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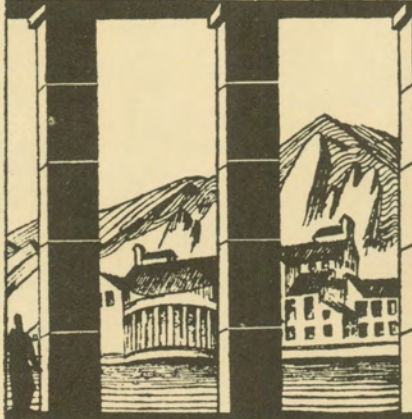
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THE ACQUISITION AND USE OF FOREIGN SHOULDER
ARMS BY THE UNION ARMY, 1861-1865

by
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A Thesis submitted to the Faculty of the Graduate
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Roche, Daniel M. (Ph. D., History)

The Acquisition and Use of Foreign Shoulder-Arms

by the Union Army, 1861-1865

Thesis directed by Professor C. B. Goodykoontz

This Thesis for the Ph. D. degree, by

The acquisition and use of foreign shoulder-arms by

Daniel M. Roche

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History

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The acquisition and use of foreign shoulder-arms by the Union Army has long been overlooked as an important phase of the American Civil War, and the part which these arms played in the Union victory neglected. In order to show the value of foreign shoulder-arms and their employment by the Union Army, a complete investigation of all the relevant published documents of the United States was made, and the manuscript records of the War, State, Treasury and Ordnance Departments were searched for available data. In these documents, one finds evidence of unnecessary competition, high prices, speculation and profiteering which forced the people of the Union to pay exorbitant prices for a means of defense that had been neglected by the administrations which preceded Lincoln's; one also finds that these arms were issued in quantity to regiments engaged in combat.

In no class of war material was the shortage of sufficient arms in 1861 so clear as in the basic weapon of the infantryman of the day -- the rifled musket. One reason for this lack of proper shoulder-arms was the changing of the design of the standard United States musket three times between 1840 and 1860, and to this must be

added a lack of interest of the officials in charge of arms production in the new developments in breech-loading small-arms. The United States Chief of Ordnance in 1857, Henry K. Craig, had never seen a workable breech-loading musket, and his successor in 1861, James W. Ripley, expressed the opinion that there was available no practical breech-loading arm for infantry use.

Until 1840, the standard shoulder-arm of the United States was a caliber .69 inch muzzle-loaded, flint-primed musket, of a type then some one hundred years old. It was replaced in the U. S. Army in 1840 although most European powers had replaced it twenty years earlier by a percussion or cap priming system. In 1841, the two United States armories at Springfield, Massachusetts, and Harper's Ferry, Virginia, began producing a musket of the new type.

The introduction of this new musket had the effect of rendering obsolete immediately all the old flint-primed muskets, and left the Ordnance Department with the problem of either making useful arms out of these old muskets or consigning them to the refuse pile. A modification of the old arms seemed expedient in the light of the fact that the United States had no new arms in 1841 to take the place of the arms rendered obsolete, but its continuation through the 1840's and 1850's impeded the production of new arms because of the allocation of machinery to the alteration processes.

In 1855, the Ordnance Department recommended, and the

Secretary of War approved, the introduction of a still newer musket, caliber .58 inches, for the use of the army. The production machinery of the United States armories had to be drastically changed in order to produce this new standard arm, and the number of muskets of any type produced could not meet the demands for these weapons coming from the states and the army until 1864. The raid of the fanatic John Brown at Harper's Ferry in 1859 completely stopped for three months any production of arms at that place, and retarded production for almost two years. As a result, by the opening of hostilities in 1861, there were less than 50,000 new muskets available in the Union states. The new model musket introduced in 1855, however, proved inefficient and was replaced in 1860. In April, 1861, the armory at Harper's Ferry was seized by the Confederate forces, and its production machinery removed to Fayetteville, N. C., to manufacture arms for the Confederacy. The critical period of the summer, 1861, found the Union dependent on one armory at Springfield for all its arms; and there was only one civilian factory, that of Samuel Colt at Hartford, Connecticut, capable of producing arms in quantity. Many of the arms made in the United States which might have been used to defend the Union had been sold from their arsenals of the United States to private parties and to individual states; besides these, over 100,000 were shipped from government depositories in the North to depositories of

in the South in 1860. Evidence available indicates that these transfers and sales were in line with the practices of the War Department, for the United States arsenals in the states which were to become the Confederacy had room to store the weapons, while there was little space available in the northern arsenals because of the deposits of old arms. The problem of the shortage in 1861 admitted of only one quick solution -- the purchase of arms by agents of the government in New York City and in Europe.

1861. In July, 1861, Major P. V. Hagner of the Ordnance Department was ordered to New York to help General John C. Fremont procure arms, and later to act as agent for the United States in that city. From July 17, 1861, to March, 1862, Hagner acted as the importing agent for all the arms purchased for the United States in Europe. During his time in New York, he bought some 350,000 arms for the country, and was responsible for their distribution to the army units throughout the battle and training areas. Hagner's duties in New York, however, were far from easy, for the actions of dealers and speculators intent on profits kept good arms out of the market and raised the price of muskets to the United States. Added to this frustrating condition was the presence of the agents of the individual states in New York buying arms with money provided by their own legislatures. To say the least, the prices paid for arms by these state agents were far higher than those offered by Hagner, and these men had the added advantage of

being able to pay cash for their purchases, while Hagner could only issue promises to pay or certificates of indebtedness on the federal government. Other obstacles to Hagner's success, involving the purchase of arms in Europe by agents of the government, are a part of the overall confusion which produced unbelievable competition both in Europe and the United States. 1862 when the new

While the armed forces of the Union and the Confederacy were preparing for their combat in the spring of 1861, Henry S. Sanford, the U. S. minister to Belgium, begged the government to send an agent to the Continent to buy available arms before they were sold to the Confederacy. Unfortunately, it was not until after the defeat at Bull Run in July, 1861, that the government attempted to buy usable arms in Europe, and then the purchasing was confused by the presence of many United States agents in the market. Sanford acted as arms agent after August, 1861; another agent, George L. Schuyler, appointed by the War Department, arrived in Europe in September, 1861; and still a third agent, representing Herman Boker & Co., arrived at almost the same time as Schuyler. Arms were procured in the private factories around Liege, Belgium, and Birmingham, England; surplus government arms were purchased in Berlin, Frankfurt, a.M., and Vienna. In all, some 1,048,000 arms were procured from Europe for the Union Army.

The real source of the confusion was Secretary of War Simon Cameron, but other members of Lincoln's cabinet were

also responsible. This can easily be understood from the correspondence between the various members of Lincoln's cabinet, which shows that the State, War, and Treasury Departments were involved in the purchase of arms at the same time, and that one office did not keep the others properly informed of the developments in the markets. The complications continued until March of 1862 when the new Secretary of War, Edwin Stanton, ordered the review of all purchases and contracts for arms made or entered into by the Ordnance Department. As a result, purchases of foreign arms, although still necessary, were controlled by the directives of the Secretary of War, which regulated prices and amounts of arms imported. It was unfortunate that the United States did not accept this procedure earlier, for after the removal of the state agents in December of 1861, the federal government had a fairly secure control of the arms markets. Large quantities of these arms were used at every battle and in every campaign, and often they were the very base of Union victory. Before the Second Battle of Bull Run, more than 50% of the soldiers of the Army of the Potomac were armed with alien muskets; particularly was this true in the Peninsular Campaign, when at the Battle of Fair Oaks, some 59% of the participating Union troops carried European arms. At the Battle of Antietam there were still 41% of the men of the Armies of the Potomac and Virginia equipped with other than United States arms, usually

manufactured weapons. The importance of the foreign shoulder-arm declined after the Battle of Fredericksburg in December, 1862, largely because of the increased production of American arms. When the campaign in the East was reopened with the Battle of Chancellorsville in the spring of 1863, only 18% of the troops engaged were armed with European shoulder-arms. This percentage rose to 22% for the Battle of Gettysburg in August when some of the emergency units were armed with alien muskets. After the battles in Pennsylvania in 1863, the proportion of European arms declined so much that it is difficult to find units in the East armed with other than United States weapons.

It was in the West that the foreign shoulder-arms achieved special prominence, and the proportion of such arms in the West always exceeded the proportion in the East. Perhaps this can be accounted for by the fear of the government leaders in Washington that the best arms should remain in the East to provide for the defense of the Union capital, and the more inferior arms be sent to the West for what were considered battles of lesser importance. Complaints from the Union generals in the West cite the inefficiency of many of these foreign shoulder arms, and comment on the fact that good arms were scarce west of the mountains; but the generals do not blame the European arms for their failures, or credit United States arms for their victories. In general, Austrian and Belgian arms, usually

of an old pattern, were condemned by officers, and American arms of newer models were requested for troops fighting under Grant, Sherman and Thomas. Austrian, British, the Belgian, French and Prussian arms were widely used at all the important battles in the West and at times constituted more than three-fourths of the arms employed. Only once during the first three years of the war in the West were there more United States arms than foreign arms at a major battle, this being at the siege of Vicksburg in July, 1863, when the proportion of arms provided was 52% United States muskets as against 48% European. The use of foreign arms in the West before the siege of Vicksburg presents a far more interesting picture, however. At the fall of Fort Donelson in 1862, one of the first real Union victories in the war, 77% of the troops carried arms made in Europe. The addition of more units from the arms-conscious States of Indiana, Ohio and Illinois after Henry and Donelson decreased this proportion of foreign arms, and at the Battle of Shiloh, some 66% of the troops were armed with European muskets of various types and calibers. The battles of 1863 in Tennessee were also fought with foreign arms. While there were many new United States muskets and carbines at the Battles of Chattanooga and Chickamauga, more than half of the troops at these engagements carried European weapons. Because of the confusion of the march of General Sherman through the South, it is difficult to ascertain the exact ratio of foreign-manufactured to domestic-manufactured

muskets in his army, but there was a large bloc of good Enfield arms, manufactured in Great Britain, ordered by General Sherman, and the ammunition requisitions from the Ordnance Officer on Sherman's staff indicate that there was a considerable quantity of these arms carried and used on the "March to the Sea."

From the proportion of the foreign arms actually employed during the Civil War by the Union Army, it can be seen that far from only filling a subordinate role, these foreign arms were at times the backbone of the defense of the Union. Until 1863, it should be noted the Union employed a greater proportion of foreign arms than did the Confederacy and relied more upon them as a regular issue item. The documents available show that many of the Union victories might well have had an entirely different outcome without them. It is seen that only a miracle could have saved the Union in 1861 and 1862 had it not been defended with European muskets.

Used at every major battle and in every campaign, the foreign musket was the added force which enabled the Union to triumph over the Confederacy.

This abstract of about 1850 words is approved as to form and content. I recommend its publication.

Signed

Colin B. Goodenough
Instructor in charge of dissertation

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UNION AND CONFEDERATE ARMS

Munitions of war are nothing more than economic products used to protect or further national aims, and, as such, are subject to the rules imposed on any goods in a competitive market. During times of physical conflicts between nations and peoples, it seldom appears that either side possesses a sufficient quantity of fighting equipment to force a decision, and the economics of war becomes a struggle to overcome scarcity. In contests between fighting men, the people who send these men to battle are in competition for superiority in the means of supply just as the soldiers contest for the possession of a battlefield or an area of land. Effective military power in war is measured in the number of armed fighting personnel gathered at a particular place and at a pre-arranged time. This effective power is also measured qualitatively by the equipment of the individual soldier, for tactical and strategic advantages are added to the power of an army which improves and modernizes its equipment. In recent years and in the Second World War in particular, the individual soldier has been obscured by the mass-maneuver of armies, and the value of time and place as military factors has been altered considerably by the gradual introduction of civilian populations as military

participants. The eventual termination of modern war depends not entirely on a sapping of the desire to continue the struggle. The battle has lost, perhaps forever, its importance of former times. Munitions of war are nothing more than economic products used to protect or further national aims, and, as such, are subject to the rules imposed on any goods in a competitive market. During times of physical conflicts between nations and peoples, it seldom appears that either side possesses a sufficient quantity of fighting equipment to force a decision, and the economics of war becomes a struggle to overcome scarcity. during the War Between the State

CHAPTER ONE
UNION AND CONFEDERATE ARMS

In contests between fighting men, the people who send these men to battle are in competition for superiority in the means of supply just as the soldiers contest for the possession of a battlefield or an area of land. Effective military power in war is measured in the number of armed fighting personnel gathered at a particular place and at a pre-arranged time. This effective power is also measured qualitatively by the equipment of the individual soldier, for tactical and strategic advantages are added to the power of an army which improves and modernizes its equipment. In recent years and in the Second World War in particular, the individual soldier has been obscured by the mass-maneuver of armies, and the value of time and place as military factors has been altered considerably by the gradual introduction of civilian populations as military

participants. The eventual termination of modern war depends not entirely on the military defeat of a nation but on a sapping of the desire to continue the struggle. The battle has lost, perhaps forever, its importance of former times. Today more value is placed on air-craft employment and the strategic management of huge armies than on the small hand to hand combats of the wars which ended in 1871. The American Civil War was one of the last wars in which the power of an army depended on how many equipped infantrymen could be placed on a specific battlefield at a designated hour. As a result of this dependence, the emphasis of the supply agencies during the War Between the States was on the equipment of the foot soldier.

The chief weapon of the American Civil War was the muzzle-loaded percussion musket improved only slightly from the old match-lock of the 14th Century. As a rule during the four year-long contest from 1861 to 1865, the infantrymen on either side of the fighting line were equipped with the arm known as the percussion musket.

There is an important difference between the arms of the Civil War and modern wars which must be understood in grasping the ordnance history of the former conflict. Army staffs of today have so designed their arms that only seldom may the same bullets be used in the arms of more than one nation. Modern alterations in the shape of the cartridges as well as a difference in the caliber of the arms make it almost impossible for one nation to use

another nation's ammunition without a large quantity of the latter's arms. In the American Civil War, however, there were pre-existing conditions which made it impractical for the Union to change the caliber of its weapons so that they could not be used by its adversary. As a result of this impracticality, the War Between the States became a conflict between two contestants whose equipment was almost completely interchangeable. the Militia Law of 1808 which

The military preparedness, or lack of it, in 1861, was an outgrowth of the policy of the United States in keeping a small army, and distributing muskets owned by the federal government in depots convenient for the possible use of all the States in the Union. Army depositories of the United States were located in almost every State without prejudice, and the care of the arms themselves rested in the Ordnance Office located in Washington, D. C., and subject to the War Department. This Ordnance Office was an almost independent bureau and because it was regulated by Congress functioned within a closely woven legal procedural pattern which stereotyped the yearly business it conducted. The Chief of Ordnance was a colonel in the United States Army, and the man who held the office at the opening of hostilities in 1861, Col. H. K. Craig, had been its occupant for almost ten¹ years; the incoming and outgoing correspondence for the

ammunition unusable, besides entailing a considerable delay

1. Heitman, Francis B., Historical Register and Dictionary of the United States Army, 1789-1903, Government Printing Office, 1903, I, 333.

years 1850-1860 shows no change in outlook or scope of operations. The personnel of the office numbered only four men: the Chief of Ordnance, an assistant, and two clerks, and while small, this staff was sufficient for the tasks with which it was charged. In times of peace, the Ordnance Office had only to fill requisitions of the United States Army for replacement equipment, and issue an annual quota of arms to the States under the Militia Law of 1808 which appropriated money for the issuing of military equipments to the States and Territories on requisition of the ² and governors. Most important of the holdings of the Ordnance Office were the two United States armories at Springfield, Massachusetts, and Harper's Ferry, Virginia, which produced all the military shoulder arms of the United States in 1860.

Arms produced at these two armories constituted the bulk of the weapons distributed under the Militia Law of 1808 to the States, and every militia company throughout the United States generally carried nearly identical arms. It was the presence of these arms which were used in the initial equipping of the armies of the Union and the Confederacy which compelled both protagonists to make similar ammunition, and forced the continuation of the manufacture of like arms in the North and the South. A change in caliber would have rendered large quantities of ammunition unusable, besides entailing a considerable delay in the production of critically needed muskets due to the necessary altering of production machinery.

It was through this circumstance that the United States and the Confederate States of America fought each other with essentially the same arms although from different manufactories. Another factor which should be cited is the Confederate shortage of metals, as well as arms, which forced them to scour battlefields for useful muskets. While the Union troops were also active in cleaning battle areas, they were not so pressed for equipment as their enemies, and hence did not approach the Confederate ability to take salvagable arms from their dead and wounded enemies. Besides the weapons made in the United States, the opposing infantrymen of 1861-1865 also used similar foreign arms made principally in England, Austria and Belgium.

The opening of general hostilities in July of 1861 found both the North and South deficient in arms, but both suffered from a chronic shortage of shoulder-weapons, at least during the first two years of the war. In order to

2. One of the chief sources of arms for the armies of the Confederacy was captured weapons. The Confederate Chief of Ordnance, Josiah Gorgas, urged that more arms be taken in this manner. Gorgas to Seddon, Dec. 31, 1864, War of the Rebellion: Official Records of the Union and Confederate Armies (cited hereafter as Off. Rec.), iv ser., III, 986-987.
3. In late May of 1861, the State of Virginia could only arm its troops with 5,000 old flint-lock muskets. Off. Rec., iv ser., I, 354. Competition for available arms was great among the individual states of the Confederacy. The Inspector-General of South Carolina asked that his state be given the arms which had been landed at Savannah, Georgia. S. R. Gist of S. C. to the Confed. Sec. of War, Sept. 18, 1861, Off. Rec., iv ser., I, 614.

overcome this shortage, both the Union and Confederate governments sent agents to Europe to buy available arms in the open market, and made moves to buy arms already within their jurisdiction.⁴ The documents of the United States provide ample evidence that weapons of the same types and from the same countries were being sold to both the Union and the Confederacy at the same time.⁵ Southern purchases in the market were dependent on the ability of the Confederate agents to obtain credits in Europe, and the Union North then being rapidly emptied by increasing demands

4. "Our purchases have thus far been confined to the Enfield Rifle...." Ed. C. Anderson and Caleb Huse, agents of the Confederacy, to the Confederate Sec. of War, Aug. 11, 1861, Off. Rec., iv ser., I, 538. A previous letter from these same men tells of their low opinion for the arms being bought at the same time for the Union government in Europe. Huse to Gorgas, July 11, 1861, Ibid., 567.
5. The activities of the Confederate agents in Great Britain and in the other arms markets on the Continent led to considerable confusion, and men trying to buy arms for the South often represented themselves as Union agents. Representatives of the United States often asked for information concerning United States agents in order that they could ascertain who the false agents were. Seward to J. H. Anderson, Consul at Hamburg, Dec. 10, 1861, Records of the Department of State, Letters to Consuls (The National Archives refers to this group of documents as the "Consular Instructions" and they are hereafter cited as Cons. Inst.), Hamburg, XXXI. Arms were bought by the United States Minister to Belgium, H. S. Sanford, to keep them out of Confederate hands. Sanford to Seward, Nov. 28, 1861, Records of the Department of State, Reports, (cited hereafter as Reports), Belgium. In his report to the Chief of Ordnance, Huse, the Confederate agent, said that he had shipped some Austrian arms and was going to Hamburg to supervise the loading of some German arms at that port. This practice continued through most of the war. Huse to Gorgas, Mar. 15, 1862, Off. Rec., iv ser., I, 1003.

gained control of the market as the Union blockade became effective and Confederate credit began to disappear after the Battle of Gettysburg in 1863. Communications from the ministers and consuls of the United States in Europe told of the activities of the Confederate agents in Austria, France, Belgium, Germany and Great Britain.

While the Confederacy moved into the markets of Europe shortly after the fall of Fort Sumter, the Union Chief of Ordnance made no move to fill the arsenals of the North then being rapidly emptied by increasing demands from the Northern States. Union leaders were content to leave the problem of arms procurement alone until the defeat at First Bull Run forced them to direct their attention to the great need for shoulder-arms.

Ordnance Office.

6. Confederate activity in the markets of Austria was reported as early as November, 1861. Theodore Canisius, U. S. Consul at Vienna, to Seward, Nov. 30, 1861, Cons. Let., Vienna, III.
7. Agents of the Confederacy appeared in France in May and June of 1861, but the United States Consul in Paris expressed doubt that these men would be allowed to operate in the market. H. W. Spencer to Seward, June 13, 1861, Cons. Let., Paris, XII.
8. "...The workshops are filling with orders for the South..." Sanford to Seward, May 12, 1861, Reports, Belgium, 1861.
9. Southern activity in the markets of Germany did not begin until mid-1862. One of the United States agents, Marcellus Hartley, requested permission to buy all the arms offered to him so that he could exclude the Confederates from any purchases in the market. He reported that some German arms offered to him had been sold to Southern agents. Records of the Office of the Chief of Ordnance, Letters Received, (cited hereafter as OCO-LR), File 572 w.d., War Department 1862.

Cameron's lack of confidence in Craig.

Until early 1861, the Chief of Ordnance was Colonel Henry K. Craig, a man especially interested in artillery and only slightly concerned with the new developments in shoulder-arms, who contented himself with the routine operation of a government bureau. Craig was removed by order of Simon Cameron in April, 1861, shortly after the latter became the Secretary of War, and was replaced by Lieutenant Colonel James W. Ripley who then occupied the office for more than two years. The difficulties attending this shift of personnel were aggravated by the detachment of Captain William Maynadier, Craig's able assistant, to armory duty, and the resignation of Major Josiah Gorgas to accept the appointment as Confederate Chief of Ordnance. These changes reacted to increase the inefficiency of the Ordnance Office.

No one envisaged the magnitude which the War of the Rebellion would assume after the fall of Fort Sumter. The United States Army numbered only 16,367 men at the end of 1860, and the condition of the civilian reserve, the enrolled militia of some three million men, was characterized by the lack of good organization and

10. Meneeley, A. H., The War Department, 1861, New York, 1928, 50-52.

11. Ibid., 113. Meneeley cites the speech given by Cameron at Harrisburg, Pa. in May of 1862 after he had resigned as Secretary of War. The general correspondence between Cameron and the Ordnance Department, however, contains many indications of Cameron's lack of confidence in Craig.

scarcity of serviceable equipment.¹² Arms for the militia were furnished from the government arsenals when these State troops were mustered for federal service; until that time it was the responsibility of the individual States to see to their equipment. As a rule, the arms kept in the arsenals for possible use by the militia were reconditioned weapons, since the newer arms were sent to regular army units on the frontier. For many reasons which will be examined later, the supply of new or reconditioned arms was so low in 1861, that the Ordnance Department was not able to fill the great demands for arms of any kind. It was under the stress of this acute shortage that the Union government, as well as the Confederate government, was forced to enter the arms markets to procure weapons of uncertain quality. In regard to the arms used in the Civil War, it must be said that there was little variation in the principles of manipulation and firing; it was only in the quality of the parts used in their fabrication that any two arms varied one from the other in appearance and performance. The manual of arms for the musket had changed little since the introduction of firearms for military purposes in the 15th Century, and the infantryman of the American Civil War performed essentially the same operations as his

12. Upton, Emory, The Military Policy of the United States, (cited hereafter as Upton), Government Printing Office, Washington, D. C., 1917, 225.

counterpart in the Hundred Years' War.¹³ To prepare his muzzle-loading weapon for firing, the infantryman was compelled to place the butt of his musket on the ground; remove the ramrod from its socket between the barrel and the stock; reach into the cartridge box at his belt and remove a cartridge;¹⁴ bite off the end of this paper cartridge and pour the powder therein contained down the barrel; wrap the projectile in the cartridge paper and force it down the barrel with the ramrod until the ball lodged against the powder; jar the weapon on the ground to force a small quantity of powder into the primer hole which led to the primer outlet; cock the hammer and press the primer (usually a small copper cup containing a minute quantity of high explosive material called the cap) on the nipple or cone at the side of the barrel which would hold it in position, and put the piece to his shoulder. The ignition of the propelling charge was accomplished by carrying the force of the explosion of the primer, on its being struck by the hammer, through the primer hole to the powder. The percussion cap was, of itself, a comparative innovation, since until 1825 the ignition of the powder in the barrel was accomplished by a mechanism known as a flint-spark.

that there had been some headway made in the rifling or

13. The National Park Service Museum at Fredricksburg, Va., has illuminating illustrations of the manual of arms.

14. Although many of the patented breech-loading weapons of the Civil War used metallic cartridges, the standard infantry musket used a paper cartridge until the adoption of the Allin breech-loading system in 1866.

15. infra, Appendix C.

This system, which was replaced by the percussion-cap system in the United States in 1842, operated by introducing a hot flint spark into a small pan of powder, the explosion therefrom being taken to the propelling charge, through a primer hole at the side of the musket's barrel. This spark system, however, was very uncertain, particularly in damp weather or in humid climates, and there was often a considerable delay between the pulling of the trigger and the explosion of the powder in the barrel. These misfires forced the infantrymen to investigate the cause of delay and as often as not he was attempting to get the old charge out of the barrel at the time the slow burning powder finally exploded. This uncertainty, besides leaving the infantryman defenseless, rendered the gun as dangerous to its owner as its target. By 1860, the percussion system had been universally adopted by civilized nations but the shortage of arms during the Civil War made it necessary for many soldiers to fight with the old type flint-lock. It should be noted here that the passage of some four centuries of arms manufacturing had only slightly improved the accuracy of military shoulder-arms. While it is true that there had been some headway made in the rifling or grooving of the barrel to stabilize the flight of the bullet, there was still a great deal to be desired in the

15. See Infra., Appendix C.

ability of a soldier to hit the enemy at which his gun was pointed. Great accuracy had never been emphasized, since it was the practice for military commanders to hold the fire of their troops until the enemy was close upon them, usually within fifty yards, and mass directed firing made it unimportant to make a musket which would be accurate at a greater distance.¹⁶ The introduction of smaller caliber arms for the United States in 1855 made it possible to increase the accuracy of the musket by fitting the bullet more tightly in the grooves of the barrel, but the musket stood in great need of a new loading system which would increase the fire-power of the individual soldier. The introduction of the new breech-loaded shoulder arms was unfortunately delayed by the unwillingness of the military leaders of the United States to accept them into the service.¹⁷

The tactics of the Civil War became a repetition of battle line against battle line and a terrible slaughter on both sides because neither the Union troops nor the Confederate troops could avoid the destruction wrought by

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16. The usual practice in the United States Army was to equip close fighting troops with a shorter musket of the same caliber as the regular infantry. Some soldiers were armed with "long-range muskets" but these differed only in the calibration of the sights. The length of the short musket was 36 inches compared to 41 for the regular musket.
 17. Ripley to Winchester Arms Co., June 21, 1861, Records of the Office of the Chief of Ordnance, Miscellaneous Letters (cited hereafter as OCO-ML), L-LIV.

close-in-fire contests. As these tactics evolved, however, there were not enough arms to fulfil the demands of battle, and the Union and Confederate procurement officers were forced to fill the demand for arms by purchasing muskets in the open market.

of the War Department of the United States to arm the military forces called to duty during the first months of the Civil War and the short-sightedness which followed that failure are almost incomprehensible. It might be said that the duration of the War Between the States and the inability of the Army Ordnance Office to supply sufficient arms for the Union troops, particularly the Union infantry, go hand in hand as effect and cause. Had the Ordnance Office, responsible as it was for the provision of an ample supply of arms, met the problem with intelligence and vision, there is reason to believe that the war would not have been of such long duration or entailed such a loss of life or money. While it is true that the entire government of the United States was unprepared to meet the challenge presented by the secession of the Confederate States, the failure of the military organizations of that government may be attributed to the fact that it was without sufficient arms, both in quality and quantity to carry out a successful repression of the rebellion. That

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1. "...In reply I have to say that in view of the inability of the General Government to supply all the volunteers with arms, the government of this State authorized the purchase of Enfield arms in England,..." Governor E. D. Morgan of N. Y. to Cameron, Nov. 30, 1861, Off. Rec., 111 ser., I, 698.

CHAPTER TWO

THE SHORTAGE OF ARMS IN 1861

The failure of the War Department of the United States to arm the military forces called to duty during the first months of the Civil War and the short-sightedness which followed that failure are almost incomprehensible. It might be said that the duration of the War Between the States and the inability of the Army Ordnance Office to supply the sufficient arms for the Union troops, particularly the Union infantry, go hand in hand as effect and cause. Had the Ordnance Office, responsible as it was for the provision of an ample supply of arms, met the problem with intelligence and vision, there is reason to believe that the war would not have been of such long duration or entailed such a loss of life or money. While it is true that the entire government of the United States was unprepared to meet the challenge presented by the secession of the Confederate States, the failure of the military organizations of that government may be attributed to the fact that it was without sufficient arms, both in quality and quantity to carry out a successful repression of the rebellion. That

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the Union States lacked arms may be understood from a perusal of the correspondence between the Chief of Ordnance and the procurement officers of his department. The letters and telegrams emanating from the Ordnance Office after the middle of July, 1861, are marked by the frantic orders for the purchase of arms from anyone who might have such in his possession.²

Many persons in responsible positions in Washington became involved in the shortage of shoulder arms which developed as the Confederate forces were advancing to the First Battle of Manassas, and their resulting activities made for duplication of effort and competition between agents operating in the name of the United States. Having allowed the supply of arms in the arsenals to come near the vanishing point, the government allowed the War Department, the Ordnance Office and the State Department to appoint agents to act in the purchase of arms, and these agents competed against one another for available weapons. Most of the purchases of weapons in the early months of the war

during the fall of 1861. Cameron to Lincoln, Dec. 1, 1861, Off. Rec., iii ser., I, 702.

Report of the Secretary of War for 1859-1860, Senate

2. "Search New York for small arms, and purchase all you can get, which will answer for use in service. S. Haskell, No. 18 Platte St., New York, says he has Enfield muskets for sale. See him." Chief of Ordnance to Maj. P. V. Hagner, July 22, 1861, Records of the Office of Chief of Ordnance, Letters to Ordnance Officers (cited Hereafter as OCO-LTOO), XXI, 115. "I am instructed by the Chief of...Ordnance to ask you to telegraph to Halifax, to reach steamer Canada, that the 10,000 Minies are purchased by the Department. Order them to hurry up." James Leslie Jr., Chief Clerk of the War Department, to H. Hollhausen in Philadelphia, July 24, 1861, Off. Rec., iii ser., I, 348.

after Bull Run were confined to those European arms which were brought into the United States or offered in the markets of Great Britain and the Continent, and the close of the year 1861 found supplies of European arms arriving in New York at inflated prices.

Besides the increased demand for arms of any kind which came in July of 1861, the shortage of weapons in the United States may be attributed to three basic causes: first, the inability of the Ordnance Office to increase the production of arms;³ second, the slow-down of production at Harper's Ferry Armory owing to the raid of John Brown in October, 1859;⁴ third, the change of the caliber of the standard United States arms from .69 inches to .58 inches in 1855.⁵ Apart from these causes, another and more sensational cause should be presented -- the sale and shipment of arms in the late 1850's from the States which were to secede.⁶ The grounds for the arms shortage will be

- Civil War to stimulate the private manufacture of military
3. Production was increased slightly at Springfield Armory during the fall of 1861. Cameron to Lincoln, Dec. 1, 1861, Off. Rec., iii ser., I, 702.
 4. Report of the Secretary of War for 1859-1860, Senate Ex. Doc. No. 1, 36th Cong., 2nd Sess., 972.
 5. House Ex. Doc. No. 2, 35th Cong., 2nd Sess. The new 1855 model was a compromise between the rifle and the rifle-musket calibers. In 1854, the rifle caliber was .54 inches and the rifle-musket was .69 inches. In order to simplify the ammunition supply problem, it was agreed that both would be caliber .58 inches.
 6. "...As stated in my last report, at the commencement of this rebellion the Government found itself deficient in arms and munitions of war through the bad faith of those entrusted with their control during the preceding administration...." Cameron to Lincoln, Dec. 1, 1861, Off. Rec., iii ser., I, 702.

discussed in that order. Iron and steel necessary in the

The reports of the Secretary of War for the years 1855-1860 point out that the two national armories were operating at satisfactory levels of efficiency, and the statistics of production show no remarkable change during that five-year period. Between twelve thousand and eighteen thousand new arms were produced annually, 17,300 having been made between June 30, 1859 and June 30, 1860. Almost all these arms, however, were absorbed by army needs and the requisitions of the governors under the Militia Law; there was always a demand for new arms even before the Civil War broke out. It should be pointed out here that there were only three armories in the United States worthy of the name: the two government armories at Harper's Ferry, Virginia, and Springfield, Massachusetts, and the private armory of Samuel Colt in Hartford, Connecticut. Nothing was done in the years immediately preceding the Civil War to stimulate the private manufacture of military firearms, and the possible war effort of the American people suffered greatly as a result. Government munitions contracts called for many types of explosives, cannon, shot and shell and metal equipments but there were no contracts let for the manufacture of shoulder-arms. Added to this,

7. "...I find that the last contract or order, for rifles of private manufacture given by this department was given March 2d 1853 and the last delivery made under it was November 21, 1855...." H. K. Craig to Hon. B. Stanton, House Military Affairs Committee, Jan. 26,

much of the high quality iron and steel necessary in the manufacture of military weapons was imported from abroad because there were no factories or foundries equipped to produce these materials in quantity.⁸ The lack of suitably trained personnel also added to the inability of the United States to produce arms and their concentration in only three localities made it difficult to produce arms even after the government allowed the Ordnance Office to let contracts for future delivery of these essential war articles.⁹ While it was true that pressure had been put on Congress to make an appropriation for an arsenal farther west, no action had been taken and the States of the Northwest and West were compelled to wait for arms which were manufactured in the East.¹⁰

The officials of the War Department felt, as their predecessors had felt, that in the event of really grave emergencies, the nation could fall back on the arms which

General Dunlap, Quarter Master, is using all endeavors to obtain arms sufficient for the
 1861, Records of the Office of the Chief of Ordnance, Miscellaneous Letters (cited hereafter as OCO-ML), LII, 413.

