

Edward Beyer's sketch of the Virginia Manufactory of Arms ca. 1840.

The Alteration of Virginia Manufactory Weapons 1813-1863

Giles Cromwell

Virginia was the first state after the Revolutionary War to successfully accomplish the complete manufacture of weapons for its militia, and for the period of its operation beginning 1802 through the end of operations in 1821, the armory in Richmond produced approximately 58,000 flintlock muskets; 2,000 flintlock rifles; 10,000 swords; 4,000 flintlock pistols, and almost 300 cannon. No percussion firearms, of course, were made at the armory during its twenty year period which ended in December, 1821.

During its operational years, and to a far greater extent thereafter, these arms often underwent changes to their original forms, and I will endeavour to briefly illustrate and comment on certain major changes or alterations made to these Virginia Manufactory weapons during a selected fifty year period: I have chosen the years of 1813 through 1863 as I believe this period best encompasses, for my purpose, most of the important variations one can expect to encounter when investigating these particular southern arms.

Alterations of Virginia swords

I will begin with the earliest armory alteration in 1813 to the First and Second Model swords. The War of 1812, coupled with a long-standing dissatisfaction over the excessive blade lengths of these earliest swords made from 1805 into 1808 finally resulted in the reduction of many of their 40 inch blades by cutting them back to 36 inches during 1813. In many instances, the original longer iron scabbards were also reduced in length to accommodate the shorter blades, but I have noticed several examples in which the shortened sword was simply replaced into its original, unaltered scabbard. By the close of 1814, 2,000 of these early Virginia swords had been altered.

No further alterations took place until 1845 or approximately twenty-four years after the Virginia Manufactory had ceased arms production. Possibly in anticipation of service in Mexico, however, in 1845 another parcel of 600 First and Second Model swords had their blades and scabbards reduced to 36 inches at the armory. Consequently, by 1846, a total of 2,600 swords had been altered, and this fact partially accounts for the difficulty today's collector has in locating uncut or unaltered specimens, as only approximately 3,400 First and Second Model swords had been produced earlier in 1805-08. I



would mention as a precautionary note that during both instances of alterations in 1813 and 1845, these blades were only shortened and were not slimmed. This is an important feature as it should remove examples of those swords with simply cut-off blades from being erroneously considered as "Secondary Confederate" pieces.

The third alteration of Virginia swords occurred outside of the armory in 1859 and 1860 when James T. Ames of Chicopee Falls, Massachusetts, altered an initial group of 1,000 Virginia Manufactory swords by slimming their blades and providing new iron scabbards at a cost of \$3.25 each.¹ These swords were probably the later Third Model (1808–14, 1821) examples which would have required little or no blade shortening as they were originally manufactured with 36 inch blade lengths. I believe but am unable to substantiate that Mr. Ames' new scabbard had two carrying rings and an iron drag, and this new scabbard formed the pattern generally copied by all subsequent alterers of Virginia swords most likely by contract under the Virginia Ordnance Department during the Civil War.

From October 1, 1859, through October 1, 1863, the state issued a total of 6,784 swords from the armory, and during the years 1860–61 at least the majority of these pieces were distributed in their unaltered forms. Unfortunately for this report, we have been unable to locate and identify who altered these swords during the war years but they were, indeed, altered. The blades of all altered models were slimmed (shortened when necessary to approximately 34-36 inches) and refitted to narrow iron scabbards with brass carrying rings. These scabbards also uniformly had iron, not brass, drags.

I have observed one interesting consistency among

those early First Model swords which were produced with the relatively straight blades which probably were altered under contract with the Virginia Ordnance Department: only on these particular models there is an arabic number (viz, 2, 10, 18, 31, 62, 77, 101, 115 and 120) struck into the front or face of the half-basket guard. I surmise that such examples represent at least one contractor's method of serialization or lot identification.

