia, Likewise of the Militia Laws of this State, With an Appendix, Containing the Statutes at Large Relating to the Militia, From the 8th May, 1792, to the 17th December, 1834, Inclusive; With the Judicial Decisions Thereon. Also, The Patrol and Quarantine Laws, the Constitution of This State and of the United States* (Charleston, S. C., 1835), pp. 1-4.

¹¹⁰*Ibid.*, pp. 17-34. Later acts increased the number of brigades and restricted the carrying of weapons by blacks.

¹¹¹*Ibid.*, pp. 8-10

⁷²John Henry Spangler, "Arming the Militia: South Carolina Longarms, 1808-1903" (M. A. thesis, University of Florida, 1977), p. 9. An arsenal generally stores weapons and does some repairs, while a magazine stores ammunition. An armory manufactures weapons. The terms are often misused. Secretary Knox clearly meant that arsenals and magazines should be established to serve the three areas.

⁷³Arthur P. Wade, "Mount Dearborn: The National Armory at Rocky Mount, South Carolina, 1802-1829," *South Carolina Historical Magazine* 81 (July 1980): 209-13.

⁷⁴*Ibid.*, (October 1980): 328.

⁷⁵*Ibid.*, pp. 338-41.

⁷⁶South Carolina General Assembly, Military Commission, *A Plan to Improve the Present Militia System of South Carolina, Submitted at the Session of 1859, by a Portion of the Military Commission, Appointed by the Legislature of 1858* (1859), p. 4.

⁷⁷1860 Association, *Suggestions as to Arming the State* (Charleston, S. C., 1860), pp. 5-8; p. 12.

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