8. "...As regards the steel, which you state was ordered from England for Harper's Ferry Armory, I have to state that this department cannot recognize the order and of course, will give no instructions in the matter. It is possible that the steel might be wanted at Springfield Armory..." Chief of Ordnance to Messrs. Sanderson & Bros. of New York, June 13, 1861, OCO-ML, LIII, 125.
9. The appendix to House Ex. Doc. No. 99, 40th Cong., 2nd Sess., gives the contract and delivery date of all arms purchased by the government during the war.
10. The complete report entitled "National Armory" was printed Feb. 28, 1862. House Report No. 43, 37th Cong., 2nd Sess.

had been issued to the states under the Militia Law of 1808. These arms were supposed to be placed in arsenals ready for a possible call from the federal government and if the quota for 1860 is taken as a guide, some 200,000 arms were in readiness in all the States when the Civil War began. This figure would include only those arms issued to the States since the adoption of the percussion system; if those flint-locks issued to the States be added to this number, it would be about four-hundred thousand arms for supposedly ready for immediate issue.

The tragic truth of this matter of distribution, however, was that these allotted arms were largely distributed to many parade groups in the states and the call for troops found the states' arsenals denuded of usable arms. The following news item which appeared in Chicago in April, 1861, is typical evidence of the problem which confronted many of the states:

General Dunlap, Quarter Master, is using all endeavors to obtain arms sufficient for the troops, and his assistants are collecting them from the disbanded Companies all over the State and sending them to the arsenal here every day.¹¹

Ill equipped and untrained as they were, the militia body was considered the reserve force behind the small regular army. It became a stringent necessity for the federal government (if it wished to fight a war at all), to

12. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., contains
11. Chicago Daily Tribune, April 20, 1861, 1. tracts.

arm and equip these green troops and send them into the field. As pointed out above, these arms and equipments which were given to men enlisting in the last five months of 1861 were brought into the United States from the arm-
factories and depots in Europe, and filled the gap between the letting of contracts for, and the reception of, arms
made in as yet non-existent domestic factories.¹²

With only two manufactories for military arms contributing to the increase of the supply of good weapons for the United States, first-class arms were becoming less numerous in the years after 1855. Coupled with this chronic shortage, the one-year-long disruption of the production of arms at Harper's Ferry armory brought about by the raid of fanatic John Brown in 1859, worked a new and double hardship on the Ordnance Department. First and foremost, there were no arms produced for some four months at Harper's Ferry and only gradually did the armory regain its capacity; second, the production equipment damaged during the raid could only be replaced from the then overburdened armory at Springfield, Massachusetts. The United States, therefore, entered the critical period of 1860, with only one armory operating at capacity, and a poor civilian ability to fill the call for needed arms.

As if this were not enough, the radical change in the

13. See *Infra.*, plate No. 45, Appendix "C."

14. Report of the Chief of Ordnance to the Sec. of War,
12. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., contains much correspondence relative to these contracts.

caliber of the standard United States arms from .69 inches to .58 inches slowed down the production of arms in 1855 because of the alterations necessary to produce a new type barrel with different fittings and a new stock for the arm. This was not, however, the only obstacle which slowed the production of new arms. Another and seemingly small obstacle was erected in 1842 when the United States made the change from flint-primed to percussion-primed arms. As the mechanical operation of the production was changed, large quantities of flint-locks became obsolete and were of no value to the Army. Since there was a large quantity of these weapons on hand, the Ordnance Office ordered a modification in their parts, by which a percussion system was fitted to the old style arm.¹³ This process demanded some time and labor, and a considerable part of the working force at both the armories was devoted to altering these weapons to the new system. These operations continued until 1860 when it was temporarily halted, only to be resumed the next year because of the arms shortage.¹⁴ As a result of the introduction of a new caliber, all these altered arms became obsolete in 1855.

Unfortunate as it may seem, the planned modernization of the basic infantry arms of the United States produced a

15. The Model 1855 was equipped with a 40 inch barrel, the Model 1841 with a 42 inch barrel; the newer

13. See Infra., plate No. 45, Appendix "C."

14. Report of the Chief of Ordnance to the Sec. of War, Feb. 12, 1861, tells of the resumption of the alteration work. Off. Rec., iii ser., I, 63.

block in the flow of arms which was not overcome by the national armories until 1862. More than this, the modernization was more apparent than real for the new firing system varied little from the old. Craig, who was Chief of Ordnance in 1855, was luke-warm to the new breech-loading arms developed in Europe and the weapon produced in that year was still a muzzle loaded musket. In the matter of design, the model 1855 was certainly a better weapon than the model 1842¹⁵ but it needed a new loading system if it were to be considered a modern weapon. Unfortunately only a small and expensive improvement was made in the priming system of the new arm.¹⁷ While it is true that the smaller caliber barrel made the arm lighter and more accurate, the introduction of a breech-loading system would have added greater fire power to its other qualities. It was not until 1866 that the Ordnance Office adopted a breech-loader as the standard infantry arm.¹⁸

The small and expensive improvement in the priming system of the Model 1855 was the Maynard Tape Primer. This invention, covered by a strong recommendation from the then Secretary of War, Jefferson Davis, did away (and then not with great certainty) with the placing of the primer cap on

reason for the paucity of good arms for the Union troops

15. The Model 1855 was equipped with a 40 inch barrel, of the Model 1841 with a 42 inch barrel; the newer model, however, was almost one-half pound heavier than the 1841 model.
16. Francis Bannerman Sons, Military Goods Catalogue, New York, 1945, 26.
18. House Ex. Doc. No. 29, 40th Cong., 2nd Sess., Appendix.

the cone of the musket. Priming under the Maynard system was accomplished mechanically, as with each drawing of the hammer a primer cap was fed to the nipple on a thin metal tape. While many felt that this method of priming did away with a great inconvenience, the uncertainty of the priming mechanism forced its abandonment in 1860 and brought about a return to the old method of cap priming. Again, as in 1855, the national armories were faced with another retooling and alteration job to junk the equipment which produced the Maynard mechanism, and to change the design of the locks and metal plates for the new musket adopted in 1860. Inevitably, there was a slow down in production at a most critical time. The records of the purchases of ordnance and ordnance stores for the Civil War show that not even one roll of Maynard Tape Primers was procured for the Union Army, a sufficient commentary on its value. Arms equipped with the Maynard Primer were fired during the war by the old system of placing the copper primer on the nipple by hand. The improvement of the United States rifle-musket had indeed been a double failure when the Civil War began.

Perhaps the most sensational, but least understood, reason for the paucity of good arms for the Union troops called to the colors in 1861, was the sale and shipment of

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17. Hicks, Maj. James E., Notes on U. S. Ordnance, Mt. Vernon, 1946, I, 86.
18. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., Appendix.

usable rifles and rifle-muskets out of the northern states in the years immediately preceding the outbreak of the Civil War. During the war and in the years that followed, there was much ill will expressed against President Buchanan's Secretary of War, John B. Floyd, for his activity in favoring the seceding states by selling and shipping large quantities of firearms into the South.¹⁹

The scarcity of arms in 1861 may be said to have developed during his term as Secretary of War, but the shortage certainly cannot be said to have come about because of any conscious effort on his part to arm the South. While the years between 1857 and 1861 were years of tension, there is no proof that Floyd believed he was aiding the states which were to become the Confederacy.²⁰ John B. Floyd was

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19. Cameron to Lincoln, Dec. 1, 1861, Off. Rec., iii ser., I, 702.
20. James Ford Rhodes in his History of the United States, III, 239, says that the Southern States did not apply for their full quota of arms under the provisions of the Militia Law of 1808, as revised in 1855, and hence could not be said to be preparing for war. As evidence, Rhodes cites the tables of distribution for arms to the militia contained in House Report No. 85, 36th Cong., 2nd Sess., which show that 10,514 rifles and rifle-muskets were distributed to the States in 1860. Rhodes asserts that this was not the full quota then allowed. In a little known record book of the Ordnance Department entitled Statement: Arming and Equipping the Militia, however, there is a table of quotas and distributions which does not agree with the position taken by Rhodes. Generally speaking, the Southern States did not take their full quota but the remainders were usually less than one musket. In 1860 as an example, Alabama had only 7/13 of a musket on deposit, Florida had only 8/13 of a musket on deposit and Mississippi had only 1/13 of a musket. In the following year's quota, that is the one for 1861, the

a Virginian, having been governor of that state immediately before becoming Secretary of War, and because of his obvious love of his native state, he was accused of mixing his duties as Secretary of War with his allegiance to Virginia. In the main, Floyd's problem with the arms shipped into the South, hinged on the differences of opinion between him and Colonel H. K. Craig, as to what should be done with the old arms rendered obsolete by the introduction of the Model 1855. Floyd proposed to rid the arsenals of the United States of these old arms by offering large quantities of them for sale; Craig was flatly opposed

State of Arkansas had only 9/13 of a musket on deposit and North Carolina had only 10/13 of a musket on deposit. The greatest number of weapons not taken by the States were those not taken by the Northern States. Massachusetts did not take 211 of its 1859 quota, and Delaware left its entire 1859 quota untouched. From the records it can be seen that by far the most active States in acquiring arms were those which later composed the Confederacy. There is an unmistakable pattern, however, which should be taken into account in considering the practice of some States in taking all the arms assigned to them. The western States were also very prompt in filing for their arms, probably because of fear of Indian troubles or frontier difficulties. In his explanation of the fact that the South did not take all its quota, Rhodes seems to forget that the States of Alabama, Virginia, Mississippi and Louisiana, having taken their full quota (except for the above-mentioned fractional residues), attempted to buy and did buy arms from the ordnance Department as late as December, 1860. The document which Rhodes cites as evidence, as a matter of fact, does not contain any reference to the possible quota for any State. These quotas are contained in the Reports of the Secretary of War, or may be found in the Miscellaneous Letters of the Chief of Ordnance.

to the sale of usable arms to anyone. The unwillingness of the Chief of Ordnance to sell arms which did not appear to be surplus, stemmed from his fear that there would not be enough arms to stop an invasion or permit the nation to engage in foreign war. In his letter of disagreement with Floyd, Craig does not mention a fear of rebellion within the Union itself.

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Floyd's reasons for desiring the sale informed him that as of July 15, 1859, the remaining

21. "...As respects the expediency of selling the altered percussion small arms, or any portion of them, which I am also requested to report, the measure is, in my opinion, inexpedient at present. The number of small arms (all rifled) of the latest model is very small, about 3,000; their fabrication at the armories has just begun, and not more than one thousand per month can be calculated upon being turned out for a year to come; judging from the very slow progress since the change of model. The original percussion arms (not altered) on hand at the arsenals are about 250,000 muskets, 56,000 rifles, 18,000 pistols, in all 324,000. If all the altered arms are sold, it will leave on hand a supply of about 327,000 small arms only. I think that the stock on hand should not be less than one million, and that at the armories, no arms that can be made serviceable in an emergency, as all the altered arms in this statement can be, should be sold. If offered for sale in large quantities, they will not probably command a price equal to their cost or intrinsic value, and the government will sustain a pecuniary loss by such sale. If the sale is confined to such arms as may, on inspection, be condemned as damaged and not worth repair, there can be no objection to it, either on the diminution of the available stock, or of a pecuniary loss..." Craig to Floyd, Aug. 14, 1857, OCO-LR, File 621 w.d., 1861.
22. In an endorsement on this letter, Floyd expressed disagreement with the Chief of Ordnance. "I disagree with the views of the Colonel of Ordnance relative to the sale of the altered percussion muskets. With a supply of 327,000 percussion arms, not altered, which are added to at the rate of 1,000 arms every month of the best model, there is no ground for fear of an inadequate supply of arms, and therefore, offers no reason against the sale of the altered arms. As to the inadequacy of the price to be offered now, it is

of the old arms also appear sensible. As he points out in his endorsement on Craig's letter of August 14, 1857, he believed that the time was proper to sell the arms while there was a market at all. Between August 14, 1857, and April 13, 1859, some 242,112 muskets had been disposed of by sale. A letter from the Ordnance Office to one S. Joseph of New York City, informed him that as of July 15, 1859, the remaining 50,000 altered muskets had been sold. The sale of these arms was reopened later with many of the weapons being sold en bloc to Zacharie and Co. of New Orleans.

More interesting than the idea of selling the arms, was the eagerness with which the states which were to secede, purchased these old but available arms from the Federal arsenals in the last two months of 1860. Quantities of shot and powder, as well as weapons were sold to the southern States, whose legislatures appropriated of the continued accumulation of old arms, while there was

plent certain the evil will be greater and greater as the clumsy arm becomes more and more antiquated.

- "The Commanding Officers will be directed to include in the lists to be furnished, in addition to the articles enumerated by Col. Craig, the altered arms, and instructions as to the sale of them, or part of them, will be given after the lists are received and examined." Of the 190,000 condemned arms, 40,000 were sold by 1860.
22. Craig to Joseph, July 15, 1859, OCO-ML, L-LIV.
 23. All the reports relative to the movement of arms to the South or sold to private persons during Floyd's tenure of office are contained in the files of the Ordnance Office. OCO-LR, File 621 w.d., 1860.
 24. A possible sale of arms to South Carolina was refused by Holt when he became Secretary of War in Jan., 1861. Craig to Holt, Jan. 21, 1861, OCO-ML, L-LIV.

monies for the purpose, and some 15,000 arms were sold to Louisiana, Georgia and Alabama after the first of November, 1860. Unfortunately for the progress of the Union armies in the Civil War, few of these arms which cost but \$2.50, were sold to the states which made up the Union after the fall of Fort Sumter, and the southern states of Virginia, Georgia and Mississippi seemed to lead in the desire and action to acquire these guns. A permission from the Ordnance Department to purchase some of these arms from the arsenal at New Orleans was en route to the Governor of Mississippi when secession began.

Probably the real reason for Secretary Floyd's reputation as possible traitor to the Union while in office, was his ordering the shipment of 115,000 muskets from the United States arsenals in the North to arsenals in the South in December, 1859. Floyd's argument was that the storage space of the northern arsenals was crowded because of the continued accumulation of old arms, while there was plenty of room in the Federal arsenals in the South in 1859.

North Carolina	15,408	9,580	2,000
Mount Vernon, Ala.	9,280	5,720	2,000
Watson Rouge, La.	18,520	11,420	2,000...."

25. Maynadier to Holt, Jan. 21, 1861, Off. Rec., iii ser., I, 27-29.
26. Ibid.
27. Maynadier to Gov. John J. Pettus, Dec. 4, 1860, OCO-ML, L-LV. All information relative to the sale of arms and the conditions of the arms supply of the United States is contained in the report which the Ordnance Office submitted to Holt, when Floyd resigned as Secretary of War. Maynadier to Holt, Dec. 21, 1860, Off. Rec., iii ser., I, 27-29.
28. Craig to Maj. Gen. Jessup, Quartermaster General, Jan. 28, 1860, OCO-ML, L-LIV.

Because he felt strongly in the matter, he ordered the arms to be shipped and they consequently passed from Union control when secession became a fact in 1861. The transfer would probably not have attracted such attention had not the following news item appeared in the newspapers throughout the Union:

THE GREAT THEFT OF ARMS

The Richmond Examiner which has been for some time the mouthpiece of Floyd, has the following valuable information, put in by Floyd probably, as a claim upon the Montgomery military depots for a position of some kind. The Examiner says:

"The facts we are about to state are official and indisputable. Under a single order of the late Secretary of War, the Hon. Mr. Floyd, made during the last year, there were one hundred and fifteen thousand improved rifles and muskets transferred from the Springfield Armory and the Watervliet Arsenal to different arsenals in the South. The precise destination that was reached by all these arms we have official authority for stating to have been as follows:

	Perc Mskks	Alt'd Mskks	Perc Rifles
Charleston, (S.C.)	9,280	5,720	2,900
North Carolina	15,408	9,580	2,000
Augusta, Ga.	12,380	7,620	2,000
Mount Vernon, Ala.	9,280	5,720	2,000
Baton Rouge, La.	18,520	11,420	2,000...."

While this may have been good publicity in the South, it certainly finished Floyd's reputation in the North.

Besides these weapons which were shipped, or

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29. Records of the Chief of Ordnance, Letters to the War Department (cited hereafter as OCO-LWD), XIII, 41.
30. Chicago Daily Tribune, May 18, 1861, 2:5. The story was taken from the New York Evening Post.

officially sold into Southern hands, another large quantity of Union arms which passed from Union control to the Confederates was that bloc of 125,322 arms already on deposit in the Federal arsenals and depots in the South. These arms were added to the Confederate supply when those in charge of them either surrendered or gave them to the rebels.

The increasing pressure of the secession movement forced Floyd to resign as Secretary of War in December of 1860. While it does not seem that Floyd was particularly capable as an administrator, it does not appear that he acted as if it were his intention to arm the South from the Federal arsenals. He refused, in some cases, to sell arms to the Southern States because they would not pay the price asked by the Ordnance Department. It was unfortunate for the memory of Floyd that he left office at such an unhappy time, for although he was not blameless for the lack of coordination in the War Department, his resignation made it easy for the other military leaders of the Union to hide their faults behind his allegiance to Virginia. The failures of the time of Floyd's occupancy of the office of Secretary of War were completely aired by Joseph Holt, who succeeded Floyd in January, 1861.

33. Ripley to Winchester Arms Co., June 21, 1861, OCO-ML. The poor state of the development of the basic arm for arms were too expensive will hardly stand. Granted that the initial processes made the breach-loaders

31. Heitman, Francis B., Historical Register and Dictionary of the United States Army, 1789-1903, Government Printing Office, 1903, 16.

the United States Infantry may be blamed directly on the two Chiefs of Ordnance, H. K. Craig and James W. Ripley. Both of these men were unfamiliar with the new developments for shoulder-weapons as the following letters written by them demonstrate:

I...regret that it is not in my power to furnish you a needle gun; nor can I refer you to any person having an arm of that description.

It is possible that the Prussian Consul, in your city, might refer you to some of his countrymen having such a weapon.³²

No breech loading arm, except for Cavalry service has heretofore succeeded as a military weapon.³³

This lack of professional interest for the duties entrusted to them, and the predisposition of the Ordnance Department for artillery research was, fortunately for these two men, hidden by the outbreak of the Civil War, and Floyd was easily made the scapegoat of the Union abuse while Ripley became a hero.

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32. Craig to Thomas Poultney of Baltimore, May 10, 1859, OCO-ML, L-LIV. The Needle-gun was adopted by the Prussian Army in 1842. It fired a paper covered cartridge which contained the primer in the base of the projectile. The name "Needle" comes from the firing operation by which a sharp metal spike was driven through the powder charge to the base of the projectile, where the explosion of the cap accomplished the ignition of the charge.
33. Ripley to Winchester Arms Co., June 21, 1861, OCO-ML, L-LIV. The objection that the new breech-loading arms were too expensive will hardly stand. Granted that the initial processes made the breech-loaders somewhat more expensive, their cost dropped rapidly.
34. In 1863, a muzzle-loading musket cost \$19.00 while a Spencer breech-loading carbine cost \$24.00.

The shortage of good military arms, therefore, was tied up with a great many causes; but regardless of the cause, the result was the same. There were not enough arms, good or bad, to put into the hands of the Union Infantry which went to battle in the first year and a half of the Civil War, and something had to be done to alleviate that lack or the entire Union would be faced with a great catastrophe or defeat. By the time that the frenzy of secession was over, the Union had 390,690 arms in its arsenals and armories. Only 35,335 of these arms were of the new type adopted in 1855 and modified in 1860; the remaining 355,355 were of the old caliber .69 variety.³⁴ It can be easily seen, therefore, that the majority of the arms available for the use of the Union Infantry in 1861 were at least six years old, and that the Ordnance Department could not supply a large quantity of first-class arms if an emergency arose.

The Union defeat at the First Battle of Manassas spurred the Ordnance Department and the entire War Department to hasty, ill-considered and panic-stricken action. of the government did not foresee prior to July, 1861, the possible magnitude of the struggle which was taking shape. Only after a sanguinary and humiliating defeat did they

1. "Buy all the swords, pistols, and carbines suitable for cavalry, and all the arms suitable for infantry that
 34. Maynadier to Holt, Jan. 21, 1861, Off. Rec., iii ser., I, 27-29." Ripley to Wagner, Aug. 6, 1861, OCG-LTCO, XXI, 162.

CHAPTER THREE

AMERICAN ARMS AGENTS IN EUROPE

The advance of the Confederate forces toward Washington and the critical shortage in the arms supply of the Union forced the procurement officers of the government to take measures to increase the quantity of military supplies of all kinds. The defeat of McDowell at Manassas only made the danger more obvious and responsible officials attempted to purchase more arms for the defense of the capital and the nation. Since there was no reason to expect that domestic factories would soon be able to meet the great demands for arms, the United States government moved into the commercial field as a large-scale buyer. In the United States, the procurement officers of the Ordnance Office were prepared to buy any firearm immediately available,¹ and it was the purpose of the War Department and State Department to acquire large blocs of arms from abroad. It was indeed unfortunate that the men in charge of the government did not foresee prior to July, 1861, the possible magnitude of the struggle which was taking shape. Only after a sanguinary and humiliating defeat did they

1. "Buy all the swords, pistols, and carbines suitable for cavalry, and all the arms suitable for infantry that you can find and send them here at once....The need is most urgent." Ripley to Hagner, Aug. 6, 1861, OCO-LT00, XXI, 162.

realize that larger armies and consequently more munitions of war, would be needed to defeat their clever and in the determined enemy. as not able to fill the great demand for

Because of the general panic which held responsible officials in its grasp after the defeat at Manassas, procurement became disorganized and many of the men assigned to buy arms were forced to work at cross purposes with one another. Logically, the Ordnance Office should have been in complete charge of the purchasing operations, but because of its small staff, it was unable to detach men for this very necessary activity. It would seem that the procurement should have been centralized but there were many different agencies directed to purchase arms for the government. Generally speaking, the province of purchase for the Ordnance Office was limited to the area of the Union itself; the War and State Department had charge of the agencies abroad. Simon Cameron, the Secretary of War, appointed an agent to act in Europe, and the State Department directed the ministers of the United States in Great Britain, Belgium and France to act in the arms markets of the Continent. It should be noted that there was no divergence of opinion among the cabinet officers relative to the purchase of arms; there seemed to be no realization that the government was raising the price of arms by competing with itself in the market. Most readily available of all arms were those in the markets of Europe, and it was there that the United States directed its main efforts to

acquire weapons.

Contrary to the expectation of those interested in the problem, Europe was not able to fill the great demand for arms which accompanied the opening of the Civil War. While it was true that there were arms factories all over Europe, none of these factories was able to accept American orders and fulfill their own domestic demand for arms. It was only with the lengthening of the working day that the factories in Europe were able to sell some arms to the Union and Confederate governments. Of all the plants in Europe, the most reliable were those of the London Armory Co. and the Birmingham Armory Co. in Great Britain. Both of these firms were organizations of smaller plants which combined their product under a pooling arrangement and both produced a musket similar to the standard British Army weapon called the "Enfield", caliber .577 inches.

Outside Great Britain, there was only one district in which arms were made in quantity by private manufacturers. This district, located around the city of Liege in Belgium, produced a low-grade musket far inferior to the quality of the Enfield. Still, it was the only market in which arms could be made available in quantity since the British plants were largely under government contract.

Besides these private plants, the governments of Europe owned and managed their own armories, and it should be noted that many of the arms used during the Civil War were the cast-off refuse of these government armories. Had

these arms not been required for the American Civil War, they would probably have been discarded as junk. It was into this market that American agents in Europe came in the summer of 1861.

On July 27, 1861, George L. Schuyler of New York was appointed by Cameron to act as a United States agent for the purchase of arms in Europe. His letter of appointment from the Secretary of War showed that he was appointed, not for his reputation as a specialist in armament, but rather because of his integrity and high standing in his community.² In his letter of acceptance, Schuyler requested that a competent arms man go with him, an admission of his lack of knowledge in armament matters.³ Schuyler's activity in the markets of Europe did not produce a great amount of satisfaction for the Ordnance Office or the War Department,⁴ although the records show that 126,621 shoulder-arms were purchased by Schuyler during his eight months stay in Europe.⁵ Conditions in the market made it difficult for Schuyler to purchase arms as freely as he wished and he was forced to employ a private banking house

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2. "Col. George L. Schuyler, . . . , a gentleman of high social position . . .", Cameron to no addressee, July 27, 1861, Off. Rec., iii ser., I, 355. Schuyler was given the pay, but not the rank, of colonel in the United States Army.
 3. Schuyler to Stanton, Apr. 8, 1862, OCO-LR, File 559 s, 1862.
 4. T. A. Scott, Assistant Sec. of War, to Schuyler in Paris, Oct. 8, 1861, Off. Rec., iii ser., I, 567.
 5. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., 979.

in Paris, Ed. Lade et Cie., to make contact with men in control of available blocs of arms. ⁶ Unfortunately, only 15,000 of the muskets purchased by Schuyler were considered first-class arms by the Ordnance Office. Schuyler and his inspector, Adam Rhulman, specifically praised a bloc of some 70,000 Austrian muskets, caliber .54 inches, which had been purchased in Vienna through Ed. Lade et Cie. ⁷ These muskets, however, did not prove dependable in service. The confidence originally manifested for the Schuyler mission was soon dissipated, but because the arms arrived at the critical time of late 1861, most of them were put into the hands of troops being sent to the field. ⁸ In assessing the

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6. The Sec. of the Treasury informed the new Sec. of War, Stanton, that arms consigned by George L. Schuyler from Ed. Lade & Co. of Paris had arrived in New York and were being held for directions from the War Department. Chase to Stanton, Jan. 22, 1862, OCO-LR, File 228 w.d., 1862. "...My contracts with Ed. Lade and Co. for 20,000 rifled muskets, increased upon notice from Mr. Schuyler by a second contract to 48,000 have been adopted by him....At the suggestion of Mr. Schuyler, and with the assent of Lade and Co. he has been substituted in my place, and the contracts now stand in his name only...." Dayton to Seward, Sept. 4, 1861. Records of the Treasury Department (cited hereafter as Treas. Rec.), Letters Received, AB Set. As the Belgian factories manufactured arms for almost every country in Europe, there were wide differences in types and calibers available in that country. As the war progressed, more and more arms of the standard U. S. caliber, .58 inches, were produced in Liege for the U. S. market.
7. Report of George L. Schuyler, OCO-LR, File 559 s., 1862.
8. The Chief of Ordnance said that Schuyler was overpaid for his mission. Ripley to Stanton, July, 1862, Ibid., File 1305 w.d., 1862. Some of the arms bought during the early days of the war were judged to be "...entirely unfit to be placed in the hands of civilized troops..." House Ex. Doc. No. 72, 37th Cong., 2nd Sess., 6.

value of the Schuyler mission, care should be taken to point out that the tardiness of the government in forwarding his credits and the lack of cooperation which he received from Baring Brothers, the United States' fiscal agent in London, made it impossible for him to contract for arms on cash payment upon his arrival in Europe. More than this, Schuyler was forced to bid against other agents in the market. into the United States, and continued to be active. It is difficult to understand why the United States government entered a contract with Herman Boker and Co. of New York for over 100,000 weapons within six weeks of Schuyler's departure for Europe, because by so doing, it put another agent in the European market against Schuyler, and placed them in competition one to the other. Moreover, the contract with Boker and Co. was certainly more elastic than the instructions given to Schuyler; the agent of Boker and Co. was not restricted as to specific weapons or specific quality. Because this private organization was well acquainted with markets in Europe, and because they had sufficient credit to buy arms on sight, the Boker Co. delivered large quantities of muskets in a short time and by the close of the war had sold over \$2,500,000 worth of military goods to the Union government. So famous did

Reports, Belgium, 1861. Appendix, 729. Boker and Co.'s imported arms varied from caliber .74 inches to .54 inches, and barrel length from 30 inches to 44 inches.

9. Hagner to Ripley, Nov. 13, 1861, OCO-LR, File 715, h., 1861.
10. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., 729.

distribution of weapons classified many of the imported arms as "Bokers No. 1" "Bokers No. 2" and so forth.

Immediately after his arrival in Europe, the agent of Boker and Co. came in contact with H. S. Sanford, the United States Minister to Belgium, and won the praise of that official by his efficiency in buying arms.¹¹ During 1861 and 1862, Boker and Co. imported some 220,000 United States shoulder arms into the United States, and continued to be active in the supply of muskets until July 29, 1863, when they sold a bloc of 2,280 Prussian smooth-bored muskets to the Ordnance Office.¹² The prices paid by the government for the arms purchased by Boker and Co. and George L. Schuyler were about the same but the cost of supporting Schuyler and his inspector raised the actual cost of the arms imported by the latter.¹³

It is possible that the comparative lack of success of the mission of George L. Schuyler can be laid to causes which were not under his control. Many of the arms sent to the United States by Schuyler did not have the benefit of a professional inspection owing to the indisposition of Rhulman, Schuyler's inspector, shortly after his arrival in

11. Sanford to Seward, Oct. 25, 1861, State Dept., The Reports, Belgium, 1861.

12. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., Appendix, 729. Boker and Co.'s imported arms varied from caliber .74 inches to .54 inches, and barrel length from 30 inches to 44 inches.

13. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., 729, 979.

15. Cons. Let., London, XXXII.

Europe. The heavy competition for available arms in Europe also militated against his success.

Besides these two agencies appointed by the War Department, there were others interested in the problems of buying arms for the United States in Europe. Of these men, only two deserve notice for their activities in attempting to get arms for the Union -- Henry S. Sanford, the United States Minister to Belgium and F. H. Morse, the United States Consul in London. Consul Morse watched the available supply of arms in England and advised that the United States send credit so that the arms could be bought for the Union; his wishes, however, were not fulfilled.¹⁴ Notwithstanding his lack of support from Washington, Morse continued to place information relative to the opportunities to buy arms in England before the Secretary of State. His letter of August 9, 1861, was most illuminating and demonstrated his knowledge of the British market. "We can now contract for all the good Enfields which can be made in England for sale from the last of September to next April on very reasonable terms if we had the authority and means of payment," he wrote to Seward. "By so doing," he continued, "we can get 1500 per week of the best rifles in use and keep them out of Confederate hands."¹⁵ The

14. Nothing came from the letters of Morse except the fact that he was informed that the only buying to be done in Europe would be done by the appointed agents of the United States. F. W. Seward to Morse, Aug. 24, 1861, Cons. Inst., London, XXXII.
15. Morse to Seward, Aug. 9, 1861, Cons. Let., London, XXXII.

arms Morse recommended were the Enfield rifle-muskets which performed well in service.

Consuls Theodore Canisius in Vienna and Henry Spencer in Paris also reported the possibility of buying arms in their locations but little came of their effort.

Most active of the personnel of the United States diplomatic corps in Europe for the purchase of arms was the Minister to Belgium, Henry S. Sanford. As Sanford was near the markets of Belgium, he recommended, as early as May 25, 1861, that an agent be sent to Europe to contract

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16. The United States consul in Liverpool told of the activities of the Confederates in England, and also informed the State Department of the presence of agents of the individual States in the British market. Consul H. Milding to F. W. Vedard, the Assistant Secretary of State, May 17, 1861, Cons. Let., Liverpool, 1861. The advice of the consul in Bremen was passed on to the Sec. of War by the Assistant Sec. of State, F. W. Seward to Simon Cameron, Aug. 31, 1861, State Dept., Domestic Letters (cited hereafter as Dom. Let.), 1861. Further possibilities of buying arms in Bremen was reported by the consul at that port in early 1862. Boernstein to Seward, Jan. 9, 1862, Cons. Let., Bremen, 1862. Arms were available in southern Europe as well as in Belgium and Germany. A. M. Plattner of Toulon offered to sell arms to the United States. G. W. Van Horne to Seward, Oct. 21, 1861, Cons. Let., Marseilles, 1861. Even the Viceroy of Egypt offered to sell arms to the Union. J. Bigelow, Consul at Paris, to Seward, Nov. 13, 1862, Cons. Let., Paris, 1862. Even the small principalities in Germany were trying to sell their surplus arms; Hesse-Darmstadt was selling some of its arms to the Confederates, Murphy, Consul at Frankfurt a.M., to Seward, Nov. 29, 1861, Cons. Let., Frankfurt a.M., 1861. A. Turner & Co. of Switzerland offered arms for sale. G. Weiss, Consul at Rotterdam, to Seward, Dec. 17, 1861, OCO-LR, File 74 w.d., 1862. Many of these arms were bought through U. S. agents and other dealers in Europe and the United States.

for the arms available there. His suggestions, however, went unheeded until after the Battle of Bull Run. While Sanford attempted to contract for arms in the early summer of 1861, he was without funds and authorization and, hence, could do little. It was after the defeat at Manassas, that Sanford, together with Charles F. Adams and William Dayton, the United States Ministers to Great Britain and France respectively, was given a credit of \$1,000,000 for the purchase of arms for the Union. Sanford was the only one of the three to use the funds, and besides paying for many of the Boker arms, he bought 28,634 smooth-bored muskets and 27,646 rifled-muskets at a cost of \$446,900.¹⁷

By September of 1861, therefore, there were three agents of the United States operating in the markets of Europe. Added to this, however, was the fact that few persons knew of these representatives and much effort and

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17. Thomas A. Scott, Assistant Sec. of War, to Salmon P. Chase, Oct. 14, 1861, Off. Rec., iii ser., I, 574-5. One million dollars was put at the disposal of the three United States ministers in Great Britain, France and Belgium. Most of this money was used by Sanford. Seward to Sanford, Oct. 15, 1861, State Dept., Instructions to Ministers (cited hereafter as Inst. to Min.), Belgium, 1861. Sanford began to ship arms shortly after he received the credits from the United States. Sanford to Seward, Nov. 14, 1861, State Dept., Reports, Belgium, 1861. An inspector was ordered sent to Sanford because of his activities. Scott to Ripley, Jan. 25, 1862, OCO-LR, File 210 w.d., 1862. See also Sanford to Seward, August 8, 1861, Infra., Appendix "B".

time was wasted for lack of information.¹⁸ Not one of the three agents was informed of the activities of the others, and as similar arms were bought by all three, it is not difficult to see that they or their representatives were in competition for the same arms. For example, the United States Consul in Vienna, Theodore Canisius, reported that a Paris brokerage house was in the Austrian capital buying arms for the Confederacy.¹⁹ This firm, Ed. Lade et Cie. in was the previously mentioned agent for George L. Schuyler; and at the time of the report from Canisius, the agent of Boker and Co. was also contracting for arms in Vienna.²⁰ It would have been enough to have three agents active and in competition with one another in the market, but superimposed on the trio of Boker, Schuyler and Sanford, were the agents of the several Union states.²¹ The letters from Morse and Sanford concerning these agents point out that they were willing to pay almost any price to procure

letters of this nature in the files of the Treasury Department,

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18. One of the United States consuls in Europe requested the names of agents authorized to buy arms. Consul Anderson at Hamburg to Seward, Nov. 15, 1861, Cons. Let., Hamburg, XXXI.
19. Canisius to Seward, Nov. 30, 1861, State Dept., Cons. Let., Vienna, III.
20. The arms inspector sent by the United States was transferred from one market to another to inspect purchases of the various agents. Scott to Ripley, Jan. 25, 1862, OCO-LR, File 210 W.d., 1862.
21. "...The States and the general government entered the market as rival purchasers, and thus the members of the same national family bid directly against each other...." Report of Ordnance Commission, OCO-LR, File 1258 w.d., 1862.