I will end this discussion of the first category of altered Virginia swords by observing that of all weapons produced at the armory, the sword would undoubtedly have remained in continual service throughout the war years of 1861-65 whereas shoulder arms and pistols would have been phased out as soon as possible when more suitable, newer weapons could be procured. The Confederate-altered Virginia sword (altered only once or even a second time after having its blade originally shortened in 1813 or 1845) and scabbard as a unit in good condition is a difficult item to locate today.

Alterations of flintlock arms

The subject of Virginia flintlock weapons comprises the next sequence and largest category of altered state arms, and I have been greatly assisted in what follows by H. Michael Madaus, Assistant Curator of History at the Milwaukee Public Museum, who, along with Peter Schmidt, is currently undertaking an extensive review of altered U.S. flintlock arms for a later publication. By way of introduction, I have observed that the state did not alter its flintlock weapons during the forty years between the close of the armory facility in 1821 and its secession from the Union in 1861. Due perhaps to a loss of Virginia's leadership role in national politics, the westward expansion caused by soil exhaustion which by itself led to a general loss in population, education and commerce, the obtaining of arms through the Federal quota system, a poor economy, and, finally, general apathy, the state had grown lax during this period in which important progress was being made elsewhere in the country using the more efficient percussion system. Consequently, Virginia issued only what was available, and for the period of October 1, 1859, through November 1, 1861, a total of approximately 44,000 Virginia flintlock muskets with bayonets, 528 flintlock rifles, and 542 flintlock pistols left the armory, in addition to miscellaneous U.S. arms. Also, in order to achieve some degree of efficiency, a total of 53,000 extra flints were issued during this same period and an additional quantity of 3,000 for the period of November 1, 1861, to November 1, 1862.² Interestingly and of particular importance to this subject, no flints were issued after November 1, 1862. This substantiates the idea that practically all of Virginia's flintlock arms were

either altered to percussion or were obsolete by the beginning of 1863.

By late 1861 and early 1862, however, these old Virginia flintlocks began returning from service as expediently as circumstances allowed, and immediately the question of ownership arose for by November, 1861, the Confederacy was experiencing an acute arms shortage, as none were arriving to any large extent from England. Consequently, the Confederate Government attempted to usurp Virginia's right to its own arms by claiming that the returning weapons belonged to the Confederacy. Without enumerating on all of the political implications and accusations between Brigadier General J. Gorgas of the Confederate Ordnance Bureau and Colonel Charles Dimmock of the Virginia Ordnance Department, the question of arms ownership was eventually resolved during 1862 when the state once again resumed or regained undisputed possession of its Virginia marked arms. This restoration of state arms under Virginia authority prevented a further erosion of arms into the Confederate Government, but during the earlier period of confiscation by the government some limited quantities of Virginia's muskets and rifles were indeed altered by individual firms under direct contract with Gorgas and the Confederate Government. These early contracts, however, we believe to have been limited to the Richmond firms of S.C. Robinson, Francis Perpignon, The Union Manufacturing Company, and T.J. Adams.³

With the destiny of its flintlock arms once more assured, the state under the Ordnance Department sought contracts with individual firms for altering the old flintlocks. Although the state had appropriated \$320,000 in 1860 to refurbish the old armory building as a result of the implications of John Brown's raid at Harpers Ferry, the Confederate Government's control over the Virginia Manufactory building and its interest in developing the new, improved Model 1855 rifle-musket with the machinery from Harpers Ferry, precluded use of the building as a feasible facility for altering Virginia's flintlocks. Accordingly, Colonel Dimmock obtained contracts with individual firms for altering the flintlocks, and I would like to continue with the two types or designs of alterations which we observe to have been performed under contract directly for the state of Virginia. A third type or style of alteration of Virginia's flintlocks usually referred to as the "Civilian Method" will be mentioned later at the conclusion of this discussion, but as this third method does not conform to the criterion for direct state alterations, I have purposely refrained from including it at this juncture of my report.

Fundamentally, Virginia contract alterations consist of two types: First, those arms usually encountered which have been altered to percussion by brazing an iron bolster onto the barrel over the vent or touch hole and the use of a large arsenal styled or manufactured percussion hammer. There are several different designs of these bolsters, and I will return to these momentarily. Second, those arms only infrequently encountered which have been altered to percussion by closing the vent and tapping the upper right surface of the barrel for a cone or nipple. Alterations of this kind also employ a large arsenal styled or manufactured percussion hammer.

The bolster alterations

Returning to the first type of alteration, i.e., the bolster method, several firms altered the state's firearms using this method, and I will list and enumerate on them in order of their volume, beginning with S.C. Robinson, who quantitatively effected the greatest number of musket alterations for the Commonwealth. S.C. Robinson, of Richmond, was the first contractor to receive muskets for alteration, and from July, 1861, through December, 1862, at least 14,000 muskets had been altered at an individual cost of approximately \$3.50 each.⁴ This firm was the most prolific contractor of state arms, and as a correlation, this company's products exhibit the highest number of survivng examples.⁵ Identification of Robinson's work has been urther augmented by several consistencies observed mong these most frequently encountered specimens: (1) he use of a two faceted bolster which has a flat bottom M1842 musket style) and the bolster insets into the top dge of the lock plate, and on those later Virginia muskets 1818-21) which originally had brass pans, a sliver of the rass pan is often retained beneath the flat bottom of the olster; (2) a hammer with a high spur is used, and, finally, 3) markings on earlier alterations consisting of a pair of Roman numerals, one struck over the other (XIII/IV, I/VI, VIII/XXII, XXXXIX/V, etc.) are uniformly and onsistently stamped into the inner face of the hammer nd on the underside of the barrel near the breech. On ater alterations, arabic numbers (27/1, 25/10, 4/59, etc.) h the same locations are found instead of the Roman umerals. While it is possible that one was used for the onfederate Ordnance Department work and the other or Virginia contract work, we believe it is more likely that he Roman numeral system simply preceded the delivery f the dies for the arabic numbering system. Being at a oss to explain this relatively large group of Roman umerally marked muskets in terms of other contractors nd because their characteristics so closely otherwise gree with the arabic numbered examples which we beeve are definitely Robinson's work, we are hypotheizing, at this time at least, that this group represents the early" Robinson system. Although I have previously tated that this firm was the single largest alterer of

Virginia muskets, the company did not alter very many Virginia rifles; a total of only 100 appear to have been altered during November of 1861.⁶ In spite of this record that rifles were altered by Robinson, we have yet to examine one with the appropriate two faceted bolster or with a marking (reassembly) system similar to those employed on the muskets. No pistols appear to have been altered by this firm.

Second to S.C. Robinson, based on payments of the Virginia Treasurer's Office, The Union Manufacturing Company, also located in Richmond, altered more state muskets than any of the other remaining contractors. During the period of November, 1861, through May, 1862, at least 10,000 muskets were altered by this second firm at an individual cost of approximately \$4.50 each.7 We attribute work to this firm based on these features (1) the use of a curved bottom bolster which is inset considerably into the top edge or portion of the lock plate in the space formerly occupied by the pan; (2) a marking consisting of a simple, single arabic number (155, 169, etc.) is uniformly stamped into the inner face of the hammer, the bottom of the barrel near the breech, and usually (but not always) on the pan section mortise on the inside of the lock plate. This pan area number was struck into the pan/mortise area before the lock plate was further milled to receive the new round bottom bolster, and, consequently, this number is often defaced. The marking code frequently includes the letter "U" on the inner face of the hammer (U/155 or U/169, etc.). The Union Manufacturing Company did not alter any Virginia rifles or pistols.

I mentioned previously that some correspondence had determined that a limited number of Virginia muskets and rifles were altered at least by Robinson and Perpignon under direct contract with the Confederate Ordnance Department in late 1861. The Union Manufacturing Company very likely also worked for the Confederate Ordnance Department. One example of such Confederate alteration of a Virginia musket is known to have been altered probably by this company; with the exception of a slotted cleanout screw through the bolster face, all other features of the alteration are consistent with this firm's work. While on the subject of clean-out screws, Mr. Madaus and I have observed that all examples of Virginia arms altered under state contract consistently omit the functional clean-out screw in the bolsters regardless of which company performed the alteration. In each instance of the "brazed plug" brazed bolster, we believe that these plugs were actually screws which have been polished down to the groove in the screw's head during the final polishing operation on the bolster.