1861 to January 1, 1862.

arms for their home states.²² Brokers in Europe were not at all interested in who paid American dollars for weapons, and consequently, the arms were sold to the highest bidder. During the early months of the war, little was done to help the states arm themselves, but because of the clamor for arms, Congress passed a law remitting the import duties on all arms purchased by the states for use in the repression of the rebellion.²³ Quantities of arms had been brought in by the various states, and this number increased greatly as soon as Congress passed the above mentioned law (upon the recommendation of the Secretary of the Treasury, Salmon P. Chase), which remitted the duties on arms imported by the states. Most of these arms came from England and were entered through the customs at New York free of duty.

Requests for the free entrance of these arms had to be secured by notice from the Secretary of the Treasury to the Collector of the Port of New York. From the number of letters of this nature in the files of the Treasury Department, it may be deduced that many of the Union states were buying arms in quantity in Europe. Massachusetts asked for free admission of 6,640, Connecticut for 4,000, Indiana for 8,720, New York for 7,820, Vermont for 720, New Hampshire

22. "...the 20,000 purchased a week or so ago in Birmingham for N. York i believe were at £ 5 and could have been had...at £ 2/10/0." Sanford to Seward, May 28, 1861, State Dept., Reports, Belgium, 1861.
23. Approved July 25, 1862. U. S. Statutes at Large, XXI, 274. The period covered by the act was from May 1, 1861 to January 1, 1862.

for 620, Pennsylvania for 1,000 and Maine for 1,800 arms²⁴ which had been bought by their agents abroad. From this it can be seen that the rivalry in the arms market, particularly in England, could only have reacted to force prices up and increase speculation in the scarcity economy.

The activity of the state agents in the market had another and more serious disadvantage for the Union. Since these arms were purchased by the states for their own troops, they were often employed in training when they were needed badly at the fighting fronts. It was only with great difficulty that in December of 1861, the Federal Government was able to exclude the State agents from the market by asking their removal by the governors of the respective states.²⁵

A more costly and serious barrier to the success of the efforts to acquire arms, was the fact that the Federal

24. Letters from Secretary of the Treasury to the Collector of the Port of New York asked for free admission of State arms. Letters for Ohio, July 29, Aug. 13, 26, 31, Sept. 24, 28, 1861; for Indiana, Aug. 12, 26, Sept. 5, 21, Oct. 8, 10, 22, 24, 31, 1861; for Connecticut, Aug. 20, Sept. 14, 23, Oct. 19, Nov. 7, 22, 26, 1861; Massachusetts, Aug. 24, 30, Sept. 14, 16, 21, 23, 27, 1861; for Pennsylvania, Aug. 26, 1861; for New York, Sept. 21, 24, Oct. 12, 1861; for Vermont, Sept. 9, 1861; for Maine, Oct. 1, 9, 12, Nov. 1, 8, 23, 1861; New Hampshire, Oct. 10, 12, 1861.

25. "The War Department will soon issue a circular to the Governors of the loyal States, requesting the withdrawal of their agents for the purchase of arms at home and abroad, the government assures that a sufficiency of arms will be received through its own agency to meet all demands." Chicago Daily Tribune, Nov. 19, 1861. Removal took place in December.

26. This firm was not connected with George L. Schuyler.

Government guaranteed to the states a full return of all funds spent in suppression of the rebellion.²⁶ The states, therefore, need have no compunctions as to how much money they spent to get arms for their troops,²⁹ or what means order they used to bring them into their own borders. This²⁹ particular piece of legislation cost the people of the^{no} United States a great sum of money throughout the entire war, although the removal of the state agents from the market²⁷ lowered the price of arms somewhat. State pur- of chases³⁰ of arms almost completely stopped when duties were reimposed on imported arms after January 1, 1862. The cost of this duplication, however, did not end with the removal of the agents from the market,³¹ as the Federal Government, in order to satisfy the consignors in several cases, was forced to accept many of these state contracts. arms were

The poor results brought about through the Schuyler mission plus the high prices paid for arms in 1861 and it was the best in the market. P. V. Wagner to Ripley, early 1862 made the procurement agencies somewhat afraid of direct action in the European market. However, the War Department seemed to have overcome its fear and another agent was appointed to act in the markets of Great Britain and the Continent. Marcellus Hartley, of the arms importing firm of Schuyler,²⁸ Hartley and Graham had long connection with the government a secret. DCO-LR, File 572 v.d., 1862.

26. Approved July, 1861, U. S. Statutes at Large, XXI, 276.
27. For the continuation of the indemnification policy see the resolution of Congress approved March 8, 1862, U. S. Statutes at Large, 37th Cong., 2nd Sess., 615.
28. This firm was not connected with George L. Schuyler.

been in correspondence with the War Department, offering his services as an agent for the government in Europe; and in the summer of 1862 he was given a commission to buy first-class foreign arms for the United States. In order to prevent a rise in the cost of arms, Hartley was given instructions to be as secretive as possible, and to make no mention of his very direct connection with the Union government. He was to act as a private citizen and businessman and to buy only first-class arms in the name of his company. Unfortunately, Hartley did not adhere to his advices and instructions with the result that the government was again paying high prices for poor weapons. In the case of the first-class muskets, particularly the English Enfields, his coming into the market sent prices upward; many of these good arms were

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29. Ordnance officers dealing with this firm said that it was the best in the market. P. V. Hagner to Ripley, Sept. 3, 1861, OCO-LR, File 473 h., 1861. This firm advocated that a single agent be sent to Europe for the United States and recommended that the Confederate markets in the Bahamas be tapped. Ripley to Stanton, June 7, 1862, Off. Rec., iii ser., II, 112-3.
30. The instructions given to Hartley by P. H. Watson, who replaced Scott as Assistant Secretary of War when Stanton replaced Cameron, and all correspondence relative to the mission are in the records of the Chief of Ordnance. Hartley was given the pay of a Brigadier-General but was cautioned to keep his connection with the government a secret. OCO-LR, File 572 w.d., 1862.
31. Hartley wanted to buy more old Austrian muskets, caliber .55, and Prussian smooth-bores, caliber .72. Hartley to Watson, Aug. 28, 1862, and to Stanton, Oct. 8, 1862. Ibid.

purchased at higher prices than was necessary.³²

As shown by his correspondence, Hartley travelled all over Europe, but he failed to increase greatly the number of arms brought in by his company. Hartley seemed to think that his really important duty was "to control the market," and to exclude the Southern agents from any possible purchases.³³ P. H. Watson, the Assistant Secretary of War, through whom Hartley received his instructions, did not share Hartley's opinion, and wished the agent to leave the inferior muskets to the Confederates instead of attempting to buy all the available weapons. Many of the guns bought by Hartley were not usable, and the letters from Watson to the agent show the Assistant Secretary of War's extreme displeasure with Hartley's activities in Europe.³⁴

- the muskets brought into the United States was the
32. "...Several persons have been here, and they all concur in saying that you have raised the price of arms by bidding more than the others were paying. We have had the whole product of the Birmingham Arms Co. offered direct for fifty shillings, and the 'rejects' by the small manufacturers at from two and six pence to five shillings less." Watson believed that all the muskets in the market could be bought for \$15.00 each. Watson to Hartley, Sept. 9, 1862, Ibid.
33. Hartley to Stanton and Watson from Birmingham, Aug. 2, 6, 1862, and from Berlin, Oct. 14, 1862, Ibid. Hartley did buy more poor arms in spite of the wishes of the War Department.
34. "We have one hundred and fifty thousand arms of Cal .69 & .71 that have not been issued and which we induce our troops to send into the field. Therefore buy no more of them. The same block sight that you are buying in Liege we have been purchasing in this country at six dollars apiece.
35. "Buy no more inferior arms. I expected you to put a strict construction upon orders for arms of

The arms procured by the system of purchasing large blocs of muskets were a strange lot of good and bad weapons. Of the muskets purchased, by far the most outstanding and most widely employed was the English Enfield rifle-musket, caliber .577 inches. Fortunately, this bore very closely matched the United States rifle-musket, caliber .58 inches, and was very similar to that arm in appointment and manufacture. It has been said that the equipment at Enfield, England, where the Enfield was made and from which town it takes its name, was designed and installed by an American arms man from Springfield, Massachusetts, Armory.³⁵ Because of the number of these Enfield muskets in use in the Union Army, a special bullet, caliber .574 inches,³⁶ was used in both the Enfield and the Springfield arms. Second most popular of the muskets brought into the United States was the Dresden rifle-musket made at Dresden, Germany, to conform to the caliber of the United States rifle and also to its weight and general appearance. Third was the French rifle-musket, caliber .58 inches, also similar to the United States arm.

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39. inferior quality. The arms you are sending with block sights we cannot issue, until we fit them with elevating sights, and the 72 calibre we cannot issue at all...." Watson to Hartley, Oct. 28, 1862, OCO-LR, File 572 w.d., 1862.
35. Bush, Hans, The Rifle: and How to Use It, London, 1862, 72.
36. Use of the cartridge wrapper as wadding compensated for this difference in caliber.

All the arms, either manufactured in the United States or imported from abroad, were divided into four grades depending on efficiency and accuracy.³⁷ By 1865, and certainly before that time, there were 54 distinct types of foreign shoulder arms in the Union Army.³⁸ The caliber of these rifles varied from .54 inches to .79 inches (one quarter inch from the smallest to the largest bore), and there were sixteen distinct bullets required to supply the troops carrying these weapons. The assignment of supplying proper ammunition to the men armed with so many different types of muskets must, at times, have seemed to have been impossible of achievement.⁴²

Many of these weapons were faulty because of age.

Some of the Boker arms and the Schuyler arms were altered tube-locks³⁹ and flint locks, changed from their older system to the usual percussion cap ignited system. All the

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37. High grade U. S. and Foreign Arms were first-class; altered U. S. and good grade foreign arms were second-class; poor grade U. S. and foreign were third class; smooth-bores and flint-locks were fourth class.
38. Instructions for Making Quarterly Returns of Ordnance and Ordnance Stores, Government Printing Office, 1865. These arms varied in weight from six to eleven pounds. As a general rule, caliber .58 inch arms weighed 8.88 but the heavier caliber guns, .70 or .71, weighed as high as twelve pounds.
39. The tube lock used a small piece of priming wire instead of flint and pan, or a percussion cap. Many of these tube locks, made in Austria, were altered to percussion and sold as good arms to the agents of the United States in Europe. This alteration included the changing of the hammer as well as the installation of a percussion cone. The arms were not considered efficient.

arms, except those purchased new, were the cast-off weapons of Europe.⁴⁰ Many of the German arms were sold to the United States from European government arsenals because of the rearmament of the Prussian and Saxon Armies with the more modern Needle Gun. At about the same time, the Austrian Army changed the standard caliber of their foot soldiers' rifles, and the government was most happy to "unload" their old arms in 1861 and 1862.⁴¹

Arms were offered to the United States by many less important people in Europe, and it is certain that many of the arms offered by these persons eventually reached the hands of the Union Infantry.⁴²

The unfortunate Trent Affair and the near rupture of

40. The consul in Frankfurt a.M., reported that there were many small lots of arms available in Bavaria. Murphy to Seward, Feb. 11, 1862, State Dept., Cons. Let., Frankfurt a.M., XII. All the poor arms in Austria were quickly sold in 1861; new arms became available in 1862. Canisius to Seward, Feb. 20, 1862, Ibid., Vienna, 1862. "The German and French and Austrian Governments are now selling the refuse of their arsenals to speculators...." Schuyler to Scott, Nov. 14, 1861, Off. Rec., iii ser., I, 640.
41. In 1862, the Austrian government became anxious to sell the United States all the arms they needed. Canisius to Seward, Sept. 17, 1862, State Dept., Cons. Let., Vienna, 1862. At the time that his mission in Europe was ended, George L. Schuyler returned to the United States as a private citizen. He was not able, however, to resist the appeal of the high profits of the arms market. In the fall of 1862, he offered to go to Austria to buy 30,000 Austrian arms of the same type purchased by him during his mission in Europe for the United States. Schuyler to Stanton, Sept., 1862, OCO-LR, File 1772 w.d., 1862.
42. Baron von Stulpnagel of Bremen to Secretary of War, Dec. 29, 1861, Ibid., File 310 w.d., 1862. Alexander Ladomer of Berlin to Ripley, Feb. 26, 1862. Ibid., File 584 w.d., 1862. Wolfenstein of Berlin to Lincoln, Nov. 28, 1862, Ibid., File 142 w.d., 1863.

Buying the arms in Europe was only one problem, finding the means to get them to the United States for use was quite another. The main problem was the constant shortage of available shipping space;⁴³ but competition from, and fear of, the Southern States also contributed to the Union inability to ship their weapons. Added to this, the fear of sinking and attack from Confederate raiders⁴⁴ made neutral shippers more wary than might otherwise have been the case. The high prices paid for arms in Havana (French minie muskets sold at \$26.00),⁴⁵ and in the Bahamas made trade with the Confederates more profitable, as long as the Southern credit held out.

The unfortunate Trent Affair and the near rupture of British-American relations in 1861, reacted badly on the traffic in arms for almost a month. The Proclamation of the Queen in December, 1861, put an embargo on all shipments of weapons out of, or through, Great Britain, until the end of January, 1862.⁴⁶ Even a shipload of arms being

While these arms were not purchased from these men, there is good reason to think that they were eventually procured for the U. S. or the Confederacy.

43. Shipping space became scarce in Jan. 1862. Rhulman to Ripley, Jan. 18, 1862, OCO-LR, File 202 r., 1862.
44. Southern raiders were keeping American shipping away from England. Morse to Seward, Jan. 9, 1862, State Dept., Cons. Let., London, XXIX.
45. J. E. Challard and W. G. Betterton, agents, to Jefferson Davis, July 24, 1861, Off. Rec., iv ser., I, 500-501.
46. The Trent Affair closed shipments to the United States. Morse to Seward, Dec. 6, 1861, Cons. Let., London, XXIX. Schuyler to Cameron, Dec. 23, 1861, OCO-LR, File 405 w.d., 1862. Fortunately for the United States, the early settlement of the Trent Affair opened British ports in Jan. 1862.

transferred from the Continent to the United States through Great Britain was detained because of the order.⁴⁷ It was under these conditions that the United States consul in Madrid sent arms of Spanish manufacture for the use of the Union Army.⁴⁸

Arrivals of arms for the States and the Federal Government at New York were handled by the collector of that port through the bonded warehouses. In most cases, after December, 1861, the arms never left the warehouses until bought by the United States. In this way, it was particularly easy for dealers and consignees to gain profits without ever handling the weapons.⁴⁹

In 1861 and 1862, the United States had from three to five agents operating in the markets of Europe at the same time. The consequent loss in time and money cannot be evaluated because of its human aspect; Sanford in his letter to Seward of October 25, 1861, clearly states his disappointment in the handling of arms procurement in Europe.⁵⁰

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47. Those in charge of the shipment of arms from Europe to the United States were worried about the difficulty of getting cargo space and vessels to carry their purchases out of Europe. Sanford to Seward, Dec. 6, 1861.
48. H. D. Perry, Consul at Madrid, sent arms before "... our ports can be blockaded by an English fleet...." Perry to Seward, received at Ordnance Office, Mar. 7, 1862, OCO-LR, File 480 w.d., 1862.
49. See Infra., Chapter 4.
50. Sanford to Seward, Oct. 25, 1861, State Dept., Reports, Belgium, 1861.

More organization and more strict rules of purchasing would have insured a large supply of good weapons at reasonable prices for the United States. As it was in 1861 and 1862, prices for arms in Europe fell and rose with increased or decreased American competition for these munitions of war. early July of 1861 made it necessary for the Ordnance Office to enter the markets of New York to buy first quality arms for the government, and after the defeat of McDowell at Bull Run, the agents of the Ordnance Office were willing to buy any weapons which came into the market. Unfortunately, the sudden rise in demand took all available arms out of the market and it need not be emphasized that in July and August of 1861, and for some time thereafter, the demand for weapons in the United States far exceeded the supply. Europe had been regarded as the logical place to buy large quantities of arms in a short time, and the early missions of George L. Schuyler, Boker and Co. and Henry S. Sanford had been organized on that basis. However, the markets of Europe soon became inflated because of the increase in arms procurement, and available arms, in the hands of speculators, were brought into the United States

1. The Chief of Ordnance wrote the agent in New York that the price which the department agreed to pay for the Chasseur de Vincennes rifles was \$23.50. Considering the arm, this was a very high price. Ripley to Hagner, Oct. 30, 1861, OCO-LT00, XXI, 407. The high prices paid for arms is reflected in the price which the Department of the West at St. Louis paid for the old French carbines. These arms, sold by the firm of C. K. Garrison of New York, cost the United States \$27.00 each. Maynadier to G. W. Ramsdell, Nov. 16, 1861, OCO-ML, L-LV.

CHAPTER FOUR

PURCHASES IN THE DOMESTIC MARKET

The rapid decline in the supply of good weapons in the Union arsenals in early July of 1861 made it necessary for the Ordnance Office to enter the markets of New York to buy first quality arms for the government, and after the defeat of McDowell at Bull Run, the agents of the Ordnance Office were willing to buy any weapons which came into the market. Unfortunately, the sudden rise in demand took all available arms out of the market and it need not be emphasized that in July and August of 1861, and for some time thereafter, the demand for weapons in the United States far exceeded the supply. Europe had been regarded as the logical place to buy large quantities of arms in a short time, and the early missions of George L. Schuyler, Boker and Co. and Henry S. Sanford had been organized on that basis. However, the markets of Europe soon became inflated because of the increase in arms procurement, and available arms, in the hands of speculators, were brought into the United States

1. The Chief of Ordnance wrote the agent in New York that the price which the department agreed to pay for the Chasseur de Vincennes rifles was \$23.50. Considering the arm, this was a very high price. Ripley to Hagner, Oct. 30, 1861, OCO-LT00, XXI, 407. The high prices paid for arms is reflected in the price which the Department of the West at St. Louis paid for the old French carbines. These arms, sold by the firm of C. K. Garrison of New York, cost the United States \$27.00 each. Maynadier to G. W. Ramsdell, Nov. 16, 1861, OCO-ML, L-LV.

where the demand was greatest and prices higher. It is noteworthy that between 1861 and 1863 there were over fifty different people or firms who offered foreign arms to the government; it is not surprising that prices charged were at times both exorbitant and unfair. Nevertheless, the military leaders of the United States had their backs to the wall, and were driven by circumstances, over which they no longer had control, to pay the prices asked or go without arms. Nor could they say too much about the condition of the arms imported. While all would have preferred that the weapons imported privately from abroad should be first-class rifle-muskets, it could not obviously have been the case.

2. Letters from several persons offering arms for sale to the United States government are filed in the records of the Chief of Ordnance. OCO-LR, Files 1382, 1756 to w.d., 1862.
3. "...Rec'd 30,000 Belgian Rifle Muskets from Poultney very inferior. I took on force of necessity not del'd yet." Whitely, Commandant at New York Arsenal, to Ripley, Aug. 11, 1861, Ibid., File 505 w., 1861. "...Bokers Vincennes are not uniform in bore...." Crispin to Ripley, Sept. 15, 1862, Ibid., File 254 n., 1862. "Murray's arms altered French Cal. 625...Colts arms are old smooth Tower, Cal. 72. His enfields are delivered for bond as they arrive. Are the old Towers wanted." Hagner to Ripley, Sept. 18, 1861, Ibid., File 516 h., 1861. "...Fitch ordered smooth bores at \$10. and rifles at \$20 Cones too large in calibre 70...." Hagner to Ripley, Sept. 27, 1861, Ibid., File 546 h., 1861. "...I can buy more arms of inferior quality if desired, Austrian smooth bores at \$5., and Prussians at \$6 and 6½, but it seems to be impossible to get any one to be satisfied with them...." Hagner to Ripley, Nov. 29, 1861, Ibid., File 768 h., 1861.
6. File 539 w., 1861.

The Ordnance Department was certain that there were arms in New York, and had advised persons asking for arms for the States, before the Battle of Bull Run, to go to New York to buy arms. One British importing house, W. Bailey Lang & Co., advertised its ability to supply English Enfield arms on short notice, and an American firm, Howland and Aspinwall, drug importers in New York, offered to sell arms on June 11, 1861. The only possible agency then able to buy arms in New York was the New York Arsenal on Governor's Island in New York Harbor, commanded by Major R. H. K. Whiteley. No direct contact had been established with any of the importing houses, and the Ordnance

This condition in the market continued for more than a

4. "I have been told the Messrs. Schuyler & Co., Gun-dealers, Maiden Lane, New York, had a few Enfield rifles for sale, at \$25. each, and that they expected soon a large supply...." Ripley to S. Alma Archer, May 29, 1861, OCO-ML, LIII, 70. Ripley did not want to buy foreign arms in June of 1861. Ripley to Joseph F. Morton of Boston, Mass., June 19, 1861, Ibid., 141.
5. "I have received the following telegram from Messrs Howland and Aspinwall of N.Y.; viz: 'Ten thousand best Minie rifles to arrive immediately we think can be secured, if taken at once, at \$18 in bond. Can we do anything for you? Subject to your approval as to quality.' I have answered that you would call on them in relation to these arms. I wish them secured for this Dept. if they are good, serviceable arms and can be had at the price named above or less. Please ascertain what kind of arms they are, secure them with the aid which Messrs H. & A. so kindly offer. Our stock of musket is so low that we must avail ourselves of any opportunity of getting good arms at reasonable prices." Ripley to Hagner, July 11, 1861, OCO-LT00, XXI, 76.
6. Arms imported into New York immediately after Bull Run were turned over to Whiteley because he was the only Ordnance Officer available in the port. Schuyler, Hartley and Graham to Ripley, July 31, 1861, OCO-LR, File 539 s., 1861.

Department was faced with the need of starting at the bottom to build up its connections with the New York dealers. The real connection between the Government and the arms dealers, however, came about by accident.

In July of 1861, Major P. V. Hagner of the Ordnance Department was in New York assigned to buy weapons, and on July 16, was directed to help General John C. Fremont obtain arms for the latter's command, the Department of the West, with headquarters at St. Louis, Missouri. For some days, Hagner scoured New York in search of arms, but met with little success as the market became speculative and arms were hidden or not put up for sale by their owners.

This condition in the market continued for more than a year and was a constant source of annoyance on the part of

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7. Ripley to Hagner in New York, July 16, 1861, OCO-LT00, XXI, 94, 95.
 8. Offers of arms made to Ripley were quickly conveyed to Hagner for investigation. The offer of arms from Howland & Aspinwall was telegraphed to Hagner the same day it arrived in Washington. It was the duty of this ordnance officer to call upon these men in relation to the arms. Howland and Aspinwall to Ripley, July 10, 1861, OCO-LR, File 326 h., 1861. Ripley to Howland and Aspinwall, July 10, 1861, OCO-ML, LIII, 224.
 9. Ripley to Hagner, Sept. 23, 1861, OCO-LT00, XXI, 311. Ripley says that he is interested in buying arms on sight in New York but not through "hidden contracts", i.e., by promises to deliver arms at a price without presenting them for immediate inspection. Ripley to E. H. Jacob of New York, July 16, 1861, OCO-ML, LIII, 224.

best in appearance next to the English. They are smooth bore and have old bayonets fitted. These are offered for \$10. 2200 Foreign Rifled Muskets - sighted. Cal. 69, with clasp bayonet 20 inches long. Price in bond, \$14 50/100. True value about \$4 to make.

the Ordnance officers assigned to buy weapons.¹⁰

After partially filling the wants and demands of General Fremont,¹¹ Hagner was ordered by James W. Ripley to stay in New York and procure good arms in the open market.¹² His first attempts to act were greeted by a great amount of double dealing of which he openly complains in his letters to the Chief of Ordnance,¹³ and he early

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10. Twelve officers of the Ordnance Department are authorized to purchase munitions of war. The list given by the Chief of Ordnance includes the two men who had charge of the purchasing in New York City. Ripley to Cameron, Aug. 5, 1861, Records of the Office of the Chief of Ordnance, Letters to the War Department (cited hereafter as OCO-LWD), XIII, 149.
 11. Fremont was not satisfied with the treatment which he received from the Ordnance Department and made the assignment somewhat unpleasant for Hagner. The ordnance officer believed that Fremont had bought enough arms on his own authorization from private persons in New York to make further purchases for that General unnecessary. Hagner to Ripley, Aug. 7, 1861, OCO-LR, File 405 h., 1861.
 12. Ripley directed Hagner to buy arms for the United States upon credits advanced by the Treasury Department of a "...kind and quality..." satisfactory to him for the first three weeks of August, 1861. Ripley to Hagner, July 26, 27, 1861, OCO-LT00, XXI, 129, 131.
 13. "I have searched the city thoroughly and I believe I know of all the arms here. There are about 2000 English small muskets - some of Cal. 58, - others .575 and about 500 Carbines with sword bayonets of Cal. 575. These are the only respectable looking arms to be had. (unless there may be 500 French Chasseur Carbines with sword bayonets which I heard of but have thus far been unable to find - a strong-looking roughly made arm) Besides the above there are 1500 of the George Jaw Muskets altered with a new breech piece and cone seat attached. Not very well done but the best in appearance next to the English. They are smooth bore and have old bayonets fitted. These are offered for \$10. 2200 Foreign Rifled Muskets - sighted. Cal. 69, with clasp bayonet 20 inches long. Price in bond, \$14 50/100. True value about \$4 to make. above as it may prove of advantage." Hagner to

realized that many of the arms imported from Europe were

"2000 - old altered & Rifled Saxon Gov't arms. Cal. 72 sighted, with clasp bayonet - 16 inches long. price \$14 in bond. Worth about same as above. 3000. of different pattern, altered, Rifled & Sighted Cal. .70 - clasp bayonets 18 in long. Siege barrels and St. Etienne locks. Same value as above. 12,000 old Austrian Government altered arms. Smooth bore - Cal. .69 - very rough - but like all the above no doubt safe to fire.

"These are only to be bought in case of absolute necessity; which I think can hardly exist but report them for your orders.

"We are suffering now in arms, the same inconvenience we have suffered from in other military supplies, due to the bad policy of having all the State Governments buying such. They bid against each other, raise everything to a fictitious value and thus by sending them there, the States lose the use of them for active service. It is well known here that five different states sent out agents to England in the same steamer and, by bidding against each other, raised the price of English arms from 50 shillings to 80 shillings in one day. They made the manufacturers break their engagements to regular dealers here, started a number of agents new to the business, and thus also did much to scatter the arms in small parcels through the country. No doubt the whole product now in this country not in the hands of the States, does not much exceed the numbers I have given and owing to the calls from so many different quarters the rivalry continues and prices are kept up. If, as is probable, the General Government will have to reimburse the States for their outlay, I respectfully submit if it is not a matter of importance to stop this system of purchasing and have it all done under better management.

"The many letters offering arms received by you are said to be from persons, who propose in case of acceptance to buy up the small parcels, or, more usually, hope to secure a bargain and then delay the execution of promised arrivals. I am told that no such quantity of arms as mentioned some days since by you have been received and it is supposed that news, cause of delay, or withdrawals by the manufacturers, because of increased price offered them. If any are to be imported for the government it should be by a regular dealer and not by such as have already applied - lawyers, brokers, hatters, and apothecaries.

"I have telegraphed the number I can get and hope for your orders tomorrow but I think it of importance the above as it may prove of advantage." Hagner to

realized that many of the arms imported from Europe were very inferior and should be used only in case of ¹⁴ emergencies. ¹⁵ for cash instead of to the government for ¹⁶ cert. The relative honesty and efficiency of the arms firms of New York were unknown to the Ordnance Department, and ¹⁷ the agents of that department who bought arms through them were forced to rely on men of unknown reputation. In the language of the present day, the arms market was ¹⁸ definitely "gray" and large profits were made by those who had arms to sell. Considering the reports from Consul Morse in London or from J. L. Schuyler, the New York state agent, that arms were selling in Britain at between four- ¹⁹ teen and sixteen dollars, an average selling price of ²⁰ twenty dollars per musket in the United States represented a very handsome profit. In some cases, profits were even ²¹ higher than this twenty-five per cent mark up. ²² The difficulty of buying arms for the Union was increased by

Ripley, July 23, 1861, OCO-LR, File 364 h., 1861. Hagner had received promises of delivery of arms from Samuel Colt of Hartford, Conn., but discovered that these arms were already sold to Connecticut. He adds that speculators are becoming much more numerous.

Hagner to Ripley, Sept. 18, 1861, Ibid., File 520 h., 1861. The firm of Howland and Aspinwall had long been active as drug and spice importers.