By comparison with the amounts paid to S.C. Robinson and The Union Manufacturing Company, the production of the other three or possibly four alterers seems to have been relatively low. Francis Perpignon in Richmond altered approximately only 1,800 muskets between October, 1861, and September, 1862, at an average cost of approximately \$4.25 each. We attribute alterations by this firm to (1) the use of a three faceted bolster which is inset into the top edge of the lock plate; (2) the use of an arsenal styled hammer with a small or short spur; and (3) markings consisting of single Roman numerals (instead of a pair of Roman numerals, one struck over the other as associated with early Robinson alterations) in combination with letters or other Roman numerals (M/XII and U/XIV, etc.) are consistently stamped into the musket in four places: the inner face of the hammer, the inner face of the lock plate, the bottom of the barrel near the breech, and on the exterior bottom of the stock just to the left of the triggerguard. F. Perpignon did not alter any Virginia rifles or pistols.

The fourth contractor of state weapons was Thomas J. Adams in Richmond, and this firm is particularly significant in our study not so much for the quantity of alterations (only approximately 1,000 muskets were altered from December, 1861, through April 1862) but more importantly for the diversity of arms altered. This company was the primary alterer of both models of Virginia Manufactory pistols; for the three months of January, May, and June, 1862, a total of approximately 500 Virginia pistols were changed to the percussion system at an individual cost of approximately \$4.50 each. Evidence further indicates that this firm also altered Virginia Manufactory rifles, but we believe this latter work may have been performed directly under Confederate contract as no vouchers have been located in the Virginia Treasurer's records to confirm either state deliveries or payments for rifles. We attribute T.J. Adams' alterations to (1) the use of a three faceted bolster which is inset into the top edge of the lock plate (similar to Perpignon's work); (2) an arsenal styled hammer with a small or short spur; and (3) markings consisting of Roman numerals (I, III, IIII, II/XV, etc.) stamped on the inner face of the hammer, on the bottom of the barrel near the breech (also infrequently on the inner face of the lock plate), and on the left side exterior surface of the stock opposite the lock. With the exception of approximately 14 additional pistols altered by J.H. Wells and another small parcel of 6 pistols altered by W. Morgan in Richmond (no identifiable examples by either contractor have been discovered at this time), T.J. Adams appears to have been the major alterer of these handguns.

Brazed-bolster altered Virginia pistols and rifles are extremely scarce today. As mentioned previously, for the period of October 1, 1859, through November 1, 1861, a total of only 542 flintlock pistols and 528 flintlock rifles were issued from the armory. Since the total number of these weapons agrees so closely with the initial distribution, it suggests to us that, like the flintlock muskets, these pistols and rifles were probably altered from those arms returned by the Southern forces ca. late 1861 and early 1862.

I would like to include the names of a few additional firms who performed a limited number of alterations of state muskets using what we assume, for now at least, to be the bolster method. Examples of their work, however, have not been adequately identified at this time: H.W. Morgan in Richmond altered approximately 700 muskets between February and September, 1862; S. Holbrook (location not determined) altered approximately 147 muskets in April and May, 1862; and, finally, J.D. Brown (location not determined) altered 60 muskets in November, 1861.⁸ We have been unable to locate any references that Samuel Sutherland in Richmond altered any Virginia Manufactory arms directly for the state ordnance department.