14. "...All are about the date of 1827 and all are flintlocks altered,..." Hagner to Ripley, Ibid., Oct. 28, 1861.
15. High prices were always quoted when it was thought that the government would be willing to buy at any price. The agent in New York said that he could buy some arms more cheaply than they were offered to Ripley. Hagner to Ripley, Aug. 13, 1861, OCO-LR, File 417 h., 1861.

the confusion in payments by the Federal government, and many of the speculators and dealers preferred to sell their weapons for cash instead of to the government for certificates of inspection and indebtedness¹⁶ which forced the dealer to wait for payment.¹⁷

Hagner established himself in a small office at 55 White Street in New York City, and began his activities as an agent for foreign muskets and munitions of war for the United States. In this capacity, Hagner became the representative not only of his own ideas,¹⁸ but those of the

19. Ripley directed Hagner to call on any and all persons who offered arms for sale to the government.
16. No cash was paid by the agent who purchased arms in New York. Instead he issued to the dealer a certificate which stated the number of arms and the approved government price. The dealer then sent the certificate to Washington for payment.
17. "...Cap. Callender having no funds to pay the bills, I presented them at the Ordnance Office and you advised me to make an abstract of all orders, and return them to Cap. Callender, and if placed there in his estimate the money would be sent him to pay the bill. I did as you requested, and gave the Captain the substance of our conversation. Today I had the pleasure of a note from ...Callender wherein he states 'he has sent a copy of the bills to the Ordnance Office accompanied with the substance of my remarks in that connection; and if money was sent to him he would remit at once'. My object in addressing you now is that I am suffering in my business by the delay of the bills mentioned..." John Hoey of New York to Ripley, Nov. 9, 1861, Ibid., File 707 h., 1861. "I would respectfully recommend a temporary withdrawal of the Secretary's recent letter to the Collector. The construction placed upon it has given importers a great deal of trouble, and it induces no additional sales..." Hagner to Ripley, Nov. 16, 1861. OCO-LR, File 726 h., 1861. The agents of the United States were continually harassed by the shortage of money to pay for their purchases.
18. Hagner complained that some of the arms imported by one of the dealers were not fit for service when they arrived in August of 1861. He was told by the Chief

entire War Department; and his purchases of arms were often dictated, not by the efficiency of the arms presented, but by the ability of the potential seller to convince the Washington departments that the arms were good. In some cases, Hagner refused to buy arms which Ripley had already accepted. More than this, as a sort of free agent for

- price of available weapons. The same condition, only more
- of Ordnance that his "...judgment must govern, according to...instructions." Ripley to Hagner, Aug. 8, 1861, OCO-LT00, XXI, 167. Many of the contractors did not deliver the quality of arms specified in their contracts. Hagner to Ripley, Jan. 28, 1862, OCO-LR, File 90 h., 1862.
19. Ripley directed Hagner to call on any and all persons who offered arms for sale to the government. Among others, he was directed to call on John Sarson and A. R. B. Moses of New York for the purpose of buying the arms offered by these men. Ripley to Hagner, July 29, 1861, OCO-LT00, XXI, 136, 139.
21. Ripley directed Hagner to buy some very inferior arms imported by Fitch and Co., and send them immediately to General Robert Anderson at Jeffersonville, Ind. Ripley to Hagner, Sept. 21, 1861. Hagner often used his own judgment in refusing arms which had already been approved in Washington, but not without considerable complaint from the dealers concerned. John Murray to Ripley, Sept. 14, 1861, OCO-LR, File 504 m., 1861. Hagner was directed to buy the arms. Ripley to Hagner, Sept. 18, 1861, OCO-LT00, XXI, 297. The records show that Hagner never bought the arms from Murray.
20. "As reported withdrew my acceptance Dingee and Co. Austrian Enfields not as promised. White wood sticks, 4 cor bayonet, rough finish, patch locks altered from flint. Some 55 Cal. Some .57 some .58, the .58 weighs 3/4 lbs less than the .54. Have informed Dingee will purchase .55 at price given for light guns & if submit reamed out barrel to a proof will make him an offer, five each barrel 18 service charges and 2 fires to 2 cartridges to which he agrees...." Hagner to Ripley Dec. 13, 1861, OCO-LR, File 823 h., 1861. In the case of the Dingee arms Hagner was under pressure from Lincoln and General McClellan. See the letters from Lincoln and McClellan to Cameron in House Ex. Doc. No. 67, 37th Cong., 2nd Sess., 130. Ripley, Sept. 6, 1861, Ibid., File 486 m., 1861.

the government, he was given authority to accept the arms
 which had been imported by agents ²¹ from Europe or by
 American agents in the United States. He was also the ²²
 recipient of most of the Schuyler arms. ²³ Enfield rifles by

The activities of too many agents in Europe had had
 the effect of diminishing the supply and increasing the
 price of available weapons. The same condition, only more
 complicated and costly, prevailed in the New York market. ²³
 Many of the offers made to the Government were based on the
 ability of the contractors to procure arms by dealing
 through the open market. Instead of bringing in more arms,
 therefore, the letting of contracts reacted only to ²⁴
 increase prices and encourage speculation. The most

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21. Hagner was told that he should buy Enfields at \$19.
 and Belgian Enfields at \$18. in the open market. Rip-
 ley to Hagner, Sept. 9, 1861, OCO-LT00, XXI, 266. He
 was also told that he could buy the arms offered by
 John Murray and Samuel Colt if they were fit for
 service. Sept. 17, 1861, Ibid., 301. Arms imported
 by John Pondir from Europe were turned over to Hagner
 by direction of the Secretary of the Treasury. Chase
 to Cameron, Nov. 27, 1861, Treas. Rec., Letters to
Cabinet, Series Bc, XV. Hagner was designated as the
 recipient of all arms bought by the United States in
 Europe, and by all other agents of the States and
 himself in New York. Ripley to Hagner, Dec. 2, 1861,
OCO-LR, File 779, 783 h., 1861.
22. Schuyler arms were sent to Hagner by the direction of
 the Secretary of the Treasury. Chase to Cameron, Oct.
 5, 1861, Treas. Rec., Letters to the Cabinet, Series
 Bc, XV. These arms were turned over to Hagner by the
 collector of the Port of New York, Hiram Barney,
 through whom the arms were imported. Chase to Barney
 Oct. 5, 1861, Treas. Rec., Letters to Collector at
Port of New York, XVI.
23. Hagner to Ripley, July 23, 1861, OCO-LR, File 364 h.,
 1861.
24. Murray stated that he was ready to deliver fifty thou-
 sand arms at \$20. each. Murray to Ripley, Sept. 6,
 1861, Ibid., File 486 m., 1861.

extraordinary example of the competition in the New York in market was the case of Messrs. Mitchell and Jones, importers in New York, who obtained a contract direct from the Ordnance Department to import 50,000 Enfield rifles by January 1, 1862. Hagner at once thought that this meant his exclusion from the arms field as far as the purchase of Enfield muskets was concerned; but Ripley's reply to this statement of this belief was that there was nothing in the Mitchell and Jones contract to prevent him from being active in the market. How the Chief of Ordnance could allow Hagner to compete against one Government agent in this case, and not against another in the case of the old smooth bores imported by other firms is hard to

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25. Mitchell and Jones stated that they were ready to deliver English arms in New York up to fifty thousand individual weapons at \$19. each. They added that "...It shall be optional with the Government to order a larger number than fifty thousand; in which event the establishments where the guns are made will be pushed to the utmost...to make weekly shipments...larger." Mitchell and Jones to Ripley, July 24, 1861, Ibid., File 386 m., 1861. Arrangements were made through the Secretary of the Treasury for the admission free of duty of all the arms brought in under the Mitchell and Jones contract. Chase to Barney, July 30, 1861, Treas. Rec., Letters to Collector of Port of New York, XVI.
26. "...If I remain in the market now as a purchaser Messrs. Mitchell and Jones would have to bid against me and we should either raise the price and prevent them from filling their contract or divide between us the few to be had here..." Hagner to Ripley, July 31, 1861, OCO-LR, File 365 h., 1861.
27. "...I am not aware that there was anything in the
28. well.
29. July 24, 1861, OCO-LR, File 470 w., 1861.
30. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., 843.

understand.²⁷ Ripley must have believed that the market in New York was already under control judging from his letter to Howland and Aspinwall on September 6, 1861.²⁸

It is reasonable to believe that Mitchell and Jones planned to buy smaller parcels of arms in New York to furnish their first delivery, but the contract price, once let out,²⁹ made it impossible for them to buy. It was also at this time, that the activities of the various agents in Europe reacted to place higher prices on muskets and, in spite of the confident expressions in their contract,³¹ Mitchell and Jones delivered only 780 muskets to the Ordnance Department.³⁰ Although Mitchell and Jones did not suffer a pecuniary penalty for their failure, they were not able to supply the good arms which were then much needed by Aspinwall, Cutlerman Brothers, S. Dinges, Wolthausen and

27. "...I am not aware that there was anything in the agreement with Mitchell and Jones to stop your purchasing Enfield muskets or any other arms, satisfactory to you, that you could buy deliverable immediately. On the contrary you have full authority to purchase...." Ripley to Hagner, July 31, 1861, OCO-LT00, XXI, 145. "...It will not be advisable to buy the Austrian smooth bore guns. As we have a government agent in Europe buying arms, it will not answer to take the proposition of Messrs. Hartley & Graham. They would only be bidding against the Government Agents...." Ripley to Hagner, Aug. 8, 1861, Ibid., 167.
28. Ripley refused arms offered by Howland and Aspinwall. Ripley to Howland & Aspinwall. Sept. 6, 1861, OCO-ML, LIII, 433. The offer had been made earlier. Howland & Aspinwall to Ripley, Sept. 5, 1861, OCO-LR, File 478 h., 1861.
29. Whiteley, the Commandant at New York Arsenal, complained that it was very difficult to find good arms in New York. Whiteley to Ripley, July 24, 1861, OCO-LR, File 456 w., 1861.
30. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., 843.

the Union Army.³⁵ More than twenty large firms soon began to be active in the field in New York; in great numbers foreign rifles and muskets were dumped on the heavy-demand market in America. The firm of Herman Boker & Co. was active in the United States sometime before they contracted for their increased sales in September; some of their arms were in the New York port at the time the First Battle of Manassas was being fought.³⁶ The agent in the United States for Boker at the time was Mr. Thomas Poultney,³⁷ an arms manufacturer in Baltimore, Maryland, who, seeing possible profit, soon became active in the market independent of Boker & Co.³⁸ To this company must also be added such other importing houses as Schuyler, Hartley & Graham,³⁹ Howland & Aspinwall,³⁴ Guiterman Brothers, S. Dingee, Holthausen and

35. Arms were entered free of duty for John Pondir and sent to Bridesburg, Pa. Chase to Barney, Oct. 11, 1861, *Treas. Rec., Telegrams, Series Xa, I.*

31. Certificates of receipt and indebtedness from Thomas Poultney acting as agent for Boker & Co. are contained in OCO-LR, Files 275, 293, 297, 310 p., 1861. Arms received from Thomas Poultney came in cases marked "H.B". Whiteley to Ripley, July 31, Aug. 2, 1861, Ibid., Files 477, 495 w., 1861. The Ordnance Department was prepared to buy 12,400 muskets delivered in New York. Ripley to Poultney, July 25, 1861, OCO-ML, LIII, 278.
32. Poultney began manufacturing Smith's Carbines in September, 1861. Lt. Balch, Ordnance Officer at Baltimore, to Ripley, Aug. 26, 1861, OCO-LR, File 554 b., 1861.
33. Schuyler, Hartley & Graham to Ripley, Sept. 9, 1861, Ibid., File 658 s., 1861.
34. Ripley to Hagner, Aug. 31, 1861, OCO-LT00, XXI, 238. File 172 k., 1861. Kingsbury asked that some arms in New York be bought immediately. Kingsbury to Ripley, Nov. 15, 1861, Ibid., File 221 k., 1861.

Pondir,³⁵ J. Murray,³⁶ Wigert & Otard, Samuel Colt,³⁷ Hedden
& Hoey,³⁸ Tiffany & Co., Naylor & Co., and many others.

These were only the large companies which contracted for numbers of muskets and other arms; besides these there were many less important firms who sold arms in small blocs and for limited profit.

The need for weapons was continually on the increase with the building up of the Army of the Potomac under George B. McClellan in the fall of 1861. This increase, plus the conquest and dismantling of the Harper's Ferry Armory in April and May of 1861 by "Stonewall" Jackson, made the New York and European markets the only possible sources of arms for the Union troops then assembling near Washington. As a consequence, greater responsibility

40. Ripley advised ordnance officers to be ready to repair foreign arms. Ripley to G. D. Ramsay, Nov. 27, 1861.
35. Arms were entered free of duty for John Pondir and sent to Bridesburg, Pa. Chase to Barney, Oct. 11, 1861, Treas. Rec., Telegrams, Series Xa, I.
36. John Murray complained of the treatment which he received from Hagner in the sale of some arms. Murray to Ripley, Aug. 21, Sept. 12, 1861, OCO-LR, Files 445, 498, 528 m., 1861. According to Ordnance Department Circular No. 37, Series of 1864, Murray was black-listed as being an unacceptable dealer in arms.
37. Ripley to Colt, Aug. 23, 1861, OCO-ML, L-LV.
38. Hedden & Hoey to Ripley, Nov. 26, 1861, OCO-LR, File 759 h., 1861.
39. "...If the arrangements already made by the Department do not afford any satisfactory assurances that there will be no deficiency of arms..., Major General McClellan desires me to state that in his opinion it would be well to give an order for arms..." C. P. Kingsbury, Ordnance Officer and Aide-de-Camp to the General McClellan, to Ripley, Oct. 3, 1861, OCO-LR, File 172 k., 1861. Kingsbury asked that some arms in New York be bought immediately. Kingsbury to Ripley, Nov. 15, 1861, Ibid., File 221 k., 1861.

devolved upon Hagner in New York. Arms of many types were purchased there because of the demands from McClellan that his army be better supplied, and in order to make the imported arms immediately available for service, many adjustments were ordered for their alteration by the officers in charge of arms distribution. The continued inability of the Ordnance Department to supply arms brought about the prohibition of arms export in November of 1862, as there were indications that speculators wished to move their unsold arms to Europe for possible purchase by the Confederacy.

The arms brought in during the fall of 1861 and the winter of 1862 were high in quantity but low in

40. Ripley advised ordnance officers to be ready to repair foreign arms. Ripley to G. D. Ramsay, Nov. 27, 1861, OCO-LT00, XXI, 471. Hagner ordered parts and equipments for foreign muskets from Europe. Hagner to Ripley, Dec. 27, 1861, OCO-LR, File 876 h., 1861. The agency in New York also made provision for the supply of ammunition for the foreign arms. Hagner to Ripley, Jan. 7, 1862, Ibid., File 16 h., 1862. The Springfield Armory was ordered to make new replacement parts for the foreign ordnance. Ripley to Ramsay, Oct. 13, 1862, OCO-LT00, XXIII, 41. The process was begun earlier.
41. Lincoln ordered the embargo on arms in November, 1862. Off. Rec., iii ser., II, 849. Even arms which were not purchased by the United States could not be exported. Ripley to Crispin, Dec. 9, 1862, OCO-LT00, XXIII, 232. Arms could only be exported by permission of the Secretary of War. Chase to Stanton, Dec. 30, 1862, Treas. Rec., Letters to Cabinet, Series VB, 16, c. In an undated letter, the Secretary of the Treasury, nominally in charge of the exports, says that he cannot allow the export of arms. Chase to J. P. Whiting of New York, Treas. Rec., Mis. Let., XXXIV.

quality.⁴² It was only after April of 1862 that good⁴³ weapons began to arrive in proper quantities as the⁴⁴ armories in Belgium and England began to produce better arms, and these arms found their way to some of the troops in the army. Prices, however, had begun to drop somewhat earlier.⁴⁴ Major Hagner was not pleased with many of the weapons, but was forced, at least in the early stages of his procurement activities, to accept the terms offered by dealers;⁴⁵ later he became more insistent upon quality.

Many of the arms brought into the United States by private importers were brought in bond; that is, they were

feared their contracts would raise prices to American

42. Ripley informed Hagner that there had been too many purchases of low grade arms in the market and ordered him not to purchase any more of the poor Prussian smoothbored muskets which were arriving in New York, and were offered by dealers in large quantities. Ripley to Hagner, Dec. 28, 1861, OCO-LT00, XXI, 534.
43. By the fall of 1862, there seemed to be enough good Enfields in the United States to take care of the needs of the Government. Howland & Aspinwall to Ripley, Sept. 3, 1862, OCO-IR, File 679 h., 1862. Some 30,000 inferior arms imported by John Pondir were not purchased by the government. Pondir to Hon. W. F. Kelly, April 2, 1862, Ibid., File 933 w.d., 1862.
44. The records of the Ordnance Department and the correspondence of the Chief of Ordnance show that there was a greater number of good arms arriving in the United States in the summer of 1862. There was also a lowering of the prices asked at the same time. Ibid., Files 17 c., 26 h., 171 c., 210 p., 277 c., 612 c., and 1180 w.d., 1862.
45. Hagner's resolution not to buy the inferior muskets at the prices asked had the effect of forcing dealers either to lower their prices or take the arms off the market. Many complaints reached the Chief of Ordnance in this matter but Hagner's decision stood. Ibid., Files 506 c., 787 c., 1358 w.d., 1862.

stored until duty was paid on them or they were purchased by the government. It was the practice of dealers to bring in arms and leave them in public stores until Hagner or his successor, Silas Crispin, decided to buy them. Another procedure followed by the more speculative dealers was to pay the duty on the imports, thus concealing the real value of the arms since the purchaser was not able to discover the real value of the arm once the duty was paid. Hagner might have been able to overcome some of these evasions had he been able to order arms from Europe, but ordnance officers were not allowed to do so because it was feared their contracts would raise prices to American agents in Europe. Agency was the contact through which the large The possibilities for deceit and the difficulty of making payment for the arms imported made the cost of getting weapons higher than it might otherwise have been. As the year 1862 progressed, however, the War Department felt confident enough to fix the price of Enfields at \$15.00 plus a small premium for the exchange of money, and fixed limits on the time for fulfillment of outstanding

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46. House Ex. Doc. No. 67, 37th Cong., 2nd Sess., 61.
47. In May of 1862, the Secretary of War fixed the price of Enfields at \$15. each. Ripley to Crispin, May 28, 1862, OCO-LT00, XXII, 263. This was confirmed in an endorsement by Stanton in June. Fredrick Griffin to Stanton, June 3, 1862, OCO-LR, File 1142 w.d., 1862. Some dealers felt that the price of \$15. was too low. Schuyler, Hartley & Graham to Ripley, Jan. 1, 1863, Ibid., File 90 w.d., 1863. The Secretary of War refused to pay \$16. for Enfields. Ripley to Naylor & Co., May 29, 1862, OCO-ML, L-LV.

contracts.⁴⁸ of Ordnance. This wartime organization con-
 The organization which Hagner formed about himself was
 known officially as the New York Ordnance Agency, and as
 far as the records of the Ordnance Office are concerned, it
 was on a par with any of the armories and arsenals of the
 United States in importance. A complete inspection system
 was set up, through which all arms stored in the bonded
 warehouses were sent to the Agency for inspection and pur-
 chase. The Agency was equipped to handle repairs for all
 kinds of firearms, and after the peak of foreign arms pur-
 chasing was over, it became the leading repair center for
 foreign ordnance.⁴⁹ The command of the New York Agency during most of
 Captain Silas Crispin, remained as the
 commandant of that branch of the Ordnance Department

The New York Agency was the contact through which the
 large or small importer in New York City came in touch with
 the buyers of the general government. Many of the arms
 used by the Union troops in the first years of the Civil
 War had been bought in large contract lots, but many were
 also purchased across the counter of the open market of the
 agency. Considering the quantity of foreign ordnance in
 the Union Army, the agency assumed a high place in the eyes

48. The War Department refused extension of time for the
 contract Wigert & Otard. Stanton to Ripley, Dec. 13,
 1862, OCO-LR, File 615 w.d., 1863.

49. "I have now employed a large party inspecting the
 10,000 Austrian Rifles, another inspecting Prussian
 smoothbores, another storing the cases of arms from
 Europe, another issuing and receiving here and also
 inspecting sabres and Enfields, purchased daily, and
 also a party inspecting accoutrements..." Hagner to
 Ripley, Dec. 5, 1861, OCO-LR, File 795 h., 1861.

of the Chief of Ordnance. This wartime organization continued as an integral part of the Ordnance Department until 1885.⁵⁰

As it had been in Europe, so also in New York, the presence of the state agents in the market tended to raise the prices of all available arms.⁵¹ At one time, so

Hagner complained, there were at least eight agents in New York buying arms for the states.⁵² Indiana had long been active in the market for foreign arms, even before the

50. The commander of the New York Agency during most of the Civil War, Captain Silas Crispin, remained as the commandant of that branch of the Ordnance Department until it was discontinued in 1885. Silas Crispin, Personal File, War Records Office, National Archives.

51. Hagner was not generous in his remarks about the agents of the various States in New York City. He saw clearly that many of the State agents, backed by large appropriations from their legislatures, cared little for high quality arms, and were not careful about the prices they paid. Besides the necessity of competing against them for available arms, he was often directed by the Chief of Ordnance to help these agents with their purchases. The real backbone of the speculation in New York was the State agent. Hagner to Ripley, Sept. 20, 1861, OCO-LR, File 523 h., 1861. One of the more reliable firms importing arms into New York asked the Federal government to make contracts with them in order to prevent the States from taking many good arms out of the market. This firm had purchased arms for three different Union States. Schuyler, Hartley & Graham to Ripley, Oct. 10, 1861, OCO-LR, File 785 s., 1861.

52. Indiana had sent an agent, Calvin Fletcher, to Canada and Boston to buy arms in May of 1861. Diary of Calvin Fletcher, Indiana State Historical Library, Indianapolis, Indiana.

61. Ripley to Hagner, Oct. 12, 1861, OCO-LR00, IXI, 367.

general government. Massachusetts,⁵³ Illinois,⁵⁴ Ohio,⁵⁶
⁵⁷ Indiana, ⁵⁸ West Virginia, ⁵⁹ Kansas and Connecticut⁶⁰ were
 also in direct competition with each other and the agents
⁶¹
 of the general government in New York. Even after the
 request of November, 1861, that the agents of the states.

A second general removal of the State agents from the

market was reported in a letter from P. H. Watson, the

53. Some arms destined for Massachusetts were admitted free of duty in August, 1861. Chase to Barney, Aug. 24, 1861, Treas. Rec., Letters to Collectors at New York.
54. There was some difficulty encountered by one of the agents in receiving money for the arms which he sold to the State of Illinois. J. M. Wardwell to Cameron, Feb. 20, 1862, OCO-LR, File 398 w.d., 1862. The amount due, \$92,500, was put aside for Wardwell in January, 1862. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., Appendix.
55. Ohio was one of the group of States which employed the firm of Schuyler, Hartley & Graham to buy arms for them. C. P. Wolcott to Ripley, Nov. 25, 1861, OCO-LR, File 941 w., 1861. Later, they employed C. P. Wolcott to act as their agent. John Hoey to Ripley, Dec. 23, 1861, Ibid., File 860 h., 1861.
56. Governor Morgan was "...duly authorized to act as an agent for the government in procuring supplies for fitting out troops from that state." Morgan may also call upon Hagner "...to give him some assistance. His object is to have the bills approved by you and put in proper form for payment through this office, as they are to be paid by the U. States, and not by the State of New York...." Ripley to Hagner, Oct. 12, 1861, OCO-LT00, XXI, 367.
57. Arms were admitted free for Indiana through the Sec. of the Treasury. Barney to Chase, Sept. 27, 1861, Treas. Rec., Letters from Collectors, Set H.
58. Hagner was directed to assist Col. Crother, the agent of Pierpont's government in Virginia, Ripley to Hagner, Oct. 24, 1861, OCO-LT00, XXI, 391.
59. Kansas was unable to pay for its arms. H. A. Gouge to P. H. Watson, July 19, 1862, OCO-LR, File 1315 w.d., 1862.
60. Schuyler, Hartley & Graham to Ripley, Oct. 28, 1861, Ibid., File 878 s., 1861.
61. Ripley to Hagner, Oct. 12, 1861, OCO-LT00, XXI, 367.

Yates, Oct. 18, 1862, OCO-LR, File 1853 w.d., 1862.

remove themselves from the market,⁶² these agents continued to be active, and Crispin complained of their reappearance from time to time. Moreover, the United States agents were ordered to see that state agents in New York received such arms as they required for their own troops. A second general removal of the State agents from the market was reported in a letter from P. H. Watson, the Assistant Secretary of War, to Governor Yates of Illinois.⁶³

The sale of arms at high prices and in an uncontrolled market was not to continue indefinitely, however. Alarmed by the many conflicts over arms and the high prices paid in the contractors' pledges is noted in the records; and there

62. "It is found by experience that competition by agents of States authorized to purchase arms in competition with agents of the Government is highly detrimental to the public service, as it advances prices both to the States and the United States, the loss of which may ultimately fall upon the General Government. To avoid this competition you are respectfully requested to withdraw all agents for the purchase of arms, in order that the Government of the United States may make all such purchases with the greatest possible economy and remove the present inducement for speculators to withhold arms from the service. The arms will be distributed to the troops of the several States as soon as received." Cameron to the Governors of the Loyal States, Nov. 25, 1861, Off. Rec., iii ser., I, 675.
63. Many of the States complained that after they had removed their agents from the market in accordance with the wishes of the Secretary of War, other States sent new men to operate in New York. Most alarmed of all the governors was Governor Yates of Illinois. The Assistant Secretary of War, P. H. Watson, assured Yates that there were no State agents in the market and that the Ordnance Department was obtaining all the good arms available in the market. Watson to Yates, Oct. 18, 1862, OCO-LR, File 1883 w.d., 1862.

the open market, Stanton ordered a review⁶⁴ of all contracts by a Commission on Ordnance and Ordnance Stores in March of 1862. By order of March 10, 1862,⁶⁵ all contract buying of weapons,⁶⁹ and the reception of arms in fulfillment of contracts, were suspended and all these contracts ordered studied. Stanton appointed Joseph Holt and Robert Dale Owen⁶⁶ to act as commissioners, and Major P. V. Hagner was designated to act as their secretary and recorder.⁷⁰ This board sat in Washington from early April until early July, 1862, hearing the cases put before them. Of the 107 cases placed on their agenda, 22 dealt with foreign shoulder-arms. In almost every instance, the failure of the contractors' pledges is noted in the records; and there was good reason for the dislike of such contract buying by the Ordnance Department. Of the many reasons cited for non-fulfillment, the three most prominent were the speculation in arms, the shortage of transportation⁶⁷ and the

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64. Cameron's inability to cope with the many problems of the War Department brought about his resignation in January of 1862. He was replaced by Edwin M. Stanton on January 15, 1862.
65. All contracts were ordered sent to this commission. Watson to Ripley, Apr. 30, 1862, OCO-LR, File 896 w.d., 1862. Before that time, the Ordnance Department was directed to discontinue the acceptance of arms delivered under contract. Watson to Ripley, Mar. 10, 1862, Ibid., File 517 w.d., 1862.
66. The son of the famous English socialist, Robert Owen.
67. Many arms already purchased in England and on the Continent were held in Europe because of a shortage of transportation. Many of the vessels which could have carried these arms were used by the Confederacy. The crisis continued through all of 1861. Pondir to Ripley, Dec. 17, 1861, Ibid., File 722 p., 1861.

Queen's Proclamation of December, 1861.⁶⁸ Because many contractors failed to fulfill their contracts, the Commission declared most of the contracts for foreign arms null and void.⁶⁹

These contract cases present a picture of the confusion which accompanied the activity of the Union agents in the market. Many contractors offered to sell suspiciously similar blocks of arms to the Government; and quantities of arms not available either in the United States or in Europe were offered to the ordnance officers. It could be assumed, therefore, that many of the dealers hoped to control some small bloc of arms through a contract with any person owning arms, and by pressure or representation sell the arms to the Government agent at a higher price. Many contractors attempted to sell the same arms at increased prices.⁷¹

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68. The Queen's Proclamation which forbade the shipment or trans-shipment of arms out of, or through, Great Britain made it difficult for those dealers specializing in Enfield muskets to fill their contracts. The Proclamation was rescinded in mid-January, 1862. Morse to Seward, Jan. 24, 1862, Cons. Let., London, XXX.
69. Ripley to Crispin, May 1, 1862, OCO-LT00, XXII, 192.
70. The same parcel or bloc of imported arms was sometimes offered for sale by two different dealers, each of whom hoped to make the sale. Watson to Hoey, Oct. 4, 1862, OCO-LR, File 1759 w.d., 1862. Weisel and Lampe to Stanton, Oct. 25, 1862, Ibid., File 1852 w.d., 1862. Watson to L. Marx & Co., Oct. 29, 1862, Ibid., File 1927 w.d., 1862.
71. "...The merchant can deliver the guns here at nineteen dollars subject to Government inspection. The agent stated that he could get a contract for the same guns at \$22...." Hagner to Ripley, Sept. 7, 1861, Ibid., File 480 h., 1861.

contracts were filled by arms dealers, and the larger contracts of Howland & Aspinwall, Hedden and Hoey,⁷² Soloman Dingee, P. J. Justice, Holthausen and Pondir,⁷³ J. V. Barkalow and J. P. Fitch were largely unfilled or only partially completed. After March of 1862, no contracts for foreign arms to arrive in the United States were let by the Ordnance Department and arms were purchased in New York City by the New York Agency alone.⁷⁴ The War Department, however, did not follow the prohibitive directive of March, 1862, forbidding the contract buying of foreign arms, and later made a contract for French arms to be sold by John Pondir.⁷⁵ In some ways, this move of closing off contract buying was premature as the Ordnance Office was compelled to advertise its desire to buy arms in May of 1862.⁷⁶

closed. Another important firm was that of Naylor and

72. Ripley to Crispin, Mar. 24, 1862, OCO-LT00, XXII, 90.
 73. Pondir to Ripley, Dec. 2, 1861, OCO-LR, File 683 p., 1861.
 74. Contract buying of foreign arms ceased in the spring of 1862. Ripley to Crispin, Mar. 29, 1862, OCO-LT00, XXII, 105. Ripley to Pondir, May 13, 1862, OCO-ML, L-LV. "...No arms, except such as are first quality, and in all respects fit for issue to troops in the U. S. service should be purchased at any price." Ripley to Crispin, July 31, 1862, OCO-LT00, XXII, 401.
 75. Crispin was told that a new contract had been made with John Pondir and that he was directed to specify the quality of musket to be accepted under that contract. Ripley to Crispin, Oct. 3, 1862, IBid., XXIII, 6.
 76. In the early summer of 1862, Crispin was informed that he should buy all Enfields offered to him at \$15. each. He was also ordered to advertise his desire to buy good arms in the papers of New York, Philadelphia, Baltimore, Washington and Boston. Watson to Ripley, May 28, 1862, an endorsement by Watson on a letter from Ripley to Crispin, May 27, 1862, IBid., XXII, 260.

Somewhat later in the same year, the price of arms in the United States was affected by the price rise in England, caused by the presence of Marcellus Hartley in the market of Birmingham.⁷⁷ These contracts, which were reviewed by the Commission on Ordnance and Ordnance Stores in 1862, and had called for more than 500,000 arms with only about 80,000 being delivered, were largely forgotten. Small importers and dealers obtained the best price in the market without fear of loss if they handled first class arms. In only one case, however, did the larger contractor seem able to operate successfully under contract. This contractor,⁷⁸ Herman Boker & Co.,⁷⁹ not continued, as did the other dealers, to sell arms in the open market after contracting was closed. Another important firm was that of Naylor and Co.⁷⁹ who, besides selling Enfield rifles to the Government, also sold soft lead for bullets.

After June 1, 1862, arms of Enfield manufacture imported

77. It was the constant desire of the War Department to gain control of the market for good arms. Hartley had been sent to Europe to buy up good arms before they could reach the hands of dealers and speculators in the United States. The effect of his mission had been to raise the price of arms in England and in the United States. One price offered to dealers in New York did not include this price rise. Naylor & Co. to Ripley, Aug. 22, 1862, OCO-LR, File 99 n., 1862.
78. Boker & Co. to Ripley, Apr. 2, 1862, Ibid., File 287 h., 1862.
79. Naylor & Co. wanted to sell some of its Enfields after the contracting period was over. Naylor & Co. to Ripley, Oct. 21, 1862, Ibid., File 428 n., 1862. This company became the leading dealer in Enfield muskets in 1863.

The early activities of the Ordnance Department Agency in New York had been ably supervised by Major P. V. Hagner, who, on being assigned to the position of Secretary of the Commission on Ordnance and Ordnance Stores in March, 1862, was replaced by Silas W. Crispin as Commandant of the Agency. It was Crispin, therefore, who was to act as the agent for arms after the contracting period was closed. It should be pointed out here that Crispin was as efficient as his predecessor and did good work in the inspection of arms and the enforcement of directives.

Toward the end of 1862 and in early 1863, the number of arms imported from abroad began to decline. Moreover, the increasing production of the private American manufacturers made it far less desirable to act in the foreign arms market. The drop in price of Enfield rifles in spite of the depreciation of the American dollar is a clear demonstration of the rapid decline in the value of arms. After June 1, 1862, arms of Enfield manufacture imported into New York were sold at \$15.00 plus an additional premium of \$1.23 for exchange. In the spring of 1863, this premium was dropped and the price of Enfields became \$15.00 flat. Naylor & Co., who imported the largest amount of first class arms in late 1862 and 1863, did not believe that \$15.00 was a fair price, and refused to import

80. Ripley to Crispin, May 29, 1862, OCO-LT00, XXII, 263.

arms.⁸¹ Needless to say, except for occasional purchases
of inferior arms,⁸² Enfields of English manufacture were
generally the only foreign arms purchased by the Ordnance
Department.

After the Battle of Gettysburg, the purchasing of
foreign rifles was stopped altogether;⁸³ large quantities
of them, however, continued to be employed in the Union
Armies. The Austrian, Prussian, and French muskets had
long been unwanted by the troops and the preference for
United States-made muskets constantly increased. As early
as April of 1863, exportation of poor arms to Mexico was
condoned by Stanton,⁸⁴ as the supply of weapons seemed
sufficient to take care of all possible needs.⁸⁵

Unfortunately, the officers in charge of the New York

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81. Otard and Wigert and Naylor & Co. stated that they
could not import Enfields into the United States at a
profit unless the price of \$15. was raised to allow
for the declining value of American money in England.
The price was not changed. Otard & Wigert to Watson,
Feb. 13, 1863, OCO-LR, File 384 w.d., 1863. Naylor &
Co. to Watson, Jan. 24, 1863, Ibid., File 390 w.d.,
1863. Naylor & Co. said they would sell arms for
gold only. Naylor & Co. to Watson, Apr. 4, 1863,
Ibid., File 326 w.d., 1863.
82. Eleven thousand old muskets were bought on Nov. 3,
1862 from John Hoey. House Ex. Doc. No. 99, 40th
Cong., 2nd Sess., 756.
83. American production increased sufficiently in 1863 to
enable the Ordnance Department to discontinue the pur-
chase of foreign arms and equipments. Directions were
given from the Ordnance Office that only American
products would be bought. Chief of Ordnance to
Crispin, Dec. 22, 1863, OCO-LT00, XXV, 442.
84. Eilan & Schonlery of New York to Stanton, Apr. 16,
1863, OCO-LR, File 523 w.d., 1863.
85. Ripley to Naylor & Co., May 6, 1863, Ibid., File 585
w.d., 1863.

Agency were not free from pressures in the nation's capital. In 1862, P. H. Watson, the Assistant Secretary of War, went to New York to help in the purchase of needed equipment. His activity did not increase the available supply of good weapons, but it did help the heavy investors in inferior arms to get rid of some of their poor properties,⁸⁶ for many arms which Crispin had refused to buy were purchased by Watson.⁸⁷ Crispin's report of the purchases showed that many third-class weapons were bought against his advice. The special directives from Washington during the scarcity of 1861 and 1862 had been a source of annoyance to the officers in New York, and Watson's personal effort must have seemed superfluous to Crispin.

As a rule, the arms purchased by the New York Agency were inspected more carefully than those purchased in Europe. While it is true that arms of inferior grade were bought, the emphasis of the purchasing officers seems always to have been on first-class weapons. The refusal of both Hagner and Crispin to accept the arms of S. Dingee without proper inspection shows that quality was a prime consideration.⁸⁸ English Enfields were the most often

considerably.

86. Watson to Stanton, Sept. 26, 1862, Off. Rec., iii ser., II, 588.
87. Crispin to Ripley, Oct. 1, 1862, OCO-LR, File 368 n., 1862.
88. Both Lincoln and McClellan put pressure on the Ordnance Department to buy the inferior Dingee arms offered in 1862. Crispin did not buy them because of their inferior quality. Crispin to Ripley, Mar. 12, 1862, Ibid., File 335 c., 1862.

imported and purchased, and during the war proved the most efficient of all the foreign arms.⁸⁹ In evaluating the effectiveness of the Ordnance Agency at New York, it should be considered that that organization was responsible not only for arms imported from Europe, but also for the nation's ammunition, swords, bayonets, and explosives. The respect held for Hagner and Crispin was manifested by the fact that Hagner was promoted to Brigadier General in 1865, and Crispin was promoted to Colonel at the same time.

The Ordnance Agency was able to funnel the stream of arms coming from Europe into the hands of the troops, and some 850,000 shoulder-arms as well as large quantities of other equipments were brought in through its activities.⁹⁰

A close search through the records of the Ordnance Department has not brought to light any document appointing the New York Ordnance Agency; the only direct appointment of the office which became the agency was the letter from Ripley to Hagner ordering the latter to stay in New York to buy arms in 1861.⁹¹ Had the agency not existed, the arms market would have gone completely out of hand, and the inflation of prices would have raised the cost of the war considerably.

89. Crispin to Ripley, Feb. 14, 1862, Ibid., File 225 c., 1862. Crispin acted in Hagner's place during the latter's illness in Feb. 1862.

90. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., Appendix.

91. Ripley to Hagner, Aug. 3, 1861, OCO-LT00, XXI, 155.

CHAPTER FIVE

first units sent by some of the States were sufficiently armed by their States. CHAPTER FIVE ordnance. Particularly does this seem true in the case of the early regiments sent THE USE OF FOREIGN ARMS AFTER BULL RUN TO MAY 31, 1862 from the states of New York and Massachusetts. New York

had. Because it made the perilous condition of the nation's capital more obvious, the unexpected success of the Confederate forces at the Battle of Manassas in July of 1861, militated against the development of an efficient arms distribution system for the Union Army. The concentration of troops and supplies at Washington to the exclusion of other critical locations was to make it difficult for the generals outside the Virginia theater to obtain arms. More than this, the shortage of arms put many units into the field with unreliable weapons or at best with foreign or inferior arms.¹ The Ordnance Department was at a loss to replace the 20,507 muskets² which had been ruined at Harper's Ferry in April and hence was not in a position to issue good arms to the forces called into the field.

Generally speaking, the units of the Union Army which had faced the forces of Generals Beauregard and Johnston at Manassas had been armed with United States-made muskets.

There were exceptions to this, however, for many of the before the heavy call for men came after the First Bull

1. In December of 1861 and before, Hagner bought some 3,000 old Prussian smooth-bores for the State of New York and more for the United States, but said that he was afraid to buy more of them. Hagner to Ripley, Dec. 7, 1861, OCO-LR, File 803 h., 1861.
2. Maynadier to Cameron, Nov. 16, 1861, Off. Rec., i ser., III, 5.

first units sent by some of the States were sufficiently armed by their States with foreign ordnance. Particularly does this seem true in the case of the early regiments sent from the states of New York and Massachusetts. New York had, as early as May, 1861, sent an agent to England to buy arms for the troops summoned by the President's call of April; Massachusetts had procured many of its arms from England by representation of Crowninshield, an agent of the Birmingham Arms Co., in that country, and from their agents, Howland and Aspinwall, in New York City.³ Except for the Indiana agents, Massachusetts and New York were the states earliest active in the market, and the early reports of the armament of their troops show the influence of the states' activity in the musket supply point at New York.

The reports of General McDowell after the Battle of Manassas indicate that the ordnance supplies of the Union forces had little to do with the outcome of the battle. Moreover, there were few foreign arms in the hands of McDowell's army or its enemy when compared to the number of United States weapons also used at the engagement. This can be accounted for by the fact that most of the states were able to arm some troops for the defense of Washington before the heavy call for men came after the First Bull Run. It was later, under the stress of fear, that the

4. National Archives, War Records Office, Records of the Chief of Ordnance, Summary of Statement of Ordnance and
3. "Report of the Master of Ordnance", Annual Report of the Adjutant General of the Commonwealth of
5. Massachusetts, Boston, 1862, 5.

states began to call upon the greater facilities of the Federal government for the arms which they then sorely needed. that foreign arms made their entrance in quantity into At the Battle of Manassas, of the thirty-six non-regular regular regiments engaged, only ten were armed partially or completely with foreign muskets.⁴ As pointed out above, this fact came about because the states felt that they could take care of their own needs since the opinion held was that the war would be a short one. The figures of casualties in some of the regiments which fought at Manassas show the possibility that some inferior foreign arms might have affected the outcome of the battle, but the fighting did not reach the point at which a decision depended upon the quality of arms carried. The panic which spread through the Union ranks was the decisive factor in ending the battle; many of the firearms brought to Manassas had little or no effect on the Confederate victory. Heaviest casualties in the battle were sustained by the Third Brigade of the First Division which had two of its four regiments armed with foreign ordnance.⁵ However, the casualties sustained by the First Brigade of the Second Division, armed with United States muskets, were nearly as large.

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4. National Archives, War Records Office, Records of the Chief of Ordnance, Summary of Statement of Ordnance and Ordnance Stores, Infantry Regiments (cited hereafter as Inf. Regts.), I-IX.
5. Inf. Regts., I-II.

It is after the Battle of Bull Run, and the organization of the corps to be known later as the Army of the Potomac, that foreign arms made their entrance in quantity into the Union Army.⁶ As early in the organization period as August 4, 1861, a change was apparent. Of the fifty-eight regiments engaged or deployed during the Battle of Manassas, only eleven had been equipped with foreign arms. On August 4, 1861, of the fifty-one regiments in the so-called Division of the Potomac, eighteen were armed with other than United States manufactured weapons.⁷ As was true before the battle of July 21st, units coming from Massachusetts and New York, as well as from other states,⁸ appeared with more foreign arms. It should be said that the loss of much valuable military equipment during the retreat from Manassas to Washington might also have brought

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6. One thousand Enfield muskets were sent to the Army of the Potomac in November of 1861. Whiteley to Ripley, Nov. 8, 1861, OCO-LR, File 889 w., 1861. Ripley made provision for ammunition for the large number of Enfields in McClellan's army. Ripley to Lt. William Sedgwick, Aug. 10, 1861, OCO-ML, L-LV. The defeat at Bull Run "...compelled the introduction of Enfield Arms, and others of many calibres." Ripley to Hon. H. Wilson, Aug. 19, 1861, OCO-ML, L-LV. Ammunition for Austrian arms was also ordered. Ripley to Kingsbury, Jan. 13, 1862, OCO-LT00, XXI, 561.
7. Inf. Regts., I-II.
8. Enfield arms were issued to the famous Continental Guards of New York from the New York Arsenal. Whiteley to Ripley, Sept. 16, 1861, OCO-LR, File 657 w., 1861. The 58th N.Y., commanded by W. Hezyzanowski, was also given Enfields when they left for the front. Whiteley to Ripley, Oct. 26, 1861, Ibid., File 829 w., 1861. The New York Agency armed many of New York's regiments. Ripley to Hagner, Dec. 9, 1861, OCO-LT00, XXI, 490.

about this change. This rise in the proportion of foreign ordnance to United States ordnance was to continue well into the summer of 1862, when the number of foreign-armed regiments was equalled by the number armed with United States muskets. This increase in the number of alien weapons may be appreciated from the fact that of the soldiers engaged at the Battle of Seven Pines on June 1, 1862, 59% were equipped with European arms. The complaints about infantry arms (not just the foreign variety), began to rise before the First Bull Run and became more vocal later. Two New York regiments in Washington complained about their arms before the Battle of Bull Run; one of these regiments was considered to be in mutiny, while the other had several of its members put in jail. Great complaints, however, did come from the units armed with foreign muskets because of cases of mis-fires and explosions. The shortage of good arms was, of course, responsible for the presence of these weapons in the hands of the troops, but no one was more convinced that they should be issued to the army than the Ordnance Officer of

13. Ripley thought that the need for arms was not great. Ripley to Ragner, Sept. 11, 1861, OCO-LT00, XXI, 273. McClellan thought that all arms should be sent to him. McClellan to Cameron, Oct. 1, 1861, Off. Reg.
9. Inf. Regts., I-II.
10. The arms of the 6th Wis. were considered so faulty as to be dangerous for the men to use. Kingsbury to Chief Clerk of the Ordnance Office, Sept. 12, 1861, OCO-LR, File 152 k., 1861. Arms of the same type carried by the 7th Mich. were also condemned and ordered replaced. Maynadier to Ramsay, Nov. 7, 1861, OCO-LT00, XXI, 428.
11. New York Times, July 9, 1861, 1:1.

General McClellan's army, Lt. Col. C. P. Kingsbury.¹² It was through the pressure of McClellan and the advice of Kingsbury that many of the inferior arms were bought by the Ordnance Department and sent to the Army of the Potomac.

More than this, McClellan considered the front in Virginia so important that he ordered all available arms sent to Washington to arm the troops assembling near the nation's capital. The requests and demands of General Fremont and other military leaders had little effect on him.¹³

The official records report a very large, but unimportant, number of skirmishes between the Battle of Bull Run and the Battle of Seven Pines, including a chance encounter and defeat of the Union forces at Ball's Bluff which at the time was considered a real battle.¹⁴ During this time, the number of foreign weapons in the Army of the Potomac increased greatly, and units armed with foreign

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12. Repairs of foreign arms were urged so that the needs of the campaign could be met. Kingsbury to Ripley, Nov. 25, 1861, OCO-LR, File 236 k., 1861.
 13. Ripley thought that the need for arms was not great. Ripley to Hagner, Sept. 11, 1861, OCO-LT00, XXI, 273. McClellan thought that all arms should be sent to him. McClellan to Cameron, Oct. 1, 1861, Off. Rec., i ser., V, 10.
 14. The 19th and 20th Mass. behaved very well at the Battle of Ball's Bluff and were armed with Enfield muskets according to Inf. Regts., I-IX. The 42nd N.Y. broke and ran from the field leaving their fellows to suffer. The 42nd N.Y. carried the best United States arm available at the time. Report of Col. Edward H. Hinks, 19th Mass., Oct. 23, 1861, Off. Rec., i ser., V, 312.

arms were employed no less and no more often than those
 armed with United States made weapons.¹⁵ There are no
 general or widespread complaints about the inefficiency of
 any particular arm, although there are some cases of
 genuine displeasure with the arms issued to some of the
 troops.¹⁶ This displeasure came about because many of the
 regimental commanders had promised their men good weapons
 if they enlisted in their regiments. Added to the lack of

- Run, to twenty-one at the Battle of Seven Pines. More
15. According to Inf. Regts., I-IX, two regiments armed with foreign weapons, the 28th Pa. and the 13th Mass. behaved well and fired well during the October raid at Harper's Ferry. Report of Col. John W. Geary, 28th Pa., Oct. 18, 1861, Off. Rec., i ser., V, 239. The 74th N.Y. did well during the action at Mathias Point, Va., in November, 1861. Report of Col. C. K. Graham, 74th N.Y., Nov. 11, 1861, Ibid., 409. The 25th Ohio fired so well during the engagement at Camp Allegheny, W. Va., that it soon exhausted its ammunition. The 25th Ohio carried French muskets, caliber .69. Report of Col. James A. Jones, 25th Ohio, Dec. 13, 1861, Ibid., 457. The 5th Ohio, armed with old Austrian muskets, caliber .71, did an excellent job at the skirmish near Hanging Rock Pass, W. Va., in December, 1861. Report of Col. Samuel H. Dunning, 5th Ohio, Jan. 9, 1862, Ibid., 404. See also reports of Col. Alexander Hayes, Ibid., 518; Colonel John W. Geary, Ibid., 511, both of whose regiments were armed with foreign weapons according to the information contained in Inf. Regts., I-IX.
16. "...The recent inspection of arms by Colonel Cram,..., shows the arms in the hands of the volunteers are generally bad. He says...that 'we require 5,000 stand of the best infantry muskets to replace the comparatively worthless arms with which several of our regiments are now armed'..." Maj. Gen. John E. Wool to McClellan, Nov. 11, 1861, Off. Rec., i ser., IV, 629. Many of the foreign arms issued to the troops were returned to the arsenals because they were not fit for use in the field. Symington, Commander at Allegheny Arsenal, to Ripley, Feb. 11, 1862, OCO-LR, File 293 s., 1862. Individual commanders also complained to the Secretary of War. Col. A. Farnsworth to Sec. of War, Jan. 20, 1862, Ibid., File 331 w.d., 1862.

good arms, there was the problem of supplying ammunition to single regiments with great varieties of arms.¹⁷ Attempts were made,²⁰ however, to keep troops armed with the same caliber muskets in one brigade or division.¹⁸

During the time for the gathering together of the Army of the Potomac, it is interesting to note that the number of regiments from the State of Pennsylvania increased from one, the 27th, which participated in the Battle of Bull Run, to twenty-one at the Battle of Seven Pines. More interesting, however, is the fact that only six of the twenty new regiments were equipped with United States arms; slightly more than two-thirds of these regiments were

armed with foreign muskets.¹⁹ This tendency continued all through the mobilization period for the Army of the Potomac. The above figures, however, comprehend the units of only one of the States which contributed troops to that army. It should not be omitted that of the troops left behind during the Peninsular Campaign to operate north of the Confederate capital at Richmond, more than half were armed with alien muskets. In the Army of the Potomac as a whole, that is including those units not in the army north of Richmond, and those not taking part in the Battle of

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17. "...There are at least four different kinds of fire arms in this regiment..." Ibid.
18. Troops near Pohich Church in 1861 carried the same caliber arms although of different manufacture. Inf. Regts., I-IX. A list of troops assigned for this expedition is found in Off. Rec., 1 ser., V, 413.
19. Inf. Regts., I-IX.

Seven Pines, although on the Peninsula, more than half of the participating soldiers were armed with foreign muskets.²⁰ The issues of arms from the New York Agency show the fact that most of the arms were being sent to Washington²¹ after their purchase in the open market. The poorer arms, that is those of Austrian, Belgian, French or Prussian manufacture,²² were sent to the West; while the higher quality arms, Enfields or similar types, were sent to Fortress Monroe²³ for the use of the Army of the Potomac, or to other places considered vital for the defense of the and in the procurement branches, were faced with the almost

20. Inf. Regts., I-IX. having the proper ammunition on hand
21. New arms were issued to the 4th Md. from the New York Ordnance Agency in December, 1861. Ripley to General James Cooper at Baltimore, Dec. 12, 1861, OCO-ML, L-LV. Issues from the New York Agency for the 58th N.Y. are recorded in OCO-LR, File 633 w., 1861; for the 6th Vt. in Ibid., File 730 w., 1861; for the 53rd N.Y. in Ibid., File 873 w., 1861; for General L. Thomas at Harrisburg, Pa., in OCO-LT00, XXI, 120; for Governor Morgan of New York in Ibid., 123; for the Washington Arsenal in Ibid., XXII, 44, 300; for the garrison at Baltimore in Ibid., 252; for New Jersey volunteers in Ibid., 455; for the 91st N.Y. in OCO-LR, File 1061 w., 1861; for the 90th N.Y. in Ibid., File 1065 w., 1861.
22. The New York Agency was the distributor for most of the inferior arms which came into the United States. For the most part, these poorer weapons were sent to the troops in the West. Low grade arms were sent to Pittsburgh, Louisville, Ky., and St. Louis in December of 1861. Hagner to Ripley, Dec. 20, 1861, Ibid., File 851 h., 1861.
23. Fortress Monroe became most important as a supply point during the Peninsular Campaign, and large quantities of foreign arms were kept there. Baylor to Ripley, June 28, 1862, OCO-LR, File 865 b., 1862. See also Ripley to Baylor, April 15, 1862, OCO-LT00, XXII, 141. by ordered 14 million cartridges from the United States armories of five different calibers for the

capital.²⁴ This practice was to continue until McClellan left the Army of the Potomac when General Pope succeeded him.²⁵ This apparent concentration of good arms in the East to the detriment of the West, could be accounted for by the fear of Stanton that the fall of Washington would end the cause for the preservation of the Union.²⁵

The problem of getting arms for the forces commanded by McClellan²⁶ brought with it the more difficult problem of proper ammunition supply of 40 rounds per man per day. With calibers of muskets varying from .54 inches to .73 inches, the ordnance officers, both with the Army itself, and in the procurement branches, were faced with the almost insurmountable task of having the proper ammunition on hand at the proper time.²⁷ Besides this, there was the

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24. "...At the request of General McClellan the following stores have been...forwarded to you; 560 short Enfield rifles, 580 short carbines (Austrian)..." Ripley to Governor Pierpont of W. Va., Dec. 18, 1861, OCO-ML, L-LV. See also letters from Ripley to Col. Neal Dow, Jan. 22, 1862, and to General Lander, Feb. 8, 1862, Ibid.
25. "You will regard it as an imperative duty to keep the defenses around Washington adequately supplied with ammunition, projectiles and whatever else belongs to the Ordnance Department. This subject is especially committed to your prompt and vigilant attention." Stanton to Ripley, May 5, 1862, OCO-LR, File 930 w.d., 1862.
26. McClellan's account of the Ordnance problem discloses many of the obstacles against which he worked as commander of the Army of the Potomac. McClellan, George B., McClellan's Own Story, New York, 1887, 131-132.
27. Greater haste was urged in bringing ammunition for the various weapons to the Army of the Potomac. Kingsbury to Ripley, Jan. 13, 1862, OCO-LR, File 13 k., 1862. Ripley ordered 14 million cartridges from the United States armories of five different calibers for the

associated problem of supplying replacement parts for the inferior arms which had been issued to General McClellan's forces. ²⁸ Both the Commander of the Army, McClellan, and ²⁹ Kingsbury, his ordnance officer, complained, but not ³⁰ viciously, about the arms issued to them; and they did what they could to urge the shipment of any muskets to the

the fighting fronts, but there were cases in which good arms

- were Army of the Potomac. Ripley to Ramsay, Dec. 5, 1861, OCO-LT00, XXI, 482. Hagner was told to contract for ammunition for the inferior Austrian arms in the Army. Ripley to Hagner, Dec. 16, 1861, Ibid., 505. Six different calibers of ammunition were required in May of 1862 to fill the needs of the men fighting near Aquia Creek, Va. Ripley to Ramsay, May 20, 1862, Ibid., XXII, 233. In June, 1862, the agent at Fortress Monroe was told to send eleven million cartridges of six different calibers to the Army of the Potomac. Ripley to Baylor, June 29, 1862, Ibid., 385. Arms of similar calibers could use similar ammunition except when a special cartridge was required for a patented gun such as a breech-loading carbine.
28. Replacement parts were ordered from the Springfield Armory in May, 1862. Ripley to Dyer, May 4, 1862, OCO-LT00, XXII, 190. Ramsay, the Commander at the Washington Arsenal was also asked to send spare parts to Kingsbury at Yorktown. Ripley to Ramsay, July 21, 1862, Ibid., 370. Many of the poor arms in the Army of the Potomac were sent to Washington for repair. Military Storekeeper at Washington Arsenal to Ripley, May 21, 1862, OCO-LR, File 785 s., 1862.
29. When Lt. Col. Kingsbury was granted a leave of absence in the summer of 1862, Ripley praised his good work as ordnance officer to the Army of the Potomac. Ripley to Lt. F. J. Shunk, July 28, 1862, OCO-LT00, XXII, 392. Shunk took Kingsbury's place as McClellan's ordnance officer. See also Ripley to Crispin, July 21, 1862, Ibid., 372.
30. "...the supply of the small arms was totally inadequate to the demands of a large army, and a vast proportion of those furnished were of such inferior quality as to be unsatisfactory to the troops and condemned by their officers..." Report of General McClellan, Aug. 4, 1863, Off. Rec., i series, V, 29.

Arsenal for distribution. Ripley to Ripley, May 20, 1862, Ibid., File 598 s., 1862.

Army of the Potomac.³¹ Besides the calls for the armies in the field, there were great numbers of requests made by the States to the Ordnance Department for arms, but with the supply of weapons so low in the fall of 1861, little could be done.³² Inferior muskets were most often issued to troops far from the fighting fronts, but there were cases in which good arms were sent to regiments not engaged with the enemy.³³ A small part of the stock of first-class muskets was given to troops on their way to the front.³⁴

It must be said that the outcome of none of the battles between Manassas and Seven Pines depended on fire

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31. Kingsbury asked that even the inferior smooth-bores offered for sale in New York by S. Dingee & Co. be purchased and sent to Yorktown for the Army of the Potomac. Kingsbury to Ripley, Jan. 23, 1862, OCO-LR, File 196 w.d., 1862.
32. "...the very best is done that the utmost industry and energy of officers can accomplish with the available means of the Government,... This department, and every officer in it, is just as anxious to supply the best arms to all the troops as they are to get them, but it is simply impossible to do so now." Ripley to C. D. Townsend of Indiana, May 8, 1861, Off. Rec., i ser., II, 631. See also Ripley to Col. W. W. Morris, Nov. 18, 1861, OCO-ML, L-LV, Ripley to Col. D. E. Cross, Oct. 8, 1861, Ibid., and Ripley to Ramsay, Oct. 4, 1861, OCO-LT00, XXI, 349.
33. Ripley recommended that the inferior arms imported into New York and purchased by the New York Agency be sent to troops not expected to enter combat soon. The good arms were to be reserved for front line units. Crispin to Ripley, Mar. 4, 1862, OCO-LR, File 293 c., 1862.
34. Crispin issued Enfield arms to New York troops on their way to the front in 1862. Other high grade imported weapons were consigned to the Washington Arsenal for distribution. Crispin to Ripley, May 28, 1862, Ibid., File 598 c., 1862.

power or efficiency of ordnance. At Manassas, the Union defeat was brought about through the inexperience of the green troops; at Seven Pines, the superiority of numbers in the Union army turned the tide of victory. Foreign arms were predominantly employed at Seven Pines³⁵ but they were neither decisive nor indecisive in the results of the battle. It is important only to say that they were present in the Union Army at the time; without them the battles might never have taken place.

the West unable to fill the wants for arms of those enlisting for the preservation of the Union. The shortage of arms, however, was far more acute in the West than in the East for reason of distance; the government arsenals were not nearly so numerous on the western side of the Appalachians as on the eastern slopes. Requisitions for arms for the troops in the West could be sent to only two places, the Allegheny Arsenal at Pittsburgh,² and the United States Arsenal at

1. U. S. arsenals in the East were located at Springfield, Mass., Frankford, Pa., Bridesburg, Pa., Troy, N.Y., New York, N.Y., Washington, D.C. and Augusta, Maine. Old United States flint-lock muskets were sent to the State of Ohio from the Washington Arsenal to fill the wants of the troops called up in September, 1861. Ripley to Ramsay, Sept. 20, 1861, OCO-LT00, XXI, 305.

35. The author has used the Battle of Seven Pines as it was the engagement at which the greatest number of units in McClellan's army were deployed in one battle. The most complete order of battle and integrated reports of the Peninsula Campaign are contained in the records of Seven Pines. Governor Morton of Indiana also requested arms at this time from New York, Whiteley to Ripley, Aug. 25, 1862, *Ibid.*, File 124 n., 1862.

CHAPTER SIX

FOREIGN ARMS IN THE WEST

The invasions of Missouri, Kentucky and Tennessee pushed the recruitment of the Union Army in the West just as the defeat of McDowell's army had done in the East. As had been the case in the seaboard states, the expanded call for troops found the states in the West unable to fill the wants for arms of those enlisting for the preservation of the Union. The shortage of arms, however, was far more acute in the West than in the East for reason of distance; the government arsenals were not nearly so numerous on the western side of the Appalachians as on the eastern slopes.¹ Requisitions for arms for the troops in the West could be sent to only two places, the Allegheny Arsenal at Pittsburgh,² and the United States Arsenal at

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 2. Arms for the West were sent to Pittsburgh from the other United States arsenals, principally from New York, Whiteley to Ripley, Aug. 25, 1862, Ibid., File 124 n., 1862.

St. Louis.³ During the early months of the war, the supply of arms at both of these depositories had been quickly drained off to the troops called by Lincoln in April, 1861, and by the formations of the Department of the West under the command of General John C. Fremont.⁴

It has already been pointed out that the good foreign arms, the Enfields and the high quality French muskets, had early been shipped to Washington, D. C. by order of the Ordnance Department. This left only the more inferior arms to fill the orders coming from the states in the West.⁵

3. Besides the fact that the shortage was most acute in the West, the most inferior arms were soon deposited at St. Louis Arsenal for the use of the states which bordered on Missouri. The commander at the arsenal, Captain Callender, was besieged both by the individual states and by the commanders of the regular army units near St. Louis to procure better arms for them. As the war progressed, some good arms were issued to troops in the West, but usually from the depositories in the East. Units receiving new arms turned in their old arms at the St. Louis Arsenal, where many of them remained until the end of the war. The first issue of high quality weapons to the arsenal at St. Louis was for 575 Enfields and 1,026 Vincennes rifles. Crispin to Ripley, Feb. 4, 1862, OCO-LR, File 174 c., 1862. For the increase in the numbers of inferior arms on deposit in St. Louis, see Callender's reports in Ibid., Files 1137, 1258, 1326, 1363 s., 1862.
4. The only arms immediately available for issue to the troops of General Fremont were 5,000 altered flintlocks which had been left at St. Louis for sale to the public. Ripley to Hagner, July 22, 1861, OCO-LT00, XXI, 118. For Fremont's opinion on the shifting of the arms purchased for him to the Washington Arsenal, see Off. Rec., iii ser., I, 432. For the issue of some very poor arms to his command see OCO-LR, File 519 w., 1861.
5. Off. Rec., i ser., II, 678; i ser., IV, 255. See also Ripley to Stanton, Oct. 24, 1862, OCO-LWD, XIII, 523.

The petitions and requisitions from the governors of the various states were answered by the very discouraging reply from the War Department - "We have not arms...to furnish you now."⁶ Because of the superiority of the western generals, and the success of the Union army in the West in encircling the Confederacy, it would seem that more of the better arms should have been sent to that section. In the early months of the fighting after the First Bull Run, however, West, McClellan felt that the struggle could be more quickly ended in the East, with the failure of the Confederate forces in the West following shortly thereafter.

Complaints against these various low-grade muskets came mainly from the politicians and generals whose troops carried them. As a rule the complaints were made against the Belgian arms which had been procured by Sanford, Boker and Schuyler in the early months of the war,

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6. T. A. Scott to Gov. Blair of Mich., Oct. 14, 1861, Off. Rec., iii ser., I, 574.
 7. Brigadier General Dumont to Maj. Gen. Buell, Oct. 17, 1862, Ibid., i ser., XVI, Pt. II, 622.
 8. Morton to Secretary of War, Aug. 16, 1862, OCO-LR, File 1464 w.d., 1862. George B. Wright to P. H. Watson, Sept. 17, 1862, Ibid., File 1636 w.d., 1862.
 9. "...Those purchased in Europe to meet immediate demands (by Mr. Schuyler) have turned out unserviceable...." Ripley to Buell, Feb. 11, 1862, Off. Rec., i ser., VII, 606.
 10. "...A good story is told of one of our Illinois colonels who was heard praising the arm. Says he 'in platoon firing with the Belgian musket I can discover what I cannot with any other arm, and that is, how many have been fired.' 'How can you tell that?' 'Oh, I count the men on the ground; it never deceives me. It

but there were also complaints about the Austrian arms.¹¹ The Ordnance Department attempted to regulate the amount of first quality arms sent to any one place, but with the pressure of the orders of the Commander of the Army of the Potomac upon them, the officers in charge of arms distribution were forced to send the bulk of the good arms to McClellan's troops; the good arms were filtered off to the Washington arsenal for them.

As the more serious fighting developed in the West,¹² it soon became clear that the states of Illinois,

is fire and fall flat.' One of these Belgian muskets will kick like a mule, and burst with the greatest facility. Several soldiers in our Illinois regiments have been killed in this way. The bayonet, too, is a novelty - a soft iron affair, apparently designed to coil around the enemy as it is introduced, thus taking him prisoner." Frank Leslie's Illustrated Newspaper, Feb. 22, 1862, 219.

In reference to the poor arms with which the 3rd Minnesota volunteers were equipped, see John B. Sanborn, Adjutant General of Minnesota, to Ripley, Dec. 21, 1861, OCO-LR, File 10 s., 1862, and letter referred by Horatio King to Stanton, Jan. 21, 1862, Ibid., File 245 w.d., 1862. For poor arms supplied to the Army of the Cumberland, see Ripley to Porter, the ordnance officer for that army, Feb. 23, 1863, OCO-LT00, XXIII, 479.

11. "...I would call your attention to the fact that there are many troops here without arms, and some armed with the Austrian musket, which, with the caps now furnished, is unreliable,..." Grant to Fremont, Sept. 15, 1861, Off. Rec., i ser., III, 494. Also L. Thomas, Adjutant General of Indiana, to Stanton, Aug. 21, 1862, OCO-LR, File 1482 w.d., 1862, and General Wright, Quartermaster General of Ohio, to Stanton, Oct. 23, 1862, Ibid., File 1805 w.d., 1862.
12. The spring of 1862 found large quantities of Austrian arms in storage in Illinois. Gov. Richard Yates of Illinois to Stanton, Mar. 29, 1862, Ibid., File 866 w.d., 1862.

Indiana¹³ and Ohio¹⁴ were to carry the brunt of the formal military operations in that theater. Large quantities of the arms then available were sent west after the First Bull Run,¹⁵ but they were not received without grumbling by those receiving them. Leader among those who were not satisfied with the arms supplied by the general government was Governor Richard Yates of Illinois. Considering that by the end of 1862, Illinois had recruited over one hundred and thirty regiments to aid in the suppression of the rebellion, Yates felt that the state should be accorded better treatment in the distribution of arms.¹⁶ In ordnance issue. The shortage of good arms in the West

13. Continued pressure of Morton during 1862 demanded better arms for the troops from Indiana. In the summer of 1862, the demands for arms from the West received greater attention from the Ordnance Department. Ripley to Crispin, July 29, 1862, OCO-LT00, XXII, 410, and John C. New, Quartermaster General of Indiana, to the War Department, Aug. 12, 1862, OCO-LR, File 1562 w.d., 1862. Old Prussian muskets were sent to Indiana to arm the state guard in 1863. Watson to Ripley, April 2, 1863, Ibid., File 297 w.d., 1863. Indiana was far ahead of the other western states in providing arms and ammunition for its troops. During part of the conflict, Indiana supplied shot and shell to the United States.
14. The State of Ohio had been the recipient of large quantities of foreign arms. Ohio had received Enfields as early as August, 1861, from the United States government. Whiteley to Ripley, Aug. 12, 1861, OCO-LR, File 525 w., 1861. Ripley to Gov. Dennison of Ohio, Dec. 12, 1861, OCO-ML, L-LV.
15. Maynadier to Hagner, Nov. 8, 1861, OCO-LT00, XXI, 429. Ripley to Gov. A. W. Randall of Wisconsin, Dec. 12, 1861, OCO-ML, L-LV.
16. "We are very much in need of 6 or 7,000 good stand of arms here. The musket we now have turns out upon trial to be of very inferior quality indeed - not shooting over 75 yards. Several regiments have refused to take them. Col. Kirkham in a letter before me says of these guns - 'my men will not accept the

particular, the displeasure of the governor of Illinois was directed against the commander of the New York agency, Captain Silas Crispin.¹⁷

In addition to the problem of an inadequate supply of arms for the troops of the West, another problem of a lack of efficient depots also confronted the officers in charge of the distribution of ordnance stores. Moreover, there were not enough properly trained officers to take charge of that distribution. In all cases which arose in 1861, the arms sent from New York and the other eastern depositories were entrusted to men who had little or no experience in ordnance issue. The shortage of good arms in the West brought the complaint that many of the men who volunteered could not be equipped for field service.¹⁸ In order to bring arms to the soldiers in the West, the Ordnance

Governor G. P. Norton had sent Agents to buy arms in the

- Prussian musket. - Can you arrange for a better gun. They were tried by Toler's men (60th Regt) they refused to take them.' Our demands are as urgent as important, and I trust will meet with prompt attention." Yates to Stanton, Mar. 29, 1862, OCO-LR, File 866 w.d., 1862. Captain Kingsbury of the Ordnance Department was later directed to inspect the arms in the State of Illinois because of the complaints of Gov. Yates. Ripley to Kingsbury, Nov. 1, 1862, OCO-LT00, XXIII, 111.
17. Ripley warned Crispin to exercise more care in sending arms to Illinois, Ripley to Crispin, Aug. 25, 1862, OCO-LT00, XXII, 481. The Quartermaster General of Ill. complained that Crispin had not sent arms ordered for the 93rd Ill. Regiment on time, and that when the arms finally arrived, there were eighty less than appeared on the bill. of transit. Crispin to Ripley, Feb. 6, 1863, OCO-LR, File 154 n., 1863.
18. J. T. Boyle of Louisville, Ky., to Stanton, Aug. 9, 1862, Off. Rec., i ser., XVI, Pt. II, 301.

Department established a large arms depot at Louisville, Kentucky,¹⁹ and transferred its base from time to time, so that it might keep in touch with the armies which operated in the West and later in the South.²⁰ An ordnance depot was also set up in New Orleans shortly after it fell to the Union forces in 1862.²¹

The problem of issuing the arms to the men of the West was complicated by the practice of regulating the distribution from the War Department in the nation's capital; the procedure involved added much more delay to the already slow-moving system employed,²² since even emergency issues at far distant points had to be approved in Washington.

Among the states of the West, Indiana had been the most active in the procurement of arms for the Union, and later became an actual producer of the munitions of war. Governor O. P. Morton had sent agents to buy arms in the open market for the troops of his state long before the United States government became active in the field. The

scope of the arms in his command had other than the

19. The first issue of ordnance stores to the Louisville depot from the New York Agency was 10,000 Austrian muskets. Ripley to Lt. T. Edson, Ordnance Officer at Louisville, Dec. 12, 1861, OCO-MI, L-LV.
20. For the movement of a depot to Nashville, Tenn., Lt. T. F. Townsend to Ripley, Feb. 4, 1863, OCO-LR, File 139 n., 1863.
21. Crispin to Ripley, Jan. 19, 1863, Ibid., File 78 n., 1863.
22. Maj. Gen. H. G. Wright complained that the orders to approve all issues of arms in Washington would delay the armament of the troops in Kentucky. Wright to Stanton, Aug. 23, 1862, Off. Rec., 1 ser., XVI, Pt. II, 405. See also two letters from the Ordnance Office to Lt. Edson, Mar. 9, 12, 1863, OCO-LT00, XXIII, 547, 570.

state followed up this advantage by erecting and operating the state's own arsenal in Indianapolis.²³ During the war, the state sold large quantities of ammunition to the Union, and supplied great numbers of cartridges for the armies which fought under the generals of the West.²⁴ Supplemented by the activities of this more or less private armory, the United States arsenals at Pittsburgh and St. Louis were able to supply sufficient ammunition for the troops which fought at Shiloh, Vicksburg, Chattanooga and Chickamauga. The situation in arms, however, was not as bright. Some of the arms supplied to the troops of General Grant while he was in the West were of very doubtful efficiency, and some had such peculiar priming systems as to make them almost worthless to the troops in the field.²⁵ General Grant, speaking before the Committee on Contracts in October of 1861, stated that the arms in the hands of his troops were very inefficient in some cases, but added that none of the arms in his command had other than the conventional priming systems.²⁶ Many of the arms, he

23. Sturm, Lt. Col. H., Report of the Indiana Arsenal, Indianapolis, 1864.

24. House Ex. Doc. No. 99, 40th Cong., 2nd Sess., 795.

25. Tube-lock muskets used by the Austrian government were described to the Committee on Contracts by Capt. W. F. Brink of the Ordnance Department. This arm was not primed by a percussion cap but by a small piece of sensitive wire inserted through a tube in the side of the breech. House Report No. 2, 37th Cong., 2nd Sess., 6-8.