The cone alterations

We tentatively attribute John B. Barrett and Company in Wytheville, Virginia, as the firm who performed the second type of state contract alteration ir which a cone is placed directly into the upper right surface of the barrel. This company, presumably related to A.B Barrett and Company, also in Wytheville, may have been the only firm to use the cone-in-barrel method on Virginia muskets. No evidence exists that the state ever sent any o its muskets to the federal arsenals for alteration by this method prior to the war. Although approximately 2,135 Virginia Manufactory muskets came into federal owner ship through a prewar exchange for percussion muskets we have not been able to substantiate that the federa arsenals made any effort to alter these arms to percussion by means of the cone-in-barrel system (although some o these same 2,135 muskets were later altered by Leman i 1862-63 by contract with the federal government). In stead, I believe they were stored in arsenals and/or late sold as obsolete.⁹ Documents do exist that John B. Barret and Company did alter and occasionally rifle barrels o longarms, and the existence of two rifled Virgini muskets, one each in the Rock Island Arsenal Museun (M282) and in the Springfield Armory Museum (1365) would appear to be examples of their work.¹⁰ These two specimens are also supported by the existence of a small number of Virginia related muskets in private collection which, while remaining smoothbored, have the sam scarce cone-in-barrel alteration. This latter group also ha the similar distinction of having arabic numbers (134 319, 1/94,etc.) stamped in these areas: on the inner fac

of the hammer, on the interior barrel channel of the stock approximately five inches from the breech plug tang mortise, on the bottom of the barrel near the breech, and, infrequently, on the inside of the lock. This type of conein-barrel alteration, while frequently observed on U.S. altered weapons, is scarce on Virginia arms, and we assume that only a very limited number were altered and an even lesser number rifled by this firm. The alteration by the cone-in-barrel system by John B. Barrett and Company is limited to muskets.

The "civilian" alterations

Mention of the "Civilian Method" of alteration will close my observations on Virginia arms. This third method of altering flintlock arms represents a substantially large group of muskets and rifles but is only infrequently encountered on Virginia pistols. This civilian method is immediately identifiable by the small, thin hammer and the small cylindrical drum bolster. With only a few exceptions, the civilian method involves the tapping of a small cylindrical drum-shaped bolster into the vent of the barrel. This bolster is more commonly referred to as a drum and will vary considerably both in its length and diameter in this particular group of civilian alterations. A cleanout screw is occasionally present at the end of the drum. This type of alteration is completed by the use of a percussion hammer which, when compared to the well inished, larger hammers of the state contract alterations, offers little size or design/configuration consistency to the ther hammers used in this particular civilian class. Also, ny reassembly marking system, present on state altered xamples, is absent on these civilian specimens. We elieve that the majority of this work was performed by ndividual gunsmiths working in small shops and under therwise limited conditions during and certainly to an ven greater extent after the Civil War, for prior to the war hese weapons were state property and would not have een legally available for altering in any large quantities. Ve must assume, of course, that some of these civilian ltered arms were used by southern troops, but as it is mpossible to confirm such use I refrain from accepting ny civilian example as being "Secondary Confederate." The Virginia Manufactory rifles are usually found with his civilian alteration, and we believe these examples to ave been altered, for the most part, well after the Civil Var for private or non-military use. On the other hand, so nany altered Virginia Manufactory pistols have been econverted to flintlock over the past fifty years that ocating examples altered to percussion is getting exceedngly difficult today. Consequently, a scarce form has een created, unintentionally perhaps, and this fact cerainly hinders current research.

In closing, you have been led, and in some instances undoubtedly "pulled," through a fifty year period which saw the greatest impact concerning the alteration of Virginia Manufactory weapons. However, regardless of my good intentions to assist in the identification and collection of these examples, the persistent fact remains that certain pieces simply do not conveniently meet the basic requirements that otherwise would make at least their tentative identification possible. I readily confess to the existence of these enigmatic examples as well as the fact that future research may very well modify certain of my hypotheses regarding the Confederate and state alterations. Thus in fairness to the subject, I offer my observations more in the spirit of a preliminary challenge rather than as a fully researched historical analysis.

I would like to express my appreciation to "Howie" Michael Madaus, Assistant Curator of History, at the Milwaukee Public Museum for his meticulous research, photographs, and generally untiring assistance all shared with me concerning the important state contract alterations.

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FOOTNOTES

¹Records of the Board on the Purchase and Manufacture of Arms and Ammunition of War, Feb. 10-Dec. 7, 1860; pp. 13-4, 22. Virginia State Library, Richmond, Virginia; R.G. #156, entry 152, Vol. 3, p. 154 (A) and (B) and entry #118, Vol. 5, p. 101 (A), National Archives, Washington, D.C.

²Documents of the Senate for 1863 & 1864, Doc. No. 8, p. 7, Richmond: William F. Ritchie, Public Printer, 1863.

³Journal of the Senate of the Commonwealth of Virginia, Doc. No. 23, letter dated Dec. 10, 1861, p. 29; and letter dated Dec. 26, 1861, p. 33; Richmond: James C. Goode, 1861.

⁴Journal of Disbursements of the Virginia Treasurer's Office, Volume for October 1861–October 1862, Entry 11; and Volume for October 1862–1864, Virginia State Library, Richmond, Virginia.

⁵Letter from H. Michael Madaus dated 28June-2July 1984, p. 2.

⁶Record Group No. 109, Entry Chapter IV, Vol. 116, National Archives, Washington, D.C.

⁷Madaus letter dated 28June-2July 1984, p. 2.

⁸Another small group of heretofore unresearched Virginia muskets is known which, while not necessarily sharing the same bolster configuration, nevertheless forms an important group as these examples all share certain similarities, viz, (1) alteration by state contract, (2) retention of only the lower sling swivel, (3) repositioning of the front double barrel band to the area formerly occupied by the middle barrel band, and, most importantly, (4) all of the muskets in this category have had their barrels shortened to approximately 30 inches. The striking conformity of these "musketoons" suggests their use by mounted troops. A subsequent report on these examples is in progress by the author.

⁹Madaus letter dated 28June-2July 1984, pp. 10-11.

¹⁰Journal of Disbursements of the Virginia Treasurer's Office, Volume for October 1862-October 1864, p. 5, Virginia State Library, Richmond, Virginia.



First Model Virginia Manufactory sword with blade and scabbard shortened to 36 inches at the armory ca. 1813.



Second Model Virginia Manufactory sword with blade and scabbard shortened to 36 inches at the armory ca. 1813.



Second Model Virginia Manufactory sword with blade and scabbard shortened at the armory ca. 1845. Complete with original ca. 1845 white buff shoulder belt with circular brass breast plate stamped in lead on the reverse side "H. Dingee."



Third Model Virginia Manufactory sword with blade slimmed and fitted to brass mounted Confederate scabbard ca. 1862.



First Model Virginia Manufactory sword with blade slimmed for later Confederate service ca. 1862.



First Model Virginia Manufactory sword with slimmed blade and the number "62" stamped into the face of the iron guard ca. 1862.



First Model Virginia Manufactory musket dated 1807 with original long bayonet. Typical of those muskets issued in flint by Virginia in 1861 and early 1862.



A close-up of the original flint lock of a First Model Virginia Manufactory musket dated 1807.



A Second Model Virginia Manufactory flintlock rifle made ca. 1812. A typical example of those flintlock rifles issued by Virginia in 186 and early 1862.



irst Model Virginia Manufactory pistol dated 1808. A typical example of those flintlock pistols issued by Virginia in 1861 and early 1862.



econd Model Virginia Manufactory pistol dated 1813. Another example of those flintlock pistols issued by Virginia in 1861 and early 362.



An 1818 dated Virginia Manufactory musket illustrating a typical brazed bolster alteration to percussion.



An 1811 dated Virginia Manufactory musket illustrating a cone-in-barrel alteration to percussion.



An 1804 dated Virginia Manufactory musket illustrating a S.C. Robinson alteration. The hammer has been replaced and is probably not original to this alteration. Alteration assembly/lot markings are "27" over "1".



A Virginia contract musket illustrating a S.C. Robinson alteration. Alteration assembly/lot markings are "25" over "10".