26. Ibid., p. 1, 469.

explained, were old altered Austrian flint-locks, others were the discarded British military musket known as the "Tower", and some were Belgian arms of unknown quality.²⁷ Grant expressed the hope that the deplorable condition of the arms in the command would be ameliorated, but little seems to have come of his view at the time.²⁹ As pointed out above, the United States troops at the First Manassas had been armed generally with United States-made muskets of either .69 or .58 caliber. It has been shown that the proportion of foreign-made to domestic-made arms increased tremendously after that battle, and that any and all available arms, regardless of caliber or make, were put into the hands of the loyal army.³⁰ It has also been noted that the Department of the West did not become active until after the First Bull Run when General John C. Fremont was appointed its commander.³¹ The soldiers of the West, therefore, did not have the advantage of an organization at the outbreak of the real fighting after July, 1861, and had to be contented with such arms as were left in the arsenals of the West already somewhat depleted by calls for arms from Washington.²⁸

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27. House Report No. 2, 37th Cong., 2nd Sess., 8-10. "The condition of this [Grant's] command is bad in every particular except discipline....The arms in the hands of the men are mostly the old flint-lock repaired, the "Tower" musket, and others of still more inferior quality...." Off. Rec., i ser., VII, 442.
28. "...There is a scarcity of first-class arms,..." Halleck to Grant, Nov. 10, 1862, Off. Rec., i ser., XVII, Pt. I, 469.

Little could be done, therefore, but to receive such arms as were sent to them from the New York Agency, and to issue them to the troops as they were mustered into service.²⁹ More care and better repair systems were recommended to the commanders of some of the units, but there was little which could be done to raise these poor quality arms in the estimation of those who carried them into battle.³⁰

The early operations of the Confederates in Tennessee, Kentucky and Missouri in 1861 and after August of 1862, shocked the leaders of the west into great petitions for arms.³¹ In many cases, no arms were supplied to the troops at all, and the emergency supplies sent west were quickly absorbed by the regiments forming in that theater. The discontent of many of the political and military leaders of the states was answered by the reply

29. The heaviest issues of inferior arms were sent west to make up the great shortage which prevailed in those states. Hagner to Ripley, Nov. 6, 1861, OCO-LR, File 689 h., 1861.

30. Ripley to Callender at St. Louis, Oct. 24, 1862, OCO-LT00, XXIII, 84.

31. A sample of the letters asking the War Department for arms shows the dissatisfaction with supply which moved the leaders in the west. Pope to Fremont, July 16, 1861, Off. Rec., i ser., III, 396; McClellan to the Asst. Adjutant General, July 20, 1861, Ibid., 400; Morton to Stanton, Aug. 17, 1862, Ibid., XVI, Pt. II, 359. For the reaction of the Ordnance Office to Confederate action in 1862, Ripley to Crispin, Aug. 9, 1862, OCO-LT00, XXII, 433.

32. Complaint of Gen. W. T. Sherman can be found in his letter to Gen. Geo. H. Thomas, Oct. 21, 1861, Off. Rec., i ser., IV, 305.

that there were no arms available. As a rule, the states west of the Mississippi received even more inferior weapons than those on the other side.³³ The great distances involved in the protection of the western frontier made it seem logical that smaller and more serviceable arms would be assigned to the troops moving over these great distances, but such does not seem to have been the conception of the Ordnance Department.³⁴ Larger calibers entailing necessarily heavier loads were the order for the soldier of the West, but this increase in weight carried does not seem to have been a source of complaint.

For the most part, the operations of the Union forces in Kentucky and Tennessee were defensive in late 1861 and January, 1862. It is in February of 1862 that the

33. The governors of Kansas and Iowa complained of the arms supply throughout the entire war. J. P. Root, Lt. Gov. of Kansas, to Cameron, July 22, 1861, Ibid., i ser., III, 405, and Commander of the Department of Kansas to the War Department, Aug. 8, 1862, OCO-LR, File 1479 w.d., 1862. See also Gov. Kirkwood of Iowa to Stanton, Jan. 25, 1862, Ibid., File 346 w.d., 1862, and Col. Sam Rice of 33rd Iowa to Mr. Wilson (unknown), Dec. 3, 1862, Ibid., File 2011 w.d., 1862. Records of arms on hand in the western states after the Civil War show great amounts of these poor foreign weapons in the state armories. Report of the Adjutant General and Acting Quartermaster General of Iowa, Des Moines, 1864-5, Appendix.

34. The scarcity of arms in the West during 1862 was a source of complaint from many of the regimental commanders. Units coming from Kentucky were generally armed with inferior weapons. Maj. Gen. H. G. Wright to Col. John Dils, 39th Ky., Nov. 25, 1862, Off. Rec., i ser., XX, Pt. II, 98.

operations which were to end at Savannah in 1864³⁵ were begun with the attack and subjugation of Forts Henry and Donelson on the Tennessee and Cumberland Rivers. The soldiers of the West who fought at these battles had the advantage of greater experience in arms than their eastern brethren, and because of this made up for the fact that they carried inferior arms. The frontiersmen in many cases were still used to the old flint-lock, and the percussion musket must have seemed a great modernization. The reports of the commanders of the regiment which fought at Henry and Donelson are filled with satisfaction for the action of their troops during engagements, and while there were some complaints about the arms at the battle, no commander blamed a lack of success on the weapons carried by his troops.

The bulk of the troops at the Battle of Fort Donelson came from the state of Illinois. Of the thirty-six³⁶ regiments cited in the order of battle for the troops of the District of Cairo on February 12, 1862, nineteen had been mustered in Lincoln's home state. The condition of the supply of arms in the state of Illinois at the time, were armed with this efficient British rifle musket. Along

35. Enfield and Springfield arms made up the shoulder weapons of Sherman's command in 1864. T. G. Baylor, Chief of Ordnance for the Division of Mississippi, to Chief of Ordnance, Nov. 9, 1864, Off. Rec., i ser., XXXIX, Pt. III, 712-713.
36. The only available list of participating units in the siege of Fort Donelson is the casualty report. Ibid., i ser., VII, 167-169.

beginning of the war can be best understood by noting the fact that of the twenty regiments sent by Governor Yates to Donelson, seventeen were armed with foreign ordnance. The soldiers of the five Indiana regiments at Donelson were armed completely with foreign weapons - an evidence of the early activity of Governor Morton and his agents in the arms field. Iowa's contribution of four regiments had three equipped with other than United States arms; two of the three Ohio regiments were armed similarly; one of the two Missouri regiments carried Enfields. Two regiments, one from Nebraska and one from Kentucky, were armed with United States rifle muskets. The reports of the regimental commanders of the action at Fort Donelson describe no difference between the firing ability of the troops armed with United States weapons and those equipped with foreign ordnance. The variety of types and calibers of arms was almost as great as the number of states whose troops participated in the battle of Fort Donelson. Predominant among the weapons at this battle was the English Enfield; eighteen, or exactly one-half of the infantry regiments present, were armed with this efficient British rifle musket. Along with these English arms, Belgian muskets caliber .69,

37. This information is contained in the Summary of Statement of Ordnance and Ordnance Stores, Infantry Regiments, in the Records of the Office of the Chief of Ordnance in the National Archives.
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- 39.

Austrian muskets caliber .54, Prussian smooth-bores calibers .69 and .70, Austrian smooth-bores caliber .71, and old United States muskets were also used. The 8th Illinois carried five different types of arm with four different calibers; the 18th Illinois carried four different types; the 7th Illinois five different types. The regiment which had the greatest confusion of arms and calibers was the 2nd Iowa which carried seven different types of arms from four different nations having five different calibers. The formal reports of the commanders at Donelson contain no references to the inefficiency of any particular arm, but cite the ammunition problem as somewhat difficult. The great success of General Grant's forces at Forts Henry and Donelson was not lessened by the presence of these foreign arms in the attacking group, but had the foreign arms not been available, only eight regiments, not thirty-six would have been available for the battle. The opening of the South by the taking of Forts Henry and Donelson in the spring of 1862 presaged a greater scale of operations soon afterward. With the retreat of the Confederate forces from Kentucky and Tennessee, the road to the bastions of the South was opened to the movement of Union forces then active in the northern sections of the

38. Inf. Regts., I-IX.

39. Ibid.

Deep South. The hope of the commanders in Kentucky and Tennessee to drive into Mississippi demanded that greater numbers of troops be put at their disposal, and the thirty-six regiments commanded by Grant during February were expanded to the one hundred and twelve of April, 1862.⁴⁰ The Army of the Ohio was joined to the Army of the Tennessee for the invasion of Mississippi.

The battle which opened this invasion was the battle fought near Pittsburg Landing, Tennessee, and called the Battle of Shiloh. This battle came about through the tactical mistake of General Grant in assuming that the Confederates would await the onslaught of his army within the lines of Corinth. As the battle developed, it was one of confusion with fighting on uncertain and unstable lines. Camps became battlefields and the rears of some regiments suddenly became their fronts. Regiments and brigades fired on their friends and the organization consequently deteriorated. The Battle of Shiloh ended in a very costly victory for the Union army.

In analysing the Battle of Shiloh, Upton, in his Military policy of the United States, says that the surprise element was the source of the most confusion

United States, Government Printing Office,
Washington, D. C., 1917, 270-275.

⁴⁰. Compare the list of troops at Fort Donelson, Off. of Rec., 1 ser., VII, 167-169, and the list of troops at Shiloh, Off. Rec., 1 ser., X, Pt. II, 100-108. For the armament of these troops see Inf. Regts., I-IX. The percentage of units armed with foreign ordnance dropped from 77% to 66% during the time between Fort Donelson and Shiloh.

during the engagement.⁴¹ Another important factor, however, was the delay resulting from the confusion of ammunition. Every variety of muzzle-loading arms used during the Civil War was employed at Shiloh; United States and European rifles, muskets and smooth-bores were used to stave off the near defeat of Grant's army in Tennessee. Reports of the battle contain many references to the shortage and confusion of ammunition for the some fifteen types of shoulder weapon used in the engagement.⁴²

Of the one hundred and twelve regiments in Grant's army, seventy-eight, or almost two-thirds, were armed with European weapons. Most of the forces which had been engaged at Forts Henry and Donelson also participated in the Battle of Shiloh, and the junction of the Armies of the Tennessee and the Ohio brought in more foreign weapons although their proportion was somewhat lessened in the army as a whole. As in the Battle of Fort Donelson, Illinois troops predominated among the regiments engaged, with regiments from Michigan and Wisconsin added to those from Iowa, Ohio, Kentucky and Indiana. It is

- ⁴³ Shipments of poor arms to Michigan continued throughout the first three years of the war. Ripley to Gov. United States, Government Printing Office, Washington, D. C., 1917, 270-275. 1863, QCO-12, File
41. Upton, Maj. Gen. Emory, The Military Policy of the United States, Government Printing Office, Washington, D. C., 1917, 270-275.
42. Some of the units which fought at Shiloh were not able to cope with the wide difference in caliber of their arms, and some regiments of the Union army were forced to act as ammunition scavengers. The report of Lt. Col. William Hall of the 11th Iowa, April 9, 1862, is best on the subject. Off. Rec., 1 ser., X, Pt. I, 130. See also Inf. Regts., I-IX. Lansing, 1863, 11.

interesting to note that the regiments from the frontier states of Michigan⁴³ and Wisconsin⁴⁴ were armed with the most inferior arms available, and this seems to have been a pattern followed in the ensuing years of the war.⁴⁵ If it be considered that about 450 armed infantrymen made up the regiments in 1862, there were 33,300 foreign muskets in the hands of the Union troops at Shiloh as against only 17,100 United States arms. Had the foreign arms not been used at the time, the Battle of Shiloh might well have been a defeat for the Union Army.

The bloody losses of Shiloh halted temporarily the efforts of the Union generals in fulfilling their desire to wrest control of the Mississippi away from the Confederates. After April, 1862, operations were suspended in the western theater except for small actions. The almost contemporaneous failure of the Peninsular Campaign, and the defeat of Pope's army at the Second Bull Run in the summer of 1862, forced a curtailment of operations in the West with more emphasis being placed on

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43. Shipments of poor arms to Michigan continued throughout the first three years of the war. Ripley to Gov. Blair, Dec. 17, 1861, OCO-ML, L-LV, Ripley to Crispin, Aug. 25, 1862, OCO-LTOO, XXII, 485. H. R. Minzer to the Ad. Gen. of Michigan, June 2, 1863, OCO-LR, File 656 w.d., 1863.
44. Annual Report of the Adjutant General of the State of Wisconsin, Madison, 1863, 1788.
45. Arms issued to the State of Michigan for troops mustered for the United States were recorded for the information of Gov. Blair. Annual Report of the Adjutant General of the State of Michigan, 1862, Lansing, 1863, 11.

the Virginia conflict. It was not until the spring of 1863 that the army under General Grant was able to begin the movement to bring the entire Mississippi under Union control. The scale of operations was then so extended that the number of regiments under Grant's control was increased to two hundred and twelve. For the first time during the operations in the West, the number of regiments equipped with United States weapons outnumbered those armed with alien ordnance.⁴⁶ At the same time, the quality of the foreign weapons carried by the seventy-nine regiments armed with them greatly improved.⁴⁷ There was only one regiment at Vicksburg, the 11th Indiana, which carried more than one type of shoulder arm. It should be added, however, that in spite of the fact that this regiment carried United States, British and French arms, all were of the same caliber.⁴⁸

Considering the fact that as late as mid-1863, some of the regiments in the West were still poorly armed, it is difficult to understand why the Ordnance Department began to store first-class arms early in 1863,⁴⁹ and continued to do so. If for no other reason than to make the soldiery

50. The 101st Illinois was armed with Belgian and Austrian muskets as late as October, 1863. Maj. Gen. G. J. Howard to Brig. Gen. James A. Garfield,

46. Inf. Regts., I-IX. Reg. 1 ser., XXI, Pt. IV.
 47. Improvement of arms for the State of Iowa found good Enfields replacing the poor ordnance originally issued. Ripley to Stanton, Aug. 13, 1862, OCO-LWD, XIII, 470. Greater numbers of good arms were sent west during 1863. Ripley to Edson, Jan. 13, 1863, OCO-LT00, XXIII, 328.
 48. Inf. Regts., I-IX.
 49. The original issue went to Allegheny Arsenal in early 1863. Ripley to Whiteley, Jan. 4, 1863, OCO-LT00, XXIII, 296.

more confident, it would seem that these guns should have been issued from the arsenals to the troops. These arms were not issued, however, and the final battles in the West found the infantrymen of the western states still carrying their third-class arms.⁵⁰

As in all the battles of the West, there was little or no complaint about the arms as a whole after Vicksburg; the real problem cited was that of ammunition supply. The report by the Chief of Ordnance for 1863 that the United States had become independent of the European arms factories is borne out by the declining proportion of these foreign arms after Vicksburg.⁵¹ This condition, however, was not attained until after a lapse of two years from the First Manassas, and for these two years the cause of the Union in the West had been carried by foreign arms.⁵²

To the mind of Major General J. F. C. Fuller, the most critical battle of the entire Civil War was fought in the

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50. The 101st Illinois was armed with Belgian and Austrian muskets as late as October, 1863. Maj. Gen. O. O. Howard to Brig. Gen. James A. Garfield, Fuller, Oct. 12, 1863, Off. Rec., 1 ser., XXX, Pt. IV, 324.
51. Ramsay to Stanton, Nov. 27, 1863, Ibid., iii ser., III, 933.
52. The replenishing of arms stocks in the West was usually done with foreign arms. Ripley to Ramsay, Mar. 27, 1863, OCO-LT00, XXIV, 61.

55. The reports of the action at Chickamauga occupy almost one entire volume of the Official Records, Off. Rec., 1 ser., XXX, Pt. I.

West at Chattanooga and Chickamauga.⁵³ The cracking of this hub of the Confederate wheel in September, 1863, indicated the eventual collapse of the spokes in Alabama, Georgia, the Carolinas and Virginia.⁵⁶ The army which had been active at Vicksburg did not take part in the battle in September, but its pressure on the left flank of the Confederate forces rendered the Southern position in eastern Tennessee very unstable.⁵⁷ The one hundred and forty regiments commanded by General Thomas at Chickamauga carried an even greater proportion of foreign arms than did the army commanded by Grant at Vicksburg. Of these 140 regiments engaged on September 19, 1863,^{75,} or more than half, were armed with European ordnance.⁵⁴ The army at Chickamauga was truly an army of the West as there were only two regiments, the 77th and 78th Pennsylvania, which had come from the seaboard states. The victory was a great but costly one,⁵⁵ and as with all the battles fought in the West, it had been fought largely with

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53. Fuller bases his high opinion on the importance of the battles in Tennessee on the early inability of the Confederates to supply their troops after the rail lines through Tennessee passed to Union control. Fuller, J. F. C., Decisive Battles, Their Influence upon History and Civilization, New York, 1940, 670-701.
54. Inf. Regts., I-IX. Heavy issues of ammunition for foreign arms as well as the issue of the arms themselves continued through 1863. Watson to Rosecrans, Apr. 1, 1863, Off. Rec., 1 ser., XXIII, Pt. II, 198.
55. The reports of the action at Chickamauga occupy almost one entire volume of the Official Records, Off. Rec., 1 ser., XXX, Pt. I.

foreign arms.

Besides the major battles cited above, other small actions in the West were fought with European arms. The operations of the army in Louisiana, Missouri, Tennessee, Kentucky and Arkansas were carried on with large quantities of alien arms. The practice of arming home guards in the West with relatively poor arms had been begun in 1862 and continued until the end of the war. It is not possible to state conclusively that the foreign weapons used in the West affected the outcome of the battles fought there. It should be stated, however, that the power of the armies in that theater was based on the foreign musket; without it, little could have been accomplished. In cases because of the shortage of arms in the whole United States. Austrian, English, Prussian, French and American muskets had been employed at the battles of Seven Pines and Malvern Hill; more than half of the arms in the hands of the Union infantry at these engagements was foreign. The failure of the troops fighting

56. The commander of the 19th Army Corps at Natchitoches, Miss., carried both Springfield and Enfield ammunition. April 6, 1864. *Ibid.*, i ser., XXXIV, Pt. III, 58.
57. Losses of foreign arms in the 14th Army Corps almost doubled the American made arms lost there. *Ibid.*, i ser., XXX, Pt. I, 266. Tennessee units continued to receive Enfields in late 1863. Maj. Gen. Sa. A. Hurlbut to Brig. Gen. A. J. Smith, Dec. 11, 1863, *Ibid.*, i ser., XXXI, Pt. III, 385.
58. W. L. M. Burger to Col. C. J. Walker, Mar. 14, 1863, *Ibid.*, i ser., XXIII, Pt. II, 142.
59. Ripley to Crispin, July 29, 1862, OCO-LT00, XXII, 393. United States arm of similar caliber. Ripley to the War Department, July 12, 1862, OCO-LWD, XIII, 442.

blame the muskets carried by the troops for the strategic
and tactical defeat. CHAPTER SEVEN army.

DECLINING IMPORTANCE OF FOREIGN ARMS IN THE

3. The condition of arms during the Peninsular Campaign is best told in EAST AFTER MAY, 1862 Kingsbury, the Ordnance Officer, dated July 19, 1862. "In conformity with the requirements of paragraph 490 Army Regulations, hastily drawn together, having reference to the Ordnance Office soon overcame the critical shortage of campaign not yet ended in Virginia. As the Army of the United States arms in the eastern armies. The policy of the Ordnance Department and the orders of the commanders of the Army of the Potomac and the Army of Virginia had acted to bring better arms into action in the Virginia theater. The Army of the Potomac which fought the campaign on the Peninsula in 1862 had been armed with poor weapons in many cases because of the shortage of arms in the whole United States. Austrian, English, Prussian, French and American muskets had been employed at the Battles of Seven Pines and Malvern Hill; more than half of the arms in the hands of the Union infantry at these engagements was foreign. The failure of the troops fighting near Richmond in 1862, however, was not caused by the inefficiency of foreign arms. The reports of the participants in the battles of the spring of 1862 do not

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1. Orders for foreign arms to be supplied to the Army of the Potomac were received as late as March, 1862. Ripley to Hagner, Mar. 1, 1862, OCO-LTOO, XXII, 37.
 2. The Enfield arms was considered at least as good as the United States arm of similar caliber. Ripley to the War Department, July 12, 1862, OCO-LWD, XIII, 442.

blame the muskets carried by the troops for the strategic and tactical defeat of McClellan's army.

- 3.
- The condition of arms during the Peninsular Campaign is best told in the report of C. P. Kingsbury, the Ordnance Officer, dated July 19, 1862. "In conformity with the requirements of paragraph 490 Army Regulations, I beg leave to submit the following observations, hastily drawn together, having reference to the operations, of the Ordnance Department during the campaign not yet ended in Virginia. As the Army of the Potomac was organized and equipped under pressing exigencies of the most extraordinary character, it is hardly necessary to refer to the great variety of arms compulsorily introduced into the artillery and infantry and from which much embarrassment was inevitable in providing at all times the proper proportion of ammunition, suited to the various calibres. The difficulty, however, it is believed, was successfully overcome, and at no time was it the fault of the Ordnance Department that troops were without this material of the right kind and in ample quantity. The base of operations was constantly moving, and hence it became necessary to keep the supply depot most of the time afloat, this imposing much additional labor and annoyance upon the issuing officers. But in spite of immense difficulties of tracing out stores from one vessel to another and discovering them as they were wanted, the task was faithfully performed, first by Lt. Babbite at Yorktown, and subsequently on the Pamunkey and James Rivers by Lieuts. Harris and Parker. All of these young officers the first named of whom was compelled from sickness to leave early in the campaign, brought to the discharge of their new duties, so much of intelligence and zeal as to supply the place of longer experience and were untiring in their labors. On the 25th of June, a few days before the change of base from White House to Harrison's Landing, a large quantity of infantry and artillery ammunition was ordered up by rail to Orchard and Savage Station, more than half of which under the exigencies of the moment, were destroyed that it might fall into the possession of the rebels. Yet, notwithstanding this expenditure of several millions of cartridges for small arms, and several thousand rounds of artillery ammunition, the army was enabled to fight a continuous series of battles from the 26th of June to the 1st of July without any lack of material, and arrived at James River on the morning of the 2nd, with caissons not empty and division trains not exhausted, and there met five

The inability of the Union Army to seize Richmond, and its unhappy retreat from the Confederate capital upon the arrival of Jackson and his troops increased the concern of the leaders in Washington for the safety of the Union capital, and troops were hurried, as in the previous years, to its defense. Once again, the issue of the best arms from the purchasing agents was directed to Washington and to the troops under the command of that confident

vessels, well laden with Ordnance stores. It may be observed, that to a certain extent, the Ordnance Department has been compelled to supply both armies. Since the Army of the Potomac landed at Fort Monroe, fifty three pieces of field artillery, with caissons, carriages etc and perhaps twenty five thousand stands of small arms, have been transferred to the enemy, while a single 12 pdr. bronze howitzer, captured by General Butterfield is the only field trophy yet rendered as an equivalent.

"Experience has shown that perhaps some improvements may be made in the character of supplies furnished the army, to which a brief reference will be made. The main and sear springs of the rifle musket, recently made, particularly the latter, frequently fail after a few weeks use. It has been suggested that hickory rods be furnished with each box of arms for cleaners or wipers. The 'hammers' or 'Tumbler screw' is often reported lost, and requires to be replaced frequently. Objection has been made to the swell of the hammer, which it is said often wedges in the pipes, so that the rammer is bent in drawing, the effect of which is to throw the bullet from its proper course down the land. A spring has been suggested as a remedy. The table of spare parts in the manual should be revised and a much larger allowance made of those pertaining to the lock and the bayonet. The number of cones should be doubled, and that of appendages largely increased. ...Berdan's Sharp Shooters have demonstrated the value of breech-loading arms in the hands of skillful troops. If the organization of new regiments is to be continued, it is suggested that one of the three battalions in each regiment be composed of picked men, that this battalion be exercised almost exclusively as skirmishers,..." Kingsbury to Ripley, July 19, 1862, OCO-IR, File 208 k., 1862.

Virginia. Fortunately, the capacity of the United States Armory at Springfield, Massachusetts, had been increased and more good American arms were being made available to the Army of Virginia assembling under the command of John Pope in the summer of 1862.⁴ It should also be pointed out that an increased number of better foreign arms were put at Pope's disposal at the time, and these were issued to the troops under the command of that confident general.⁵

At the Battle of Seven Pines, fifty-five percent of the Union Army carried foreign arms. Predominant among the weapons at this engagement was the Austrian rifle-musket caliber .54 or .55; the number of Enfields was only slightly less than the Austrian. By the end of July, 1862, the number of soldiers in Pope's army armed with foreign arms was not altered, but several new regiments carrying better arms were added to the forces which assembled near Manassas in the summer of 1862 to avenge the

that similarly armed regiments could be included in one special group for supply purposes. For example, the Second

4. An increased number of better weapons was ordered sent to the Army of Virginia in August, 1862. Ripley to Crispin, Ramsay and Dyer, Aug. 11, 1862, OCO-LT00, XXII, 436.
5. Orders for better foreign arms and ammunition came from the Ordnance Office during most of August, 1862. Ripley to Crispin, Aug. 6, 1862, OCO-LT00, XXII, 417. Gov. Morgan of New York to Watson, Aug. 25, 1862, OCO-LR, File 1517 w.d., 1862. Baylor to Ripley, Aug. 22, 1862, Ibid., File 1059 b., 1862. Shunk to Ripley, Aug. 30, 1862, Ibid., File 1178 s., 1862.

I-12, the 95th N.Y. was armed with Austrian muskets caliber .54.

defeat of the First Bull Run.⁶

The roster for the Second Bull Run includes the division commanded by Fitz John Porter, which did not take part in the fighting. This division, by some chance, was the unit armed with the greatest number of United States arms available, yet did not participate. The order for the battle for the Army of the Potomac and the Army of Virginia shows that forty-nine percent of the Union regiments present were armed with European ordnance.⁷ If the command of Fitz John Porter is deleted from the order of battle, it can be seen that more than half of the functioning arms at Manassas on August 30, 1862, were made in Europe. Reports of the battle indicate that the differences in arms had no effect on the fighting ability of the individual units, one of which was more fatigued by the march to the battle than by actual participation.⁸ The confusion of the battle may be better understood from the fact that little or no attempt was made to match units so that similarly armed regiments could be included in one special group for supply purposes. For example, the Second

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6. Issues of ammunition during Aug. 1862, show that more United States arms and better foreign muskets were being directed to the army at Manassas. Ripley to Ramsay, Aug. 24, 1862, OCO-LT00, XXII, 481; Aug. 30, 1862, Ibid., 505.
7. Inf. Regts., I-IX. See also Infra, Appendix "A".
8. Report of Maj. Edward Pye, 95th N.Y., Off. Rec., 1 ser., XII, Pt. II, 371. According to Inf. Regts., I-IX, the 95th N.Y. was armed with Austrian muskets caliber .54.
10. Inf. Regts., I-IX. For reports of the fight at Antietam. Ripley to Ramsay, Sept. 18, 1862, OCO-LT00, XXII, 579.

Division of the Third Army Corps in the Army of Virginia carried six different calibers of arms with at least three different calibers in each brigade. The 46th New York had nine types of shoulder weapons with seven variations in caliber from five different manufactories. The foreign arms performed well at the Second Bull Run and in many cases were used with good effect in very important smaller engagements during the battle. As with most of the battles in the Virginia combat area, this one was an indecisive engagement, both sides more or less withdrawing to bind their wounds and bury their dead. The Confederate escape from the trap which had been set for them at Manassas left the Union forces confused, and the Southern forces free to operate almost at will north of Washington.

The Second Bull Run was to be followed almost immediately by the bloody battle of Antietam or Sharpsburg. Just as the proportion of foreign arms in the Army of the Potomac had declined after the Battle of Seven Pines, it declined again even in the few days which elapsed between the defeat at Manassas and the Battle of

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9. The report of General Hooker for the Second Division of the Third Corps shows that they participated in the most severe fighting of the entire battle. Of the sixteen regiments in the field, fifteen were armed with foreign ordnance. Inf. Regts., I-IX. For reports of foreign-armed units in battle, see reports of Maj. Edwin Burt, Off. Rec., 1 ser., XII, Pt. II, 428, and Lt. Col. W. J. Sewell, Ibid., 456.
10. The hurried orders for ammunition indicate the ferocity of the fight at Antietam. Ripley to Ramsay, Sept. 18, 1862, OCO-LT00, XXII, 579.

Sharpsburg.¹¹ The new battle which took place between the 14th and 17th of September, 1862, included most of the available regiments of the Army of Virginia and the Army of the Potomac. It was indeed the most powerful army assembled on the American continent until that time, as 202 infantry regiments made up the order of battle for Sharpsburg.¹² Of the regiments noted in the reports of the action at Antietam, one hundred and eight were equipped with various American arms while eighty-two regiments were equipped with European ordnance.¹³ Nearly one half of the troops which fought in the sanguinary encounters¹⁴ at Burnside Bridge, Bloody Lane and the Cornfield, was

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- for the foreign muskets in the Union army continued to plague the ordnance officers during the Battle of Antietam. Ripley to Shunk, Ordnance Officer for McClellan, Sept. 24, 1862, OCO-LT00, XXII, 609.
11. The Chief of Ordnance ordered Springfield arms issued before the best foreign arms. Ripley to Ramsay, Sept. 9, 1862, OCO-LT00, XXII, 544.
 12. The inability of the states to fill the need for arms in the regiments fighting at Sharpsburg is noted in the letter from Governor Morgan of New York to the War Dept., Sept. 11, 1862, OCO-LR, File 1626 w.d., 1862.
 13. The report of Captain James MacThomson of the 107th Pa. Vols. indicated how heavily even the poorly armed regiments were engaged at the Battle of Antietam. Off. Rec., 1 ser., XIX, Pt. I, 262.
 14. For the accounts of the participation of foreign armed units in the Battle of Antietam see the reports of Capt. John B. Callis of the 7th Wis., Ibid., 257; Col. Lucius Fairchild of the 2nd Wis., Ibid., 252; Lt. Col. R. H. Richardson of the 26th N.Y., Ibid., 263; Lt. Col. Franklin Sawyer of the 8th Ohio, Ibid., 329; Col. William Harrow of the 14th Indiana, Ibid., 328.

30th Ohio, Sept. 20, 1862, Off. Rec., 1 ser., XIX, Pt. I, 470. The regiments which carried European arms at Sharpsburg acquitted themselves as well as those regiments equipped with the best United States arms. See report of Col. John W. Andrews of the 1st Del., Sept. 18, 1862, Ibid., 337.

supplied with English,¹⁵ Austrian,¹⁶ Prussian,¹⁷ French and Belgian arms.

The Battle of Antietam showed the continuation of the slaughter which had started in 1861 and was to continue for two more years. Indecisiveness of command and not the inefficiency of the men or the arms they carried, was the factor which brought the giants of September, 1862, to a standstill.¹⁸ The personal disagreements between McClellan and Burnside are aired, but the complaints of poor arms do not blame these arms for the failure of the

- at Antietam, General Ambrose E. Burnside. The result of
15. The ever present problem of supplying replacement parts for the foreign muskets in the Union army continued to plague the ordnance officers during the Battle of Antietam. Ripley to Shunk, Ordnance Officer for McClellan, Sept. 24, 1862, OCO-LT00, XXII, 609.
 16. Some of the defective arms of the 17th Michigan Inf. were ordered replaced by the Ordnance Department, but nothing seems to have been done since the regiment reported that it still had the old arms on Dec. 31, 1862. War Dept. to Ripley, Sept. 8, 1862, OCO-LR, File 1557 w.d., 1862.
 17. It seemed to be especially difficult for the Ordnance Department to find the proper ammunition for the old smooth-bores which were supplied to the troops in emergencies. Small quantities of Prussian smooth-bore ammunition were hurried to Rockville, Md. as soon as they arrived. Ripley to Ramsay, Sept. 12, 1862, OCO-LT00, XXII, 556.
 18. Some of the arms used by the army at the Battle of Antietam were faulty and were sent to various arsenals in the North for repair. Ripley to Baylor, Oct. 16, 1862, Ibid., XXIII, 57. Some of the units whose arms were not uniform asked that these arms be exchanged for some good United States arms. Report of Maj. G. H. Hildt, 30th Ohio, Sept. 20, 1862, Off. Rec., 1 ser., XIX, Pt. I, 470. The regiments which carried European arms at Sharpsburg acquitted themselves as well as those regiments equipped with the best United States arms. See report of Col. John W. Andrews of the 1st Del., Sept. 18, 1862, Ibid., 337.

army.¹⁹ The end of the Battle of Sharpsburg and the withdrawal of the Confederate forces from Maryland made it necessary, if the fighting were not to continue through the winter of 1862 and 1863, that a decisive battle must be fought soon after September, 1862. McClellan was definitely removed from the leadership of the Union forces which he had commanded, and the command of the Army of the Potomac was placed in the hands of the man whose caution had saved the Confederates from a possible decisive defeat at Antietam, General Ambrose E. Burnside.²⁰ The result of this general's desire for decisive action and his operations on both sides of the Rappahannock brought on the Battle of Fredericksburg, December 13, 1862, which was to

- finish their supply of cartridges. The losses in men at
19. The commander of the 143rd N.Y. asked that the Governor of New York use his influence to obtain new arms for that regiment. This commander, Col. D. P. White, complained that the other New York regiments were armed with good Enfield muskets and that he desired to be supplied with the same. White to Morgan, Nov. 11, 1862, OCO-IR, File 1919 w.d., 1862. The French arms carried by the 134th N.Y. were condemned because of their faulty firing and cocking systems. The inspector complained that many of these arms had exploded their caps in the user's face and that many went off at half-cock. John R. Hartlett of the 73rd Pa. to Maj. Gen. F. Siegel, Oct. 28, 1862, Ibid., File 1231 b., 1862. This particular letter was referred to the Ordnance Department by Siegel and badly mis-filed in the records.
20. As late as Oct. 24, 1862, the movements of the Army of the Potomac were controlled by McClellan, and his authority over the movement of supplies was recognized by the Chief of Ordnance. Ripley to Harris, Ordnance Officer at Frederick, Md., Oct. 24, 1862, OCO-LT00, XXIII, 86.

go down as one of the bloodiest slaughters of the Civil War. The battle itself was one of pathetic simplicity for the Confederates -- they merely waited in their prepared positions for the Union soldiers, and decimated them as they advanced up the steep hill out of the town at the river's edge. The proportion of foreign arms in the hands of the Army of the Potomac and the Army of Virginia dropped again after the Battle of Antietam.²¹ While forty-two percent of the Union troops at Antietam carried foreign weapons, the troops at the Battle of Fredericksburg carried about forty percent of these arms.²² As at all the battles of 1862, ammunition difficulties were again apparent as many units were forced to retire from the combat line to replenish their supply of cartridges.²³ The losses in men at

The debacle of Chancellorsville in May 1863 again left

21. More Springfields came in Oct. 1862. Ripley to Shunk, Oct. 17, 1862, Ibid., 63.
22. There were still some cases in which foreign arms of inferior manufacture were supplied to the troops in the East. Some small units were given Austrian muskets as late as November, 1862. W. F. Smith to Ripley, Nov. 2, 1862, OCO-LR, File 1466 s., 1862. The Washington Arsenal, main supply point for the armies operating in Virginia, was the recipient of 30,000 inferior foreign weapons in Dec. 1862. Ripley to Ramsay, Dec. 11, 1862, OCO-LT00, XXII, 496. Poor Austrian arms of the 121st, 123rd and 125th Pa. were ordered replaced before the battle of Antietam, but the new issue did not arrive in time. Ripley to Ramsay, Sept. 13, 1862, Ibid., 559.
23. "...and Colonel Bates, Twelfth Massachusetts Volunteers, whole ammunition had been exhausted, promptly complied with my request that his regiment might unite with my brigade in a bayonet charge..." Report of Col. A. R. Root, 94th N.Y., of the Battle of Fredericksburg, Off. Rec., 1 ser., XXI, 485.

the Battle of Fredericksburg were higher than at any other battle fought up to that time during the Rebellion, but the casualties were registered in arms as well as in men.

The losses of arms at the Battle of Fredericksburg and the time which followed it must have been very high, for the beginning of the new campaign in May of 1862 found the army, then under the command of General Joseph Hooker, carrying only eighteen percent of foreign arms. Increased production of arms in domestic factories also contributed to this decline. As at the previous battles, there was no general complaint about the weapons carried by the Union troops at the Battle of Chancellorsville;²⁴ because of the emphasis of those in control of the distribution of arms on the theater in Virginia, the better United States muskets were usually sent to the eastern armies.²⁵

The debacle of Chancellorsville in May 1863 again left the Confederates free to operate north of the Union capital at Washington just as the defeat of Pope at the Second Bull Run had been followed by the meeting of the protagonists on the field at Sharpsburg. Confederate leaders began the operation which was to end at Gettysburg

26. "If telegraphic communication with this place be interrupted you will find any requisition which

- General Brooks, Commanding Dept. of the Monongahilla
24. Some new arms were issued to complaining units. Ripley to Baylor, Jan. 21, 1863, OCO-LT00, XXIII, 350.
 25. Twenty thousand Enfields arrived at the Washington Arsenal in January of 1863. Crispin to Ripley, Jan. 19, 1863, OCO-LR, File 78 n., 1863. Some of these arms were issued almost as quickly as they arrived. D. R. Van Buren to Maj. Gen. E. D. Keyes, the commander at Yorktown, Jan. 31, 1863, Off. Rec. 1 ser., XVIII, 532.

in July almost immediately after the beating administered the Union forces in May. Again as during the time after Antietam, the leaders in Washington became apprehensive lest this latest move of Lee's army might cut off the capital from the rest of the Union. Calls for troops were sent out, particularly to those states which were near the potential fighting arena. These troops which came to the field at Gettysburg from the North were armed by the Ordnance Department under special directions from the Secretary of War. For a time, the fear persisted that the Confederate drive into Pennsylvania would cut off many of the communities from the outside, and consequently, provisions were made to send arms on the requisitions of the commander of the Department of the Susquehanna without referring them to the War Department or the Ordnance Department.

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Ripley assured the governors of the states sending these emergency troops that the best arms would be given to the men fighting at Gettysburg;

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his actions in the matter quantity of foreign arms at Gettysburg was just over one-

Fifth of the total carried into the engagement. Most of

26. "If telegraphic communication with this place be interrupted you will find any requisition which General Brooks, Commanding Dept. of the Monongahila and General Couch, Commanding Dept. of the Susquehanna may make upon you for Ordnance Stores for their commands...." Ripley to Crispin, June 15, 1863, OCO-LT00, XXIV, 463.

27. "All troops passing through New York going to the defense of Pennsylvania will be given new arms...." Stanton to Gov. Sprague of R.I., June 16, 1863, OCO-LR, File 358 a., 1863.

were different, however.²⁸ While the proportion of soldiers armed with foreign shoulder-weapons had declined until the Battle of Chancellorsville when it reached only eighteen percent, it rose again for the Battle of Gettysburg to twenty-two percent. Actually, the number of troops at Gettysburg was less than that at Chancellorsville as 239 regiments fought at the former while 273 took part in the latter. The difference is made up by the fact that many units were left behind to guard the capital and their places were taken by reserve regiments raised for the purpose in the northern states. This also accounts for the increase in the number of European-armed regiments present at the battle. It must be said here, however, that the grouping of regiments armed with foreign ordnance in special brigades made for more efficient firing and action during the battle as the problem of ammunition supply was more easily met by the supply officers. More than this, poorly armed units were protected on their flanks by well armed brigades. The quantity of foreign arms at Gettysburg was just over one-fifth of the total carried into the engagement. Most of these arms were carried by the emergency units which had

28. "Issue no first class arms to General Couch's requisitions until all the second and third class arms are exhausted." Ripley to Laidley at Bridesburg, Pa., June 21, 1863, OCO-LT00, XXIV, 487. Ripley to Crispin, June 18, 1863, Ibid., 462.

been supplied largely from the New York Agency²⁹ and the Bridesburg Arsenal.³⁰ It is very difficult to understand why one-fifth of the soldiers at this important battle carried outdated foreign weapons (particularly the Austrian caliber .54 which had been often condemned) when there were at least 150,000 Enfield rifle-muskets and even greater numbers of new Springfield arms in storage at Cleveland,³¹ Pittsburg,³² Detroit,³³ and Augusta, Maine.³³

The shortage of good arms in the East had been definitely overcome early in 1863, and the fact that old and inferior foreign arms were used at Gettysburg shows a large degree of maldistribution.³⁴ Confusion at Gettysburg, however, was considerably less than previous battles -- the fact that arms were grouped according to

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29. The arms coming from the New York Agency were probably some of the lot turned in after the Battle of Fredericksburg. Ripley to Crispin, Dec. 30, 1862, OCO-LT00, XXIII, 285.
30. A supply of old foreign arms was on hand at Bridesburg. Ripley to Laidley, Nov. 28, 1862, Ibid., XXIII, 196.
31. The Miami Hospital at Cleveland, Ohio, had been inspected by Cap. T. J. Treadwell in May, 1863. Ripley to Treadwell, May 11, 1863, Ibid., XXIV, 288.
32. Crispin had shipped almost 50,000 Enfields to Detroit as reserve arms in January of 1863. Crispin to Ripley Jan. 15, 1863, OCO-LR, File 71 n., 1863.
33. A stock of 750,000 first-class arms of the Springfield and Enfield types was on hand by the end of 1864. Dyer, Chief of Ordnance, to Stanton, Oct. 22, 1864, Off. Rec., iii ser., IV, 801.
34. The quantity of arms became so great by September, 1863, that storage space in the arsenal was at a premium. Ripley to Hagner, Commanding Watervliet Arsenal, Sept. 15, 1863, OCO-LT00, XXV, 363. Similar conditions prevailed in all the depositories of the Ordnance Department.

caliber and the battle was fought on fairly stable lines³⁵ made the problem of ammunition supply very much easier. Moreover, in spite of their inferior quality, the foreign arms used at Gettysburg used almost the same caliber bullet as the United States arms present.

³⁶The Battle of Gettysburg marked the virtual disappearance of the foreign shoulder arm from the Union army in the East. The demobilization of the emergency troops called up for the Battle of Gettysburg took most of the foreign arms out of the hands of the eastern soldiers. After Grant assumed command, the process of replacing foreign arms was speeded up. By the time of the seige of Petersburg in 1864, only fourteen percent of the troops³⁷ present were supplied with other than United States arms.

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35. The shortage of some types of ammunition at Gettysburg is best explained by the fact that an insufficient supply of powder was ready for use. Ordnance officers were directed to issue uninspected powder during the crisis of July, 1863. Ripley to Wainwright, July 1, 1863, OCO-LT00, XXV, 557.
36. The situation at Gettysburg was still critical on July 6, 1863, as far as the Ordnance Department was concerned. Large quantities of ammunition particularly for cannon were ordered for the Army of the Potomac. Ibid., 11. Perhaps the reason for Meade's failure to follow Lee after Gettysburg was the fact that his wagons were damaged badly during the pursuit from Washington to Pennsylvania. One of the largest requisition orders after Gettysburg was for wheels and hub grease. Ripley to Edie, July 10, 1863, Ibid., 33.
37. The quantity of ammunition requested for foreign arms at Petersburg was very small. Maj. Gen. W. F. Smith to Maj. Gen. A. A. Humphreys, June 1, 1864, Off. Rec., 1 ser., XXXVI, Pt. I, 1001. See Inf. Regts., I-XIV for armament of troops at Petersburg.

Strangely enough, the Fifth Army Corps, commanded by the General Warren, which was most active in the Crater, carried the highest percentage of foreign arms of any of the seven army corps at the battle. The units supplied with foreign ordnance were so intermixed with the United States armed units, however, that their employment in blocs according to their arms carried was not possible. Even in the Fifth Army Corps of Major General Gouverneur K. Warren, only twenty-four percent of the infantry regiments was armed with foreign muskets. The declining importance of the European muskets in the army of the East was coincident with the gradual grinding down of the Confederate power. Just as the war in the West as late as the battle of Chickamauga in September, 1863, had depended on the ability of the Union soldiers to use the European arm, the power in the eastern theater had been sustained by that same foreign arm until after the Battle of Fredericksburg. Perhaps the increasing supply

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38. An exception to the general rule that better arms were issued to the Union forces was the 58th Pa. Vol. Regiment. "In compliance with Paragraph 85, Appendix 'B' Revised Regulations 1863, I have the honor to report that my company has been armed with the Austrian rifle, Cal. .54, since April, 1862. The locks are badly finished and bind very much; the tumblers are not properly case-hardened, and are so soft that the sear has worn away the notches, especially the second; rendering the piece very dangerous especially when at half cock. There is too much windage, the lead is not expanded into the grooves; and the balls generally strike in a slanting direction: sometimes at complete right angles...." R. C. Redmond to Ramsay, Apr. 5, 1864, National Archives, War Records Office, Ordnance Office Special Files, Box No. 15.

of United States arms in the East was brought about by the great losses of men and arms in the bloody battles of 1862. The continued use of the foreign arm in the West was probably due to the fact that the only really costly battle until the Battle of Vicksburg was fought at Shiloh in early 1862. Inactivity in the West and hard fighting with consequent loss of arms in the East probably forced the Ordnance Department to place its better arms in the hands of the eastern troops.

The foreign rifle and musket became the reserve arm in the East after Antietam and Fredericksburg. By 1864, the majority of foreign arms in the United States had been deposited in the West.³⁹ After Gettysburg few issues of foreign arms were made, and at the same time attempts were made to replace the more inferior arms with weapons of better quality.⁴⁰ Large supplies of these foreign weapons were also on hand at the New York Ordnance Agency which continued to buy inferior arms as well as good arms in the open market until mid-1863.

39. The deposit of these arms is recorded in National Archives, War Records Office, Records of the Office of the Chief of Ordnance, Weekly Statement of Stores on Hand, January and February, 1863, Statistical Division, Ordnance Office.

40. Provision for exchanging poor arms is contained in Circular No. 17, Series of 1863, Ordnance Office, April 3, 1863. Attempts were made to keep some of the poor grade foreign weapons in the field. The problem of spare parts, however, necessitated the junking of many of the Austrian arms. Ramsay, Chief of Ordnance, to Benton, Commanding Washington Arsenal, Oct. 27, 1863, OCO-LT00, XXVI, 38.

It should be granted that as the war entered the declining stages after the summer of 1863, the foreign arm became of less importance. Up to that time, however, at Ball's Bluff, The Seven Day's Battle, The Second Manassas, Antietam and Fredericksburg, it had been the real barrier against the threatened invasion of the North by the armies of the Confederacy.

The stories of the politics, the strategy, the tactics and the interesting personalities of the military leaders have led most writers on the period to look on the arms carried by the fighting men into battle as often less important than many of these other details. The foreign shoulder-arm, however, played a very important part in the outcome of the struggle which lasted until 1865.

It has already been noted that the spring of 1861 found the Union supply agencies unable to provide sufficient arms for the troops mustered after the fall of Fort Sumter, and the movement of the Confederate army toward Washington in June and July of that year made the crisis in arms more acute. Until that time, the Ordnance Department held the opinion that it could arm all the troops called by the President, and, consequently, the officers in charge of that department made no moves to acquire a proper stock of good arms to supply to the troops destined to fight in the first battles of the conflict.

The shipment of arms out of the arsenals of the North into the South in 1859 and 1860 had altered the proportion

CHAPTER EIGHT

THE VALUE OF THE FOREIGN ARM TO THE UNION

Historians of the American Civil War have long neglected the importance of the foreign shoulder-arm to the Union in the War of the Rebellion. The stories of the politics, the strategy, the tactics and the interesting personalities of the military leaders have led most writers on the period to look on the arms carried by the fighting men into battle as often less important than many of these other details. The foreign shoulder-arm, however, played a very important part in the outcome of the struggle which lasted until 1865.

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2. The shipment of arms out of the arsenals of the North into the South in 1859 and 1860 had altered the proportion

of serviceable arms in favor of the states which were to become the Confederacy. In his report to Lincoln on July 4, 1861, Ripley, the Chief of Ordnance, pointed out that as of June, 1860, there were 309,523 rifle-muskets and 27,172 rifles in the Union states, and 251,877 rifle-muskets and 21,690 rifles in the Confederate states. Considering the position of the South as generally defensive, it can easily be seen that it was the North and not the South which had to rely on foreign imports to achieve the quantitative superiority of arms necessary for the victory of the offense over the defense. The Union government, however, was not prepared for the task of becoming a private buyer in the open market, and the confusion produced by the duplication of effort hindered the acquisition of a plentiful supply of arms for the infantry. In the summer of 1861, especially after the First Bull Run, three branches of the Union government became active in the procurement of arms for the Union army. Of these three, the War, State and Treasury Departments, the last named occupied a subordinate position, as its officials acted only as import agents for the arms purchased by representatives of the United States in Europe and arms

1. Ripley to Lincoln, July 4, 1861, Off. Rec., iii ser., I, 321.
2. An interesting and illustrative study of this problem may be found in Clausewitz, Karl Von, On War, New York, 1943, 317-356, 507-516.

purchased under contract in New York City. The War and State Departments, however, entered the market directly as purchasers, often in competition for the same arms. The exigencies of the arms supply situation in mid-1861 brought about irregularities in the purchase of arms which reacted to drive available arms into the hands of speculators and raise the cost of the arms to the people of the United States. These irregularities were questionable authorizations to buy arms, as in the case of Minister Sanford, and the purchasing of arms of unspecified character from many of the private dealers in the market, notably Herman Boker and Co. of New York. More irregular than this, however, was the virtual licensing of some of the individual states as arms agents for the government. It has been pointed out above that the act of Congress guaranteeing the repayment of all expenses incurred by the states in equipping troops for the suppression of the rebellion, gave the states unlimited authorization to buy arms for their home troops even in competition with the agents of the general government.³ The highest prices paid for arms both in New York and in Europe were paid by the agents of the various states under authorization of their legislatures. Added to these complications, were the activities of the Secretary of War, Simon Cameron, in letting contracts for the purchase of arms to any person who offered to

3. See Supra, chapters 3 and 4.

deliver such in the United States, and the commissioning of an agent, George L. Schuyler, to buy arms for the United States in Europe. This agency and these business concerns were added, therefore, to the list of government agents competing against each other for the small amount of arms then available in the markets and factories of Europe and the importing houses of New York City. Deliveries of arms from these agencies were generally disappointing, with the result that after December of 1861, most of the arms purchased for the Union were bought through the agency in New York City headed by Major P. V. Hagner of the Ordnance Department and later by Captain Silas Crispin who had acted as Hagner's assistant. The direct agent of the War Department, George L. Schuyler, did not deliver the quantity or the quality of muskets which had been anticipated by Secretary Cameron, and the mission was cancelled in April, 1862, when Schuyler returned to the United States. Another direct mission was commissioned in August of 1862, but the results of this agency of Marcellus Hartley in the fall of 1862 were almost equally disappointing for the War Department. The best arms were to be bought in the market of New York City where competent ordnance officers demanded and received better arms at lower prices. ⁴ Fortunately, however, most of

It should be noted here that there were many contracts

⁵ Contracts and the deliveries under them are contained in House Ex. Doc. No. 92, 40th Cong., 2nd Sess.

4. See Supra., chapter 3.

for arms let to private manufacturers in the United States in 1861, but the paucity of proper machinery and the lack of suitably trained personnel delayed any considerable delivery of arms under these contracts until late 1862 and early 1863.⁵ There were only two competent manufactories for military arms in the United States in 1861, and these plants, the United States armory at Springfield, Massachusetts, and the Colt plant at Hartford, Connecticut, were not sufficiently prepared to meet the demands of the states and the general government for arms after the increased call for troops following the defeat at Bull Run, and foreign arms filled the place of the regular United States arms in the infantry, at least for the first two years of the war. The original reliance on foreign arms continued to grow during the last months of 1861 and the early months of 1862 and purchases of these arms continued throughout the period with little variation. By the time that the purchase of foreign arms was stopped in 1863, more than 1,000,000 European arms had been bought by the Union government, and most of these were issued to the Union infantry.⁶ 1862, that the contracts for the manufacture of arms These foreign arms were on the whole serviceable weapons although there were great differences in their appearance and calibers. Fortunately, however, most of rifles, caliber .54 inches. In most cases they were too worn to take the U. S. rifle, model 1841, cartridge. Many were re-reamed to caliber .58 inches.

5. Contracts and the deliveries under them are contained in House Ex. Doc. No. 99, 40th Cong., 2nd Sess.
6. Inf. Regts., I-IX.

them were fired by the same percussion system as the United States arms, and hence they could be fitted with regular primers and use the regulation ammunition. At times it was necessary for the Ordnance Department to provide special ammunition,⁷ but in most cases, the soldier was able to make small adjustments in wadding which would enable him to use regularly produced cartridges.⁸ 1864, and there were

still During the critical military period from July, 1861, to July, 1863, foreign arms made up almost one half of the employed shoulder-weapons used by the Union forces at many of the important battles. While the proportion of these arms was low at the time of the First Bull Run, it reached 59% at the Battle of Seven Pines and 77% for the Battle at Fort Donelson. Here more than in any other way is demonstrated the fact that the production of arms in the United States during the years 1855-1860 was too low for safety. There were less than 50,000 new model arms in the country when the war began and the Union had to be defended with old United States muskets or imported arms.⁹

Sept. It was only after the Battle of Fredericksburg in December, 1862, that the contracts for the manufacture of arms in the United States began to be filled, and foreign

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9. Instructions for Making Quarterly Returns of Ordnance
7. This was particularly true in the case of the Austrian rifles, caliber .54 inches. In most cases they were too worn to take the U. S. rifle, model 1841, cartridge. Many were re-reamed to caliber .58 inches.
8. Maynadier to Holt, Jan. 21, 1861, Off. Rec., iii ser., I, 27-29. I, 614.

arms began to be taken out of the hands of the troops to be replaced by domestic weapons. Some foreign arms, however, were never replaced by United States weapons. These muskets, the English Enfields, were classed as "First-class arms" and were issued and used in the same way as the best American muskets. Large quantities of Enfields were carried by Sherman's army in 1864, and there were still some Enfields in the Army of Virginia at the time of Appomattox.

In order to understand the relative importance of the foreign shoulder-arm to the Union and the Confederacy, some examination must be made of the part which the European musket played in the Southern armies. While the Confederacy had had an agent, Major Caleb Huse, in London as early as May, 1861, it had received but few arms from him during the remainder of that year, while at the same time, the Union agents were buying any and all arms. The first quantity of foreign arms brought into the Confederacy was privately imported by speculators in September of 1861, and consisted of only 3,000 Enfields; the next shipment was reported to be blockaded in the

12. L. Heyliger to Benjamin, Jan. 30, 1862, *Ibid.*, 895.

13. Benjamin to Davis, Feb. --, 1862, *Ibid.*, 958.

14. Between Sept. 30, 1862 and Sept. 30, 1863, 127,862

9. Instructions for Making Quarterly Returns of Ordnance and Ordnance Stores, Government Printing Office, 1865, Appendix.

10. Huse to Gorgas, July 22, 1861, *Off. Rec.*, iv ser., I, 566.

11. S. R. Gist to Benjamin, Sept. 18, 1861, *Off. Rec.*, iv ser., I, 614.

Bahamas in January of 1862.¹² In his report to Jefferson Davis of the operations of the Confederate War Department in February, 1862, Judah Benjamin informed that executive that until that time only 15,000 foreign arms had arrived in the Confederacy.¹³ Although there is some discrepancy in the figures, the records show that not more than 175,000 European muskets were imported into the Confederate States during the entire Civil War, and that the main source of supply of arms for the Confederacy was still the battlefield.¹⁴ Reports of the Confederate Chief of Ordnance for the years 1863 and 1864 show that not more than 50,000 more foreign arms were imported after the Battle of Gettysburg, and that the manufacture of arms in the Confederacy declined after that time.¹⁵ Sec. Gorgas, the Confederate Chief of Ordnance, would have wanted more of the European arms if it were possible for them to be imported, but he admitted to the Confederate Secretary of War in late 1864 that the main supply of arms for the Confederacy was captured weapons.¹⁶

The figures for the production of arms for the Confederate States did not equal those of the United States.

12. L. Heyliger to Benjamin, Jan. 30, 1862, Ibid., 895.

13. Benjamin to Davis, Feb. --, 1862, Ibid., 958.

14. Between Sept. 30, 1862 and Sept. 30, 1863, 127,862 arms were repaired at Confederate Arsenals while during the same period 113,504 arms were imported. Report of J. Gorgas for the year 1862-1863, Ibid., 955-960.

15. Gorgas to Seddon, Dec. 31, 1864, Off. Rec., iv ser., III, 986-987.

16. Ibid.

18. Muse to Gorgas, Feb. 3, 1863, Ibid., 382.

Confederate arsenals show that there were about 20,000 muskets manufactured within the South for each year from 1862 to 1864. If to this figure are added the 273,567 shoulder-arms captured in the Union arsenals at the time of Secession and the some 200,000 repaired and captured arms used by the South, it can be seen that almost 500,000 weapons of Union and Confederate manufacture and alteration were used by the rebel infantry. If the figure be compared with the number of arms imported, that is about 175,000, it can also be seen that about one-third of all the Confederate arms were produced in Europe. It should be remembered, however, that the heavy purchases of European arms for the South were not begun until the spring of 1862, and that the Confederate Secretary of War, Seddon, expressed the opinion in January of 1863 that the Confederacy would soon be free of its dependence on the manufactories of Europe. One month later, Huse reported that only 131,129 European shoulder-arms had been sent to the Confederacy. It is clear that the Confederate States did not rely on the foreign arm as did the United States.

By the middle of 1862, half or more than half of the muskets in use in the Union army were European compared to Southern use of about one-sixth alien shoulder-weapons.

17. Seddon to Davis, Jan. 3, 1863, Off. Rec., iv ser.,

19. II, 291. Appendix "A"

18. Huse to Gorgas, Feb. 3, 1863, Ibid., 382.

The proportion of foreign arms declined in the Union forces but it should be noted that it was not until after the Battle of Gettysburg that the proportion of employed foreign muskets reached a point as low as the Confederate average.

It was the Union, therefore, and not the Confederacy which relied on the muskets of Europe for its defense. The cause of the Union would have indeed declined rapidly had it not been for the presence of the European musket in the Grand Army of the Republic. Widely used in every theater of the war and at every important engagement, they were the margin of power by which the army kept the enemy from Washington, and ground the Confederacy to powder.

Letters Received, (cited in text as OCO-IR). All letters and communications received by the Ordnance Department or referred to it were filed under letter and number. The letter was usually designated by the initial of the last name of the sender; the number ran in the letter series as it was received. Some care, however, must be used in seeking letters in these files, for often letters were misfiled, or reports from Ordnance Officers were filed under the letter of their station or post. A special file for letters of the War Department is also included. This file, which bears the letters "w.d." is the most voluminous and often is the repository for forgotten letters.

Letters to Ordnance Officers, (cited in text as OCO-ITOO), XXI-XXVII contain the letters for the Civil War period. These volumes contain letters written to Ordnance Officers on official business. Many times, however, important letters to these Ordnance Officers are not included in this set but in the Miscellaneous Letters.

Letters to the War Department, (cited in text as OCO-ITWD), VIII-XIV. All letters to the Secretary of War or any of his assistants were copied into these volumes in the files of the Records of the Secretary of War.

19. See Infra., Appendix "A".

Miscellaneous Letters, (cited in text as OCO-ML), XVIII-XXII. Letters written to army officers, against and committee men. **BIBLIOGRAPHY** as letters to civilians are copied in these volumes.

Open Purchases **Primary Sources** Ordnance Department. This volume contains the records of all purchases made Manuscript Documents of the United States Government

weapons of any kind. Records of the Office of the Chief of Ordnance in the War Records Office of the National Archives in Washington, D.C. Some of these circulars are not recorded in the letters to Ordnance Officers as might

Abstract of Reports of Army Officers. This volume contains complaints and comments on the various equipments issued by the Ordnance Department. It is by no means complete, but does provide some interesting opinions of some of the arms issued to the Union troops.

Ledger of Issues of Ordnance and Ordnance Stores to the Loyal States. The only entry in this rather large volume shows that for the troops called by Lincoln in April, 1864, some forty thousand Enfield muskets were sent from the reserve stocks to Illinois and Indiana.

Letters Received, (cited in text as OCO-LR). All letters and communications received by the Ordnance Department or referred to it were filed under letter and number. The letter was usually designated by the initial of the last name of the sender; the number ran in the letter series as it was received. Some care, however, must be used in seeking letters in these files, for often letters were misfiled, or reports from Ordnance Officers were filed under the letter of their station or post. A special file for letters of the War Department is also included. This file, which bears the letters "w.d." is the most voluminous and often is the repository for forgotten letters.

Letters to Ordnance Officers, (cited in text as OCO-LTOO), XXI-XXVII contain the letters for the Civil War period. These volumes contain letters written to Ordnance Officers on official business. Many times, however, important letters to these Ordnance Officers are not included in this set but in the Miscellaneous Letters.

Letters to the War Department, (cited in text as OCO-LWD), XIII-XIV. All letters to the Secretary of War or any of his assistants were copied into these volumes. The originals are in the files of the Records of the Secretary of War.

Miscellaneous Letters, (cited in text as OCO-ML), XVIII-XXXII. Letters written to army officers, cabinet and committee members, as well as letters to civilians are copied in these volumes.

Open Purchases, 1861-1867, Ordnance Department. This volume contains the records of all purchases made in the open market for Ordnance Stores but not for weapons of any kind.

Ordnance Department Circulars, Series of 1861, 1862, 1863, 1864, and 1865. Some of these circulars are not recorded in the Letters to Ordnance Officers as might be thought proper. They are procedural in general but do throw light on some of the problems of the Ordnance Department.

Register of Contracts and Orders. All arms bought by contract or on order of the Ordnance Department are recorded in long-hand in this volume. It was later reproduced in a Congressional document - House Ex. Doc. No. 99, 40th Cong., 2nd Sess.

Special Files. Miscellaneous reports and papers which could not logically be filed elsewhere were "lost" in this file. It is an unpredictable file as complaints of contractors are filed along side casualty reports.

Statements, Arming and Equipping the Militia. All arms issued to the States under the militia law of 1808 as amended in 1855 are registered in this volume. Each State quota for arms and the number received through that quota is entered in this volume.

Statement of Contracts, Ordnance Department. This volume contains all of the contracts negotiated by the Ordnance Department before the Civil War. These contracts did not include contracts for small arms.

Summary of Statements, Ordnance and Ordnance Stores on Hand, Arsenals, Armories and Depots. The number and type of all arms on hand in the depositories of the United States during the Civil War are recorded for each month after January, 1863.

Summary of Statements, Ordnance and Ordnance Stores on Hand, Infantry Regiments, I-XII, (cited in text as Inf. Regts.). This set of volumes which was used to record the position of arms issued to the various regiments lists the number and type of each arm in the hands of the fighting men of the Union. These reports compiled every six months were the guides for the issue

of arms to the troops. They were also used to record the indebtedness of the regimental commanders for ordnance property. The reports contained in these volumes do not agree in reporting dates at all times. In order to ascertain what arms were at certain battles, it is necessary to follow regimental reports through from two to nine volumes; one volume never gives a complete report or picture.

Summary of Statements, Ordnance and Ordnance Stores on Hand, Cavalry Regiments, I-IV. These documents performed the same function as the above cited documents but in this case, for the Cavalry regiments.

Weekly Statement of Stores on Hand, January and February, 1863, Statistical Division, Ordnance Office. The practice of recording the stores on hand every week was soon abandoned.

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Consular Letters, (cited in text as Cons. Let.). Communications from Consuls to the State Department are recorded and filed according to country and city.

Domestic Letters, (cited in text as Dom. Let.). Communications to persons within the United States are copied in these volumes.

Instructions to Consuls, (cited in text as Cons. Inst.). All communications addressed from the State Department to Consuls abroad are classified as "instructions", and are filed under country and city.

Instructions to Ministers, (cited in text as Inst. to Min.).

Reports, (cited in text as Reports). Communications from Ministers, including semi-private letters, are contained in volumes under the name of the Minister sending the communication.

Records of the Treasury Department.

Circulars to Collectors and others. These circulars are generally concerned with broad administrative and procedural policies.

Telegrams. A small set of three volumes labeled "Telegrams", Series Xa contained the wire messages for the period of the Civil War.

Letters from Collectors. Officials appointed to collect tariff duties at ports are referred to as "Collectors" and communications from them are filed in these volumes under the name of the port.

Letters Received. The Treasury Department developed a complicated system of filing all incoming mail under various codes. Each letter received was listed in a general index and refiled in a special index under its code. There are some thirty different "sets" for the letters received by this department.

Letters to Appraisers and Surveyors.

Letters to Cabinet.

Letters to Collectors.

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Letters to Committees of Congress.

Miscellaneous Letters Sent.

Press Copies of Letters to Members of Congress.
When a copy of an important communication was desired, the original letter was blotted with a piece of thin porous paper and filed for reference. These letters are now bound and on file in the National Archives.

Press Copies of Letters, Governors and State Officers.

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Personal Files. Every commissioned officer of the United States Army is registered in the files of the War Records Office of the National Archives. These files contain appointments, changes of duty and death certificates of all officers. It is a convenient source of tracing the movements of officers in the Army.

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Vicksburg

Chickamauga

This information is derived from a comparison of the list of organizations at these battles and the reports of arms on hand at the time contained in the Summary of Statements, Ordnance and Ordnance Stores on Hand, Infantry Regiments.

APPENDIX "A"

Percentage of Regiments Armed with Foreign Ordnance

Battle.	No. of Regiments engaged.	% armed with foreign ordnance.
First Manassas	36	23
Peninsular Campaign	147	53
Fair Oaks	68	59
Second Manassas	152	49
Antietam	198	41
Fredericksburg	243	35
Chancellorsville	273	18
Gettysburg	239	22
Petersburg	297	14
<u>Western Theater</u>		
Fort Donelson	36	77
Shiloh	112	66
Vicksburg	212	48
Chickamauga	140	52

This information is derived from a comparison of the list of organizations at these battles and the reports of arms on hand at the time contained in the Summary of Statements, Ordnance and Ordnance Stores on Hand, Infantry Regiments.

to the United States by George L. Schuyler, Herman Boker & Co. or Sanford himself after August, 1861. The reason for the reference to the arms being delivered at Genoa comes from the fact that the arms were originally destined for one of the Italian states, and were not purchased. Of Belgian make, these arms were probably among the poorest which were brought to the United States.

APPENDIX "B"

Because of the many interesting details concerning the problem of purchasing arms in Europe, the following letter from H. S. Sanford is copied here in its entirety.

Brussels
Aug. 8, 1861

Hon. William H. Seward
Secretary of State
Washington, D.C.

Dear Sir:

I received on the 30th ulto your dispatch No. 14 bearing date of the 11th of that month, instructing me "to cause the arms contracted for by Genl Fremont¹ to the number of 10,000 to be sent forward" adding "if the number can be increased to 20,000 so much the better." & I proceeded the next day to Paris to carry out your instructions with all speed, having previously written to inform Mr. Adams (whose name appears in my dispatch in connection with the drafts upon the government in payment for the guns) - of my movements in pursuance of these instructions & requesting him to address me at Paris.

The guns referred to I supposed to be a lot of 10,000 French Rifles (Carabines) with sabre bayonets such as are in use in the French Army, which had been negotiated for its equivalent, instead of four months acceptances agreed for by the other party.

On Saturday (the 3rd) I was notified that my
1. The mission of General John C. Fremont to Europe in 1861 was on private business; the procurement of arms was only a sideline. There is, however, no record of any purchases of arms having been made for the United States by Fremont during his time in Europe. Mr. Billings, to whom Sanford refers, was Fremont's private secretary who accompanied the military leader and explorer to the Continent. The arms which Fremont contracted for were probably among those arms which were brought into the United States by George L. Schuyler, Herman Boker & Co. or Sanford himself after August, 1861. The reason for the reference to the arms being delivered at Genoa comes from the fact that the arms were originally destined for one of the Italian states, and were not purchased. Of Belgian make, these arms were probably among the poorest which were brought to the United States.

by Genl Fremont through a well known banking firm in Paris, who had exhibited a sample of the gun (of Liege make however), & offered them at 100 francs each. The general, who had also conferred with me about these guns, expressed himself, as I was assured, satisfied with the gun and the price, and on leaving Paris had promised to write definitely from London. No contract for guns save those sent forward, had been made by him, & while knowing that he had also had communication with a broker in Paris about getting some of this kind of gun out of the French Arsenals, I did not for a moment entertain a doubt that the guns I was instructed to forward, were other than those of which I have first made mention.