An 1820 dated Virginia Manufactory musket illustrating a S.C. Robinson alteration. This example has been shortened to a "musketoon." Alteration assembly/lot markings are "3" over "10."



A close-up of the altered lock of the preceding musketoon. Notice the small sliver of brass from the original flash pan which has been retained at the bottom of the bolster.



An 1818 dated Virginia Manufactory musket illustrating a S.C. Robinson alteration. This example has also been shortened, of course, but the length reduction has not been verified as Confederate at this time. Alteration assembly/lot markings are "0" and "16" over "7."



A close-up of the altered lock of the preceding shortened musket. Notice again the small sliver of brass from the original flash pan whic has been retained at the bottom of the bolster.



An 1820 dated Virginia Manufactory musket illustrating an Union Manufacturing Company alteration. Alteration assembly/lot markin is "211."



An 1819 dated Virginia Manufactory musket illustrating an Union Manufacturing Company alteration. Alteration assembly/lot marking is "U" and "155."



A close-up of the lock of the preceding musket. Notice the curved bottom on the bolster.



An 1821 dated Virginia Manufactory musket illustrating an Union Manufacturing Company alteration. Alteration assembly/lot marking s "U" and "169." This particular musket has a definite Confederate provenance.



A close-up of the stock inscription of the preceding musket: "Taken at the Battle of/Roanoke Island/Feb 8th 1862." Another inscription on the obverse of the stock reads "C H Foss."



An 1803 dated Virginia Manufactory musket illustrating a Francis Perpignon alteration. Alteration assembly/lot markings are "M" and "XII."



An 1814 dated Virginia Manufactory musket illustrating a Francis Perpignon alteration. Alteration assembly/lot markings are "U" and "XIV."



An 1811 dated Virginia Manufactory musket illustrating a T.J. Adams alteration. Alteration assembly/lot marking is "IV."



An 1818 dated Virginia Manufactory musket illustrating a T.J. Adams alteration. Alteration assembly/lot markings are "IV" and "XVII."



An 1807 dated First Model Virginia Manufactory pistol illustrating a T.J. Adams alteration. Alteration assembly/lot marking is "III."



An 1808 dated First Model Virginia Manufactory pistol illustrating a T.J. Adams alteration. Assembly/lot marking not recorded.



An 1815 dated Second Model Virginia Manufactory pistol illustrating a T.J. Adams alteration. Alteration assembly/lot marking is "I."



An 1818 dated Virginia Manufactory rifle illustrating a T.J. Adams alteration. Alteration assembly/lot markings are "II" and "XV." Th hammer is a later replacement and probably not original to this alteration.



A close-up of the lock of the preceding rifle. The hammer is a later replacement.



An 1817 dated Virginia Manufactory rifle illustrating a T.J. Adams alteration. Alteration assembly/lot markings are "III" and "IV."



A close-up of the lock of the preceding rifle.



An 1821 dated Virginia Manufactory rifle illustrating a T.J. Adams alteration. This example has been shortened, probably for cavalry use. Alteration assembly/lot marking is "IIII." The hammer may be a later replacement but appears to be contemporary with the rifle.



A close-up of the lock of the preceding rifle.



A James Swan Virginia contract musket illustrating a J.B. Barrett alteration. Alteration assembly/lot marking is "319."



An 1818 Virginia Manufactory musket illustrating a J.B. Barrett alteration. No alteration assembly/lot marking.



An 1809 dated Virginia Manufactory musket illustrating a civilian alteration. No alteration assembly/lot marking.



An 1812 dated Virginia Manufactory musket illustrating a civilian alteration. No alteration assembly/lot marking.



An 1806 dated First Model Virginia Manufactory rifle illustrating a civilian alteration. No alteration assembly/lot marking.



An 1819 dated Virginia Manufactory rifle illustrating a civilian alteration. No alteration assembly/lot markings.



An 1817 dated Virginia Manufactory rifle illustrating a civilian alteration. No alteration assembly/lot marking.



An 1807 dated First Model Virginia Manufactory pistol illustrating a civilian alteration. No alteration assembly/lot marking.

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