I arrived at Paris late that evening & next morning called at the office of the Legation to see Mr. Dayton: was informed that he had denied himself access to anyone; and on leaving, met him passing from one room to another in evident preoccupation & haste & did not consequently, have the opportunity I sought of conferring with him on the subject, while I did not consider it of any necessity, I had wished to inform him, as an act of courtesy and for his information in the premises.

On going to the broker who had brought these guns to my attention some three months earlier, I was informed that they had been contracted for by a wealthy New York house, but that, owing to some delay in getting the necessary permit for their delivery from the arsenals where they were deposited, the time fixed for carrying out the contract had expired, but that the purchaser still expected to take the guns. I then proposed to enter into this contract for the Government at the same price if the owner of the guns could relieve himself from any obligation to the New York contractor, with the inducement of cash or its equivalent, instead of four months acceptances agreed for by the other party.

On Saturday (the 3rd) I was notified that my proposition would be accepted, and securing 24 hours refusal of the guns at the price named in the contract referred to (viz 67 francs, to be delivered aboard ship at Genoa), I proceeded to consult Mr. Dayton before giving a conclusive answer, expecting also to find at the legation replies to my letters to Mr. Adams and to Mr. Billings, to whom, as well informed of Genl Fremont's negotiations, I had twice written on the subject. I found no letter, but I learned from Mr. Dayton that he had been bargaining with the knowledge of Mr. Adams & with the assistance of Mr. Billings, he had in fact just agreed to contract for 18,000 guns of the same character, with a broker acting for persons unknown, & 81 francs, to be delivered on board Ship at Havre. His despatch appeared identical with my own. On naming the price at which I had the refusal, & the price at which they stood to the French Government viz 54 33/100 francs, he said that there must be some error,

as the guns he had bargained for, he was assured, had cost the Govt 12 francs more; that if he had been deceived in the matter, he should break the contract, which he also stated was still subject to some difficulties in execution which might prevent its being carried out. I then proceeded to the "Comte d'Artellerie", the authority on all matters touching firearms, was addressed by the Secretary whom I knew personally, to the Bureau having special cognizance of these matters with the assurance that any information given me there, would be authentic, & satisfied myself that I was correct in regard to their cost to the State (54 32/100 francs) and that the only possibility that these guns were not in daily use by the Franch Chasseurs & Zouaves, was in their being a tige (which is a steel pin in the breech of the battel adopted to the solid bullet, & which can be removed by a workman in a few seconds.) He said that he was very confident that the transformation which had been ordered some time since, had been complete. Still it was barely possible that a few might remain in the arsenals unchanged. The 'transformation' including a change in the gradation of the sight to 1100 metres in place of 1000 had been accomplished at a cost of five sous and a fraction say 5 cents in our currency.

I saw Mr. Dayton again the same evening who insisted that if the information should prove correct, & that he had been deceived with respect to the cost of the guns, he would break the contract.

The next day was Sunday. I had received no advices from London the mail is not distributed there on that day, nor is any mail sent there so as to reach Paris on Monday so that it was impossible to communicate fully with our minister there before the expectation of my refusal which I had meanwhile got extended to Monday morning. There was a possibility of the contract which Mr. Dayton had made falling through; first from failure to get the necessary order upon the arsenals; second, from deception in the statements which led to the contracts. It was evident from the preemptory terms of the dispatch that the guns were needed immediately. I was greatly embarrassed how best to act under it. I could not expect, if I abandoned my provisional agreement to be able to get the guns at the same price, if the Dayton contract through other of the causes mentioned, should not be carried out; the knowledge of the price agreed upon by him, could not but leak out & would thus fix an increased value upon these guns in the estimation of the owner if remaining unsold.

Under these circumstances, I felt I ought to secure the guns, the order for delivery of which, I was assured, had gone through all the stages of the War Department & was only awaiting the countersign of the minister, which could not be delayed more than a day or two. I accordingly accepted the offer and set myself to fixing the

terms of the contract. The price was to be 67 francs delivered on board ship at Genoa, 65 francs if not completely delivered in within 30 days, four months interest at 5% per annum, to be deducted if paid for in cash or sight drafts on London or Paris; I was to pay besides, the broker's commission of 2½%, which was to include all expenses. Examination by my agent of the guns at the arsenal before packing, their reception by him, & shipment at Genoa on board steamer for Liverpool.

Here arose a new difficulty, the seller objected to the stringent terms of my description of the guns and his responsibility with regard to their delivery & etc & offered to leave the sale subject to my examination or some competent person for me, of the guns in the arsenal, but, professing to know nothing of some of the technical details I had inserted, he desired me to use the language of the Bill of Sale where they are described simply with the denomination known to the service to wit; "Carabines de Vincennes" in perfect condition".

Meanwhile, learning that Mr. Dayton was still in doubt and embarrassment in the matter; and apprehensive that both negotiations might fall through, I wrote him a note advising him not to break the contract, that I was satisfied that with the exception of this lot of 10,000 which I had bargained for at 67 francs, no other arms of the same kind could now be bought in the market at a less price than he had agreed for (viz 18000 at 81 francs & a diminishing scale for purchases to 76), and in view of this graduated price if more were ordered, and speedy delivery of these, I thought (I relate from memory the substance, having kept no copy of any note), that, under the circumstances, he would do well to carry it out.

On last evening I left Paris (arriving here this morning) & await the acceptance of the contract as I have modified it, in which however, I have insisted upon the main points of description & power to revoke the examination of the guns in detail. If it is returned to me signed and in the form I have insisted on, I consider that it is my duty to sign for the govt, & I shall take the necessary steps for their prompt delivery, examination, & expedition, & will send copy of contract immediately after. Should there be any difficulty in signing it, & I learn meanwhile that the guns contracted for by Mr. Dayton are delivered, which is by no means certain, I shall feel at liberty to withdraw from the purchase and propose doing so.

These guns, if contract is signed tomorrow, would probably reach Liverpool about the end of this month, provided there was no delay in transshipment on board one of the weekly steamers from Genoa to Liverpool, I am informed will not excel £ 2 per ton, or about 12 cents per gun.

I have thus given you, as succinctly as I could, an account of my proceedings under your instructions. If approved, I think it would be advisable, & beg to request,

that, for the event of the signing of the signature of the contracts as dictated by me, the Bankers of the Govt at London be requested to accept my draft upon you or the Secretary of War for the amount of the purchase. There may be some difficulty in negotiating drafts upon the Government upon the despatch I have from you & certainly, a clear authority upon the Bankers a saving to the Govt in negotiating the drafts.

I beg also to make a further suggestion, viz: that suitable ammunition be ordered here or on Paris for these guns. The calibre is much larger (23/52 of an inch) & the ball different in shape & heavier than our own, & to avoid delay in their use, it would be well to have a provision of cartridges as manufactured for this special weapon, sent out with or after them.

the American Civil War.

I am Sir,
Your Most Obedient Servant,

United States shoulder-arms were, until 1842, flint-primed, muzzle-loaded arms caliber .69 inches, except for the Hall breech-loading carbine which was condemned by inspecting officers in the 1850's as unsafe for military use. (See plate No. 27.) Some slight alterations in the shape of the stock and the bayonet during the first forty years of the 19th Century did not produce a really new weapon. The United States musket Model 1835 (See plate No. 31.) was no real change from the earlier flint-primed arms.

In 1841, the Ordnance Department adopted the change from flint-lock primed to percussion- or cap-primed muskets, (See plate No. 38.), and no flint-primed arms were manufactured at the United States arsenals after that date. In changing the priming system of the basic arms of the United States Infantry, the Ordnance Department rendered all the flint-locks in the United States Army obsolete, and

2. Records of the Department of State, Reports, Belgium, 1861.

the old arms of some use to the armed forces. The problem

APPENDIX "C"

THE EVOLUTION OF UNITED STATES SHOULDER-ARMS

The following plates taken from Major James E. Hicks' Notes on United States Ordnance, volume one, explain in drawings the evolution of the United States musket from the flint-lock of the 18th Century to the percussion-lock of the American Civil War.

United States shoulder-arms were, until 1842, flint-primed, muzzle-loaded arms caliber .69 inches, except for the Hall breech-loading carbine which was condemned by inspecting officers in the 1850's as unsafe for military use. (See plate No. 27.) Some slight alterations in the shape of the stock and the bayonet during the first forty years of the 19th Century did not produce a really new weapon. The United States musket Model 1835 (See plate No. 31.) was no real change from the earlier flint-primed arms. In 1841, the Ordnance Department adopted the change from flint-lock primed to percussion- or cap-primed muskets, (See plate No. 38.), and no flint-primed arms were manufactured at the United States arsenals after that date. In changing the priming system of the basic arms of the United States Infantry, the Ordnance Department rendered all the flint-locks in the United States Army obsolete, and the government was faced with the problem of how to render the old arms of some use to the armed forces. The problem

was met by a system of "alteration" through which the mechanism of the flint-lock was removed and a percussion priming system installed in its place. (See plate No. 45.) This alteration of the arms made it possible to use all the old serviceable arms as percussion-locks and the process of changing the old arms over to the new system continued until late 1861.

In 1855, the United States adopted a new caliber and an improved percussion priming system for the army musket. This Model 1855 was supposed to be the most modern of all the arms made in the world as its caliber was only .58 inches and it carried the Maynard Primer which was intended to make firing more efficient. This primer, which did not differ from the regular percussion system in principle, operated by feeding a cap to the nipple of the musket on each cocking of the hammer. Unfortunately, however, the complication of the mechanism made it inefficient in field service, and the Model 1855 (See plate No. 47.) was discontinued in 1860 as the standard arm of the United States.

In 1860, the Ordnance Department again adopted essentially the Model 1841 with the caliber of the Model 1855; the Maynard system was completely discarded. (See plate No. 51, and compare the Model 1860 with the Model 1841 on plate No. 38.)

The Union entered the critical period of 1860 with many technical production obstacles to overcome, and the

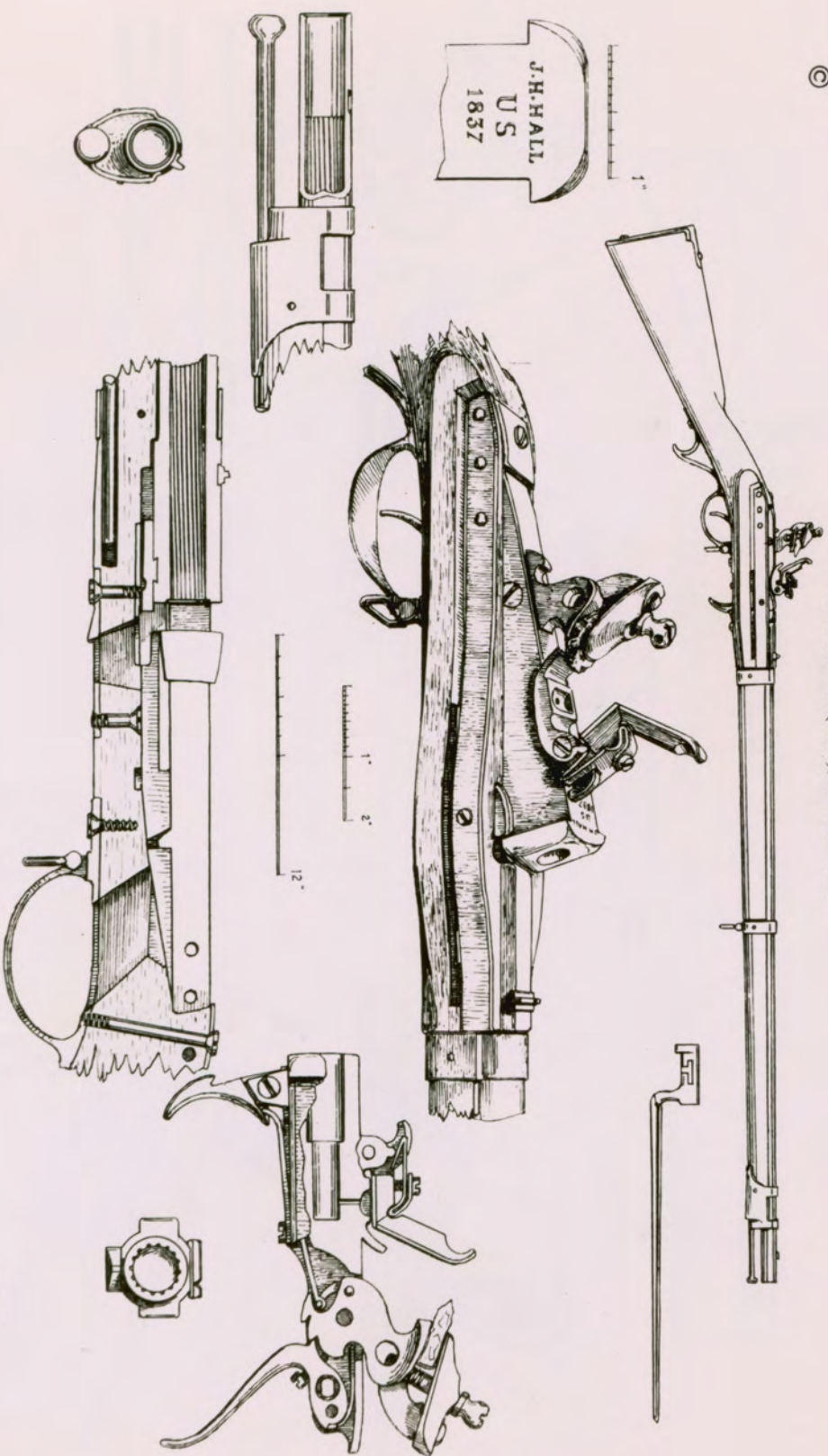
inability of the procurement officers to supply good arms
made the use of foreign arms necessary.

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U. S. RIFLE (Hall), MODEL 1819

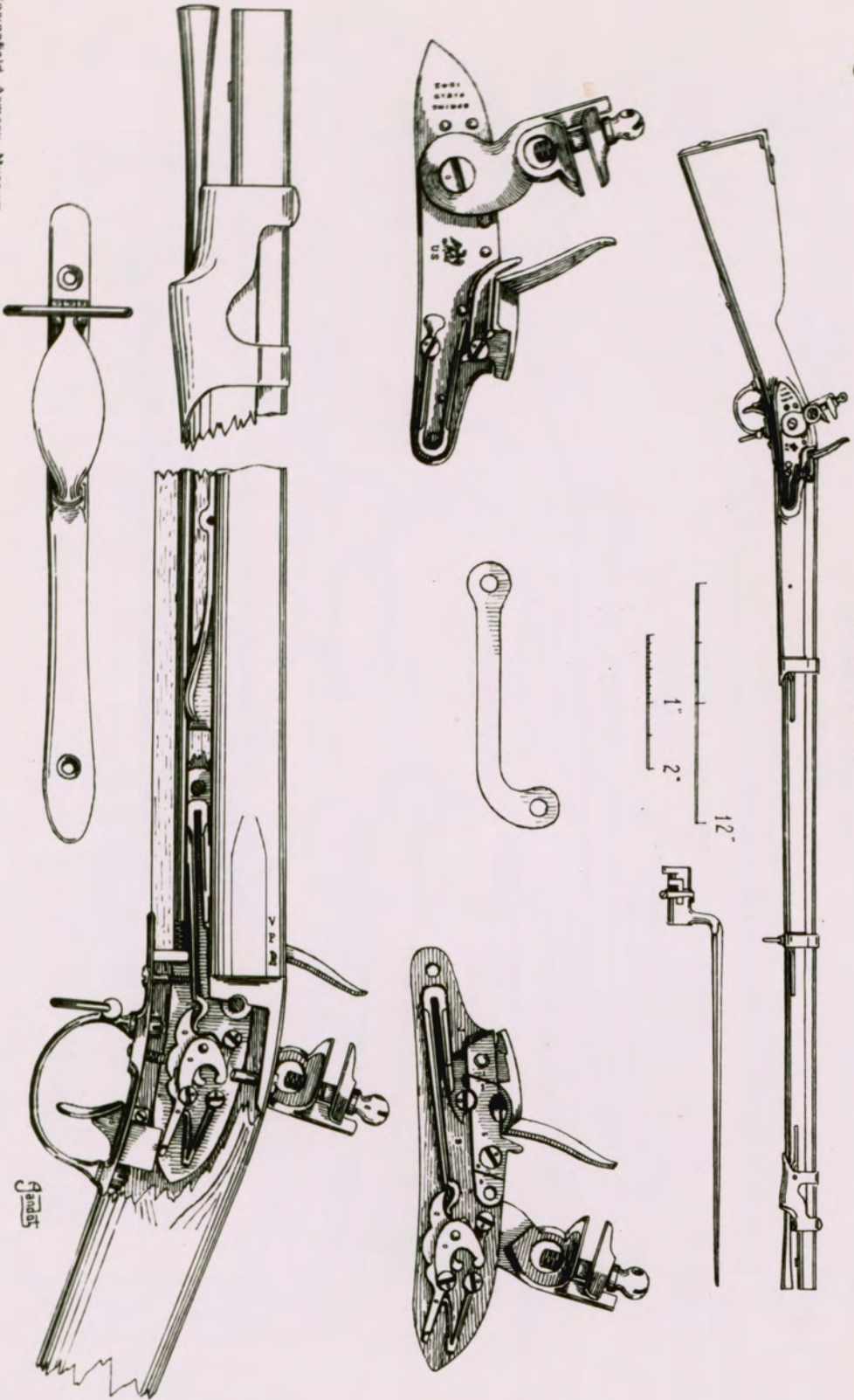


Capt. Hicks Collection

Gardner

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U. S. MUSKET, MODEL 1835
(altered in 1840)



Springfield Armory Museum

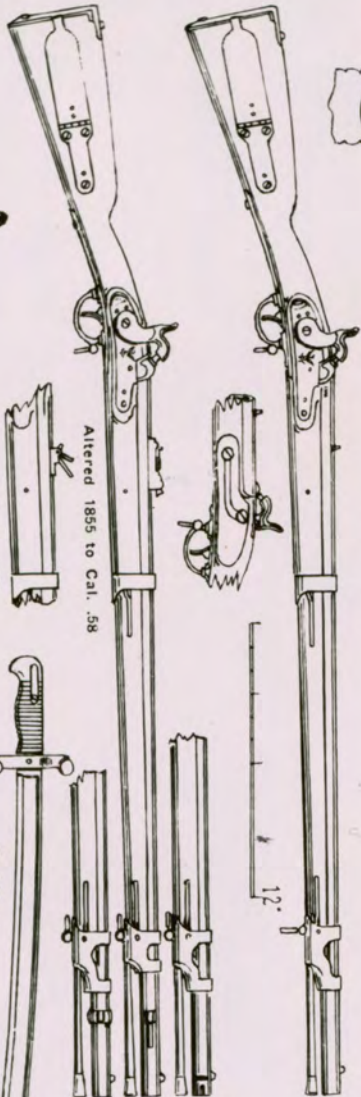
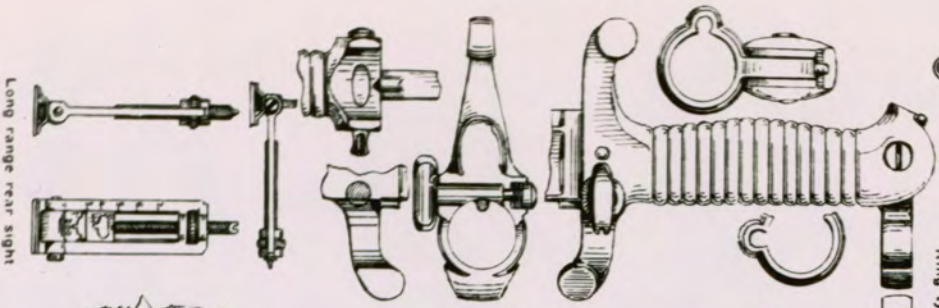
©

Ring type

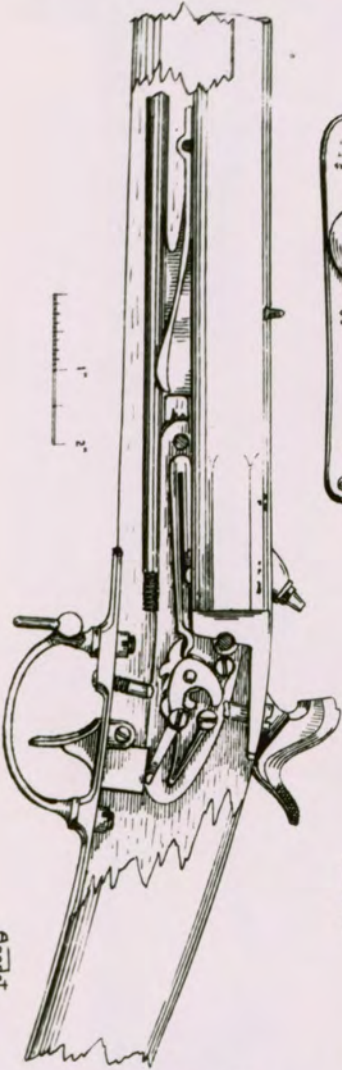
U. S. RIFLE, MODEL 1841
and altered 1855

Stud Type

Plate 38



Altered 1855 to Cal. .58
Rear Sight N. 1858



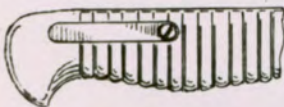
Long range rear sight



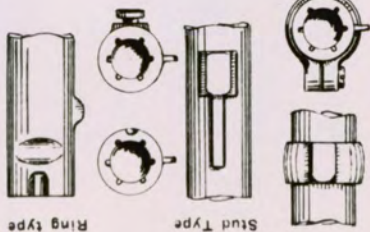
Ring type

Stud Type

gandat

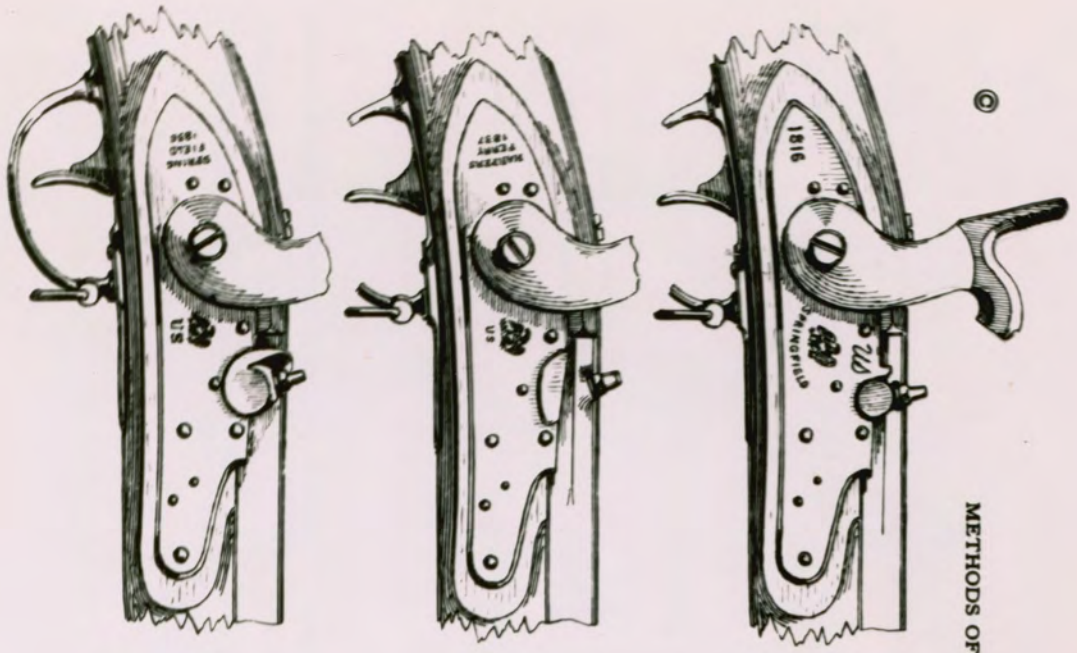


Stud Type



Capt. Hicks Collection

METHODS OF ALTERING FLINT-LOCKS TO PERCUSSION LOCKS



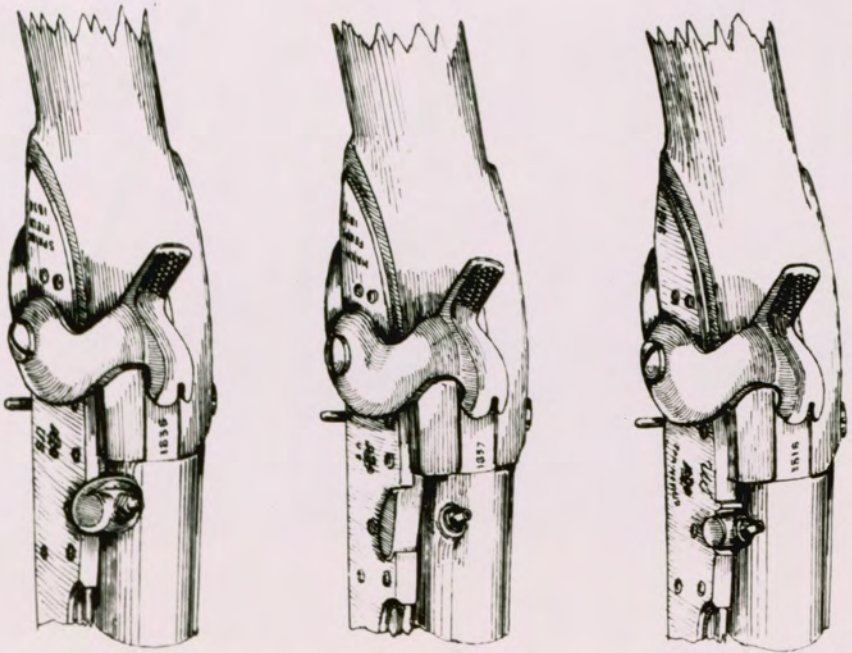
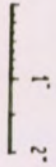
(1st type)



(2nd type)

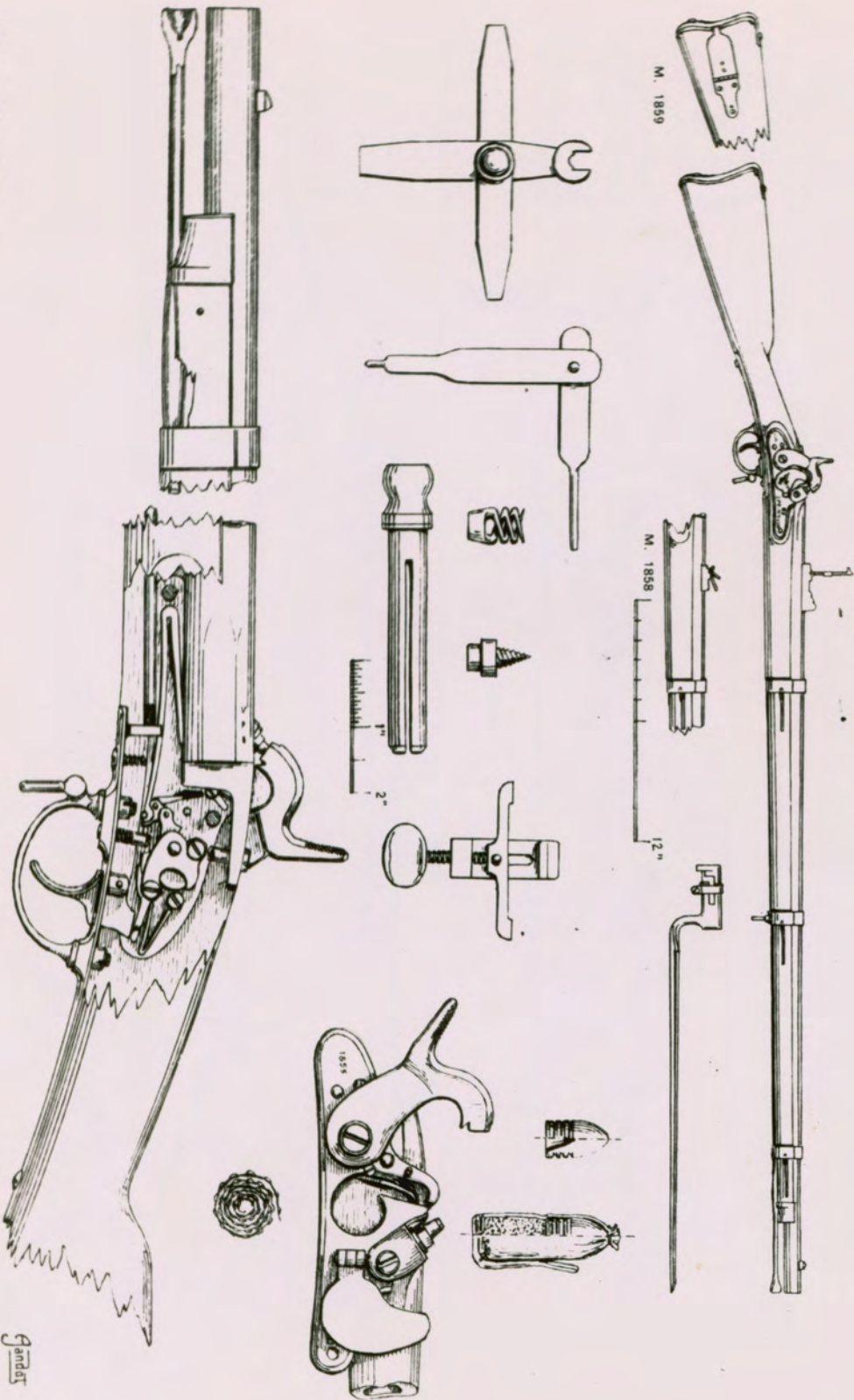


(3rd type)



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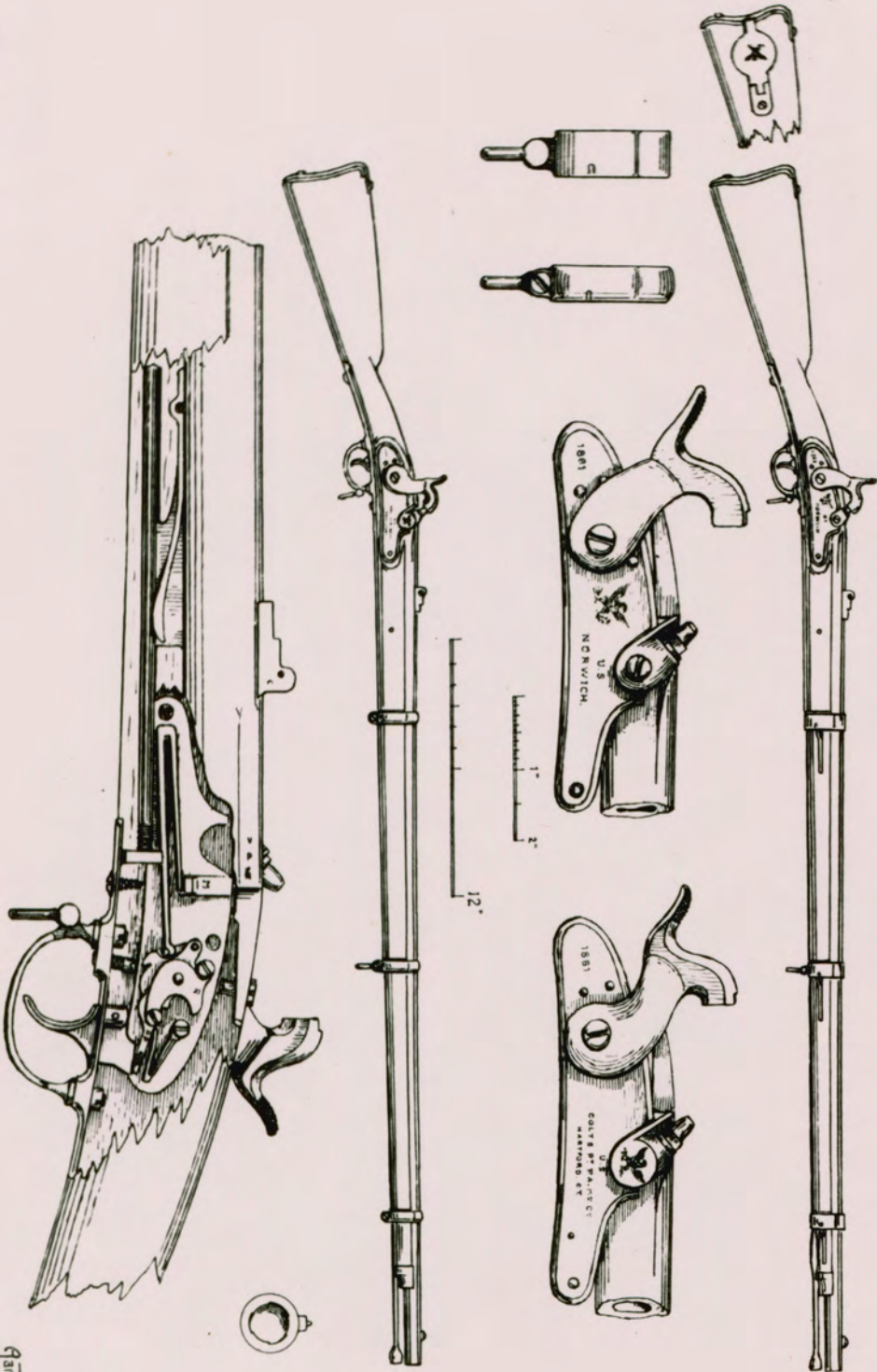
U. S. RIFLE-MUSKET, MODEL 1855



Francis Bannerman Sons

Gardner

U. S. RIFLE-MUSKET, MODEL 1861 AND MODEL 1861 SPECIAL



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